SESSIONAL PAPERS.

VOLUME XVIII.—PART II.

THIRD SESSION OF THE FIFTH LEGISLATURE

OF THE

PROVINCE OF ONTARIO.

SESSION 1886.

Toronto:
PRINTED BY WARWICK & SONS 26 AND 28 FRONT STREET WEST.
1886.

LIST OF SESSIONAL PAPERS

PRESENTED TO THE HOUSE DURING THE SESSION.

ARRANGED ALPHABETICALLY.

TITLE.	No.	REMARKS.
Accounts (*Dominion and Provinces*)	37	*Printed, in part only.*
Accounts, Public	18	*Printed.*
Agricultural College, Report	13	"
Agricultural College, Cash receipts	41	"
Agricultural College, Professor's Report	69	"
Agricultural Societies, analysis	42	*Not printed.*
Agriculture, Report of Commissioner	85	*Printed.*
Agriculture, Report of Professor	69	"
Agriculture and Arts, Report	7	"
Agriculture and Arts Association, moneys received	76	"
Asphodel and Douro, lots in	55	*Not printed.*
Asylums, Report	2	*Printed.*
Births, Marriages and Deaths, Report	9	*Printed.*
Blind Institute, Report	3	"
Borron's Report, Hudson's Bay	1	"
Brandon and Nelson, agreements	68	"
British Medical Acts, correspondence	47	*Not printed.*
Central Prison, Inquiry	26	*Printed, in part only.*
Central Prison, labour agreements	68	"
Central Prison, convicts in	73	"
College Federation	51	*Not printed.*
Collegiate Institutes, regulations	20	*Printed.*
Crown Lands, Report	33	"
Deaf and Dumb Institute, Report	4	*Printed.*
Dean, Judge, fees of	23	*Not printed.*
Dentistry Acts, correspondence	47	"
Division Courts, Report	71	*Printed.*
Division Court, commitments	82	"
Dundas and Waterloo Road	45	*Not printed.*
Education, Report	5	*Printed.*
Education, regulations	20	"
Elections Return	11	"
Elgin House of Industry, Report	22	*Not printed.*

Title.	No.	Remarks.
Elliot, Judge, fees of	23	*Not printed.*
Entomological Report	16	*Printed.*
Essex, swine plague in	59	*Not printed.*
Estimates	19	*Printed.*
Examinations of Teachers	21	"
Farmers' Institutes	29	*Not printed.*
Federation of Colleges	51	"
Franchise, exercise of	81	"
Fruit Growers'. Report	6	*Printed.*
Gaols and Prisons'. Report	10	*Printed.*
Government House, Title	56	"
Government Printing Contract, transfer	57	"
Halton, Temperance Act in	46	*Printed.*
Health, Board of, Report	74	"
Hope Township, indebtedness	30	*Not printed.*
Hospitals, Report	36	*Printed.*
Hurdman Brothers, timber license	53	"
Idiot Asylum, Report	2	*Printed.*
Immigration, Report	60	"
Insurance, Report	8	"
Judicature Act, Order in Council	23	*Not printed.*
Judicature Act, Order in Council	28	"
Judicature Act, Order in Council	63	"
Lacourse, Judge, fees of	63	*Not printed.*
Land Security Company, Statement	27	"
Legal Offices, Report	78	*Printed.*
Librarian's Report	17	"
Ludgate John, timber license to	61	"
McArthur *vs.* the Queen, judgment	80	*Not printed.*
McCarthy, Judge, fees of	28	"
Magdalen Asylums, Report	14	*Printed.*
Marsh Lands in Walsingham	62	*Not printed.*
Massey Manufacturing Company, stock	83	"
Mechanics' Institutes, Report	5	*Printed.*
Medical and Dentists Acts, British	47	*Not printed.*
Mills, lumber allowed to	52	*Printed.*
Municipal Assets	79	*Not printed.*
Municipal Debentures	50	"
Municipal Indebtedness	32	*Printed.*
Nelson and Brandon, prison agreements	68	*Printed.*
Niagara Falls Park	77	"
Northern Colonization Road	58	*Not printed.*
Orphan Asylums, Report	14	*Printed.*

Title.	No.	Remarks.
Poor Schools, grants in aid of	49	*Not printed.*
Practical Science, Report	5	*Printed.*
Printing Contract, transfer	57	"
Prisons and Reformatories', Report	10	"
Provincial Secretary's, Report	31	"
Public Accounts	18	"
Public and High Schools, regulations	20	"
Public Service, unpaid accounts	40	"
Public Works, Report	15	"
Railway Accidents	48	*Printed.*
Railway Annuities	39	"
Railway Companies, accidents liability	48	"
Reformatories and Prisons, Report	10	"
Refuge, Houses of, Report	14	"
Registrars' Returns	38	"
Secretary and Registrar's Report	31	*Printed.*
School Buildings, plans of	25	*Not printed.*
Schools, Public, regulations	20	*Printed.*
School Readers, compilation	87	"
Statutes, disposal of	34	*Not printed.*
Swine Plague in Essex	59	"
Tavern and Shop License's Report	12	*Printed.*
Teachers' Examinations	21	"
Titles, Report of Master of	64	"
Titles Act, applications under	65	*Not printed.*
Toronto General Trust Company, statement	24	*Printed.*
Toronto General Trust Company, moneys lent	72	"
Toronto University, Report	35	*Not printed.*
Toronto University, cash transactions	43	*Printed.*
Toronto University, Minutes of Senate down to 1880	54	"
Toronto University, Officers of	66	"
Toronto University, rules	84	*Not printed.*
Townley Estates	75	"
University College, Report	5	*Printed.*
University College, Officers of	66	"
University College Students	70	*Not printed.*
Unmarried Women as Voters	81	"
Upper Canada College, Report	5	*Printed.*
Upper Canada College, cash transactions	44	"
Upper Canada College, attendance	67	"
Voters at Municipal Elections	81	*Not printed.*
Walsingham, marsh lands in	62	*Not printed.*
Western University, Faculty of Law	86	*Printed.*
Widows, etc., as Voters at Municipal Elections	81	*Not printed.*

SESSIONAL PAPERS.

ARRANGED NUMERICALLY.

CONTENTS OF PART I.

CONTENTS OF PART II.

CONTENTS OF PART III.

No. 12.. Return from the Records of the Elections to the Legislative Assembly since the last Return in 1885, shewing:—(1) The number of votes polled for each candidate in each Electoral District in which there was a contest. (2) The majority whereby each successful candidate was returned. (3) The total number of votes polled in each District. (4) The number of votes remaining unpolled. (5) The number of names on the Voters' Lists in each District. (6) The population of each District as shewn by the last census. (*Printed.*)

No. 12.. Report of the Provincial Secretary on the working of the Tavern and Shop License Acts, for the year 1885. (*Printed.*)

No. 13. Report of the Ontario Agricultural College and Experimental Farm for the year 1885. (*Printed.*)

CONTENTS OF PART IV.

No. 14.. Report of the Inspector of Prisons and Public Charities upon the Houses of Refuge and Orphan and Magdalen Asylums, aided by the Province of Ontario, for the year 1885. (*Printed.*)

No. 15.. Report of the Commissioner of Public Works for the Province for 1885. (*Printed.*)

No. 16.. Report of the Entomological Society for 1885. (*Printed.*)

No. 17.. Report of the Librarian of the Legislative Assembly on the state of the Library. (*Printed.*)

No. 18.. Public Accounts for the Province for 1885. (*Printed.*)

No. 19 Estimates for the year 1886. (*Printed.*)

No. 20.. Regulations of the Education Department respecting Public and High Schools, and Collegiate Institutes, approved August 25th, 1885, as required by 48 Vic., cap. 49, sec. 7. (*Printed for distribution to Members only.*)

CONTENTS OF PART V.

No. 21.. Return of copies of all correspondence between the Minister of Education and the University of Toronto, or any other University, relating to the holding of Examinations of Teachers and Matriculants, at the same time and place, and under the same Examiners, and also for copies of any Orders or Regulations of the Minister or Department of Education, and of the Statute or By-law of any University or Universities adopting or establishing such system of simultaneous co-examinations. (*Printed.*)

No. 22.. Report of the Inspector of the Elgin House of Industry and Refuge for the year ending 31st October, 1885, as required by Sec. 460 of the Municipal Act. (*Not printed.*)

No. 23.. Copies of Orders in Council under the 81st section of the Judicature Act, increasing commutation of His Honour Judge Elliott, of Middlesex, from $925 to $1,000, and commuting fees of His Honour Judge Dean as Local Master at Lindsay. (*Not printed.*)

No. 24.. Statements and Returns of the Toronto General Trust Company for 1885. (*Printed.*)

No. 25... Return shewing what, if any, plans of school buildings, of various kinds, have ever been prepared by direction of the Education Department for adoption by school boards, and also shewing how far, if at all, any systems of lighting, heating, ventilating and draining have been approved of by the Department, or recommended for general adoption. (*Not printed.*)

No. 26.. Report of the Royal Commission appointed to inquire into certain charges preferred against the Warden of the Central Prison, and into the management of the said Central Prison, together with Supplementary Papers and documents with the evidence taken before the Royal Commission. (*Printed in part only.*)

No. 27.. Statement of affairs of the Land Security Company for the year 1885. (*Not printed.*)

No. 28.. Copy of an Order in Council commuting the fees payable to His Honour Judge McCarthy, under the 31st section of the Judicature Act. (*Not printed.*)

No. 29.. Return of the number of Farmers' Institutes formed in the several Ridings of the Province, together with the number of lectures delivered in connection with the Institutes by the Professors of the Agricultural College. (*Not printed.*)

No. 30.. Return shewing the amount due the Township of Hope to the Municipal Loan Fund with the interest on the same, together with a copy of the agreement entered into by the Provincial Treasurer and the Municipality of Hope for the payment of the debt. (*Not printed.*)

No. 31.. Report of the Secretary and Registrar of the Province for 1885. (*Printed.*)

No. 32.. Return shewing the indebtedness of any Municipality to the Government whenever the same may be in arrears for over one year, either on account of principal or interest. (*Printed.*)

No. 33.. Report of the Commissioner of Crown Lands for 1885. (*Printed.*)

No. 34.. Return from the Queen's Printer as to the disposal of the Statutes for 1885. (*Not printed.*)

No. 35.. Report of the University of Toronto for 1884–5. (*Not printed.*) *See No. 5.*

No. 36.. Report of the Inspector of Prisons and Public Charities upon the Hospitals of the Province. (*Printed.*)

No. 37.. Return of all correspondence, subsequent to that already brought down, between the Government of Ontario or any member or officer thereof, and the authorities of the Dominion of Canada or of the Province of Quebec, respecting the settlement of account between the Provinces and the Dominion; also, for a statement up to the 1st day of January, 1886, of the amounts which the respective municipalities interested, should receive as interest from the Land Improvement Fund in connection with School Lands. (*Printed in part only.*)

No. 38.. Statement of the Returns forwarded to the Office of the Provincial Secretary of all the Fees and Emoluments received by the Registrars of Ontario, for the year 1885, made in accordance with the provisions of the R. S. O., cap. 111., sec. 97, and 43 Vic., cap. 3, sec. 2, with which are contrasted Receipts of same nature in 1883 and 1884. (*Printed.*)

No. 39.. Return shewing the number of certificates of Railway Annuities and the amounts of the same, which have been either sold or exchanged for any portion of the outstanding Railway Scrip during the year 1885, as authorized under the provisions of Cap. 31, 47 Vic., to whom sold, or with whom exchanged; the terms upon which such sale or exchange was effected, and when sold; the date of the receipt of the money therefor. Also, a copy of the advertisement asking for tenders, with copies of all tenders received in response thereto. (*Printed.*)

No. 40.. Return shewing the amounts payable in respect of any branch of the Public Service, as far as ascertained, on the 1st January, 1886, and not then paid. The same to be classified under the same head as the expenditures for the year are so classified in the Public Accounts. (*Printed.*)

No. 41.. Return giving the following information with regard to the Ontario Agricultural College and Farm, namely:—1st. The cash receipts in each of the years 1882, 1883 and 1884, from each of the following sources, viz.: (*a*) From sales of stock by auction in 1881, 1882, 1883 and 1884, distinguishing the amounts received on account of each year's sales, with the amounts (if any) still to be collected on account of each, when the accounts as published in the Public Accounts of 1884 were closed; (*b*) From sales (made otherwise than by auction) of stock fed (experimentally or otherwise) for the butcher, with the number of each kind so disposed of; (*c*) From sales of horses, cattle, sheep, pigs and dogs not included in either of the preceding statements, with the numbers of each; (*d*) From sales of wheat, barley, peas, oats, garden and orchard produce and sundries. 2nd. A statement of the several amounts due for board, tuition fees, stock and produce, etc., when the accounts, as published in the Public Accounts of 1884, were closed. 3rd. A statement of the number of horses, cattle, sheep, pigs and dogs which either died or were destroyed during each of the years 1882, 1883 and 1884. 4th. A statement showing for each of the years 1882, 1883 and 1884—(*a*) The number of horses purchased and the amounts paid therefor; (*b*) the number and cost of cows and heifers (with the ages of the latter at time of purchase), other than those imported during the year 1884, purchased for milking and breeding purposes—distinguishing between "thoroughbreds" and "grades"; (*c*) the number and cost of steers and heifers purchased for either or both fattening and experimental purposes, with the date of delivery of each animal, and its weight and age at time of delivery; (*d*) the number and cost of sheep bought for breeding (exclusive of the importation of 1884) and fattening purposes respectively, distinguishing between "pure breds" and "grades"; (*e*) the number and cost of pigs (exclusive of 1884's importations) purchased for breeding and fattening purposes respectively; (*f*) the number and cost of the dogs purchased, with a statement of the amounts paid, and to whom paid, for feeding and taking care of the same. 5th. A statement of all outstanding claims (so far as can be ascertained up to the time of making this Return) against the Institution at the time the accounts, as published in the Public Accounts for 1884, were closed, distinguishing, as far as possible, between those chargeable against the Teaching Department, the Boarding Houses, the Farm and the

Creamery. 6th. A statement of the quantity and value of all grain (distinguishing between wheat and other grains), hay, straw, roots, ensilage, other food for stock and wool on hand on the 1st January, 1885. 7th. A statement shewing the number of cows, ewes and sows kept on the Farm for breeding purposes during each of the years 1882, 1883 and 1384, with the numbers of their progeny in each year, and a statement of the numbers of each retained on the Farm and disposed of during the year of their birth. (*Printed.*)

No. 42.. Analysis of Reports of County and Township Agricultural Societies, and of Horticultural Societies, in accordance with the provisions of sections 47 and 48, cap. 35, R. S. O. (*Not printed.*)

No. 43.. Bursar's Statement of Cash Transactions of the University of Toronto for the twelve months ending 30th June, 1885. (*Printed.*)

No. 44.. Bursar's Statement of Cash Transactions of Upper Canada College for the twelve months ending 30th June, 1885. (*Printed.*)

No. 45.. Return of copies of any correspondence which may have taken place between the Ontario and Dominion Governments, or between the former and any Corporation or persons, relating to the ownership, sale or lease of the Dundas and Waterloo macadamized road, together with copies of any papers in the possession of the Government relating thereto. (*Not printed.*)

No. 46.. Return of the cost of enforcing the Canada Temperance Act in the County of Halton for the years 1882-3-4, with statement of the receipts shewing how much was paid by the Province, by the County Council, and the amount recovered from fines and Druggist Licenses. Also, a statement of the expenditure shewing the sum paid to the Police Magistrate for his salary and expenses; the sum paid to the License Inspectors for their salaries and expenses; the amounts paid to the Boards of License Commissioners for their fees and expenses, and any other expenses that have been paid. The number of convictions that have been quashed; by what court; for what cause; the amount of costs in each case, and by whom paid. (*Printed.*)

No. 47.. Correspondence, Despatches, Orders-in-Council, and Report of the Honourable the Attorney-General with reference to the British Medical Acts, 1858 and 1868, and the Dentists' Act, 1878. (*Not printed.*)

No. 48.. Return of payments or decisions in any Division of the High Court of Justice, as to the liability of Railway Companies for accidents to workmen, where the Company has failed to comply with the provisions of the Railway Accidents Act, 1881, and the accidents have happened by reason of such non compliance. (*Printed.*)

No. 49.. Statement of Government Grants in aid of Poor Schools for the year 1885. (*Not printed.*)

No. 50 . Statement of the Returns for the year 1885 of the debentures issued by the undermentioned Municipalities forwarded to the office of the Provincial Secretary, as required by cap. 176 R. S. O., respecting the Registration of Municipal and other Debentures. (*Not printed.*)

No. 51.. Return of copies of any correspondence between the Minister of Education or any other member of the Government, and the authorities of any of the

Universities or Colleges of the Province, respecting a proposed Federation of Colleges referred to by His Honour the Lieutenant-Governor, in his Speech at the opening of the Legislature, on the 28th of January, 1885. (*Not printed.*)

No. 52.. Return shewing the local mills east of the Bobcaygeon Road, to which lumber has been allowed under the local mill regulations, the quantity allowed to each mill *per* year, the license from which it has been directed to be taken, and all Orders in Council and regulations in connection therewith. (*Printed.*)

No. 53.. Return of a copy of the petition of William Hurdman and Brothers, of the fourth of August, 1873, addressed to the Commissioner of Crown Lands for Ontario, praying (among other things) that a license might be issued to them as the assignee of one Richard McConnell for the vacant space between the licenses granted on the Amable du Fond and those granted on the Amable du Fond branch of the Petewawa, and of all correspondence to or from the Commissioner of Crown Lands, or any officer in the Crown Lands Department relating thereto; also, of all reports made and of all Orders in Council passed with reference thereto; also, of all assignments of the claim set up in the petition, and of all licenses issued in recognition of such claim, to whom issued, the area covered and the amount paid (if any) on account of ground rent accruing previous to the first issue of such license, and the amount (if any) allowed to Messrs. Hurdman and Brothers, or their assignee, as compensation or in rebate of the double dues charged them for cutting timber thereon without proper authority. (*Printed.*)

No. 54.. Return containing Minutes of the Senate of the University of Toronto from date of last Return down to 1880. (*Printed.*)

No. 55.. Return giving the following information with regard to all lots or parts of lots in the Townships of Asphodel, Douro and Otonabee, in the County of Peterborough, the arrearages on account of which have been reduced or remitted since the 1st of January, 1881, namely: the year in which such lot or part of lot was sold, with acreage, price and terms of payment; the amounts paid thereon, distinguishing between principal and interest, the date of reduction, with amounts then due for principal and interest under original contract, the amount to which the claim of the Province was reduced, and the terms of payment of such reduced amount with copies of the valuations, recommendations or other data upon which such reductions were made. (*Not printed.*)

No. 56.. Return shewing the title of the Province of Ontario to that parcel of land on the West side of Simcoe Street between King and Wellington Streets, in the City of Toronto, known as Government House. Also, copies of all Orders in Council accepting such Title, and all Title Deeds and Documents affecting the Title. (*Printed.*)

No. 57.. Copy of an Order in Council and of other documents relating to the assignment of the Contract for the Government Printing from the "Grip" Printing and Publishing Company to Messieurs Warwick & Sons. (*Printed.*)

No. 58.. Return shewing the amount expended on the Northern Colonization Road, in the Township of Gladstone, since the year 1881, giving the details of the expenditure in each year, the persons to whom moneys were paid and for

what purposes, and also a return giving the like particulars of the expenditure upon the Bridge over the Mississaga River in the same Township. (*Not printed.*)

No. 59. Return of copies of all correspondence between the Minister of Agriculture and any persons in regard to the outbreak of Swine Plague in the County of Essex; a copy of the Report of Professor Greenside in regard thereto. Also, all correspondence with the Department of Agriculture at Ottawa, or with any other persons in regard to the outbreak of the disease in said County, or elsewhere in the Province. (*Not printed.*)

No. 60. Report of the Department of Immigration for the Province for the year 1885. (*Printed.*)

No. 61. Return shewing the number, concession and acreage of the lots in the Township of Livingstone, placed under license to cut timber, to John Ludgate, in August, 1884; the township, number, concession and acreage of the lots in lieu of which the license of 1884 was issued; the date when the last named lots were taken out of Ludgate's license, and the disposition made of the timber thereon, with copies of all correspondence, reports and Orders in Council, relating to the exchange of territory thus affected. (*Printed.*)

No. 62. Return shewing in detail all lands, known as Marsh Lands, sold in the front of the Township of Walsingham; to whom sold; to whom patents have been issued, and the number of acres in each case. (*Not printed.*)

No. 63. Copy of an Order in Council commuting the fees received by His Honour Judge Lacourse, Junior Judge of the County Court of the County of Waterloo, as Local Master of the Supreme Court of Judicature for Ontario, at Berlin, approved by his Honour the Lieutenant-Governor on the 19th day of March, A.D. 1886. (*Not printed.*)

No. 64. Report of the Master of Titles. (*Printed.*)

No. 65. Return shewing how many persons have, up to the end of 1885, applied under the Land Titles Act of 1885 to the Master of Titles to be registered under the said Act, or to have any nominee registered in his stead, and shewing also the cost of each such application; the number of certificates granted: the date of each application and the date of each certificate. (*Not printed.*)

No. 66. Return giving the names and salaries of the officers of the University of Toronto at the date of the Order. Also, the names and salaries of the Professors, Tutors, Fellows and Officers of University College at the same date, specifying in each case the subject taught or the office held, and giving the amount of remuneration for each where more duties than one are discharged by the same person. (*Printed.*)

No. 67. Return shewing the average yearly attendance of pupils in Upper Canada College, since the date of the last return, down to and inclusive of the year 1885, distinguishing between resident and day pupils in each year, and giving the localities from which they came. Also, the conditions at present in force respecting entrance into the College, including especially the minimum age of the pupils and the curriculum on which the Entrance Examination is conducted. (*Printed.*)

No. 68.. Agreement between the Inspector of Prisons and Public Charities and H. A. Nelson & Sons, relative to the manufacture of Brooms at the Central Prison. Also, Agreement between the Inspector of Prisons and Public Charities and C. T. Brandon & Co., relative to the employment of certain prisoners in the Central Prison in the manufacture of Wooden Ware. Also, Agreement between C. T Brandon & Co., the Brandon Manufacturing Company, of Toronto (Limited), and the Inspector of Prisons and Public Charities, assigning the Agreement made between the Inspector of Prisons and Public Charities and C. T. Brandon & Co. to the Brandon Manufacturing Company, of Toronto (Limited). (*Printed.*)

No. 69.. Report of the Professor of Agriculture, Farm Manager and Experimental Superintendent, at the Agricultural College and Farm. (*Printed.*)

No. 70.. Return shewing the total number of students attending lectures in University College during the academic year 1884-85, and each of the preceding four years; the total number of students in residence during each of the same five years; the total receipts on account of board, lodging and other residence dues in each year, and a detailed statement of the disbursements on account of residence, including salaries, repairs, water, fuel, light, and steward's department in each year. (*Not printed.*)

No. 71.. Report of the Inspector of Division Courts for the Province for the year ending 31st December, 1885. (*Printed.*)

No. 72.. Return shewing the arrangement, if any, made under Rule 521 of the Supreme Court, with the Toronto General Trust Company, or otherwise, and the amount of money lent to and loaned out by the Company thereunder, stating amounts and rates of interest. (*Printed.*)

No. 73.. Return shewing the number of convicts confined in the Central Prison, and now employed at work which competes with the work of other citizens of the Province; the kind of work, the number employed at each kind of work, and the amount received *per diem* by the Government for each convict so employed. (*Printed.*)

CONTENTS OF PART VI.

No. 74.. Report of the Provincial Board of Health. (*Printed.*)

No. 75.. Return of copies of all correspondence between the Government of Canada and the Government of Ontario, and of all Orders in Council, and other papers relative to the alleged proceedings of persons in Canada and the United States, with respect to claims on the Townley or Lawrence Townley Estates in England. (*Not printed.*)

No. 76.. Return shewing for each of the years 1883, 1884 and 1885, all sums of money received by the Agricultural and Arts Association, the amount expended in prizes at the annual exhibitions, cost of management of said exhibitions, distinguishing between salaries and other disbursements; salaries paid officials of said association; all other disbursements made by the said association; balance sheet for each year's transactions, shewing profit or loss, as the case may be. (*Printed.*)

No. 77.. Papers relating to the Niagara Falls Park. (*Printed.*)

No. 78.. Report of the Inspector of Legal Offices for the year 1885. (*Printed.*)

No. 79.. Statement of the Assets, Liabilities, Revenue, etc., of the Municipalities within the several Counties in the Province for the year 1884. (*Not printed.*)

No. 80.. Return of copies of the judgment given by the Honourable Mr. Justice Proudfoot in the case of McArthur *v.* the Queen, and of the pleadings and evidence in the case, and all correspondence and Orders in Council relating to the claim of Peter Alexander McArthur, or any other person, to the timber limit in question in the case, together with an estimate of the value of the limit. (*Not printed.*)

No. 81.. Return shewing the number of Men, Widows, and Unmarried Women who availed themselves of the Franchise at the Municipal Elections of 1885–6, together with the total number of Male and Female voters respectively on the Voters' Lists of each Municipality in the Province. (*Not printed.*)

No. 82.. Return shewing the number of persons in each County committed to gaol by the County Court Judges during the years 1884 and 1885, for default of payment under an order of the Division Court. (*Printed.*)

No. 83.. Return of copies of all letters and correspondence between any and all members or officers of the Government of Ontario, and any party or parties interested in the capital stock of the Massey Manufacturing Company, or the contemplated increase thereof, in reference to such proposed increase. (*Not printed.*)

No. 84.. Return of copies of all rules and regulations in force at the University of Toronto, with regard to the admission of visitors to the Library, Museum and Tower. (*Not printed.*)

No. 85.. Report of the Commissioner of Agriculture, for the Province, for the year 1885. (*Printed.*)

No. 86.. Copy of the Statute of the Western University, establishing a Faculty of Law in connection with the University, a copy of the Order in Council disallowing the said Statute, and of all reports upon which the Order in Council was based, and copies of all correspondence between the Minister of Education or any member of the Government, or any Departmental officer, and any other person in reference to the establishment of the Faculty, or the disallowance of the Statute, and a copy of the Statute of the said University establishing a Faculty of Medicine in connection with the said University, and of all Orders in Council in reference thereto. (*Printed.*)

No. 87.. Return giving a statement of all payments made on account of the compiling, preparation or publication of the Ontario Readers, up to and inclusive of the Fourth Book, subsequent to that already brought down. Also, copies of all advertisements or circulars inviting tenders for the privilege of publishing the said Fifth Reader, with copy of agreement entered into and all correspondence relating to the same. A copy of any agreement entered into for the publication of the drawing books, and the name of the person or firm in whom the copyright is vested, together with all correspondence relating thereto The names of all text books authorized or in course of preparation, and intended to be authorized, or which have been in course of preparation with a view to authorization—subsequent to the list already brought down, with the names of the text books which they

have superseded or are intended to supersede. A statement of all payments made for compiling, preparing, or publishing each of the said books respectively, and all correspondence relating to the same, and a statement of the subjects in which it has been decided to authorize new text books, and of the persons engaged in the preparation of them. (*Printed.*)

REPORT

OF THE

FRUIT GROWERS' ASSOCIATION

OF ONTARIO,

FOR THE YEAR 1885.

Printed by Order of the Legislative Assembly.

Toronto:
PRINTED BY THE GRIP PRINTING AND PUBLISHING COMPANY.
1886.

CONTENTS.

ANNUAL REPORT

OF THE

FRUIT GROWERS' ASSOCIATION

OF THE

PROVINCE OF ONTARIO FOR THE YEAR 1885.

To the Honourable the Commissioner of Agriculture:

My Dear Sir,—I beg herewith to submit the Seventeenth Annual Report of the Fruit Growers' Association of Ontario. Three meetings have been held during the year, one in the month of January, in the City of London; the second in June, at the Town of Uxbridge; and the third in September, in the Town of Wingham. The discussions at these meetings have brought out much valuable information, which you will find fully reported, they having been taken down at the time by a competent stenographer.

I have the honour to be,

Your most obedient servant,

D. W. BEADLE,

Secretary.

St. Catharines,
October 13th, 1885.

REPORT OF THE DIRECTORS.

To the Members of the Fruit Growers' Association of Ontario:

Gentlemen,—The term for which your officers were entrusted with the oversight of the interests of the Association expires at this time. We therefore come before you to return into your hands the charge committed to our care at the last annual meeting. We regret to have to report a reduction in the number of our members, a result which we believe is due to causes beyond our control. We would urge on our successors renewed efforts in the way of a vigorous canvass for members so that we may, if possible, during the coming year, recover the ground we have lost; also the enlargement of our premium list, with the view of stimulating those interested to more active effort, coupled with the strictest economy in the management of the funds.

As exception has been taken to the former method of electing the officers of the Association at the Annual Meeting, your Directors would also recommend the following change in this respect, namely: that a Nominating Committee of eight be appointed to nominate both Officers and Directors—five to be appointed by the open meeting and three by the chair. The names of the persons nominated to be submitted separately in the usual order, and voted on by the members present.

All of which is respectfully submitted.

WM. SAUNDERS, *President.*

TREASURER'S REPORT.

Receipts.

From 1,652 members	$1,737 20
From advertisements	46 75
From Government grant	1,800 00
From notes discounted	779 25
Balance from last year	86 66
Total	$4,449 86

Disbursements.

Audit, 1884	$20 00
Reporting two meetings	105 00
Freight and express	46 65
Canadian Horticulturist (part of the year)	1,412 44
Postage and telegrams	131 61
Advertising and printing	69 80
Stationery	11 30
Guarantee premium	20 00
Commissions, collecting	56 00
Committee and Directors' expenses, including collecting fruit for the New Orleans Exhibition, delegates to county fairs, etc	754 43
Plant and seed distribution	314 42
To papers clubbing with *Canadian Horticulturist*	193 27

Sundries	$11 35
Clerk	150 00
Secretary-Treasurer	200 00
Editor	400 00
Balance in hand	553 59
	$4449 86

TORONTO, Sept. 15th, 1885.

We, the undersigned Auditors, have duly examined the accounts of the Treasurer of the Fruit Growers' Association of Ontario and find them correct, and shewing a balance of $553.59 on hand at this date.

CHARLES DRURY, } *Auditors.*
JOHN CARNEGIE, }

OFFICERS OF THE ASSOCIATION.

At the Annual Meeting, held in the Town of Wingham, the following gentlemen were elected officers for the ensuing year:

President.—William Saunders, F.R.C.S., London.

Vice-President.—Alexander McD. Allan, Esq., Goderich.

Directors.—Division No. 1, John Croil, Aultsville; No. 2, A. A. Wright, Renfrew; No. 3, R. J. Dunlop, Kingston; No. 4, P. C. Dempsey, Trenton; No. 5, Thomas Beall, Lindsay; No. 6, W. E. Wellington, Toronto; No. 7, Murray Pettit, Winona; No. 8, A. M. Smith, St. Catharines; No. 9, Frederick Mitchell, Innerkip; No. 10, J. A. Morton, Wingham; No. 11, John M. Denton, London; No. 12, W. W. Hilborn, Arkona; No. 13, Charles Hickling, Barrie.

Auditors.—Charles Drury, M.P.P., Crown Hill; James Goldie, Esq., Guelph.

At the meeting of the Board of Directors, held subsequent to the election of officers, D. W. Beadle, St. Catharines, was appointed Secretary and Treasurer.

STATUTORY PROVISIONS

It is provided by the Revised Statutes of Ontario, as amended by 45 Victoria, chap. 4 (1882), section 9, that the Fruit Growers' Association shall hold an annual meeting at such time and place, not later than the fifteenth day of October, in each year, as the Executive Committee thereof may designate, and the retiring officers shall at such meeting present a full report of their proceedings, and of the proceedings of the Association, and a detailed statement of its receipts and expenditure for the previous year; and the Association shall at such meeting elect a President, a Vice-President, and thirteen Directors (one for each of the thirteen Agricultural Divisions mentioned in Schedule A., and within which division he shall be a resident) and the officers so elected shall elect from amongst themselves, or otherwise, a Secretary and a Treasurer, or a Secretary-Treasurer; and the Association shall also elect two Auditors.

Vacancies occurring through death, resignation, or otherwise in the directorate of the Fruit Growers' Association shall be filled by the Commissioner of Agriculture.

The officers, a majority of whom shall form a quorum, shall have full power to act for and on behalf of the Association; and all grants of money and other funds of the Association shall be received and expended under their direction, subject nevertheless to the by-laws and regulations of the Association.

A copy of the Annual Report of its proceedings, and a list of the officers elected, and also such information as the Association may have been able to obtain on the subject of fruit culture in the Province, shall be sent to the Commissioner of Agriculture within forty days after the holding of such annual meeting.

SCHEDULE A.—AGRICULTURAL DIVISIONS.

No. 1. Stormont, Dundas, Glengarry, Prescott and Cornwall.
" 2. Lanark, Renfrew, City of Ottawa, Carleton and Russell.
" 3. Frontenac, City of Kingston, Leeds, Grenville and Brockville.
" 4. Hastings, Prince Edward, Lennox and Addington.
" 5. Durham, Northumberland, Peterborough, Victoria and Haliburton.
" 6. York, Ontario, Peel, Cardwell and City of Toronto.
" 7. Wellington, Waterloo, Wentworth, Halton, Dufferin and City of Hamilton.
" 8. Lincoln, Welland, Haldimand and Monk.
" 9. Elgin, Brant, Oxford and Norfolk.
" 10. Huron, Bruce and Grey.
" 11. Perth, Middlesex and City of London.
" 12. Essex, Kent and Lambton.
" 13. Algoma, Simcoe, Muskoka and Parry Sound.

CONSTITUTION OF THE FRUIT GROWERS' ASSOCIATION OF ONTARIO.

Art. I.—This Association shall be called "The Fruit Growers' Association of Ontario."

Art. II.—Its objects shall be the advancement of the science and art of fruit culture by holding meetings for the exhibition of fruit and for the discussion of all questions relative to fruit culture, by collecting, arranging and disseminating useful information and by such other means as may from time to time seem advisable.

Art. III.—The annual meeting of the Association shall be held at the place and during the same time as the Exhibition of the Agricultural and Arts Association is being held in each and every year; two other general meetings shall be held in each year, at such time and place as shall be designated by the Association.

Art. IV.—The officers of the Association shall be composed of a President, Vice-President, a Secretary, or a Secretary-Treasurer, and thirteen Directors.

Art. V.—Any person may become a member by an annual payment of one dollar, and a payment of ten dollars shall constitute a member for life.

Art. VI.—This Constitution may be amended by a vote of a majority of the members present at any regular meeting, notice of the proposed amendments having been given at the previous meeting.

Art. VII.—The said Officers and Directors shall prepare and present to the annual meeting of the Association a report of their proceedings during the year, in which shall be stated the names of all the members of the Association, the places of meeting during the year, and such information as the Association shall have been able to obtain on the subject of fruit culture in the Province during the year. There shall also be presented at the said annual meeting a detailed statement of the receipts and disbursements of the Association during the year, which report and statement shall be entered in the journal and signed by the President as being a correct copy; and a true copy thereof, certified by the Secretary for the time being, shall be sent to the Commissioner of Agriculture within forty days after the holding of such annual meeting.

Art. VIII.—The Association shall have power to make, alter or amend By-laws for prescribing the mode of admission of new members, the election of officers, and otherwise regulating the administration of its affairs and property.

BY-LAWS.

1. The President, Vice-President and Secretary Treasurer shall be *ex-officio* members of all committees.

2. The Directors may offer premiums to any person originating or introducing any new fruit adapted to the climate of the Province which shall possess such distinctive excellence as shall, in their opinion, render the same of special value; also for essays upon such subjects connected with fruit growing as they may designate, under such rules and regulations as they may prescribe.

3. The Secretary shall prepare an annual report containing the minutes of the proceedings of meetings during the year; a detailed statement of receipts and expenditure; the reports upon fruits received from different localities; and all essays to which prizes have been awarded, and such other information in regard to fruit culture as may have been received during the year, and submit the same to the Directors or any Committee of Directors appointed for this purpose, and with their sanction, after presenting the same at the annual meeting, cause the same to be printed by and through the Publication Committee, and send a copy thereof to each member of the Association and to the Commissioner of Agriculture.

4. Seven Directors shall constitute a quorum, and if at any meeting of Directors there shall not be a quorum, the members present may adjourn the meeting from time to time until a quorum shall be obtained.

5. The annual subscription shall be due in advance at the annual meeting.

6. The President (or in case of his disability, the Vice-President) may convene special meetings at such times and places as he may deem advisable, and he shall convene such special meetings as shall be requested in writing by five members.

7. The President may deliver an address on some subject relating to the objects of the Association.

8. The Treasurer shall receive all moneys belonging to the Association, keep a correct account thereof, and submit the same to the Directors at any legal meeting of such Directors, five days' notice having been previously given for that purpose.

9. The Directors shall audit and pass all accounts, which, when approved of by the President's signature, shall be submitted to and paid by the Treasurer.

10. It shall be the duty of the Secretary to keep a correct record of the proceedings of the Association, conduct the correspondence, give not less than ten days' notice of all meetings to the members, and specify the business of special meetings.

11. The Directors, touching the conduct of the Association, shall at all times have absolute power and control of the funds and property of the Association, subject however to the meaning and construction of the Constitution.

12. At special meetings no business shall be transacted except that stated in the Secretary's circular.

13. The order of business shall be:—(1) Reading of the minutes; (2) Reading of the Directors' Reports; (3) Reading of the Treasurer's Report; (4) Reading of prize essays; (5) President's Address; (6) Election of officers, and (7) Miscellaneous business.

14. These By-laws may be amended at any general meeting by a vote of two-thirds of the members present.

15. Each member of the Fruit Committee shall be charged with the duty of accumulating information touching the state of the fruit crop, the introduction of new varieties, the market value of fruits in his particular section of country, together with such other general and useful information touching fruit interests as may seem desirable, and report in writing to the Secretary of the Association on or before the fifteenth day of September in each year.

16. The President, Vice-President and Secretary shall be *ex officio* members of the Board of Directors and of all Committees. The reasonable and necessary expenses of Directors and officers in attending meetings of the Board of Directors and of Committees shall be provided from the funds of the Association.

THE WINTER MEETING.

The Winter Meeting of the Association was held in Victoria Hall, London, on the 28th and 29th of January, 1885, President Saunders in the chair.

The minutes of last meeting were read and confirmed.

THE PRESIDENT'S ADDRESS.

The PRESIDENT.—It affords me very much pleasure to meet you all in the City of London. It is four years since a meeting was held here, and that was one of our annual meetings, which you know, in old times, was simply an evening session, when officers were elected, the President's address delivered, and no time allowed for the discussion of those matters which we are now met to consider. It is more than ten years since a meeting such as the present one was held in London, and during the intervening time our people have made considerable progress both in fruit culture and horticulture. I am sure that those of you who can look back ten or twelve years will notice the changes that have been brought about, especially in the beautifying of our homes and of the city in general. Within these ten years the area of fruit culture has been very much extended, and in addition to meeting our own requirements a large quantity of fruit has been raised for foreign shipment.

We are glad to have you representative men from all parts of the Province with us to-day to discuss matters relating to the fruit interests, and we have no doubt that we shall be greatly profited by what is said at this and subsequent meetings. It is rather a cold reception to you this morning, with the thermometer five degrees below zero; but we hope to have a good attendance during the afternoon and evening and to-morrow, and that those who come will feel well repaid for the time given to these meetings. The discussions are always of great interest, and afford opportunities of acquiring much information. There is one feature always attractive in connection with our meetings, that is, the Question Box. We have really no box. The Secretary is the box. The questions are handed to him, and any gentleman desiring information on a point not covered by the programme, has the liberty to bring that point before the meeting and obtain all the information that can be had. I trust you will make a good use of the Question Box.

Mr. E. B. REED then presented the following address:

To the Officers and Members of the Fruit-Growers' Association of the Province of Ontario:

GENTLEMEN,—This occasion of your visit to the City of London, and the holding of one of your interesting meetings, affords an opportunity that is most gladly seized by the members of the Entomological Society of Ontario to convey to you a most cordial and fraternal welcome to our Forest City.

For nearly a decade and a half of busy years our sister societies, under the kindly care and wise provisions of the Legislature of our Province, have worked side by side in thorough harmony and good fellowship, each in our own sphere of labour endeavouring to utilize and disseminate amongst the vast body of the agricultural, horticultural and fruit-growing community the many practical lessons obtained from our varied experience.

It is from meetings such as this that we who study the science of entomology gather many a hint of the curious lives and habits of beneficial and injurious insects, and we venture to think, that the friendly intercourse that has always existed between the members of our societies has been productive of mutual benefit and instruction.

We gladly recognize the wonderful results that have been achieved by your society throughout Ontario.

Each succeeding public exhibition as the years roll by has borne ocular demonstration to the increasing zeal and skill called forth by your society in the selection, growth, and production of a beneficent Creator's bounteous gifts to man from orchard, field and garden; and we congratulate you on the result of your praiseworthy efforts in causing the science of fruit-growing to become, as it now is, such a source of income to those who pursue it.

As citizens of this fair Province of our great Dominion we have watched with pride the peaceful victories won by your society at Boston, Philadelphia and elsewhere amongst our enterprising and energetic friends and neighbours of the United States.

In the broad domain of Horticultural Science we want and must have the fullest reciprocity, and nothing should be permitted to stand in the way of procuring the "greatest good for the greatest number," and by a judicious selection of fruits, trees and flowers, enabling us to bring the best productions of nature within the reach of all.

We notice with pleasure that you expect on this occasion the presence of delegations from kindred societies in the great fruit-growing States of Michigan and New York, and we extend to them our hearty greeting and welcome to the city.

We desire to place at your disposal during your session, our rooms, our library and our collection of insects, and we shall esteem it a pleasure to give you any information in our power on entomological matters.

Submitted on behalf of our Society.

EDMUND BAYNES REED.
JOHN M. DENTON.

London, Jan. 28, 1885.

The PRESIDENT.—On behalf of the Ontario Fruit-Growers' Association, I beg to tender you our sincere thanks for your cordial words of welcome. We recognize this society as a great help to us, and we find the annual report of the Entomological Society, which is appended to ours, of great use, giving us material aid, guiding us in our labours among the fruits.

ADDRESS OF THE MAYOR.

Mayor BECHER was received with applause, and said:

Mr. PRESIDENT AND GENTLEMEN,—I have much pleasure in coming forward to fulfil my part on the programme, and beg to welcome the visiting members of this Association to our city. Your meeting is being held in one of the best fruit growing sections of this country, where large and small fruit alike may be developed to the highest perfection. After humorous references to his early experiences in horticulture, and Mark Twain's tribulations in editing an agricultural paper, the Mayor continued: The benefits derived from the work of this Association are apparent even to those who are not fruit growers, and the country in general profits very much by your work. Your object, I believe, is to disseminate such information as will assist persons in every part of the Province to select the best varieties of fruit adapted to their several localities, and thus prevent many failures and save valuable time. You thus encourage and increase the growing of fruit, and add to the commerce of the country. From little or nothing our export of apples has grown to very great proportions, and the effect has been to bring into this country a large amount of material prosperity. This district, and all the districts from which you have come, are capable of almost indefinite extension in fruit growing, and the greater the extension within reasonable limits, the greater will be the benefit to this country. In addition to the commercial benefits that arise, is the great benefit which results to the health of the people from the use of fruits as a diet. It has been said with some degree of force that we are using too much flesh in this country and too little fruit, and from

this springs many of the diseases to which we are subject. I say, therefore, that any Association whose work will have the effect of increasing the public health, deserves every encouragement. I understand also that the efforts of this Association are not confined to fruit trees, but are extended as well to ornamental and forest trees. In this city, I think, we have a large number of specimens of forest shade trees, well worthy of careful inspection. The City Council, under the Ontario Act of 1883, called "An Act for the Encouragement of Planting Trees," have passed a by-law by which all those who plant trees not less than thirty feet apart, shall receive the bonus provided for in that Act. The Inspector takes note of them when they are planted, and then at the end of three years, if they are growing, the planter gets twenty-five cents per tree. Of this sum the Ontario Government pays one half and the city the other. It is a very fine thing to have these ornamental trees adding to the beauty of the city, and if some of the visiting members go and look at our Queen's avenue or Dufferin avenue, they may obtain some hints as to the planting of shade trees that may be useful to them. The objects of the Association, then, being as I have stated, it is not surprising that its membership extends to 2,500. It is surprising that it should not be larger. The City of London congratulates itself on the fact that our fellow-citizen, Mr. Saunders, is your President. He is a gentleman this city feels proud of. His fame extends over this whole continent, not only for his learning, but also for his good works in the interest of humanity. I trust you may have a pleasant and profitable session, and that our visitors may take home with them such information as may be valuable to the localities whence they come. My heart is with you in your good work.

The President.—Mr. Mayor, I desire, on behalf of the Association, to thank you for the kindly sentiments you have expressed towards us. We realize the force of many of the statements you have made in regard to the importance of our work, both from a commercial standpoint as well as from the standpoint of its relations to the health of the community and that elevation of the moral sentiment which almost always occurs wherever a love for fruit culture, horticulture or arboriculture is created. We fully recognize the healthfulness of fruit as an article of diet, and regard this as one of the most important points in connection with our work as an Association. We are glad to see so many evidences of taste in this city, over which you have been chosen to preside as Chief Magistrate. We trust that your hopes for a pleasant and profitable meeting may be realized. The object of our Association is not only to give information, but to gather it as well, and our peripatetic plan of holding meetings is calculated to carry this information over the whole country. We hope that our local men, by an interchange of experience with our visitors, may both get and give information of value. Our meetings bring out a very large amount of experience in fruit culture, which is disseminated in our annual reports, and stimulates the progress of this industry in a marked degree. I thank you again for the kindly sentiments you have expressed, and for your words of welcome.

NEW VARIETIES OF APPLES.

Mr. Dempsey (of Albury).—It is exceedingly difficult to distinguish between a new variety of apple, and an older one with a new name. Again, what is new to us may be old in another section of the country. It also occurs to me that varieties which have been in use for hundreds of years in another country, may be considered new by us when introduced here and subjected to the severity of our climate and a change of soil. There are several varieties of apples that are not distinctly new, which, I am glad to say, are succeeding in our country. One is an English apple, though not very new in England, called the Cellini. It is a magnificent apple, ripening in October. I notice that it has proved sufficiently hardy to survive in Algoma; it should be disseminated more; I have fruited it for several years. We should not at the same time lose sight of the Wealthy apple; although it has its faults, it is a good fruit; ours all blew off this year, and there was a good crop. There are other new varieties which are being introduced, that I have

not had much experience with, and therefore cannot speak positively about; but these two, I am satisfied, are coming apples.

Mr. BEADLE.—What about the McIntosh Red?

Mr. DEMPSEY.—It is a very good apple; but I have never been able to see one clear specimen. It is very pretty, is a good dessert apple and keeps well.

The PRESIDENT.—Do you grow the Jonathan?

Mr. DEMPSEY.—Yes; but it has one serious objection,—the tree does not seem to be hardy or reliable.

Mr. BEADLE.—What about the Grand Sultan?

Mr. DEMPSEY.—It is a magnificent Russian apple, but like all other Russian apples, we can get better ones. The Grand Sultan is an early apple, and is almost transparent; it is a very pretty fruit; the objection to it is that it does not ripen evenly, and we cannot pack all the fruit at the same time. It is valuable for market and home use. It bears an abundant crop, and I have never known it to fail to do this in eight or ten years.

Mr. BEADLE.—Does that apple spot?

Mr. DEMPSEY.—I have never known it to do so.

Mr. BEADLE.—How does the Yellow Harvest do?

Mr. DEMPSEY.—It spots badly, and sometimes turns nearly wrong side out.

Mr. BEADLE.—Do you think the Grand Sultan would make a substitute for the Yellow Harvest where it spots badly?

Mr. DEMPSEY.—I think it would; I have the Grand Sultan and Early Harvest growing on the same tree, and this gives a good test. The two apples ripen together every year, and the Grand Sultan produces much the finer fruit for marketing purposes, although a little too acid to suit my taste.

Mr. BEADLE.—Have you fruited the Yellow Transparent?

Mr. DEMPSEY.—Yes; but I think they are the same variety; they appear to be exactly alike. It does not seem to be quite so productive, although this may be caused by the soil causing the tree to be too vigorous.

Mr. BEADLE.—Have you the Montreal Peach apple?

Mr. DEMPSEY.—No, sir.

Mr. BEADLE.—Have you Fameuse Sucrée?

Mr. DEMPSEY.—Yes; I have fruited that just a little, but would not give an opinion.

Mr. A. A. WRIGHT (of Renfrew).—Of course our country is yet in its infancy, so far as fruit is concerned, and these newer varieties have not been fruited to any great extent. Some of those mentioned, however, have been fruited. I have the Wealthy apple, and for a northern section I do not think we have found its equal; it keeps well, and is a nice, round, shapely apple; it bears young, and is a good bearer and is hardy. For northern sections you cannot find a better apple. With reference to the Yellow Transparent, I have seen them growing, and I do not think them quite so valuable, because they do not keep so long. It is thin-skinned and is very nice, but being a yellow apple does not take as well as a red. I have grafts of the Grand Sultan growing, but as yet it has never fruited with me. I was talking to Dr. Hoskins in Montreal, and he says the Grand Sultan he has is the same as the Yellow Transparent. The Cellini is not growing, but we had it on exhibition in Montreal and it is a very hardy apple. The tree appears to be hardy in that section; but I cannot say how it would be in ours. The McIntosh Red had spots with us, and it is only in favourable localities that we can raise it. The tree is very hardy, but its cold-resisting powers are not equal to all emergencies. It is very tenacious of life where other trees would fail, but it will not always stand the cold of our district. We had several on exhibition at our annual show last fall, but every specimen was somewhat spotted; it does not make a nice appearance, and is ribbed. Then we have Scott's Winter, which is a new fruit introduced by Dr. Hoskins, of Vermont. When the tree is loaded, it looks almost like a ball of fire, the red colour is so bright. We also have the Peach, but a serious objection to it is that it cannot be shipped any distance. In baskets, however, it answers very well, and the tree is hardy. In Montreal it gives good satisfaction. It is not the best flavoured apple we have, however, and lacks acidity.

Mr. P. E. BUCKE (of Ottawa).—Does the tree blight?

Mr. WRIGHT.—In some localities it may; but it has just been introduced. Some

seedlings have been grown in our section, and there is one called the Forest Winter, which we believe is going to prove successful. The tree has proven itself valuable, and we think it will not be long before we shall have some good seedling specimens to bring you. There were seven specimens given me and I laid them away carefully, but the rats found them and ate them.

Mr. JOHN CROIL (of Aultsville).—I find the same objection to the Wealthy as Mr. Dempsey—blowing off the trees.

A. MACD. ALLEN (of Goderich).—If there is one subject more than another that I want to be cautious about, it is in speaking of new varieties. We have some of these English fruits, and I do not think the Cellini will be valuable for us. Some of the older fruits suit us very well. As far as local consumption is concerned, we have too many early fruits, and in regard to the Russian apples, they do not seem to suit our section. I have examined some that would suit colder sections, but were not as good for us as our standard varieties. There is the Taylor Fysh ; it is too early, but is a splendid cooker and baker. For an early fruit we like the Duchess of Oldenburg better than any. It bears abundantly, and you can begin to cook the apple when it is perfectly green. It is one of our best.

Mr. A M. SMITH (of St. Catharines).—Mr. Dempsey is too modest to mention one of the finest new apples I have seen, because it originated with himself. The best seedling I have seen was what he exhibited in Barrie. What can he tell us about it ?

Mr. DEMPSEY.—I can tell you something about it. It is a very fine apple. It is a beautiful red color, as most of you have seen, and is grown from the seed of a Golden Russet fertilized by the Northern Spy. The tree appears to be hardy, as far as I can judge, and it is quite prolific. It is only three years since it first blossomed, and the trees at the present time are no thicker than broom-sticks. They are not two inches in diameter. I am considerably encouraged with the appearance of the apple so far, and I hope it will never spot. When we were packing our apples for New Orleans, I picked some apples off the top of the basket and asked "where did these McIntosh Reds come from ? I never saw a McIntosh Red without a spot." We did not send them down as McIntosh Reds ; but after they had gone, we found out that they were my seedling. Had I known it, I should have had them marked as such for the New Orleans show. Still it may fail, as many others have done.

Mr. HICKLING (of Barrie).—I do not know that I can say a great deal as regards the new varieties, for I have not grown a great many of them. There is the Wealthy, however, that has been spoken about. It appears to be very good. I think, from my observations, that it will be very successful for the market. The Haas has been spoken of as a nice apple. It is a very hardy tree, and the fruit seems to be very fine ; but it has not been sufficiently tried to enable me to say much for it at present. We find, as a rule, that we raise too many early apples. The Duchess of Oldenburg is the fall apple for us, and we cannot find anything to equal it for market purposes and cooking qualities. There was a large apple shown at our fall meeting that was called the Red Pound ; but I do not know whether it was a good keeper or not.

Mr. WELLINGTON (of Toronto).—Of the varieties named very few are really new, and the newer kinds, of which there are a great number, have yet to be tested. Of all the varieties mentioned, I think the Wealthy, if not the most valuable in all sections, is at least one of the most valuable ever brought out. There is one thing that should be understood regarding the Wealthy, and that is with respect to its earliness. In Western Canada it is certainly a fall fruit ; but in cold northern sections—in many parts of New Brunswick and Quebec—it is strictly a winter apple, and keeps well into January and February. This should be borne in mind : that locality makes a good deal of difference. I have yet to see a spotted Wealthy. For three years I have had a graft bearing, and each year it is becoming better. For three years the crop has been enormous ; as much as any tree could bear : and I have thought it is the best apple I have ever seen. In appearance it was handsome, and in flavor it was good. There is a new apple known as Scott's Winter, which is particularly adapted to colder sections. It is of fine quality ; is a late keeper, and for sections where the more tender fruits cannot be grown, it is certainly desirable. In the same class is the Magog Red Streak, another of Dr. Hoskins' seedlings.

He speaks highly of it, and I think it is valuable. Yellow Transparent is new, or as some have called it, Russian Transparent, and I believe it will in a measure take the place of Early Harvest. The Early Harvest has almost grown out of date, and will soon have to be discarded on account of spotting and cracking. The Yellow Transparent is an abundant bearer, the tree is quite hardy and can be planted in any section where apples will succeed. Another apple which our Quebec friends think highly of is, Canada Baldwin. It is fine in appearance, and the quality is very fair. The tree is hardy and it may be put down as one of the valuable apples for colder sections. The Hastings is an apple which can be classed with the Wealthy. The tree is hardy, the fruit of good quality, and the bearing qualities are excellent. We sent a specimen to Charles Downing, and he pronounced it one of the finest apples he had ever seen. The Salome, from all accounts, is going to be very valuable. I hope next season to fruit it. It would be well for fruit growers to obtain information of this fruit, because I believe that it is one of the coming apples. It is a long keeper, and being of good quality is likely to be a good shipping apple, and will bring good prices in the spring.

The SECRETARY.—I do not know what more I can say. I do not live in the cold parts of this country. We do not have the thermometer down very much below zero where I live, so we do not need to grow any of these apples mentioned. What do you want better than the Northern Spy? We are satisfied with what we have got, and I do not think you can beat the Northern Spy or Grimes' Golden, or the Swayzie Pomme Grise. When they can get apples like these in the cold north, I believe they will not want any new varieties; and I am convinced that gentlemen present will live to see that.

Mr. A. A. WRIGHT.—I have fruited the Magog for the first time and its quality is very good. It is hardy and is a fine size. We thought highly of it at the Exhibition. With reference to the Hastings, we can only grow it in favourable localities. It fruited with me last year; but it is not going to be hardy enough for the extreme cold sections of the country.

T. H. PARKER (of Woodstock).—There is the Ontario. Last year, with me, it had a crop of magnificent apples, and the fruit, as I saw it before coming away, is in a good state of preservation. Among winter apples I think this good.

Mr. BUCKE (of Ottawa).—Arnold's Beauty is fine and hardy with us, and I think it is going to be an acquisition to our part of the country.

The PRESIDENT.—I have had the Ontario fruiting for two years, and it is one of the best bearing trees I have for its age. The fruit is uniform in size, a little flatter in form than the Northern Spy. It is a good keeper, an excellent cooker, and not bad for the table. It is an apple that I think the Fruit Growers' Association has done the country good by having it disseminated. It seems to be fulfilling the expectation of those who have grown it. There is another apple which has been originated here by Mr. George Nixon, from the seed of the Northern Spy. It is of extra medium size, differing somewhat in appearance from the Spy; not so tender in the skin, and seems to be an excellent keeper. I hope that during the meeting some specimens will be brought here. It was sent down by me to New Orleans under the name of the Nixon, and I would suggest that that name be adopted for it.

Mr. SMITH.—I would just add that the Ontario is succeeding well in the Niagara district.

Mr. MACD. ALLEN (of Goderich).—It is one of the best shipping apples.

Mr. HICKLING (of Barrie).—It is an excellent fruit.

Mr. BEALL (of Lindsay).—I wish to exhibit a couple of apples grown by Alexander Robinson, of Verulan, a seedling apple which he reported to me as being grown on an exceedingly hardy tree that bears an unusually large crop. The apples are uniform in size, and he says they are the best cookers grown on the lake shore. For dessert he thought them too tart, but they will keep until June. I have found all he has said to be correct, but as to the keeping quality, of course it is not yet June. Its flavour in the fall was good and not too acid, and it was one of the best I ever had cooked. Being a seedling grown in our northern country, I think it would be desirable to test it further.

Mr. BODWELL (of Ingersoll).—I wish to ask something about the Mann.

Mr. WRIGHT.—We have found it hardy.

Mr. Wellington.—The tree is hardy, and I have found the keeping quality of the fruit most excellent; have had splendid specimens in June, and I believe it would be a fine market apple. It is not quite so productive, however, as some of us would like. You can grow the Mann where you cannot grow the Rhode Island Greening.

Mr. MacD. Allen.—The Mann brought nineteen shillings a barrel in Liverpool, but it is a poor bearer. The tree is hardy and I think the fruit is valuable for its long keeping qualities, and its colour does not seem to be an objection.

Mr. Smith.—My father raised it when I was a small boy, and he did not think much of it on account of its dropping from the tree. It acquires a yellowish cast of colour towards spring and is a valuable apple then. It was formerly called the Spring Swan.

Mr. Dempsey.—Some of the Scotch people have produced good fruits and so have the Irish. There is an apple called the Hawthornden New, which is a rival to the Hawthornden. I never saw a tree that carried such a weight of fruit. It is a good cooker but not a dessert apple, although a man who could eat the Ontario would like it. There is money in the Ontario, but I never want to eat it myself. There is another apple called Seacliff's Hawthornden, which grows a little slower. I have a tree not more than two feet high that has fruited for six or seven years. It is a beautiful ornament for the lawn or door yard.

THE LATE CHARLES DOWNING.

The President.—I desire at this stage to make an announcement in reference to the recent death of Mr. Charles Downing, which occurred at his residence in Newburgh, N.Y. He was a gentleman who has done more to advance horticulture than any other man who has lived during the past hundred years, and I am sure you will hear of his death with feelings of the deepest regret. Horticultural societies all over the continent are taking the opportunity of expressing their sentiments of admiration for the man and regret at his decease, and with your consent I would like to nominate a committee to introduce a resolution at a later stage of the meeting which will embody our sentiments of the man and of his unselfish labours in devoting nearly the whole of his life to the development of horticulture, and especially fruit culture. I would, with your permission, name Messrs. MacD. Allen, Wright and Dempsey as that committee.

Mr. Bucke re-echoed the sentiments expressed by the President, and at a subsequent stage the following resolution was proposed and adopted unanimously:

Moved by Alex. MacD. Allen, seconded by P. C. Dempsey, and resolved, "That the Ontario Fruit Growers' Association have learned with feelings of the profoundest regret of the death of the venerable Chas. Downing, of Newburgh, N. Y., one of the most unselfish of men; in his writings pointed and always reliable; in his correspondence prompt and obliging; charitable towards all men, yet firm in all good principle. There is, we believe, no horticulturist of the present century who has left behind him so valuable a work of reference upon fruits and fruit culture, and at the same time retained so warm a place in the hearts of all true friends of horticulture. A man possessed of the finest traits of character that combine to make a perfect model of the true horticulturist, the man and the Christian. In placing upon record our sentiments at parting with one of so great value not only to horticulturists but to humanity at large, we know that the gain is his while we deplore the loss, and that he is now reaping the rewards of so pure a character.

NEW VARIETIES OF PEARS.

The President.—What experience have you had with Kieffer's Hybrid?

Mr. Dempsey.—We have fruited it for several years. The first year it was very poor and small; the second year it was improved, and this last fall I have found it a fair specimen of a pear. The largest specimens we had were about the size of the Golden Russet apple, and when ripened it was a pretty fair fruit. I think it will be one of the best cooking pears.

The President—What about Souvenir du Congress?

Mr. Dempsey.—I have given it up, my patience having worn out. The only way I could get a tree to winter was by protecting it. It was the tenderest variety we have

ever undertaken to grow. There are several new French pears that turned out the same with us, and I have concluded that there are very few of these new foreign pears that can be made to succeed. The Doyennè du Comice is a better pear. It comes a little later in the season ; but the trees are liable to blight, and I think it is going to prove a failure.

Mr. Beadle.—I think the Kieffer pear would be good to cook or can, but we never want to eat it raw. It is like a turnip. The tree is somewhat tender, and I do not think it is going to stand where the thermometer has to be lengthened to ascertain what the temperature is. In our part of the country I find it cracks badly and gets covered with rusty spots. Wherever that spot appears it cracks. All the fruit of my Kieffer tree cracked so badly that I didn't get a solitary specimen ; but I do not know whether that is going to be characteristic of it. Still I do not believe in trying to hold up a pear because I had some expectation of it once. When it goes back on me I go back on it. I had hoped that pear would prove blight-proof. The foliage is unusually close and of rich appearance, and in the autumn it is as pretty a thing as you can have. With the fruit on it the first year it bore with me, it made up a very pretty sight; but I am afraid we must go slow with that tree. Perhaps along the shore of Lake Erie or our southern counties it may prove more valuable.

The President.—What about the Doctor Reeder?

Mr. Beadle.—The tree seems to escape blight very well. and the trees of that survived when other varieties got killed. The pear, although small in size, is of very fine quality. I think Manning's Elizabeth the finest quality of early pear we have.

Mr. Wellington.—In my opinion of the Kieffer I agree with Mr. Beadle, but we do not want to eat turnips raw. There is money in the Kieffer. One great trouble is that fruit growers allow it to fruit too heavily. If the fruit were thinned out we would have better quality ; but even as it is, if we want a pear for money, I believe we have it in this variety. We know that it is not always quality that sells. It is size and appearance. The Kieffer is certainly of good size, and when ripened is one of the most handsome pears we have. For those reasons it will sell. As a canning pear I believe it has no superior. In flavour it is something like the quince, and its hardiness is superior to the Bartlett. I think it will grow in most sections where we wish to grow pears for marketing purposes. It is about the only new variety that is obtaining any prominence just now. There is one new pear, however, that I saw growing in the orchard of Mr. Barry, in Rochester, and it is called the "Petite Margaret." Mr. Barry spoke very highly of it, and I found it a fair grower and hardy.

Mr. McGill (of Oshawa).—The French pear that has been spoken of was a failure in our section. That is the Souvenir du Congress.

The President—I have fruited the Kieffer here for the last two years, and have found it a little tender, the shoots killing back during the winter. As far as I have been able to judge of its quality, it is not desirable for eating. I think, however, it is superior to the Bartlett for canning. There is a pleasant quince flavor and more acid in it than in the Bartlett, while a slight grittiness in the flesh gives a character to the pear and makes it desirable. I doubt if it will be hardy enough to stand in the colder sections of the country. With regard to the Dr. Reeder, we have had a very good test of this tree on the asylum grounds here. There was a very large collection of pear trees planted there, and among others were ten or twelve Dr. Reeders. While nearly all the other fruits have died, there are nine of the Dr. Reeder there yet, and these nine trees bear an abundance of fruit every year. As Mr. Beadle says, the fruit is of fine quality, and is worth a more extended trial than we have given it. It is one of the fruits that promises well as to its freedom from blight.

Mr. Beadle—I was going to speak about another pear that is cousin to the Kieffer, known by the name of Le Conte. Somebody is trying to boom it, and you will find it spoken very highly of in our American cousins' papers. I wish to caution our friends that I have tried it two or three winters, and have concluded that it will not be a success in our climate.

Mr. Dempsey.—When it comes to maturing pears my wife is man of the house. This Kieffer pear was placed by her in a certain temperature in the house, and we found that it compared very favourably as an eating pear when properly ripened. I fancy this will be

the experience of everybody when it has been learned how to handle them. There is also the Duchess de Bordeaux pear that created considerable stir. I got a couple of trees out from France and tried to ripen the fruit, but failed. It shrivelled up until it was the worst looking thing you ever saw. For several years we have thrown those pears into the cellar with the potatoes; but last year my wife took them and placed them at a temperature of about 65 or 70 degrees, giving them sufficient air, and about Christmas she brought one to me and asked what it was. It was one of the most delicious pears I have ever tasted in my life. She also gave me some of the Vicar. They were well ripened and some of them commanded $4 a bushel in Belleville as dessert pears.

Mr. Beadle.—Will Mr. Dempsey spare to each of us his wife to ripen our pears? (Laughter.)

Mr. Dempsey.—No commerce in that respect.

Mr. F. W. Wilson (of Chatham).—I have tried some trees of the Kieffer pear. They grow well. I have never had any die. I cannnot, however, keep the Souvenir alive. I have never seen the temperature below 22 degrees below zero, and other fruits are better with us than in many parts of Canada. The only section that compares with us is south of Hamilton, and we want a fruit that can be put into the market before these northern men can ripen theirs.

Mr. P. E. Bucke (of Ottawa) then read the following paper:

EXPORTS AND IMPORTS OF GREEN FRUITS.

As there appeared to me to be a feeling getting abroad that the fruit business was being overdone in this Province, I made application to the Customs Department at Ottawa for some statistics on the exports and imports, and was very kindly furnished, by Mr. W. H. Frazer, Chief Appraiser, with the following letter:

"Ottawa, January 26th, 1885.

"P. E. Bucke, Esq., *Vice-President Fruit Growers' Association, Ottawa.*

"Sir,—In compliance with your request, I have now the pleasure of sending you herewith statements showing the imports and exports of fruit, for the past five years, which I hope may be of interest to your Association.

"I would respectfully suggest that the attention of your members should be directed to the important subject of the export of fruit and vegetables packed in glass instead of tin.

"During a late visit to Great Britain, I learned that tin packages were almost universally objected to, and which prevents a large consumption of these goods in that market.

"I would recommend the use of glass jars, similar to the 'gem' fruit jar, which, after the fruit being used by the consumer, could be utilized for many domestic purposes.

"Peaches put up in this manner would find a good market, as I found that high prices were obtained for this fruit in Great Britain.

"Hoping that your meeting in London may be interesting and profitable, and that your next meeting will be held in Ottawa.

"I am, dear Sir, yours very truly,

"W. H. FRAZER."

This was accompanied by some very valuable statistics, which I have taken the liberty of arranging in such a way that a comparison can be made between the fiscal years 1881 and 1884.

Apples

Imported in 1881	8,000 barrels.
Imported in 1884	6,000 barrels.
Value of same in 1881	$12,000.
Value of same in 1884	16,000.
Duty on same, 1881	3,250.
Duty on same, 1884	2,500.

Blackberries, Gooseberries, Raspberries, and Strawberries:

Imported in 1881	45,000 quarts.
Imported in 1884	101,000 quarts.
Valued at, 1881	$ 6,500.
Valued at, 1884	14,800.
Duty on same, 1881	900.
Duty on same, 1884	2,000.

Cherries and Currants:

Imported, 1881	12,000 quarts.
Imported, 1884	14,000 quarts.
Valued at, 1881	$1,000.
Valued at, 1884	1,000.
Duty on same, 1881	125.
Duty on same, 1884	150.

Grapes—from Great Britain, United States, and foreign countries:

Imported in 1881	138,300 lbs.
Imported in 1884	149,650 lbs.
Valued at, 1881	$11,000.
Valued at, 1884	11,700.
Duty paid, 1881	2,760.
Duty paid, 1884	3,000.

I may mention that the duties were largely increased on fruits, at the request of our Association, when the National Policy was framed at Ottawa some few years ago, as a protection to the producers residing in western Ontario.

The quantity of green fruits imported into the other Provinces of the Dominion is about four times in volume that imported into Ontario, so that this Province has very arge customers without going outside of Canada.

In 1880 the exports from Ontario was about 60,000 barrels; but in 1884, owing to the poor crop in the autumn of 1883, this fell off to 15,000 barrels. From the statistics furnished, it is found Great Britain is our best customer, and the United States comes next; whilst Newfoundland and the West Indies come last on the list.

The President.—It would seem that we have not yet reached that point when we can meet all the demand for fruit, judging by the imports.

Mr. Bucke explained that a large quantity of Malaga grapes were brought in during the winter that could not be produced here.

Mr. Wellington believed the amount of importations was made up largely of fruits brought in from the South before ours ripen.

Mr. Bucke further explained that he did not include oranges or lemons in his statistics.

Mr. Dempsey.—I have seen car-load after car-load come into Montreal, and among them such fruits as Fallawater.

Mr. MacD. Allen.—I think it was in 1881 that we had a great deal of trouble in shipping, as we had apples brought from Missouri to Montreal and repacked and sent away as Canadian apples.

Mr. Beadle.—All this shows which way the current runs. Our Canadian apples must be better than those of the Yankees or they would not wish to brand theirs with our name.

GREEN PEAS.

J. Campbell (of London).—I grow the Little Gem and Daniel O'Rourke principally; they succeeded very well. I do not cultivate any of the late ones.

Mr. Croil.—As far as my experience goes there is no pea to compare with Bliss's American Wonder. It is a perfect dwarf pea, growing not more than ten inches in

height: the quality cannot be excelled and it is an immense bearer. My experience with it leads me to the conclusion to grow no other until I see a better. I think if Mr. Arnold had left nothing else to keep him in remembrance, this pea would do it. I have also tried Bliss's Abundance and found it very prolific. The report of it in the *Horticulturist* was true; it is a beautiful pea, but as a standard I do not think it will come up to the Wonder.

T. H. Parker.—Is Bliss's American Wonder a hardy pea? I tried it and thought it was tender.

Mr. Croil.—I feel quite convinced that Mr. Parker has had a pea that was not the American Wonder. It is a splendid pea; I sold ten bushels for $50 in Montreal. I never lost a pea, and we have had the thermometer down to 40° below zero. It is perfectly hardy.

Mr. Campbell.—I sowed the American Wonder last year and the first sowing was nearly killed with the frost. I would not compare it in quality with the Little Gem. The Wonder, however, is a little earlier.

Mr. Croil.—It is not extra early. The Blue Peter and it are about the same; but for hardiness and dwarf character it is the best.

Mr. Beall.—I am glad that Mr. Croil has spoken about the difficulty in getting the right variety. There are a great number of persons who have been growing a pea they thought was the American Wonder, but which was not such. I have grown those which were said by seedsmen to be the Wonder alongside those which grew from seed obtained from Mr. Arnold, and there was a marked difference; both the blossom and the pea were different. I think some steps should be taken to find out the difference, as I cannot by the samples. With regard to the frost in Mr. Campbell's case, I think that shows a mistake in the seed, as the true American Wonder will stand more than others. I have used it for the past six or seven years in my own family, and on the 24th of April I invariably plant the American Wonder and Yorkshire Hero. I put these two in together and by the time Bliss' American Wonder is finished the Yorkshire Hero comes into use. A month after I plant the first lot I plant another, and they catch up greatly on the others. On the 30th of May last we had frost, eight degrees below the freezing point. The American Wonder peas were injured as they were just coming into bloom, but the injury was so slight that we scarcely knew the difference. I think there were very few places in the Province where peas were grown and the thermometer went so low. I confine myself to these two varieties, and while there are others that compare favourably with them, there are none any earlier.

Mr. Croil.—I remember the same frost, and it destroyed half of the blossoms of the Early Canada strawberry; but the peas were damaged so little that we scarcely noticed it.

Mr. Hilborn (of Arkona).—We grew some peas for our own use; we planted D. M. Perry's First and Best, American Wonder, Champion of England, and Premier Gem. We thought the Premier Gem had the best crop. I had two samples sent me by the *Rural New Yorker* and *Horsford's Market Gardener*. The American Wonder did not do so well with us. We considered it was not worth planting, but it may be that we did not have the true seed.

W. L. Brown (of Hyde Park).—I grew some last year and found Little Gem and Abundance very good.

Mr. Gilders (of Delaware).—I had a pea called Morning Star, which was very early. We used them both as feed and as a green pea; they answered very well.

Mr. Goldie.—I have grown McLean's Gem and have also tried American Wonder, and am satisfied that I did not have the right variety of the Wonder; it was not nearly as good as the Gem. I also grew a later crop of the Stratagem, Telephone and Telegram. These are large growers, and are probably the finest peas I have used; they are rather tender, as all English peas are, and are liable to suffer during the hot summer, but with that exception they are the finest peas grown; these three kinds seem to be the same, and they all ripened about the same time. These peas were the only thing I saw the sparrows attack, and after they ripened, the blackbirds took so many that we did not get half a crop. It is necessary to stake them; they grow very strong in the straw and succulent, and if allowed to fall over you get very little good from them.

Mr. Beall.—I can corroborate what Mr. Goldie says about the Telephone. They are the most prolific I ever saw; but I cannot afford to grow them on account of staking. I think the Champion of England is the best, but I can't afford a ladder to go up and get them.

Mr. Beadle.—As a matter of taste I would only grow one pea, McLean's Little Gem; I plant them and do not want any other. I cannot afford to hunt up brush and rod long growing peas. Years ago, when there were plenty of woods about me, I could go and get brush and rod the Champion of England. I can get more peas off the Little Gem than off the American Wonder.

Mr. Goldie.—In New York last year, amongst the novelties of seedsmen was a pea that was noted for using pod and all. I brought home a small package; they grew freely and wanted staking, but I did not find them an improvement on the others and shall not grow them further.

Mr. Beadle.—Perhaps some of you, like myself, have light soil. By planting them deep, although it makes them later, I find that they do not suffer from the drought so much; I get a better crop. I like to have a soil on which potatoes have been grown, and have it well enriched. I plant them four or five inches deep, and leave them a little shallow so that as we hoe up the ground it fills around the vines. In that way the roots are protected.

Mr. Bucke.—Can you do anything against mildew on peas?

Mr. Beadle.—No, sir; I cannot afford sulphur enough.

The President.—A gentleman living near here, plants his seed in the autumn and he finds that he has peas several days ahead of those who plant in the spring.

Mr. Campbell.—I tried it one season and only about one-third of the seed grew.

Mr. Dempsey.—I never have planted any in the fall; but I cannot understand what Mr. Beadle means by deep planting. A part of the field of peas we ploughed under, the other half harrowed in. In almost overy case we would have a larger crop from those ploughed under. We have always planted garden peas shallow.

The Association adjourned until two o'clock.

AFTERNOON SESSION.

Letters of regret were read from W. C. Barry, of Rochester, N. Y., J. C. Morgan, of Barrie, and B. Gott, of Arkona.

The question box being opened, the following queries were read:—

Question.—"What may be done to rid a lawn of fish worms?"

Mr. E. B. Reed.—I have seen salt tried with fair effect, but it is a difficult thing to exterminate them when once they get in.

The President.—What advantage would be gained by getting rid of them? I think Darwin has shown that they are one of the most potent agents in forming fertile soil to support plant life. They swallow the earth and digest the vegetable fibre mixed with it, and then eject it on the surface. He assumes that in ten or fifteen years they add an inch or two to the soil, but in the course of ages the whole soil passes through the bodies of these fish worms, and is so affected by the process that it is better fitted to serve the purposes of plant life. If they were destroyed, the soil might lose in fertility.

Mr. John Little, of St. Marys.—I bought some choice strawberries five or six years ago, and I made the soil very rich. I thought after I had planted them that I should not get a strawberry at all on account of the fish worms. I could not kill them. In the fall of the year, when the ground got dry they went away, and I covered the plants in the winter with pea straw. When I took the straw off in the spring there was not a leaf left; but by and by the leaves came out, and I never had such strawberries in my life.

Mr. Parker.—A few years ago when croquet was in vogue, and I was very fond of

the game, my lawn was almost destroyed by these worms. Salt was recommended as a means of getting rid of them. We tried it, and in some spots where too much was put on, the grass was killed; but after every little rain they were there throwing up their little hills, and we could not play on the lawn. The robins now keep them in check. There was one gentleman who went to an expensive remedy. He took off the surface of the soil and laid leached ashes beneath it. That kept the worms out.

Mr. GOLDIE.—Strong lime water keeps them off.

GRUBS IN PEACH TREES.

QUESTION.—"What can be done to prevent grubs at the root of peach trees?"

Mr. BEADLE.—I do not know whether the gentleman is troubled with the borer or some other grub around the roots.

A VOICE.—It is the borer.

Mr. BEADLE.—It can be kept out by putting a little mound of unleached wood ashes around the trees early in the spring, so as to hide the collar until the first of August and then you can take it away. By that time the insect is done laying eggs. If you can prevent them getting at the collar, they can do no harm. If, however, the borers have got in, the ashes will not keep them out. You then have to take your jack knife and trace them up. If they have got in some depth you must take a stout wire and kill them. You can keep them out in the first place by putting a mound of wood ashes up to three or four inches above the collar. There is another remedy just as good, I presume, if more convenient. Scrape the earth away and rub the tree with soft soap, and the alkali will prevent the insect from laying her eggs. She seems to know by the smell not to lay eggs there.

SPOTTED FAMEUSE APPLES.

QUESTION.—"How many who have had Fameuse apples badly affected by the spot have had them free this year?"

Mr. CROIL.—Some of my neighbours have been entirely free; but mine were badly spotted. Where the apples have been most cared for they seem to have been killed with kindness; while those standing in grass and uncared for have had better apples and less spot. Another thing I may mention is that I have thoroughly pruned these trees and perhaps I have hurt them.

Mr. SMITH.—I think there was a committee appointed to experiment on this spot on apples.

Mr. CROIL.—Yes, I was one of that committee. They all experimented; but from inquiries made, I think they made nothing of it. Is the disease moving away? Mr. MacD. Allen says that last year he got large quantities of apples that were not spotted. That is encouraging. I count that it has been a loss of a thousand dollars a year to me.

Mr. HICKLING.—I had some of the Fameuse that were very badly spotted, so that I don't think you could get a single apple that was not affected. At the time the committee was appointed, an invitation was given to others to investigate. I tried sulphate of iron. Early in the spring I made a solution and with a force pump threw it on. This was before budding. Some of the trees I did twice. I had them all marked. These trees that were so badly affected the year before were comparatively free. I do not think there was a quarter of the fruit affected by the spot, but I cannot say positively whether it was the sulphate of iron that caused it, or the sulphur I applied to the apples after they were formed. There were two trees of the Fameuse that I applied it to, and there was not one-fiftieth part of the spot I had before. I wish to try it another year, however, before coming to any definite conclusion. There were some of them that did not bear this year. I am of the opinion that it did a great deal of good, as those which had not been so treated were no better than usual.

Mr. DEMPSEY.—I heard a novel remedy the other day. A gentlemen living not far from me had a Flemish Beauty pear tree, the fruit of which had been worthless for several years. Last year I said to him: "How is it the fruit is so good this year?" He says:

"That old horse of mine flared up under this tree and I had to unload a load of manure right there. It was partly from the chip yard and seemed to suit that tree." I may say that I have heard of trees being benefited by the application of sulphate of iron to the roots.

RASPBERRY BUSHES.

QUESTION.—"What is the cause of the canes of some raspberry bushes dying, while fruiting or bearing, especially the Clarke, and what is the best preventive?"

Mr. JOHN LITTLE.—I never could find any other remedy than burning.

THE PRESIDENT.—I found that most of mine which decayed had borers in them, and we cut off the affected parts and burned them.

WHAT VARIETIES OF WINTER APPLES ARE MOST PROFITABLE?

Mr. MACD. ALLEN.—The varieties that are most profitable with me are, first, the Baldwin, which I ship to England; and I think it is the most profitable of all the apples in our section. The American Golden Russet is profitable, and the Wagner and Rhode Island Greening are also profitable. Specimens of the Rhode Island Greening were poor three years ago, and consequently were looked down on in the English market; but now it is going up again. If, however, you plant an orchard of them, you have to wait ten or fifteen years before they become very profitable. We top graft with the Northern Spy and get very good results. I thought at one time the Mann Apple was going to be very profitable; but it has been found that while it comes into bearing in good time it does not bear large crops. The Ben Davis has been very profitable, and it is really a large bearer. The Canada Red is also a profitable apple. When we are looking for profits from an apple orchard in future, we must pay more attention to quality. For that reason I believe the time is coming when the Baldwin will go down in the English market, simply because it is not an apple of good quality. We get higher prices for the King of Tompkins. When the Baldwin is fifteen or sixteen shillings, we can get eighteen to twenty-one for the King of Tompkins. The American Golden Russet, however, is preferred. I have done very well with some of the earlier apples, but these that I have mentioned are most profitable.

The PRESIDENT—Is Grimes' Golden shipped?

Mr. MACD. ALLEN.—Yes; it is a magnificent apple for the dessert table, and there is nothing prettier when arranged in a dish than they are. They are gold just now; but are nevertheless not profitable to grow. Esopus Spitzenburg is good for price, but is not profitable for the grower, as it takes some time to get into bearing.

Mr. BEADLE.—I have made arrangements with Messrs. Keeling & Hunt, of Pudding Lane, London, England, to have the prices of apples in the foreign market reported in the *Horticulturist*. You will see that on the 12th and 13th of November last they sold 873 barrels of Canadian apples at public auction, with the following result: Greenings brought 14s. to 15s. 6d. sterling per barrel; Northern Spy, 14s. 6d. to 15s.; Baldwins, 15s. to 17s.; Fameuse, 13s. 6d.; Golden Russet, 21s. to 14s.; Roxbury Russet, 14s. 6d. to 16s.; Ben Davis, 12s. 6d.; Pomme Grise, 17s. 6d.; King of Tompkins, 18s. 6d.; Ribston Pippin, 22s. to 22s. 6d.: Montreal Fameuse, 16s. 6d.

Mr. BUCKE.—Most of the Fameuse that came in to us from the west were spotted, while those along the branch of the Ottawa were free.

Mr. CROIL.—A friend of mine in Montreal told me that the spot would get no better; but I think that perhaps the worst time is past. From what I can hear it seems to be moving, and we hope that like other plagues, including the potato bug, it may depart altogether.

Mr. WELLINGTON contrasted the prices of Nova Scotia apples with those read by Mr. Beadle, and showed that quotations for them were lower.

Mr. A. M. SMITH (St. Catharines).—My experience is about the same as Mr. Allen's. I would mention one variety that is considered of very little account here, and I think does not command very high prices in the English market. That is the Talman's Sweet. In the Boston market, a year ago, I realized as much for them as any other.

Mr. Shoff.—The King of Tompkins and Spy, and Ribston Pippin, when matured, are rich apples, and will command good prices in the English market.

Mr. Mott (of Burford).—Our section raises and ships a large quantity of apples, and I think the Baldwin takes the lead. There is the Northern Spy for another, and the Russet is becoming very popular. I think the Russet has been planted of late years more than any other. As to prices, the buyers in our section have realized such low figures, that in some cases they have lost money.

Mr. Cornwall (of Burford).—My orchard is quite young, but I would corroborate what Mr. Mott has said regarding the Baldwin being considered the best for shipping purposes. The Greening was badly affected by the Black Scab, I was one of a committee to try remedies, and I diluted sulphur in water and showered the trees twice with the liquid, once when the apples were about the size of cherries and the second time about two weeks later. I cannot say, however, that this produced any good results.

The President.—What varieties have you planted most largely?

Mr. Cornwall.—The Baldwin and Rhode Island Greening. I have a number of Roxbury Russets and Northern Spys, but the principal part of my orchard is made up of the two mentioned.

Mr. Dempsey.—I find that the Ben Davis is a most profitable apple. I may say that in shipping apples the result depends largely on the culling done. It is a great deal better to sell one barrel and get the same amount of money as you would for two of a lower quality. Take any variety you like, and it will be found to pay you every time to sort them thoroughly and pack carefully. I would recommend every person to cull. Leave a hole, rather than pack a small one in to fill up. I think this is most important, that the apples should be uniform in size.

Mr. Bucke.—Two actions have been brought against shippers in Western Ontario for sending apples that did not come up to the samples on top of the barrels, and in both cases the agent recovered. I give this as a word of warning to shippers not to send away apples other than uniform in size throughout the barrel.

Mr. Wright.—It might not be unwise of me to give my opinion from the standpoint of buying. We are not able to raise sufficient to supply our own market, so we have to import. Last year we brought in seven car loads from Prince Edward County, and the plan pursued was this:—As soon as we had ordered our cars, we sent around persons to take orders for the apples. We sell from two to five barrels to each family. Every family takes one barrel of Greenings and the next variety in demand is the Russet. The Baldwin or Nonesuch make up the balance. In retailing, the same price prevails of five cents per pound, fifty cents per pailful, or $1.25 per bushel. We will sell ten barrels of Hubbardston's Nonesuch to one of any other variety. We generally get one barrel of Tolman Sweets for certain persons who want them to bake. For retailing, the Nonesuch takes the lead, and for dessert nothing surpasses the Golden Russet.

Mr. Morris (of Fonthill).—In our immediate section the American Pippin is still considered the most profitable variety, and brings the highest prices. It is similar to the Grindstone, but is larger and of better quality. There is another apple that has not been mentioned, and that is the Wealthy. I believe that is one of the most valuable apples we have in this country. The first two years I had it it bore a heavy crop, and I thought it was inclined to be wormy; but I concluded that that was in consequence of there being no other variety to attack. This year again, it was loaded, and the specimens were fine. I believe that grown north of Lake Ontario it will rival any other shipping apple, and it is an immense bearer and may be depended on for heavy crops.

Mr. Bodwell (of Ingersoll).—The standards with us are Northern Spy, Rhode Island Greening and the Baldwin.

Mr. Mitchell (of Innerkip).—Since the blight struck our trees, no apple has been so profitable as the Golden Russet. The Rhode Island Greening is profitable, but for the last two years the Russet has taken the lead.

Mr. Wilson (of Chatham).—In our section the Baldwin is the most profitable. The Northern Spy has the greatest crop and the Russets sell when the others are played out. I am glad some action has been taken against shippers, as I have seen the very thing complained of—good specimens at both ends, and very poor in the middle.

Mr. Campbell (of London).—Although not growing apples now to any extent, I have had considerable experience with them. I found when I was on the farm, that the Northern Spy, American Golden Russet and Spitzenburg were good bearers and shippers, and I find that in late years the Russet and Spy hold their own. I found the King of Tompkins bad for losing its flavour, and in that respect it differs from the Northern Spy.

Mr. Gilders.—I found in our orchard last year that the Greening blighted very much, and the most profitable variety we had was the Northern Spy. There were very few Snow apples, and those we had were spotted.

D. C. Dorman.—With us, the Northern Spy, American Golden Russet and Baldwin have been most profitable.

Col. McGill (of Oshawa).—In our section the King of Tompkins has taken the lead. The buyers from every quarter were after it and paid the highest prices. The King, and Baldwin, and Spy and Golden Russet are most sought after by the buyers. Last year there was a run on the Tolman Sweet, and this year the buyers wouldn't take a barrel as a gift.

Mr. Beadle.—I think that those who ship apples from the Niagara district have agreed pretty well on two varieties:—the Baldwin and Golden Russet, of Western New York. These two varieties taken years together, yield more money to the acre than any other two. Some have been almost inclined to place the Ribston Pippin on a par with them, but if the summer be warm and dry the Pippin ripens up too soon. If, however, the season is cold it brings large prices in the English market, so much so that they can be shipped by steamer. These are the three varieties I have heard spoken most of in our section.

Dr. McKechnie (of Thorndale).—The principal varieties shipped from our section were the Golden Russet and Northern Spy. They seem to give most satisfaction.

Mr. Bucke.—The tree of the American Golden Russet is very hardy, and is being grown near Ottawa, and is considered very profitable.

Mr. Dempsey.—I always find out more about fruit by driving through the country than by any other means. In passing through Northumberland county, for instance, I have noticed that there are certainly as many Golden Russet apple trees growing, as all others put together. That speaks very highly for that variety. I have also been through other sections where Northern Spys were almost exclusively grown. If we wish to take a lesson, let us see what is growing most successfully in any section, and then in planting we have a safe guide.

Mr. John McCash.—We grow apples both for the local and foreign market. For the foreign markets buyers come around and take all the winter apples we can spare. We get the same price for one variety as another. I had settled for that reason on the King of Tompkins County because I thought it would bear more than the rest. There is another apple that is kept for the local market and that is the Golden Russet. It fetches big prices when others are gone. The King of Tompkins ripens early, but unless sheltered the trees are likely to suffer.

Mr. Shoff.—I think it would be an improvement to pick the King of Tompkins earlier than is the custom.

Mr. Wilson (of Chatham).—The lake shore is a great place for apples, and they grow Rhode Island Greenings almost exclusively. I have seen over a thousand trees in an orchard. I should like to hear of a remedy for preventing damage to the skin of the Northern Spy. They spot badly. Is it because our summers are too long?

Mr. Pierce (of Tyrconnel).—We have shipped very few from our neighbourhood to the foreign markets, and it is difficult to speak about the profit. As far as my experience goes, I think the Rhode Island Greening is considered about the best.

Mr. Webb (of London).—In reference to the Northern Spy being a shy bearer, I may state one or two facts. It was my business to study pruning, and in going through the country I found a good deal of top pruning, especially for Northern Spy. To produce finer fruit it is better to take off part of the limb and do what I call setting them back. I had a Northern Spy tree which I top-dressed, and it is the finest specimen I have ever seen. I clipped a tree thoroughly for Archdeacon Sandys, of Chatham, that was a poor bearer, as an experiment. We did the same to a peach tree close by, and last fall he said he took the finest peaches from that tree he had ever seen.

BEST MARKETS FOR WINTER APPLES, AND BEST METHODS OF PACKING FOR FOREIGN SHIPMENT.

Mr. MacD. Allen.—As to the best market, we find that Great Britain will be our objective point. I find Liverpool the best port to ship to, and from there you can distribute to all the different points in Great Britain. For some fruits the highest prices are got in London. For the Esopus Spitzenburg I have got the highest prices in Omaha, Nebraska, and for the Ribston Pippin I have obtained the highest prices in Glasgow. In our own North-west I have had fair prices for early and fall apples, but the consumption there is insufficient to make it a large market. The people are not wealthy enough to indulge in fruit to any great extent; but it will yet be an important market for early and fall fruits. As to the method of packing, the system we follow is this: We go around to the orchards and buy the fruits we want. We instruct the farmer to pick them in baskets and then lay them in piles under the trees. All those that are not coloured or have spots or worm holes we put by themselves. We go over the entire orchard, and in about ten days after they have been on the ground we send around a gang of packers. They cull over these good heaps first and see that all are good and clean, and then when the barrel is sufficiently full, they press down and put in the head. In filling a barrel you must use some judgment as to the kind of apples you are pressing. One kind will require an extra row more than another to carry it to the foreign market. For instance, a Rhode Island Greening will press more than a Baldwin. The King of Tompkins will press more. This is a very important point. I believe the shipping business of this country has been hurt by those who have sent out two qualities in a barrel, and they should meet with the severest punishment that the law provides. The old country markets will not stand it. Two or three years ago they were careless, but now they are different. Everything must be good Frequently a barrel is taken from the docks and emptied out, and that is taken as a sample. Shippers have to be very particular if they wish to do business. We never allow farmers to fill the barrels, and we carefully cull out every apple that is in any way bruised. The Northern Spy is thin skinned, and if there is the slightest spot it is apt to grow worse if not allowed to sweat on the ground. If it sweats it will bear the voyage better.

Mr. Goldie.—Do you leave them exposed on the ground?

Mr. MacD. Allen.—Yes; to the rain and everything. While we have always packed in barrels, I think there is more money being made by packing in half-bushel crates. The only difficulty is in handling them; but I believe in small packages of choice fruit. Ship them as you would ship peaches, so that the apples can be seen. You must only pack the finest, however.

Mr. Parker.—If you pass through an orchard in this way how do you form your estimate of prices?

Mr. MacD. Allen.—This last year we paid pretty much uniform prices. We will cull one orchard keener than another, and where the trees are trim and nice and the ground clean and the fruit better coloured we will pay a little more per barrel.

Mr. Beadle.—Is there anything to be gained by wrapping specimens in soft paper?

Mr. MacD. Allen.—I believe that is a matter well worthy of consideration. I have obtained the highest prices for medium-sized Northern Spys, by taking an extra good barrel and making it attractive by a nice label. There is a good deal in getting up a nice package. We have taken a pad of soft grass and lined the barrel with thick brown paper, and then wound every apple in tissue paper and packed with dry chaff, and it paid well for the extra expense.

PLUMS.

Most Esteemed Varieties, Soil and Cultivation.

Mr. Goldie (Guelph).—I have not a plum tree left in my orchard. I have grown from twenty to thirty varieties, but the last few years the extreme cold weather of our winters seems to have killed them off. The varieties I had all did very well, but I cannot specify them all from memory. Of the different gages I like the Old English Green Gage

the best; but for market purposes, the Imperial Gage. It is rich in flavour and a heavy bearer. The Prince's Yellow Gage was very fine, and the flavour rich. There were several of that class so much alike that it would be very difficult to tell them apart. The Emerald Drop was the same. I had one called the Prince of Wales, and have only seen one other like it. That I thought was the finest I had ever seen. It was a blue plum. Smith's Orleans was very good, and Magnum Bonum was an excellent cooking plum. Glass' Seedling I could never fruit to any extent. I don't know why, for it was the only shy cropper I had in my orchard.

Mr. Wilson (of Chatham).—There are very few plums grown with us, but among those we have, I think the Lombard is the best.

Mr. Cornwall (of Norwich).—The black knot has nearly exterminated the plum trees with us.

Mr. Mott (of Norwich).—About seven years ago I put out something over one hundred trees, and the most profitable fruits for the market were the Lombard and Pond's Seedling. I had very good success for about three years, and then the very hard frosts of four years ago literally killed nearly all the trees. I have six or seven of Pond's Seedling struggling along; but have never got a perfect plum from them since. Our trees have been troubled but little by the black knot, and it is in consequence of the winter-killing that plums have ceased to be raised with us.

The President.—Mr. Mott has scarcely taken the best course, to rest content with six or seven trees. I had a similar experience, and out of a large orchard there are but three or four of the old trees left. These have not borne any fruit since worth speaking of; but I have planted out a young plum orchard, in which the trees have grown splendidly, and this coming year I hope to have a good crop. Whenever we get a severe winter, it seems to destroy the vitality of many of our plum trees, and when this occurs we should plant out the next spring a fresh lot of young and vigorous trees, and thus keep up our supply of fruit. We must expect these mishaps, and if we are content to take them as they come, and make no effort to remedy the evil, we shall suffer in the extreme. I think we should try in such cases to do all in our power to promptly restore our orchards. With regard to varieties, I should place the Imperial Gage and Lombard first, as among the most profitable. They are also of very good quality. The plum I think the most of as a table fruit is the McLaughlin. It has a pale, rosy cheek, and a delicate melting flesh that is very desirable. That tree was disseminated some years ago by the Fruit Growers' Association, and I think the reports have been favourable. It has always borne fair crops; sometimes very heavy, although not so heavy as the Lombard or Imperial Gage; and if it were not for the occasional visit of the curculio, the trees would almost kill themselves from over-bearing. Many persons are willing to take all the fruit they can get; but it is the better policy to thin it out, for one bushel of handsome fruit will bring as much money and give more satisfaction than two of inferior specimens. Lawrence's Favourite is a delicious little plum, and is always very desirable on account of its rich flavour. The Washington is handsome and of good quality; but is a shy bearer. I have not had much satisfaction with that kind. The Prince of Wales that Mr. Goldie spoke of, I have grown, but have not had much success with it. General Hand is a large and handsome fruit, but with me has been a shy bearer. The Columbia is a fine blue plum, and while it is not of first quality, it will always command good prices on account of its size. The Bradshaw is desirable because it has a large proportion of flesh and small stone, and being of good size always commands large figures.

Mr. Shoff.—I have been cultivating plums for over forty years, and have grown some fifteen or twenty varieties. I have been planting every year. My greatest trouble has been the black knot, and I have found but one tree that withstands it, and that is the Prince's Yellow Gage. The tops of the Prince's mingle with others, and have not yet had the black knot.

Mr. Dempsey.—I have never seen black knot on the Prince's Yellow Gage, but my trees have borne themselves to death, and I have none now. I killed the curculio, however. I lost very much by over-bearing, and I think it would pay us to thin the fruit and thereby save our trees and have a crop every year. With me Glass' Seedling is as good as any I have, and is quite as reliable. I have another, however, that is a straight seedling

from the old horse plum that cannot be told from the Glass. It stands free from the black knot, and so does the Glass' Seedling. When I was growing plums extensively I had none which paid me so well as the Victoria. It was necessary that we should pick the fruit twice over, one part beginning to colour while the other would be mature. I cannot fully endorse all that the President has said about Lawrence's Favourite, although it brought good prices and was profitable. The Lombard is always too productive, and I lost mine in consequence. I should not forget to speak of the French prune. Although shy in bearing, they are very reliable. We never lost any by rot and have kept them fresh until Christmas.

Lieut.-Col. Jackson (of London).—I lack the experience of many gentlemen here, but my plums were not satisfactory. The black knot was my great trouble. I did not grow for the market, and cannot therefore speak of the value of different varieties.

Mr. McCash.—I grew plums for a number of years, but lost them a few years ago. I believe that the soil has a great deal to do with it; for on low, rich ground they killed out the easiest, while on the higher and more exposed ground they seem hardier. I have taken notice that around St. Marys where the trees are exposed they seem to stand very well. I have found Glass' Seedling to stand the winter best, although it has not borne much. I have planted out the common wild plum, and top grafted on it with some success.

Mr. Bucke.—It has been our experience in Ottawa that Glass' Seedling has not borne well. With regard to the black knot, we never saw it down there on our trees, but on some trees I got from Mr. Dempsey it was very bad. I tried an experiment in the way of cutting them close, and I think the knot will die out of these trees.

Mr. Morris (of Fonthill).—Most of the plum trees are as tender as peach trees, and in discussing their merits hardiness is the chief thing to consider. In the dark fruits I should give preference to the Lombard. It has but one failing, and that is its liability to the black knot. The fruit should be thinned to prevent over-bearing. Next to that I would mention the Niagara plum. It resembles the Bradshaw; but the Bradshaw is a very tender tree, while the Niagara is quite hardy. It is the same as the Mooney plum, and was first brought out by Mr. Mooney. As next best I would place Duane's Purple. In the light varieties I should place the Imperial Gage first, on account of the hardiness of the tree, and Coe's Golden Drop next. This latter ripens well about the 1st of October. The Prince's Yellow Gage is another good fruit. Plum-growing is not much of a business in our section.

The President.—That season I have referred to when the plum trees were nearly all killed in this vicinity, the Victoria survived on my place, while the Lombard succumbed. It is very difficult to account for this as the Victoria is generally regarded as much the tenderer of the two. The Yellow Egg has succeeded very well with me, and I think it profitable on account of its size and the price it commands.

Mr. Morris.—I know the Victoria is good, but it is so tender that I think the nurseries have given up trying to grow it.

Mr. MacD. Allen (Goderich).—There are not so many plums grown now as in former years, the curculio and black knot having reduced the number of trees. I think there is money in the Lombard, Coe's Golden Drop, the Imperial Gage and Yellow Egg. The Washington also does well with us, and bears good enough crops. The Lombard, however, requires especially to be thinned out. I have experimented with Paris green on the curculio, and while it may be a little dangerous, yet if a fine rose is used so as to produce a spray, I think it will do away with the curculio. I have tried it on one row of trees and left the others free. I have tried it two years in succession on an orchard of a thousand trees and have left a tree here and there untouched. On the trees whereon we had not used Paris green there was scarcely a plum. A little too much, however, singes the leaves. We used a full teaspoonful of Paris green to a full patent pailful of water, and that would spray from eight to a dozen trees. One showering answers just when the plums are fairly forming. The moment the blossom goes off, the curculio begins its work.

Mr. Beall (Lindsay).—I have had some experience with Paris green, and have been surprised to learn that there is any danger to the trees, especially after it has been

said that one pailful answered for six or seven trees. I have used one pailful on one tree. I use an exceedingly fine rose and the spray is never thrown directly upon the tree, but allowed to be carried on it by the wind. I have tried this on two trees growing side by side, first putting it on one and the next year on the other. Each time the one I applied the Paris green to had a crop, the other was barren. I would like to ask Mr. Dempsey about the tree he got those plums from that were exhibited in St. Catharines several years ago. Are the trees hardy?

Mr. Dempsey.—The trees are perfectly hardy, and that variety bears the name of the Saunders, and originated near Belleville.

Mr. Croil (Aultsville).—In one of the late reports of the American Horticultural Society, white arsenic was recommended. I tried it and killed all the insects, and trees too. The receipt was one pound to four hundred gallons of water.

The President.—The disadvantage of arsenic is its solubility in water, while Paris green is comparatively insoluble and does not have the same effect on the leaves of the trees. The only object for making a change from Paris green to white arsenic would be the price. You can get arsenic for about half the price of Paris green, but I think the use of white arsenic is not to be recommended, as it would be very difficult to fix on a strength of solution that would be safe to use. It is very strong in its action on vegetable tissue.

Mr. MacD. Allen.—The only tree I used an over-strength of Paris Green on was a Hyslop crab. I made up my mind to kill the tree or the codlin moth, but I had a beautiful load of fine fruit.

Mr. Wilson.—We have not the black knot, but the curculio is bad.

The President.—I was skeptical until last year about Paris green as a remedy for curculio, but I have seen enough to convince me there is a good deal in it. I believe it is going to be *the* remedy for curculio, and if it succeeds it will stimulate plum culture throughout the length and breadth of the country more than any other discovery that has been made. The plan I had hitherto adopted was to catch the insect and kill it. That was a very safe way of working, but it was very laborious. The experience given here to-day goes far towards establishing the value of Paris green as a remedy against the curculio.

Mr. MacD. Allen.—I have watched the curculio, and never could make out what it fed upon. I never could be certain, either, that Paris green actually killed the curculio. I thought the result was to drive it away.

The President.—There is no doubt that insects have some sense analagous to our sense of smell. There have been several other remedies besides Paris green tried. For instance, the burning of tar or pitch under the trees and allowing the smoke to rise and settle on the fruit while it is in a young state. This is done when the air is still, and in many instances has had the effect of preserving the crop. The sense of smell may have been operated upon in this way, and the insect deterred from visiting the trees so protected. Another remedy, has been to stick elder branches among the trees, and the strong odour arising from them seems to put the insects off the track. I have known good crops of plums to be grown where this has been tried, while other trees where the elder was not used, had the fruit destroyed. With regard to the curculio eating, I may say that I have had them in a box where fruit was exposed to their depredations, and I found not only the marks of egg-laying but punctures through which they had evidently drawn the sap of the fruit. The quantity eaten, however, was very small. The explanation of this Paris green remedy, then, is probably to be found in the fact of its deterring the insect from visiting the tree.

Mr. Goldie.—If the smell is what is aimed at, could not something less objectionable than Paris green be used?

The President.—That is a very good suggestion. It would be well to try a coal oil emulsion, and watch its effects.

Mr. MacD. Allen.—I have tried coal oil by tying rags saturated with it under the trees; but speaking of elder berry bushes, reminds me that I boiled them one year in water, and sprayed the trees with the liquid. It had the same effect. I had a better crop on the trees thus treated than on the others.

Mr. HICKLING.—I have found the use of Paris green on plum trees to be very effectual. Last year I had comparatively few plums destroyed. The year before, the whole of my crop was lost with the exception of the Glass Seedling; why this escaped I cannot explain. I have tried it on apple trees as well, and found nothing else so effectual. It killed the codlin moth as well as the curculio.

The PRESIDENT.—For apples it should be used early, while the young fruit is in an upright position.

J. M. DENTON (of London).—The Washington still bears well, and our crop is pretty good. The curculio bothered us, but fumigation was found an effectual remedy. We saturated rags with coal oil and produced a smouldering smoke by covering with leaves and rubbish. This went among the branches and seemed to do the necessary work. The Blue plums have done well, but the Gages have not done so well. I have not tried Paris green. We have had excellent crops the last few years, and I have not been troubled with the black knot since I destroyed the tree that first showed it.

Mr. Craig (of London).—I have lost all my plum trees through the black knot.

Mr. WRIGHT (of Renfrew).—We cannot grow any plums down where I live; not even Moore's Arctic. The winter kills the trees.

Mr. W. H. WINNET (of London).—Is it the general experience of plum growers that every alternate year the crop is a failure? I have cultivated Lombards, and find that to be the case with me. The year before last I had an abudant crop, and last year I had but few.

The PRESIDENT.—Has your experience extended beyond the last two years? Last year there were very few plums in this section of the country, the explanation to the point you have raised, may lie in this:—If plum trees are allowed to overbear one year, the chances are the crop will be small the next.

Mr. BEADLE.—With regard to Moore's Arctic, I have fruited it and find it an abundant bearer. It would not be fully tested with me, however, in the matter of hardiness. It is about the size of a Damson. There is nothing extra in its quality. I was told by some gentlemen living at or near Geneva that it had been found profitable for market purposes. We are now growing more plums in the Niagara district than in former years. The curculio and black knot had so discouraged the plum growers that they had allowed the trees to die. However, there is less of the black knot now, the old generation having died out, and the new one not having yet been affected. Since, a method of combatting the curculio has been discovered, we will plant trees with a view to supplying the market. Mr. Glass tells me he has planted quite a number, probably four or five hundred. He is satisfied he can grow plums and do it profitably. In some seasons when the trees have been allowed to overload I have known plums to rot badly, particularly in moist, showery, warm seasons; but if the fruit is thinned out so that it does not hang in clusters, there is no trouble with the rot. It is neglected trees that suffer.

Mr. PARKER (Woodstock).—My plum trees are nearly all dead. The Lombards have borne themselves to death. I endorse what has been said about the McLaughlin. It is the most delicious plum I have ever tasted. There is just one thing against it. It is very apt to crack and then the bees attack it. The Lombards used to rot very much indeed. Glass' Seedling is a magnificent tree; but I have never had a crop from it yet, although there were many blossoms.

Col. MCGILL (Oshawa).—I have five trees of Glass' Seedling. I got up a large subscription list one year and took my commission in trees. At one time I had some thirty-three varieties of plum trees, but the number has dwindled down to five or six. The black knot and curculio and hard winters have thinned them out. Around the town of Whitby there are a number of seedlings that have produced very fine fruit.

Mr. HICKLING (Barrie).—Respecting the Glass' Seedling sent out by the Association, I thought there would be nothing further than blossoms for several years. At last, however, I gave it a good thinning out and then it commenced to bear. I have taken a good many grafts from it, and grafted on to some wild plum trees, and from those grafts I have raised far superior fruit to the original tree. They are vigorous and doing well.

Mr. GOLDIE (Guelph).—I have seen the Glass' Seedling, when not four feet high, in the nursery rows in Berlin bearing fruit. That soil seemed to suit. Except down the

Hudson River, I think there is no section in this part of the continent where plums do so well as about Berlin. In my case the soil is light and I never got that fruit to do well.

Mr. McGILL (Oshawa).—The soil has a great deal to do with it. When I got those trees from the Association I gave one to my daughter in Whitby. I have top trimmed mine, but cannot make them bear fruit, while hers do well on a clay soil.

NATIVE FRUITS OF THE RAINY RIVER DISTRICT.

Mr. LATIMER (of London).—I have spent the last two seasons in the North-west and have observed something regarding fruit culture there Last year when up in the Rainy River district I found plum trees loaded with very fine native plums, as good as the best natives we have here. I found other fruits there in the middle of September. There were wild grapes in abundance. I also found black currants growing there and a species of wild cherry that I think might be utilized. I should like to see this matter taken hold of by some gentlemen of experience. There is a kind of cherry growing on Lake Winnipeg that I found there a year ago last September in the sand. It is a mere shrub, but the cherry is quite large and about the shape and size of the Ox-heart. I saw it on an island. I picked about three pecks of them, and I think if they could be hybridized in this country they might stand the climate better than those we have. They grow about two feet high, but in very poor soil. I have seen the same kind or nearly so on the north shores of Lake Superior.

The PRESIDENT.—The cherries you speak of grow also on the shores of Lake Huron and Manitoulin Island, but are very poor in quality and are known as the Sand Cherry.

Mr. LATIMER.—These I saw were of good quality. I brought quite a quantity to Winnipeg. The plums were pink and somewhat speckled. They seemed to be plentiful and are brought down and sold at Rat Portage.

The PRESIDENT.—Have you had any experience with the Saskatoon berries the Indians consume so largely?

Mr. LATIMER.—No sir; but I have seen berries on the Souris River like currants. I found trees that were very full of them, and I know that parties picked them for preserving. I ate some of them and found them not only of pleasant flavour, but with a large proportion of flesh to seed.

The PRESIDENT.—These Saskatoon berries seem to be superior to our June berries, and might be cultivated here in some of the colder parts of the country.

Mr. LATIMER.—I have picked those at Lake of the Woods, and they are of a purplish blue colour, and are sometimes called sweet plums there. I have seen them growing very similar to a June berry and at a height of fifteen feet. The berry is somewhat astringent. I brought some of them home and after cooking them found them very pleasant, although needing considerable sugar.

The PRESIDENT.—What about the grapes?

Mr. LATIMER.—I thought they were very fine for wild grapes. The clusters were very well formed, and in one of them I counted over seventy grapes. They were fully ripe by the middle of September. The foliage was not downy but thin and rather pale. I made jelly from them. They were not very sour and were quite eatable.

APRICOTS.

Mr. WILSON.—I should like to learn something about Russian apricots or any other variety that will grow in Ontario.

Mr. BEADLE.—I know nothing about Russian apricots. I have seen flaming advertisements, but concluded I would wait and let somebody else be humbugged. In our part of Ontario we can grow apricots well enough, and if some one would have more patience, and plant pits or seeds, we would soon have apricots that would grow in any part of Ontario. I am satisfied from experience in other things, that by this means apricots can be acclimated, when they could not be raised in any other way. There are some seedling apricots that have been growing about Niagara for a number of years. They are of fair quality, but they are seedlings grown from pits. They are said to fruit well, and a large crop is obtained nearly every year. They pay well.

Mr. Morris.—I would like to say that there is a seedling apricot near where I live that is a large tree—as large as an apple tree. I have never seen the fruit, but I am told it is very good. I have tried to grow the improved varieties several times, but never could make them fruit. I think there is a great deal in the seedlings. I don't think the Russian apricots have been out long enough to fruit, but I have trees of them.

The President.—Mr. Gibb, who visited the Northern part of Russia, ascertained that some of the markets of China were largely supplied from the Amoor district with apricots. He and I have been corresponding with persons in China, with a view of getting seeds, but have not yet succeeded. If such fruits are grown there in that northern region it is more than likely we can grow them here. Even though we succeed in getting seed, there is no certainty that the fruit will be worth much when grown. The only way we can ever find out the truth in such cases is by experiment.

Mr. Dempsey.—We cannot raise apricots in our section. I have done it, but they were top grafted in a bearing plum tree, and fruited until we got a winter sufficiently strong to freeze them. I don't think it makes them any more hardy to top graft them, but we got them into bearing sooner. I have secured peaches in this way, but if we got one crop that is about all possible. The experiment our Secretary has recommended is well worth trying.

Mr. McCash.—Some twelve or fifteen years ago, a neighbour said to me:—"I have got some apricot grafts, and I am going to top graft them on a plum tree." He said I could get some of the scions. They got along well, in fact better than the plum tree. I have no name for them. The only trouble I have is when the curculio gets at them.

Mr. Dempsey.—Ours are the "Moorpark" and "Breda."

The President.—I have tried both these, but without success.

The Association then adjourned until eight o'clock in the evening.

PROFITABLE PEARS.

The Question Box having been opened at the evening session, the following queries were dealt with:—

"Which one variety of pear is best to grow for profit?"

Mr. Dempsey.—If it was just a question of profit, on my soil I should plant Doyenne Boussock. I find more money in it than in any other I grow. It ripens a few day later than the Bartlett. The tree attains a greater size than others and will produce double the quantity of pears, or more, and all the specimens will be fit for market. We have shipped them, and have invariably got from twenty-five to thirty cents more per basket than for the Bartlett. I should plant that variety for profit.

The President.—Suppose you have the choice of another one, what would it be?

Mr. Dempsey.—I would take the Bartlett next. This year, however, we found that a good deal of money came out of the Mount Vernon pear. We have just found out how to mature it, and all that it needs is high temperature. Ripen it as fast as you can. We picked in October. It is a December pear with us, but we got it ripe in November. It does not shrivel after picking.

The President.—It was my experience this year, that it shrivelled.

Mr. Dempsey.—You did not watch the temperature.

Mr. Wellington.—What about Josephine De Malines?

Mr. Dempsey.—It is all a man can ask as a pear. They seem to satisfy the palate of any one.

BLIGHT.

"What variety of pear will stand the blight best, and what is the best preventive of the blight?"

Mr. Beadle.—As far as my experience goes, the Duchess d'Angouleme blights least. I have seen a little on it, but very little. The Doctor Reeder is another I have never seen much blight on. I know nothing about preventing blight.

A SOUR-SWEET APPLE.

"What is the name of an apple like a Greening in appearance of tree and fruit, but part of almost every apple on the tree is sweet?"

Mr. Wilson (of Chatham).—I asked the question. The fruit is a curiosity to me. One side of the apple is sweet and the other side is sour.

Mr. Hilborn (of Arkona).—We have grown that apple for a number of years. It is called Sweet and Sour Greening. It is said to be a hybrid between the Greening and the Golden Sweet. You can tell by appearance which side is the sweetest. The different flavors are apt to be in streaks.

Mr. Wilson.—Would there be any advantage in an apple like that, for cooking purposes?

The President.—There might be a saving of sugar; but I do not think it would be much in demand.

WHERE MAY GRAPES BE GROWN.

On this subject, Mr. Beall, of Lindsay, read the following paper:—

Any one who takes an interest in the development of the fruit-growing industry must experience a sense of great gratification at the results attending the experiments in grape growing (although on a small scale) in so many places in the interior of this Province, where, until within a few years, it was supposed to be impossible to grow this most desirable fruit.

The fine exhibits of well grown and highly flavoured grapes which have been made at so many local exhibitions in the more central parts of the country during the past season show that this branch of fruit culture may in the near future prove to be one of the most profitable, as well as one of the most pleasant occupations, for large numbers of our rural population over an extensive tract of country hitherto supposed to be unsuited to that purpose. The part of Ontario to which I refer especially (and I believe there are many other districts even more favourably situated), extends from the neighbourhood of Kingston in a westerly direction up the Bay of Quinte; from thence up the Trent waters to Balsam Lake, and across the height of land to the southern end of the Georgian Bay.

Let us for a moment consider what are the conditions necessary to this end, then we need not be surprised at the results. First, Suitability of soil. Most authorities agree that the soil best suited for this purpose must be light, porous, friable, dry and warm. Along the course indicated, embracing large tracts on both shores of the Trent waters, and also a large portion of the land near Lakes Simcoe and Couchiching, and also westwards from Lake Simcoe, there are thousands of acres which cannot be excelled for this purpose in any part of this Province. But the most important factor to be considered in forming an estimate of the probabilities of success is the meteorological conditions of such localities; and it is in this particular, as may be learned from the following table, that much of this large area has advantages over some of the more southern portions of the Province, inasmuch as during the period between the latest frosts in spring and the earliest in autumn severe enough to injure the crop, the atmosphere over these parts is much hotter and dryer during the daytime than over much of the more southerly portions:—

Aggregate of Monthly Mean Maxima Temperature at the following places from May 16th to September 30th inclusive, for the years given.

Places.	1880.	1881.	1882.	1883.	1884.
Welland	.....	.....	.....	357.16	362.91
Oshawa	.....	.....	.....	343.37	369.43
Toronto	369.05	374.33	354.82	343.89	359.36
Deseronto	.....	.....	.....	364.19	376.92
Lindsay	377.93	385 90	363.27	346.24	375.03
Barrie	367.24	375.62	361.40	349.73	360.88
Gravenhurst	372.56	380.24	357.10	347.99	369.80

From personal observation during many years, taken in connection with the material from which this table is compiled, I am of opinion that during the seasons included in the four and a half months referred to, an aggregate maximum temperature of 350° is the minimum of heat required to ripen the earlier varieties of grapes, and that at least 10° of additional heat is necessary to ripen the later varieties, such as the Concord, and others ripening a few days after that variety.

The summer of 1883 will long be remembered by vineyardists as being a very unfavourable season for the grape crop. By referring to the above table it will be seen that the aggregate of 350° of heat was exceeded only at Welland and at Deseronto during that season, and even in the Welland district the heat was not sufficient to ripen the late varieties before the 1st October. North of Lake Ontario the heat was not sufficient to ripen the earlier varieties in either of the localities given but at Deseronto, at which place the climate (judging from the observations recorded during the last two years) would seem to be peculiarly suited to the successful growth of the grape vine.

If the conclusions here arrived at are correct, then people in any locality may easily ascertain if that place is suitable for the successful cultivation of the grape plant, and the answer to the question, "Where may grapes be grown?" will be:—Where the soil and situation are suitable; where there are no spring frosts after the 15th of May; where there are no autumnal frosts earlier than the 1st of October more severe than two or three degrees below the freezing point on an occasional night, and where the maxima temperature of the several months between the dates given shall at least be three hundred and sixty degrees, *i. e.*, that from the 16th of May to the 1st of October—138 days—the maximum daily temperature must average over 72°. Throughout this tract of country, extending nearly 200 miles from east to west, and ranging in width from five to twenty miles, many thousands of acres of land may be found where the quality of the soil and its exposure are eminently suited for this purpose, and of but little value for ordinary agricultural purposes, and where the climatic conditions favour the growth of our quick ripening varieties of grapes to such a degree that we may soon expect this industry to become one of our most extensive and most profitable branches of horticulture.

This statement will appear more probable when we compare the climate of some of the wine-producing districts of France and Germany, taking Paris as a centre from which to obtain reliable meteorological information with that of Toronto and its outlying districts. From "The Atmosphere," by E. Flammarion, we find that the average mean temperature of the summers at Paris for the thirty years from 1841 to 1870 inclusive, was 64.52°, and from "Abstracts and Results," issued from the Meteorological Office at Toronto, that the average mean temperature at that place for the same period was 65.05°. From more recent records we find that the average mean temperature for the last five years at Toronto was 65.42°; at Lindsay, 64.39°; at Barrie, 65.75°; and at Gravenhurst, 64.01°.

The mean temperature, however, as before shown, is only one of the factors necessary. The length of the season is of equal importance, and it is in this particular only that the wine districts of France and Germany have any advantage over this country. Frosts in May and June are more frequent and more severe than in any portion of this district. There the season for commencing spring operations is several weeks earlier than with us; hence the chief reason why the varieties grown there cannot be grown in the open air in this country. The rain-fall in the wine districts referred to is about the same as in Ontario; but such intense midday heat as so often prevails in some of the inland portions of this Province is very rare in the wine districts of France and Germany.

Let the facts be established by experiments on a fairly large scale that suitable lands for vineyard purposes are plentiful over this large area, and that the climate is all that is necessary to insure—under proper management—healthy cane growth and well ripened fruit in average seasons, then men of experience having capital to invest will soon revolutionize the grape market. And that these facts will at an early date be established is evident from the success attending the efforts of such men as Mr. P. C. Dempsey, at Murray; Mr. J. W. Johnston of Campbellford; Mr. T. C. Chapman, at Baltimore; Mr. John Knowlton, at Sturgeon Point; Mr. P. Bertram, Mr. H. S. Scadding and others at Orillia, who will in a short time place this question beyond doubt.

Since the foregoing was written my attention has been called to a most valuable paper on "A Few Canadian Climates," by J. Gordon Mowat, Esq., and published in the Proceedings of the Canadian Institute for July, 1884, the last paragraph of which, and also the "Note," is hereto subjoined, and to which (in the table) I have added the average monthly means for the last five years—1880 to 1884 inclusive—of Lindsay, Barrie and Gravenhurst :—

"By a British standard the summers, of much of the Province may be considered long. May in south-western Ontario is warmer than July at Edinburgh ; September is warmer than July in London, and warmer than September at Vienna. The vine, maize and sorghum fully mature in most parts of the Province south of the 46th parallel, and in not a few districts yield as abundantly as in any part of America or Europe. The limitations on the cultivation of the vegetals of similar latitudes in Europe is more in the intensity of the winter frosts than in the lack of a sufficiently long or warm summer."

"NOTE.—The length and heat of Ontario summers contrasted with those of other places in Canada, and various places in Europe, may be seen by a glance over the following table. The means for Toronto, Hamilton, Windsor and Winnipeg are derived from the annual records of the Canadian Meteorological Service for eight years (1874-81); those from Montreal from same records for six years (1875-80); those from Pelee from C. M. S. station reports for three and a half years. The averages for European stations are quoted from Blodgett's "American Climatology," and are for periods, with few exceptions, longer than eight years."

MONTHLY MEANS OF CANADIAN SUMMERS.

	May.	June.	July.	Aug.	Sept.
	°	°	°	°	°
Toronto	54.2	62.6	69.0	67.8	60.3
Hamilton	57.6	66.0	73.4	71.3	63.9
Windsor	60.8	67.9	73.4	71.4	63.8
Pelee	59.2	67.1	73.5	72.9	66.3
Montreal, Que	55.0	65.0	69.8	68.1	59.0
Winnipeg, Man	52.9	61.8	67.3	64.1	51.9
Lindsay	52.8	61.7	65.6	65.6	59.2
Barrie	53.4	62.8	67.4	67.0	60.5
Gravenhurst	52.8	61.7	65.4	64.5	58.1

MONTHLY MEANS OF EUROPEAN SUMMERS.

	May.	June.	July.	Aug.	Sept.
	°	°	°	°	°
Edinburgh	50.3	56.0	58.7	56.8	53.4
Aberdeen	52.3	56.7	58.8	58.0	54.6
York	54.5	59.2	62.0	61.1	55.7
London	55.8	58.7	61.7	58.9	56.6
Dublin	54.4	60.2	61.5	61.4	56.5
Paris	58.1	62.7	65.6	65.3	60.1
Rochelle	59.4	67.5	69.0	66.5	62.4
Vevay	58.2	64.4	68.4	64.4	59.6
Munich	57.6	62.1	64.7	64.1	58.1
Berlin	56.5	63.3	65.8	64.4	58.4
Koningsburgh	52.0	57.4	62.6	61.7	53.6
Vienna	62.1	67.5	70.7	70.0	61.9
Bucharest	56.3	62.5	68.1	65.2	58.3

The PRESIDENT.—Let us now hear which varieties are best?

Mr. A. M. SMITH (of St. Catharines).—I am not a professional grape grower, and have not grown them to any great extent, although I have a good many varieties planted for experimental purposes. As far as my experience and observation goes, however, I can give that. In our section the principal variety grown for the market has been the Concord. That has been considered the grape "for the million." A great many of our grape growers have made money out of the Champion *alias* Beaconsfield. The earliness of it gives it a chance ahead of others; but as soon as other grapes ripen the prices come down. I do not know that it is always a good plan to get the opinions of nurserymen on the best varieties of grapes, as they will be likely to have a preference or an interest in some particular variety. Some of our most prominent grape growers are turning their attention to the new white grape, the Niagara, which they claim is equally as hardy as the Concord, and of a better quality. It hangs on the vines until frost comes, and stands shipment.

The PRESIDENT.—What about the Worden?

Mr. SMITH.—That has not been fruited to any great extent. It is said to be five or six days earlier than the Concord, although many claim it is not so productive. Many Concords have been sold for Wordens. There are several other varieties that are promising well. I saw one good vineyard of the Pocklington, although in some portions of the country I am told they have not succeeded.

The PRESIDENT.—Have you tried the Vergennes?

Mr. SMITH.—I have fruited it on my place, but cannot tell anything as to its market value; I should like to speak of another white grape called the Jessica, which originated in the vicinity of St. Catharines. It is but a few days later than the Champion, and of very excellent quality. It is one which no amateur should be without. It is small, and would hardly do on that account for market purposes.

The PRESIDENT.—How does it compare with the Delaware?

Mr. SMITH.—The berry is about the same size, but the cluster is not so good.

The PRESIDENT.—How does it compare in quality?

Mr. SMITH.—For my own part I would prefer the Jessica. I cannot yet speak of the Prentice.

The PRESIDENT.—Have you fruited the Lady to any extent?

Mr. SMITH.—Yes, I have. It is a good amateur grape. It is a fair cropper, but does not compare with the Concord or Niagara.

Mr. MOTT.—I have had very little experience. I planted about one hundred vines, but owing to exposure and intense heat the grapes and vines both dried up, and the plantation was a failure. Those I had were mostly Concord.

Mr. PARKER (Ingersoll).—I should say the greater number of amateurs would prefer the Delaware. The Concord for market purposes would no doubt be profitable. I have grown the Brighton, Rogers' No. 15, and No. 4, and the Salem; but for the last two or three years the Salem has mildewed. There are several other varieties, including the Iona and Isabella, that I have tried, but the Lady I have never been able to ripen. The Pocklington I have not had much success with. As an amateur grape, I think the greatest number of persons would vote in favour of the Delaware.

Mr. WARNER (of London).—The Janesville is what I have chiefly grown, and I find it very prolific and early. It is not very nice until well ripened, and a difficulty with it is that it seems to be ripe before it really is so. It is very hardy.

Mr. WARNER (of Grimsby).—My own experience does not extend over more than a few years, and I think that if you wish to grow grapes, you must prove all the varieties and ascertain which is best. Grapes which do well in one section will not do so in another. A gentleman has spoken against the Pocklington. I have a neighbour who is making more money out of it than any other. He spoke favourably of the Rogers' while a neighbour of mine complains of it on account of the mildew. Each should try the different varieties in his own locality, and prove for himself which will suit.

Mr. CROIL.—My experience will be worth very little to you. The Delaware we have considered about the best. I differ from a great many when I say we like the Hartford very well. Rogers' No. 3 ripens very well, and without mildew. The Brighton has done very well, and so have Worden and Moore's Early.

Mr. MANVILLE (of London).—My Rogers' No. 15 has done well.

Mr. DEMPSEY.—We grow quite a few varieties, and right here let me drop a word about Rogers' Hybrids. Some of them we thought perfect failures. While one succeeds another fails on account of mildew. With many, such as No. 34, No. 5, and No. 17, and Salem 22 fail; but No. 44 appears to fill the bill perfectly. It is a little late, but a trifle earlier than the Concord. It has a very large berry and commands a high price in the market. Rogers' No. 15 gives us perfect satisfaction, as also No. 3, No. 4 and No. 9. The Delaware is one of our best grapes. It succeeds both in Northumberland and Prince Edward counties. We really should not ask anything superior. Mr. Smith was speaking of the Worden. It seems to me we shall want more of that. Sometimes it will ripen ten days earlier than the Concord, and is invariably better and larger, and I think it will produce more pounds to the vine. Moore's Early is a very good grape indeed. I cannot say anything against it, but I cannot get enough grapes to pay me for cultivating it. That is also the case with the Lady; it does not produce enough fruit. We must have quantity if they are to pay. I grow some of the Chasselas and Black Hamburgs and Burnet out of doors. We eat those. Don't let me forget the Champion. We don't grow that to eat; but there is more money in it than any other. The Brighton is A1. We can get none better as an amateur grape, and we need not ask anything better. We cannot, however, depend on it retaining its flavour long after being picked. I would not like to be without the Brighton for my own table, and it is very good for the local market.

Mr. MORRIS.—When friend Dempsey was speaking of the Champion, I thought this Society ought to fine any one for growing it. When placed on the market it makes the purchasers disgusted with all other black varieties for the season. With reference to the Worden, which it is said will displace the Concord, I would say that I do not think so. It is liable to drop and to crack. It is slightly better in quality, and sometimes will ripen a few days earlier. I have grown it for ten years, and it has varied. Another black grape not appreciated is Rogers' No. 4. I think it is as good as the Concord and will bring fifty per cent more. It ripens a little earlier than the Concord. I consider Rogers' 4 the best of Rogers'. It is better than 44, which would come next. All other varieties have failed with us. Among the black grapes, a new one is the Early Victor. It is a small grape, but I think it is going to be a good one. It will hang on the stems until winter. It ripens about with the Delaware or a few days earlier than the Concord. I agree with Mr. Dempsey regarding the Brighton. I think it one of the best grapes grown. I may state that the market value in Rochester was 15 cents per pound, retail. It is my opinion that white grapes will not sell as well as blacks, soon. There is a grape called Mary, and it has been considered the same as Rogers' No. 3, and on that account has not been taken hold of. I have found that it is quite different. I have the two growing side by side. The Mary was clean and good in every way, and all ripened well, but No. 3 was not good. As Mr. Warner has said, grapes, like all fruits, demand soil to suit their wants. I think many fruits need strong clay. The Delaware requires strong soil. The Concord will grow in almost any kind of soil.

Mr. BEADLE.—I shall have to repeat a good deal. I have given up the Adirondac. It is a poor cropper. The Agawam I like very much. It is Rogers' 15, and I think it is one of the best of Rogers'. Allen's Hybrid is no use. It mildews, and is not worth time or attention. They only claim that the Bacchus is a wine grape. I have only fruited it once and cannot say much about it. Barry is pretty good. It is Rogers' 43, but still I have seen nothing in it to lead me to cultivate it largely. Brighton I value very much. I go to that vine as soon as the grapes are fairly coloured, and eat them. I can hardly pass it. I should think for a near market it would be very profitable. They are good looking, of a reddish colour, and if the Champion had got into the market they ought to sell all the better. Beaconsfield is nothing but the Champion, and any one who knows what one is, knows the other. Those who want to eat it, let them. The Catawba we can only grow along the shore of Lake Erie. In St. Catharines we rarely get them ripened. The Champion is about the most worthless grape, except for the market, that I know of. The Clinton is used largely as a wine grape, and in favourable seasons is to me one of the most delightful of grapes. I think there are some localities where the

Clinton could be grown and it would be very highly esteemed. You can gather it in the autumn, and store it away in a dry, cool place, where there is not too much current of air to shrivel it, and it will keep until now, and be very nice to eat. The Concord you know all about. Probably there are more Concords grown than any one other grape, and our markets are pretty well supplied. Gentlemen who grow it say if they get four cents per pound it is better than any other grape. The Croton mildews. The Creveling I like very much, but it is very hard to get a nice cluster. It ripens before the Concord, and perhaps a vine or so may be desirable in a collection. The flavour to me is pleasant. The Delaware is a favourite. It grows well on my soil, is of a pleasant flavour and ripens before the Concord. It is a red grape, and I presume you are acquainted with it. The Diana grows too rampant, and goes to vine about twenty yards in a summer and when it ripens it is so musky I do not want to eat it. The Duchess I am afraid is not going to answer our purposes. I like the flavour, but I fear the vine has not that vigour that will make it a success. It does mildew. Yet from only a few years' experience I ought not to be positive. I want to hold on to a vine or two, because I like the flavour very much. Of the Early Victor I should talk louder than Mr. Morris. I find it ripens before the Concord, but if you let it hang until the Concord is ripe I think it is improved. It is about the size of the Clinton, the cluster is the same and the colour is black. The berries are set very compactly on the bunches, and it belongs evidently to the Labrusca family. I believe the vine is perfectly hardy, and I would suggest to anybody who has any difficulty in ripening the Concord, to try it. The Eumelan has not been a success. My vine got killed, but a neighbour of mine who has vines, tells me he does not think much of it. It is one of the earlier varieties, but lacks flavour. The Francis B. Hayes I have not fruited. It is one of the new white grapes that originated in Massachusetts. I think Mr. Moore was the originator. Goethe is too late for general cultivation and will only do where the Catawba will ripen. The Hartford Prolific is of medium quality. It doesn't ripen any earlier than Brighton. I don't think much of it as for quality. The Iona I esteem very much for quality, but it doesn't ripen with me every year. My neighbour takes great pains with it, and likes it very much, and he generally gets it ripe by cutting off half the bunches, and takes only half a crop, and leaves abundance of foliage. I give you that hint. It will surely ripen all along the County of Essex and north shore of Lake Erie. The Isabella you all know about. The Israella lacks flavour and character. The Janesville, which some one spoke of, belongs to that miserable class that the Champion belongs to. Too foxy altogether.

The PRESIDENT.—What I have eaten was not foxy.

Mr. BEADLE.—Perhaps I was deceived in my vine, and I have none now. If that was it I don't want any more. The Jefferson, I am afraid, is going to be too late. I should make haste slowly in planting it. I thought it was going to be very good, but I think I have made a mistake. It is going to be too late, and so of the Lady Washington. The Lindley, another of Rogers', I think very highly of, and deem it one of the most desirable of his grapes. It does not seem so subject to mildew as the Salem, and I think you will do well to try it. The Martha is like the Concord, and about as hardy, and does not ripen any earlier. Some have christened it the White Concord, and I don't know but that it is as good a description as you can have. Those of you who like Concord grapes will no doubt like to have it. The Massasoit is one of the earliest ripening of Rogers' grapes, but the clusters are apt to be defective. It ripens about the same time as Moore's Early, and being one of Rogers' earliest varieties, will be valuable on that account. Regarding Moore's Early I may say that those of you who want a grape tasting like the Concord and ripening very early, will probably be pleased with it, if you don't want too large a crop. It does not crop abundantly. The Northern Muscadine: it drops from the vine about like the Champion, and tastes like a muskrat, or tastes as it smells. The Prentiss I do not think is going to be a success; still it has been widely scattered. I think it is going to be a White Isabella. The Rebecca has not been a success. It does not stand the sun and does not stand the winter, but it is a very nice little grape when you get it in perfection. One of my neighbours generally gets some nice fruit. I have seen better fruit of it in his garden than any other. I refer to James Taylor. I cannot recommend any one to try it unless they are willing to be patient. The Salem has been

spoken of. The Senasqua has not made headway, as it appears to be too late. Union Village is a large black grape of poor quality. The Vergennes is a long keeping grape, which originated in Vermont, and when I first got it I was under the impression it was an earlier ripener, but it does not ripen earlier than the Concord. I believe, however, it will ripen where the heat would be sufficient for the Concord. If you get it ripe it will keep. I have eaten it in February in very good condition. The Walter has not proved a success. I do not know but that it may have done better elsewhere. The Wilder is a very valuable grape. It is one of the largest black grapes we have. I have seen them as large as a decent sized Damson plum. By thinning out the clusters you can grow splendid specimens, and it will succeed wherever the Concord will. The Worden has already been spoken of. I thought I had got the Concord instead of the Worden, and for a long time I believed it was nothing else, but I have at last become convinced that there was a grape which would ripen where the Concord would not. The Pocklington was at the end of my trellis and did not fruit with me until this year, and one year's experience is not sufficient to speak regarding it.

Mr. GOLDIE.—I wish to ask Mr. Dempsey if he did not fruit a grape which he showed at Barrie. It was a beautiful one.

Mr. DEMPSEY.—The White Grape spoken of was a brother to the Burnet. It was very prolific and produced a good sized bunch of berries, and when ripe was certainly delicious. The foliage is inferior and we can only grow it by using sulphur to prevent mildew. It is a little late. It carried a heavy crop last year. Mr. Morris spoke about White Grapes not being sought after, but this year the Agawam brought good prices.

The PRESIDENT.—The Clinton Grape is very much run down by many. Of all the grapes that can be used for canning or preserving, however, none come up to it in point of flavour. I concur with what our secretary has said regarding all the varieties of which he spoke. He omitted one grape, however, and that was the Canada—one of Charles Arnold's seedlings—which does very well with me. I think the market is likely to be glutted with White Grapes when they get to be abundant.

Mr. W. WELD (of London).—I have been thinking about a new grape not mentioned here—the Niagara.

Mr. BEADLE.—I can only give an opinion from eating and seeing it in Mr. Hoags' vineyard, who was the originator of it. In point of quality it is foxy like the Pocklington. I got the Pocklington from Mr. Charlton; but I never finish eating a bunch. I can eat a few of them, but I do not like that foxy taste. I would rather eat the Clinton or Brighton. But there are plenty of people who do like it. I remember a gentleman remarking of some of those grapes, "What a delicious fragrance." I dislike it very much. I must not, therefore, set up my taste as a criterion.

Mr. THOMPSON.—How does it compare with the Jessica?

Mr. BEADLE.—About as the watermelon compares with the squash.

ROSES.

Mr. WARNER (of London).—I have only a small garden, but I grow some hundred varieties. The Victor Verdier is very good and so are the Giant de Batailles and Coquette des Alps. I never found the Giant de Batailles mildew. Some new varieties that I have had during the last few years I cannot give an opinion about. The John Hopper and General Jacquimenot are good free bloomers. You can scarcely give roses too much food. The La Reine is very good, and so is La France. La Reine is beautiful, but not a strong grower.

The PRESIDENT.—What variety of climbing roses do you like best?

Mr. WARNER.—The Baltimore Belle and Queen of Prairies.

Mr. BEADLE.—Have you a climbing rose that is fragrant?

Mr. WARNER.—The Baltimore Belle is, but the Queen of Prairies is not. There is also the Washington, which is fragrant. The White Washington is a strong grower and can be made to climb.

Mr. BEADLE.—Have you tried Lord Raglan?

Mr. WARNER.—Yes; but I do not care much about it.

Mr. Beadle.—Have you tried Prince Camille de Rohan?

Mr. Warner.—Yes; but it is not a free grower.

Mr. Beadle.—Is Xavier Olibo any better?

Mr. Warner.—I do not know. The Abel Carriere is a good one.

Mr. M. W. Manville (of London).—As far as London is concerned, Mr. Warner is the father of us all in roses. The best flowers that I have had this year have been from Magna Charta, Madame Charles Wood, and Annie De Diesbach. The Bella and Douglas are splendid bedding roses. I have adopted the bench system entirely. (Mr. Manville described his mode of building the benches at length.)

Mr. Mitchell (of Innerkip).—I am only an amateur, as I have but thirty varieties and they are outdoor roses. Perhaps the most satisfactory outdoor rose is the Alfred Colomb, which is perfect in form and profuse. Perhaps the most perpetual bloomer of the hybrids is the General Washington. It is a dwarf. It is really a perpetual bloomer, but its worst fault is that it is scentless and occasionally comes malformed. The best white hybrid is Madame Noman. It is not only perpetual but stands our dry wind better than any rose we have. It is the most satisfactory white rose I have yet raised. At the same time that I got Madame Noman I got another variety which was described to me as identical with Eliza Boell, but it is not nearly so white. I think the Baroness Rothschild overrated. It is very fleeting. A bloom will last for perhaps a day if the weather is moist and that is the end of it.

The President.—Have you tried Marshall P. Wilder?

Mr. Mitchell.—No; but I have seen it growing and pronounced it Alfred Colomb, but they quickly set me right. It has scent. It was blooming freely, but perhaps it had a little extra attention. Any one who has Alfred Colomb cannot be far behind. Among the dark roses I have found none better than Louis Van Houtte. Jean Libaud is another. La France I have found a very fine rose under glass. I can get better bloom indoors than outdoors. Yellow petals will wither outdoors. As to which varieties are the best I would put Alfred Colomb at the head, and Madame Noman among the white roses first. For outdoors Louis Van Houtte is best; but if you wish the largest roses at the shows take Paul Neyron.

Mr. Dempsey.—I have cultivated La France in open air. If grown under the rays of the sun, the petals fall on the outside, and it does not do so well as under partial shade. To me that rose fills the bill. The La Reine I would not throw aside under any consideration. In point of fragrance and beauty we have not got far ahead of the old cabbage rose.

Mr. Wellington (of Toronto).—We must have rich soil for roses, and if it is very dry and warm, shade them until they get a start. The reason so many fail is because they do not feed them, and if this is done you are not so apt to be troubled with insects. On lawns the feeding is neglected, and how can you expect good bloom? In giving a list it is impossible not to omit some that are really valuable. La France I would always plant, because it is a favourite of mine. It is one of the most prolific bloomers. The perfume is exquisite, and its appearance cannot be beaten. Being a little tender it will need more protection out-doors than many other varieties. Then Alfred Colomb, which has been described. Baron Von Stetten gives large full bloom, the only objection to it being that it is shy in autumn of blooming. Then come Countess Serenye, Coquette des Alps, General Jaquimenot, La Reine, Paul Neyron, Pierre Notting, Caroline de Sansal, Louis Van Houtte, and Annie De Diesbach. If climbers are wanted, there are Queen of the Prairie, Gem of the Prairie, and Baltimore Belle. I would advocate partial shading for out-door roses. In England the overcast skies and absence of burning suns bring about the large bloom they have there.

Mr. Beall.—The time to see a rose in all its beauty is at sunrise in the morning.

Mr. Morris.—The kinds I would name as being hardy are General Jacquimenot, La Reine, Coquette des Alps, and Giant de Batailles. Anybody can grow these.

Mr. Beadle.—I have found Madame Hardy so free and make such a beautiful show that it should be added.

Mr. Beall.—Madame Plantier is good.

Mr. Dempsey.—We protect our roses by bending them down to the ground and covering them with forest leaves.

Mr. Goldie.—The best thing I have found is to bend them over and place a sod on top of them.

The Association then adjourned until the morning.

SECOND DAY.

On Thursday morning the Association re-assembled and proceeded to discuss the Question Box.

THE LAWTON BLACKBERRY.

Can the Lawton Blackberry be profitably grown in Ontario, and what other varieties are considered better?

John Little (Fish Creek).—There is no use in trying to get a paying crop of the Lawton blackberry in this part of Ontario. Agawam and Stone's Hardy, and Western Triumph, have done well with me. The winter did not affect Stone's Hardy in the least. It is scarcely as large as some of the wild ones, but it is very sweet. The Kittatinny is very sweet, but it is like the Lawton ; it does not stand the winter with me.

The President.—The Snyder has been very hardy with me. I am glad to hear that Stone's Hardy and Agawam are doing so well. Mr. Deadman, a few miles out of London, has sent the Snyder into the London market, and in size they have been better than mine. His soil is stronger, and it is evident that with proper care and cultivation, the Snyder will turn out much larger than the ordinary wild fruit. There is a new berry which the Secretary and I heard of when in Ohio lately, that seems to promise well. It is a dewberry, known as the Lucretia. It can easily be protected with a little litter or mulch. It is said by those who have seen the fruit that it is as large as the Kittatinny. There is another variety, the Early Harvest, which does not seem to be as hardy as the Snyder.

Mr. Little.—The Early Harvest has killed down to the snow-line every year since I planted it.

ASPARAGUS.

Is Asparagus culture profitable for market purposes?

Mr. Campbell (of London).—It was the most profitable thing I grew. I planted it in rows about eighteen inches apart. I had no beds, as I found that plan not to succeed. I top-dressed every year with manure.

THE WILSON STRAWBERRY.

Is the Wilson Strawberry deteriorating in vigour?

Mr. Mitchell.—I do not think it is. In some places where grown under certain treatment for a long time, it has departed from its natural characteristics. I can get the Wilson to do as well as it ever did. On the other hand, I have seen it in places where, through the fault of the cultivation, it has so deteriorated as to be away from its old standard. We may have got other strawberries, with finer flavour and larger size, that have lowered our opinion of the Wilson. It does not stand as high as in the past.

Mr. Little.—The Wilson is not what it used to be years ago.

Mr. Campbell.—The Wilson does not stand dry weather very well.

Mr. Hillborn—With us they do not seem to be as easily grown as a few years ago.

BLACK RASPBERRIES.

What is the most desirable black raspberry for amateurs to cultivate?

Mr. Hillborn.—It is hard to pick any one as best. I think the Mammoth Cluster would be one of the best. I would suggest three varieties: Tyler, for early ; Mammoth Cluster, for medium ; and Gregg, for late.

RASPBERRIES.

How does the Hansell compare with other raspberries, such as the Highland Hardy, in earliness, productiveness, size, shipping qualities, and profit?

The SECRETARY.—I would not give the snap of a finger for the Hansell.

Mr. LITTLE.—The best feature I can see about the Hansell is the growth of the plant. The Highland Hardy is as good as you can have, except the Herstine.

THE STATISTICS OF FRUIT-GROWING IN ONTARIO.

The statistics of fruit-growing is an interesting as well as an important subject, but it is one not to be easily dealt with in so far as relates to the Province of Ontario. The fact is that such returns as have been obtained are conflicting, and it is yet too early to express a positive opinion as to their accuracy. According to the census the area in orchard and garden in 1881 was 281,541 acres in the rural municipalities, and 23,264 acres in the urban—making a total of 304,805 acres for the Province. According to the municipal returns, which were collected by assessors for the first time in 1883, the area in rural municipalities was 197,450 acres, and in 1884 it was 192,837 acres. The discrepancy between the census and the municipal enumerations is nearly 90,000 acres, and is too large to be readily accounted for. The source of information is the same in both, for the census collectors and the township assessors make a house to house canvass alike. Why should there be so great a disparity in the results? Why should the census for 1871 give as large an acreage as the assessment for 1883? I cannot answer, but upon comparing the assessors' returns for the two successive years 1883 and 1884, I am disposed to think that they are more reliable than those of the census. Between these years the difference is only 4,600 acres, and when one considers that there are about 200,000 farmers in the Province it is obvious that a very slight change in the returns of one-tenth of their number might account for the aggregate. There are not many farmers, even in the oldest settlements, who know the exact area they have in orchard and garden; but it is a reasonable supposition that when they find the question asked by the assessor year after year, as it now is, they will, in a growing number of instances, endeavour to answer it by actual measurement. Four or five years hence we shall doubtless know the area of orchard and garden in the Province with almost as near approach to accuracy as we now know the area of cleared land.

Assuming that there is uniformity in the system of taking each decennial census, the returns have at least the value of enabling us to show the rate of progress made. Thus, we know that in 1851 there was in Ontario on every hundred acres of cleared land, an average of one and a half acres in orchard and garden; that in 1861 the average was about the same; that in 1871 it was two and a third acres, and that in 1881 it was two and three quarters. The last, it must be allowed, is a very good average for the whole Province, and even according to the assessors' returns of areas it is an average of nearly two acres for every hundred cleared.

In the following table the acreage at four decennial periods is given by county groups, arranged as nearly as may be according to their climatic conditions—the figures being for rural districts only:—

	1881.	1871.	1861.	1851.
6 Lake Erie counties.....	53,338	38,068	18,537	10,964
3 Lake Huron "	29,418	18,697	3,589	988
2 Georgian Bay "	18,839	10,253	1,666	733
7 West Midland "	57,632	43,859	19,478	10,909
9 Lake Ontario "	76,177	55,683	28,452	20,981
11 St. Lawrence & Ottawa "	28,788	20,568	8,388	7,731
4 East Midland "	15,383	10,409	7,832	2,704
4 Northern Districts.....	1,966	159	16	.....
TOTALS.....	281,541	197,696	87,958	55,010

These statistics furnish us with a succinct history of fruit-growing in the Province, and they are of still greater value in this respect if studied by counties. In the county

of Middlesex, for instance, the area in 1851 was 2,388 acres; in 1861 it was 5,030 acres; in 1871 it was 11,908 acres, and in 1881 it was 15,576 acres. In the County of Bruce the area increased from 38 acres in 1851 to 8,401 acres in 1881, and in Grey it increased in the same period from 56 acres to 10,408. As evidence of progress these figures are very valuable, assuming even that they are correct in a relative sense, and if the same rate of progress be maintained in the next thirty years Ontario's position will be a proud one among the fruit-growing countries of the world.

The statistics of acreages as collected by township assessors in 1883 and 1884 are given by county groups as follows:—

	1884.	1883.
6 Lake Erie counties	39,952	40,084
3 Lake Huron "	19,952	19,907
2 Georgian Bay "	11,577	12,228
7 West Midland "	41,628	42,800
9 Lake Ontario "	55,112	57,358
11 St. Lawrence & Ottawa "	14,320	14 760
4 East Midland "	9,780	9,950
3 Northern Districts	516	363
Totals	192,837	197,450

The greatest discrepancy in the areas of these two years occurs in the Lake Ontario counties, and is largely owing to the recent extension of the limits of Toronto—the annexed lands being chiefly occupied as nurseries and market gardens. In the West Midland counties the returns of decreased acreages are confined almost wholly to the counties of Brant and Perth. With reference to the Northern Districts, it should be remarked that no returns have been received from settlers in the unorganized municipalities, but their total is probably less than 1,000 acres.

As I have already intimated, it is yet too soon to say definitely which statistics are the most reliable, those of the census enumerators or those of the assessors. but in calling attention to the wide difference which the returns present it may be possible to arouse an interest in the subject that will soon terminate the doubt.

Concerning the quantities of fruit grown in the Province, we are practically limited to two sources of information, neither of which are wholly satisfactory. We have in the census returns of 1871 and 1881 statistics of fruit under three heads, viz., apples, grapes and other fruit. We have also in the trade tables of the Dominion the quantity and value of the exports of green fruit from year to year; but in consequence of the practice of crediting a Province with all exports made from any port in its territory, regardless of the place of production, it is not possible to ascertain definitely how much of the total exports of fruit are the growth or product of Ontario. The nearest approach to definite figures is to be obtained by comparison of the census and the trade tables: having ascertained Ontario's proportion of the total fruit crop of the Dominion, we can form an idea of her share of the exports. The census returns gave the crops of 1870 and 1880 as follows, for Ontario and the whole Dominion:—

		1880—Ontario	1870—	1880—Dominion	1870—
Apples	bush.	11,400,517	5,486,504	13,377,655	6,365,315
Grapes	lbs.	3,697,555	1,028,431	3,896,508	1,126,402
Other fruits	bush.	644,707	242,878	841,219	358,963

Now, for both of these years Ontario's produce was about 86 per cent. of that of the whole Dominion, and if it be assumed that her proportion of the exports is about the same, we can estimate with some degree of accuracy the progress made by our Province in fruit-growing from year to year. The following table gives the quantity and value of Canada's exports of green fruit for the sixteen years 1868-83, grouped in periods of four years each, and the annual average for each period:—

First Period.			Second Period.		
Year.	Barrels.	Value.	Year.	Barrels.	Value.
1868	34,405	$87,333	1872	106,568	$264,015
1869	11,310	30,150	1873	61,243	183,348
1870	20,810	58,811	1874	51,084	128,915
1871	45,920	98,857	1875	63,397	176,295
Averages	28,111	$68,788	Averages	70,573	$188,143
Third Period.			**Fourth Period.**		
1876	84,107	$170,005	1880	146,548	$347,166
1877	77,888	194,942	1881	334,538	645,658
1878	53,213	149,333	1882	212,526	540,464
1879	87,101	157,618	1883	158,018	499,185
Averages	75,577	$167,974	Averages	212,907	$508,118

The progress of our fruit-growing industry which these figures clearly indicate is very gratifying, and there can be no doubt that the fruit-growers of Ontario deserve in large measure the credit for it. The climate of the Province—more especially that portion of it encircled by the three great lakes—is admirably adapted for the maturing of the finest qualities of fruits; and, possessing the natural conditions for the production of fruit that has an established reputation in foreign markets, the energy and intelligence of our people may be depended on to make the greatest possible use of our splendid opportunities.

A. BLUE.

Toronto, February, 1885.

On motion of Mr. Bucke, seconded by Mr. Wilson, the thanks of the Association were tendered to Mr. Blue for his excellent paper.

POTATOES.

Best Varieties and Mode of Cultivation.

Mr. Dempsey.—The improvement in varieties has been something wonderful. Among those that I am now cultivating I place for an early potato the White Star ahead of all others. With us it is an abundant cropper, and in quality and appearance is all that we can desire. For a late potato we still adhere to my own seedling. We have several other varieties in cultivation that are succeeding very well.

Mr. Wright.—I am an amateur grower, and only go into it extensively because I take a cruel delight in beating the farmers at our exhibition. Last year I grew some nine varieties, and among those that turned out best I found nothing to excel the Early Rose. For a medium potato I found the Blush one of the best I have. This was sent out by the *Rural New Yorker*. For late potatoes I prefer the White Elephant and Garnet Chilli. The Garnet was also sent out by the *Rural New Yorker*. It is not desirable to have too large a potato, because a medium, well-shaped tuber takes the best. I entered the *Rural New Yorker* list last year among those who grew the largest potatoes, but there were sixteen ahead of me, although I think I raised the largest sent from Ontario, weighing two pounds and one ounce, and perfectly formed. A man out west, however, grew one weighing four pounds and eight ounces. I never expect to raise potatoes to compete with the rich lands out west. My mode of culture is this:—I plant them in hills three feet apart. I have three eyes in each piece and put three pieces into each hill. I grow them on a clay soil, and yet a great many around me who have the same kind of soil cannot grow them at all. Therefore, I take the more delight in showing them what can be done on my clay land. I mix mine largely with muck. I draw it in winter three miles and spread it over the ground, and by that means I grow good-shaped and smooth potatoes. Every farmer knows that on new ground he gets the finest shaped and earliest potatoes. I consider that, the cause of my success. I also use plenty of unleached ashes and every two years give it a dose of salt so that you can see it on the ground. I always succeed, but have never yet grown 1,391 bushels to the acre, as the *Rural New*

Yorker claims was done on their ground. This last season I tried the experiment of mulching potatoes. I covered them with straw and never hoed them, and kept them weeded out; and then I took another piece and treated it in the ordinary way. I had a larger crop on that portion which I had not mulched. The Blush yielded as large as any.

Mr. McBroom.—The varieties mostly grown here are:—The Beauty of Hebron, for market purposes. The Early Ohio is popular with a great many on account of its earliness, although it does not yield so largely as the Hebron. A variety I like very much is the Chicago Market. I believe it is considered identical with Clarke's No. 1. It is handsome and yields well. These three varieties are all I have planted myself. The Early Rose is very largely grown here, and is popular; but I do not think it is so prolific as the Beauty of Hebron. The White Star, already mentioned, is a fine potato, and I presume will become popular, although, because it is white does not take on our market. The rose colour is most popular, and the three I mentioned are of that colour.

Mr. Campbell.—I think a great deal of the Early Rose, but having found that the Early Vermont came in about two weeks earlier, I took it up as a market gardener. When the Beauty of Hebron came in, however, I took it and discarded all the others. I cultivate them in drills, about two and a half feet apart.

Mr. Beall.—My land is not suited for potato growing, but last year I got a pound of Corliss' Matchless, and the result weighed 47 pounds. I cut them in single eyes and put two cuts in a hill. For my own use I cannot find anything to equal the Dempsey.

Mr. Butterfield.—After some experience I have found the Early Rose to deteriorate so much that I have discarded it altogether. It has the appearance after being cooked of a warmed up potato. For an early potato I like the Alpha. We liked the White Elephant very much for yielding and table use. I have also tried the St. Patrick, and believe it to be good. The Peach Blow which used to be a great favourite has failed with me. There is one point about the White Elephant that I like. It yields largely, and the bugs did not seem to injure it the same as other varieties.

Mr. Wright.—The Peach Blow was certainly the poorest yielder I had. The reason that I succeeded so well with the Early Rose was no doubt because my soil was so new, and contains so much ashes. In case any of you have very little seed, if you take the potatoes and cut the eyes into three pieces each and plant those eyes one foot apart you will have a first-rate crop. One-third of an eye will grow a first-rate crop.

Mr. Smith.—I have grown the Dempsey, and this year I grew the Corliss Matchless. I liked that very well. It is a good yielder and a good early and late potato. A year ago last fall I was at Thedford, and a basket of seedlings was brought in. I forget the name of them. I took home a peck and planted them, and they have pleased me better than anything I have ever planted in the potato line. It is a bright red, and a little flatter than the Early Rose, and the eye not quite as deep.

Mr. Hilborn (of Arkona).—I have not heard anything of that variety. I have planted three new varieties to test them, Vick's Extra Early, Early Mayflower and Early Sunrise. The Mayflower and Sunrise ripened about the same time, which was a week earlier than the Early Rose. Vick's Extra Early ripened about three weeks before the Early Rose. It is profitable for the early market. The most profitable variety we had was the White Elephant.

Mr. Croil (of Aultsville).—I have grown the Beauty of Hebron, and it is quite a favourite. The greatest yield I ever had was from the White Star. I cut one potato into single eyes and got 37 lbs. The Beauty of Hebron is a better yielder, better flavoured, and earlier than the Early Rose. I cut my potatoes into single eyes. My men say I cannot get anything from these single eyes, and if I were to cut each eye into three pieces, I am afraid they would put me out of the field. We do not get a thousand bushels to the acre. Last year we planted four acres in poor condition, and we had 600 bushels of Beauty of Hebron—and that is better than any common potato would have done under the circumstances. It was not a large crop, but for land in a poor state it was a good crop. The Dempsey we still think a great deal of; but for our own use we take the Beauty of Hebron. We cultivate in the field in drills and plant our potatoes by dropping the eyes ten inches apart and covering with the plow. We never put a hoe in them last year.

Mr. Beall (Lindsay).—I know of one place in our county where the old Irish Cups are grown, and I am told they are the most profitable that can be cultivated, as they bring double price.

Mr. McD. Allen (Goderich).—As far as our section is concerned the Beauty of Hebron and Early Rose are preferred. I have heard shippers say that in Montreal they want the Rose or some potato like it. They also say that there is more money in the Rose than any other. The Late Rose is preferred, and the Beauty of Hebron and Dempsey are very much liked. The White Elephant is considered too large, although it is a fine grower and cropper. The St. Patrick has also been spoken of.

Mr. Wilson (Chatham).—I might say that in Kent some of the land is clay and some loam. Mine is loam, and I find that by making rows three feet apart with the plow and cutting the potatoes small and planting fifteen inches apart, they do well. The Early Rose sells best. I had bad luck with the Dempsey, but consider it a very fine potato. I am surprised to hear about the Garnet Chilli. We discarded that fifteen years ago as too large and rank.

Mr. McD. Allen.—With regard to cultivation a good deal has been said concerning drill and hill and flat systems. My experience after testing is this:—That upon the average the drill and hill system succeeds best; but in a season when there is not too much rainfall, and your land is on the light side and thoroughly sub-soiled, you can get a larger crop on the flat system. On the general run of seasons and soil, however, the drill and hill system is superior.

Mr. Parker (Woodstock).—I have adopted a plan during the last few years of getting early potatoes in this way:—About the end of February or beginning of March I set a few in boxes so that they may sprout two inches, and then I take and cut them in one or two eyes to a set and plant them carefully. By this means I have been able to get potatoes from two to three weeks in advance of those which have not sprouted.

THE CAULIFLOWER.

Mr. McBroom.—The varieties that are most valued here are the Extra Early Erfurt and Henderson's Snowball. You can depend on these for a crop; but even in these varieties you want the best stocks. There are different qualities of stocks of these sorts. The best Erfurt seed will cost from twelve to fifteen shillings per ounce; so that when you buy cauliflower seed at ten cents a package you can set it down that you haven't got the Erfurt or that it is a very poor quality. The best quality cannot be sold at less than fifty cents per paper. If planting, either for market or private use, I would not plant any other. Another thing I would advise is to have your seed in advance. The seed you intend to plant next year should be grown this year, and then you can know a year ahead what kind of a crop to expect. It is by this means many gardeners get good crops. The most successful grower near here is Mr. Abel Steele of Lobo. He brings the finest cauliflowers and cabbages to the market. He has peculiar advantages. He has a low, swampy place that is drained, I believe, but it is black muck for several feet in depth, and seemingly inexhaustible. Every year he has a fine crop. The great secret of success is to have rich soil and abundance of water. This place of Mr. Steele's has a cool bottom, and there is a cool moisture always coming up. Others who might get the same seed and plant it on light, sandy soil with gravelly bottom, would have very indifferent cauliflowers. They grow in Germany on ridges divided by ditches. These ditches are filled with water and every dry day it is baled out and the plants watered freely. Their cauliflowers are noted the world over for size and quality. Rich soil and abundance of water is the secret of success.

Mr. Bucke.—Do you plant in cold frames or in hot-beds?

Mr. McBroom.—In cold frames plants are thus much healthier and better able to stand. By using a great deal of care with a hot-bed and attending to the ventilation you can get good plants, but it requires far more attention to prevent "damping out." I use a glass frame. I think most of them sow seed here about the beginning of April in cold frames. I do not know where the Hendersons get their seed, but the stocks of Hendersons' Snowball are very good. I am doubtful if it is grown in the United States. The

German Erfurt, if you can get it, is the best; and if you can get the best quality of Extra Early Dwarf you are sure to have a good cauliflower. As to the cabbage worm, it is hard to give a cure. I have understood that Pyrethrum is effective. I have also heard that some use hot water just less than boiling. In giving this experience it is not so much my own as that of market gardeners with whom I have come in contact.

Mr. MITCHELL.—Is this powder dangerous!

The PRESIDENT.—It is harmless?

Mr. CAMPBELL.—When I commenced to grow cauliflowers the varieties I used were Early Paris, and for a late variety Le Norman. Lately, however, I have been using the Erfurt, and later still the New Erfurt. I generally sow the seed in a hot-bed, and whenever the plants are strong enough I pick them out and put them in a cold frame. They require plenty of room and very rich soil. The best garden, in fact, is a dung hill.

Mr. GOLDIE.—Has any one ever started them in the fall in cold frames and kept them over through the winter. In New York the gardeners have done that, but, of course, they have a milder climate. I doubt if that can be done here, but should like to know if it has been tried.

Mr. MITCHELL.—I was down to Mr. Murdock's and he said he had both cabbage and cauliflowers growing in cold frames out doors.

Mr. BUCKE.—I have seen cabbage grown under frames all winter, but I do not think it is altogether a success. A great many plants are lost, but those that get through are earlier.

A BRANCH ASSOCIATION.

The PRESIDENT.—Before going further, I would like to say that we have two gentlemen with us, representing the Fruit Growers' Association of Brant and Norwich, and we should like to hear from Messers. Mott and Cornwall about their Association.

Mr. MOTT (of Norwich).—This Society was started for the purpose of giving us a better insight into small fruit growing, and to assist us in marketing our produce. We started with about twenty members and now have about fifty. This season our meeting was quite successful. Mr. Saunders was with us and we had the best meeting of any yet held. Our discussions were confined entirely to small fruits, in keeping with our name, "Small Fruit Growers' Association of Oxford and Brant." The members were all interested in the strawberry and raspberry culture for market, and our object was to assist each other in not only getting the best fruits, but in improving the modes of cultivation. I think we have been of great assistance to each other, and I also think it has been a good move to affiliate with this Association. The Ontario Society gives us the privileges of membership for eighty cents, and twenty cents pays the local expenses. Our chief markets are Brantford, Stratford and London.

The PRESIDENT.—I was pleased with my visit to that Association. I found quite a number of gentlemen very enthusiastic in small fruit culture, and it seemed to me they were doing a good work among themselves in imparting such practical information as they had found valuable in their own experiences. One of the objects of our Association is to encourage the formation of these local organizations as much as possible, so that while conferring special benefits in their respective localities, they would also be able to avail themselves of whatever a Provincial Association can give in the way of information on a larger scale, and in publishing the result of their experience in our horticultural paper. Our editor is always glad to receive any items of information of this sort.

THE GOOSEBERRY.

A paper read before the winter meeting of the Fruit Growers' Association of Ontario, at London, January 29, 1885. By P. E. Bucke, of Ottawa.

MR. PRESIDENT.—I am exceedingly glad the gooseberry, which I look upon as a much neglected fruit, has received so prominent a place on the programme of this meeting. I regret this Association has done so little to pet into vigour this fruit, which

deservedly holds so high a place in the gardens and markets of Europe. I venture to say no plant on earth can equal it in productiveness, few berries bring a higher price in any market where it is well known, none give such satisfaction for home use, and few are as popular with the cook, who by canning them can turn them into pies and tarts, and have them on the table three hundred and sixty-five days in the year, and an additional day in leap year. Who, in the days of his early youth, does not remember the gooseberry fool, which even in manhood we look forward to every spring as we watch the juvenile berries fattening under every green leaf? The rich, sharp acid of this fruit, when well under control of sugar, strikes a spot in the human system which makes the most cantankerous of us as playful as kittens, and adds a new pleasure to life. Of its health-giving qualities I need not speak; they have been fully recognized by the medical profession.

I might be allowed to add a word as to the best mode of canning fruits, tomatoes, etc. My friends are beginning to throw away the glass tops, rubber rings, and all these sort of things as useless appendages to the best success in the canning art.

The fruit is heated in the ordinary way, but instead of the glass top, etc., a good, close, not over thick, brown wrapping paper is cut into squares of suitable size and soaked in a bowl of thin flour paste kept warm. Two thicknesses of this paper are applied to each jar; these are pressed with the hand over the top and around the neck of the bottle; this soon becomes dry owing to the heat of the contents, and the top is as tight as a well tuned drum head. So air-tight is the paper, and so closely does it adhere to the jar, that the contents will keep for years, provided the rats and mice can be kept from eating off the paper, which they do for the sake of the paste. Of course, when the bottles are opened, the fruit must be used, as it will only keep a day or two. Mustard jars or any others will do quite as well as glass.

In turning to the September (1878) number of the *Horticulturist*, I find the question is asked by our practical editor, "Are we entering on a new era in the gooseberry?" This question was asked seven years ago. If we are, we are doing so very slowly. He (the editor) says some very fine specimens of gooseberries were exhibited by Mr. C. Scott, of Orangeville; these were larger than the Downing's, or Smith's, and appear to have been raised from seeds sent from England; Mr. Scott had grown these plants for ten years and saw no sign of mildew on them; they were then growing on a sandy loam soil, and were quite hardy and productive. Mr. W. H. Read, of Dalhousie, also exhibited a seedling double the size of Downing, which appeared to be "extremely productive and free from mildew." E. P. Roe, of Cornwall, on the Hudson, is spoken of in the same article as having two varieties, one red, the other green, named Roe's Early Ruby, and Roe's Late Emerald, but so far I have heard nothing further of them. I regret to say I have hunted the volumes of the Michigan State reports for some years back, and am somewhat surprised that our energetic neighbours have done nothing apparently in originating or bringing forward anything new in the gooseberry line. Nothing newer than Downing's and Smith's being mentioned. In Canada we are doing somewhat better, though, considering the rapidity of the age, I must say our conduct is somewhat slow. Mr. Saunders, our eminent and esteemed President, has produced a gooseberry which he names the "Pearl." The habit of the bush is similar to the Downing, the fruit is about the same size but more oval, when ripe it is of a clear white colour, and is as productive as the Houghton. Mr. A. M. Smith, of St. Catharines, who has been favoured with some plants from the originator, informs me he is going to propagate it. I have seen the plants on Mr. Smith's grounds, the growth is thick and stocky and quite upright. No mildew has so far shown itself on this variety. I would gladly see it more widely tested. I obtained some cuttings two years ago, but they failed to grow.

I have no doubt many of you have heard of Mr. James Dougall, of Windsor, Ont., the veteran hybridizer and propagator of new fruits and flowers, etc. Some years ago he turned his attention to the gooseberry, and what with cross-fertilizing and raising seedlings, produced some remarkable results. A number of his new varieties were pictured in the *Rural New Yorker*, of 19th January, 1884; one of these was an exceedingly ornamental shrub, and bears fair though not first quality fruit, said, however, to be quite saleable at more remunerative prices than the Houghton. No. 10 is a seedling from

the Houghton ; the bush is an upright grower, fruit smooth, of pale whitish green colour, large and solid, is of excellent flavour, and keeps some time after ripe, a very heavy bearer; the *Rural* says, "decidedly the best market berry yet raised;" owing to its meaty, solid flesh it makes a richer and better preserve than any other. This No. 10 Mr. Dougall has sold the right of propagation of to Messrs. Albertson & Hobbs, of Bridgeport, Ill., who have named it "Dougall's Favourite." Five of the others, including the weeping variety, he sold to John S. Collins, Moorestown, New Jersey. These were all parted with at very remunerative prices. It is certainly a pity that so many valuable plants raised by the energy and ability of Canadians should have to find a market in a foreign country. Mr. Charles Arnold and others have the same story to relate. Mr. Dougall has over a thousand seedlings now coming on ; many of them will begin bearing this year (1885), from which he expects some first-class results. It would, perhaps, be tedious to go through all Mr. Dougall's numbers, but he makes special mention of 13, 14, 15 and 17, all of which have their special excellence; these are all crossed with the Hybrid Wild and English Whitesmith ; they are not so large as the English parent, but of finer size than Downing or Smith's. Mr. Dougall speaks as if annoyed at the neglect of Canadian growers and Canadian nurserymen, but it must be borne in mind that in Canada. when a new thing is advertised, the audience is much more limited than in the United States, and again, "a prophet is not without honour except in his own country."

Whether we, as Canadians, benefit by Mr. Dougall's new fruits or not, we cannot but thank him for his great efforts, both in his garden and in the press, in raising new and useful fruits and disseminating valuable information about their habits and growth.

To show what may be done by any individual having a little patience, I will relate a little of my own experience. Some years ago I planted a Whitesmith and a Houghton so close together that the branches interlocked. I gathered some of the finest berries from the Houghton, and having rubbed them in dry sand to separate the seed, I sowed them in a bottomless box in the garden. I was rewarded next spring by a nice little crop of seedlings. I pulled up any that did not come up to my idea of leaf or growth, reserving about one dozen plants ; when these came into bearing I destroyed all but one ; this is a fine bearer, and has a large berry. Last year I set out a number of layers from the parent, and think I have a good thing in gooseberries. The fruit is larger than Downing's or Smith's, of an oval shape and quite smooth ; it has never ripened yet ; having only one bush the berries have been all pulled for canning. I call it the "Ottawa," and if on further trial it sustains its reputation, I will send it round to my friends for trial.

Last, but not least, comes a berry which I found in the possession of John Conn, Esq., J. P., of Kemptville, Ontario. This is decidedly the best goosberry of which I have any personal knowledge. On strict enquiry of Mr. Conn, he could give me no information as to its origin ; he thought it the Whitesmith. Having doubted this I obtained some berries from him last summer and compared them with Whitesmiths grown by a member of our Association in Ottawa, but there was scarcely any resemblance. It has the appearance of being some English variety, from its size, but bears much heavier crops than either Downing, or Smith's, and is nearly twice the size. Wood stocky and upright in growth. I immediately secured some thirty layers and set them out last autumn. These will not give any fruit of much consequence for two years, as layers should be set out for one or two years in nursery rows before they make good stock. Should this berry prove as free from mildew elsewhere as it has with Mr. Conn, it will certainly prove a most valuable acquisition to our fruit list. Failing any name for it, I have with Mr. Conn's consent called it "King Conn," and trust that name will be adopted until its true parentage is discovered. Mr. Conn informs me that all the American varieties he has grown (Houghton, Downing and Smith's) have mildewed more or less, but this one never.

I began this paper by saying the goosberry was one of the most productive of our small fruits. but there is nothing like figures to put matters of this kind beyond the region of doubt. The bushes can be very well cultivated at five by five feet apart, this would give 1,742 bushes to the acre. On turning to the Annual Report for 1873, page 184, at the Summer meeting of that year held at St. Catharines, 29th August, at which I

regret to say I was not present—Mr. Dempsey says, "A gentleman told me since I came here, that he sold his goosberries at twelve and a half cents a quart, and the trees produced half a bushel each." Now by a simple sum I find that 1,742 bushes giving sixteen quarts each—one-half bushel—at twelve and a half cents per quart, an acre would produce 27,872 quarts, amounting to $3,484. Mr. Croil says at the same meeting, page 185, "A gooseberry bush will not occupy more space than a cabbage," now, large, late cabbage are grown two by three feet apart, and it would take 7,260 plants to the acre; if early cabbage is referred to, then sixteen inches by two feet or 19,000 plants could be grown to the acre; at the first distance apart the product per acre would be $14,520; at the second the respectable sum of $38,000, would be realized. I think I hear the occupiers of the back benches whispering to each other, "boys let us quit work and go to raising gooseberries."

I fear, gentlemen, when we get together we are apt to draw the long bow. I have been led to make the above remarks on the alleged productiveness of the goosberry as a word of caution to speakers at these meetings, where, to use the language of the poet:

"A chiel's amang' ye takin' notes,
And faith he'll prent them."

My own experience on a limited scale is, that bushes when in full bearing, heavily manured, will give, if the sawfly larve is kept well under control during the whole season —from $400 to $500 per acre, if the net price realized after paying all expenses for picking, freight, etc., is ten cents per quart, and I must remind you that the above figures would mean an average price of twelve and a-half cents per quart.

The gooseberry is not propagated freely from cuttings; layering is the best plan for the multiplication of plants; this may be done in two ways, first, by pegging down the previous year's shoots, and covering them with soil, or second, by mounding up the bushes with rich earth in which the suckers readily take root. It is best to have a few special bushes for the propagation of plants, as a well pruned bush should have no suckers, but should have a clean stem for several inches above the ground, so that the soil can be stirred around it to keep it free from grass and weeds, and give opportunity for manuring freely, which should be done every year. One of the beauties of the goosberry is, it has no "off" year; if the bushes are properly attended to, they give steady and constant crops, and an ample reward for all the care bestowed on them. Many of the varieties do as well in shade as in the full blaze of sunlight, and consequently may be grown under trees or in places so shaded by buildings or fences that nothing else will grow.

Mr. Dempsey.—Mr. Bucke gives an instance of a gooseberry bush yielding half a bushel. There is no doubt that a man picked that quantity from a large gooseberry bush, not occupying more than five feet of space. The most unproductive plant is the black currant, and yet this year I saw two patent pailfuls taken from one bush; but you cannot from this calculate what would be produced per acre, for there is only one such bush in soil prepared for the roots of grapes mixed with bone dust and sods from the roadside. It is all made soil. While this proves what results can be produced, you must not calculate that black currants can be grown at that rate. I say this so that people may not be disappointed in their expectations.

Mr. Beall.—The figuring done by Mr. Bucke may be all right, but there is a wide difference between speaking of one bush and a whole acre. Still, the possibility is there. This last season I got more than half a bushel from three or four different plants; that is to say, I got more than half a bushel from each plant. I had twelve plants that brought me $1 each. I have some five hundred bushes, but all the others did not turn out like these. This particular variety is the Whitesmith. I say, with Mr. Bucke, that if it is possible for me to grow twelve bushes in a row, and produce $1 worth off each, there is nothing impossible about growing five acres or even one hundred acres with equal success. It is not likely that this will be done, however. I take it for granted that your figures are correct, but I grow my bushes further apart. If I could grow gooseberries without mildew I think it would be the most profitable crop I could grow. I got 12½ cents net for these I have mentioned, in the garden.

Mr. Bucke.—I began cultivating the Houghton in Ottawa, and I am satisfied that at 15 cents a quart, which was the price I got, I can grow $1,000 worth on an acre.

HISTORY, MERITS AND MODES OF CULTURE OF THE GOOSEBERRY.

[By B. Gott, of Arkona.]

The name of this fruit has evidently come down from very early times, and is either a corruption from Grossberry, or *Krausbeere* of the Germans, in reference to its roughness of skin or its crispness of flesh, or it is indicative of an old practice said to have been in vogue amongst our forefathers of using this fruit in the shape of a sauce over their goose. However this may be, it has come down to us from generations, and by this name only we know the fruit and its rough thorny bushes. All gooseberries, however large, fine and beautiful, or of whatever shade or colour, have originally sprung from rough and thorny wild types, that are everywhere indigenous to the north temperate zone, and to both hemispheres. Those of our North American gardens have doubtless come either directly or indirectly through successive generations, and not very far removed from the wild type as *Ribes rotundifolium* or *R. gracilis*, both of which are everywhere plentifully distributed over the vast and diversified regions of our North American forests. Some again have been crossed with highly improved European sorts, but unfortunately for us, so far, from these crosses, no substantially good results have been produced, as our climate seems to be averse to anything of this kind. The gooseberry of Europe, and especially the gooseberry of England, is the consummate result of generations of high and careful culture. It is the product of the best and most skilful manipulation that can be brought to bear upon it, and, like the people themselves, distinctly bears upon it the marks of these generations of the highest and most accomplished breeding. In the English county of Lancashire, the very home and most favourable spot known for the gooseberry, its culture and perfect development has come in late years to be almost a mania, and is indulged in by all classes of the people. In that country their annual gooseberry shows or exhibitions are something astonishing for vastness, variety and grandeur. A gooseberry book is frequently issued, in which hundreds of old and new sorts are named and described. This kind of thing, however, can never become popular with us, as our conditions and environments are by no means favourable to the growth of this fruit in perfection. Although this may be, and is strictly true, yet we are highly delighted that we can in many favoured localities and situations produce many very fine sorts in comparative abundance. Our impression is most decidedly that yet more and greater things may be accomplished in this line. What desirable specimens of beautiful gooseberries may be propagated, by taking our wild sorts that are very plentifully scattered about us, with a few generations of reproduction and wise and careful selection, is at present utterly impossible for us to foretell. Here is a great and inviting field of experiment open and encouragingly beckoning some of our energetic and painstaking culturists, upon whom the honoured mantles of an Arnold or a Saunders shall fall, to be taken up unsullied, and to be still further used and honoured.

As a fruit, the gooseberry has already gained for itself a name and a place in our national domestic economy, and a place, too, that can scarcely be filled by any other fruit. Coming, as it does, so early in the season when fruit of all kinds is quite scarce and hard to be got, it meets with a ready demand, and is quickly bought up when offered on the market. It is used on the table for pies, tarts, puddings, marmalades and jellies, and is either preserved or canned. It is generally picked from the bushes in its green state, or just at that point when ripening commences to enlarge and colour the fruit, as at that point it is said to be in the best condition. It is generally sold on the market by the quart, and will usually bring in our local markets from ten to fifteen cents per quart retail, and if the crop is good and has been well attended to, pays the grower very well. One acre of good soil planted to gooseberries will take in 2,725 plants, and these well grown and in a good state of production, will, even at a low calculation, pick two quarts on an average each; and this product, at the lowest price, will realize for the grower, a gross $545, which is unmistakably a very good showing per acre.

By this it will be seen that the gooseberry, as a product of our soil, is of some considerable importance to the fruit-growers of this country. It is usually propagated by cuttings, and by layering the young wood of the parent plants. For this purpose the best and most thrifty bushes are used, and the young wood is carefully pegged in the soil, tips out, and covered with earth and moss to encourage root growth. When roots are thoroughly formed the parts are taken off and separately planted in nursery rows to form independent plants. This is the best method of propagation. For the purpose of making cuttings the young wood is only used and cut up into pieces of about six inches in length, and kept safely from frost during the winter, and planted in the cutting beds in the spring to become well rooted, and afterwards removed to the nursery-rows as independent plants. This method is considered the fastest, and gives good satisfaction. But the only method of propagation to reach permanent improvement in the results, is that by means of the seeds. This method can be carried on almost without limit, and from generation to generation. To careful work in this method we are indebted for all those improved and very good varieties at present in our possession. After the young seedlings, as they are called, are once well established, and are known to have valuable qualities, they are propagated to any extent by the methods before specified. In this way we become possessors of valuable improved qualities in all our domestic fruits that we so much prize for our every day use.

Soils and Culture.

The soils best suited to successful gooseberry growing in this country have been found to be a thoroughly drained, rich and deeply worked clay loamy composition. These qualities of soil are imperative, as the plant is found to be very impatient either of excessive dryness or excessive heat. This is doubtless one of the chief causes why success with it is so very precarious in our conditions. If these conditions could be but slightly changed it might be the means of determining the difference between success and failure, a difference that is very important to the cultivator. In a soil of this character with a moderate amount of protection from dryness and heat, the success of gooseberry-growing from improved American Seedlings is assured. To secure these conditions location must be sought for and skilfully used. The young plants may be removed from the nursery rows when they are two years old, when they will be fine, strong, well-rooted plants, whose after-growth will make rapid progress and give good satisfaction. They may then be carefully planted in the ground, previously well and thoroughly prepared, and marked off in rows four feet apart, and the plants put four feet apart in the rows. This planning will give 2,725 plants to the acre, and will give great satisfaction to the workers and pickers, and if every plant is nicely growing in its place as it should be, it will make a very pretty plantation after the first year's growth. The ground must be kept scrupulously clean during the entire summer, and must be thoroughly pulverized and stirred by means of one-horse cultivator between the rows both ways, and not a weed allowed to be seen. The young bushes will make extraordinary growth of young, thrifty wood, and the set of fruit buds will be astonishing and will well repay all the labour and care that may be lavished upon them. In gooseberry-growing, as in every other kind of fruit-culture, if one would wish to reap the highest result, increasing vigilance and constant application must be most certainly and most freely given. The annual pruning will consist in shortening in the summer's growth to a moderate extent, and in some cases in thinning out some of the crowding shoots. However, this operation is generally and best done in the early summer, as the growth of wood and fruit buds on that which is left will be so much better and more encouraging to the grower. After the wood has borne fruit some three or four years and is becoming old and feeble, it may be cut entirely out and the young growth encouraged in its place. This operation is called renewing, and is very important in all pruning for fruitfulness. The question, how long will a gooseberry plantation last, is a very difficult one to answer satisfactorily, as circumstances and locations have so much to do in its determination. We have known them to still remain comparatively profitable after having been fruited for twenty or twenty-five years, and our opinion is that if everything about the location and soil is right they may be made to do good

service during that length of time. But we do not by any means advise this kind of thing, for we believe on the contrary that we get the best results from young and vigorous plants as in all other kinds of fruits, and for this reason we would advise changing the soil by a new plantation at least after every ten or twelve years' service. Young plants are now produced so successfully and so cheaply, and so many new sorts are yearly coming out that there is no economy in running a plantation after its prime is over.

Enemies

Unfortunately, the gooseberry, not unlike many other good things that has fallen to the lot of men, has many virulent enemies, and some of these are most determinate and destructive. They come in various forms, but all of them are deadly, and mean extirpation and ruination, unless active measures for defence are resolutely applied. The ordinary enemy forms, and those with which we are best acquainted, are insects, mildews and blights, and juvenile depredators, and these last very bad in the older countries of Europe. There are several voracious insects that prey upon the gooseberry and its fruit, but the most common ones, and those with which the people of this country are most familiar, are the gooseberry saw-fly, (*Nematus ventricosus*), and also the gooseberry fruit worm (*Pempelia grossularia*). The first of these insects is very troublesome, and is hatched from eggs laid by the parent fly on the under side of the young leaves early in May, and so numerous do these ravenous insects become that they will in a week or two entirely and completely defoliate an entire plantation if left unmolested. A timely application of white hellebore and Paris green will, however, completely stop their destructive ravages, and save the crop to the industrious grower. We are happy to be enabled to say for the encouragement of gooseberry-growers that this insect is not nearly so abundant or so destructive this last few seasons as formerly, and that a very slight attention will keep them so much in check that they will not be felt to be a plague. The latter insect mentioned was also a few years ago a very threatening scourge, but its evil effects are very much reduced, and its numbers very much less, and hopes are entertained that it may disappear from our gooseberry bushes altogether. It is originated from eggs laid on the young fruit while tender. After hatching, the insect soon eats its way to the inside of the berry, and totally devours the contents. When this is accomplished the insect immediately joins himself to another berry by means of silken cords, and enters it and devours its contents also, and so the work goes on until sometimes a single worm will destroy a half dozen berries in one group.

When these insidious little workers are multiplied by dozens their work is very perceptible, and a very severe loss upon the crop will be the result. We have found no remedy for the insects aside from hand-picking as soon as the first wilted berries are noticed. We are glad to say, however, that last year we noticed but very few of these insects on our fine crop, and were scarcely molested in the least, and the hopes are entertained that this evil also has passed us for quarters more congenial to its habits and its appetites. But the worst of all enemies to improved gooseberry-growing in this country, and those that have baffled our skilful and anxious cultivators the worst, have been mildew and blight. Not being very thoroughly posted on the nature and characters of mildews, I am not very well able to characterize these, to make the matter clear and instructive. It is found that when we attempt in our condition to grow improved English gooseberries in this country, a thick growth of vegetable mould or mildew will cover itself entirely over the young fruit and effectually stop its progress towards maturity. It, in fact, destroys the fruit and renders the bushes at once unprofitable and worthless. Another mildew or blight will attack the leaves and cover them, especially on the under side, with whitish growth which will destroy the leaves as by a blight, and it falls as useless from the bush.

We are of opinion that the cause of all these is atmospheric, and the remedies, of course, will be to forbear planting such varieties as are known to be liable to such parasitic growths. Happily for us it is found that new forms grown from seed of our native American wild gooseberries, are not liable to this mildew trouble. So we are provided with an all-sufficient supply, and our better part of wisdom consists in growing and

improving those seedlings until we have attained the high eminence which our brethren in England have reached through generations of successive culture reported from year to year. It is rather lamentable for us that we cannot fall back on and use those long and valuable experiences of theirs, and transplant their treasures and attainments successfully on our fertile soils. Instead of this, we must from necessity commence at the beginning and improve up for ourselves till we reach those excellencies that have marked their progress. The remaining enemies of the gooseberry, as our hot and scorching summer time, our drying atmosphere and juvenile depredators, though severe and dispiriting, yet are those that time and prudent management alone can ameliorate. Juveniles in older countries are the very plague of the gardener, and cause them much trouble and expense, but as yet our varieties are not sufficiently tempting to their nimble fingers, or luscious to their devouring appetites to allure their visits to our gooseberry plantations either daily or nightly. Whatever succeeding generations in this country may suffer in this respect, we are at present comparatively safe and unmolested.

Varieties.

The multitude of varieties, amounting to hundreds of gooseberries in the old countries, and all good, are so great that to attempt a selection for use is perfectly bewildering. Fortunately this is not by any means the case with us. Our varieties to select from are as yet limited to two or at the most three, with one or two to choose from for fancy purposes. The sorts that we have that are commendable to our attention are all American seedlings, that is direct from indigenous sorts, and not very far removed from the original wild type. Happily these prove to be very good and satisfactory to us, and so we scarcely ever look about us for anything better. A variety to be popular with us must be at once adapted to our climate and free from the attacks of mildew. It must be hardy in bush to withstand our severe and changeable climate; it must be a good grower and an abundant bearer, and the fruit must be good but not too large. All these very desirable points we have fully developed in high perfection in our popular gooseberry, Houghton's seedling. This very valuable variety has been in cultivation now for many years under almost all circumstances, and in almost all soils and conditions, and in no case has it been known to fail to give good satisfaction, and abundantly reward the careful and intelligent cultivator with a fine return of nice fruit for his pains. The bush is a good grower and very hardy, the leaf healthy and strong, though the wood is small and slender and well armed with a plentiful supply of strong spines. The fruit though small is very nice and of fine flavour, and of very suitable size for canning or preserving, and the quantity is something amazing, and the crop can be annually relied upon. This variety is at present more valuable to this country and more grown than all others combined, and is everywhere satisfactory. Smith's Improved: This is a considerable improvement upon Houghton's in point of size and beauty of berry, but unless the market is discriminating in regard to sorts it is not going to be more profitable than the old sort for the market grower. The wood is very hardy and good in growth, and somewhat stronger than Houghton's. The leaf is large and fine, and will resist the attacks of mildew. The fruit is somewhat larger than Houghton's, and is very attractive and quite smooth, and will be very serviceable to the country for kitchen or canning purposes. It has several good points, and as these are becoming more and more generally known they are gaining for it a rapidly increasing favour and causing it to be at present considerably called for by planters. We are very pleased with the improvement, as it marks a step forward. Downing's Seedling: This is perhaps the best variety of this class of fruit that has been tested amongst us and offered to the market. I can scarcely connect the relationship of this desirable berry with Mr. Downing, but it may possibly be a seedling of his or one named in honour of him by his friends. The bush is hardy and a very strong grower, and the wood is heavier and far stronger and more promising of value than any of the other sorts. The leaf is large, healthy and good, and, as far as we know, successfully resists the attacks of mildew, and the fruit is large, smooth and very beautiful. This very promising variety is growing more and more in popular favour, and at present is the best we have to choose from for amateur and fancy growing. These are all free, as far as we

are aware, of mildew and blight, and with these to rely upon no gooseberry lover need go on without a supply or even with a spare supply of this fine fruit for himself and family. American Seedling and Mountain Seedling are similar to Houghton's, and as far as we know are no improvement or even quite as good. There is no room for them amongst us. Hixon's Favourite and Cluster are not known amongst us, but nothing special is claimed for them. Hudson is a new and promising sort, and is going to spread. It is said to be a large, red and promising variety, and so some of you may laudably wish to possess and try it, for it is very clear that to improve we must keep trying. Industry is a new and lauded gooseberry being brought out by the firm of Ellwanger & Berry, New York. It is said to be a large, red, handsome berry, and many good points are claimed for it. This, too, you may wish to try, and if it is an improvement over what we already have in this line we shall hail it with delight. I believe our very highly esteemed President of this Association has by cross-fertilization succeeded in producing something new and desirable also in the gooseberry line. What these are or how many of them or what their special points or characters are, I am not sufficiently posted to definitely state. But, judging from the past and what we know he has so well done, I think we are sufficiently warranted in promising for ourselves something good to very good in this direction. May we not hope at an early day to hear something more of those seedlings from Mr. Saunders' own masterly description? The only English varieties that we know that will at all warrant us in trying to cultivate in this country are Mr. Woodward's Whitesmith and Mr. Milling's Crown Bob. These two fine old well-tried sorts have been transplanted and grown in our soils, and with fair and tolerable results. There is an English gentleman of our acquaintance residing at Thedford, Ont., who succeeds in raising annually large and handsome crops of clean, well-formed fruit of one of the old sorts. He manages to keep down all mildews, etc., by means of sulphur and salt about the bushes, and he has also succeeded in creating a desire amongst his neighbours to grow such gooseberries as those. This opened our eyes to this method of gooseberry growing, and we do not see why such examples should not be very much multiplied over the country. But I fear I have already skipped the bounds of my limitations, and have at least succeeded in wearying you out of all patience. I must, therefore, bring this interesting subject to a speedy terminat on, hoping as I do that some may be induced by means of these and similar feeble efforts to improve and enlarge upon our present stock of American gooseberries. If this very desirable result be gained, and through our feeble efforts the generations of the future have something better in these lines, we ought to consider ourselves amply repaid for all our labour and care. Let these considerations, indulged in good and honest hearts, be permitted to give us daily fresh energies in the very laudable efforts of fruit-growing and fruit improvements.

Mr. Morris.—I would like to refer to a remark made by Mr. Bucke, on Dougall's seedlings. I do not think there is a nurseryman in Canada, who would buy or undertake to propagate any gooseberry crossed with an English variety. They will in time mildew. That is so well known that I do not think they would be bought. I may instance Mr. Reed's seedling, which most of the members have seen. They showed up splendidly; but a year ago last summer they all mildewed, and that is true of all English plants in this country. This gooseberry called "Industry" is claimed to be one free from mildew, but Mr. Beall says it mildewed with him the first year he planted it, and I feel convinced that will be the case with all English plants or plants crossed with the English varieties.

Mr. Bucke.—Has the Downing or Smith any English blood in them?

Mr. Beadle.—I can answer for the Downing. He supposes it to be a seedling from the Houghton, and a chance improvement without any crossing.

Mr. Goldie.—Can you tell what the Houghton was derived from? Has it any English blood in it? I have seen it mildew as badly as any of the English varieties.

The President.—I think the facts show that our native varieties will admit of a certain amount of foreign blood, but that amount must be found out by experience. There seems to be something needed to add to the size and quality of native fruits, and that something can perhaps best be supplied by European fruit. It has been the case with our grapes, and I think it will be the case with our gooseberries. I am of opinion with Mr. Morris that any variety of English fruit will mildew, but I think we can lessen

that tendency by re-crossing so as to do away with the difficulty. That variety originated by myself I cannot speak positively about, but my impression is that it is a seedling of Downing. I have a number of fruits that are half foreign blood and some have mildewed to a certain extent, but nothing like the English varieties. They might be crossed again perhaps with good results. This is merely a matter of opinion, experiment will test the value of relative opinions in the long run.

Mr. Bucke.—The reason they are crossing with English varieties is to get size and get it quickly. The cultivation of the gooseberry began in England about one hundred years ago. Their wild gooseberries are not as good as ours and you see to what perfection they have brought them. We can do the same here, but we want to get big gooseberries in a hurry, and therefore we bring in foreign blood.

Mr. Beall.—I may say with regard to the Industry, that it mildewed badly, but I have not given up hopes. It occurred to me that the nature of the plant and the peculiar way it was sent to me might have favoured a disease of that kind. It grew very nicely until the shoots were six or eight inches long, and I commenced with sulphur, and it was a fair fight from that time forward. The mildew was on the foliage. I am hopeful that with cultivation I may make it strong enough to stand against that trouble. With regard to yield, in 1883 I had 300 plants. That was the first year mildew affected me; but I sold from these plants an average of 2,88 quarts, or twenty-seven bushels in all.

The Secretary.—I have found that the free application of salt has a good effect. Salt gathers moisture and that moisture is favourable to the prevention of mildew. A neighbour of mine used to spread the grass that he cut from his lawn under his gooseberry bushes. They were all English varieties without name, and he sprinkled salt very liberally over this withered grass and he thought he had discovered a way to prevent mildew; but after a few years he found that he had not prevented it altogether. I attribute it to the fact that salt will absorb moisture, and the exhalation from that is as near like the atmosphere of Great Britain as is possible in our climate. The free application of sulphur will check mildew if applied when it first appears.

Mr. Hickling.—I have tried both salt and sulphur, and I think with good effect. I have for three years had no mildew whatever.

Mr. Beall.—I may say that I have had the Whitesmith either fourteen or fifteen years. I have five or six of those that I got first and it was off those altogether that I got my half bushel each. I do not pretend to know anything about this mildew. On this particular row that I have spoken of I used salt most abundantly. If I were to state the quantity it would frighten Mr. Dempsey very much. The mildew is all on young plants to which I have never given salt. I hope I applied enough last year. All the old plants have had salt for the last ten or twelve years; but the new ones have never been salted until last year. I put two barrels on three hundred new bushes. If I had put that Industry among the mildewed ones it might have caught the disease; but I put it twelve rods away. With regard to the use of salt, I think one ought to be careful. Mr. Dempsey says he lost a great many through it. He says the salt was put on before the bud in the spring, and unless his soil is very different from mine I do not know how he lost them. The first thing that I do with my gooseberries as soon as the soil is ready to work, is to fork up, and then I put on my old rotten manure—all I can afford—and on that I put the salt, and allow it to remain there until the rain washes it in.

Mr. Dempsey.—I believe if the attention of such an intelligent class of people as members of the Fruit Growers' Association were given to the growing of gooseberries, wonders would be accomplished. While Mr. Morris was speaking of foreign blood my mind was drawn back to the improvement of the pear, and how it was accomplished by Van Mons, of Belgium. He was a pioneer in that direction, and in reading his theories I was interested. You who are posted will know that he always planted a seedling pear tree first, and the first pear he got he took and planted the seed of that, and in about three generations he reached a climax that he thought could not be surpassed. After that they degenerated. We must first cross varieties, and then we can go on selecting for several generations. On any plant most of you have observed that there is one side of the bush bears better fruit than the other. I don't know why it is so. We find by propagating from that side of the bush we almost always get different fruit. The variety

seems changed in its constitution, just by propagating in that way. If we select seeds from the berries that are produced on the most prolific branches, generally we find we get a more prolific plant, and a plant that will produce larger berries and more of them. On the other hand, if we select the berries produced on our barren branches that only produce two or three berries, the result is a not very prolific plant. We fancy we can improve our gooseberries just as the stock-breeder does his stock, or poultry-fancier does his poultry, or bee-keeper his bees. Let us only understand what we are working for.

Mr. CROIL.—Mr. Beall has been very successful with gooseberries. I would like to ask him if he finds that his bushes grow better when sheltered in the orchard than in the clearings?

Mr. BEALL.—The three hundred I spoke of are growing in the orchard in rows between the trees. The trees are large enough to average a couple of barrels of apples each. Before I underdrained I lost a good many trees and the orchard is not even. It makes no difference about them being sheltered, they mildew; but in the old stock down in the garden there is no mildew. The soil is the same in each case, but those in the garden have been heavily treated with salt while those in the orchard have only had a little.

Mr. MORRIS.—The best way to apply salt is to soak grass in a salt solution. It gives off a moisture and there is not that injurious effect on the plant.

The Association then adjourned until two o'clock.

At the afternoon session the question drawer was opened; the following matters were dealt with:

BEST TIME TO PRUNE APPLE TREES.

"What is the best time to prune apple trees?"

Mr. MACD. ALLEN.—The best time to prune apple trees is to begin right after you have planted them, and prune them with the thumb and finger. But you must use judgment in respect to the size you want the top to grow. There is no chance of injuring the tree. Take an older tree which has formed a top, and the month of March is recognized as the best time. If you take away aged limbs, the wounds should be protected. You must use judgment as to what kind of tree it is, whether spreading or upright growing.

PRUNING IN FROSTY WEATHER.

"Is it injurious to prune in frosty weather as at present?"

The PRESIDENT.—That question has been answered. It is not advisable to prune in such severe weather as we have just now.

Mr. MACD. ALLEN.—I don't think a man would stay long at the work just now.

THE APPLE GRUB.

"At what stage is the egg deposited that produces the grub in the apple? Is there any remedy?"

The SECRETARY.—The codlin moth is no doubt what is meant.

The PRESIDENT.—That matter has been pretty fully discussed. There are remedies for the codlin moth. One is to syringe the trees with Paris green in water, the mixture having the proportion of one teaspoonful of Paris green to a patent pailful of water. This mixture should be kept agitated and used through a very fine syringe that will throw a spray; and the application should be made while the apples are young and upright before they have begun to hang down. You must do it at that time because the eggs are laid in the blossom end of the apple, and the spray in descending on these ends will accomplish its mission. Another method is to tie bands of hay or cotton or old rags around the tree, and these will form a harbour for the grubs to change to chrysalids in. They will seek such a place, and by untying the band once every week and killing all the grubs and chrysalids you get rid of a large proportion of insects during the season. The Paris green remedy seems to be most thorough, and effectual and immediate in its effects.

APPLE SPOTS.

"What is the spot on the apple? Is it a disease in the tree communicated to the fruit, or is it produced by noxious gases in the air?"

The SECRETARY.—I do not know. My impression is that it is not any disease of the tree. My impression is that it is a fungus growing on the skin of the apple. It is a pretty strong impression. I do not know that the gases in the air have anything to do with this growth. If we could cover the tree with something and burn sulphur underneath, we would kill the leaves, the fungus and the apple. The application of sulphur was tried by Mr. Croil, by sprinkling, but without favourable results.

The SECRETARY.—Another thing tried was carbolic acid.

Mr. CORNWALL.—I tried sulphur and water. One application was made when the apple was about the size of a cherry and another about two weeks after. I mixed about a pound of sulphur in ten gallons of water and sprayed the trees; but I found no benefit from it.

The SECRETARY.—I am inclined to believe that if we keep at it we will find some way of checking this fungus on the apple. There are certain seasons when it is worse than others, thereby shewing that there are conditions of growth which are favourable and conditions that are not favourable. The result of these spots is to ruin the fruit for market purposes. As yet I do not know of anything that has proved to be either a remedy or a preventive.

THE QUINCE.

"Can the quince be profitably grown in this section; and what are the best varieties?"

The SECRETARY.—In the Niagara district the quince thrives very well on a clay soil; and it is all the better if it is freely supplied with salt. As to the profitableness, I am unable to answer, as I only grow for my own use. The quince tree bears abundantly. Sometimes they are affected by what we call the blight, and this would affect the profit. Then again I do not know what the market is for quinces. Those that are brought there do not seem to have a remarkably ready sale; but what would be the case in London, Toronto or Hamilton, I cannot say. All through this section of the country where the peach will flourish, the quince can be grown.

Mr. CORNWALL.—What varieties do best?

The SECRETARY.—The Orange Quince. We also have Rea's Mammoth and Champion, but my impression is that Rea's Mammoth is a shy bearer, and the Champion will be cut by the winter. The Orange Quince is all you can ask. If the plants are fed you will have good sized fruit.

THE DUTY ON TREES.

"Is the duty now placed on trees acting beneficially on the horticultural interests of the community?"

Mr. MACD. ALLEN.—My own idea is this:—I do not believe in it. I would prefer to see different commercial relations, and should like to get hold of anything from the other side as freely as I can from this. I think we are able to compete with anything. That the duty is a positive injury I should not like to say.

The PRESIDENT.—At the time this Association recommended the Government to adopt this policy, the duty on nursery materials coming from the United States was comparatively small, while on the other side it was very heavy. This was done to equalize matters. The conditions are changed now; the American duty has been removed, and we still retain the duty here. If, however, it is for the benefit of horticultural interests in general we should not be hasty in expressing views which would seem to be against it. I think it has had this one effect, of helping to establish among us a class of nurseries carrying very large stocks, knowing they would have the Canadian market to themselves. We should not have them if this duty did not exist.

Mr. WELLINGTON.—I certainly am an interested party, but aside from politics I want the duty on nursery stock to remain as it is. My political leanings have always been toward the other party, but at the same time, along with a great many other Reformers, I have supported the present Government in their policy and shall continue to do so. Of course it may be said that I look at it from a personal point of view, but outside of that I consider that any industry established in this country is a benefit to the country. While we are all at our own businesses to make money, the amount of business we do in a country materially assists the prosperity of that country, and the duty as it now stands on nursery stock, to my mind, simply acts as a check against the culled stock, which in former years was so largely shipped to Canada. "Canada Stock" used to be a common word among American nurserymen, which meant that it was stock that could not be sold there. In changing from an *ad valorem* to a specific duty on certain kinds of trees, I consider that they struck a heavy blow at this class of stock. Take apple trees for instance, on which there was formerly twenty per cent. If they were culls they got in very lightly. Now, with a specific duty they would have to pay as much as the high grades, and there is not the same temptation to ship this class of goods. As far as I am concerned I certainly object to any repeal of the duty on Canadian nursery stock. We are a young country yet, and if the nursery business is to be encouraged we must have protection. We have already invested double the amount of money in it that would have been so placed had there not been this duty.

The PRESIDENT.—I think the sentiment of the meeting is that we had better not endeavour to disturb existing relations as matters now stand.

FORESTRY.

Mr. R. W. PHIPPS, Forest Conservator of Ontario, delivered the following address:

I am glad to meet this assemblage this afternoon. I have heard from your worthy President, whose success as a tree grower and as a fruit grower we are all so proud of, that you would care to hear me for half an hour on the subject of Canadian forestry—forestry as we find it necessary in Ontario. It is a subject intimately connected with fruit growing, and I cannot better illustrate that than by pointing out what has been said by the leading authority on we may say trees and fruit, to a certain extent, in the United States, that is Prof. Sargeant. He tells us that in Massachusetts they formerly grew excellent peaches, but since it has been largely deforested they cannot do so. They are now dependent on Delaware. And even in places where they formerly grew well they cannot now grow but small quantities, owing to the same fault, that they have cut down too many of their trees. Now this afternoon, if you will follow me for half an hour, I propose to say in a few words what follies we labour under here, and the means we propose to take to limit them so far as forestry is concerned. As you are aware, when the white man came to this country it was covered with magnificent forests. I can remember, myself, the forest approaching Toronto, when it was said if you threw a stone it fell into a forest reaching to Quebec on the right and to Sarnia on the left. You might then have travelled that far without going out of the woods. I have no hesitation in saying that if it had been possible to have kept that enormous amount of timber, and sold it at present prices, we could have built half a dozen Pacific Railways without taxing ourselves at all. But that was found impossible. The settlers of that day wanted food and they could not eat the trees, neither could they sell them. They had to be cleared away, and, I regret to say, that at that time land was cleared which had been far better left in its native state. I have seen on the sandy land near Toronto great piles of pine timber burned in heaps that would now be worth $40 per thousand feet. I have watched that land since, and know that it only grew two or three inferior crops, and stands as very poor pasture to-day. I have been out west where a couple of thousand dollars have been paid for the remnants of black walnut trees that would have been worth one hundred thousand dollars if left until now. In Canada we have gone so far that in some sections our woods are down to ten per cent. of our cleared land. We have one acre in forest and nearly ten acres cleared; and even that proportion is not likely to continue. The patches that remain are being destroyed

by various means, or cut down. How to remedy this evil is the question. The greatness of this evil, which we will consider, is set down in three branches. The loss of the forest deprives us of shelter. As you may know, throughout many portions of the country we cannot grow fall wheat nor clover, owing to the winter killing it. The snow is blown off the ground. Then again, where the forest is cleared away to any great extent, we lose the benefit of certain climatic influences which regulate the supply of moisture. Let me illustrate this point by facts which have come under my own observation. When our farms were cut out of the original forest we have grown our forty or fifty, and I have grown sixty, bushels of fine Soule's wheat to the acre. Then as the neighbouring and protecting forests have been removed the result has changed. Thirty years from that time and the same land will not grow anything near the same crop; nor will the land in that vicinity yield the same crops with the same handling as when the forest was around it with its fertilizing influences. Now, if we go into the philosophy of this, we may light on some interesting facts. Let us consider what this great growth we call a tree really is. In the first place, the tree takes in its nourishment from the roots, and this food is carried up by water as a vehicle. It is distributed through the branches to the leaves, where the same function is performed by the leaves as the lungs do for our bodies, and in this action and during exposure to the air, a vast quantity of water is thrown off in evaporation. The real nourishment is retained in the trees and goes to the parts where it is needed, while the water is thrown off. This point I wish to impress upon you, that every tree, during the leaf-bearing time, is carrying up and sending off vast quantities of water. It has been estimated that in this way a large oak distributes four hundred gallons of water daily. Whether this amount be correct or not, we all agree that the quantity is very large. This moisture is cool, and is given off in such a quantity that it has been said if we could colour these vaporous exhalations so that they could be seen, the forest below would seem small in comparison with the immense columns of vapour rising above it. This cool moisture then passes into the air, and meeting with warmer and equally saturated atmosphere, precipitation is produced and rain follows, either close at hand or in some neighbourhood adjacent, according to the direction of the wind. That is one method by which the trees of the forest do their share in producing the great local cause of rain falls. It has been well said that we cannot say for a certainty that a forested country always yields a greater rainfall than one which is cleared; but what is certain is, that a forested country always sends down the showers in spring and summer when they are needed, in that fertilizing and refreshing manner so beneficial to the crops and fields adjacent. It is also certain that where the country is disforested, the rain falls in heavy torrents and is washed all over the surface of the ground. To make this matter certain as regards Ontario, I had lately about three hundred different correspondents all over the country, men who have lived in the Province for long periods, and all agreed that this was the case. Here and there was one who had not noticed it, but those who had extended their observations minutely agreed that they had found what I have stated to be true in their localities. Everyone agreed that the disforesting of our country has taken away the moisture from the surface of the earth. Those who say they formerly obtained water by digging six or eight feet, must now dig thirty or forty feet or more in the same places. The reason of that is, the forest is a reservoir for water. Its base is composed of decaying branches and leaves; of roots penetrating into the earth and forming a great porous mass out of which the rain or dew does not pass. That great body of moisture feeds springs and rivulets all around, and keeps water near the surface of the earth. These two things, the certainty of the rainfalls and the preservation of the moisture in the ground, are the great matters in which the forests are found to benefit the climate; and it is the loss of this, in a country which has unfortunately lost its forests, that deteriorates the climate. We have instances of this. We have not, I am glad to say, gone sufficiently far to experience it in its worst phase, but we have instances of it all over Europe and Asia Minor, in Palestine, Asia, France, Germany, and many other countries, wherever they have disforested, the fertility of the soil has ceased, the ground has been washed by heavy torrents, and places once fertile are now barren. It is a remarkable fact that the knowledge of this fact assisted very much in making Germany the prominent nation it now is. Two hundred years ago much of that country was barren. The Monarch of that period—the

Great Frederick—saw this loss of fertility; his Prime Minister saw it, and a new state of affairs was inaugurated. Forests were planted in every direction, and the effect on the fertility of the soil has been such that where one man could not be brought into the army two hundred years ago, a whole regiment was drawn for the last war. That gave the foundation which actually raised the edifice of what was Prussia, but what is now the German empire. Now, in Ontario, we wish if possible to avoid deterioration of that sort. We have not yet arrived at it, but we see the premonition. It is now that we should commence to do something, for the growing of the tree is a slow process, and it would be a serious mistake to delay ten years beyond the time we should begin. I will suggest to you the processes by which it is most advisable, according to the opinion of a great many men who have inquired into this subject, to move in the matter.

The first is the encouragement of wind breaks around farms. This should be done on the north and west sides generally, but you should always be guided by the nature of the locality and the points at which shelter is needed. Wind breaks are easily grown. I have seen many excellent specimens, and we have many trees that answer the purpose very well. There is first the kind most frequently used—our own maple. Then there is the Norway maple, our own pine, the Scotch larches, and cedar—all these I have seen make excellent wind breaks. I had reason some time ago to obtain information from about seventy-five sources throughout the country, regarding these wind breaks, and the invariable verdict was, that they were a great benefit both to the field, orchard, and general fertility of the whole neighbourhood. Wherever a farmer had properly used the advantages of a wind break, it actually gave his farm a new climate, He could grow wheat in such a manner as to increase his crop far beyond that which could be raised where this simple precaution had not been taken. That is one direction in which we should press our efforts, and if we can induce farmers and land owners to attempt plantations, and give five or ten acres to the planting of trees, I am in a position to state, owing to knowledge obtained from wood workers, that if the right varieties are planted—such as white oak, hickory, white ash, elm—the ten acres so laid out will at the end of ten years be as valuable as fifty acres on any other part of the farm. That is to say, with the present scarcity of these woods, and the probable scarcity at the end of that time, a farmer would not take less for the probability of these ten acres than the probability of fifty acres otherwise in use. I will give you an instance covering this point of an actual case reported to me through Mr. Blue, of the Bureau of Statistics. He directed me to Mr. Culbertson, who had planted a grove of black walnut trees in Douglas County, Illinois, and that gentleman said:—"I have every reason to believe that in ten years those ten acres will be more valuable than the remaining 237 of my farm, and it is not a poor one."

Now, with regard to the value of timber, I have placed myself in communication with, or visited the establishments of, a great many wood-workers in Ontario and Quebec, and the general verdict is that, in the matter of basswood, it is so extremly scarce that they are now using swamp elm instead. In the matter of white oak, it is largely gone, and it is only with great difficulty they can get any. Black walnut is altogether gone, and what little is used comes from Indiana, while black elm and oak are so scarce that iron is being substituted These men give me the foundation for my expected values at the end of ten years, and I have taken the greatest care to get these statistics from the most reliable sources, and the facts can be proven by a large number of witnesses.

The third matter we should press upon farmers as being a valuable means towards preventing the disforesting of our country is this: all through our country there are yet portions of forests. One man will have twenty acres, another forty, another one hundred, and I have known some with even two hundred. If we could only persuade these gentlemen to abandon the practice of allowing their cattle to range through the woods, and to fence off only such a portion as was really necessary for shade, we should then have portions of forests that would be likely to endure as long as we chose to have them. When you allow cattle to enter a forest, they kill the young trees, which are the only hope of reproduction. When the young trees are gone, there is nothing left to replace the old ones. There is another fact in connection with this, not generally known. It does more than stop the hope of reproduction. It allows the wind to enter freely, and many trees are blown down which would otherwise remain firm. Another reason is, that

when you allow the sun to beat on the bark and exposed roots it has a drying and deteriorating influence, and greatly injures the tree. I have visited places where, on one side of a fence, there would be a forest in a good reproductive condition. There would be plenty of young trees growing up. There would be medium sized trees and plenty of older ones, vigorous and strong, and ready for the axe. On the other side of the fence a different condition of things existed. The undergrowth was gone, the cattle having taken it. The earth was dry, and the trees did not have the healthy look of those in a preserved forest. This I noticed in twenty different places, and all my correspondents bear me out as to the facts. If, then, we can induce farmers throughout the country to fence off a portion for the cattle and keep the other in bush, that portion will remain in good order, continually reproducing itself, and the young trees will shield the forest and preserve it in perpetual life. Such a forest is of great value to a farmer, and what he might seem to gain by getting the use of the land, is far more than counterbalanced by the great loss in timber and the fertility of the adjacent ground.

I have pointed out the methods by which this disforesting can be prevented. I am sure, in speaking to this audience, I speak to men who frequently have the opportunity of pressing on their neighbours the kind of trees to grow, how to shelter them, how to shelter as well their crops, and the importance of growing trees as a means of preserving the fertility of the soil. I have come here with gladness for the purpose of impressing on you, or reminding you of these facts, perhaps known to many of you, and asking your co-operation in future in endeavouring to extend and advance this great object. We must remember that we have a public duty in this matter as well as a private one to perform. We have no right to injure the land. We found here the wood, the water, and the fertile soil, and it is a matter of certainty that in disforesting a country we not only lose the first, but greatly impair the other two. No proprietor has the right to injure the fertility of the soil, lest, as it is written in the Scripture, "The land cries out against him, and the forests thereof complain." The great concourse of humanity continually emerges from the clouds of the past. It passes toilsomely by over these earthly roads and disappears in the clouds of the future. We must be sure we will meet with stern questioners. Nor will those pass unchallenged who have, to serve their temporal purposes, rendered the path painful and barren to those generations yet to follow.

Mr. Bucke.—I should like to ask Mr. Phipps what percentage of forest there should be in the country?

Mr. Phipps.—That is a disputed question, but it is generally allowed that it should not be less than three acres to ten. In many European countries they maintain more. If there is in the country a large amount of land otherwise barren, it is a great advantage to plant trees, as nothing else would be so profitable. If we could maintain in good forest condition throughout the country three acres to ten, we should confer a very great benefit on Canadian land.

The Secretary.—I move a vote of thanks to Mr. Phipps for the treat he has given us. This matter is to some of us new. We have been fighting with the trees to get room in order to grow our cereals and pasture our flocks, and we have been inclined to look on the forest as something to get rid of. Still, the wonderful price that we would now pay for black walnut certainly would not hold true were the forest still remaining. Things cannot be kept in *statu quo*. The forest had to give way in order that we might live here and this country might be peopled. We must remember, however, that the forest holds a certain relation to our own prosperity and health, and to the best interests of our agricultural pursuits, and that we may press this hostility to the forest too far. Indeed we *have* carried it too far, and we need very much to have our attention called to the true relation between the forest and arable land, and so conduct our agricultural pursuits that we shall maintain sufficient forest to further our interests. At the same time we should endeavour to supply ourselves with those woods needful for fuel, but chiefly for purposes of manufacturing the implements we must use.

Mr. Dempsey seconded the motion.

ARBORICULTURE.

Prof. Brown, of the Ontario Model Farm, read extracts from a paper presented before the British Science Association at Montreal, as follows:—

Is there any country whatever that has made an eminent agricultural history and does not now complain of want of trees?

Advanced nations are not discussing the worth or worthlessness of trees in their rural economy; they are considering how best to secure the fulness of the value thereof in all their bearings. In doing this much serious consideration is necessary. It would be very unwise for any country to rush into extensive tree-planting without a clear idea as to how the work should be begun, carried out and maintained.

Canadian forestry will have no place in all its scientific and practical value until one of two things be accomplished: One is the conviction on the part of her farmers of the necessity of conserving and replanting, therefore, their education up to these; and the other is the power by Government to resume parts of the country for conserving and replanting. Both will be difficult. The former will be the slower but eventually the most thorough, because of self-interest; the latter will be more immediate and possibly less efficient, practically, though scientifically better applied. No large number of various interests could be so well arranged as by a company, and therefore Government, as a company, will have to become foresters in all the many details of the profession.

I believe it is the experience of the world, that more difficulty, in various forms, is found in reclothing with trees where trees grew before, than it is to plant, not replant, a country for the first time. There is not only the practical fact of succession of cropping in its scientific and natural bearings, as similarly realized, for example, in the products of the field, but the more serious one of the indifference of those who cut the first crop. We have no time to show how temperature, rainfall, moisture, and evaporation are directly influenced by a small or large surface of trees, and how, therefore, water is largely in the hands of trees for local distribution. This second duty of forestry as a science and practice would even seem to swallow up the previous question, and is consequently inducement alone to its prosecution on our part. Were neither of these sufficient, however, to convince, the third great reason for tree cultivation will surely convert even the most American amongst us. It is no matter of doubt, under average conditions, in any country, that tree culture is more profitable as a crop than its own agriculture, year by year. This position is not open to question, but clear and marked in all experience where age has given time for proof.

The existing condition of our forests is the very first consideration in this enquiry. Outside of the lumbering interest, which of itself is simply a taking without system, there is no enclosing, preserving, caretaking, or conserving in any sense except the right of individual ownership, some of whom do act the forester, but nationally there is nothing recognized.

There are really no figures to give as to the extent of Canadian forest, either as to gross area or special kinds of timber. The small map recently issued by Dr. Bell, of our geological survey, gives a good idea of the northern limits of the principal trees, but, of course, it cannot help in either of the particulars named. As the country, with the exception of prairie, was originally all forest, and as we have cleared about 25,000,000 of acres for agricultural purposes, it may be said that the whole country is still under trees with these exceptions. What the extent is to a million acres nobody knows, nor do a million acres one way or the other affect our subject.

We have four distinct fields of operation in the future of Canadian forestry: 1st. The untimbered land such as prairie. 2nd. The older cleared portions. 3rd. The recent forest settlements, and 4th, the untouched forest. Each of these will require different methods as to conserving, clearing and replanting, although all will be subject to one grand system of operations. To submit details now would be unnecessary when the object is to impress principles.

But yet another aspect of the question is the requisite proportions of tree surface to that under farm crops. What should it be? This is just one of the things that we do not know, and that we are not likely ever to know, as a point for general practical

guidance. The conditions are so various as affected by climate, altitude, latitude, aspect, soil, sea or lake neighbourhood and vegetation, that no possible number of observations in any length of time could say how much for one district or so much for another. However, men do come to realize through science and practice—practice especially—that a farm or district needs the protection in certain places, and thus a country could easily be reclothed to the extent required for such shelter, if not for regulation of climate and other considerations. The point then of immediate shelter is within everybody's knowledge, and needs no scientific guidance, and I may here say no governmental spurring. But the greater field of climate as an unknown one practically in this relation, is more a national problem, and still very much a scientific inquiry, and what it will have to say in regard to the proportion of trees to farm crops no one can tell. Of course if men disregard everything but the direct profits from trees as a crop upon land, another century may actually find some countries going back to the days of too many leaves and too little arable. Viewing trees in all their relations I am of opinion that upon an average of conditions in Canada, one-fourth of the surface should be covered by them, and as this is just one-half of what we have at present all over the forest districts, there rests the apparent inconsistency of wanting to conserve and replant all the while that we possess double what is required. This brings out the fact that it is the *irregular distribution* of tree surface in our case which gives trouble,—that some parts have more than required, and others have been overcleared.

As the subject grows upon our attention, we are next concerned with what parts of the country should be conserved or replanted, and in this part of the study it is obvious that our views cannot be confined to single farms or even special sections. Referring as we must to the great overruling influences, as previously indicated, we have to deal with geographical features that may embrace thousands of acres that have to be subserved with one or more massing of trees. Just where to conserve or replant, how much on the spot or spots, so as to gather and dispense all the virtues that trees are known to possess, is the great problem of the future. To say that we should only replant our less valuable soils is nonsence, though apparently sensible enough from an agricultural standpoint; that high lands should be conserved or reclad as against lower parts is largely true, though not generally applicable, and that conserving and replanting must go hand in hand and take place anywhere as found best through experience, is correct in every sense.

In order to success anywhere there must be put in operation, upon a system, such a combination of the scientific and practical knowledge that at present exists as shall most likely bring about the fullest realization of tree value. That system is universal in its application, however small or large the scale, or however varied the conditions. Whether we pull down or rebuild, or make entirely new, the system will apply, and as it is by entirely new work that any system is best exhibited I will ask you to go with me to the Prairie. I see no great future for Manitoba and our Northwest unless extensive systematic forestry precedes. The sooner our government realizes this the better. All methods of farming, railway and water communication, minerals, natural grazing, or any other form of good things will never "make" a country without trees. We are not theorising in this. *A peopled agricultural country is an impossibility without trees.*

In our treeless region, therefore, experience has made us acquainted with a variety of wants that can be subserved by trees, and science points to more. Together then they make up a bill that may be thus summarized:

1. Roadside shade.
2. Shelter for dwellings.
3. Shelter for cultivated farm crops.
4. Shelter for open natural grazings.
5. Shelter for enclosed grazings.
6. Head water conservation.
7. Wind breaks.
8. Climatic amelioration.

Either of these would of course serve more purposes than that implied by its name, but a full illustration of the system requires a form for each.

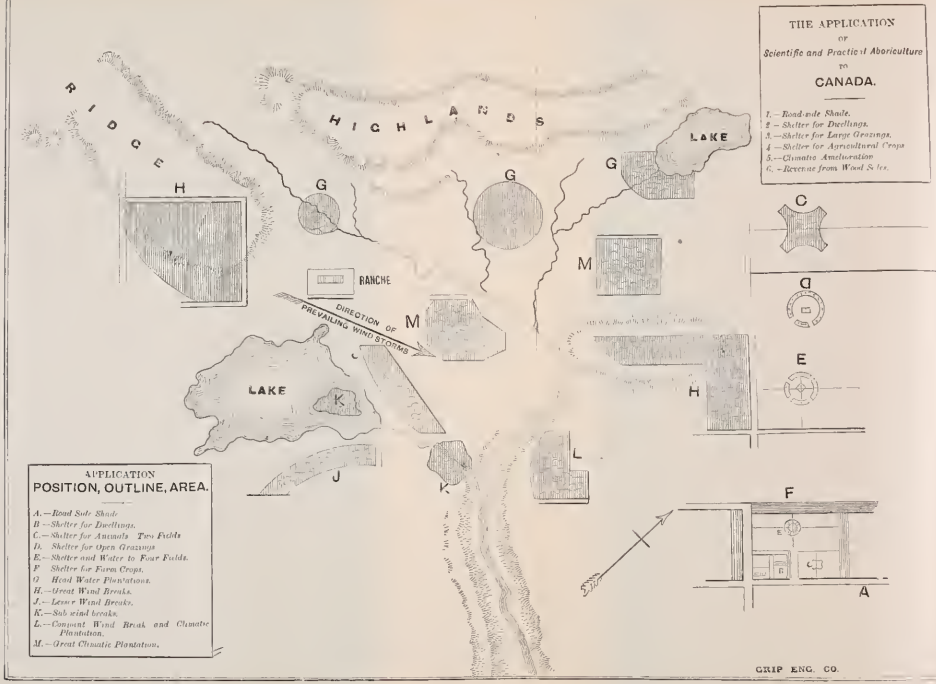


DIAGRAM TO ILLUSTRATE PROF BROWN'S PAPER ON ARBORICULTURE

Now this map professes to show all these: from the single shade tree up to the great climatic plantation, the area or district embraced and the size of each of the classes would be subject to requirements, from one acre to as much as 1,000 acres each; the system or principle is not affected by size, but, position and form, or outline, are prime factors.

Size would be regulated by the particular physical features of the district and the object in view; form, by prevailing winds, as well as the particular object and partly by physical features.

In our prairie example on the map we have a farm of 160 acres made up as follows:

Timber	30 acres.
Cultivated	125 "
Orchard, garden, buildings, roads	5 "
Total	160 "

The fields and roads lie northwest and southeast, and therefore also northeast, and southwest. By preference the buildings are situated on the southern angle of the farm at a junction of a concession and a side road. In the first place the roads are lined with shade trees, which serve as shade to animals in some of the fields as well. Then the dwelling house and orchard, while open to the southeast, south and southwest, are shaded by ornamental standards and lined on the north and northwest by trees. This tree line may be called the 2nd sub-wind break of the farm. The barns with two small fields or paddocks, are also open to the south and protected from the colder winds by a narrow belt of timber in positions similar to the others. The six other fields are, in the first instance, sheltered by a broad belt all around from the east, via north to the west, capable of breaking and mellowing the whole farm for cropping. But, for live stock, under such circumstances, and with twenty acre fields, it is necessary to provide other shade and shelter. This is best supplied by what I have proved in actual practice both in Scotland and Canada. I know of no better form and position of a shade and shelter clump of trees than that illustrated in Fig. C., and the position of which is also shown in our farm example. It serves two fields, and from whatever direction the wind comes, or the sun-shines, the animals can find a retreat in either field. You cannot shoot a straight line across this clump and not find a safe corner.

Then, in the adaptation of one form of shelter to four fields (Fig. E) is neat and serviceable, and when supplied with water in the centre is a very valuable acquisition to pastures. In the case of extensive open grazing, the circular belt (Fig. D) is also best for various reasons. It resists and breaks wind storms better than other outlines; it is less liable to damage by cattle or wind, is more compact and affords more outside shelter. There should be two passages not far apart and facing south as much as possible; one passage is not enough with a large number of cattle going and coming, and provision is necessary for a stack of hay in the centre.

These are what may be called the purely agricultural divisions of arboriculture, and are definite and practical enough, upon which little difference of opinion is likely to arise. In what remains of my subject there may be not only difference of opinion in regard to details, but considerable difficulty in satisfying that anything more is needed than what has already been sketched. It will be said: As each farm has its proper amount of shade, shelter, fuel supply, and even wood revenue otherwise, what more does the country require?

I have not seen in any work on rural economy that it is as much the duty of nations to administer their arboriculture as their laws of health. Then while everyone acknowledges that without the proper measure of trees there cannot exist the proper health, political economy, science, agriculture and all society, is equally interested in this question, and as I have already indicated its national aspect, it is only necessary to point out how more than the immediate farmer's work is required.

Over a great plain, such as our prairie, where storms rage unchecked, where rains come and go irregularly and uneconomized in any form, and where sunshine is unmellowed, it is necessary to establish agents for the purpose of subserving these and other climatic

purposes. Assuming that all the country were planted to the extent already shown for immediate farm use, there exists nothing in particular spots,—no plantations exactly placed to conserve head water streams, no great and small wind breaks, and no great climatic plantations,—the agents respectively.

On the map these are shown in position, proper outline and extent. *Position* is regulated by elevation and neighbourhood of other physical conditions, such as water surface, and high land; *outline* is regulated by direction of prevailing winds, conformation of surface, and partly by public roads, while the *extent* is directed by the indefinitely known influence that a certain body of trees possess over climate; climate being understood as distribution of rainfall, evaporation, natural drainage, and temperature.

I am aware that we cannot reason on this from any clear or precise experience, and are driven to draw conclusions from actual facts, and there seems to be no doubt that it requires a certain massing and kinds of trees to ameliorate climate, narrow strips and clumps being insufficient, or incapable of doing so.

Head water plantations, as implied in the name, must surround, or be in the immediate neighbourhood of, sources of streams, and have an outline to nurse them, with area consistent to the importance of the source. The circular form is good and applicable to the two springs at G., or it may be oval as illustrated at the mouth of the valley, and would also take the position and area of that at the small lake.

Great wind breaks being meant to fend the smaller plantations as well as particular districts, have to be carefully outlined, of very considerable extent, and must command an exact position. In the example of H. on the ridge, which is designed to break the storms from the adjoining ranch, several points are noticeable. The land occupied by the plantation is within one block, or range of roads, and therefore does not encroach; it occupies also part of a ridge that generally is less valuable for agricultural purposes, it is formed to cut or feather the storms that prevail in the district—southwest by west—a point in forestry of very great importance indeed; it is massive or in sufficient body to resist and break, and it is so situated as to resist the main force of the storms. It may be remarked that it would be better to extend the plantation eastward upon the point of the ridge; this I have avoided in order to make the example more difficult.

The other great wind break is of a different form, while serving a similar purpose. It parallels with the public roads, makes no awkward corners for cultivation of adjoining land, faces prevailing winds with the exception of southeast end, and will protect a large area of country.

Lesser wind breaks, as at J., are placed where, either by the form of the country on the prevailing wind side, or where a larger break is difficult to establish. The example on the east of the large lake exhibits both. Position here is very important, and it will be observed that outline and area are arranged to receive the storms across the lake, break them, and yet yield to them.

Sub wind breaks are easily arranged and can take various forms and sizes to suit conditions as at K.

Another kind of plantation, as already referred to, is that which I call climatic,—the objects of which have been explained. Their position in a country among others is not so easily reasoned, either scientifically or practically. Area is obviously of more consequence than form, because it requires a great field of leaves to do what leaves are said to do in climatic amelioration. M. with eight sides, and the other with four, are designed as concentrated masses adapted to Canada, and of course in their case, more than other plantations, the cost of establishment would be less per acre, and would also better meet the item of revenue. L is an example of a conjoint-wind break and climatic plantation.

Canadian forestry, whatever its future, will never realize all it should unless hand in hand with science.

ESTIMATE OF FINANCIAL POSITION OF A MIXED PLANTATION OF ONE HUNDRED ACRES IN CANADA.

(Manitoba and the Northwest Particularly.)

REVENUE.

1st Thinning when 15 years old, 3,000 poles, 20 ft. long at 3 cents	$90
2nd Thinning at 18 years; 8,000 trees at 5 cents	400
3rd Thinning at 25 years; 15,000 trees, 12 inches diameter at base, 40 ft., at 30 cents	4,500
4th Thinning at 35 years; 25,000 trees, 20 inches diameter; 50 ft., at 50 cents	12,500
5th Thinning at 40 years; 30,000 trees, 22 inches diameter	22,500
6th Thinning at 45 years; 21,000 trees, 25 inches diameter, at $1.00	21,000
7th Thinning at 50 years; 18,000 trees, at $1.10	19,000
Gross Revenue	$80,000

10,000 trees failed, leaving 20,000 trees, or 200 per acre as permanent crop.

EXPENDITURE.

1,000 rods of fence, at 75 cents	$750
Drainage of portions	250
150,000 trees, 1 year seedling, 1 year transplanted, at 1 cent	1,500
Planting same	575
Freight on trees	150
Original cost	$3,225

Per acre—$32.

Replanting failures for three years, 5,000 trees	100
General attendance, up-keep of fences, etc., for 15 years	300
Gross cost	$3,625

Per acre until revenue begins—$36.

Cost of thinning and hauling to roads	$13,100
General superintendence and incidentals for 35 years	3,500
Gross expenditure	$20,225
Balance being clear revenue	60,565
	$80,790

No allowance is made for interest on outlay and rent of land, on the one hand, nor for interest on revenue, and value of grazing for twenty-five years, on the other hand. Neither is credit given for climatic amelioration, nor for value of permanent crop.

Mr. WILSON.—What do you think the best kind of timber to grow in this part of the country?

Prof. BROWN handed Mr. Wilson and others lists prepared at the Agricultural College.

Mr. CAMPBELL.—I knew a planting of larches which had to be supported to prevent the trees from blowing away; yet they did well, and in thirty-five years timber was being cut from them for shipment.

A QUESTION.—Is it a general opinion that the European larch, when grown here, is not as valuable as in the old country?

Prof. BROWN.—I have never seen them of any size here, but they grow well.

The PRESIDENT.—I think it is generally held that it does not succeed as well here as in Scotland, for the reason that the climate is different. In Scotland there is so much more moisture, and that particular character of climate suits the larch. I have no experience beyond this: I have European larches growing and they seem to do well. As to timber, however, there are none of us able to give much information. In the Western States it seems to be the conclusion that the tree is not as valuable as in the old country. Still it is a good tree.

Mr. PHIPPS.—I would like to say in reference to the very valuable paper just read, that I have advocated the retention of a larger area of forest for years past, but I did not care to trouble an audience with what is a governmental matter, and which can only be obtained by pressing on the Government to hold large reserves of Crown land. I have lately spent two months in the forests of the Ottawa, right away up to Lake Nipissing, stopping in the lumbermen's camps, and finding what state the forest is in. I shall lose no opportunity of pressing on the Government the necessity of preserving as large an area as possible. I may say that Lower Canada has now noticed the need of such reservation, and has lately reserved two large districts—St. Maurice and Ottawa—and yet another similar one in the eastern part, which would aggregate sixty or eighty thousand square miles. In these, settlement is to a great extent discouraged in order that the reservation may be kept up. Much of the land is poor, and it is not well to allow settlers in there on that account, and it is also done to prevent the raising of the fires that are necessary when land is being cleared. I may also remark that I did not trouble you with statistics as to what class of trees can be most suitably grown, but I am glad to say that I am getting out a Government report, from several hundred correspondents, regarding their experience in tree planting, and what kinds they have found to succeed, and what have failed. Their methods will also be given.

Mr. MORRIS.—Has Prof. Brown not omitted Catalpa speciosa from this list?

Prof. BROWN.—In our experience the Catalpa is not encouraging.

Mr. FORSYTH (of the Agricultural College).—Our experience is that last winter nearly killed them all. We scarcely had a leaf on top of them. A dozen or two stood for two or three winters, and then last year, with the thermometer down to 30 or 32 degrees below zero they were killed.

The PRESIDENT.—We had that temperature two years ago, and they stood it. They were six feet high.

Mr. MORRIS.—The thermometer went down to 27° below zero with us, and the Speciosa stood well. I think the growth will average one inch in diameter annually. In Minnesota it is considered valuable.

The PRESIDENT.—We have offered this tree to members to be tested. In the Niagara district it has been tested, and we know, from the experience of members, that the failure at Guelph must have been due to some other cause than the cold. It could not have been the winter alone.

Mr. GOLDIE.—I think the cause was its late growth in the fall. It does not ripen up its wood; at least that is the way my half dozen have acted. Mine were killed below the snow line. I propose another year to lift them and protect them during the winter, and plant out again; and then when they get a considerable size they will stand.

Mr. WILSON.—I agree with Mr. Goldie. I tried them to some extent in Chatham, and they died back half the growth of 1883 last winter.

On motion of Mr. Mitchell, seconded by Mr. Wright, the thanks of the Association were tendered to Prof. Brown.

Mr. GOLDIE (of Guelph) read the following paper:—

HARDY PERENNIAL PLANTS.

I wish to bring before the Association the importance of encouraging the cultivation of hardy perennial plants for the garden. The old system of raising annuals and tender bedding out stuff every year is both troublesome and unsatisfactory, and to those who have no proper houses or frames for propagating it is also expensive, as they have no other means of filling their borders except by purchase, and to those situated in the country this is not always possible. The mania for gaudy bedding and carpet work is happily dying out, and a taste for the beautiful Alpines and other hardy classes of Perennials is taking its proper place. To my mind there is something in the individuality of the beautiful spring bulbs and Alpines that quite casts into the shade all the ribbon and carpet bedding of the fashionable garden. From early spring till late in fall a continual succession of flowers can be obtained from the hardy garden without the annoyance of raising the young plants every year and watching the weather for a favourable time, after

the late spring frosts are over, for their bedding out. Then again some of them are hardly well into flower when the dreaded early fall frosts come and the work of the summer is destroyed in a night. Not so with the hardy garden. In the early spring the Snowdrops, Crocus, Snowflakes, Scillas, Narcissus, Hyacinths, etc., followed by other spring and summer flowering plants in rapid succession, keep the borders gay all the time. While the hardy garden must be in a great measure filled with foreigners, yet there are many natives that are equally as well worthy of cultivation—in fact so much is this the case that in Europe a garden of any pretensions without a border for American plants and shrubs would be looked upon as wanting in one of its greatest attractions. They consider our Cypripediums, spectabile and pubescens as the most magnificent herbaceous plants in cultivation. Then we have the Trilliums or Wood Lilies, Liliums, Hepaticas, Erythronium, Sanguinaria or Bloodroot, Asclepias, Aquilegias, Violas, several species of Phlox, Lobelias, Gentians, Asters, and an innumerable number of other things which would look well in any garden. With these, and a proper selection of plants of foreign birth, no garden need be without a good display of flowers from early spring till late in the fall.

It would extend this paper too much to go over a long list of names which can be got out of any descriptive catalogue. I will only mention a few natives, some of which should be found in every garden. If some florists or nurserymen would take to growing and putting on the market a good selection of perennials he would be doing a good work, and no doubt it would go far to create and perpetuate a taste for hardy garden plants, which once acquired will never be given up while life lasts. In preparing a border for perennial plants it is of as much importance to have it deeply dug or trenched as it is for any vegetable crop whatever. If possible, incorporate some leaf mould and a small portion of very rotten manure, and if the land is heavy a quantity of sharp sand will be an improvement.

Most bulbs require a good, deep, rich soil. Hyacinths, for instance, cannot be grown to perfection without plenty of manure and depth of soil, and when once a bed of them has been planted under these conditions they will last for several years without further care, except to give them a good mulching with well rotted manure every fall. Above everything, follow nature as closely as possible in soil and situation. One class of plants likes a shady situation and moist soil ; another will stand the hottest midsummer sun and will delight in it. So, according to the situation, a proper selection should be made.

That this may be the means of drawing attention to, and creating an interest in and love for, the beautiful hardy flowers of the garden will be my prayer.

LIST OF HARDY PERENNIALS.

Anemone—nemorosa.
Asclepias—tuberosa, Orange Milkweed.
" quadrifolia.
Asters—a great many species.
Aquilegia—Canadensis, Columbine.
Campanula—rotundifolia.
Cypripedium—spectabile, Lady's Slipper.
" pubescens.
" parviflorum.
" acaule.
" arietinum.
" candidum.
Dicentra—cucullaria.
" eximia.
Erythronium—Americanum.
Gentiana—Andrewsii.
" alba.
Hepatica—triloba.
Hepatica—acutiloba.
Lithospermum—canescens.
" hirta.
Lobelia—cardinalis.
" syphilitica.
Lilium—Canadense.
" Philadelphiacum.
" superbum.
Philox—divaricata.
Sanguinaria—Canadensis.
Sisyrinchium—Bermudianum.
Thalictrum—anemonoides.
Trillium—grandiflorum.
" erectum.
" erythrocarpum.
Viola—pedata.
Uvularia—grandiflora.

The PRESIDENT.—There are, in addition to what Mr. Goldie has recommended, quite a number of suitable species which he has necessarily omitted. It would make the list very long to include all our natives, but there is our native Columbine which could be specially recommended. That is one of the most beautiful we have in our woods, and the family contains a great many varieties easily grown. There are also in addition to the old English varieties the Rocky Mountain species. There is a plant, I think I am correct

in saying Mr. Goldie did not mention, that is the Hibiscus moscheutus, growing up in the West. The flower with me was three to three and a-half inches across, and nearly white when open, which afterwards assumed a pale pink colour. They open only for one day. The number of flowers produced is large, so that every day there is abundance of bloom. From the perennial root it grows up every year. Then, as Mr. Goldie has well remarked, the list of foreign plants is so immense, that to take up two or three of the genera and investigate the best varieties will take all the space any one has in his garden. Take the Monkshood, of which the flowers are beautiful, and although the blue variety is in use I have not heard that any accidents have arisen from its poisonous qualities. In that connection I may remark that there are some twenty-five varieties of which seeds may be obtained in Germany. In addition to these we have the Delphinium or perennial Larkspurs, of which new species have been introduced from India and China during the last few years. The Primulas, which include the old Polyanthus, would fill an extensive garden itself. There are some forty varieties. The varieties of Primula cortusoides are grown all over Europe. Then there are the different varieties of Foxglove; in addition to the old purple flowers there are now the yellow and variegated ones. They are practically biennials. The varieties of Phlox and Pæonies are to be had in great numbers. We have leeks in the North-west—Alliums—which have no bad smell if not broken, and produce flowers of a beautiful purple colour. In the early months of the year we have a class of purple flowers, species of Liatris or Blazing Star. The flowers form a spike and begin to open at the top. They give a characteristic hue to the prairies in the spring, and are well worthy the attention of all florists. Later in the season we have every variety of composite yellow flowers, including sunflowers, now so fashionable in almost every variety I think our Association would do well to disseminate more knowledge of this very important branch of floriculture. Any one who grows annuals will like a few rows of perennials, which only require that the ground be kept clean. By proper selection you can begin with the opening days of spring, and have flowers until the season ends.

Mr. Campbell.—There was one blue plant called the Gentiana acaulis that was common for borders in the old country. I have failed to get it here.

The President.—I have several plants imported, and they are doing nicely.

Mr. Goldie.—I may say that I started to make a list of choice ones once. I took Campanulas alone, and I had thirty down, each one of which no one would want to be without. There are also the Irises which no one should be without, and now we have a new sorts from Japan that are beautiful and gaudy. Any one interested may get a catalogue and make selections from descriptions given. Take the Columbines, and, if you are trying to acquire all the known species, the more you get the more you will want. Then there are the Ferns which have not been mentioned. To any one who can afford the time, they are one of the most interesting families to grow.

Mr. J. S. Dearness (of London, P. S. Inspector for East Middlesex).—I have felt a great deal of interest in this paper. Although among the youngest of amateurs present, nothing in my experience has given me so much satisfaction as to import some of these pretty spring flowers into the garden. With some of them I have not been successful, but with the Sanguinaria and several others I have had very good results. They improve very much under cultivation. Some of the wood violets, the Erythronium and Phlox that we are so familiar with and to some extent disregard, would be very popular if our dealers were to charge high prices for them. The general public seem to appreciate most what costs most. Our greatest blessings are those we appreciate least, and I would be glad if, as a result of this paper, there would be more attention given to wild flower cultivation. I should like to know if the Asclepiads are poisonous; and another request is this: give us the names of a few fragrant autumn flowering plants. I am not so fond of those that are brilliantly coloured as those that are very sweet. The cultivation of perennial flowers is neglected, because those who are interested make more money out of pot grown flowers. A gardener once told me there was but little demand for them. If these hardy perennial flowers could be cultivated for our school gardens it would give a great impetus to floriculture. Wherever I find a school teacher who has a taste for flowers and puts them in the school yard, I find sometime afterward, when driving around, the same flowers in the gardens of the children at their homes.

The PRESIDENT.—The Asclepiads are not poisonous. The scarlet variety is commonly known as Pleurisy Root.

Mr. GOLDIE.—As to fragrant flowers for autumn the imported Phlox is one; but for native plants I cannot call to mind anything but the wild rose.

Mr. BUCKE.—I think the reason our wild flowers have not been more cultivated is because they are not fragrant. A flower which is not a native but which makes a good border, is the double flowering daisy.

CURRANTS—RED AND BLACK.

Mr. MORRIS.—They require strong, rich soil, and good cultivation. The soil cannot be made too rich. I believe that if you give them good, strong soil, and thorough cultivation, you will not be troubled with the currant worm. If it does attack them use hellebore. I think that Fay's Prolific is going to be one of the best. There is another of high quality, and that is Moore's Ruby, and for a white currant the White Grape. Lee's Prolific for a black currant is good, and Black Champion is another, but I have not fruited it.

Mr. DEMPSEY.—We grow currants, and we find it best to cultivate them under two circumstances. We select the warmest piece of land we have, and from that we sell those which ripen first. We get good prices. Then we have others on cool pieces of land, where the soil is damp, and off that we manage to have currants when scarce anybody else has them. By this means we find it pays very nicely. As to cultivation, I presume all of you will agree that you cannot manure them too highly or cultivate them too much. They require a large amount of food. As to varieties, there is none other which has paid me so well as red. The people do not seem to want white. The best have been Cherry and Versailles. I tried what I bought for Lee's Prolific, but it was not that at all. I manure and stimulate them very much, and never found any trouble with them. We esteem a couple of Saunders' seedlings very highly, and I have one myself—an accidental seedling—which is superior to anything else we have at all.

Mr. BEALL.—Does Mr. Morris know anything about a currant called Russian Pear-shaped?

Mr. MORRIS.—I can only say that we received among a lot of Russian fruits from Russia, some currants of that variety—white and red. They have not fruited yet, however. The Black Champion fruited this summer, but this being the first time I cannot speak as to its bearing qualities.

Mr. FORSYTH (of Guelph).—Of the varieties we have had, the Versailles and Lee's Prolific has proved about the best. Last year was our first year of fruit from our bushes, so we have not had much experience.

Mr. WRIGHT.—We grow currants, and so far the Versailles has been about the best. The old common Dutch is among the best for sweetness. When it is ripe, and you eat it with cream and sugar, I know of nothing better. I have not fruited Moore's Ruby yet, but it is highly spoken of. I have Fay's Prolific, but have never fruited that either. Mr. Morden, of Niagara, was kind enough to send me a bush called Raby Castle, but I have not fruited it. In blacks, Lee's has been the best with us. I have the Black Naples, but it is not as good. A lady near me grows Lee's to such perfection that I never saw such crops. The white currant does not take as well as the red.

The PRESIDENT.—As to the quality of Moore's Ruby, I may say that I had the opportunity of comparing it with others last year, and I consider it much in advance of any other in flavour and quality, and I believe it is going to take a high rank. The size of the berry and length of the bunch do not seem to be equal to Fay's Prolific, but if I had to choose between the two I should take Moore's Ruby.

Mr. BUCKE.—The size of the currant depends largely on the manuring and cultivation.

Mr. GOLDIE.—I would like to ask what system of cultivation is preferred, and in regard to form of bush. For myself I like to have a single clean stem without any suckers. I think most growers like suckers to come up. Young plants from nurserymen are covered with suckers, but I have a clean stem.

Mr. Morris.—I have tried growing currants on a single stem by rubbing the buds off, but I found it a perfect failure. I think the currant requires to renew itself with suckers. Gooseberries require the same treatment.

Dr. J. R. Flock (of London).—While growing on one stem did you find the fruit was larger?

Mr. Morris.—I think that was the case.

Mr. Dempsey.—We attempted to grow them on single stems, and I became satisfied in about five years that my currant bushes were gone. If we attend to the thinning out of our bushes, we can get as large fruit from bushes with branches below the ground as those above.

Mr. Campbell.—When I began growing currants, I started on the old country principle of having berries on one stem, but pretty soon the fruit broke down the branches and the bushes were gone.

Mr. A. M. Smith.—Although not experienced in market growing, I have tried most of the leading varieties for myself. As far as I know, I think Fay's Prolific of the red varieties is the best. In black currants, the Black Naples has been generally considered the best for profit in our section, although I find people are beginning to prefer the taste of Lee's Prolific. Some say they would pay more for it, but when fruit goes on the market it is not known what variety it is. I have heard it remarked by parties that they could not see any difference between Lee's Prolific and Black Naples in quality, but I judge that such parties were deceived the same as I was, when what I bought for Lee's Prolific was not that at all. When I got the genuine article, I found there was a vast difference. You could tell them apart with your eyes shut. In point of productiveness and size I do not see very much difference, but I think Lee's will bear younger than the Naples. The Victoria has done very well with me, and I should judge it would be a very good currant for the market. There is one variety originated by Mr. Saunders, which I think is superior to the Black Naples. He gave me some cuttings.

Mr. Goldie.—I have planted mine on sandy soil, and put out what is called, in Hamilton, Black English. One of my neighbours says they are Black Naples. They were sent to me, and the soil I have put them on is for a part of it low and wet. I find that the wet soil, where I have underdrained, seems to be a year ahead of the others in two years.

The President.—I had some Black English, and they are not to be compared with Black Naples.

Mr. Smith.—That is my experience.

Mr. Goldie.—I cannot see any difference in the bush.

Mr. Gregg.—There are men who bring currants to London market who had great trouble with insects.

The President—There is a spotted caterpillar which is partial to the black currant, and it is not much affected by hellebore; but Paris green and water will fix them.

Mr. Latimer.—In the vicinity of Lake of the Woods I found both red and black currants growing wild in great abundance. They were quite equal in size to any I have seen on London market, and it seems to me if some of them could be procured and cultivated, they might turn out valuable. They seem disposed to grow in damp soil.

The President.—I have some of those black currants growing in my garden from seed obtained in the garden of the Lieutenant-Governor of Manitoba. They appeared, if we could judge from what we saw there, better bearers than any we have in cultivation. I hope in two years to have some of them bearing.

Mr. Forsyth.—Large quantities of berries come into Guelph market that have been gathered in their native state. They are larger than the cultivated, but of inferior quality.

The President.—That is probably our wild black currant, and it is very inferior in flavour.

The Association then adjourned until evening, at eight o'clock.

At the evening session, the Question Drawer was opened and discussed.

ALTHEA ROSA.

Is there any part of Ontario where the Althea Rosa is hardy?

The PRESIDENT.—In this section of the country it cannot be called hardy. Some years it flowers well, but occasionally we get a season that kills it out to the snow line. I do not know whether that is the case in the Niagara district.

The SECRETARY.—It is sometimes killed. Three years ago some of the plants were killed back very much, and one very old plant, which I had standing on the lawn, was so badly injured that I took it up. Younger plants do not suffer so much, but usually get through the winter and blossom very freely. It is a very pretty shrub, and is valued for its late flowering.

CROSS-FERTILIZATION.

How is cross-fertilization effected?

The PRESIDENT.—Simply by the application of the pollen from the stamen of one flower to the pistil of another. One plant is selected as the female and another as the male, and the pollen conveyed from one to the other. Care must be taken to remove the corolla before the flower is naturally open. That is done by tearing it away, the next step is to remove all the anthers with their stamens, and then there is nothing left but the naked pistil. Immediately you have operated in this manner on all the flowers you want, pull all the others off the bunch and throw them away. Then cover the prepared flowers with a bag of fine manilla paper while you collect the pollen, so as to prevent insects from bringing other pollen, or fertilization being affected by pollen blown by the wind. When you have returned, apply the pollen with the finger, or a fine camel-hair pencil. Then put the paper bag on, and leave it until fruit has formed.

HYDRANGEA PANICULATA.

What is the best manner of saving Hydrangea paniculata from winter-killing and obtaining the greatest result in bloom?

Mr. GOLDIE.—I was not aware that it winter-killed. I have had it for several years, and it stands the severest weather to the tips of the branches. To get plenty of bloom you must use plenty of manure and give it all the water possible.

APPLES IN MIDDLESEX.

What winter apple is most profitable to growers in Middlesex?

The PRESIDENT.—We have had that question pretty well discussed, and the decision has not been on any one variety. It would be very difficult, as far as I am conversant, to name any one apple which should have precedence over all others. Difference in soil and location bring different results to different growers. I know that some of our largest growers are growing Northern Spy most extensively. It takes a good while to get the trees into bearing, but when it does bear it generally proves most satisfactory. There are others who are also growing the American Golden Russet very extensively. I think perhaps, that, if a general expression of opinion could be obtained from local fruit growers it would be in favour of the Northern Spy.

Mr. SMITH.—I should judge, from the result of my purchases through Norwich, that the Northern Spy would be as profitable as any other. The American Russet is perhaps next. The Baldwin does not always succeed, on account of the injury to trees from winter in exposed localities.

THE MARKET FOR SMALL FRUIT.

Is the market for small fruits likely to be overdone for the next ten years?

Mr. LITTLE.—Judging from the past, and looking to the future, I would say that there will be a larger demand than there has been in the past. When I began selling

fruit, as an amateur, twenty bushels would have supplied our locality, but every year it has increased. Selling strawberries is profitable, and I think that a man industriously disposed can make more off ten acres of land with that fruit than off 100 acres by growing grain.

ORNAMENTAL TREES.

Mr. Goldie.—The programme does not lay down any limit of ground, and it would make a considerable difference whether the plot were large or small. I have noted down a few that I have tested myself, and I give the list :

Abies—excelsa and varieties.
" orientalis.
" Hudsonica.
" Japonica.
" Alcocquiana.
" polita.
" Nordmaniana, tiger tail.
" Canadensis, *nana* or compacta.
" Douglasii.
Picea—pungens.
" pectinata, *nana*.
" pichta, Siberian.
Salisburia—adiantifolia.
Podocarpus—Japonica.
Sciadopitys—verticillata.
Pinus—cembra.
" Austriaca.
" Monspiliensis.
" strobus, *nana*.
" Mugho.
" pumilio.
Thuja—occidentalis—white arbor vitæ.
Thuja—Fern leaved, Douglas.
" Golden, "
" White Tipped, "
" Little Gem, "
" Tom Thumb.
" Vervaneana.
" lutea.
" Hoveyi.
" globosa.
" pyramidalis.
Common Lilac, varieties.
Persian do
Chionanthus—Virginica, white fringe.
Halesia—tetraptera.
Styrax—Japonica.
Wiegelia—rosea.
Cercis—Canadensis, red-bud.
Sophora—Japonica.
Virgilia—lutea.
Cornus—Florida.
Rhododendron—Catawbiense, varieties.
Azalea—Belgian, varieties.

I might say in conclusion, that in planting trees they must be given room. If they are of a spreading habit, let them spread, that you may get their full beauty. Most people who plant borders think they will thin them out when they get nicely growing, and then they forget to do so.

DAHLIAS.

D. W. Beadle (of St. Catharines).—Fashion seems to have a great deal to do with the choice of flowers that people plant. We get a craze for one thing at a time, and by and by we get sick of that and get a craze for something else. A short time ago in the City of New York, at this time of the year, the only thing anybody thought of buying was a Camelia. If they had a bouquet without that, it was not a bouquet at all. Now they would not have it under any consideration. They must have a rose bud, and that rose bud must be of a light saffron or yellow colour, or it is not satisfactory. A short time ago there was a craze for dahlias, and cultivators cudgelled their brains to get out some of the most beautiful combination of colours and most perfect forms. They succeeded so well that very rich dahlias were produced. I think I never saw more perfect forms than some of the dahlias our cultivators in Scotland succeed in raising. It has no scent, although it is not offensive ; but now we have passed to another stage, and the craze is for single dahlias. The beautiful double forms are, in a measure, unfashionable. People no longer see any beauty in them, but prefer the single flower that looks like a sunflower. I suppose it has come in the wake of the sunflower craze, that Oscar Wilde introduced with his new rules of esthetics. I still believe the most desirable varieties are the double, and cannot see any great beauty in a single dahlia. I will not take up your time in speaking of the different names, such as Queen Mab, Startler and Gem, for you would not remember them. The florist's catalogue will, perhaps, tell you more than I know, and will tell you more than the writers themselves know. There are the "fancy" dahlias, made up of a number of colours, but the single colours, I think, please the eye longest ; and yet some of the harlequin ones are most beautiful and are worthy a place in your gardens for variety sake. Then there is another division : the Pompone, or small growing

dahlias, which are very pretty to make up in small bouquets for the table. The dahlia originated in Mexico, and is an American plant; but the Americans did not discover its possibilities. It was taken to Europe, and had to come back here before we could appreciate it, which seems to be true of a great many flowers. I remember a gentleman in Brooklyn, N. Y., who had a beautiful Camelia and tried to introduce it there. It would not go. He sent it to France, where some of the French growers got hold of it, and it came back afterwards and sold like hot cakes. As to its cultivation, I may say it is a strong feeder. If you want to grow dahlias to perfection, give them good, rich soil, and abundance of it. If the season is dry, give them plenty of water. I think I never saw grander flowers in my life than the dahlias of a year ago, not excepting the rose, in their perfection of form. Heat has an injurious effect upon them, and they should be shaded from the afternoon sun. If a certain amount of mulch is placed on the ground, and the plant watered, a good deal of moisure will be exhaled. To keep the tubers, put them in a perfectly dry cellar that is frost proof.

BEES.

Mr. Dempsey.—The beekeepers of Canada are not under the necessity of sending their bees to Europe to win a reputation, as the flower growers and stock breeders seem to have done. I believe stock growers have been obliged to send a heifer to England to get $6,000 for it, while it would bring but $25 here. We have gone all the way to Palestine for our bees, and I do not know that we have improved on them. In their culture we have to study their nature, and then apply our treatment as near the natural plan as possible. We find that they are natives of a tropical climate, and build their homes in rocks and hollow trees, and select a spot where the immediate rays of the sun do not strike upon them. We must provide some similar protection. When the household becomes too numerous, we find that they divide and emigrate. We always find the mother or queen bee leading the colony in this movement. We find now that we can rear these queen bees previous to the time they are required, and have one ready as mother of another family, and thus divide the bees much more rapidly than by allowing them to swarm and then hiving them. By doing this we obviate a difficulty that you will better understand by an illustration. A certain lady, who was a bee fancier in our section, wore one of those Shaker bonnets, and a queen bee that was leading a swarm happened to light on the under side of it, and the others followed. She threw off the bonnet, but the queen happened to be attached to her head. A little boy saw the wonderful difficulty the lady was under, and unlike many other boys he went to her rescue. He saw where the queen bee was, and after grabbing her he put her in the bonnet, and the swarm followed. I followed a colony of bees that was leaving my place, for half a mile, when the queen bee settled on my thumb. I let the colony settle there, and carried them home without getting a sting. It is safe to say, however, that they do not always act that way in people's hands. We find them very profitable. There is nothing so profitable as bees when properly managed. It has been said that they work for nothing and board themselves; but I would not have you infer that there is no expense connected with bee culture, for there is considerable. We must have hives, and they cost something. We must have artificial foundation, we must have the sections properly arranged, and we must devote a good deal of labour to them. With respect to the office they perform in horticulture, it is an important one; but before I go into that point, let me correct some erroneous ideas. You may remember hearing a very intelligent gentleman, engaged in the cultivation of the grape, condemn the bee for taking the sweet principle out of the fruit. I never knew a bee to interfere unless the fruit was punctured first. I have proved this by thrusting a pin in a Delaware grape, and a short time after a bee would be there at it. I never knew them to touch a sound berry. We find that bees effect the fertilization of plants by carrying the pollen on their legs, and this is a very important office. We sometimes hear people speak of grand varieties being produced by accidental seedlings; but I believe these are produced mainly through the agency of bees

CLEMATIS.

Mr. Wellington.—The Clematis is one of the finest of all climbing shrubs. It is hardy and beautiful. It will grow in almost any soil, but prefers a rich loam. As with all perpetual or free blooming plants, if you would obtain good results, you must give it plenty of food to live upon. For that reason I would always mulch freely in the spring and autumn. Neither is it amiss to feed it with liquid manure during the summer. For position in the garden it will fill almost any place. It is good for a rockery, it is good for a wall, it is good to cover any unsightly object. The masses of purple, white, mauve and blue are colours which will certainly strike the eye, and add to the appearance of any garden. In regard to keeping in the winter, I would say that in order to get the best results from any perpetual blooming plant I would leave from two to three feet of old wood. This I would lay down and cover with a board and throw a little soil over it. This was all I found necessary in the most inclement winter. By taking this course you get in the following year more new wood from the old, and obtain more bloom. Now, as to varieties there are three classes, but I will merely mention those I consider best. If I were to be confined to one variety I should select Jackmanni, as that has remained at the head of the list for over twenty years. It has a purple flower, and can always be depended upon. It flowers from July to October. It is perpetual if you will only give it plenty of food. This Jackmanni and Prince of Wales are the best of the purples. In whites, Henryi is one of the best, and flowers from July to October. The best of the whites I consider is Languinosa nivea, and in the blues Modesta. Then there is the Lady Boville and the Gem, a lavender blue, flowering from June to October. The next two classes are those that flower from old wood, and the thin skinned class. Of the latter class I would mention two varieties. The Fair Rosamond has a whitish blue cast, and flowers about the last of June or July. Then the Duke of Norfolk, a deep mauve with a pale bar running through the centre of the flower. There is also another class which is double. Of these the best is the Duchess of Edinburgh. The Countess of Lovelace is also a beautiful variety. To parties wishing a small collection I would recommend these varieties beyond all others. There are many other varieties equally desirable, but for amateurs it is not desirable to extend the list. There are two other varieties that should be in every collection; they are Virginiana, which belongs to the second class I named; and the other Flammula, which is fragrant.

STRAWBERRIES.

Mr. John Little.—There is a difference of opinion with regard to which is the best variety. If you take a dozen men out of this assembly each one will say he has it. They say there is none other like the Wilson, Crescent, Daniel Boone, and so on. To get the best result from any variety you must give it all it will eat and drink. I have put down a number here, and the first is the Crescent seedling, which is an early plant. The only plant that should fructify it is the Duncan. Some will tell you to do it with the James Vick, but what is the use of getting a strawberry that will not blossom within eight or ten days of the one you wish to fructify. A man who engages in growing strawberries must be an enthusiast. The James Vick will do very well with the Manchester, Grand Duke, Windsor Chief and Glendale. There is one variety I choose above all, and that is Cumberland Triumph. I have had it in the same row for six years, and I expect as good fruit as ever next year. The day was when the Wilson occupied a leading place, and Hovey's seedling was the only one that compared with it; but we have better berries now. The Daniel Boone bears more fruit and of a better quality. It is the seedling of A. D. Wells, of Kentucky, introduced by Matthew Crawford, of Ohio. The Mrs. Garfield I admire. It is an abundant bearer, and will please the most fastidious taste. The old Ironclad is a fine fruit and a fine plant, and I admire the Hervey, brought out by John Moore, of Massachusetts. It is about the size of the Wilson. The Bella, named after Mr. Moore's daughter, lacks flavour. The Glendale was got near Akron, Ohio, and I have seen single plants that a half bushel measure would not go over; but there is one great drawback, it loses its colour. The Kentucky was considered good, but it wants to be

gathered before it is ripe or else it will get pale. It has a good flavour. The Cornelia has sold as high as one dollar per plant, and still one man here bought sixty, and another two hundred.

FLOWERING BULBS.

Mr. Saunders.—I wish to draw your attention to two or three classes worthy of attention. I shall not refer to some of the ordinary bulbs, such as Snowdrops and Crocus, of which there are some hundred varieties; but to Narcissus, a class of bulbs which have of late been immensely improved, and of which there are now some two hundred named varieties. These have been improved by what is known as cross-fertilization. You are all familiar with the poet's Narcissus, with a pretty little deep yellow cup, and so fragrant. That centre is called the Perianth. The new varieties have this Perianth much elongated, and very beautiful in form. There are all colours, from pure white to cream white; from pale primrose yellow to golden. Some are white on the outside and golden in the centre. I think this class of bulbs should be better known, for in our gardens very few of us have more than the ordinary Narcissus Poeticus. At a recent show in New York some two hundred varieties were exhibited. I shall not detain you with an account of the tulips, but pass on to speak of bulbous Irises or flags. These are grown in many varieties. We have the English Irises, which really are from Spain, and which flower with the first opening of spring and remain until the middle of summer. Then come a hundred other varieties of the Iris from various parts of the world, which continue to bloom until Christmas. From Japan we have a class of Iris of most beautiful and showy colours, which rival the finest Orchids in tints. These are known as Iris Kempferi, and there are fifty varieties of them. The longer one lives the more there seems to be to learn, and the amount you don't know so much exceeds what you do that the latter seems insignificant. There is another class of plants that are very beautiful, and that is the Squills. These begin with the opening of spring, and send up a tiny cluster of blue flowers, and other varieties will fill out the summer. There are the Peruvian Squills and the Siberian Squills, the latter being very hardy and beautiful. I would just refer to one other species, and that can scarcely be called a bulb, but is a tuberous rooted plant called Anemone fulgens. You may have read references to this flower by travellers in Palestine, and when in bloom it is a sight not easily forgotten.

RASPBERRIES.

Mr. A. M. Smith dealt with this subject chiefly in an entertaining way, that seemed to strike a popular chord in the audience. He spoke briefly, in closing, of a few leading varieties, and maintained to the end the humorous strain in which he began.

BEDDING PLANTS AND ANNUALS.

Owing to the lateness of the hour, Mr. Wright did not take up this subject in a serious mood, but excused himself in a few pointed sentences.

CLOSING.

During the evening excellent vocal music was rendered under the direction of Mr. W. J. Birks, by Messrs. Saunders brothers, Hook and Lewis.

The customary votes of thanks closed an exceedingly pleasant session.

SUMMER MEETING.

The summer meeting of the Ontario Fruit Growers' Association was held in Uxbridge, on Wednesday and Thursday, the 24th and 25th of June. At the opening session the minutes of the previous meeting were read and adopted.

Reeve Herman, on behalf of the Corporation, presented an address, to which President Saunders replied, taking occasion to fully explain the objects of the Association, and the various matters over which its discussions extended.

Dr. Black and Dr. Bascom, on behalf of the village, also made speeches in laudation of the work being effected by the Association.

The discussion of the subjects on the programme was then begun.

STRAWBERRIES.

Best variety for home use.—Best for shipping and market.—Which is the best method of cultivation for small or large growers, hills or rows?—What is the best distance to set the plants apart in rows?—How far should rows be apart?—Are there too many grown for the market?—What is the best sized package for crates? for berry boxes?

Mr. P. C. Dempsey (of Albury).—The first question I would not care to have anything to do with, from the fact that we who grow for the market are obliged to eat only what we cannot sell. We find there are several varieties that ship well, but our object is to get the greatest quantity of strawberries at the least expense, in order that we may compete with other growers. In this respect we find the profit is nearly all in two varieties—the Wilson and Crescent seedling. The latter affords us the larger amount of berries. They are brighter in colour, and more uniform in size. With respect to cultivation, we cultivate in rows; not as some do, in such broad rows, but generally in narrow ones, nine or ten inches wide. That is broad enough for strawberries. We generally find the finest and largest berries near the cultivated sides, while the smaller ones are to be found in the centre. For this reason I grow in narrow rows, and find I can produce as many berries as in the wide ones.

Mr. Bucke.—How wide apart?

Mr. Dempsey.—Three feet apart. The row is about one foot wide, and with it about four feet are occupied. We try to have three feet of cultivated soil in the summer, but at this season of the year only about two feet, from the fact that the foliage extends six inches on each side. As to the danger of over production, I do not think we will ever see the day in Canada when we will have too much good fruit. With inferior fruit it is quite an easy matter to overstock the market; but I have never yet seen the day when good strawberries, nicely gotten up, would not find a ready sale, even in local markets where the demand is not large. Persons living in the interior of our country have very little idea of the amount of strawberries that are consumed in the large centres. Montreal is supplied by many towns along the line, and several of them now have got so as to ship them by the carload. In our own little town we send two carloads a week, besides, every alternate night we send by express all they will take.

The President.—How many quarts will a car hold?

Mr. Dempsey.—About ten tons. The berries will go about two pounds to the quart, which would make about ten thousand quarts to each car. I know, however, that more than that number are often sent, as we have had five thousand quarts in ourselves, and only occupied about a quarter of the space. With respect to crates, I may say that we first began to use large crates, thinking that the weight was of little consequence; but now we have got down to thirty-six quarts, and we find that they are less liable to be pitched about and up-ended. They weigh about sixty pounds when full, and a man can carry them and set them where he likes.

Mr. Beall (of Lindsay).—Nothing has paid us so well as the Wilson strawberry, but lately I have been using the Crescent seedling. I had heard that the only time to plant strawberries was in the spring of the year; but after studying the matter carefully I have come to the conclusion that it may be best for those who have plants to sell, but for the man who wishes to grow them, I would say never plant in the spring. If you have to pay ten times the price get them in the fall, and plant them as early as the ground will permit. They will grow better, and you will have better plants a year ahead. If you had put in plants this spring they would be poor miserable things all this summer, and you get no result in appearance. The amateur wants to be paid as he goes along. We want to see a healthy-looking plant. If you plant in the fall, however, the spring finds you with fine healthy plants and a fair crop of berries. My neighbours are now nearly all planting in the fall, and we succeed a great deal better than heretofore. The Crescent seedling is being planted, and I think it may replace the Wilson, but it will be sometime.

Mr. Dempsey—Let each man speaking on this topic tell us what kind of soil he has.

Mr. Beall.—I call mine a clay loam, but it is a little more clay than loam.

Mr. J. C. Cummer (of Uxbridge).—As to variety, we have raised the Wilson principally, but on a small scale. With me they are doing exceedingly well; but I find from the discussion that I have planted the rows too closely together. I listened with interest to the last speaker's remarks on fall planting, and I should think it might do well except where early frosts come and the plants had not become well rooted. My soil is a clay loam, rather light on the top and inclined to be a little gravelly. I planted a few Manchester last year, and they are doing well. They stood the winter, and are just now loaded with berries.

Dr. Bascom (of Uxbridge).—I have grown a few strawberries for a number of years, at least I have tried to, but have not succeeded very well. I set out some eight or ten different kinds, and, as near as I can recollect, the Cumberland Triumph did the best. Taken all round, however, I think no other berry has succeeded so well as the Wilson. The soil in this locality is a sandy loam, and with me the Wilson bears better than the Crescent Seedling.

The President.—Have you tried any of the varieties of more recent introduction, such as the Daniel Boone or Bidwell?

Dr. Bascom.—I have tried the Bidwell, but it did not do much with me. I also tried the Sharpless, and it did not do very well last year, but is looking better this season. I have the James Vick, but having just set them out I cannot say what success they will show. As to quality I like the Crescent best. I have the Charles Downing, which did very well last year, but from some cause is not succeeding this year. I know that one cause may be the white grub which gets in at the roots, my ground being heavily manured. I find that my plants which look very well in the spring, soon begin to die and bear no fruit. So far as spring and fall planting is concerned, I have equal success with either. If you can get your plants in during the latter part of August or early part of September, there seems to be no doubt that you will have more fruit the next year. I have done so by transplanting the runners. Raspberries do much better by planting in the spring, but for late planting I would still prefer the spring to the fall.

A. M. Smith (of St. Catharines).—I have here, for your inspection, five or six varieties out of thirty or forty that I cultivate. For home use I have nothing any earlier than Early Canada. The Crystal City is about the same time, and most people would perhaps like the flavour better, but it is a very shy bearer. For an early variety, the Early Canada is about as good as any for the amateur or the market, although I am sorry to say it does not succeed in every locality. Where you have late frosts you are likely to lose your fruit. On the lake shore where frosts hold off we get the Early Canada a week earlier than the Wilson. For my own eating I know of nothing better than the Mary Fletcher. The quality is equal to most anything, but it is a medium bearer. Every year brings out a great many new varieties that are better than anything else, according to the word of the persons who have the plants for sale. The Atlantic, you may see here, which is the first I have ever grown. I do not know what the quality is. The Sharpless would satisfy most amateurs for size and productiveness.

Dr. Bascom.—How does it do on a very light soil?

Mr. Smith.—I cannot say, as I have grown mine on a clay loam. I have seen them grown on gravelly soil, and they were very fine.

Mr. P. E. Bucke (of Ottawa).—I think the New Dominion has been as successful in Ottawa as anything we have had. I think it is one of the best bearers, and is as fine a berry as anyone that has come out. It is now some seven or eight years since it was introduced. The best time to put out strawberries is July, when the runners take root. Take a moist, damp time, or lay a few twelve-foot boards over them until they take root.

Mr. Morris (of Fonthill).—I agree with Mr. Dempsey in regard to general cultivation and varieties—the Wilson, Crescent and Manchester. I would put the Crescent first, the Wilson next and then the Manchester. There are many other fancy varieties—as Mr. Beall says he has the Sharpless—which hardly pay to raise, even for the amateur. You do not get enough of them. I would disagree with Mr. Beall about the time of planting. It might do with him where there is plenty of snow to protect them, but the chances are that with us the bulk of the plants would be found on top of the ground in the spring. I think many strawberry growers do not want their plants to bear the first year, whether planted in the fall or in the spring. If planted in the fall the few berries that would be grown would be sure to be sandy and gritty. Our mode is to take off the blossoms and not allow them to bear, and by fall you have a good stand of plants that will give a good crop the following season. I do not think we are making the progress in varieties that some seem to think. I think the Manchester is one of the best we have, and for some years after it came out, it was claimed that it was the old Hovey. If there has been so little change in that time it shows that we are making slow progress in varieties; for the Hovey has been out for forty years.

The President.—I disagree with Mr. Morris. I believe we are increasing in varieties very fast.

Mr. Hilborn (of Arkona).—I have a great many varieties, but it is pretty hard to tell which are the best, and the more varieties I get the harder it is to tell. There are few ahead of the Manchester in the matter of profit either for market or home use. I have made the most money out of the Crescent for market. I last year fruited the Daniel Boone and was very much pleased with it. The quality of the fruit was very good—ahead of the Manchester to my taste—and a sample of the fruit would average larger than any other variety. The time of ripening is a little ahead of the Manchester, so that both varieties would be required. It comes between the Crescent and Manchester. The Cumberland Triumph that has been mentioned is also a splendid variety for the amateur, as it will continue in the same bed along with any other variety and gives a good quantity. I have grown the Atlantic, which only came out last year, but it is a little too early to say much about it. The fruit I had last year was only grown on spring-set plants. There is only one other variety that has come through the winter as well as the Atlantic: the Connecticut Queen. The Atlantic shows a good deal of fruit this year, and if it only brings them up to the size of those on the table it will be a very valuable variety. The old Ironclad is showing very well for an early berry, particularly for the amateur. I do not think it is very good for the market as it does not hold itself high enough off the ground. It is good in colour, and is several days earlier than the Crescent; in fact fully as early as Early Canada. The Sharpless is of no value to me. I have the first crop that could be called a crop this year. I grow my strawberries in furrow rows.

Mr. Beadle.—Have you tried hills?

Mr. Hilborn.—Yes; but I like narrow rows the best. I have about half an acre of Daniel Boone this year, but there was not a ripe berry on them when I left home, while the Early Canadas have been ripe over a week. The James Vick are scarcely half grown yet, and seem to be very productive. Two of Arnolds' Seedlings, Maggie and Bright Ida, are showing up the best of any two varieties we have. They both show a large quantity of fruit, and are getting to be a large size.

Mr. Morris.—The Ironclad spoken of by Mr. Hilborn ripened with us first this year, but I consider it of inferior quality. It is not as good as the Crescent. The Early Canada I have not seen good yet. After the first picking it is no good.

Dr. Cross (of St. Catharines).—Talking about the old Hovey, I think it is as good a berry as any. The Crescent and Wilson I have cultivated. My soil is hard. I have frequently tried planting in the fall, but have not succeeded. I do not know whether it is best to plant before the plants have grown a little in the spring or not. As to varieties I can say but little ; but the Sharpless which I have cultivated has not had enough taste for me.

Mr. Miller (of Uxbridge).—I am troubled a little with winter-killing, and I should like to know if any gentleman can suggest a remedy. I should also like to know how long it is best to let beds remain. Is it best to cut off runners or thin out the rows.

Mr. Beadle.—In regard to winter-killing, I have found a light covering of straw in the autumn sufficient protection. I say a light covering, and I want to call attention to that expression. I once gave my plants too much covering and smothered them. So light that you can see the leaves through the straw answers in our climate. Here you get more snow and it lies more continuously. Our trouble is the snow disappearing rapidly, followed by freezing. I know the difficulty with this straw ; you get seeds in your bed you wish were not there ; but I nevertheless prefer good clean wheat straw. I have used oat straw, and some of my friends have tried pea straw, which is less likely to be covered with seeds. As to how long it is profitable to let the beds remain, I cannot answer that. I have never grown strawberries for profit. I find after the second crop that it is very convenient for me to plow them under, and I think it would be more profitable. If you are growing the Sharpless or some others like it and do not cut off the runners, you will not have any berries worth talking about. If you feed your plants well and look after them you will get fine large showy berries. To my taste there is no berry equal to a thoroughly ripened Wilson.

Mr. Dempsey.—As to how long it is profitable to grow a bed of strawberries, I may say that we very seldom get more than one crop. I have taken second crops off that were the best we ever got ; but the way we got it was by applying half a ton to the acre of superphosphate, or bone-dust, and working it up very much. I applied it in the fall. We do not protect our plants any except by the snow. We cultivate one good year, and cut off the runners and do not allow them to spread too far. Then after picking one good crop, the second year after planting, we plough them under. We plant in the spring when we can, nevertheless I have seen some fine plants that were set out last fall on Mr. Beall's ground. We have set some in the fall that gave good satisfaction, but there was plenty of snow to protect them. The plant must get thoroughly established in the ground, or the roots will heave out in the spring.

Mr. Morris.—My soil is a mixture of clay and loam. As a rule I find it best to bear two crops. If the plants bear a poor crop the first year they are sure to bear well the next year and the quality is better.

Mr. Goldie.—In planting on a large scale, what system is adopted in putting in the plants ?

Mr. Dempsey.—First, we take a marker, and with a horse mark out the proper distances. Then, with a narrow plow, we run a light furrow, so that those who are engaged in planting may set them with their hands in the fresh turned earth.

Mr. Miller (of Uxbridge).—My soil is hard-pan bottom, and they seem to winter-kill with me. I have had several varieties, of which the Wilson succeeded best.

Mr. John Little (of Fish Creek).—Mr. Dempsey would be a father to me in planting and marketing; but I should never begin to grow berries if I could not grow more than one crop. I ought to take three. I have part of a row of Cumberland Triumphs that have been fruited six years, and are as good to-day as when I planted them. I think others would do as well if properly cared for.

Mr. Dempsey.—Which would you think the better, to straighten up an old bed or start a new one ?

Mr. John Little (of Fish Creek).—I would rather straighten up an old one, except where it has run down very much. If, however, you want to do away with them at one picking, let the runners go into the rows and then take away your old plants. A man who is growing for the market, or for home use, wants to make all he can out of his plants. I have not fruited the Garretson yet, but it is a very good plant and promises

well. The Connecticut Queen is the most promising plant I have in my garden. The Atlantic, I think, will be profitable and saleable. The Legal Tender is not what it was said to be. The Howell, from Tennessee, is very promising, being large and well-flavoured. The Princess is like all Durand's Seedlings, well puffed up, without being equal to the praise bestowed upon it. The Daniel Boone is all Mr. Hillborn has said about it. There is little, if anything, to compete with it. The Grand Duke is another new one, and is especially choice for eating purposes. The Old Ironclad I prefer to the Wilson. It is a good plant, and you never saw a berry off the Wilson grow as large as it does. Any man who wanted it for his family, and were not too particular about the flavour, would certainly have the full of his mouth with one of them. Arnold's Pride, Maggie and Bright Ida, are very good. The Bell is good and large. The James Vick is a famous plant, and was all the go at one time, but I do not care about eating it. The Mary Fletcher is a fine tasting berry. The Seneca Queen cannot be beaten in size, although it is not very shapely. The Sucker State is nothing but the Cumberland Triumph. The Crescent I would rather have than any of them for profit and flavour. The Glendale is good, but it gets dull so quickly; but no other berry will can as well.

The PRESIDENT.—If you were obliged to reduce that list to a choice of three or four, what ones would you take?

Mr. LITTLE.—Cumberland Triumph for one, Windsor Chief for another, and Mary Fletcher for home use. For selling, I would use the Crescent. A dozen men going into the market will pass by the small berries, although of superior quality, and select large ones. Regarding the mulching of berries, you must put it on after the frost has come. I should not plant in the fall, but in the spring. Plant them early, give them a covering and keep off the runners, and you will have as fine berries as any that have been planted in the fall.

Mr. A. A. WRIGHT (of Renfrew).—My soil is heavy clay, and the only way I can make it pliable is by mixing a lot of muck with it. The best strawberries that I have been able to grow were Wilson's Albany. The Sharpless has grown very well, some seasons, on the hill system. The berries are large, but the points are always white. The Triumph de Gand has also done well, but nothing has equalled the Wilson. With regard to protection, there is a difference of opinion. You must protect them in seasons when hard frost comes before the snow, more than in seasons when you have plenty of snow early. I agree with Mr. Little, that you must protect them after the ground is frozen. Wheat straw is best. You cannot spread pea straw that has been spoken of. I saw two really fine patches yesterday, one with Mr. Beall, in Lindsay, which had been planted in the fall. I have had no experience myself, except in spring planting.

Mr. LITTLE.—I never mulched but once in my life, and then I was sorry for it. I got more weeds than I could take out, and so I plowed the whole thing under. It is there that the vitality of the plant is to be seen. It was Arnold's Pride that were killed.

Reeve HARMAN.—Is sawdust good as a mulching?

Mr. LITTLE.—If you can get it rotted, it will act not only as a mulching, but also as a manure, and you get no weeds. I would not, however, cover the plants themselves with sawdust. I am greatly in favour of wood ashes, either leached or unleached. I have never tried coal ashes.

Mr. JOHN CROIL (of Aultsville).—You have already had the opinions of the greatest strawberry growers amongst us. There seems to be some difference of opinion as to the length of time a bed should be continued. Mulching, I think, makes the main difference, and I cannot see why, where mulching is not used, you should not continue your beds for two or three years. In mulching, you cannot avoid seeds, and that is what causes the trouble. In regard to the time of planting, I think the spring is the best. I fancied at one time that fall planting was the best, and followed it for two or three years. For a time I had good luck, and then when a dry season came I had not a plant left to tell the tale. I never failed in the spring. In the matter of kinds, I may say that the Early Canada has done remarkably well with us for earliness; but when you have spoken about its earliness and productiveness, you have mentioned all its qualities worth speaking of. It is very hardy, and, being a week earlier than any other, generally brings good prices.

Mr. Hilborn (of Arkona).—I would like to say a word about mulching. I mulch as much as I can, and use wheat straw for a winter covering as soon as the ground is frozen. The plan I find to succeed best is to put it between the rows and very little on the plant. I find that where I do not mulch, the fruit is apt to get very gritty.

Mr. Wright.—I put but little on the plants themselves.

Mr. A. M. Smith.—In localities where you can get them, evergreen brush of any kind, cedar or pine, is an excellent mulching, and is, of course, free from weeds. I have also used corn stalks. When it can be gotten, swamp hay also answers very well. I have not used tan bark.

Mr. MacD. Allen (of Goderich).—I never grow for the market, but I have had a good deal of satisfaction out of Arnold's 23, his pride. As a table berry it is delicious. I like the Manchester. I must agree with the Secretary in regard to the Wilson; for when I want a plate of strawberries that I know is genuine, I take the Wilson when it is really ripe. I think, however, that growers are going in more for the Crescent for profit. My soil is a light loam.

Mr. Bodwell (of Ingersoll).—I prefer the Wilson and Crescent. We have tried mulching with wheat straw with good effect. We spread it over the whole ground, covering the plants lightly, and raking it off in the spring.

Col. Magill (of Oshawa).—My experience has been related by one or two others. I grow some eight or ten varieties, two of which are on the table. I have a fine show of Vick, Capt. Jack and Col. Cheney; but my own idea is that the Wilson is the best. I have mulched with evergreens, which are free from weeds, or some of the common flags that grow in the swails, or corn stalks. I have used wheat straw, but there are always some foul seeds with it. I have nothing so prolific as the Crescent and Vick.

Mr. Dempsey.—I wish to correct a misunderstanding that has taken place over my remarks. Some of the gentlemen have understood me to say that it is not possible to grow more than one crop. It is purely a matter of finance, when I am growing strawberries. They may be kept growing for any length of time you like, simply by cutting them down with a narrow plough and leaving new plants. I fail, however, to see much difference between that and setting out new plants. With us, we are sometimes bothered with the white grub at the roots, but we find we can get off one good crop before the grubs amount to much, and then we set out new rows. So there are various reasons why we prefer the one crop system.

Mr. Clendinning (of Manilla).—I grow some five or six varieties for home use. I have the James Vick, Sharpless, Manchester, Crescent, Bidwell and Wilson. From the experiences I have heard here, the Crescent seems to be the favourite. There is, however, one difficulty with me. They seem to summer kill after they have been set out. They bear well, and we like them middling. The soil is a clay loam underlaid with gravel. The Manchester is growing finely this year and promises a good crop; but last year we had very few, on account of the frost which killed the blossoms. It is one of our finest berries, and is liked very well for canning purposes, on account of its tart taste. I have the Bidwell, as well, and it does very nicely. On the whole, however, if I were going to be confined to one berry I believe I would take the Wilson, and have it thoroughly ripe.

Mr. Hilborn (of Uxbridge).—I may say that in this section of the country, attention to strawberry growing has only begun to be agitated. It had been supposed that the country was too cold for successful culture, and only a few in the gardens had been tried; but now quite a number are going into it, and our market is pretty well supplied. I have done nothing more than to cultivate a few for my own use, and I have found the Wilson to do very nicely if they are given plenty of care. I should like to ask a question. Is it better to raise the hill above the ground or keep it pretty well on the level? There seems to be some difference of opinion among our people on that point. I should also like to know if any gentleman could enlighten us on any mode or aid for ripening at a time of drouth; for we know strawberries require a large amount of moisture. Another question is this:—Can you give any information as to runner setting? Some have said it is the best way of resetting plants.

Mr. Hilborn (of Arkona).—The only plan in case of drouth would be to have the soil pretty well worked up in the spring—that is early in the spring—and mulch it to

hold the moisture, and allow the mulch to remain. We always do that until the crop is off. I have never found much difficulty about drouth, because I have followed that plan. Wherever they have been mulched, however, we have felt a difficulty in not being able to use the cultivator. You cannot mulch and keep the weeds down, unless you get marsh hay or something that has no seeds in it. With regard to the hills, the plan adopted by almost all fruit-growers is to keep them on a level. If they are raised, the dry weather affects them very quickly ; should it be a wet season, however, it would be all right. All large growers practice growing on the level. If it is not dry enough to admit of that, you must underdrain. As to runner setting, I think that is the best way for amateur growing. Have the strip clean, by turning the runners under.

Mr. LITTLE.—If they do not set them till the blossom stem appears, it may save a good deal of trouble to know that the runner will follow the side that the blossom is on.

Mr. BEADLE.—I was going to ask Mr. Hilborn, of Uxbridge, if he has trouble with the ground being too wet in the spring. If you have a possible outlet, underdrain your ground. By this ridge system you get them out of the wet, and it is all very well until the drouth sets in and then your plants suffer. Mulching them as Mr. Hilborn, of Arkona explains, will help you. Another plan is to keep your ground rich. The idea at one time, was to starve your plants. I have now found out that to be a mistake. I can get more fruit, and better, from ground that is rich.

Mr. HILBORN (of Uxbridge).—I was visiting some friends near Oakville, and I found some of them had ridges raised very high, while others were on the level. I thought from representatives of various parts of the Province, I should probably learn the better mode.

The Association then adjourned until two o'clock in the afternoon.

On the reassembling of the Association in the afternoon, the Question Box was discussed.

DROOPING FUSCHIA.

QUESTION.—Is there any fuschia of a drooping habit, suitable for hanging baskets?

The SECRETARY.—There is one at least, and I have been trying to think of its name but cannot. It has a very small flower.

THE DUTCH HOE.

QUESTION.—Is there any better implement than the Dutch hoe for cutting down weeds in the garden?

Mr. CROIL.—No sir, I do not think there is any implement that comes up to the Dutch hoe for cutting down weeds. I think I have heard the Secretary say he could do as much with a rake ; but I could not. A man can go over a large amount of ground with a hoe eight or nine inches wide. (The Hazeltine hoe was then described.)

Mr. GOLDIE (of Guelph).—I asked that question for the reason that if we have anything in drills it takes a good while to go over them. I remember a small cultivator years ago, made in the form of a common scuttle drill for turnips, and it did very well. Has anyone used any of the wheel hoes?

Mr. CROIL.—I bought one last year and I would not take the work of my flat hoe for it. On very light soil it works very well, but on clay it does not work at all.

Dr. CROSS (of St. Catharines).—While plants are very young, and you cannot disturb the ground very much, it is a good plan to rake it with a fine rake. After that it is a good thing to run a hand cultivator through it. I added to that a plough share that worked well.

THE CABBAGE FLY.

QUESTION.—Is there any way of checking the ravages of the cabbage fly, which can be used by the market gardener to lessen the mischief of these insects, and do it economically?

Mr. BEADLE.—Prof. Cook has recommended the making of a strong soap suds and kerosene into an emulsion, and putting about a teaspoonful at the roots of each plant. The market gardener says, that is all very well for you, but what are you going to do with two or three acres of plants?

The PRESIDENT.—I am afraid that there is nothing that will answer that purpose only as the Secretary has put it. Last winter I heard Prof. Cook at the meeting of the Michigan State Society, and he has experimented chiefly with bi-sulphide of carbon and this emulsion. The coal oil is supposed to be the principle agent in deterring the insect from laying its eggs. The little fly appears very early in the spring and lays its eggs on the tender sprouts of the cabbage. These hatch and burrow into the interior of the cabbage. They have been very troublesome in our section of the country, and of my own plants my man tells me he has only about forty or fifty left. This emulsion, as I understood Prof. Cook, was used in the form of a liquid and syringed on the young plants. He also syringed the plants in the frame so as to deter the insects from depositing their eggs on them there. It is a trouble they have had in Europe ever since cabbage planting became common; but no very satisfactory results in the direction of a remedy have yet been obtained. There is no doubt, however, that insects are deterred from visiting plants or trees that are charged with an odour that is offensive to them; and by mixing coal oil with sand and throwing it around where your cabbage plants are you can keep the cut worm off very well. It is possible that this same odour may be beneficial in the case of the cabbage worm; but no positive remedy exists as yet. The kerosene may be emulsified with soap or mixed with equal parts of milk to form a sort of butter which may afterwards be mixed with water and applied with a syringe to any growing plants. That will prevent large numbers of insects from visiting those plants. We have no direct experiments beyond those of Prof. Cook's where it has been specially applied for this fly. I do not think that after the plants are planted out in a patch there is any remedy which can be economically applied. Bi-sulphide of carbon will kill the worms by putting a teaspoonful in the ground at each plant, as the soil absorbs it, and it is fatal to insect life. It is not a desirable remedy on account of its inflammable character and expensiveness.

Mr. WRIGHT.—How long does it take for these eggs to change into the worm?

The PRESIDENT.—The eggs of insects of that species usually hatch in three or four days. The egg is not so easily attacked as young larvae just being hatched. When the eggs are once deposited they are of that tenacious character that it is not easy to reach them with a remedy. The eggs of many insects will bear a temperature of thirty below zero, and come out all right at the end of winter. They are endowed with great vitality.

Mr. GOLDIE.—By dipping the root into that emulsion would that do?

The PRESIDENT.—I have no doubt that it would be a benefit, providing the larvæ had not already entered the inside of the plant.

Mr. WRIGHT.—I have had a great deal of trouble with these worms, and it occurred to me that if these emulsions were applied from time to time it would prevent the larvæ from getting into the plant.

The PRESIDENT.—That was the point I wished to impress, that prevention is better than cure.

Dr. CROSS.—I have tried several experiments with these worms. Twenty years ago I heard that soot put on the plants prevented these worms or insects, and I tried it; but the plants turned blue and died. I then tried bi-sulphide of carbon, but I do not know which died first, the plants or the grubs.

Mr. DEMPSEY.—I saw in some American journal, that by mixing carbolic acid with glycerine, and then reducing with water and dipping the roots of the plants into it, that it would destroy both the worms and the eggs. I have no experience, however. A number of years ago we were bothered considerably, and we used to make a strong brine of salt and dip the roots into it. We found that we lost very few plants after doing that. It is some years since we have grown cabbages, but we were very successful with that plan.

THE CUT WORM.

QUESTION.—Can the cut worm be kept under control by the application of salt or otherwise?

The PRESIDENT.—I have said that an efficient protection is provided by coal oil mixed with sand and sprinkled around.

Mr. BEADLE.—The only plan that I have known to be successful, is to get small sheet iron hoops and put them around the plants you want to save. Press them into the soil about an inch, and if the worms are not inside already they will not cross this iron hoop.

Mr. CROIL.—I can vouch for Mr. Beadle's recipe being effective; but I use little zinc or tin hoops and find them to answer very well.

Mr. SMITH.—I have seen brown paper used.

Mr. DEMPSEY.—We have been bothered with cut worms on the melons sometimes. We can always tell of their presence when the melons come up, by the removal of a few plants, and we simply dust a little sulphur or Paris green about. It destroys them and also the yellow fly, and we never see them again. When we find a patch infested with these worms we simply cut a few cabbage leaves and saturate them with a solution of Paris green, and in the morning you will find the cut worms dead. Salt does not affect them. I have seen them enjoying themselves in a dish of it.

The PRESIDENT.—I do not think the cut worm in his travels would willingly go over salt.

NEW STRAWBERRY INSECT.

QUESTION.—Has anyone had any experience with the new strawberry insect that has lately made its appearance on Staten Island, N.Y.?

Mr. BEADLE.—I presume this refers to a little insect of the curculio family which has appeared in Staten Island and elsewhere—I think in Canada, too—and which is showing itself in a peculiar way on our strawberry plants. He seems to think it would be a very nice thing to destroy the whole strawberry plant without doing himself any special benefit. He punctures it just below where the blossoms come out, and the result is that the stalk breaks off and no fruit is borne. He then goes on to another; but unless it is the cussedness that is in the fellow, I cannot see why he does it.

Mr. LITTLE.—It is very prevalent in Michigan and Ohio; but it does not affect the Crescent, because it has no room to work.

The PRESIDENT.—The United States Government have sent a special Commission to Staten Island to look after this insect. The morning before I came away, I received a package from a gentleman in Barrie, with the intimation that an insect had appeared there and was preying upon his strawberries. On opening the package I found that it was this particular insect. I have some of them here. It is a very small curculio which has the habit of puncturing the stem. Mr. Morgan also sends a bunch of stems to show how it is done. How this difficulty is going to be met I do not see yet. Of course we do not know the history of this insect. We have to get its larval history before we can arrive at a remedy. It is a little uncertain whether it affects more than the stalk.

Mr. SMITH.—I was in the States a short time ago and saw that plants were drying up although they had rains. They called it a rust there.

ELM TREES AND GRAPEVINES.

QUESTION.—Is it wise to encourage the growth of elm trees in the vicinity of grapevines, where the insect commonly known as the grapevine flea beetle prevails?

The PRESIDENT.—The object of this question is to ascertain whether this little steel-blue flea beetle, which also feeds on elms, would be encouraged by the presence of those trees? I do not think it is common to have elm trees growing in vineyards; at least I never knew an instance of proximity.

Dr. Cross.—I have those fleas among my grapes, but not particularly where the elms grow. I do not think they have any connection.

Mr. Beall (of Lindsay).—I asked that question so as to have an expression of opinion as to this matter, whether it would be better to destroy elm trees near the vineyard, or save the trees and remove the vineyard. My idea was that it helped to increase the number of insects in the neighbourhood to have elm trees there. If the trees were destroyed would I have as many of these insects or not? They are certainly on the trees by the thousand and tens of thousands.

The President.—I never knew them to do any serious damage to elm trees.

This closed the list of questions.

FRUITS GENERALLY ABOUT UXBRIDGE.

Reeve Harman (of Uxbridge).—I cannot say that I am an experienced fruit-grower by any means. I have been but a short time engaged in farming, although I grew fruit in a small way in the garden. The object of this subject is to ascertain what kinds of fruits are generally raised in this section, and what varieties do best. I think as far as apples are concerned we have a very good country for them. I believe our apples are generally a success. Taking in the north and south parts of this county, I believe our apple culture is not to be exceeded in any similar section of the Province. Also if you go east into the Townships of Reach and Scugog you will find as good apples as can be grown anywhere. Along the south shores of Lake Simcoe is also a very fine section for apples and plums. Cherries, in this immediate vicinity, do very well, as far as I am aware of—the red and black varieties especially. Of course we are troubled with the black knot that not only destroys the cherry trees, but also the plums. The curculio also abounds. This, of course, is no fault of the soil or climate. I think, however, that the variety of fruit principally raised here, and for which this district is adapted, is berries. Raspberries, gooseberries and strawberries do well. Grapes are not a success. I believe the vines grow well enough, but early frosts catch the fruit before it gets thoroughly ripe. Then the winter is very severe, and unless great precautions are taken the vines winter-kill. I see that the black knot is mentioned in this list. We are troubled very much with that. Nearly all our plum trees are destroyed from that cause, and last year I had some very fine cherry trees that I cut down because I got disgusted with trying to keep them alive. They were good sized trees too. However, my wife said she was sorry to see me cutting down all the trees, and asked me to spare a few and cut off the limbs instead. I did so, and those trees are looking better, although there is black knot there still. I believe if a person took particular pains to keep cutting the black knot, it would disappear. (Mr. Harman here described a flourishing industry in the village in making strawberry boxes.) I cannot say as to the apple tree borer. Mr. Miller can give you information as to that. As to the varieties grown in this section, they are numerous. The Golden Russet is very popular. In winter apples the Baldwin, Northern Spy and Rhode Island Greening are grown. In fall apples there are the Fameuse and several other kinds that I cannot recollect the names of. The winter varieties take the lead. The St. Lawrence does very well. Pears do well in this section when once you have got the tree growing properly. I have seen as large pears exhibited here as anywhere, and in the eastern and southern parts of the riding they do exceedingly well. I have heard no complaint of the blight. The Bartlett and Flemish Beauty are popular varieties. In grapes, as I have said, there is not much done, but among those that are grown the Concord seems to take the lead.

Mr. Dempsey.—Is the Baldwin apple tree hardy here?

Mr. Harman.—I think so.

Mr. MacD. Allen.—Do you grow King of Tompkins County?

Mr. Harman.—Yes, a great many.

Mr. MacD. Allen.—Are you troubled with spots on the Greening?

Mr. Harman.—Yes, a little. The trees do not seem to do well here?

Mr. Bucke.—Do the Fameuse spot?

Mr. Harman.—Yes, but I have seen some of the finest here.

Mr. MacD. Allen.—Do farmers trim their orchards and manure them regularly?

Mr. Harman.—I think there are a few who do; but as a general thing the orchards are neglected in that line.

Mr. Thompson (of Uxbridge).—As to the variety of plums grown here I may say that the Washington is popular, and so is the Lombard. Both do very well as far as I have seen.

Mr. Harman.—In relation to plums, I do not think the finer varieties are extensively grown. The common red plum seems to do the best of anything we can get. It is cultivated, and preserves very well.

Mr. Glendenning (of Manilla).—As you may be aware, apples are the principal fruit grown here, and we are most successful in that. I cultivate something over forty varieties; that is, of the regular grafted kinds, and saying nothing of some seedlings that I have. They were all doing well until this year, when I have discovered that the frost has injured some of them. The King and Baldwin have been injured most, and I am afraid that the latter will hardly recover, and the King is badly hurt. Grimes' Golden was also injured more or less. Many varieties considered half hardy have come through all right. The varieties that are chiefly cultivated for local use are the Northern Spy, the Golden Russet and the Wagner. Many of the newer varieties, the Wealthy, Wallbridge and Haas have also come through the winter without injury. In regard to the Baldwin, if it is one of the principal varieties here, it is not in our section of the county. I think I had the only tree in our neighbourhood, and it looks pretty sick just now, although growing in a sheltered location. The Astrachan and Duchess have done well, but the Tetofsky I consider one of the poorest we have. The Colvert is also one of our best apples. As to spotting, there are some years when a good deal of scab will appear, and the following year the same variety will be free. In 1883 the Wagener was useless, as you could not get a specimen that was fit to use, while last year you could scarcely find a scab. The same is true of the Fameuse. The Spitzenburg does not appear to be hardy enough. We plant our trees twenty-two feet apart, and the ones I speak of were in grass and top dressed from the second year. In regard to pears, we have not as large a list as Mr. Harman gives. We cannot grow the Bartlett more than one or two years after it has borne. We have only two on the list that are hardy, and they are the Flemish Beauty and Clapp's Favourite. I might say that there is no money made out of pears in our section, but Flemish Beauty would be the most profitable. I have reference to the growth and hardiness of the tree. We have grown the Duchess as a dwarf and a standard, but it has always killed back and died from the blight. I do not think pears will be a success here. Bearing trees are the exception, and where they do bear it will be of the two kinds I have mentioned. We grow a great many varieties of plums, but on the whole there is most money in the Yellow Magnum Bonum. It has never been affected by black knot. Another good tree is Pond's Seedling. All the common blue plums are troubled with the knot. I should like to ask if this black knot is the same on the cherry tree as the plum tree?

The President.—The black knot is the same, but the plum tree is most liable to its attacks. Some seasons it attacks even the cherry trees freely; and two summers ago, it was observed in many places where it had never been before.

Mr. Beadle.—What red plum did Mr. Harman speak of?

Mr. Glendenning.—I do not know. I have never seen it on exhibition. The pits are large, but the fruit is very sweet.

Mr. Bucke.—Is the planting of trees on the increase?

Mr. Glendenning.—Yes, the selling by agents has stimulated the planting, but I think on the whole it has done a great deal of harm. The stock has not turned out as ordered, and the prices have been exorbitant.

Mr. Glendenning.—We did not suffer much from freezing. We have a dry clay loam underlaid with gravel. In regard to grapes, I may say that all of mine are not in bearing. I have the Concord, Salem and Agawam. The Salem has not mildewed with me. The Brighton appears to be doing well. Last year was the first year we were affected by early frosts. Moore's Early is a poor grower, and the Champion is not planted much here.

Mr. BEALL.—That part is one of the highest in Ontario. It is twelve hundred feet above the level of Lake Ontario.

Col. MAGILL.—With reference to the black knot affecting the cherry trees, I may say that I have seen it quite frequently. We have, however, never had it in our section until about three years ago, and now it has destroyed about nine-tenths of the cherries. (The speaker then referred to the injury which agents do by misrepresentation). The grapes that I have seen on exhibition have been Rogers' Four and Fifteen, and Concord.

Mr. DEWHURST (of Uxbridge).—With regard to apple trees, I got some from Stone & Wellington, and they did splendid. I applied tanner's oil to some of them where the sun had affected them, but they died from the effects of it. I have grown the Downing gooseberry, and it is doing nicely. We have only grown the red plum spoken of by Mr. Harman. A fly appears on the plums, and stings the fruit in the bottom end.

The PRESIDENT.—It is the curculio.

Mr. MILLAR.—So much has been said that I concur in, and so much that I never heard before, that I do not know what to say. I live on Quaker Hill, a little way from here, and there we have any kind of soil within a radius of a few miles. I have tried hard to get an orchard. When I came here, nineteen years ago, I found my orchard composed of Tolman Sweets, and I took and grafted the leading varieties; but the apple borer had been industrious, and I lost all my trees. I have, however, set out a lot of new fruits, and they are doing well. My neighbour next me has excellent soil of gravel bottom and loam top, and he grows the very finest fruits—Holland Pippin, Baldwin, Northern Spy, and nearly all the varieties. I cannot, however, get the Baldwin to grow on my soil, and my neighbour on the next side of me cannot get an orchard to grow at all. Through observation, I think I can concur with what Mr. Glendenning has said. I would not advise the Baldwin or Greening to be planted. The curculio is so industrious that I cannot get much of a crop. All my plum trees were destroyed by the black knot, but I have replanted. I have not planted many grapes. I have tried the Champion, the Brighton and one other. I grow two kinds of pears, Flemish Beauty and Clapp's Favourite. They do well, and I get good crops. They do not blight.

Mr. DOUGLASS (of Manilla).—The Salem is the only grape that I grow, and I have had one good crop. In 1883 they mildewed, and in 1884 the spring frost bit them badly, and there is a poor show this year. I usually bend them down, and cover them with a board. The only pear I have really fruited has been the Vicar of Winkfield. The Flemish Beauty had a few blossoms on last year, but no fruit. I have a couple of other pear trees, but I do not know the names of them. In small fruits, we grow the common black currant and red currant.

Mr. MCGILLIVRAY (of Uxbridge).—I wish to remark with reference to this district, that we are not as successful in fruit-growing as they are south of what are called the ridges. Nevertheless, we are all buying trees largely. In my own garden, which is not very large, I have lost all my cherry trees within the last two years. I tried cutting off the black knot first, and last year I cut down the trees. The apple borer is very prevalent, and I have lost five trees this season. I took no measures to prevent it. I noticed that the trees had been barked first, but whether by the sun or not I cannot say. This red plum that has been referred to, is as large as our blue plum used to be. It is not quite as large as the Lombard; it is, however, fully as large as the blue plum, and may be found in nearly every garden in this vicinity. Where it came from, we do not know. In regard to a remedy for the curculio, we shall be glad to hear. Mr. Gordon, of Whitby, bores a hole in the tree, and after putting an iron into that hole he strikes it until the young curculios are shaken off. We do not grow grapes; for what reason I do not know. We have hardly any pears here, although in South Ontario there is not a better fruit-growing district in Canada, except it be the Niagara region.

Col. MAGILL (of Oshawa).—The reason I do not speak much of South Ontario is because I am a large exhibitor there. I never saw any finer fruit than came from Scugog last year. In gooseberries the Douglas, Downing, Smith's Improved and Houghton have done well here.

Mr. P. E. BUCKE (of Ottawa).—I am an amateur, as you know, and I have tried to cultivate a good many things, including the black knot. I got some trees from a gentle-

man in Aldboro', with black knot on them, and although it did not disappear from them, it did not spread to other trees. In grapes I should recommend these gentlemen to try Moore's Early, Rogers' 14, Worden and Brighton, and they will do well.

Mr. CUMMER (of Uxbridge).—For the last sixteen years I have been unable to cultivate the apple. I have tried to; so my experience is limited to small fruit, and in grapes I have only experimented a little. The vine sent me by the Association is doing well, and I think there is an increasing attention paid to fruit in this district.

Mr. WIDDIFIELD (of Uxbridge).—I have never engaged in fruit-growing on a large scale. A couple of years ago I planted out a young orchard, and it seems to be doing well. My cherry trees are all cut down, having been destroyed by the black knot. My plum and pear trees seem to be growing well, and that is as far as I dare speak at present.

The PRESIDENT.—The fact is clearly impressed on my mind, and the minds of other gentlemen here, as well, that you live in a district capable of very much improvement, and have not by any means arrived near the goal of perfection. Your motto should be "onward." You have good soil here for the cultivation of the apple, and there is no doubt that you can grow nearly all the varieties here. You do not need those kinds which gentlemen here have termed "ironclads." That applies to apples of Russian origin, and adapted to the colder sections of our country. When you can grow King of Tompkins and Golden Russet, and others, you need not look for these extra hardy kinds. What we want is the production of a fine quality of apples, so that the quantity for foreign shipment may be increased, and there is no doubt that you can succeed quite as well in small fruits as others do in other parts of Ontario. When I say the small fruits, I do not mean the tender varieties of blackberries; but take strawberries, raspberries, and some of the hardier varieties of blackberries. You have quite as good a climate as my friend Mr. Beall, of Lindsay, and he succeeds. Gooseberries and currants you can succeed with, and now that varieties of grapes are so numerous, there is plenty of scope for you to experiment. I have not a very large vineyard, and yet I have some 120 kinds. If you do not succeed with one variety, try another, and if you persevere you are sure to succeed. It was certainly unwise on your part to cut down the cherry trees instead of pruning them, and I would advise you to start to work and replant them. If a farmer has a bad year with midge in the wheat, he does not give up wheat growing, but sows again the next year. So should you in the matter of fruits. Try and try again. If one variety of pear does not succeed, you can find another that perhaps will, and I think you will find that the cultivation of fruit has an elevating effect on the cultivator himself. It is well on that score, to advise perseverance. With the plum, I am sure you can succeed. Of this plum that we have heard of, I hope you will send samples to the Chairman of our Fruit Committee in order that judgment may be passed upon it, and an opinion arrived at as to whether it is advisable to extend its cultivation. We have a gentleman here who has had great experience in shipping apples, and I want him to give you some advice as to the best varieties to cultivate for shipment. There is no doubt that with our extensive fruit tree planting, we shall produce more fruit than we want for our own consumption, and it is important to know what apples we will be able to ship away. The curculio can be prevented by that system of jarring, which is done by inserting a spike in the tree, and striking it with a hammer. It requires, however, to be done three or four times a week, and a sheet should be spread below the tree on which to collect the insects. Another plan, which has been tried with success, is to syringe the trees at the time the fruit is setting with a mixture of Paris green and water. This seems to have the effect of preventing the curculio from depositing its eggs; at all events a large portion of the fruit is free from the curculio, and I know of no other explanation. One application should be made just when the blossom drops, and another about ten days after. If rain washes off the effect of the poison, it is well to apply it again. My man missed one tree in syringing, and on examining the fruit the other day, I found that every specimen had been stung two or three times, thus showing the protective effect of Paris green.

Mr. MACD. ALLEN (of Goderich).—In advising the people of this section what to grow, it is rather delicate ground to tread upon. They should be the judges themselves, and the knowledge in any one section is only acquired by experiment. You must try one variety and if it does not succeed try another and another until you get that which does succeed.

If possible, get those varieties which are of the best value for the foreign market, as well as the home. There is one variety, for instance, the Northern Spy. The only point against that variety, where you plant trees from the nursery, is the length of time before it comes into bearing; but in any of the old country markets it is one of the best varieties we have. It is a little delicate if not kept on the ground for sometime and sweated, or the skin toughened, as we call it. On the average, when you cannot grow the Baldwin with profit in this section, the American Golden Russet would be a variety out of which you could make as much money as any you have. It is a variety that grows well, and it is a grand bearer. The Wagener was spoken of. It is a very early bearing variety, and is almost always clean and free from spots. It ships well, and the apples on the tree are almost all of one size. It takes well in the old country market. King of Tompkins stands high in the market, and will run from one to three shillings a barrel more than any I have mentioned. The point of this Association sending directors to the different shows for the purpose of properly naming fruit, is again brought to my mind by the recollection of a gentleman who had about three hundred barrels of King of Tompkins. He named them Baldwin, and got Baldwin price, whereas, if he had given them their proper name he would have got at least two shillings a barrel more. I do not know whether there are any shippers here, or whether it would be interesting to you to know the manner of packing and shipping. Regarding the orchard, I would advise any one who grows apples for the home or foreign market, to give more attention to the orchards than we usually find given to them. The trees ought to be properly trimmed and kept in a neat condition. I always apply a wash to my trees, and by scraping off the old bark, make them look neat and trim. Although I do not believe in trimming old trees, I believe that the proper course for its future good is to trim a tree from childhood up. You should begin when you can pick off the little limbs with finger and thumb. The Rhode Island Greening is rated up pretty well in the old country market. At one time they had a prejudice against the green colour, but I think, now, they are looking more to quality. The Ribston Pippin is, of course, at the head of the list.

The PRESIDENT.—Are there any varieties not named here that you think it well for them to try?

Mr. MACD. ALLEN.—The Mann is a very good apple. I have shipped it for four years, and it is a grand keeper, and there is none better for shipping. When kept until spring it is of good quality.

The PRESIDENT.—Is it better than the Ben Davis?

Mr. MACD. ALLEN.—Yes; I think it is, although the Ben Davis is a better bearer. The Mann is not a very heavy bearer, although very regular. They are about one size, of beautiful shape and clean. I never saw one spotted. It is not, however, a very rapidly growing tree, and having a fine stem the fruit is a little liable to drop off. The President spoke of Paris green. I have used it for years and have found it very effectual. Do not, however, use too much. I take out a teaspoonful in a cup, and after working it up mix it in with a pailful of water. Then with a little garden pump and a fine rose at the end of the hose, I find I can sprinkle about six good large trees with that pailful. I put a little more Paris green in for trees larger and better grown. I have known a man to take a tablespoonful and apply it to two trees, and of course the leaves were all scorched.

Mr. GLENDENNING.—Have you shipped the Pewaukee?

Mr. MACD. ALLEN.—I do not think I have.

Mr. BEADLE.—With regard to pears I feel somewhat discouraged from what I have heard here. Our friends say they cannot grow the Bartlett; nothing but Flemish Beauty and Clapp's Favourite. I fear there is something the matter with the climate. The Flemish Beauty and Clapp's Favourite are among the hardiest we have; but I would add two more varieties to your list if you should care to extend it—Beurre Hardy and Doctor Reeder. I believe they are both hardy. The Doctor Reeder is especially famous for being exempt from the blight. If I remember rightly the authorities in connection with the London Asylum planted a good many pear trees, and while many died the Doctor Reeder is standing still and bearing well. It is not only free from blight, but, having a hardy constitution, would probably resist your frosts. You would be pleased with both

of these, should you be able to make them grow, and I think you would. With regard to plums you do not seem to have any difficulty. There are two or three varieties that I shall mention here that may be new to you, as they are grown more for the market than by the amateur. One is the Geuii. It is grown largely for the New York market. Then another is the Hudson River Purple Egg, which is a fine showy plum, and an abundant cropper. The Lombard you are acquainted with. It is a staple variety and bears very largely. The curculio has to be very industrious to get all the plums off a Lombard tree, but if you are careless it will take them. As to grapes, a few varieties have been named, and possibly I may repeat them. The Brighton, I think I heard mentioned, but of it I may say that when it is fresh from the vine I know of no other grape that I prefer to it. I do not, however, think very much of it as a grape to keep, as it loses flavour after being cut a few days from the vine. Perhaps our friends who live in the cities may think it very good when it is stale; but taken fresh from the vine it is the most delicious of all I know. You will be pleased with it, I am sure. Our ex-President says it does well about Trenton, and I think it would do well here. The Worden is like the Concord. If you like one you will like the other. It will, however, ripen a few days earlier than the Concord; Mr. Dempsey thinks a week. If you are trying to grow grapes for the market and want other people to eat them instead of yourself, get the Champion. My own experience is that it is good to sell, but good for nothing to eat. I make more money out of it than any other grape. I set out twenty-two vines, and they bring me in about $72 a year for other people to eat. Then there is another grape, introduced by Mr. Burr, of Kansas. I have fruited it for a couple of years. It looks like the Clinton, and I like it very much. It is not very sweet. It ripens very early, although not as early as the Champion. The best time to market the Champion is when it gets black, and not when it gets dead ripe, or it will fall from the bunch. I think you will like this Early Victor as a grape for your own eating at home. I do not know that any one mentioned the Delaware here. I should think you could grow it here. It is an old grape, and there are very few that are better. I presume most of you have seen it, and I suggest that you try it. Among the Rogers' grapes, I would suggest the Massasoit. The bunches are variable in size, some being good and some being poor. It ripens early. It is sweet. For a black grape among the Rogers I would name the Wilder. You say you can ripen the Concord here; then I think you can ripen the Wilder.

CRANBERRIES.

The following question was asked :—

"Are any of the members acquainted with cranberry culture?"

Mr. Beadle.—In order to grow cranberries you must have a piece of ground that is near the water, where the water comes to within three or four inches of the surface of the ground. You want a soil that is almost pure sand and perfectly free from weeds and grass. When you have that, all you need to do is to get cranberry runners, chop them up and scatter them over the ground. They will take root. It is desirable in addition to this that you can flood the plot, or the crop is likely to be killed by spring frosts. If a cold night comes along and you have it arranged so that you can submerge your cranberry plants, you will save your fruit. Besides that, it is well to have them pretty well submerged in the winter. Those who grow them try to have them so arranged that they can have a height of water above and a dam, so that submersion is possible in winter and on the occasion of cold nights. The cranberry is subject to what is called the cranberry worm. I do not know what its entomological name may be, but it commits great ravages among them. When these worms make their appearance, if the plants are submerged, it drowns them. You need all these conveniences to grow cranberries successfully.

Mr. Cummer.—Is there not what you call the high bush cranberry?

Mr. Beadle.—Yes, it is so called; but it is not any such thing. It is a species of snow-ball, the same as we have in our gardens. The Viburnum bears a fruit with a stone in it, not quite so large as a cherry, and the pulp that surrounds this is used very much the same as the cranberry. It has the acidity and something of the cranberry flavour;

but I should think no one would use them where they could get the genuine fruit. I should think the cultivation of cranberries would be profitable to those who have the conveniences.

The Association met again in the evening, when the attendance was materially larger than in the afternoon. Many ladies were present. The Question Box was first opened.

FEEDING HOUSE PLANTS.

QUESTION.—How can house plants be best fed?

Mr. BEADLE.—I suppose I can give my own ideas, and if any one has anything further to add they can do so. One method is to re-pot them. It is sometimes an advantage to take them out of the pot, shake out the soil, prune back the plant, and in some cases the roots, and then replant in fresh soil; we do that, especially with geraniums. We shake them out and make them take a fresh start. If it is preferred to keep them in the pot, they can be quickened by liquid manure. That is made by taking such manure as you would put on the soil, add a little water to it, and occasionally stir it until it becomes a strong decoction. Take a portion of this liquid, and add it to the ordinary water used for your plants until it is of a strength looking like strong coffee, and water your plants with it twice a week. You can overdo the thing. Twice a week is often enough. At other times use fresh water. Another method would be to apply phosphates to the surface of the soil in the pots, and, as the plants are watered, it will work down into the soil, and be carried to the roots of the plants. There is another method of making liquid manure, and I think it is preferable:—That is going to the blacksmith's shop and getting clippings from the hoofs of horses. Get half a bushel, or a peck, according to your needs, and put that into a tight cask with water, and use it instead of the other liquid manure once or twice a week.

The PRESIDENT.—Have you tried sulphate of ammonia or bicarbonate of ammonia?

Mr. BEADLE.—No.

Mr. DEMPSEY.—We have used spirits of ammonia, a teaspoonful to a gallon of water, and my wife finds it very beneficial.

The PRESIDENT.—I have used ammonia both in the form of sulphate and liquid ammonia, and also a solution of carbonate of ammonia, and I think they all gave a strong stimulation to plant growth, and are beneficial in the same way as liquid manure prepared in the manner described by the Secretary. The solution I have used has been one ounce of sulphate or carbonate to a pailful of water. The action of ammonia upon the plant is the same as that of the phosphates, and gives a strong stimulus to its growth.

Mr. WRIGHT.—I have never found anything equal to hen manure mashed down into a floury state, and placed around the edges of the pots, and covered with earth, so as to prevent any of it from coming in direct contact with the roots. As you water the flowers, it has a beneficial effect. This is especially true of roses.

Mr. CROIL.—I have tried hen manure leached, with capital effect.

KINDS OF ROSES.

QUESTION.—What do you mean by China, Bourbon, Noisette and Remontant roses?

Mr. BEADLE.—China roses are sometimes called summer roses. If any of you know Madame Plantier, that is an illustration. It is a hardy rose—that is that class of them is. There are China roses that are grown in our houses that are tender, but I am now alluding to that class of roses which usually goes under that name, and which are hardy. The Bourbon roses are a class that are tender in our climate. The Bourbons are the more hardy of the ever-blooming roses. A feature of the China roses is that they bloom but once a year, but the Bourbons bloom for a number of months. The Agrippina is one Then the Noisettes represent another class of tender or half-tender roses. Some of them will grow in our latitude in the County of Lincoln, with little protection outdoors; but many of them are too tender. Their leaves are very finely cut, you might say. I do not

know of a pure Noisette rose in cultivation that you would be acquainted with. There has been so much hybridization, that it is very hard to find a pure blood rose. Take Marshal Neil; I presume people have been growing it in their hot-houses. It is a hybrid rose, with some characteristics of Noisette. It has some of the tea rose in it, for it has the tea smell. Then the Remontant roses are those which bloom twice. Another name is Hybrid Perpetual. There are none of them perpetual, but many have the habit of blooming the second time. If you wish to have good autumn bloom, just as soon as they are done blooming the first time, cut them back, and you will have bloom the second time. Baron Prevost is another old rose you are familiar with, and those roses have been so crossed by artificial fecundation that they may be said to be completely wiped out. It is important to know something of the characteristics of roses, for if they have any of those bloods in them, they will be more or less tender, and the only safe way is to take them up in the fall, and put them in the cellar or a cold frame, and in that way keep them through the winter.

GRAFTING PEARS.

QUESTION.—What is best root to graft pears on?

Mr. MORRIS.—We import the French seedling for standards, and quince for dwarfs. I have tried to graft on apple, but after growing for two or three years they go out. I do not know that budding on quince really dwarfs it, but they may dwarf by cutting back.

Mr. BEADLE.—I would add to that, that the root of the quince is a fine, fibrous root, compared with the pear. Those of you who have taken up a pear tree, know what strong roots they make, running right down into the ground. The roots of the quince, however, are near the surface, and extend comparatively but a little ways. Consequently, after this pear has grown on a quince stalk, its supply of food is diminished, and it stops growing, and goes to bearing. If the quince is well fed, you will have plenty of pears and of good quality. If you allow your dwarf pear tree to be starved, you will probably get poor pears and few of them.

SUMMER CULTIVATION.

Mr. BUCKE (of Ottawa), Vice-President of the Association, read the following paper on this subject:—

It is well to understand, when we speak of summer cultivation, what is the object we expect to gain by it when practised among growing crops, and in order to do this we must have some knowledge as to how plants are fed. I have already pointed out in another place (Report for 1882, page 117) what the great agricultural chemist Liebig has demonstrated on this point, that plant food cannot exist for any length of time in solution in the earth, it is therefore impossible there can be any circulation of such solution towards the roots, therefore these must go in search of food. Hence it is necessary, in order to arrive at an adequate idea of the requirements of plants, to study the growth and ramifications of their roots.

As the food of plants cannot be held in solution in the ground, it will be seen that those portions of the soil which are traversed by the rootlets will soon become exhausted of the plant sustaining element, whilst those immediately adjacent to them are rich in plant food. Now this plant food is accumulated by the absorptive power of the soil, and it is this which removes from solution the soluble salts required for fertilizing plants. For instance, charcoal is used in filters and in sugar refineries as an absorbent of deleterious matter. Soil which is used for the purpose of growing cultivatod crops has the same power as charcoal, though in a less degree. Diluted liquid manure of a deep brown colour, if passed through arable soil will be found to lose both colour and odour in transit; not only so, but it loses its ammonia, its potash, and its phosphoric acids, held in solution. Now it is these very particles which have adhered to the soil in transitu, upon which all plants feed, and for which aerated soil has such a chemical affinity. No vegetable life can be had without heat and sunlight. The power of a soil to nourish cultivated plants is in proportion to the quantity of nutritive substance contained in it in a state

of physical saturation, but all soils have not the power of absorbing plant food in the same degree; loose sandy soils, and heavy clays, have less absorptive properties than a well-drained friable loam. It is necessary, by artifical means, to put the soil in the best possible position for doing its work; in order to do this it must be loosened and stirred so as to admit from without air, heat, and moisture; but stagnant water must be at all hazards got rid off, as neither heat nor air will penetrate where water is found in excess. Too much heat makes plants droop their leaves, as may be seen in the heat of the day, but a genial heat stimulates the roots to increased activity. The practice of gardeners applying bottom heat in the artificial climate of a conservatory, or hot-bed, is founded on this well-known principle. Following out the conditions laid down, I have myself practised on a small scale the principles involved in the above remarks in as thorough a manner as possible with the implements at hand. When carrots, parsnips, beans, or any other vegetable, gets of sufficient size to mark the rows well, say from four to five inches high, that is after they have been hoed and cleaned between the rows, which should be eighteen or twenty inches apart, and hand-weeded in the row, take the digging fork and turn up the soil to the full depth of the tines between every other row, leaving one space. In a week or ten days time the space left is also forked over, and so on every fortnight; thus the ground is kept thoroughly pulverized and porous, making the land so light that if tread upon the foot will sink several inches into it. Land between potatoes is turned over in the same way, once only, as soon as the plants are well above ground, so as to mark the rows well. I fork over the ground lightly between the raspberries, gooseberries, and currants, say middle of June, and again when the fruit has been gathered. By keeping the ground loose and open every drop of rain is caught and passes into the soil which, like a sponge, draws moisture from below when there is no rain for a considerable period. I believe if we could get digging forks half as long again as they are usually made the soil could be made to produce half as much again as it does at present. I look upon the cultivator as a fraud, only tickling the soil when it ought to be thoroughly scratched to the depth of twelve or fifteen inches, so as to mix the soil and give the new young rootlets an opportunity of penetrating fresh earth.

Agriculture will, in my opinion, receive its greatest advancement when the action of the plough, which only turns and re-turns the land, is superseded by a steam rotary motion cultivator, which will do its work to the depth of ten to fifteen inches, and cannot only be used to prepare the land to receive the seed but can be employed to cultivate between the rows of the growing crops at any time during their season of growth. The man who invents this implement and puts it into thorough working order will be one of the greatest benefactors who has ever blessed the human race.

Mr. Douglas (of Uxbridge).—Mr. Bucke speaks of carrots and beets needing deep cultivation between the rows. I had that idea at one time and the result was the growth of a great many side roots. The beets were useless. I have not done so since. I find that stirring the earth to not more than three inches is beneficial, but going deeper is not so.

Col. Magill (of Oshawa).—Are you going to dig up the ground twelve inches among your roots? What will become of the roots? I tried this on parsnips and I had the same result as Mr. Douglas. You break off the fibrous roots and two or three come in the place of each. Where the digging was done only two or three inches it had a very beneficial effect indeed. Then the rain is absorbed; but when you go further than that, especially in raspberries and grapes, you tear up the little roots and lessen the amount of fruit. That has been my experience.

Mr. Beadle.—In speaking of raspberries and grapes, if we keep up summer cultivation late into the season, thereby getting up a fresh succulent growth, we will have a lot of wood to be winter-killed by the cold; but if we cultivate thoroughly during the first part of the season, and stop about the first of August, this succulent growth will cease, the wood will ripen up and come through the winter much better than though you kept on until the frost came.

Mr. Little.—I think Mr. Bucke's paper will be beneficial to cultivators of small fruits. If you cultivate as deep as he says and add well rotted manure, and plant in the fall, it will pay you a hundred per cent. better than planting in the spring with raspberries.

Mr. Bucke.—In the first place, I do not recommend late cultivation of raspberries and gooseberries. I said, once early in the season, and once after the fruit had been picked. In growing beets we grew them so long we could not get them into a wash boiler; so we grow the turnip beet now.

ROSES.

Mr. Wellington (of Toronto).—I have had to say so much at the different meetings about roses, that it seems I will have to say a great deal over again, in order to confine myself to the text: "What roses are found to succeed best for open air culture?" That is a difficult question to answer, as we have so many different climates in Canada. What will succeed in one section will not in another, and I presume the better plan would be to recommend only those which would succeed in this neighbourhood, and similar latitudes. Being thus limited I will have to omit a great many choice and valuable varieties; and no doubt if I give you a list of from six to ten, a great many will find that favourites have been left out. At the same time, if I were asked to make up a list of from ten to a dozen of the hardiest varieties, I think I should make it up as follows: General Jacquimenot, Louis Vanhoutte, Alfred Colomb and Baron Von Stettin. These are high coloured or crimson roses. As for pure white, there are very few known. The Madame Plantier is not a hybrid perpetual. In every collection we should have the Madame, however. Then we have the Coquette des Alps, which is not altogether white, but has a blush centre. It is an abundant bloomer; in fact, its greatest drawback is that it will bloom too freely and starve itself to death, and die in the winter, unless you cut off some of the buds. Then Reine Blanche is another favourite of mine. Among rose-coloured or pinks would be Loraine, a strong and abundant bloomer. Victor Verdier and Infant de Mt. Carmel I like very much. Verdier I have found to be hardy, and I have always plenty of it when other varieties have failed. Last of all, but not least, is that charming rose, La France, which I would not claim as being entirely hardy. It belongs to a new class called hybrid teas, hybrid perpetuals and teas crossed. We have the perfume and ever-blooming qualities of the teas, and those I consider the best of all. It is half hardy, and will need considerable protection to bring it through the winter. It is a bluish pink. As for protection, I have often noticed roses that have been bound with straw or thatched, and in that way smothered by having too much care bestowed upon them. We have found that the best protection we can give them is to gather autumn leaves and pile them on freely. Over that we will place a good coating of manure, and to keep them in place we throw on a loose covering of soil. This will bring your roses safely through with what snow you are likely to have. This brings me to the point regarding pruning. I would always do it in the spring. You draw off this protection in the spring and you will probably find that a few inches of your roses have been frozen down; but we do not want the top or old wood for bloom in the remontant roses. What we want is vigorous new growth, and from that we obtain our new bloom. After you have cut your rose back in the spring, this protection you have had will act as an extra manure, which is very necessary if you would have good blooming roses. Most of the roses as seen through the country are starved. They do not have deep, rich soil, and that is essential. Here our worthy Vice-President's long pronged fork would come in good. If you have not good, rich soil, dig it out and put some in. If the soil is good the plants are less liable to disease. After the first bloom in June cut them back, and if your soil is suitable, you will have another bloom before the winter sets in. I think this covers the text given me.

Mr. Dempsey.—I cannot add anything to the list, but I should be sorry to forget the Cabbage rose. I do like a rose that I can enjoy with my eyes shut. If it only blooms once a year, it is worth all the attention we can give it. It is a full rose colour. There are various ways we enjoy it. Its considerable quantity is one. My wife enjoys them as well as I do, and when they begin to fall, she puts them in a pan and pours alcohol over them. They make a very fine flavouring for cake. There are some roses hardy in one place, that are tender in others. The La France is as hardy with me as any other we cultivate, and I only attribute it to the soil in which it is planted. We give it no more care than others, and it has wintered for I think ten years. I got it as a novelty, and

it has wintered every year perfectly, with the protection afforded by a little evergreen foliage from the forest. Sometimes we use autumn leaves, and throw a little earth, or a few boughs, or almost anything over them to keep the leaves in place. I find there is nothing pays so well in the cultivation of the rose, as partial shade during the heat of the summer. Those dark roses fade under a hot sun in a few hours, and lose much of their beauty. In order to prevent this, we grow them under our standard pear trees, where shade is afforded for part of the day at least.

The PRESIDENT.—How near do you grow them to the trees?

Mr. DEMPSEY.—Right under the trees. We fertilize very highly. You must manure the rose well, and prune them back. I got this idea from Rev. Dr. Hole, whose work on roses recommends that course as a protection against the ravages of insects and disease. We find no mildew on roses if we can maintain a good growth, and to encourage a strong growth the soil should be kept constantly loose. A little hellebore will kill the flea. Our block of roses, if you will pardon this addition, is situated at the back door of the kitchen. My finest roses are grown where my wife can see them on washing day. (Mr. Dempsey fully explained the situation of his rose bed).

Mr. BEALL (of Lindsay).—I do not think I can give you any further information. I can endorse almost every remark Mr. Wellington has made, especially in regard to deep and rich cultivation. You cannot make a rose-bed too rich. The roses he has selected are very good, but there are some we cannot agree on. I do not like General Jacquimenot. It has no perfume, and has that stiff, awkward habit of growth that prevents us using it in the bouquet. If he had only a certain number to give, I would ask him to strike that one out, and take a white Moss rose instead, the Countess De Murinais. The buds are most beautiful. With regard to protection, I think what Mr. Wellington says is true. I think many persons injure their roses by over protection. We can keep the rose in Lindsay as well as they can in Toronto, and I have never lost one in the winter. We lay down the branches, and generally throw a stick of fire wood across them. That will keep them down, and then we throw a little pea straw, or evergreen boughs over them, and a little earth as well. Plenty of manure must be used, and unless you love the work, and love the rose, there is no use in commencing.

Mr. BEADLE.—Have you grown the Common Provence Moss Rose?

Mr. BEALL.—We have grown the old Moss Rose. It grows very wild, and spreads in the ground. I do not find it necessary to protect that kind. It has the worst foliage of any rose I know of.

Mr. WELLINGTON.—I am willing to acknowledge pretty hard places, but what a hard place it must be where General Jacquimenot has no perfume. It has been one of the most sought after, and I am sorry I cannot agree with my friend Mr. Beall on that score. I do not object to the white rose he mentions, but if I were going to choose a moss rose, since its bud is its chief beauty, I should select the Crested.

A VOICE.—What about the treatment of climbing roses?

Mr. WELLINGTON.—You want to be sparing in the use of the pruning knife. That is the only exception from the general treatment of roses. We grow the Queen of the Prairie and the Baltimore Belle, but the latter is on the tender side. The Seven Sisters is also a very nice climber, but also inclined to be tender. I do not take them down in the winter time.

The PRESIDENT.—I wish to add something to what Mr. Wellington has said. I think it is necessary to have roses all through the summer, but the subject on the programme refers to those that are found to succeed in open air culture, and I do not think the list would be complete to my fancy if we did not include a few hybrid teas and tea roses. They are not hardy, but by simply taking them up and putting them in a cold frame, covering them over with a glass sash, you can keep them perfectly; or you can keep them in your cellar and they will come out all right in the spring, and you will have roses until the frost cuts them off in the autumn. If you do not like either of the plans I have suggested, you can bury them in an out-house, and they will come out strong in the spring, and will grow vigorously. Some of the hybrid teas are very fine. There was one rose which Mr. Wellington did not mention, but which I have found to be very fine, the John Hopper.

Mr. KINSEY (of Uxbridge).—Must cold frames be frost-proof?

The PRESIDENT.—No; most roses do not need frost-proof frames.

Mr. A. A. WRIGHT (of Renfrew).—I can hardly sit still when they are talking about the General Jacquimenot, as I have heard it. It does not stand at the head, but I put it third. Mr. Elwanger, of Rochester, divides the rose under five headings. The first is appearance. He allows 24 points on that. The next is form and shape, for which he gives 22. The next heads are odour, 20; continuity of bloom, 18; and vigour, 16. Now, General Jacquimenot scores 18 on scent, or within two of being perfect. La France stands highest, and Alfred Colomb gets 92. For a scarlet rose, next to Alfred Colomb, I would put General Jacquimenot, then Louis Vanhoutte; and then, if you want one as large as your hat, take Paul Neyron. La France I put at the head of the pinks, then Victor Verdier. Among the yellows the only one that did well was Pearl de Jardine, and among the whites, Madame Plantier. The way I have protected them is by bending them down and covering with earth until the ground is frozen; then I take a forkful of pea straw and throw over the top. In the spring my roses come out without failure.

Mr. BEADLE.—The subject seems to have been pretty well exhausted, but there is one other rose of the ever-blooming variety which has never been beaten, and I do not believe ever will. That is the Souvenir de Malmaison. It has the beautiful silvery shade of the tea rose, and its scent. La France is another type of the same family.

FLOWERING SHRUBS AND FLOWERS.

Mr. BEALL.—Has anyone present had any experience in cultivating our native wild flowers?

The PRESIDENT.—I have grown a good many of them, and they are very pretty indeed. In the early season there are the Hepaticas, or Liverworts, which you can find in the woods everywhere. Some of them have a very pleasant perfume. Following these are the Bloodroots; the twin-leaf Jeffersonia is like it. Then we have our native Phlox, a sort of mauve purple, which soon follow our earliest spring flowers. Following these we have a number of beautiful plants, particularly those which are to be found in boggy places, and of those such as the Ladies' Slipper may be cultivated with success and are very beautiful. They must, however, have plenty of moisture and a shady place. Another very brilliant flower, which comes late in the season, is the scarlet Lobelia, there is also the blue Lobelia, but it is not equal to the scarlet. Then we have the Gentians and others, but it is difficult to recollect them without having had an opportunity of thinking the subject over. I should have mentioned the violets, blue, white, etc., which come in with the Hepaticas, and are well worth cultivation. Among the flowering shrubs we have the Spireas and the Viburnums, in the woods. One of the most beautiful plants I have grown was from the North-West, and is known there as the Silverberry, a species of Eleagnus. The flowers are small, but very fragrant, and the under side of the leaf is a beautiful silvery colour, which, examined by the microscope, is seen to be small stellate hairs. I got the seed from the North-West, but do not know whether it can be easily obtained. The Columbines also are among the most graceful flowers you can get, and are highly prized in foreign countries.

Mr. BEALL.—Have we any Orchids?

The PRESIDENT.—Yes; the Ladies' Slipper. The Orchus Spectabilis is very pretty; and then there is a very beautiful little plant in the bogs around here, I believe, known to botanists as Arethusa Bulbosa. We also have another species belonging to the Genus Calopogon. The root is tuberous and can be grown in a pot with plenty of water and a little bog earth. A large number of our native Orchids are very inconspicuous, and are not so brilliant as those to be found farther south.

Mr. BUCKE.—In going over the names there are some few you have not mentioned. There are the Trilliums. Also the Claytonia, or Spring Beauty, is one of the earliest, and is very pretty. The Tiger Lily is one of the finest we have, and there is another variety called the Dutchman's Breeches, a white flower. The Mandrakes, and two little flowers, Mitella and Tiarella, are very beautiful when looked into with a magnifying glass.

Mr. Beadle.—Asclepias Tuberosa is one of the best we have.

Mr. Dempsey.—I have some very fine Amaryllis, which are a cross between the Japan lilies and the ordinary Amaryllis. We have one new one which flowered this year for the first time. It is a red flower about four-and-a-half inches in diameter. The petals are striped with white, shaded with red. I had one last year, which was five inches in diameter. It is very fragrant, but the one which bloomed this year had no perfume. These bulbs have been very interesting to me, and I have been waiting for them to bloom for twelve years.

Mr. Bucke.—What Japanese lilies did you cross them with?

Mr. Dempsey.—I kept no account, and cannot tell from memory.

Mr. Morris.—I think the best of the Spireas is the Spirea Von Houtte. It is hardy, and I think I never saw a shrub so beautiful. When in flower, it almost hides the bush. We have trained it into a hedge as well, and the only objection to it as a flower is that in a dry, hot season, it might not remain as long in bloom as some other shrubs. It is the earliest to bloom of anything in the shrub line. I grow six or eight varieties of the Wigelia, but I esteem the Rosea about as much as any of them. Although Hydrangea Paniculata will stand the winter, but its growth becomes affected. I found manure in the fall to be a benefit. Of all, however, I very much prefer the Grandiflora.

Mr. Beadle.—There are a number of shrubs represented in this bouquet on the table, which any one can grow with a great deal of satisfaction and without much trouble. They die down in the autumn, and come up again in the spring, but if you take a little care with them, by throwing over them some litter, they will be all the better for it. I see here the Dicentra Spectabilis, or Bleeding Heart, as it is called. It blooms a great deal better for having been frozen solid. Of these Peonias, there are eight or ten clearly distinct and handsome varieties that might as well be grown here as not. Some of them have a very pretty rose scent. Then there are these flowers of the Iris family, which are hardy and need no protection at all. You can get a great number of colours. The Japanese Iris are very pretty, and the Japanese people are exceedingly fond of them. With perhaps slight protection, in this country they would grow readily. The English Irises need protection. These herbaceous Spireas, one red the other pink, are very showy, and they are perfectly hardy. If you add to these the Phlox, you may make your gardens very attractive with these neglected plants.

Mr. Croil.—There is one very beautiful shrub, called in a common way the Smoke Plant.

The President—The name is Rhus Cotinus. The foliage and flowers are very fine.

Mr. Beadle.—The Chisnanthus Virginica is one of the most beautiful objects, I think, I ever saw.

Mr. Wright.—You need have no fears in growing Hydrangea Paniculata, or Grandiflora, as they are successful with us. In addition to what have been mentioned, are the Clove Plant, Wax-ball, Snowball, the different kinds of lilacs and Clematis Coxinnia. These require no protection.

The hour for adjournment having arrived, further discussion was abandoned, and the meeting came to a close for that night.

The Association met on Thursday morning, at ten o'clock, the President in the chair. The first matter taken up was, the Question Box.

ADVANTAGES TO SMALL GROWERS.

Question—Would this Association advise any person to become a member if they had only had a small piece of land for a garden? Would it pay him for his subscription?

Mr. A. A. Wright (of Renfrew).—I think there is no section of the country where it is harder to raise flowers or shrubs or trees of any kind, than where I live; and yet there are those there who think that it is not only an advantage to belong to the Associa-

tion, but who believe that the *Horticulturist* and the annual report is worth far more than the small sum it costs us to become members. Many down there, myself among the number, have not only found it of advantage to read these reports but to come miles and miles to hear the discussions. If it pays us it will pay any man or woman to become a subscriber, and to continue from year to year. I am sure if they once commence they will be very loth to give it up.

Mr. HICKLING (of Barrie).—It seems to me that the benefits of this Association are so many, that any one, no matter how small his piece of ground may be, must derive a large amount of benefit by becoming one of its members. I have been a member for a number of years, and I would not be willing to part with the information I have received from the various sources this Association presents, for a great deal of money. Had I had the same knowledge twenty or thirty years ago, it would have saved me many hundreds of dollars in the planting of trees.

Mr. A. M. SMITH.—Even though a person is not a gardener, or has not a piece of land, if he is a fruit consumer and interested in what he is going to eat, it will pay him to become a member of this Association. They can learn from our discussions which are the best varieties of fruits for their tables. I go farther, and say that every lover of his country should do all in his power to help an Association like this. I am convinced that very few know the advantages that come to the country and the individual through this Association. Those who are conversant with our work at Philadelphia during the great exhibition, will know the attention that was directed to Canadian fruits at that time and through that effort.

Col. MAGILL (of Oshawa).—Mr. Smith referred to the notice taken of our fruits at the Centennial. Although Canada walked off with a very large number of prizes for her stock horses and cattle and swine, I think there was nothing that opened the eyes of the visitors and the Americans like our display of fruit. It was my fortune to be there the last two weeks of the exhibition, and they thought it was impossible that frozen Canada could have produced such fruit. When I was in Kansas and Iowa last winter, a very intelligent fruit grower, to whom I spoke. said, "We have nothing in America that approximates in usefulness as a horticultural society to your Fruit Growers' Association in Canada." The Americans are watching us. We are developing the resources of the country to such an extent that it is astonishing our American cousins, and they are beginning to think that we are not such a cold country after all. I do not know a great deal about fruit, but I say that I owe most of what I do know to my connection with this Association. The great trouble with many is that they think we have these publications among ourselves, and are making money out of them. I do not know what side of the question they look at, but it seems to me that this organization has given as much as it has gained. (A voice, "More.") The wonder is, how we live. We do live, however, and are looking pretty well yet. The wonder to me is that the circulation of our periodical, and the reports, is not double. Mr. Beadle is not making anything out of it. Where are the profits? They are in the wisdom regarding fruit growing that is being scattered all over this country. I join with our friend from Barrie in saying that had I had the information that I now have as the result of my connection with this Association, twenty years ago, it would have saved me many hundreds of dollars.

Mr. DEWHURST (of Uxbridge).—I have been a member but a short time, but I consider yesterday's discussion worth to me more than I have paid for the privileges of membership. I find something in every number of the *Horticulturist* that applies to me personally, and if it pays me with my three-quarters of an acre how must it pay those who are large growers?

The PRESIDENT explained the conditions of membership.

LOCATING AN ORCHARD.

QUESTION.—What location would you select for an orchard?

Mr. DEMPSEY.—If I were going to select a location for an orchard again, I would select the very one I have got, from the fact that the soil seems adapted to the growth

of the trees. The first point to be considered is this : Is that section of country liable to late spring or early autumn frosts ? If possible, these must be avoided. Sometimes we find we are not so liable to them in elevated positions as in valleys. At other times, by being convenient to large bodies of water, we are exempt. The soil has something to do in the matter, and I would get a sandy loam. I prefer it light rather than too heavy. In fact I would rather have a driving sand than very heavy soil. I am aware that some fruit growers oppose me in this, but it is a fact that the finest Baldwin apples I ever saw in my life were grown on a drifting sand. Then a northern descent is to be preferred to a southern descent, as a means of avoiding sun blight.

THE ONION FLY.

QUESTION.—Is there a remedy for the white maggots in onions and cabbages ?

The PRESIDENT.—The onion fly belongs to the same genus as the cabbage fly, and has similar habits. As far as our knowledge goes, there is no better remedy than that given yesterday :—a diluted kerosene emulsion. Syringing that among the young onions will deter the fly from depositing its eggs there. The fly appears very early in the year, and it will be necessary in the case of the cabbage to spray the young plants in the frame with this material before setting them out, as the eggs are often laid there, and the grub develops after they are set out. There have been a number of experiments tried in England, where they have suffered for generations past, and they have not been able to find anything that has been perfectly effectual in keeping them within bounds. Like all insect pests they prevail more at one time than another. The cabbage fly seems to have caused a great deal of damage this year. Why this is the case, we cannot learn beyond this, that they have enemies which prey upon them, and in some years their numbers are very largely reduced.

Mr. BEALL.—I suffered years ago from the ravages of this insect and I commenced using salt. I generally used a bag of salt, holding from two-thirds to a whole barrel on less than an eighth of an acre of onions. I sow it broadcast. I do not know whether the salt effects a cure, but it prevents the loss of my crop.

Mr. CROIL (of Aultsville).—Take about two pounds of bitter aloes to a barrel of water and it has a very good effect. I use it on turnips and for the cabbage worm. There is nothing will touch it.

Mr. KINSEY (of Uxbridge).—Is the worm that affects the radishes the same ?

The PRESIDENT.—It is another species of the same genus.

SHADE FOR SMALL FRUITS.

QUESTION.—Should small fruits such as berries and currants be planted in a shady place or the reverse ?

Mr. JOHN LITTLE (of Fish Creek).—They succeed remarkably well in a shady spot. I have an abundant crop from under and near my apple trees. When exposed they sometimes get scalded by the sun, but in the shade this is avoided. I would not, however, give strawberries any shade. I give them all the sunlight and air the Great Creator designed this earth to receive. Owing to the drouth and sun I planted my currants in the shade of my apple trees, and they do very well.

Col. MAGILL.—That has been my experience with raspberries, gooseberries, and currants, and I think I get better fruit than from those in the open air. My theory is that the moisture is retained in the ground, and the bushes are better fed.

Mr. LITTLE.—They should have more manure than otherwise in order that the trees do not absorb the nourishment which the berries need.

THE COLONIAL EXHIBITION.

A deputation consisting of Messrs. A. W. Wright and R. Pringle waited on the Association and urged the importance of preparing a collection of fruits for the great Colonial Exhibition in London, Eng., in 1866. After a full discussion, the matter was left with the directors.

THE DEWBERRY.

The PRESIDENT.—This question :—Can any one give an account of the new fruit called the Dewberry?—is meant to apply to the new Dewberry called the Lucretia, put out in the United States. The common Dewberry with its trailing habits is well known, but this berry originated in Virginia and is creating considerable discussion in Ohio.

Mr. BEADLE.—I know nothing about this new berry. The Dewberry grows wild in Canada in great abundance. This variety which is being grown in the United States, I am told by Mr. Campbell, of Ohio—who seems to have no interest in the dissemination of the plant—that he believes it will be a valuable fruit. Its trailing habit is made use of to protect it in colder latitudes. In southern Ohio it does very well without protection. Here, in the autumn, we could throw a little litter over it, and we are almost sure of a crop in the summer. It is said to be a large fruit resembling the blackberry in appearance and flavour. It is described as large, juicy, and of a very pleasant flavour. On the strength of Mr. Campbell's recommendation I ordered one hundred plants, and they are growing.

Mr. HILBORN (of Arkona).—I have two plants of the Mammoth Dewberry. It is not very much. I got them two years ago and planted them. They grew a little that year and had a few blossoms, but did not set any fruit, or what they did set did not come to perfection. This year they are full of bloom, but it is too early to say what the fruit will be. They are tender. I did not give them any protection, and wherever they stuck up above the ground they were killed, but those on the ground were all right.

Mr. LITTLE.—I have Dewberries growing. I got half-a-dozen of the Lucretia and Mammoth from the President of the Michigan Horticultural Society. He likes the Lucretia best and says it is a berry larger than the Kittatinny. It is a trailer and can be protected on the ground as you do your grape vines and rose bushes. The fruit is said to be luscious and good,

Mr. A. M. SMITH (of St. Catharines).—I have a wild one on my place which produces very fine fruit some years.

Mr. HILBORN.—The fruit ripens at the time of late raspberries.

Mr. HARMAN (of Uxbridge).—We have it here in the swamp about the size of a raspberry and very tart.

The PRESIDENT.—That is Rubus Triflorus.

EVERGREENS.

Mr. DEWHURST (of Uxbridge).—I have half-a-dozen of Norway spruce this spring that are not showing very good growth so far. They had started some growth before they came, and I think two are dead. I wished also to get some of our native spruce, and on the 10th of June I carefully took them up. One is doing well, and the other is dead. I went to the swamp again on the 15th, and pulled up three little spruce trees, and set them out along with those I had been so careful with, and I find they have made good progress.

Mr. CUMMER (of Uxbridge).—In the swamp over there, we have abundance of spruce and balsam, and nurserymen come and take away thousands of them. While they are so convenient, I would like to know how to take them out of low land and transplant them to high land, at what season, and the treatment.

Mr. KINSEY (of Uxbridge).—My little boy has frequently pulled up a nice evergreen, and, taking it home, would plant it, and he scarcely ever loses one.

The PRESIDENT.—This lad seems to have been particularly fortunate. I have planted a considerable number of evergreens in the spring before growth has begun, and I rarely lose any. I have planted them in June, too, and have succeeded with them. There is one important point in connection with the transplanting of evergreens that is often overlooked, and that is this :—The sap of evergreens contains a good deal of resinous matter. When the tree is taken out and the roots get dry, ordinary moisture does not restore them, as it would with trees having a different nature of sap. A drying wind will kill them in a few hours. The condition of the atmosphere is of very great import-

ance. I think if the tree is carefully taken up, either in swamp or nursery rows—the latter being preferred, on account of being better rooted—and then taken without injury, or being dried, to the place of planting, success will generally follow. Nurserymen transplant from time to time, and by that means they develope fibrous roots, which prevent failure through drying up. This drying of the roots is oftener a cause of failure than anything else.

Mr. A. A. WRIGHT.—I have had considerable experience in transplanting evergreen trees, spruce, balsam, and cedar, and I invariably found that the quicker I could get those trees planted out the better success I had. The greatest trouble was to get trees early enough. If I went into the body of the swamp, the trees I wanted would be frozen in; but whenever I could get such as I wanted near the borders, I had no difficulty with them whatever. I think that our President is wrong about the wind killing a tree in a few hours. It will do it in much less time.

Mr. BEADLE.—I have transplanted a great many thousand evergreens. I have transplanted from the seed-bed. I transplanted a number of Arbor Vitæ (I think some people call them White Cedar) the day before Christmas, and every one of them is alive there yet.

The PRESIDENT.—I transplanted one year in July, and they all lived.

Mr. CROIL.—I have transplanted a great many out of the swamp, and have not lost five per cent. of them. We never give the roots a chance to dry up. If we take up a tree, and the top covering comes off, we throw it to one side. We take those that are well covered, put them on the waggon, and move them to the place of planting as rapidly as possible. I have never lifted a tree that was higher than three feet. It pays better than trying to lift them at five and six.

Mr. BUCKE.—There is one tree that a great many people are planting out, and that is the balsam. I think the more of those trees that die the better. It is a very poor tree. It thins out at the bottom, and grows unsightly. The best time to transplant is a rainy day.

Dr. CROSS (of St. Catharines).—Several years ago I planted a large shrubbery, most of it taken from second growth pines. I got them in height from four to ten and fifteen feet. I went the year before and dug a ditch around those I wanted, and as a result they threw out new roots where the old ones had been cut off. I found no difficulty in transplanting those trees.

Mr. BODWELL (of Ingersoll).—I have had some experience in transplanting Arbor Vitæ from the swamp. Those with which I met the greatest success were transplanted in the middle of June. I have had a good deal of trouble in planting Norway spruce from nurseries, whether from drying of the roots or not I cannot say. I would like to ask,—If Norway spruce has started three inches of growth, would you take them up, and transplant them?

The PRESIDENT.—I transplanted over a hundred trees in June, when they had made about that much of growth. They would average from six to eight feet in height, and were carried a distance of three miles, covered up, of course, with bags, etc., to prevent drying. I took off the tops, as I wanted the trees for a wind break. They are very handsome to-day, and I only lost three or four in transplanting them at that time. I cut off all the new growth in trimming. It would have withered up almost immediately. I do not know whether it would be wise to advise people to defer their transplanting so late in the season. I think, perhaps, the beginning of growth is the best time.

Mr. WRIGHT.—I saw a gentleman with a good hedge of spruce, who took them all up on Dominion Day, and never lost one.

Mr. BEADLE.—After a great many years' experience, I would not advise any one to transplant evergreens after they have made considerable growth. I meet with the best result by transplanting just before they begin to grow. I think it would be a mistake to have it go abroad that there is anything to be gained by waiting until July or Dominion Day. I had no idea those trees would grow that I transplanted the day before Christmas. I simply wanted a wind break. I would say, take trees eighteen inches high and transplant in the middle of May before the buds begin to start.

Mr. BEALL.—I have had a little experience in transplanting evergreens, where they

were something like those in this neighbourhood. I was an amateur at the time, sixteen or eighteen years ago, and I determined to have some spruce trees. I got my ground thoroughly prepared, and was all ready on a certain day. The ground was loose and mellow to a respectable depth. I got a lot of wheat straw on hand, and then contracted with a man to bring me a thousand trees from Goose Lake, a place like this here. Each tree was to be over two feet high. On the 24th of May, the day fixed, was cloudy, and the day before it had rained. I got the trees, and planted them in rows about two feet apart, and packed the wheat straw in between. I am satisfied I did not lose two and a half per cent. of those trees, and I attribute my success to the mulching with wheat straw.

Mr. KINSEY.—I want to make a wind break with cedar. Would it be too late now?

The PRESIDENT.—There is no time like the present; but you will probably not meet with the success you would at another time. Select a wet day, and keep the roots well covered, and you will probably succeed.

Mr. CUMMER.—What class of evergreens make the best wind break?

Mr. BEADLE.—I know of nothing better than Norway spruce.

Mr. HILBORN.—I like Scotch pine as a wind-break, and they will grow in almost half the time of spruce.

The PRESIDENT.—They do not stop growing. I have some now and they are about thirty feet high, and I think I must cut them down.

Mr. MACD. ALLEN.—A great many make mistakes in planting wind-breaks. Instead of a wind-break they make a thorough hedge. My idea of a wind-break is that it shall allow a thorough circulation of air, and merely break the fierceness of the wind. We want a circulation of air through our orchard, no matter what sort of a crop we are growing.

The PRESIDENT.—From that standpoint probably the Scotch pine would be the best variety.

MULCHING.

Mr. MCGILLIVRAY (of Uxbridge).—How long is mulching kept on?

Mr. BEADLE.—I never use it in the sense it is commonly used. The best mulching I ever saw was a good cultivator. It will keep the weeds from growing, it will keep the ground from baking, and the tree will have the benefit of the dew and rain that heaven gives.

Mr. CUMMER (of Uxbridge).—I saw an orchard heavily mulched with saw-dust. Is that beneficial or not?

The PRESIDENT.—It is astonishing what ill-treatment some things will put up with. It is not safe to come to a conclusion from apparent success. Those who do not advocate mulching, generally object on the ground that it induces a condition of moisture which brings small roots up to the surface, and when the mulching is removed these roots are very apt to be destroyed by exposure to the sun and air. From this, they argue that if mulching is begun it should be continued. On the other hand, there are some people who contend that it is a great benefit.

Mr. P. E. BUCKE (of Ottawa).—I would not advocate the mulching of strawberries or raspberries. It gets very sour and soggy, and keeps the ground too wet. It may do for apple trees, but I doubt it.

The PRESIDENT.—Nurserymen have great success in growing trees, and I never knew one yet who used mulching to them. The cultivator, however, is often used.

Mr. CROIL.—I have mulched with saw-dust occasionally, but I cannot say that I have ever found very bad results from it or very good. It keeps down weeds.

Mr. JOHN LITTLE (of Fish Creek).—I have seen several instances of mulching with both fresh and rotten saw-dust; but the fresh got so sour that nothing would grow on it. Rotten saw-dust, however, is not so bad. I saw fresh saw-dust killing evergreens.

The Association then adjourned until two o'clock in the afternoon.

At two o'clock the Association re assembled, and the Question Box was opened.

SULPHATE OF IRON AND MILDEW.

QUESTION.—It has been asserted that the application of sulphate of iron to the roots of small fruits, liable to mildew, will destroy that pest. If so, what is the best means of applying it?

Mr. DEMPSEY.—I have used sulphate of iron largely as a fertilizer for pears. I never saw a spot on a pear tree where we were using it, but it never occurred to me that it was a preventative of mildew or spot. I discovered, however, a month or so ago that some person writing in an agricultural paper said, after using a considerable quantity of it upon the roots of grape vines and apple trees and pear trees, that he never found a spot on any of these fruits while using sulphate of iron as a manure. We have this year a Flemish Beauty pear tree, off which we have not picked a good specimen for years, and we have now applied about a peck of sulphate of iron to the roots. The rains wash it down after it has been pulverized, and there is no difference about it getting near the trunk of the tree. It costs about the same as superphosphate of lime. A peck is perhaps a large quantity, but we produce fine specimens of pears for exhibition purposes and we invariably find them smooth. At the time we were hybridizing them in pots and tubs we used this in a liquid form, and never failed to double the size of the fruit. Every man should know this, and if I only had the time to apply it, I should not be afraid of these St. Catharines fellows at the Provincial Exhibition. I never used it on small fruit, but fancy it would be safe anywhere.

The PRESIDENT.—I think I should prefer treatment more approaching the homœopathic. Five or ten pounds would be quite as much as you should have under one tree.

Mr. DEMPSEY.—In making a solution the quantity was generally judged. I generally took a handful and putting a little boiling water on it, filled up the rest of the pail with cold water. The quantity would depend upon the size of the tree.

Mr. HICKLING.—I have tried sulphate of iron. We had Snow apple trees that were for several years entirely ruined because of the spot, and whether from the application of sulphate of iron or the nature of the season, I cannot find any spots whatever. Of course the apples are very small yet, but you are aware the spot commences when they are very small. I threw the solution over the trees with a force pump. Some, by way of experiment, I tried by throwing it around the trees, but I cannot observe that it makes any difference. I think also that it has had an effect on the quantity of fruit. I am having a large quantity on trees that scarcely bore before, and I am convinced that the use of sulphate of iron is a benefit.

THE APPLE CROP.

Mr. P. E. BUCKE (of Ottawa).—I was the author of that paragraph in the programme, and I put it in with a view to ascertaining what the prospect was of the apple crop, in order that dealers in this country and shippers to other countries should be able to have some fair idea of the value and prices. I think if the growers knew the prices they should get, they would be benefited instead of the middlemen who now reap all the profit.

[Reports were then received from gentlemen representing the various sections of the Province, but as this report will not be published in time to make the facts of any practical value, the speeches are not given].

GOOSEBERRIES.

Mr. ROBSON (of Uxbridge).—I grow gooseberries to some extent, and they seem to succeed with me. I grow the Downing, Smith's Improved, and one of those English varieties. the Whitesmith.

Dr. CROSS (of St. Catharines).—This year the prospect for gooseberries is good. I formerly tried the English varieties, but with no success. They would mildew. The only ones that did not mildew were the Downing, Houghton and Whitesmith.

Mr. DEWHURST (of Uxbridge).—My Downings are growing very well.

Mr. Hamwell (of Stouffville).—I have been growing the Downing and found them very profitable until two years ago, and then the frost killed the blossoms. This year the blossoms fell off again, and I do not know what the cause is.

Mr. Dempsey.—Our experience is changing every year. I certainly saw fine gooseberries on Mr. Beall's bushes yesterday. He has very fine Whitesmith's that were not quite as large as hens' eggs, but were certainly very fine. Our gooseberry crop is not so large as usual, and still our Houghtons and Smith's Improved and Downing are good. Our seedlings are looking very fine and promising.

Mr. Bucke.—I used to grow the Houghton at Ottawa. I was the first person to bring them down there, and I disseminated a great quantity of plants there which the people said did very well, but they were very small. I then got some Downings. I used, however, to get fifteen cents a quart for the Houghtons. There is a man there who has about an acre and a half of gooseberries that he thinks are an English variety. He told me he made $360 last year off half an acre. He will not sell any, because he wants to keep the business and profits all in his own hands. The gooseberry business is one of the most profitable I know of, because the season continues for about six weeks, and the fruit is not damaged by lying in the shops, and everybody likes it.

Col. Magill (of Oshawa).—I grow some six or eight varieties, among them the Downing, Smith's Improved, Roaring Lion and Crown Bob. A few years ago I was troubled with mildew, but latterly I have mulched my bushes with coal ashes and now I have no mildew at all. The next thing I had to fight was the currant and gooseberry worm. I have found gooseberries very profitable, although I do not care very much for them myself. I simply mulched the bushes before and after you get them nicely cultivated.

Dr. Cross.—A man near St. Catharines, who showed me fifteen varieties two years ago, hasn't one now, in consequence of mildew.

Mr. Dempsey.—I think they are reviving.

The President.—At the same meeting Dr. Cross speaks of Mr. Dougall of Windsor, as having some seedlings, and since then we have heard but little of them until an American firm has bought out his right in these gooseberries, and we now hear of them as something wonderful.

Mr. Beall.—What about the gooseberries the President hybridized in London?

The President.—Mr. Smith can tell. I saw on his place some fine specimens. The reason I cannot grow them well is on account of their being on sandy soil. It is no use trying to grow gooseberries on sandy soil, and I have transplanted them to a clay loam.

Mr. Dempsey.—Mr. Saunders did not want to tell about his gooseberries. Notwithstanding it seems my nature to tell all I know. We have several varieties that look very promising, that are the result of crosses between the Houghton and Smith's improved, and the Charles Downing, with some of the best foreign gooseberries. The Whitesmith was used chiefly. Some of them have fruited very fine, while others seem shy in bearing. Those that produce the most attractive fruit bear a very thin crop. Those which produced the heaviest crop were good berries, about like Smith's Improved or Downing. I think some of them are going to be profitable. I have never seen any trace of mildew yet, but cannot say they will not mildew.

The President.—I should have said that I still keep the Houghtons, which produce good crops on sandy soil.

Mr. Hilborn.—I have not had any new varieties long enough to speak about them. I have Crown Bob, the Whitesmith and Industry. There is some fruit on the Industry this year, and it has not mildewed yet. I should not like to say much about them.

Mr. Glendenning (of Manilla).—We grow Smith's Improved, Houghton and Downing, and another variety which is a very good berry. I got it from a neighbour, who ordered a Downing, but this turned out a very much different variety. It creeps all over the ground very much like the Dewberry. We cut off a branch and sent it to Mr. Beadle, who said he had never seen the berry before, but was inclined to think it was the American Red. It is of a light reddish colour, not quite so dark as the Houghton and about the same size as Smith's Improved, which it resembles in shape. They seem very productive with me on a soil which is a clay loam.

Mr. C. J. Wilson (of Uxbridge).—This year my gooseberries are a failure, but I have no new varieties. I have one kind which grew from a seedling in the garden, a very large, yellow berry, that is very fine.

Mr. Croil.—Our great enemy has been the currant worm. I do not think the Downing will mildew, and the others we are curing by applying sulphur. Our family is very fond of gooseberries.

Mr. Wright (of Renfrew).—The only new variety I have is the Golden Prolific, but, as this is the first year it is fruiting with me I would not care to say much about it. The old varieties are the Whitesmith, which is fruiting fairly well, Smith's Improved, and Houghton's seedling, which bears almost anywhere. I have the thorny Downing, and think very little of it. I have been troubled very little with mildew, but a good deal with winter-killing.

Mr. Hickling (of Barrie).—I have not been in the habit of growing gooseberries. We have the Downing, which is very large, and this year completely loaded with berries. I think very much of them and shall try to take more pains with them. As to mildew, I used to have it years ago, but I gave the bushes both ashes and sulphur, and have not been troubled since. I applied the ashes on the bushes and sulphur under them.

Mr. John Little (of Fish Creek).—The gooseberry and the bee I do not care much about handling. However, I got a few plants from Mr. Hilborn, and Mr. Bucke, that I shall tell you about next year. We have some of the Downing and Smith's Improved. I only prune the bushes myself and get someone else to gather the berries.

Mr. Beall.—I got the Industry last year. I got it because I had every confidence in the statement of Elwanger and Barry, that they never knew it to mildew in their neighbourhood. It grew very nicely, but mildewed worse than any variety I have ever seen. I used to grow the Houghton, but it was too small. It was too much trouble. The Downing does exceedingly well with us, and bears a very good crop. I also have the Crown Bob and Roaring Lion, but the Crown Bob does not seem to be doing well. I may be able to report better another year. The Whitesmith I have had for about sixteen years, since I first commenced. I believe there is a good crop, and I do not think you will find half a pint of mildewed berries. I do not use sulphur on these. They have had no manure except the best of barnyard manure, and lots of salt almost every year. I do not stir the land, but two or three inches once or twice a year. I should judge by comparison that the Whitesmith was a very profitable variety, and I also think that the cultivation of gooseberries is the most profitable of all fruits. My soil is clay loam, with more clay a great deal than loam. There was apparently some doubt thrown on my statement that I had sold ten dollars worth from twelve bushes; but it was true. I have about three hundred bushes in another place, and they mildewed rather badly. I prune in the spring by cutting off everything that is on the ground, and that allows the centre of the bush to fill out again. This year in pruning them I did so with unusal severity, and this year they are mildewed worse than ever. I think there is one-half of the bushes on which I shall not touch the berries, although I cannot see why they should mildew. Last year on these three hundred I used three hundred pounds of sulphur, while this year I have used but twenty pounds up to the present. Judging from that part of my orchard I should say "never plant Whitesmith gooseberries," but here are my old ones doing as well as ever. I cannot account for these things, and therefore I say I do not know as much as I did ten years ago. This year I used hellebore for the fly in the spring, but it takes too much time. If you want to fight the insects though, you must commence in time. I find Paris green to succeed against insects pretty well.

Mr. Bucke.—There is nothing in the world like Paris green for the gooseberry or the saw fly; but you must not put it on after the fruit has set.

Mr. Croil.—I never saw hellebore fail.

The President.—I never saw anything quite so effectual as Paris green; but those which escape the first application must be looked after. We put on Paris green the first time, and hellebore the second, although I do not think there is much danger in using Paris green. We have heard a good deal said about the Houghton. Now, there are two berries in the market known by nurserymen as Houghton's seedling.

When I planted out largely some years ago, among the gooseberries I planted were some sixty Houghton bushes. I noticed that some differed very much from others, and when they began to fruit, the difference was equally marked. What I got from one nursery was different from what I got from another. I found that one was the true Houghton, while the other was the American seedling. The latter has a very upright growth, and I would recommend Mr. Little to get that fruit for it has no thorns on it worth speaking of. It is a very great bearer, and when I was growing for profit, I found it one of the most profitable I ever grew. There was no trouble about mildew, and they would always sell. I noticed that the dealers in London were selling these small berries, and it is really one of the finest for bearing we have. I met a gentleman on the street the other day who said he could grow the larger berries without any trouble, and remarked that it was all in the pruning. He said :—"I used to have them mildew every year when I let them grow as they would ; but now I only allow a certain number of spreading branches that will remain some little distance above the ground, and I can grow Whitesmith gooseberries without mildew." I did not like to say anything to discourage him, but I think he will find some season when there will be plenty of mildew on them. I believe, however, there is a great deal in this system of pruning. I believe also, that a clay soil is the one for gooseberries, and prune as I have indicated, by cutting out the centre and allowing the air to get through freely. There was a gentleman in our town rather noted for his gooseberries. He had some one or two hundred bushes, and had a large number in the market every year. His idea was that mildew arose from lack of moisture. He watered his bushes every morning, or every alternate morning, except when it rained, and he could show bushes so treated free from mildew, while bushes not so treated were mildewed. I think pruning and soil are important elements. I think any one who can grow anything else, can grow Houghton's seedling, and I like its flavor quite as well as the Whitesmith. This mulching which has been spoken of, is valuable as it keeps moist air underneath the bushes, which bears out the idea that mildew has something to do with lack of moisture.

Mr. Bucke.—No doubt one of the greatest helps in growing gooseberries is to have rich soil.

Mr. Dewhurst (of Uxbridge).—I keep the saw-fly off with soot.

RASPBERRIES.

Mr. Hilborn (of Uxbridge).—It is true I have done something in growing raspberries, and to the extent I have cultivated them I have been very successful. I look upon this as a very good place for growing them. The labour is no more here than elsewhere, and if the labour is applied, I think we will always get good crops. We have the Philadelphia, and Clarke and Mammoth Cluster. We get enormous yields from the Clarke. My soil is a heavy clay, but I find others with a light soil growing good crops. Still, I think what I have is the best. If they are trimmed back, I do not think there is any difficulty about winter-killing. Snow sometimes break them down, but if they are protected I fancy we need have no difficulty about growing raspberries to any extent.

Mr. Dewhurst (of Uxbridge).—I have found the Philadelphia to succeed well.

Mr. Miller (of Uxbridge).—I grow the Clarke, and have two rows planted the length of the orchard. My only trouble is freezing in the winter, and they bear well when not frozen down.

Mr. McGillivray (of Uxbridge).—Mine are nearly all Mammoth Cluster, and they bear very well. I was describing another to Mr. Hilborn, and he calls it Kittatinny. Berries are really a large crop here.

Mr Glendenning (of Manilla).—I have been growing a few berries for a number of years. We have good success with the Mammoth Cluster. This year, in a few exposed places some have been cut down with the frost. We never give them any protection whatever. We also grow the Gregg black cap, but it was not hardy, and froze to death this year; while in other years it seemed to ripen well, but the wind dried them up on the bushes. I also have Philadelphia and Cuthbert. This year I went to dig them up, but when I came to where the Philadelphia was I saw that it was frozen below the snow line, and I concluded to let it remain another year, and now they are covered with

young fruit. The Herstine I cut down. I also grow number 53, sent out by the Fruit-Growers' Association. I believe our President was the originator. It is hardy, and covered with a large quantity of fruit. We find the fruit very tart, and it is splendid for canning purposes, although a little on the small side.

The PRESIDENT.—It requires good manuring.

Dr. BLACK (of Uxbridge).—There is no doubt that this neighbourhood is well adapted to the growing of berries.

Mr. PEARCE (of Uxbridge).—I have had some little experience in the growing of berries. We grow the Philadelphia, but we find them unprofitable to pack, on account of the berry being shallow, and inferior in quality. We have also grown the Turner, which is hardy, productive and good. It is a little soft; but a cousin of mine takes it to Toronto market, and finds the business profitable. I have also tried the Cuthbert, which is productive and fine; but it is scarcely hardy enough to stand our winters. The Mammoth Cluster is doing nicely. We have planted the Herstine and Doolittle; but so far we have found the Turner the best.

Mr. KINSEY (of Uxbridge).—I find, in an exposed place that the Mammoth Cluster is not hardy. It kills right off with me. I find with others, however, that it stands. The Kittatinny I do not succeed with, and the Clarke was not hardy. In a sheltered position it might answer, but it does not do well with me. I intend to change the location of the Mammoth Cluster.

The PRESIDENT.—It is a very unusual thing for the Mammoth Cluster to be injured by the cold.

Mr. HILBORN (of Arkona).—I think that in blacks the Tyler is perhaps the best and hardiest of the early varieties, and the Mammoth Cluster would come next. I do not know anything better among the blacks. The Tyler is hardier than the Mammoth Cluster. The Souhegan, which blooms a day or two after the Tyler, is very much the same; in fact in the fruit I see no difference. The Gregg is a little tender, and a number of us have been surprised to hear that the Clarke is not doing well in this neighbourhood, as they were in first-class condition with me, at least. You must test to see what will suit. In the purples, Shaffer's Colossal is the best. It is a purple in colour, being a cross between the red and black. The bush is the strongest grower of any that is grown, and it is very productive and bears its fruit on for a long season. It continues very late. It has a good crop and is quite a nice fruit. For canning purposes I know of none to equal it, and for marketing it bears a sort of dull red or brown colour which spoils its looks, but not its flavour. It is darker than the Philadelphia, and does not take on the market. For red berries I think the Turner is perfectly hardy, and where they will not stand there is no use trying any other. It is a little soft for shipping, but the flavour is good. The Delaware is too tender. The Herstine is quite hardy and of good medium size, but lacking quality. The Niagara is not hardy enough for me. It is about the size of the Cuthbert, and not as good in colour. The Cuthbert has suffered with me this year, and has been cut down one-half.

Mr. JOHN LITTLE (of Fish Creek).—I can corroborate what Mr. Hilborn has said about the hardiness and durability of the Tyler, Souhegan, and also of the Hopkins. The two former, especially, were alive to the top, and the Hopkins was injured very slightly. The rust seems to be coming on the Souhegan, and I do not think it will be reliable. I shall take it away, as anything that shows inferiority with me I do not allow to stay. Shaffer's Colossal would raise cordwood, I think, if thrown on top of it. It is a good grower, and a good berry, and there is no better canner in all the raspberry family. It may have that fault that it is a little dark in the colour, but like some of ourselves, we are not all favoured alike in that respect. Bebee's Golden I fruited last year, and while it is good to take from the bush and eat, if it is canned or preserved, you might as well chew a stick. The Reeder is not grown extensively in Canada, but is very fine and hardy. The Parnell, of which I expected so much, has died. The Mount Clair is fine both in fruit and plant, and stood the winter remarkably well. The next that I got from a gentleman in New York was the Meredith Queen. It takes the palm for the most beautiful fruit that I have ever grown, and I have grown most of those that have ever been named in my day. The originator sold those plants for $5 a dozen this spring. It was alive to

the top this year. It is as large as the Cuthbert, that is medium, and when ripe it is of an orange colour. It is delicious. I have the Cuthbert yet, though it is a little tender. The Clarke I threw in the ditch long ago. The Delaware is a very fine berry. The Turner has done remarkably well with me, and so has the Brandywine. Then last, but not least, is Arnold's red hybrid, and I have nothing in all the list to equal it. It has large red berries, and is the strongest and healthiest in all my garden. The Welsh would nearly resemble the Cuthbert, but it is hardly as strong in the cane, although a healthy grower and alive to the top. The Ohio is a black cap. It is not very large, but is considered one of the best of the black cap family. The tenderness of some plants is the result of bad cultivation and pruning.

Mr. Dempsey.—I have had very little experience in the cultivation of raspberries compared with Mr. Little. I presume, however, that anything that would succeed with us would succeed with you. We have found the Philadelphia, not like I have heard some of you speak of it, unprofitable; but one of the most profitable we have ever had. We found that buyers who tried them one year for canning and jams wanted them the next. They make superior jams to anything we have ever tried. There is one fault, however, and that is in the small size of the berry, which also predisposes the plants to overbear. The Cuthbert with us is a very good berry, but it never overbears. It is sufficiently hardy, and produces large, solid fruit, which ships well. We think well of it, and it has never winter-killed with us. I like the Reliance, which is a very fine berry, but a little on the soft side. The Ohio with us is very prolific and hardy, but there is a little too much picking to the quart to satisfy me. I do not like the flavour of the Gregg, and it picks something like pulling teeth. It is not always hardy. If I were cultivating a plantation of raspberries, I would confine my attention strictly to the Doolittle and Mammoth Cluster, and stop there. The Mammoth Cluster is the most profitable cap berry we have grown. It is hardy and produces enormous crops, and we have never failed to gather the whole crop in three pickings, which is quite an item where we are dependent upon hired help to get off our crop of berries. The Mammoth Cluster ripens uniformly, and can be gathered almost in handfuls. I do not think the Tyler will ever give us the satisfaction of the Mammoth Cluster.

Mr. Little.—The Mammoth Cluster and Doolittle die out in blight with me.

Mr. Dempsey.—If I were going to plant out red varieties, I would take Reliance and Cuthbert, and Turner. The Turner is a little softer than the rest, and is more difficult to ship; but for home use I like it very much.

Mr. Hilborn (of Uxbridge).—Raspberries follow so closely in the wake of strawberries that, unless we can get a high flavoured berry, we do not care for any. It seems to me, therefore, that it is of the greatest importance that we should grow as high-flavoured a raspberry as possible, and also one that will retain that flavour in the can. Now, I think perhaps some of the gentlemen engaged in the business could give us an idea as to which varieties combine these points of excellence Another question is this: Is there any preventative for the yellow rust in our black raspberries? In some parts of the country that seems to be the prevailing evil, and I have personally lost quite a number of bushes through it. I have not been able to discover anything to cure it.

Mr. Dempsey.—For jams and canning purposes there is nothing I have ever seen to equal the Philadelphia, and the Turner is also fine. If we want highly flavoured berries, we may take some of the European varieties. Judging from my own taste, I would not give one quart of raspberries for a peck of strawberries, and I think the strawberry flavour does not compare with that of the raspberry.

Col. Magill (of Oshawa).—On my soil, which is a sandy loam, I keep my raspberries thoroughly cultivated. I prune the bushes down to two and a half feet in height, leaving four or five canes. The red varieties that I grow are Cuthbert, Franconia, Philadelphia, Turner, Herstine, Crimson Beauty, Superb, Reliance and Thwack. I called upon the originator of the Crimson Beauty in Kansas, and it is said to be there the best cultivated in America. I think very much of the Clarke. On my ground it is a very heavy bearer, and the only thing I can say against it is its softness, which prevents us from shipping it any distance. The Cuthbert is one of the best shippers we have; but I am sorry to say through injury this last winter the canes have been cut down about one-quarter.

The Franconia does well, and is a splendid shipper. I give none of my raspberries any winter protection. Mr. Dempsey and I agree on the flavour of the Philadelphia; but I do not think so much of the Turner as some gentlemen who have spoken, and it is not as prolific as some others. The Thwack is hardy, a good grower, and a good bearer; but I do not like the flavour, and I am discarding it. My black caps are Gregg, Doolittle, Mammoth Cluster, Souhegan and Tyler. We can make more money out of the Gregg than any other. The Mammoth does very well, but not so well as the Gregg The Tyler does very well. The Clarke takes the best with us of perhaps any of them for table use, and the Cuthbert is our best shipping berry. In cultivating raspberries, you must use your hoe freely.

Mr. CUMMER.—How long should raspberry bushes be continued before replanting and renewing?

Col. MAGILL.—Almost indefinitely by mulching or manuring the ground. I have bushes that have been bearing for fifteen years—the Clarke, and Philadelphia, and Herstine. They like plenty of food, just as we do.

The PRESIDENT.—I do not think many persons will get much satisfaction in cultivating the same variety in the same spot for that length of time. I have found that seven or eight years suffice, and then it is much better to take them up and plant a new bed in some other location. After taking seven or eight heavy crops off the same spot, such crops as the Philadelphia will bear, you exhaust certain constituents of the soil, which the berries use up. Col. Magill's case may be an exception; but, as a rule, I think at the end of seven or eight years it is better to remove the plantation to a fresh spot. With regard to planting, it is usually done in the spring, and the distance apart will depend whether it is in the garden, or where you want to use a horse cultivator in the field. If in the field, it is customary to plant rows about five feet apart, and put the plants about eighteen inches apart in the rows. In the garden, three to four feet apart will do, except for Shaffer's Colossal, which sometimes takes eight feet. From five to six feet apart is the usual field distance, but where land is scarce three to four feet will do. As to soil, raspberries will grow in almost any soil that is well nourished. There are some varieties which seem to do best on heavy soil, which is only learned by the experience of the individual grower. In pruning, it is very important that some of those varieties of thrifty growth should be dealt with early in the season, and such varieties as the Turner require thinning out in the summer, or the canes will not have that vigour you would wish them to have to carry a crop the following season. I do not know that it is necessary for me to add to what has been said about varieties, although some of us differ. Col. Magill grows the Franconia; but I never found a season that they would survive. I also tried the Clarke, but they were so unsatisfactory that I took them up and threw them away. The largest part of the canes would often get killed. The Turner gives me abundant satisfaction. I think it is the hardiest of all the varieties, the highest flavoured, and perhaps as fine a colour as any. The only objection to it is its softness for shipping. The Cuthbert has been spoken of as hardy, until this last winter. The Philadelphia is perfectly hardy. I also find the Caroline to stand our winters. It did not suffer, and came out robust in the spring. It was sent out with a great flourish of trumpets, and was heralded as being equal to Brinkle's Orange. It is not; but is much superior to Golden Cap. The Gregg I have found tender, and the Mammoth Cluster hardy, and Shaffer's Colossal has also been hardy. I do not consider Brinkle's Orange hardy, and, on account of winter-killing cannot get a crop.

Mr HICKLING (of Barrie).—It was not tender with me; but I believe that mine is not the general experience.

Col MAGILL.—I plant my bushes six feet apart in the rows, and four feet in the hills.

Mr. BEALL (of Lindsay).—I had Brinkle's Orange for about ten years. I had fruit every year; but there was one year it killed very badly.

Mr. BUCKE (of Ottawa).—We protect our raspberries by turning them down and putting sod on them. In planting, it is best to do so when young shoots come up, and next year you will have a good crop.

Mr. DEMPSEY.—We find when the soil is exhausted, after eight or ten years, or sometimes six years, that the yellow rust comes.

Mr. Hilborn.—I have seen it this year on perfectly new plants.

The President.—Sulphur or sulphate of iron should be used, and the result reported on.

After the customary vote of thanks, the Summer meeting came to a close.

THE EXHIBITION.

Your Committee having examined the fruits exhibited, beg leave to report as follows:

Mr. A. M. Smith (of St. Catharines) exhibits nine varieties of strawberries, consisting of Early Canada, Mary Fletcher, Arnold's Maggie, Arnold's Pride, Glendale, Atlantic, Longfellow, one seedling and one unknown. All are well ripened and of good average size. Early Canada is not high enough in quality to be valuable for amateurs; Mary Fletcher, good quality; Arnold's Maggie, rather insipid; Arnold's Pride, good; Seedling, partakes a good deal of the Wilson flavour, but in form not so perfect; Glendale, as usual, leaves a rather unpleasant aftertaste; the unknown variety is of fine flavour and somewhat resembles Arnold's Pride in form; Longfellow, although not high flavoured is pleasant, and may yet prove of value; Atlantic is a handsome berry, although irregular in form, and in flavour good to very good, and judging by the specimens before us it must come into favour for market. Col. Magill (of Oshawa) shows a fine specimen of Crescent Seedling, and also a well ripened basket of Wilson.

All of which is respectfully submitted.

ALEX. MacD. ALLEN,
J. C. CUMMER,
JOS. BASCOM,
} *Committee.*

Uxbridge, June 25th, 1885.

FALL MEETING.

The fall meeting was held in the Town of Wingham, County of Huron. The opening session took place in the Town Hall on September 16th.

The President, Mr. William Saunders, of London, occupied the chair, and in opening the meeting explained the methods by which the Association was conducted and the end aimed at. The opinions of local growers was most desired, as well as their experiences.

The regular order of procedure, as laid down in the published programme, was then begun.

APPLES.

Question.—The best varieties for export, and why? That is, What are the points of superiority?

Dr. Sloan (of Blyth).—I have had every satisfaction in growing the Northern Spy. They have fruited more regularly than any other. Another apple grown here is the Golden Russet, and the only objection I have to it is its size. I like a large apple, and when picking it you see your barrels accumulate rapidly. The Ribston Pippin does well in this district, and the King of Tompkins is also a fine apple, although easily bruised. It must be packed with great care to ship successfully. I have the Swaar, but have not shipped any of them yet. In this district we must have the hardiest apple we can get, and the Mann I think would be one of the finest varieties we could get hold of.

Mr. HARRISON (of Belfast).—I can corroborate what Dr. Sloan has said, that all through this section the Northern Spy is in the greatest demand. Their hardiness and little liability to injury when being handled are their principal points of advantage. It is a prolific tree and that is also in its favour. It is not much subject to the attacks of insects. The other varieties Dr. Sloan has named, I should have named had I preceded him, as those which do best in our section for shipping purpose.

Mr. A. M. SMITH (of St. Catharines).—Have you noticed the spot here very much?

Mr. HARRISON.—There is a slight difficulty in the western section of the county, but not here. It has been noticed that even the Snow apple does not spot with us.

Mr. P. E. BUCKE (of Ottawa).—Does the Northern Spy come early into bearing?

Mr. HARRISON.—It is generally eight or nine years old, or more.

Mr. JENKINS (of Wingham).—I grow apples, but I have never done anything in the way of shipping. My favourite winter apple, however, is the Northern Spy. I find it to be nice, large, and of splendid flavour. It is good for cooking and keeps well I need not go over ground that has already been touched upon, but say that the Northern Spy tree seems to stand the winter here better than any other.

Mr. GOTT (of Arkona).—Nothing has been said of the Rhode Island Greening and the Baldwin.

Dr. SLOAN.—The Rhode Island Greening will not hang on the tree until it is ripe. It is a magnificent apple, but I could not recommend them for this neighbourhood. The Baldwin is a good apple, but I have not had good luck with it. The trees winter-killed or died from some other cause. I planted them out five years ago. I believe they are superior to anything we have as a shipping apple. They could be shaken off without being much injured, but the Northern Spy would be injured very much.

Mr. HARRISON.—There is a species of dry rot on the tree as well as the fruit on the Baldwin. At the beginning the surface of the rot is the size of a finger-nail, and then it penetrates to the centre. That makes them objectionable.

Mr. MORTON (of Wingham).—I am surprised by the statement made concerning the Snow apple spot. We could hardly get a respectable sample at our Fair, and orchards around here are greatly troubled with it.

Mr. A. MACD. ALLAN (of Goderich).—It occurs to me that if I were buying apples up here, I would steer clear of Dr. Sloan. He speaks of shaking off the Baldwin. I should not buy for shipping any apples that were otherwise than picked. The Baldwin is very hard and of a colour that would not show a bruise; but it would be discovered in time to catch the purchaser on the other side of the ocean. The bruise, however, will dry up, and does not injure the apple very much. There is more money made out of the Baldwin than any other we have. The American Golden Russet comes next. The objection applied to it was that it was so small. That is the fault of the grower. It requires to be thinned out. It is apt to bear heavily, and while we have some very fine specimens on the tree you will find many very inferior in size. It will pay any grower to thin out the fruit of the American Golden Russet. The Rhode Island Greening a couple of years ago was down very low in the European market, but now it is up again. It is inclined in some sections to a fungus spot. This year, however, the crop looks well and has every appearance of being free from spot; and will, I think, hold its own in the European market. I think that, although the Baldwin holds the lead as a money-making apple, on account of its poor quality it will go down. When you come to keep it for sometime it is too woody. It is not a good table apple. The Northern Spy is about as satisfactory an apple as we have, both for family and dessert use. I have never seen any trouble in spotting with the Mann apple. It is a clean but not a rapid grower. Its habit is to bear a good, fair, average crop every year. The fruit does not require thinning out, and it is generally so hard that it will scarcely bruise. It will not come into use until after New Year's or February; and will hold its flavour right through. A good deal of money has been made out of the Canada Red. It is a good shipper, but not extra in quality. The Ben Davis is poor in quality, but is a good sample. The tree is inclined to bear too heavily. The Wagener is a good apple, but inclined to overbear and bear very early. I consider the Ontario is going to be one of our most valuable apples. The more I see of it, the better I like its quality, and it is as good a cross as can be expected

between the Northern Spy and the Wagener. It has the shape of the Wagener with a great deal of the colour of the Northern Spy, and anyone who is a judge of apples can detect the flavour of both of those varieties. It is not inclined to grow to a very large size, but is a good medium apple and will ship and keep well. It has a better shipping skin than the Northern Spy. I have shipped the Ben Davis, but it is too poor in quality to recommend itself. It is a good shipper, and so far has taken very well in the Old Country.

Mr. P. E. Bucke.—How do you proceed to thin apples on trees?

Mr. Allan.—That is a matter that has to be gone about very carefully. If the tree is large you must get up into it, but with the American Golden Russet you can reach in as far as there is any need to. A pair of long scissors are about as nice a thing as you can use.

The President.—What about the Wagener as a shipping apple?

Mr. Allan.—It is very good, and it suits the English dessert taste as a dessert fruit. They do not care about a large apple; they like one below the medium, if anything. The King of Tompkins' County is an excellent apple for the English market; but there is one difficulty in growing it, and that is its liability to fall from the tree because the stem is so slender. It does not have so strong an attachment as the Rhode Island Greening. It is, however, a fine quality apple that will always holds its place there; but the Baldwin, I do not believe, will hold its place.

The President.—Do you find the prices paid for the Spy and Wagener to be equal?

Mr. Allan.—No; the Northern Spy is a little higher, but I think the Ontario will stand about equal with the Northern Spy. It is a good bearer and regular. I have noticed that all the trees sent out by the Association are in good bearing and having nice crops of fruit.

Mr. Bucke.—Have you shipped Grimes' Golden?

Mr. Allan.—Yes; it is about as pretty an apple as I have shipped, and when it has attained its full colour, it will bring good prices. There is a prejudice against any apple that is green in colour. Take the Swaar, it is a fine dessert apple and of beautiful quality—as fine, indeed, as any man need wish to taste; but we cannot get good prices for it on account of the colour.

Mr. A. M Smith.—What about the Ribston Pippin?

Mr. Allan.—It is very good, and we get good prices. Talking about quality, I was struck with the opinion of a gardener near Edinburgh. He had a barrel of Pippins I had shipped over and he was struck with the quality being different there. He wrote to me and said he would not be satisfied unless I grew some from a cutting off his tree. I grew some for him last year, and he was satisfied they were as good as before and far superior to what he had grown.

Mr. Jenkins.—I would like to ask a question here with regard to the Rambo. In the first place, the tree is miserable and has never done anything with me, and with regard to bearing it has only done so once in three or four years. When the fruit does come it is scabby and we can scarcely find a specimen that has not been affected with the worm. It is the worst apple I ever tried to grow.

Mr. Allan.—That is its character all through this district. It is a very poor bearer, and what fruit does grow tries to get out of your reach altogether. Where you get it perfect, however, it is a very nice dessert apple about Christmas or New Year's; but we have many others superior to it.

Mr. Gott.—Allow me to say that the Rambo, in our county, is considered to be one of our best dessert apples about the holiday season, and in its habit of growing it is in every way satisfactory. My experience in regard to shipping apples is not large, but I have had considerable as a grower. As soon as we have the apples grown, we sell them to some man who understands the shipping and he takes them away. With respect to the varieties preferred, the buyers never pass by a Baldwin, and it is really a profitable apple. It is grown everywhere. Almost everybody who is planting trees will ask for the Baldwin, as though that were the only apple they knew anything about. It is not only grown largely but it is grown very beautifully. The samples are perfect. The trees during the

season of bearing are pictures. The Northern Spy is popular and profitable. So is the Rhode Island Greening. We have great satisfaction with these three apples, and we consider them to be our standbys. There are others coming in. The King of Tompkins is popular as a shipping apple, and buyers are very fond of it. The only apple they appear to be careless about is the Tolman Sweet. We can grow it perfectly. Growers now are dividing their orchards into summer, fall and winter apples.

Mr. BUCKE.—Which bring the largest prices, summer, fall or winter?

Mr. GOTT.—Summer and fall apples are priced the same, but for the winter we get an extra figure.

Mr. BEADLE.—About how much is the difference?

Mr. GOTT.—The difference this year is 25 cents per barrel. The price for summer and fall was 75 cents per barrel, the grower picking them and laying them on the ground, and for winter apples the price paid was $1. Our crop is enormously heavy, and our farmers think this a good price. There is no more difficulty in growing winter apples than fall and summer, but the nature of the market makes the difference in the price. The winter apples are for exportation. Our summer apples, especially the red Astrachan, were very profitable, and the growers got 75 cents for those. This year it was a full crop with us, but they do not bear regularly every year. The Sour Bough and the Sweet Bough are popular, but they are generally used at home. We grow the Duchess of Oldenburgh, and it is one of the most profitable we have at that season. The samples are enormous. Young trees coming into bearing bear very heavily and the fruit is very large. The buyers will pay good prices for them. It is the opinion of some of our growers that it would be a fine thing to go into the growing the Duchess alone, as no other variety gives such satisfaction. The Ben Davis, notwithstanding its low quality, is popular among buyers. Its perfect colour and symmetry will always command a market for it. The Mann is very fine. We fruited some of the Western apples, the Wealthy especially, and I think there is great promise in it. I might also say that the Westfield Seek-No-Further is popular among the buyers, and the Swaar is sought after by shippers. It is largely grown.

Mr. A. M. SMITH.—My experience does not differ very much from that of Mr. Allan. I would like to mention one variety to which Mr. Gott referred, but Mr. Allan did not; that is the Seek-No Further. It is a good apple. I would also like to say a word for the Tolman Sweet. I send them to the Boston market, and they command as good a price as any other. There seems to be a demand for that particular variety there. They use them for baking, and they are particularly good for that. Some of the early apples that have been mentioned are very good; but I would not recommend the planting of too many for profit. The Duchess of Oldenburg and Red Astrachan are among our best early apples, but if planters were to go into them as largely as they do into winter fruit, you would find our market overstocked.

Mr. ALLAN.—I have sent them to the Old Country this year.

Mr. SMITH.—That is a new thing. In the vicinity of Toronto this year, growers have made more out of Red Astrachan and the Duchess than winter apples. The Astrachans brought seventy-five cents in twelve quart baskets. I have a friend in Grimsby who raised a large quantity, and he averaged about fifty cents a basket of twelve quarts. It takes seven or eight baskets to make a barrel, but the commission is of course to be taken off the figures I have mentioned.

Mr. GOLDIE (of Guelph).—What about the Early Joe for home use?

Mr. SMITH.—It is a shy bearer and liable to spot, and would never pay for marketing.

DR. SLOAN (of Blyth).—The Early Joe with us fruits well and succeeds well; and for home use it is very good and of a fine flavour.

COL. MCGILL (of Oshawa).—I have no experience in shipping, as we sell our apples in the orchard, except for local market. I market all my early fruit at home—the Red Astrachan, Duchess, and Yellow Harvest. They have averaged me from $1.20 to $1.50 per barrel, and I get the barrels back. I think a great deal of the Early Joe for my own table. I am intimately acquainted with shippers, and they speak highly of the varieties Mr. Allan has recommended. There is one peculiarity about the King of Tompkins, you

are very seldom troubled with small apples. You get a large quantity of apples from a tree on account of their size. My Russets have never given the satisfaction that my Baldwins, Spys and Greenings have. There is not enough of difference in the price to make up the shrinkage in the quantity on account of the smallness of size. My experience has been short, but I have known apples to lie on the ground for three weeks after they had been picked, on account of delay on the part of packers. There is a large amount of heat there, and there is an everlasting culling going on, robbery by boys, etc. This is all waste. Last year my son lost nearly half his apples from the neglect of the packers to come around in time. Nor has this been an isolated experience. I think very much of the Rhode Island Greening, and we are not troubled with their falling from the tree in our section. I think there has been more fruit produced of the Baldwin variety, and more money made out of it in the county of Ontario than any other, notwithstanding the fact that the trees are a little tender.

Mr. Gott.—With respect to this method of picking and buying, we have some pretty honest buyers, and they do not go at their work in a hap-hazard way. Their practice is to advise about the time they want to pack the fruit, and with respect to the culling it is done in a fair, honest way. If the fruit is very badly bruised or injured, it will be thrown out; but if the grower thinks he is being dealt unfairly with, he has the privilege of throwing up the bargain. I would not like a bad impression to go out regarding buyers.

Col. McGill.—I had no reference to buyers in the West.

Dr. Sloan.—A buyer took one hundred barrels out of my orchard and adopted the plan of putting them in a shed on straw. I have sixty-one trees, and twenty-one of those are Northern Spy, and the rest are made up of Greenings, Swaar, and so on. Last year out of 101 barrels, 73 were the Northern Spy, so you can see the proportion there. They yield two barrels to one of any other. I would recommend any man who has apples to sell to wheel them into a shed and deposit them on straw.

Mr. A. McD. Allan.—There are tricks in all trades, and I see Col. McGill is finding out the tricks of the fruit shipper. The buyer wants them on the ground, and that is the best place for them. I never allow them to be packed until they have been there at least ten days. The grower is asked to lay the good fruit in a pile by itself, and then when the packer comes, he can see whether any bruises have been caused by shaking. Many an apple may look very fair on the tree, but when it is down on the ground a worm will bore its way out into the soil. Then they go through the sweating process and the skin toughens.

This closed the forenoon session.

On resuming the session in the afternoon, the Question Box was opened, and the following queries dealt with:—

APPLE BARRELS.

Question.—Is there a legal size for apple barrels?

Mr. Allan.—A legal size was provided for by Act of Parliament last session, making them the same size as the ordinary flour barrel, holding three bushels of apples.

THE YUCCA PLANT.

Question.—Will the Yucca plant stand the winter out of doors?

Mr. Beadle.—It will stand outdoors in the County of Lincoln.

The President.—It is perfectly hardy in the neighbourhood of London, and generally flowers every year. The current year's growth does not produce flowers until the next year. My Yucca plant had three flower stems on this year. It is a desirable plant and deserves to be better known. I imagine it would be quite hardy in this district.

Mr. Bucke.—I have frequently wintered the Yucca plant in Ottawa, but never had any success in getting flowers. It will certainly be hardy here.

THE RUSSIAN MULBERRY.

QUESTION.—Has the Russian Mulberry proved hardy? Would it succeed in our latitude?

The PRESIDENT.—It is perfectly hardy about London, and has not shown the slightest sign of winter killing. I had an opportunity of testing the fruit this year, and wrote an account of it to the *Horticulturist*. It was about the size of an ordinary wild blackberry. The gentleman who brought the fruit to me said he had some five or six quarts on a tree, and that this was the first year of bearing. It was of a very pleasant flavour, and I think it would be a desirable fruit if it produced in any abundance, as it seemed to do on his tree. The trouble, however, with these Russian mulberries is that most of them are seedlings, and, as is the case with most seedlings, they vary in quality. This gentleman had another tree which ripened its fruit ten days or a fortnight later. A week or two later than the time I am speaking of one or two specimens were brought me from a tree on my own grounds, but they were not equal in size to those I had seen previously, showing that the experience of one person is different from another. I do not suppose there is any means of arriving at uniformity unless the plants are raised from cuttings.

Mr. A. M. SMITH.—I fruited them in the nursery rows this year, and they varied very much. There is nothing definite about a seedling as to what you are going to get. The colours of the fruit were different. Some were white, some lilac colour, and some black.

The PRESIDENT.—Those I have seen were black.

Mr. W. W. HILBORN (of Arkona).—I think they are not alway hardy, as we had some trees killed to the ground. They sprouted up again; but those that were killed worst were on strong clay loam. On higher and lighter soil they stood pretty well.

Mr. GOTT.—The mulberry seems quite hardy, providing the soil is high; but on low soil it is not. We fruited them this season, and as you remarked the flavour was very fine, but the specimens were small. They were a beautiful black colour. I had more than one tree fruited, and they were not alike. My idea is that as the tree grows larger the fruit will be better.

Mr. ALLAN.—I have seen several of them, and it is evident there is a difference with regard to hardiness. In the Township of Stanley I find them quite hardy, and complaints about tenderness are generally made during the first two years.

Mr. BUCKE.—We have quite a number in Ottawa, and they seem quite hardy. It grows so thickly that some people are making hedges out of them.

The PRESIDENT.—The result of this discussion should lead those who have succeeded in getting a good mulberry to keep it.

ADDRESS FROM THE CORPORATION.

At this stage the Reeve of the town, who was accompanied by members of the Council, presented an address of welcome, to which the President replied in suitable language, and in a few sentences explained the objects of the Association, and the methods employed in carrying out its work.

PLUMS.

QUESTION.—Do plum trees suffer from the winters in Huron? Are they affected by the black knot? Is the fruit stung by the curculio? What varieties are best adapted to Huron?

Mr. YOUHILL (of Wingham).—I got some trees four years ago from London, but eight out of ten that I planted took the black knot, and I destroyed them. The frost of last winter left me only one tree, and I see that the surviving tree is affected by the knot. A great many have suffered from the curculio, and I think the suggestion thrown out by the Society of jarring the tree has been used.

Mr. GOTT.—What varieties suffered?

Mr. YOUHILL.—There were three or four different kinds, but I do not recollect the names of them.

Mr. BUCKE.—Did you use any means to arrest the black knot?

Mr. YOUHILL.—I cut them off wherever I saw them, even in the branches; but nothing seemed to check the growth.

Dr. SLOAN.—I have had an unfortunate experience. I planted 400 trees. I got 200 in St. Catharines, 100 in Toronto, and 100 in Windsor. The winter of 1883 killed them all but fifteen trees, and those that remained are Sharpe's seedlings. I have lost over 400 plum trees in the winters of 1883 and 1884. They were fruiting beautifully, and I cannot tell the reason why the hard frost should kill them all. I had fifty Lombards, fifty Washington, twenty-five Bradshaw, and twenty-five Pond's seedling; but they all went the same way. The black knot did not trouble me but very little. I always put them in the fire. I believe that knot is propagated by an insect—a yellow fly. If any of you dispute that theory, try an experiment. Cut off the knot, put it in a jar carefully, and cover it over with a fine wire. You will have an insect hatch out, and it will be a yellow fly. The curculio has troubled us, too. The year before I lost my trees we had a good crop.

The PRESIDENT.—What were the proceeds from your plums? What did you estimate the value at?

Dr. SLOAN.—I estimated that the provocation I received in the end set all that aside.

The PRESIDENT.—But if two or three years' crop paid you, and an exceptional year destroyed all your plum trees, your duty was to plant another lot.

Dr. SLOAN.—I am too old for that.

Mr. GOVENLOCK (of Seaforth).—I had about fifty trees, but four or five years ago I lost them all. I had not much trouble from the black knot, as I could keep it in check, but these little fellows, the curculio, used to take most of my plums. About the time I mention, however, whether from the severity of the frosts or not, they began to die off one by one, and I have not taken much interest in plum raising since. Any that were left are bearing well.

The PRESIDENT.—I am afraid Dr. Sloan is on the wrong track about that little fly. The black knot is the result of a fungus growth, disseminated by small spores that are carried through the air. These little yellow flies are visitors; they use the knot as a sort of feeding ground. If you shut up samples of the black knot, as the Doctor has described, you will be pretty sure to reap a harvest of these small insects; but they have no more to do with the production of the black knot than the maggot in meat has to do with the production of the meat. The whole trouble arises from these small seed particles, which are flying about in the air. With regard to the curculio, we have had that matter pretty well ventilated in our recent meetings. The jarring process is being replaced by treatment with Paris green. Syringing the tree with a preparation of this will keep the curculio under with less labour and quite as effectively as the jarring process. One or two applications, or a third, if the rains wash off the deposit, are all that are necessary.

Mr. BUCKE.—There never was such a thing known in the Ottawa district as the black knot. I got a tree with it from Mr. Dempsey, but it has not spread to the other trees.

Dr. SLOAN.—I do not presume to offer an opinion in opposition to so distinguished an entomologist as the President; but if the knot is caused by spores, is it possible that they can survive our hard winters?

The PRESIDENT.—It would be a long process to explain this whole matter, but if Dr. Sloan will look over the reports of the Ontario Agricultural College, he will find there the results of Prof. McMurrich's investigations, which fully establish the fungus origin of this trouble.

Mr. J. HANNA (of Wingham).—Is the wild plum more liable to black knot than the tame?

The PRESIDENT.—The common blue plum seems most liable, and wild plums are not often found affected.

Mr. BEADLE.—What varieties of plums are grown around here?

Dr. Sloan.—All the varieties I planted succeeded magnificently until the trees were killed.

Mr. A. McD. Allan.—All the varieties are hardy enough along the lake shore, but inland it is difficult to tell which is hardy, and which is not. I have found that about as satisfactory a tree to grow in every way is the Yellow Egg and Coe's Golden Drop. I never found the black knot in either of them, and the Bradshaw is fairly free. It is also true that with the Green Gage and Imperial Gage I have not found any trouble. In Huling's Superb I found a little trouble; but, now that my trees have attained a full growth, I do not have the same difficulty from the black knot. Whether it is that the bark has toughened, or become harder, I do not know; but it seems to me that a plum tree in its first four or five years is more liable than after. The Yellow Egg and Coe's Golden Drop, as I said, have more money in them than any other. Pond's seedling is good, but it is hard to get a crop, while such varieties as Peach Plum and Lombard will kill themselves by overbearing. The Washington is not generally a good bearer and on the General Hand I have never seen a good crop. I have cut in the tree well, and also root pruned it, and got a fair crop by that means. I have seen it cropping fairly by not cultivating the soil at all, or feeding it; but there is no guarantee. The Bradshaw is good, and takes the market well. I have not the Niagara, but I believe it is very fair. Glass's seedling is one of the finest dark plums we have, and, after it gets age, it is a good bearer. The crop is not large, but the specimens are good. I was rather disappointed in the Saunders, in size and flavour. I used to scrape my plum trees and rub salt in them

Mr. A. M. Smith (of St. Catharines).—Hearing the Niagara and Bradshaw mentioned, I wanted to settle the point whether they were not the same. It is contended by some on the other side that they are the same, although bearing different names.

Mr. Allan.—I have tried the Weaver, and it is good.

Mr. Govenlock (of Seaforth).—I think the Lombard is most profitable. Coe's Golden Drop is a good bearer, and the Bradshaw is not heavy, but very fine. The Victoria was a very heavy bearer, in that respect resembling the Lombard. Since Mr. Allan has mentioned about rubbing salt on his trees, I may say that I got heavier crops by putting large quantities of salt around the trees in the fall. I think it helped them.

Mr. Morton (of Wingham).—There is quite a quantity of black knot in this neighbourhood, and I think you may lay it down, as a rule, that those trees which bear most profusely are those which are most liable. The reason is natural. Disease always gains an easier and stronger hold, if the constitution has previously been exhausted. The curculio also does a considerable amount of damage in this vicinity, and I do not know that any measures have been taken to prevent its ravages. The principal ones that come into the market here are the common blue plum and the Lombard. There are also three varieties of the Green Gage, but the names I do not know. Immediately about Wingham we have no large quantity, most of what we need coming from the lake shore region.

Mr. Meyer (of Wingham).—I have blue plums and Green Gages, and about four or five years ago I had a good crop; but while the trees have been growing ever since, there has been no fruit.

Mr. Jenkins (of Wingham).—My experience has not been profitable. The first thing I had to contend with was the curculio, and I tried all the remedies that I could hear of; but none seemed to have any effect. I have tried the shaking process, and the corn cobs soaked in molasses, and all had no effect. I could never raise a plum to perfection. The next thing was that the trees began to die, and out of about two dozen I have not now over one or two that are alive, and they seem to be dying. With regard to varieties, I had some very good specimens from the Washington; but the Lombard seemed to be the best bearer. I also tried the Green Gage, and some I raised from seed, but they are all the same, and amounted to nothing in the end.

Mr. A. McD. Allan.—There was a gentleman in Stratford speaking to me some six or seven years ago about setting out plum trees. His soil was pretty high and thoroughly well drained. I advised him in planting young trees, to dig the ground out pretty well, and plant the tree well down, drawing in part of the top soil, and not levelling up until about three years afterwards. He has as fine a plum orchard now as you would wish to

look at. He had an idea that the frost affected the roots ; I asked him to try that plan, and he has been very successful.

Dr. McDonald (of Wingham).—I have had two trees in my garden for fourteen years, and they have grown splendidly until these last few years, during which they have done nothing. They are the Green Gage.

Mr. R. F. Sibbald (of Bluevale).—All my plum trees are gone. I had Lombards, Green Gages and Bradshaws, and I got a tree from the Fruit-Growers Association by the name of Glass Seedling. I grafted two trees from it, and they are the only ones now alive.

Mr. Govenlock (of Seaforth).—I have a few plums on an Imperial Gage tree, and it is the first show of fruit I have had on it for five years. It used to be one of my best bearers.

The President.—That is an unusual experience.

Mr. Beall (of Lindsay).—As some gentlemen have spoken about Green Gages, I should like to know whether some of them are really not Gages, but green plums from seedlings.

The President.—I have a Green Gage tree I planted twenty years ago, and I think there have been plums on it for the last thirteen or fourteen years. It is very slow in growing, but it is a reasonable size, and bears very regular crops.

Dr. McDonald.—Wouldn't you consider that my trees did well in bearing for twelve consecutive years ?

The President.—Yes.

Mr. Beall.—I did not want the Green Gage tree condemned for the faults of some other green plum.

The President.—It is a common thing to find an Imperial Gage under the name of Green Gage.

Mr. Goldie (of Guelph).—I have had a tree of the old English Green Gage for eight or nine years ; but I had to cut it out this spring. The true Gage is a small, rather scrubby growing tree. It is short-jointed, and never grows tall. The fruit is about the size of marbles. I do not think any of them would be over an inch in diameter, and many of them rusty, like a russet apple. The majority of plums that pass for Green Gages, are not such at all.

Mr. A. M. Smith.—Is there sometimes a little blush on the cheek ?

Mr. Goldie.—A little ; but chiefly rusty.

Mr. A. M. Smith.—I notice that in judging fruit, Green Gages are quite frequently so named when there is not a genuine one on the table. Oftentimes the Imperial Gage is shown for it. The Imperial Gage is longer, and is mottled under the skin.

Col. McGill (of Oshawa).—I wish to corroborate what Mr. Goldie has said about the Green Gage tree. We get the fruit from it regularly, and what has been described, I think is the Imperial Gage.

Mr. Hanna (of Wingham).—I think that fast growing trees with soft wood are more liable to black knot. I should like to know if the Green Gage is liable to the black knot?

Col. Magill.—I have had a good deal of experience with plums, but I have never had any black knot from the Green Gage.

CHERRIES.

The Secretary.—This is a cold section of the country, and I should like to know whether they can be grown here ?

Mr. Hanna (of Wingham).—There have been a great many planted here and in this neighbourhood ; but we never find any coming into the market, or very few at least. It seems that there is something wrong with this section of the country. A great many trees do not bear. I have planted them, but never secured a crop. The kind I planted were a sort of purple coloured wild cherry, of very good quality.

Mr. Youhill (of Wingham).—I shall simply describe my own experience. I planted some trees that came from the neighbourhood of St. Catharines, but I find that it is a common Canadian cherry—a red one. It has done remarkably well with me. I have

kept the ground well cultivated ; but this last year they did not do well, and I think it was on account of the severity of the winter. I have another kind as well—a cultivated tree without the wild characteristics of the other I have described. Probably some one here can name it for me. One side is light, and the other side a deep, ripe red. It has not done well, and is generally deficient in fruit. Another great fault, is its tendency to send up a great many young trees around the roots. I cannot keep them down. Cherries are not largely grown in this neighbourhood, but I find that the common cherry bears very well. I have not seen any black knot among cherry trees.

Mr. JENKINS (of Wingham).—As far as my knowledge of cherries in this section of country goes, I do not think they have been very extensively cultivated. I do not see but very few trees, but what I do see seem to bear very well. I tried one or two myself, but through a misfortune I lost them. We have two kinds of wild cherries in this section, the small red, and the small black. I had one of the wild red variety growing in my yard, and I grafted it with the cultivated variety, and it bore for two or three years. It was a sight to see it. I had to support it to keep it from breaking down. A colt, however, got loose and destroyed it. I never saw anything grow like those grafts.

Mr. GOVENLOCK (of Seaforth).—I have cherries that have been growing for twenty years. I think the red and white are the Governor Wood. One variety is red on one side and comes to a point, but the other does not come to a point at all and is a very shy bearer. One year I had as much as four bushels from a large tree, but during the last two years the frost has prevented us having a crop. I have had the Black Eagle, but never succeeded in raising a good crop ; but of these common red cherries there are many that grow well. The white cherries are hard to raise on account of the robins. I never saw any black knot.

Dr. SLOAN (of Blyth).—Seven years ago I got cherry trees from the Secretary, and I have them yet. They have been cultivated, and are good. I had seven of the Early Richmond, seven Empress Eugenie, five May Duke, five Late Duke, five Elton, five Gov. Wood and four of the ordinary red cherry. This year I secured off my Dukes about a quart. My experience leads me to say this :—If I were going to plant one hundred trees, I should plant one hundred of the Early Richmond. I have got more off my few Richmond trees than all the others. The Empress gave me the finest fruit, and the tree is beautiful ; but I have advised my friends to plant the Early Richmond. In three years you can have fruit from it in the county of Huron. I have a French variety I got some years ago, which fruits a reasonable quantity, and comes on very late in the season. It is called the Belle Magnifique.

The SECRETARY.—It is a shy bearer with me.

Mr. GOTT (of Arkona).—With respect to the advice that has been given to plant the Early Richmond, I would say plant only the Morellos, which is the name of that class. Then you can have Early or Late Richmond. The Dukes are very shy bearers.

Mr. ALLAN (of Goderich).—I agree almost entirely with the Doctor ; for the Early Richmond is one of the best all round cherries we can get. It is a good cropper. The May Duke is good. The Elton and others yield very thin crops. They are fine in quality and fine for dessert, if you can get them to ripen in the face of the robins. They surround them by the hundreds. There is one difficulty with cherries that is not felt with other fruits, and that is in the matter of manuring the soil. It should be allowed to run to grass, as they require far less manure than other fruits. If you manure heavily, the energy of the trees goes towards leaf and wood. I have an Elkhorn cherry tree opposite a bed of asparagus, and I noticed that it was pressing hard to make extra growth. The result was that the trunk and some of the branches split. The red cherry and Early Richmond trees have generally given satisfaction, and I have seen but little black knot in this district.

Mr. BUCKE (of Ottawa).—It seems to me strange that more cherries are not grown here.

Mr. CROIL (of Aultsville).—I do not think cherries will amount to much until you can devise some remedy against the birds. I remember well when cherries used to be very plentiful. I do not think that the cause of the present scarcity is our cold winters. The trees seem to thrive ; but they bear no fruit. The cause, is the question.

Mr. Hilborn (of Arkona).—We grow mostly the common red cherry. I have planted a good many varieties, but they have not fruited yet. This year the old white variety has been a failure, but last year they were a good crop.

Mr. Beall.—I had lots of cherries, but they are all gone. I had one row of thirty trees, large enough to grow three or four bushels each; but in six years we did not get half a bushel off the whole. The robins multiplied faster than the cherries. What trees did not bear, have been destroyed by the black knot, and the little trees at the roots grow worse than thistles. I have not a good word to say about the cherry tree.

Col McGill.—The robin does not affect the crop where we live. I have never known them to touch these cherries except where the skin was broken. Our experience in Whitby has led us to give up trying to raise the sweeter class of cherries altogether, and the Early Richmond has been so badly affected by black knot, that we have had to cut the trees down. I first saw this black knot on a little wild cherry in the woods. The yellow cultivated cherries are not troubled much, and the old Pie cherry is not either. There is more money in the Early Richmond than any other, and it is not a bad cherry. It is like a great many other fruits, it has a good appearance outside before it is really good inside. Let it get ripe and it is very fair, and is one of the best we have for Canada.

Vice-President Bucke.—Has anybody else had any experience in grafting cultivated cherries on the wild tree?

Mr. Allan.—They will grow very rapidly; even on a wild choke cherry.

Mr. Hilborn.—I have thought that the common Kentish cherry was more free from black knot than any other.

Col. McGill.—It is not so free on mine. It is not two weeks since I cut off twenty limbs from a few trees that had been out three years.

GRAPES.

Mr. Bucke (of Ottawa).—This has been a very bad year for ripening grapes.

Mr. Govenlock (of Seaforth).—I have almost all the Rogers varieties and I have the Concord and Delaware. They are just coming into bearing. Last year they were frozen off; but I see No. 9 has some very fine bunches on them. (Mr. Govenlock then described a trellis which he had invented that answered the purposes very well.)

Dr. Sloan (of Blyth).—I grow the Martha, Salem, Conçord and Pocklington. I think most of the Pocklington. It is loaded with beautiful fine fruit. The only desire I have now is to get the Niagara. The Salem does not mildew with me, and I have had a crop off that for the last four or five years.

Mr. Govenlock.—I have Moore's Early and Prentiss in addition to what I mentioned.

Mr. Bucke.—Are there any regular vineyards planted here?

Dr. Sloan.—Mr. MacPhie, of Colborne, is the only successful grape grower on a large scale that I know of.

Mr. Allan.—He grows Concord mostly and Rogers' Four. He also has the Salem growing very well; but his Concords are not doing well this year. While I am up I may as well tell you what I grow. I grow all the old varieties; but I fancy that the Concord is running out. I find that it is not as good a crop these two or three years as it was before that time. It is not as compact, as far as I have seen it on the Exhibition tables this year. It is later in ripening and does not form as well. The Delaware is ripening well. I believe there is more money in this new grape the Niagara than any of them. It is the strongest grower of any. I am willing if the doctor can ripen Pocklington to give him the best chromo I can get. The Salem is succeeding very well. The Worden is the coming grape, and the Wilder is good. The Prentiss is too slow a grower. The Duchess is a fair grower and a very fine berry. The Jessica is a little on the small side, but it is early and is a delicious little thing. I ripened a new seedling of my own this year, but I have not had a chance to test it yet. The children went for it too rapidly for me to see much about it. The berry is as dark as the Concord and a great deal better in quality. It is a chance seedling. I have the Brighton, and it is very fair. There

are few that are profitable, and some growers complain of mildew; but I have not had any for the last few years. The way I fight it is to use sulphur during the first part of the season after moving the ground and doing my manuring. I scatter it under the trellises, and then when the bloom is off and the fruit is setting I move the soil once more and scatter it over it. I have not had mildew even on the Burnet, which I considered was the worst to grow that I ever tried. Moore's Early drops very badly and the moment it is ripened it begins to lose its quality. You must use it at once.

Mr. Beadle.—Have you tried sulphate of iron as a manure?

Mr. Allan.—Yes. That is the old Hamilton trick. They take a vine and pick out the best bunches. They ring it and drive sulphate of iron into it by dissolving it and sprinkling around the roots. They also use refuse from the slaughter-house, and in that way they grow fruit to the size some of you may have seen it. The fruit is very insipid and the quality is not there.

Mr. Beadle.—Without ringing, what is the quality of the fruit manured with sulphate of iron?

Mr. Allan.—Very watery.

Mr. Beadle.—Does it tend to promote early ripening?

Mr. Allan.—Yes, certainly.

Mr. Hilborn.—How is it applied?

Mr. Allan.—With warm soap suds, with which it makes an emulsion.

Mr. Beall (of Lindsay).—The Niagara is doing first-rate with me. We were troubled with frost last year, and it injured the vines very much; but all with the exception of about two are finely covered with fruit this year. This is more than I expected; but whether they will ripen or not I do not know. To do that a week or ten days of warm weather is all that is wanted. I have the Salem growing for many years; but I have never had a pound of grapes from it. The Chippawa mildews with me. It has mildewed a little this year, but it is the only one with me that acts in that way. I am surprised to hear Mr. Allan say that Moore's Early drops from the vine; but I think he said that it did not do so until after the third year. Mine is only in its second year. I quite agree with him that they lose quality on being kept. The Niagara, I am satisfied, is the most profitable grape I have. I have the Brighton, nearer perfection than any I see here; and I like the vine very much. I have a great crop on my vines this year. I have the Amber Queen. It has borne this year, but I shall require more fruit to make it a success. It is small in size, of a very peculiar colour, and the flavour is very nice. I have the Early Victor, but my experience would be of no use. There are two or three more bunches than of the Amber Queen, but whether it will ripen or not, I cannot say. I have the Burnet and it is beginning to colour now. One that I got from the Fruit Growers' Association seven or eight years ago has never grown to any extent. Another one has a good many bunches on it, but I find it very much subject to ravages of the thrip. It has been worse on it than any, except the Clinton. I am sure it is too late for our country. The Jefferson is just commencing to fruit, but I am afraid it will also be too late for our district. I like it very much and the bunch is of a very pretty shape, although rather smaller than I thought it would be. They are just commencing to change colour. I have the Vergennes, the Jessica and the Worden; but they are not fruiting. The Jessica has grown wonderfully.

Col. McGill.—Does the Amber Queen throw out a number of small berries, the same as the Burnet does?

Mr. Beall.—I cannot say.

Col. McGill.—It has been my experience that it does.

Mr. P. C. Dempsey (of Trenton).—The most hardy and earliest grape we have is the Beaconsfield or Champion; but I must endorse Mr. Beadle's remarks at one of our meetings that we do not grow them to eat. We only grow them to sell; for they are a very poor grape. Next to them stands the Worden. It is very fine indeed. The bunches are very large, the berries are large, and they are nearly ripe now with us. The Champion we have got a few baskets from already. Next in earliness comes the Telegraph; but it is not much cultivated in our part of the country. It is closely set and very prolific, and apparently hardy with us. Still the berry is too small for that quality of grape. I think

we are safe in recommending the Brighton for any place. The fruit is very fine indeed. There are some of Rogers' hybrids that are very profitable, but on account of their liability to set small bunches, they are not so preferable as the varieties that I have mentioned. If I were going to plant a vineyard again I should plant only Champion, Worden, Brighton and Delaware.

Mr. ALLAN.—I want to impress this on all grape growers, never to neglect to lay their vines down during the winter. I have tested it for several years in this way: Where I have grown two arms from the one stalk, I have left one up and the other down on the ground. The result is that the one that has been down will bud earlier and perfect its fruit about ten days earlier than the other. This is of great advantage in a season like this.

Mr. GOLDIE (of Guelph).—I would like to know about this point: has anyone tested whether it is better to allow the vines to spread than to confine them.

Mr. GOTT.—I have had a little experience in this matter. In planting a vineyard, I planted a little too close together. The consequence is that they are too crowded. I put up a trellis about six feet high, and I found that the branches were very much crowded, and I had to do one of two things—to take out every other plant or give them more room upward. I did the latter, and the result is that they are bearing largely and well. By protecting the vines in the winter we are almost sure of a paying crop. I have tried one of Mr. Campbell's grapes this year—the Lady, and it is very promising. The vine is a slow grower, but quite hardy with us. The berry is something delicious. We have no grape that will equal it in worth. We have also fruited a little grape called the Jessica. It is an early variety, and I believe it is going to be very promising. The grape, however, that we look most to is the Worden. I believe that it is going to be of the greatest value from the simple fact that our Concords are failing. We grapple with mildew by the use of sulphur. We use it a little different, however, than Mr. Allan has described. We take the flour of sulphur, and on a dewy morning sprinkle it over the plants. In this Worden we have no trouble of this kind. Another very excellent grape this season is the Brighton, which has produced a crop of great value. The Iona is also of great value; but has one fault that it will not ripen its fruit in all localities. It must have shelter, and then if you have Ionas they are worth having. The Delaware does well, and so does Moore's Early. So far as what has been said about Moore's Early falling from the bunch, we have had no experience of that kind. The fruit is as good as can be desired. We have marketed ours some time ago. In this northern section, I belive the people would do well to give more attention to it, as it will do where others cannot be ripened. We are almost sure of a paying crop.

The SECRETARY.—I wish to call the attention of our grape growing friends in this particular part of the country, to the matter of successful grape growing. My experience has taught me this, that if we allow our vines to overload, the fruit will either not ripen at all or very much later, and the flavour will not be up to the standard. If the crop is excessive, it will also weaken the vine, so as to injure it for two or three years, if not for the remainder of its life. If we are growing grapes in a climate where it is necessary to have them ripen early, it is found that by leaving not more than half the crop, we will get our grapes ripened a week or ten days earlier, than if we had left the whole crop on; and what we have will be of a finer quality, and we shall keep our vines healthy. This is particularly true if we are in danger of early frost.

Mr. P. C. DEMPSEY.—I like grapes as well for winter as potatoes, and for that purpose we prefer Rogers' 44. Where the Concord will ripen you are safe in planting it, and we have no more difficulty in keeping it until mid-winter, than we have our winter apples. The name of this vine is Herbert, but I adhere to the numbers. I think I can safely recommend it to any person. Some of Rogers' would be more palatable when first ripe, but this will keep nearly all winter. With respect to close planting my experience was this:—On account of limited space, we planted the rows eight feet apart, and in the rows four feet apart. They did very nicely for three or four years, until they commenced to fruit, and then we found we could not make it profitable without removing every alternate vine; but I think we made a mistake in not removing every alternate row. The trellis are seven feet high. Rows should be twelve feet apart, and twelve feet between the

vines. We put wires to the posts, and trained them on double rows. We do not pinch them back, but when the fruit sets in the spring, we try if possible to prevent it running along on the wire, and encourage it to turn down. This checks the growth of the plant, and it seems to throw its energy into fruit. By this system, our fruit ripens a week earlier than by the old plan. I have tested it several times by training one part upward, and the other downward, and invariably I find the bunches on the part that is down, not only the finest, but double the size of those that are on the upward arm. It is the easiest way of thinning. I may also say that Rogers' 4 will not keep equal to 44. The Agawam appears to have the same difficulty as the Brighton. It loses that spirited flavour which we admire in a grape and gets a dry one instead.

Mr. Gott.—Why not cut the lateral off?

Mr. Dempsey.—If you get it turned down it is all right, but if you cut it off or pinch it back, you will have to do it frequently, and our labour costs us something.

Mr. Morton (of Wingham).—I have followed the system spoken of by Mr. Dempsey, and my experience bears out what he has said. It has been noticed that if the grape vine is allowed to grow upward there will be a more vigorous wood growth than if it is trained downward. When it cannot furnish wood growth the vine goes into fruit; but this is not a new system by any means. You will find the same principle mentioned incidentally in "Fuller's Grape Culturist." He speaks of the training over an arch, by which the vines were bent over with the object in view of getting the fruit at the end to ripen equal with the base. This checking of the wood growth answers the same as the arch system. I have not much experience in varieties, although it is true that I have a number. I have, perhaps, as great a number as any person in town. I have Concord, No. 22 and No. 4 that are fruiting. I have the Niagara, and the growth is immense since this spring, although it is in the poorest part of my garden. It has made over ten feet of growth this year. The Early Dawn, without a fair chance, has made small growth. The Lady is on very good ground. I have the Jessica and the Agawam growing. The Union Village was taken from a plant in a garden in Brantford. It is the largest grape I ever saw, and in flavour it is magnificent. I also have the Worden and Prentiss. I think very much of the system of trellising that has been described here, because I have had the advantage of seeing the good results. The Salem, on his place, bears immense crops. I think that on under ten vines he has fully 1,500 lbs. of grapes. He has tried sulphur for dew, but whether the fault of the applicant or the remedy, it is nevertheless true that he does not get the success that other fruit growers meet with. His favourite grapes are the Worden and Delaware.

Mr. Beall (of Lindsay).—If all grapes ripened early, I think we would have more than we could very well handle. If we can get grapes to keep, however, it is of great advantage, and therefore those varieties that have that quality, are most preferred. I cannot allow the opportunity to pass without speaking a word in favour of the Niagara in that respect. While it is comparatively one of the earliest, it is also one of the best for keeping that we have. I sold mine to a fruit dealer in town, and he kept them until Christmas, and sold them for twenty-five cents per pound. He said if he was sure of getting them every year, he would certainly not get Spanish grapes, as he could sell these a great deal better. My Agawam also keeps until New Year's, and is very large and of a peculiar brown colour. I keep them in the cellar, where the thermometer is generally 45 to 50 in the coolest part, which is rather too warm. I have put paper between the two layers, but I find that they do better without the paper.

Mr. Beadle.—This matter of grapes keeping is one which we should not lose sight of. I want to mention a variety that I suppose everybody has, and yet does not seem to appreciate the fact that it is the best keeping grape we have. That is the Clinton. I have seen it keep until the first of March, growing richer instead of poorer.

Mr. Dempsey.—I have had Niagaras in February, and there are several that will keep very nicely. I simply spoke of one, thinking it wisdom not to mention too many varieties. I have eaten the Vergennes in winter and thought it better than I had ever tasted it in the fall.

Mr. John Little (of Fish Creek).—I have not said much to-day; but I have heard many a good suggestion made. Getting too many varieties is a great fault. Like Mr

Dempsey, I have been foolish enough to get many new varieties at high prices, and after a few years I would find that the old varieties would beat them all. If you get a good thing do not get too many others. If it proves good, keep it.

Mr. BEADLE.—We owe a debt of gratitude to such men as Mr. Little and Mr. Dempsey, who go to the expense of testing these different varieties of berries and fruits generally, and then telling us what their experience has been. It saves thousands of dollars to the country. They make their gardens a place for general experiment, and we have to look to such men as Mr. Little, Mr. Dempsey and Mr. Hilborn to test these fruits as they come out. I think that they go upon the motto of the Good Book, "Try all things; hold fast that which is good."

Mr. GOLDIE.—Would fruit on a grape vine running out twenty feet ripen as well near the root as at the end?

Mr. DEMPSEY.—In my experience it is a good thing to let vines grow. I have an Agawam under an apple tree, and we have allowed it to grow somewhere about forty feet, and on that side it is literally covered with fruit. It turns out an immense quantity.

Mr. BUCKE.—Almost everybody grows grapes on the arm system. I have put the arms of some of my grapes under ground, and have fruited first one cane and then the other the next year. I have found that a larger crop can be gotten in that way. On my Rogers' nine I have left only two bunches of grapes on the spur, so that the crop of grapes is greatly reduced. On that vine this season competent judges have estimated the crop at 250 lbs. I think a larger crop of grapes can be got in that way than by any other mode of training. I cut them back as soon as they flower.

The Association then adjourned until the evening, when the following questions were dealt with.

CLUB ROOT.

QUESTION.—"What is club root in cabbage, and what is the cause?"

Mr. GOLDIE.—I suppose it is caused by insects. You will see it in ground that has been used very much. The small fibrous roots get quite swollen, and the cabbage seems to dwindle away, just as if the maggots were in it; at least I have seen them act very much in the same way when maggots were in them. Some ground will nearly always have it, and the best thing to get over the difficulty is to change to a new piece of soil, where they have not been grown for some time before.

Mr. YOUHILL, of Wingham.—Peter Henderson describes this in his book, and shows that in one part of New Jersey, where there is a shallow soil the club root has not appeared. He also stated that in ground where it has been prevalent, they cannot grow cabbages two years in succession. He shows that this effect is sometimes felt in twenty-four hours. Now, I have studied the matter here and I believe that our ground here is the same as where the trouble is felt elsewhere. I was told that it was a kind of manure in our soil. I have tried the experiment of Paris green, and found that it killed the plant completely. It was mixed with flour to make it stick to the stem. I am certain in my own mind that the cause is a little fly very much the same as the house fly. It deposits its eggs at the base of the plant, and as soon as it takes the larvæ state it gets inside of the plant as well. To protect the plant with a piece of stove pipe or anything else to prevent them getting at it is a very good thing. I made a protector out of a box with a piece of mosquito netting over it, which is a complete cure.

The PRESIDENT.—The cabbage fly is a small fly somewhat resembling the common house fly, although a little smaller. It belongs to the genus Anthomyia. It has been troublesome in Europe for hundreds of years, and we have had it prevailing to an unusual degree this last year; so much so that in a great many sections of Ontario nearly the entire cabbage crop has been destroyed. The remedy which Mr. Youhill has brought before you is perfectly effectual, providing the protection is given before the egg has been laid. If the plant is free from the fly before being planted out, and a cover is provided, the remedy will be a success. Any device which will prevent the fly having access to the roots of the plant will answer. If, however, the eggs have been deposited on the stem, the grub will work into it and up and down until the whole of the interior is destroyed. In

Ottawa some experiments have been tried with coal oil. The plan is to take a cupful of coal oil and mix it with a pailful of sand. This gives off a strong odor, and a handful scattered around a cabbage plant retains its odor for some time. Insects are deterred from visiting plants where there is an objectionable odor, and they are also apt to go where the odor is inviting. It is believed that insects have some power similar to that of scent, and by strewing around this mixture and causing a foreign odor it is said to be an effectual preventive of the fly. As to club root, I have not had any experience with it, while I have hundreds of times seen this fly and watched its work on the roots. If this were the cause club root would be associated with the work of the fly. The history of the fly was worked out many years ago I think, by Mr. Curtis, an English entomologist, and his observations have been confirmed by others. It is very important that we should have brought before us all the measures that are likely to lessen a trouble of this sort, as it has caused a great loss, not only of labour, but of money. The crops which have been destroyed would, if they could have been sold, represent a great deal of money.

Mr. Goldie—The true club root makes the cabbage look very much like the black knot on the plum tree before it gets into that black state. It is probably more of a fungus growth, than the result of insects, and this changing around is the best remedy under those circumstances.

Mr. Little.—Where I lived in the old country when a boy, every plant taken from the bed was examined for this fly.

Mr. Morton (of Wingham).—Mr. Goldie's description of the action of club root in the old country, does not agree with the action of the maggot on the cabbage here. I have grown cabbages for my own use, and have watched the operations. I have not witnessed any swelling of the roots, but simply a stripping of the outside and then they have worked down and attacked the inside. I corresponded with Prof. Cook, of Michigan, for remedies, and one of them that he sent me was an emulsion of coal oil with soap. He found it a perfect remedy. I have tried it faithfully. He said that two applications during the season was not only sufficient to prevent it, but would kill the worm: I have not, however, found it to be one particle of use. I thought that my formula might not be the same as his; but I wrote to him and got it again. I can say that it was no good whatever.

Mr. Youhill.—I might state that I also cover my plants when they are in the bed with a net. I am convinced that the fly comes during the latter part of May or the first part of June.

The President.—I think that, Mr. Youhill, is a wise precaution, putting a net over the plants while they are in the beds.

THE CABBAGE BUTTERFLY.

Question.—"What is the best plan of destroying the cabbage butterfly?"

The President.—What is meant here is the worm that is laid by the white cabbage butterfly, for which we are indebted to the old country. It has spread over the entire country, and is a very troublesome insect.

Mr. Hilborn (of Arkona).—It seems to be growing less and less where they have had it, and it is thought it will leave altogether. I have seen some of our market gardeners' plantations this year and very little damage is being done. They do not know the cause unless it is some parasite destroying them.

Mr. Morton.—Hot water I find to be the best and cleanest remedy. Paris green, I think is dangerous. Coal oil has the objection that it is apt to taint the cabbage. Water heated to 160 Fahrenheat and sprinkled over the plant from a watering can, will effectually kill the worm, without destroying the vitality of the cabbage. I think Prof. Riley gives ice cold water in the middle of the day as a remedy; but I tried it without success. I have read in the *Rural New Yorker* that others have had the same experience; but I think that hot water will be a satisfactory remedy.

The President.—Hot water is safe and good, provided you keep the heat within the limit given. Two other remedies are being brought into use now. One is Pyrethrum, which is imported chiefly from Austria. The flowers of the plant are powdered, and when

dusted over the worms it destroys them. It also does so, if mixed with water. The com plaint against this is its expensiveness. A new remedy, also, has been introduced which is brought into notice for the first time this year, and concerning which I have ha communication with the gentleman who discovered it. In the west a disease has affected the caterpillars by which they have turned black and died. Prof. Forbes, the State Entomologist, of Illinois, examined them microscopically, and found them filled with tens of thousands of bacillus. He finds that he can breed these in beef tea, so that a vessel will become thickly charged. Taking a pint of this and putting it into a barrel of water, he forms a liquid which is harmless to man or beast; but when a worm eats a few of these bacillus on a leaf they begin to increase in the intestines and kill the worm. He has tried this by putting them on cabbages charged with this liquid, and the worms have died.

Mr. A. A. Wright (of Renfrew).—When I get my ground as rich as it should be, we could grow cabbages faster than the worms could eat them.

Mr. Youhill.—The greatest enemy this insect has is the little grey bird—the smaller of the two varieties. They have kept my plants free. I have seen them walk along, row by row, picking off these pests and destroying them.

THE ONION GRUB.

Question.—"What is the best plan or measure to destroy the onion grub?"

The President.—This is twin sister to the cabbage grub, belongs to the same genus, and its mode of working is also similar.

Mr. Bucke.—I believe it is stated that if you cover the bulb with earth they will not breed there.

The President.—The remedy which our Vice-President refers to is practised in England, and seems to be attended with good results. The other remedies suggested for the cabbage worm would be equally applicable to this, and therefore sand impregnated with coal oil might have the desired effect. After Mr. Morton's experience with the emulsion, it is possible the remedy might not be as successful as we had hoped.

Mr. Dempsey.—I think I have noticed the eggs of the cabbage worm right on the foliage of the plant. The maggot seems to hatch on the exterior and then goes to the root afterward. I have noticed that they will start to destroy one small onion and after they have enough will begin at another.

Mr. Goldie.—It was reckoned that soot was a good remedy.

Mr. A. A. Wright (of Renfrew).—I have tried that without success.

Mr. Dempsey.—A gentleman who grows them extensively told me that by changing the block annually he avoided this. This year he planted on the same block as last year, and three-fourths of his crop has been destroyed.

Mr. Wright.—The bed on which nearly all were destroyed last year has this year produced the best crop I ever had.

Mr. Morton.—The only remedy I know of is not to plant the onion. I had a better crop where the onions grew on top one year than where they were planted deep down.

ANNUAL ADDRESS OF THE PRESIDENT OF THE FRUIT GROWERS' ASSOCIATION OF ONTARIO.

The President, Mr. William Saunders (of London), then read his annual address, the full text of which is given here:

Gentlemen—It now becomes my duty and privilege as your retiring president to address you on some points in connection with the progress which is yearly being made in this country in all departments of horticulture. The field is so vast and the questions which might profitably occupy our time so numerous, that it is perplexing to decide as to the best course to follow. Time will not permit to do more than cull a flower or two here and

there and to present you with a few examples of earth's abundant fruitage. Before engaging in this pleasing task reference must be made to the condition and prospects of our Association, which is that organization which permits of, and provides for, these pleasant gatherings of fruit growers, and furnishes the machinery for carrying on our good work and for placing the results achieved on permanent record.

Our meetings during the past year have been extremely interesting, and a large proportion of the topics discussed have had a direct practical bearing on the welfare of our people. A vast amount of useful information has been gathered, drawn largely from the accumulated stores of practical men in the localities where our meetings have been held, all of which has been placed before our members in the annual report of the Association, which I have no doubt has already been read by many with interest and profit.

The advantages of membership in our Association is a topic which is presented to you and to the public in some form almost every year, and although it be "an oft-told tale" it will always bear referring to once more. Perhaps with most of you present it is quite unnecessary to occupy time in trying to convince you of what you are already so well assured, that the advantages secured by membership in the Fruit Growers' Association of Ontario are great and continuous. Most of you know this, but to-day while appealing to you I am, to some extent, addressing the general public also, and I earnestly desire to impress upon the minds of all those outside our membership who are interested in horticulture that by joining us they would not only be strengthening our Association, an organization in every way worthy of support, but would at the same time secure for themselves benefits in return which would abundantly compensate them for any time or money devoted to this object. What, then, are our conditions of membership? Nothing further than the payment of one dollar per annum. And what are the advantages which members receive in return?

First, the *Canadian Horticulturist*, the monthly organ of our Society, in which our esteemed editor as well as our Directors and members find regular vent for their accumulated stores of horticultural experiences, a handsomely got up journal of twenty-four pages in each number, teeming with practical information and with every issue embellished with a beautiful plate of some new fruit or flower. I have no hesitation in saying that the Horticulturist alone is more than a fair equivalent for the member's subscription. Next we have the annual Report, with its full, verbatim account of all the discussions at our meetings, and containing in addition, many valuable reports on new fruits, and papers on a variety of horticultural subjects. Appended to all this is the Report of the Entomological Society of Ontario, which always contains much practical information regarding the insect enemies with which the lovers of horticulture have to contend. Nor is this all. Every year the Directors make choice of several new plants, shrubs, vines, etc., and give the members the privilege of selecting any one of those named. These are sent to the members free of cost to be tested, as to their suitability to the several districts of Ontario, and thus every one is able to secure many good things, which might otherwise escape his notice. Surely this is worth something. Here, then, is an investment offered to the public, where the advantages are largely in favor of the investor, and yet our membership is not so large as we would like to see it. We want all who are in any way interested in growing fruits, flowers, or trees to join us, and share in the advantages and benefits which our Association offers. "Come thou with us and we will do thee good."

The Grape.

Of late years, much attention has been paid to grape culture, and since this delicious fruit, in many of its better varieties, can be successfully grown in most of the favoured fruit sections in Ontario, and with the introduction of earlier and hardier sorts, the area suited to grape culture is being rapidly extended, this subject is becoming one of very general interest. No large plot of land is required for this purpose. Space for a few vines may be found in very small gardens; even where there is no special garden plot, they may be planted along a fence or against a shed, or outbuilding, and there made to serve the double purpose of ornament and use.

Its History.

The history of the cultivation of the grape in the old world carries us back to a very remote period. It is early mentioned in the scriptures, where the evil of excessive wine drinking was shown in the case of Noah. It was long grown to a considerable degree of perfection in Syria and Persia, and with the advancement of civilization westward the vine appears to have been carried first to Egypt, thence to Greece and Sicily, and afterwards to Italy, Spain and France. It is said to have been taken to Britain by the Romans about 200 years before Christ.

The European varieties of the grape are said to have a common origin, they have all been derived from the wine grape of Europe, *Vitis vinifera*. Some of the early colonists brought with them to America seeds of some of the choicest varieties cultivated in Europe, and planted them here, but the seedlings did not succeed well. A large number of vines have also been imported, and similar failures attended their introduction. They were found either too tender to endure the climate, or so subject to mildew as to be more trouble than profit, and their cultivation was gradually abandoned, or restricted to glass-covered buildings, where the temperature and other conditions necessary to success could be controlled.

There were found in America several species of wild grape, which, although offering no great attractions in the way of quality of fruit, were rapid growers and possessed of a healthy and vigorous constitution, rarely affected by any disease. The most promising of these were "the Northern Fox Grape" *Vitis labrusca*, found in many parts of the Northern United States, and "the winter or frost grape," *Vitis cordifolia*, which is found in almost all the northern portions of America. The fox grape is noted for its large and handsome foliage. The leaves are thick and leathery, with a rusty, woolly, coating beneath. The fruit is of little account; the clusters are small, the berries of a large size, a dark purple or amber color, having a thick skin and a tough pulp, with a peculiar, unpleasant musky flavour, commonly designated "foxy." The frost grape has much thinner foliage, and bears small, compact clusters of small acid berries, which are sweetened and improved in flavour by frost. Here was a foundation to work on which the early grape-growers in this country failed to appreciate, and it does not appear that any efforts were made at this early period to improve our native grapes.

A new era in grape culture here, dawned in 1818, and a great impetus was given to it by the the introduction of the Isabella grape, a chance seedling of South Carolina, which in its general characteristics bears evidence of having been derived from the native fox grape. This was brought north in that year by Mrs. Isabella Gibbs, in whose honour it was named. It was a hardy variety, a vigorous grower and free from mildew, and although late in ripening, it continued to hold a high place in public estimation for fully forty years. In January, 1858, the Western New York Fruit Growers' Association held its annual meeting in Rochester. At that meeting one of the subjects discussed was the varieties of grapes best adapted to Western New York. In the course of that discussion, Mr. P. Barry, the well-known nurseryman of that city whose opinion in fruit questions is still regarded as of the highest value, made the following remarks:—"Although there are now many varieties claiming attention, and have so far promised to become valuable acquisitions, yet the Isabella is the only one of established reputation which I would be willing to plant extensively in Western New York." In this sentiment the majority of those present concurred. One speaker remarked that he had sold 600 lbs. of Isabella's in Buffalo that year at 18 cents per lb., and that the previous year he had sold a quantity of the same variety in New York for 22 cents per lb. Chief among the new grapes then referred to as promising, were the Concord, Delaware, Diana and Hartford. What a vast change twenty-five years have made in this branch of fruit culture. Scores of willing hands have been engaged in the experimental field, Rogers' Hybrids with a host of others have now appeared upon the stage, until we have descriptions published of about 200 varieties, while new ones are appearing every year. The Isabella is almost a thing of the past, and although still a good variety in some respects, is so uncertain as to its ripening that it has been left far behind in the race and is now seldom met with either in market or vineyard. The new varieties have originated in different ways, some have been accidental seedlings, others

obtained by selecting the best from among a number of seedlings, while still others have been produced by careful crossing either of native varieties with foreign or by crossing the most promising of the cultivated varieties with each other. This latter method is a most interesting one, where the likeness of both parents can often be traced in either the vine or fruit of the progeny. From a series of experiments of this sort I have had some striking results of which the following are examples:—

No. 1. Clinton female, crossed with Buckland's Sweetwater male. The female is black, with a medium-sized compact bunch and round berry; the male yellowish white, with a large loose bunch and large oval berry. The hybrid has greenish white fruit, oval in form and sub-acid, a loose bunch with berries above medium size. The influence of the male is shown in this example in the colour, form and size of the fruit, in the character of the cluster, and to some extent in the quality of the fruit, it ripens about with the Clinton.

The resemblance to the female is most marked in the form and character of the foliage and in the habit of the vine.

No. 2. Clinton female with Muscat Hamburgh male, female as described in No. 1; male, bunch large and loose, berries oval, black and of excellent quality, sweet with a rich Muscat flavor. The hybrid has a long loose bunch, oval black berry with a sprightly sub-acid flavor, but is late in ripening, too late to succeed well in our climate unless in very favorable seasons.

No. 3. The female in this case was a small black seedling grape not far removed in size and quality from the wild grape, with a small compact bunch of small black berries with large seeds; the male a deep purple grape, berries medium size, inclining to oval, with a juicy rich flesh. The resulting cross has a long and rather loose bunch of small round purple berries of good quality. In both these latter instances also, the influence of the male is well marked in the character of the fruit, while the vines resemble that of the female.

Amid the multitude of varieties now offered, the question is often asked by those who desire to plant, which are the best? This is not easy to answer, since location, soil and climate have all to be considered. Yet, in general, grape vines are more tolerant of unfavorable conditions than most fruits; they will succeed in almost every variety of soil, excepting one that is wet; and will thrive and fruit under any sort of care or want of care, from the most severe methods of pruning to a condition of almost utter neglect. With reasonable care most of the varieties will bear regular crops, provided they escape injury from the frosts in early spring and have a sufficient amount of heat during the season to ripen their fruit.

The following list embraces the principal varieties in cultivation, all of which are worthy of trial:

Black Grapes.—Barry (Rogers 43). Burnet, Canada, Champion, Clinton, Concord, Creveling. Early Victor, Essex, Hartford Prolific, Herbert (Rogers 44), Israella, Merrimac (Rogers 19), Moore's Early, Telegraph, Wilder (Rogers 4), and Worden.

Red Grapes.—Agawam (Rogers 15). Brighton, Delaware, Gaertner (Rogers 14). Lindley (Rogers 9). Massasoit (Rogers 3). and Vergennes.

White Grapes.—Duchess, Jessica, Lady, Martha, Niagara, Pocklington, Prentiss and Rebecca.

In addition to these there are some promising new varieties which have not been sufficiently tested in our Province to permit of a decided opinion being expressed regarding their merits. I refer to Centennial, Rochester, Woodruff Red, Empire State, Francis B. Hayes, and others. Some of these may possibly rank among the highest in our lists when we get to know them better. For the benefit of those who can only cultivate a few varieties, I would specially refer to the following ten, with any and all of which almost every lover of grapes will be pleased. They are all hardy and prolific, and most of them early.

Worden.—This is a comparatively new variety, a black grape with large bunch and berry, in quality much like Concord, but ripens about a week earlier. With me the vine is healthier and more productive than Concord, and I think the fruit is a little better in quality.

Delaware.—A small red grape of first quality, too well known to need further description ; only a moderate grower, but a good bearer.

Concord.—This well known black grape is more extensively cultivated than any other variety.

Brighton.—A red grape of first quality, hardy and productive, but it soon loses quality and becomes insipid if kept after it is fully ripe.

Wilder (Rogers No. 4.)—One of the best of Rogers' Hybrids. Bunch medium to large ; berry large, black and of good quality, ripens with the Concord.

Lindley (Rogers 9.)—A red grape, which in size of berry and bunch is much like Wilder, of good quality, ripens a little earlier than Concord.

Merrimac (Rogers 19.)—Bunch rather large, tender, juicy and sweet; much like Wilder and ripens about the same time.

Telegraph—A black grape, bunch medium size, compact, berry medium to large ; flesh juicy, tender and of fair quality ; ripens about the same time as the Hartford Prolific.

Early Victor—One of the newer introductions ; a black grape, cluster of medium size, compact, berry medium in size, of good quality ; ripens earlier than Concord.

Clinton—This is a black grape, which requires to be thoroughly ripened and exposed to slight frosts in order to develop its full quality. It is then of a sprightly vinous flavor, subacid and of good quality ; if eaten before fully ripe it is unpleasantly acid. One of the very best grapes for canning or cooking.

In this list I have not included any white grapes, for the reason that all of those I have tested are inferior either in quality or productiveness, or both, when compared with the varieties named. No collection, however, would be complete without some of them. Martha has succeeded well with me, but in quality it is scarcely equal to the Concord ; Rebecca, when well ripened, is a good grape, but it is a very slow grower and poor bearer. Lady Washington rarely succeeds well here, and is late in ripening. Pocklington is a vigorous grower and prolific, a large and handsome grape of fair quality, but it sometimes fails to ripen. Jessica is a small grape of good quality, fruiting with me for the first time this season, and promises well. Niagara is a yellowish white grape of attractive appearance, medium in size of bunch and berry, in quality, variously estimated from fair to good, and is said to be vigorous and productive, but I have as yet had no experience in growing it. Duchess, Prentiss and Lady, are all fruiting with me for the first time this season ; the Lady is early, and promises to be a fair cropper, but the berries are thick skinned, and the Labrusca flavour is quite prominent ; both Duchess and Prentiss ripen late. If called on to make a small selection from those named, I should mention Jessica, Lady and Pocklington. Niagara also would be entitled to a place in this select list, should it succeed as well in Ontario as it has in Western New York.

But we have other promising fields in the domain of horticulture, and a few moments may be profitably devoted to flowers. While almost every one is familiar with most of the pretty and popular annuals and bedding plants which deck our garden with masses of beauty from midsummer to late in autumn, there are comparatively few who have taken the pains to secure for their enjoyment a fair proportion of the hardy perennial species. Many of these are quite as attractive as the choicest of our annuals, and they have the advantage that they can be grown from seed at a trifling expense, and when once planted they are a permanent source of pleasure from year to year. Still another point in their favour is that many of them flower quite early in the season before annuals begin to bloom, while the richness of their colouring, and the wonderful blending of their hues, recalls the words of the poet Thompson :—

"But who can paint
Like nature ? Can imagination boast
Amid its gay creation hues like hers ?
Or can it mix them with that matchless skill,
And lose them in each other, as appears
In every bud that blows ?"

Permit me to direct your attention to two or three groups, which, if you investigate them, will, I am sure, awaken in your minds a more general interest in this subject, and when we take into account that in many of the seed catalogues more than a hundred of such groups are enumerated, it will be seen that the field is not likely to be soon exhausted.

The group of Primulas, which include the Primrose and Polyanthus, is a very inviting one. The flowers are of many hues, embracing very many rich tints and beautiful combinations of colour. They are easily raised from seed sown in a hot-bed in spring, and if sown early and transplanted into rich ground as soon as the plants are large enough, will make fine flowering plants the following spring. The varieties of *Primula auricula* are very rich in colour, they are scarcely so hardy as some of the other members of the group, but with a slight protection will endure our coldest winters. *Primula capitata*, known also as *Cashmeriana*, is a charming spring flower. Late in the autumn the plant dies down to a small compact head, from which, as soon as spring opens, a crown of vigorous leaves is pushed, from the centre of which rises one or more flower spikes which soon develop stout stems bearing globular heads of reddish pink flowers with a pale yellow centre. *Primula Cortusoides* and its several varieties are pretty, free flowering plants, varying in tint from pale lilac to magenta red, which continue to send up fresh flower clusters for nearly a month. *Primula veris*, the English Primrose, is a very hardy and free-blooming plant in its various shades of yellow, rose and white, and some of the offshoots of this family are still more charming, especially the groups *Acaulis* and *Elatior*, where we find a great variety of rich tints of purple and red, margined and centred with yellow or gold. As curious departures from the normal type, we find in *Elatior Macrocalyx* the flower set on a large green calyx, which has a singular effect; also the variety *Duplex*, known as hose-in-hose, where one flower appears as if set into another one in a very odd manner. The many varieties of *Primula Suaveolens*, commonly known as the Cowslip, are well worthy of attention. They have a pleasant odour, and include, besides the common yellow form, many with larger flowers of brilliant shades of yellow and red. Besides those I have named, there are included in the larger seed catalogues, fifteen other forms belonging to this interesting group. This sketch would be incomplete were I to omit to mention a pretty little native species, from two to six inches high, known to botanists as *Primula Mistassinica*, which is found growing along the shores of the Upper Lakes. The flowers are pale lilac with a yellow eye, and the plant does well when transplanted to the garden.

The Aquilegias or Columbines are equally interesting and varied, and most graceful in their forms and habits. Our common wild Columbine, *Aquilegia Canadensis*, is a charming flower, which improves under cultivation, and deserves a place in every garden.

> "Sweet plants there are which bloom in sultry places,
> By rude feet trampled in their early hour,
> Which, when transplanted are so full of graces,
> They lend a charm to Flora's fairest bower."

From our wild species several varieties have originated, one of them a dwarf with beautiful scarlet and yellow flowers. In addition to the older forms, of which there are more than fifty varieties, we have two elegant species from the Rocky Mountains, distinguished by the beauty of their form and the length of their spurs. One of these, *Cærulea*, is a violet blue with a yellow centre, the other, *Chrysantha*, of a rich golden yellow. I would suggest that one or both of these be included in the packet of seeds to be sent in the coming spring to those of our members who may select flower seeds; the plants are very hardy, and will be a much prized acquisition to every garden. *Aquilegia glandulosa* is also a very beautiful form; the flowers are large, of a rich, deep blue, with a pure white corolla. Where several of these varieties are grown together, and another generation of plants raised from the seed produced, many interesting crosses will be obtained, which will lend a charm to the flower border.

Among the Gentians, also, of which there are about twenty varieties in cultivation, there are some gems. None is more beautiful than *Gentiana acaulis*, which finds its home in the mountainous regions of Europe. In early spring, its tufts of gorgeous blue, bell shaped flowers, arise from charming cushions of glossy foliage. *Gentiana verna* is

another beautiful low-growing species, producing brillant blue flowers, with a yellow or white eye. *Gentiana Oliveri* is a lovely species, not long introduced from Turkestan; the flowers are large and very numerous, borne on slender stems about a foot in height, and are of a brilliant, sky-blue colour. Among our natives, *Gentiana Andrewsii* and *alba* are worthy of cultivation; the flowers of both of these are white or whitish. It should, however, be mentioned that the Gentians are not so easily grown from seed as the other flowers which have been named; favourable conditions are required to bring about germination.

I have but touched on a corner of a vast field where the most ardent florist may find new and varied treasures at every hand, and reap a harvest of beauty each succeeding year throughout a long life, and at its close still leave ungarnered a multitude of gems.

During the past winter an important fruit exhibition was held in connection with the New Orleans Exposition, when some 20,000 plates of fruit were shown. This was probably the largest display of fruit ever brought together, and one in which the different States in the Union competed with each other with commendable zeal, sparing no pains or expense in the endeavour to make their several exhibits as complete and attractive as possible. Ontario had no Provincial exhibit, but was represented by a collection of about sixty varieties of apples contributed by fruit-growers in the London District, and smaller collections from Prince Edward County and from Goderich. Notwithstanding the immense competition, we succeeded in carrying off first prizes for Esopus Spitzenburg and Ribston Pippin; and our collections were much admired, and highly commended.

Almost every season brings some new seedling fruit of value to light. Last February, Mr. M. S. Park, of Cornwall, sent to your President a new seedling apple of much promise. Samples were also sent to the Secretary, who published a description of it in the March number of the *Horticulturist*. After commenting highly on its beauty, he says:—"It is too acid as tested by us to be generally relished as a dessert fruit, perhaps later in the season the acidity may become less prominent." My specimens were kept several weeks before they were eaten, and I find in my notes referring to it, that I have designated it as "high flavoured," and very good. It is certainly deserving of extended trial.

Late last Autumn I opened a correspondence with the Director of the Government Experimental Gardens in Tokio, Japan, Sen Tsuda, and forwarded to him some thirty packages containing plants of most of our leading varieties of strawberry, raspberry, currant and gooseberry. These reached their destination in very good condition, and were much appreciated. There was sent me in return seeds of a number of varieties of flowers and shrubs, the larger portions of which were distributed to applicants in different parts of the Province. No reports have yet been received from the recipients, but a considerable proportion of those planted by myself have germinated, and are growing nicely. Scions of some of the best plums grown in Japan, and small rooted plants of their grapes were also sent, but owing to imperfect packing and long exposure, they were quite dead before they reached their destination. Mr. Tsuda is a highly intelligent gentleman, and a leader in horticulture in that interesting country from whence we have already received so many good things. It is hoped that mutual interchange of products will result in valuable acquisitions on both sides, and while lending a helping hand to lovers of fruits and flowers in that distant land, we may receive from them accessions to our lists which may prove both interesting and valuable.

The work undertaken by our Association in disseminating valuable products, and useful information in all departments of horticulture is a vast one, and what a privilege it is to be permitted to engage in so noble and benevolent an undertaking, as that of aiding in furnishing gorgeous flowers and luscious health-giving fruits to the present and future generations. Let us all labour earnestly in the several stations in which Providence has placed us, striving to leave our impress on the plastic forms which a bounteous nature has spread before us on every hand, aiding in developing new forms of beauty; our labours shall be crowned with a glorious harvest, and when we shall have passed away, the results of our work will live, and we shall be gratefully remembered by those that follow us.

On motion of Mr. Morton, seconded by Col. McGill, a hearty vote of thanks was awarded to Mr. Saunders for his address.

A committee was then appointed to nominate officers for the ensuing year.

PEARS IN HURON.

Mr. GOVENLOCK (of Seaforth).—I planted a good few pears about three years ago. I have had Flemish Beauty and Clapp's Favorite bearing for a number of years. The Flemish Beauty does real well, and seldom spots. I have had no blight either. I also find a ready market for all I can sell. The Flemish Beauty is a large bearer, but many of the best pears are blown off, and they are apt to get damaged if they fall on hard ground. A few of the small ones have cracked and spotted, but this has never occurred with the full grown ones.

Mr. ALLAN.—I am quite astonished that we have not heard of more pear trees in the vicinity of Wingham. I should think that it was well adapted to the growth of pears. The chief point to look to is thorough drainage. A good stiff soil is the best. As to profit, I should think that there was as much money in Clapp's Favorite as any that we have. It is a strong grower and a good regular bearer, of good size, beautiful in appearance, and a pear that would succeed very well here. I think that in the markets that I deal in it is as good as the Bartlett, or going ahead of it. It does not do, however, to leave it on the tree until it is ripe. Even if you are going to use it in the family it must be picked on the green side. I fancy that the flavor is very much superior if this is done. I think that it loses its flavor by being left on the tree until it is ripe. If you leave it the heart goes. The moment it becomes fully ripe it is of no use. The Bartlett is generally cultivated, and so is the Flemish Beauty, but it is liable to over-bear. It should be thinned out. We have often had cases of pear blight, and Flemish Beauty is most liable. Clapp's Favorite has been free. The Sheldon will grow very well. Beurre Hardy can also be grown, and Duchess for a winter pear, although I like Josephine de Malines. I also grow Beurre Superfin. I like the Lawrence, and the Vicar of Winkfield for cooking. Then Louise Bonne de Jersey is a large pear, and really good for market, although it is not equal to Clapp's Favorite, Flemish Beauty, or Bartlett. Beurre D'Anjou is very good.

Mr. CROIL.—Do you manure your trees very much?

Mr. ALLAN.—Yes.

Mr. BUCKE.—How long does it take for them to come into bearing?

Mr. ALLAN.—Dwarf trees come in the third year. I like Clapp's Favorite as a dwarf better than as a standard.

Mr. HILBORN.—What about the Dr. Reeder?

Mr. ALLAN.—I do not like it. It is not as good as the Seckel. I would not, however, advise any one to grow the Dr. Reeder or the Seckel for profit in this neighborhood.

Mr. GOTT.—With respect to the time of picking pears, there is a great deal of ignorance among many people on this subject. The trouble is as Mr. Allan has explained. It might be said, however, that in the Clapp's Favorite, for instance, the change of colour begins before the flesh is really ripe. These have to be watched, as winter varieties must be picked in their green state. The White Doyenne is a very popular variety, and the Louise Bonne de Jersey has been found to be profitable. The others named are worth attention.

The PRESIDENT.—The Grey and White Doyenne do not have the same characteristics everywhere. In London, on one spot it grows handsomely, while on another it cracks so badly as to be useless.

Mr. DEMPSEY.—I cannot give any idea as to pear culture in this county. I would condemn Clapp's Favorite because it is very subject to the blight. The Flemish Beauty comes next to it. I would recommend to the younger persons the principle of crossing flowers, and I fancy that some of these days we will have varieties of pears for cultivation in our different counties that will astonish the rest of the world, if we undertake that enterprise with that amount of zeal it is worthy of. My little experience in that direction causes me to fully endorse all that has been said with respect to producing hybrid pears. I am almost convinced that we can produce a pear to our will by properly selecting the parents. I think to-morrow morning I can bring some specimens that will satisfy you as to what can be done. Invariably I find that the flavour of the female parent

is stamped in the fruit, while almost invariably we find the outline and external characteristics of the fruit taken from the male parent. I will show you a cross between Belle Lucrative and Beurre D'Anjou which you cannot detect from Beurre D'Anjou. It looks like Beurre D'Anjou, but the flavour is that of Belle Lucrative. I can also show you where the Vicar was the female and Belle Lucrative the male. It is the Vicar until you cut it. Some of my crosses are fine cooking pears, and will produce more bushels than any other. They hang in ropes every year, and my wife says she does not want the Kieffer when she can get them to can. These results have proved to be a fact in my experience in producing hybrid pears, and I believe we will have some good ones.

The PRESIDENT.—About eighteen years ago I began this line of experimenting; but my success has not warranted me in laying down a rule that I can produce pears to order.

Mr. DEMPSEY.—I have shown you some of my seedlings that fruited some years ago, and one you expressed very favourable opinion of, with the exception of the size. It is very small. Now I have just reversed my plan and I am going the other way. Formerly if I wanted to cross the Seckel with some other variety I used the Seckel as the male parent, and the result was small fruit. I think, however, that a Seckel flavour could be produced in fruit as large as the White Doyenne.

The PRESIDENT.—That accords with my experience with grapes, as I have given it to you to-night.

Mr. BUCKE.—We cannot grow pears in the Ottawa district. I have never succeeded in raising one pear.

CABBAGE.

Mr. DEMPSEY.—I have had very little experience in growing cabbages for commercial purposes, and the chief part of my experience lately has been in buying what we have needed. The reason that I do that is because I can buy them cheaper than I can grow them. The Jersey Wakefield is very fine, and the Winningstadt is good. I have never grown the Early Atop, but one of my neighbours has, and it is good, but small.

Mr. H. SMITH (of Sarnia).—The Winningstadt is one of the very best flavoured that I have eaten. I have also tried the common Drumhead, which is very good.

Mr. BEADLE.—While the Jersey Wakefield is very nice and the Winningstadt is very fair coming after it, yet there is another cabbage which gets its perfection later in the season. It is better in flavour after the weather has become a little frosty, and I esteem it the best of any that we have ever had. That is the Curled Savoy. The leaves are all crinkled up, and the heads are hard, and for eating, it is the best that I know of. I do not know anything about the profit.

J. M. DENTON (of London).—The cabbage which Mr. Beadle refers to is my favourite.

Mr. BUCKE.—When returning from Chicago the other day I saw hundreds of acres of cabbages. I do not know what variety they were, but they were of tremendous size.

Mr. DENTON.—I was there about a month ago, and it was the small Drumhead they were growing.

Mr. WRIGHT.—My experience is that they pay remarkably well, and I find that the earliest and the smallest is the Early Jersey Wakefield, which has a very hard head. The next in earliness is the early Winningstadt. It also has a very hard head and its specific gravity is greater than the others. It keeps well and is a real good cabbage. It grows so hard and firm that worms do not seem to trouble it the same as the others. But of all for profit there is none like Fotter's Early Drumhead. I can grow them to weigh thirty pounds, and while I can only get five cents for others, I can get fifteen for these. I get my seed every year from Peter Henderson of New York. If you want something for exhibitions you must get the Mammoth Drumhead; but it comes in very late.

Mr. H. SMITH (of Sarnia).—Has any gentleman had any experience as to whether seed grown on this continent or in the old country is the best?

Mr. WRIGHT.—I do not know where Henderson's seeds come from; but I have had other seeds, and met with no success with them.

Mr. GOTT.—We use the Winningstadt and keep them in the trenches until April and May.

Mr. Wright.—How does Mr. Gott keep his cabbages until April and May?

Mr. Gott.—It is one of those methods used for generations past. A trench is prepared about the width of a spade and of the ordinary depth of digging; the cabbages are pulled root and branch and turned upside down in this trench. A little straw is then thrown over the cabbages and then the earth is thrown about it. In the spring they may be taken out in splendid form, and although the frost may get into it no harm is done.

GOOSEBERRIES.

Mr. Govenlock (of Seaforth).—I have been very successful in gooseberries. I planted out a row of fifty some three years ago, and forty of them were Downing's, some Smith's Improved, and I think that I had a few Whitesmiths. Although a large nice looking berry, I do not think so much of the Whitesmith as Smith's Improved. The Downing is a splendid berry. I had an average of seven quarts per bush. Off some of the older ones I took twelve quarts, and I never saw a berry mildew. The Whitesmiths do not mildew, but they fall off a little. They are not as good a flavour as Smith's Improved. The only objection I have to Smith's Improved is, the branches are very weak and tender. They do not stand up so well as Downing's seedling, which I believe is the berry for this country. I have not grown the Houghton very much; but I believe is the berry for this village. It is a good berry; but it does not succeed very well. Our soil is clay.

Mr. Gott.—In case of mildew have you tried any remedies?

Mr. Govenlock.—I never had mildew on either of the first three that I mentioned.

Mr. Hilborn.—This year I fruited Smith's Improved, Downing, Whitesmith, Crownbob, Industry and Houghton. I think Smith's Improved is the most promising for our neighbourhood. It seems to be a good sized berry, fully hardier than the Downing and more plentiful. I also like the quality far better. I got the Whitesmith from three or four different parties. I met with persons in different parts who did not know the name of a good berry they had, and I took a bush. They were all the same. The Industry I cannot say much about. They only had a few specimens which were very fine, and quite similar to the Crownbob.

Mr. Little (of Fish Creek).—I think I said that I did not care to handle the gooseberry much. I had some very good ones from Mr. Hilborn. They were the Whitesmith and the King Karl. They were of fine quality.

A. M. Smith (of St Catharines).—I have grown one variety that was a seedling from Mr. Saunders. I have not much to say about them. We call them the Pearl. We grow them on sandy soil; but it was very poorly adapted to gooseberry growing, and last autumn I prepared a piece of soil with clay loam, and although they have done very well I have not had the fruit that I saw at the President's place last summer. It is evident that your ground is better than mine.

Mr. Dempsey.—I have some seedlings that are very promising. Among the varieties, however, that I have fruited, I have found none that sell as well as Smith's Improved and Downing's. We have several seedlings that are double the size of Smith's Improved and they appear to be prolific. Some I have fruited once, some twice and others three times. That is not a sufficient test. I propose trying planting on different soil.

ELECTION.

The Committee which had been appointed to nominate officers for the ensuing year reported as follows:

Your Committee beg leave to submit the following nominations:

President, - - - - -	Wm. Saunders.
Vice-President, - - - -	A. McD. Allan.

DIRECTORS:

Division No.	1	JOHN CROIL.
"	2	A. A. WRIGHT.
"	3	R. S. DUNLOP.
"	4	P. C. DEMPSEY.
"	5	THOS. BEALL.
"	6	JOHN McGILL.
"	7	MURRAY PETTIT.
"	8	A. M. SMITH.
"	9	F. MITCHELL.
"	10	J. A. MORTON.
"	11	J. M. DENTON.
"	12	W. W. HILBORN.
"	13	CHAS. HICKLING.

AUDITORS:

JAMES GOLDIE, - - - - CHARLES DRURY.

Respectfully submitted,

THOS. BEALL,

Chairman

The names were taken up *seriatim*. When division number six was reached Mr. Beadle moved to amend the report by striking out the name of John McGill and substituting therefor the name of W. E. Wellington. The amendment was agreed to, and Mr. Wellington elected for the sixth division.

The Association then adjourned until the following morning.

SECOND DAY.

The Association re-assembled on Thursday morning, the President in the chair.

Mr. Malcolm McDonald of Lucknow laid a specimen of cherries on the table and asked that they be named. They are large and red in colour, something of an ox-heart shape, and were said to last as late as November.

Mr. DEMPSEY.—I should call them Reine Hortense.

THE CATALPA.

QUESTION.—Is the Catalpa sufficiently hardy to stand the winter season in Huron, and what is the best means to protect in winter?

The PRESIDENT.—The Catalpa referred to is the Catalpa speciosa sent out by the Association last year, and from which these leaves on the table were taken. There are three species. The Catalpa bignoniordes is tender and not hardy in the district about London. Some times it will grow for two or three years without being injured, and then it will be cut down to the ground. There is, however, one tree in London which is about twenty-five years old, that appears in flower every year. Another Catalpa is the Kempferi from Japan, and is quite hardy. The variety, sent out by the Association, I think will be quite hardy in any part of Ontario.

Mr. ALLAN.—It has been tried in Huron, and seems to be perfectly hardy in Goderich. Some have said that it was not hardy until it got age.

Mr. BEADLE.—The trees sent out might be protected the first year, as a precaution.

HARDY SHRUBS.

QUESTION.—Kindly name a few hardy ornamental shrubs for this section?

The PRESIDENT.—There was one sent out by the Association, Hydrangea paniculata, introduced from Japan, which Mr. Wright tells me is quite hardy. If it is hardy up the Ottawa river, that is one of the best tests that you could have. It is the best of all recent introductions. In well-grown specimens the flowers will measure from eight to ten inches across. They are very handsome, and the ladies admire them very much in our district. In Spireas, there are two or three varieties that are very desirable. The Van Houtte is covered with a perfect mass of white blossoms in season, so thickly that you scarcely see anything of the foliage. It lasts about two weeks. The bush, however, is ornamental. The Spirea prunifolia also blossoms early in the season and I believe has proved hardy almost everywhere. It is a very desirable shrub. Then there are the Syringas or Philadelphus, of which the Coronaria is perhaps the best. The Wigelia rosea is hardy here and not only blossoms early but abundantly, and can be got from almost any nursery. All that I have so far named are very easily obtained, and have proved valuable. Of the Lilacs, the Persian Lilac is perhaps the most desirable on account of the richness of its flowers and abundance of them. They almost cover the shrub. I think the Snow-ball, Vibernum opulus is very nice, and the Japanese Snow-ball, Vibernum plicatum, although, inclined to suffer a little, can be made hardy. Then the Purple Berberry produces a perfectly formed bush, and as the bush is covered with flowers hung in racenes in summer and in the autumn with pretty berries, it is handsome the year round.

EVERGREENS.

QUESTION.—"What is the best time to plant evergreens?

Mr. BEADLE.—My experience is this:—If we plant evergreens in the autumn, they should be set out in August, or with us not later than first of September; while the ground is warm, so that new roots may be formed to support the trees during the winter. Having its leaves on all winter, there is an evaporation from the foliage, and unless the moisture can be supplied again from the earth, the tree will surely perish. If, however, it is planted early enough to permit it to throw out new roots, it will survive the winter without difficulty. Just one point on that. You will have to watch the season. You could have planted evergreens from the first of August this year. You can plant an evergreen after the spring wood has ripened up, provided you plant it early enough to throw out this new set of roots; but we often have drouth instead of the moist weather of this year, and then there would not be moisture enough to enable the plant to throw out these roots. You will not succeed in a dry time. I advise you, therefore, to plant evergreens in the spring of the year, towards the time when they start into growth. I have had better success in waiting until they began to push out growth, and the season had advanced far enough to warm the ground. When the buds begin to swell you will be safe in planting.

ORCHARD CULTIVATION.

Mr. DEACON (of Belgrave).—I purchased a farm some three years ago in June, and then the orchard on it seemed to be in splendid condition. I left, and did not return until September, when the trees looked more like dying than living. The leaves were curled up. I pruned the orchard next year, and I fancy I was a little severe, and only one or two trees had any fruit on. The next season some of the trees had quite a crop; such trees as the Tolman Sweet and Red Astrachan. This year I do not think there will be ten bags from the seventy trees. Last summer, in June, we ran a deep ditch down the side, and as winter was coming on we manured it; but otherwise, we used it as a pasture. The trees are middling high, and some will measure eight inches in diameter. The orchard may be fifteen years old.

Mr. DEMPSEY.—I have a small orchard that was wonderfully prolific. It has been about twenty years planted. We allowed it to go into sod, but it had been cultivated up to that time. Last year and this year there was scarcely any crop. I fancy if your

orchard were broken up and cultivated, you will not only make your trees healthy, but I think you will have a crop of fruit. You may have unprolific varieties, which with us do not produce enough to pay for the space they occupy ; but if the ground is broken up and kept fertilized, I think you should have no difficulty in getting a crop from trees of the age of yours.

Mr. DEACON.—I have a good many Russets. There are one or two trees of a dark green Russet, as large as my fist. There are some Northern Spies this year, and a few of the Maiden's Blush.

Mr. CROIL.—My orchard has given me a good deal of trouble, and I am at a loss to say whether cultivation is a good thing or not. I planted my four acres in 1869, and I continued to crop the ground with corn and potatoes until 1883. That is fourteen years. I find I have done more harm than good. All that time it bore well. The trees grew wonderfully. People passing along admired them. After a while, however, this spot set in, and all the softer varieties are worthless. I went up to another one of our places, and saw some fine Fameuse apples there, and on enquiry I found that the orchard had all along been in grass. The trees had not been trimmed or cared for, and there, his apples were sound and good. I had another piece of two acres planted two years after the one I have spoken of, and it has been in grass ever since. It is freer from spot than mine ; but this does not hold out all through. I have a tree that was planted forty years ago. Every second year I have taken fifteen or sixteen bushels of Fameuse apples off it, and it has been cultivated all the time. The fruit is not spotted.

Mr. A. McD. ALLAN.—I should fancy that in the case of Mr. Deacon the trees would require pruning every year. In cultivating the soil, one point you would gain by, would be the wounding of the roots. If you want to bring about bearing, you cannot do so better than by wounding the roots. That is the only way I can get General Hand to bear a crop. I should think summer pruning in this gentleman's case would also be advisable, and I think a proper quantity of top manuring should be spread under the trees, where the rootlets could get it.

Mr. DEMPSEY.—Cultivation, certainly, has some effect. When you cultivate an orchard lying in grass, the first year you check its growth. There is no question about that. Some years ago I undertook to adopt the system of pruning laid down by Mr. Rivers, of England. He is one of our best authorities, and he recommended, that in order to induce any variety of fruit to bear early, to transplant it every alternate fall. This is very severe. We adopted that plan with some standard pears that some people said required sixteen or seventeen years to come into bearing ; such as the Inverness. Even of that tardy variety, we proved that at the age of four years by this system of root pruning they could be made to bear. Strange to say, the tree will not be more than two or three feet high ; but the fruit is of superior quality. During the whole period of root pruning, Mr. Rivers recommends high fertilization. I tried it with several varieties of apples and pears, and in every instance it worked perfectly. I had a little Hawthornden apple tree that produced a crop for several years when it was only twelve inches in height. This may look unreasonable, but it is true. Wherever you cut off an old root, a fibrous growth results. I am satisfied that cultivation is a good thing.

Mr. ALLAN.—I have seen some fine instances of root pruning in nurseries where they use the tree digger. This knife runs under the trees, and cuts the ground in a circle. After using this for a couple of years, I have noticed these little trees in the nursery row covered with fruit.

Mr. DEACON.—What time in the year should this be done ?

Mr. DEMPSEY.—This is about the proper time. If you intend to be severe, do it the latter part of September or the beginning of October. Strip off the foliage and you will be surprised by the number of fruit buds that will mature. We cut a trench around the tree, at a distance, in proportion to its size, and thereby cut off the roots at a certain distance. By taking a sharp spade, then, we sever all the top roots. I follow Mr. Rivers' instructions. This spring we filled the trench with well-rotted manure, and you would be surprised by the quantity of fruit that was produced. There will be no spots.

The PRESIDENT.—It does seem that while some people take a great deal of trouble to keep trees alive, that others seem to succeed better by ill-using them.

CELERY.

Mr. YOUHILL (of Wingham).—Perhaps I have grown as much celery as any other man in the county of Huron. I have followed the directions given by Peter Henderson; but I find that his system of winter protection does not answer in this section. I attribute the failure to the excessive amount of snow. He recommends trenching out in the fall of the year, and as the cold increases he recommends an increase in the covering of straw to prevent freezing. There is a danger of covering it up too quickly, and generating heat. Now, here we generally have four or five feet of snow, and as it is necessary to get at this bed at all seasons, this system has its drawbacks here. The worst feature however, was that the celery rotted. I would lose at least thirty per cent. As to kinds I believe the red celery is ahead of all others. In light coloured celery I have noticed that when the rot does come the centre goes first, while with the red, only the leaves are affected. I have for the reasons given, abandoned the trench system, and have put up a root house that is frost proof, and yet admits of ventilation. I have ventilators both at the ends and in the roof; I place the celery in trenches or rows, and the temperature being about forty it keeps perfectly. I may say that I excavate about two feet to make the bottom of the root house, and protect around the outside with sawdust. I place the celery together as thickly as I can get them without crushing.

Mr. WILSON (of Wingham).—I have grown celery for some years to a limited extent, but have not had much experience with any kind but the white. I thought at one time that the best place that I can get is my cellar. I put a board down and fill in rows of celery between that and the wall, using earth to come up to the top of the board or nearly so I had a good deal of decay, however, for some time, and I have now adopted the plan of leaving it out all winter in a trench. I make the trench about six inches deep, and when I see the season going to be colder, I take some sawdust and cover up the plants so that you can see the leaves sticking through. I leave that on as long as there is severe frost; but as soon as the weather gets warmer, I take it off. It is inconvenient, but I had celery there until May this year and without any rot whatever.

Mr. HANNA (of Wingham).—I know a successful grower who fills his trench with sawdust instead of earth.

Mr. DEMPSEY.—I have learned considerable from the experience of these gentlemen. I prefer the red celery to the white, for the reasons given. As to wintering, we simply winter ours in the cellar. At the approach of winter we put in the cellar and keep as much earth as possible to the roots, and apply as much water as we can to the roots, being cautious that it does not get on the top. It grows well and bleaches out very nicely. I think that it is Mr. Woodward's plan to bore holes in the box, so that the water would not rise above the roots.

Mr. BROCKENSHIRE (of Wingham).—I have raised some celery, although not a large quantity, with some success. I kept mine one winter by digging a trench about a foot wide, fully the depth of the plants, covering tops and all. I packed it in tight, and then I laid some short boards across the trench. As the weather got very cold I threw a little straw over it. Then the snow came and covered the whole affair over. As I wanted the celery during the winter I took off one of the short boards and replaced it when I had taken out as much as I wished. It kept well and I had no rot. Last winter I tried another plan in which there was less work. I left my celery in the garden, and placed boards along the trenches so that they met in the centre like a roof. I threw straw over these, and as I wanted the celery I parted the boards and took it out. That plan worked well too. I find that keeping the plants out doors is preferable to keeping them in.

RASPBERRIES

Mr. BROCKENSHIRE (of Wingham).—I have a spruce lot of raspberries, which I cannot name. I can grow black raspberries that keep until September; but the bushes take something like rot at the heart and die down. I have lost a good many plants in that way.

Mr. SIBBALD (of Wingham).—There is one variety which Mr. Veach has been very successful with. It is the Saunders. I have grown Shaffer's Colossal, and it has done

very well. The Gregg does well, and is hardy here. I have also grown the Cuthbert, but it suffered a little on the tops above the snow line last winter. Blackberries, such as Taylor's Prolific, do very well. Arnold's Diadem has done well and so has Mr. Saunders' hybrid. I do not see any difficulty in growing raspberries in this part of the Province, as we have plenty of snow to protect them during the winter.

Mr. VEACH.—I grow the Saunders here too.

Mr. MCDONALD (of Lucknow).—I only grow a few, and for varieties I have Mammoth Cluster, Philadelphia and Saunders. The Saunders is the best. It will bear double that of any others, and send up few suckers. In propagating I took the suckers from the bottom. My Mammoth Cluster was killed down to the snow line last winter; but the others were not.

Mr. MORTON.—I think it was the old Franconia that I started with, and I found it was apt to winter kill; but in flavour it was superior to anything I have had, except Shaffer's Colossal. I have also the Turner and Cuthbert. I tried to kill the Turner last winter; but this spring it was sound to the top. I think it is ironclad. The Cuthbert is fine and I like the flavour; but the Turner is a little too sweet for my taste. In yellow I have the Caroline, and my experience prompts me to say that it is not the same everywhere. I got my plants from a gentleman in Brampton. On his place I thought the flavour excellent but in my garden I wouldn't give five cents a bushel for them. It is sour and of poor quality bears, however, enormously. If I were only going to plant one variety, I should select Shaffers' Colossal. It has proved itself hardy, and it is an immense grower. The fruit is a little soft to ship, and the colour would be against it as a market berry; but it has enough of the black cap flavour to make it spicy and of excellent quality. In white caps I have Bebee's Golden; but as it is hard, seedy and lacking in flavour I do not think much of it. In black caps I have Souhegan, Gregg, Early Ohio and Davison's Thornless. The Gregg died down this summer and I cannot find any cause. It commenced to die from the top, but I have had no difficulty with it being killed in the winter. The Souhegan gives me the best return of any black cap that I have. The Early Ohio is much younger, and when it gets into full bearing it may be equal to it. I also have a seedling of my own. It is red, although not as red as the Cuthbert, and the berries are larger. It is a little coarse in the grain, but the flavour is very fair. It was an accidental seedling, and is quite hardy.

The PRESIDENT.—That experience with regard to the Caroline is very interesting, and explains why there is such a difference of opinion with regard to it. The Franconia referred to kills down to the ground in London, and we cannot get any fruit from it.

Mr. DEMPSEY.—In red raspberries nothing gives us the satisfaction of the Reliance and Turner, which are perfectly hardy, and appear to suit the market. In black caps I have nothing that will excel the Mammoth Cluster. The Ohio is certainly a desirable berry, although a little small. Shaffer's is good, but does not take the market. I might add to what I said at first, that we think that for cultivation and profit the Turner, Reliance and Cuthbert are all we require in red raspberries. We do not ship raspberries very far, but the Turner goes as far as Toronto. It will produce double the quantity of the Cuthbert.

Mr. BEADLE.—I might give you a word of caution on one or two varieties not mentioned. The Hansell was sent out as an early ripening, productive and hardy raspberry. I find that it is hardy, but unproductive, quality inferior, and no earlier than the Brandywine. The Superb was sent out as something extra fine. It is, however, very seedy. It may be very fine for cooking, but I cannot get enough berries out of my patch to try it. What little I do get crumble to pieces. While I am speaking I may say that there is a variety which originated with Mr. A. M. Smith, and which he calls the Niagara, I think. It was injured a little last winter, but nothing further than we would have pruned it, and this year it gave me a very good crop. It ripens by degrees, and long after the Cuthberts are gathered we can get sufficient for the table; and they begin to ripen about the same time. That might be an objection to those who grow for the market, and want to gather the crop in two or three pickings. The Colossal is, perhaps, the most productive, and best for cooking; but is not a high flavoured berry.

Mr. CROIL.—We find the Reliance and Philadelphia to suit us best.

The PRESIDENT.—I had a few berries on a young Marlboro' this spring; but I did not find it anything unusual. I may, however, change my mind as I grow it for a time. I have also seen Mr. Hilborn's seedling, and the fruit, as I have seen it, seems equal in quality to any in cultivation. Those who have had more experience with it speak very highly of it as a productive berry. I think it is an improvement upon most of the black caps in cultivation. Nothing has been said about the Tyler, but Hopkins and Souhegan are so much alike that it is difficult to see any difference.

Mr. BEADLE.—A word about the cultivation of the Turner. It is apt to throw up an abundance of suckers, and they must be treated as weeds.

FRUIT COMMITTEE'S REPORT.

The Fruit Committee, composed of Messrs. Govenlock, Beall, Hilborn, Col. McGill and Dr. Sloan, presented the following report:—

That Mr. Saunders, of London, shewed twenty-nine varieties of grapes, as follows: Jessica, quite ripe; Lady and Adirondack, nearly ripe; Martha, Hartford and Delaware, a few days later; Merrimac, Pocklington, Israella, Wilder, Worden, Wyoming Red, Canada, Abyssinia, Brighton, Janesville, Concord, Telegraph, Clinton and Marion, somewhat later, and in different stages of ripeness. The following are seedlings raised by Mr. Saunders: Alpha, white, medium bunch and berry, a hybrid, between Clinton and Buckland's Sweet Water, not yet ripe; Seedling No. 1, black, very small bunch and berry, and compact; hybrid of Seedling No. 1 and Black Hamburg, black, medium bunch and berry; hybrid of Clinton and Muscat Hamburg, bunch very large, long and heavy shouldered, berry medium, colour black, not ripe; hybrid of Seedling No. 1 and August Muscat, bunch and berry medium, very early, past its season, said to have been ripe on the 20th of August; Seedling of Diana, bunch and berry medium, bunch very compact, green; Beta, bunch and berry medium, colour green, not ripe; hybrid of Concord with Delaware, fruit resembles Concord, not quite so large, nicely shouldered, foliage quite distinct, but more like Delaware; Seedling, parentage unknown, berry medium, nicely shouldered, bunch somewhat loose, not yet ripe. Mr. Saunders also shewed a sample of Kieffer pear.

Mr. A. M. Smith, of St. Catharines, shews eight varieties of grapes in a much more advanced stage of ripening. The Jessica is quite ripe, Delaware, Worden, Niagara and Wilder, Brighton, Concord and Rogers No. 9, in various stages of ripeness in the order named. Mr. Smith also shows a few clusters of Niagara grape grown on the Hudson; they, of course, are quite ripe. Mr Smith also shews a few samples of Kieffer pear.

Robert McIndoo, of Wingham, shows a plate of Hartford not quite ripe. The plate of Hartford shown by John Snell, of Wingham, is nearer ripe.

B. Wilson and W. T. Brockenshire, both of Wingham, each exhibit a plate of grapes unnamed.

J. S. Hiscocks, of Wingham, shows five varieties of seedling plums, none of which has any special merit.

Hugh Smith, of Sarnia, shows twelve varieties of seedling Crab-apples, none of which are superior to many varieties in cultivation.

Dr. Sloan, of Blyth, shows a plate of Primate apple, of good size and quality.

Robert Govenlock, of Seaforth, shows the Capt. Jack strawberry in good condition.

J. A. Morton, of Wingham, shows two varieties of tomatoes, one of which is King Humbert, the other unknown.

Malcolm McDougald, of Lucknow, shows two branches of the Reine Hortense cherry, shewing a fine crop of fine specimens, fruit attached.

Mr. Dempsey placed on the table a few of one of his new hybrid pears of good appearance, but being in an unripe condition, your committee is unable to pronounce on its quality.

There were also two plants of the new strawberry "Jewell" on the table. The plants bore evidence in the roots and leaves of a very healthy constitution. These plants were forwarded to the meeting by the originator, P. M. Augur, of Connecticut, U. S. A.

Respectfully submitted on behalf of the committee,

THOS. BEALL, Chairman.

The Association then adjourned to meet again in Stratford, sometime in the winter.

REPORT OF THE COUNCIL

OF THE

AGRICULTURE AND ARTS ASSOCIATION

OF ONTARIO

FOR THE YEAR 1885.

Printed by Order of the Legislative Assembly.

Toronto:
PRINTED BY WARWICK & SONS, 26 & 28 FRONT STREET WEST,
1885.

To the Hon. A. M. Ross,

Commissioner of Agriculture, etc.

I have the honour, on behalf of the Council of the Agriculture and Arts Association of Ontario, to present the Report of their proceedings for 1885, the Treasurer's Report as Audited for 1884, the Report of the Prize Farm Judges for 1885, the Essays to which prizes have been awarded for 1885, the Secretary's Report of the New Orleans Exhibition, the Results and Prize Awards of the Fortieth Provincial and Dominion Exhibition, the Secretary and Treasurer's Report of the Fat Stock Show, at Woodstock, and the Veterinary College for 1884-5.

I have the honour to be,

Your obedient Servant,

HENRY WADE,

Secretary of the Agriculture and Arts Association.

CONTENTS.

I.

II.

III.

IV.

V

VI.

VII.

MEMBERS OF THE COUNCIL OF THE AGRICULTURE AND ARTS ASSOCIATION OF ONTARIO FOR 1885.

Division No.		
1	D. P. McKINNON	SOUTH FINCH.
2	IRA MORGAN	METCALFE.
3	JOSHUA LEGGE	GANANOQUE.
4	J. B. AYLESWORTH	NEWBURGH.
5	JOHN CARNEGIE, M.P.P.	PETERBOROUGH.
6	J. C. SNELL	EDMONTON.
7	G. MOORE	WATERLOO.
8	J. C. RYKERT, M.P.	ST. CATHARINES.
9	HENRY PARKER	WOODSTOCK.
10	HUGH REID	ANNAN.
11	L. E. SHIPLEY	GREYSTEAD.
12	STEPHEN WHITE	CHATHAM.
13	CHARLES DRURY, M.P.P.	CROWN HILL.

Ex-Officio Member.

HON. A. M. ROSS,	Commissioner of Agriculture, etc	TORONTO.

Officers.

PRESIDENT	GEO. MOORE	WATERLOO.
VICE-PRESIDENT	HENRY PARKER	WOODSTOCK.
TREASURER	GEO. GRAHAM	BRAMPTON.
SECRETARY	HENRY WADE	TORONTO.
AUDITORS	JOHN I. HOBSON	MOSBOROUGH.
	JOHN B. SMYTH	LONDON.

LIST OF COUNTIES

Composing Agricultural Divisions in Ontario.

1. Stormont, Dundas, Glengarry, Prescott, and Cornwall.
2. Lanark, Renfrew, City of Ottawa, Carleton, and Russell.
3. Frontenac, City of Kingston, Leeds, Grenville, and Brockville.
4. Hastings, Prince Edward, Lennox, and Addington.
5. Durham, Northumberland, Peterborough, and Victoria (including Haliburton).
6. York, Ontario, Peel, Cardwell, and City of Toronto.
7. Wellington, Waterloo, Wentworth, Halton, Dufferin, and City of Hamilton.
8. Lincoln, Welland, Haldimand, and Monck.
9. Elgin, Brant, Oxford and Norfolk.
10. Huron, Bruce, and Grey,
11. Perth, Middlesex, and City of London.
12. Essex, Kent, and Lambton.
13. Algoma, Simcoe, Muskoka, and Parry Sound.

THE FORTIETH ANNUAL REPORT

OF THE

AGRICULTURE AND ARTS ASSOCIATION

OF ONTARIO.

TUESDAY, March 10th, 1885.

The Council met this day at two o'clock p.m., pursuant to the call of the Secretary, at the Board Room, in Agricultural Hall, for the purpose of electing officers, etc., for the coming year.

The Secretary, Mr. H. Wade, took the chair, called the meeting to order, and read an official communication from Mr. A. Blue, Assistant Commissioner of Agriculture, as follows :—

TORONTO, March 9th, 1885.

SIR,—In accordance with the provisions of sections 20 and 21 of the Agriculture and Arts Association, the following gentlemen have ben elected to represent their respective Agricultural Divisions for a term of three years in the Council of the Agriculture and Arts Association.

1st. D. P. McKinnon, Esq., of South Finch, in the County of Stormont, for No. 1 Division.

2nd. J. B. Aylesworth, Esq., of Newburgh, in the County of Addington, for No. 4 Division.

Returns of elections for No. 2 Division have been received only from the Electoral District Societies of Carleton and South Renfrew, and for No. 3 Division only from the Society of South Grenville.

I have the honour to be, sir,
Your obedient servant,

A. BLUE,
Assistant Commissioner.

HENRY WADE, Esq.,
Secretary Agriculture and Arts Association.

The Secretary then called the roll, the following members answering, viz. : D. P. McKinnon, Henry Parker, Joshua Legge, J. B. Aylesworth, Geo. Moore, C. Drury, S. White, J. C. Snell and L. E. Shipley.

As returns were not complete from Divisions No. 2 and 3, Mr. Blue was sent for and explained that nominations had been received from these Divisions as follows : For No. 2 Division, Mr. Ira Morgan, of Metcalfe, and for No. 3 Division, Mr. Joshua Legge, of Gananoque, and that these were the only nominations received for these two Divisions.

Moved by Mr. McKinnon, seconded by Mr. Parker, That as all the Secretaries of Electoral District Societies in No. 1, 2 and 3 Divisions have not as yet reported to the Commissioner of Agriculture, be it therefore resolved, that Messrs. Ira Morgan and

Joshua Legge, the representatives of these two Divisions in the past, and the reputed re-elected members for this term, be admitted as members of the Council now and until further information to the contrary be received.—Carried.

Moved by Mr. Aylesworth, seconded by Mr. White, That Mr. George Moore, of Waterloo, the Vice-President, be elected President for the ensuing year.—Carried

Moved by Mr. Aylesworth, seconded by Mr. Legge, That the vote for the Vice-President be taken by ballot, and that the ballot be continued until some candidate be chosen.

Moved by Mr. McKinnon, seconded by Mr. Legge, That Mr. Henry Parker be Vice-President.

Moved by Mr. Drury in amendment, seconded by Mr. Snell, That Mr. John Carnegie, M.P.P., be Vice-President.

Mr. Drury said, in support of his nominee for Vice-President, that the Council had always gone on the principle of seniority of the members of the Board in electing a Vice-President, and as Mr. Carnegie had been in the Council a year longer than Mr. Parker, he thought it was only right that Mr. Carnegie should receive the appointment this year.

The Secretary was requested to collect the ballots, and the first one resulted in the election of Henry Parker, Esq., of Woodstock, as Vice President.

Moved by Mr. Aylesworth, seconded by Mr. Snell, That Mr. George Graham be re-elected Treasurer for the ensuing year.—Carried.

The Secretary then vacated the chair, which was taken by George Moore, Esq., the newly elected President.

Mr. Moore, in a few well chosen remarks, thanked the members of the Board for electing him President of the Association, and expressed the hope that they would give him all the help necessary in carrying out the duties of the office. From the recent discussion in the Ontario Legislature there was no doubt that they were watched, and they would require the united efforts of all the members of the Council to carry out the business of the Association as successfully as possible.

Mr. Parker also thanked the members of the Council for electing him Vice-President.

Moved by Mr. Drury, seconded by Mr. Parker, That as the minutes of the last meeting appear in the printed report of the Association for 1884, before us, they be taken as read.—Carried.

Moved by Mr. Parker, seconded by Mr. McKinnon, That Messrs. Drury, McKinnon and the mover be a Committee to strike the Standing Committees for the current year.—Carried.

Moved by Mr. White, seconded by Mr. Aylesworth, That the Treasurer's report, as audited, be referred to the Finance Committee.—Carried.

This report showed that the receipts during the last year were, from all sources, $34,560.53, and the expenditure $33,093.17, leaving a balance on hand of $1,467.36.

A letter was then read from Mayor Gordon, of Stratford, asking on what terms the Council would hold the next Fat Stock Show in the City of Stratford, as they were anxious to have it there next fall.

(Signed) Wm. Gordon, Mayor.

To the President and Members of the Council of the Agriculture and Arts Association of the Province of Ontario:

The petition of the Municipal Council of the Corporation of the County of Oxford sheweth:—

That in the opinion of your petitioners the object aimed at by your Association in holding annual exhibitions of fat stock in the Province will be most fully gained by the holding of such exhibitions in different localities year by year. That their educating influence will thereby be most largely diffused, and this very important branch of husbandry more generally encouraged throughout the Province than by confining the exhibitions to any one locality, however central that locality may be.

That the County of Oxford is centrally situated in the western and more populous

part of Ontario, is well supplied with railway facilities, and hence of easy access from all parts of the Province.

That there are a number of farmers in this county and also in the counties adjoining, who devote a large share of their attention and energy to the raising and fattening of stock.

That there are few if any districts in the Province which contribute more largely to the export trade in fat stock than that in which the County of Oxford is situated, and of which it may be called the centre.

Your petitioners, therefore, pray that you will be pleased to direct that the next Fat Stock Exhibition of your Association shall be held in the County of Oxford.

And your petitioners, as in duty bound, will ever pray.

JAMES MUNRO,
Warden County of Oxford.
JAMES WHITE,
County Clerk County of Oxford.

County Council Chamber,
Woodstock, 30th January, 1885.

To the President and Members of the Council of the Agriculture and Arts Association of Ontario:—

Gentlemen,—The Directors of the Oxford Fat Stock Club beg respectfully to solicit your favourable consideration of the subjoined:

At the annual meeting of said Club, held on the 7th ultimo, It was unanimously resolved, "That the Directors memorialize the Council of the Agriculture and Arts Association to hold the third annual Ontario Provincial Fat Stock Show in the County of Oxford, said show to be held under the auspices of the Provincial Association and the Oxford Fat Stock Club.

In accordance with the resolution, the Directors now respectfully and earnestly petition you to hold the show according to the terms thereof.

They might here present some considerations which might weigh with you to grant the prayer of your memorialists, but as they appointed the President and the Secretary of the Club—Messrs. E. W. Chambers and John Craig—with the Mayor of Woodstock, J. M. Grant, and Mr. Joseph Blackburn, a deputation, to appear before you to plead the prayer of the memorials and further to present the claims of the town of Woodstock as the place in the County of Oxford to hold the show, they do not consider it necessary to do so, except to say that the members of the Club in asking the show to be held in Woodstock, looked at the matter in its Provincial as well as in its local aspect, and are fully persuaded that the Fat Stock interest of Ontario would be greatly promoted by the granting of the prayer of the memorial. The deputation above referred to will, with your leave, do themselves the honour of attending your meeting on Wednesday, 11th instant, with the view of furthering the object of their appointment, your kind reception of said deputation is respectfully bespoke.

(Signed) E. W. CHAMBERS, President.
JOHN CRAIG, Secretary.

Woodstock, March 9th, 1885.

As information was obtained that Guelph also intended to wait on the Council, the decision of the foregoing petitions was laid over until to-morrow session.

A letter was read from Mr. H. Mathewson, Secretary of the *Free Press* Printing Company, asking the privilege of tending for posters, etc.

Also a letter from Alex. S. Abbott, Esq., City Clerk, enclosing the following resolution, passed at the meeting of the Western Fair Directors, with a request that the application be granted.

London, March 6th, 1885.

Copy of a resolution passed at a meeting of the Directors of the Western Fair Association, held on the 28th of February.

Moved by Mr. Vinning, seconded by Mr. Robinson, That in consequence of the Provincial Exhibition being held in the city next fall, and the desirability of having some one appointed here for the convenience of exhibitors in making their entries, and of doing any other work required by the Provincial Association, this Board would therefore solicit the co-operation of the City Council in recommending the services of Mr. Geo. McBroom, Secretary of the Western Fair Association, as an assistant Secretary to the Provincial staff, and that the President be empowered to bring the matter before the Mayor, H. Beecher, Esq.

Certified to be a true copy.

(Signed) ALEX. S. ABBOTT,
City Clerk.

A letter was read from the Secretary of the Western Fair, backing up Mr. McBroom's request.

Mr. McBroom's letter and the accompanying resolutions were not acted on, but left over to the next meeting to be held in London in May.

Secretary's Report.

To the Council of the Agriculture and Arts Association :—

Gentlemen,—As commenced last year, I beg leave to again present a report of the work done in the office during the season of 1884. Our Live Stock registrations have been as follows :

	Males.	Females.
Cattle—		
Short Horns	900	930
Ayrshires	159	176
Polled Angus	16	32
Herefords	12	13
Devons	15	10
Jerseys	8	10
Swine—		
Berkshires	97	129
Suffolks	12	14
Horses—		
Clydesdales	46	28
Shire, or Cart Horse	39	11
	1304	1353

Grand total 2,657, for which we received in fees $1,688, against 2,839 entries in 1883, and $1,848.50, a slight falling off; but an increase over 1882, when we received 2,532 entries and took $1,672 in cash.

Herd Books.

On the 1st of May the eighth volume of the Canada Short Horn Herd Book was issued, and on the 20th of September, the long delayed first volume of the Dominion Ayrshire Herd Book was issued, much to the satisfaction of the Ayrshire breeders. The ninth volume of the Short Horn Book at this early date is all printed but the indexes, and would have been ready to issue now, had it not been for the fact that we are preparing a complete alphabetical index of all the cows in the nine volumes, to enable breeders

to find their animals without the trouble of searching every volume. It will be a great boon to students of pedigrees. The receipts in 1884 for Herd Books amounted to $899. For stock on hand see list of assets and liabilities in Treasurer's Report for 1884. The total receipts for Registration Fees and sale of Herd Book was $2,587, the expenditure including share of salaries, $2,635.98, leaving an apparent deficit of $48.98, which is very much more than covered by stock of Herd Books added to our shelves, which does away with the cry of our rivals that our Herd Book is aided by the Government, as it is in every way self supporting.

As our Council have no wish to make more than will cover expenses out of our Herd Book, I would suggest that the prices be lowered, commencing with the fourth volume, which could be sold for $1.50 each, or $2.50 for the two parts; the fifth, sixth, seventh, eighth and ninth volumes, under the new standard, could be sold for $2 each, thus enabling them to be within the reach of every breeder. I would not suggest the lowering of the price of the first three volumes, as the stock is nearly exhausted. This would enable us to sell a complete set of nine volumes of the Canada Short Horn Herd Book for $20, one-fourth of the price of a calf or the five volumes under the new standard for $10. I have great pleasure in acknowledging the receipt of the twenty-sixth and twenty-seventh volumes of the American Short Horn Herd Bood; the twenty-ninth volume of the English Short Horn Herd Book, and the fourth volume of the American Ayrshire Herd Book in exchange for our volumes since my last report.

Our number of publications has somewhat exceeded last year, on account of holding a Dominion Exhibition, some 60,000 copies of the various circulars, pamphlets, etc., having been sent out, also fully 30,000 cards printed for exhibition and other work.

There were awarded at the Dominion Exhibition at Ottawa, for Prize Farms and to the Veterinary Students, 32 gold, 116 silver and 18 bronze medals, also fully 100 diplomas have been prepared and sent to the parties entitled to them. Our Provincial Exhibition at Ottawa was well attended by both exhibitors and the public, sales of a number of cattle were made, and had exhibitors taken more young cattle for sale they would have found a ready market for them; exhibitors from Montreal with machinery, stoves, etc., made a great many sales and expressed themselves well satisfied. The correspondence of the office has been large and varied, the educational scheme especially calls for a great many letters; over 3,000 letters have been received and answered, also fully 1,500 post cards. It has been the rule of the office to answer all enquiries as promptly as possible. I am pleased to note that the appointment of superintendents for the different classes of animals gave universal satisfaction, and their reports will be read with satisfaction.

Slightly varying from the monotony of office work, I visited St. Louis in June as a delegate to the International Association of Fairs and Expositions. I did not attend the December meeting of the same Association, but have had the pleasure of sending one of the reports of this meeting to each member of the Council, containing the minutes of that meeting. I also attended for three days the Fat Stock Show at Chicago, and, last but not least, the World's Fair and Cotton Exposition at New Orleans on behalf of the Ontario Government, by the request of your Council. I will be able at our next meeting to give you a report of my visit; I will only now mention that Mr. Marsh of Richmond Hill and Mr. Featherstone of Credit; were both awarded premiums exceeding $900 in amount. I will also say that I received the honour of being appointed one of the Judges of the different breeds of cattle on exhibition.

I now have to mention the loss of one venerable friend, Prof. Buckland, late Assistant Commissioner of Agriculture, who so long has sat at this Board with you, gentlemen, and the father of all appertaining to agriculture that has originated in our midst, a gentleman esteemed by every one, without an enemy, and he was such a kind friend—his advice in our office will be missed, his last day was principally spent in his old office answering letters for Mr. Blue, his worthy successor in office; he seemed brighter that day than he had been for some time—he literally died in harness.

All of which is respectfully submitted,

HENRY WADE,

Secretary.

March 9th, 1885.

The Secretary's report was referred to the Finance Committee.

The Council now adjourned for 30 minutes to enable the Special Committee to report on the Standing Committee:

Your Committee beg to report that they have carefully considered the question appointing the Standing Committee for the current year, and would recommend as follows:—

1. Executive and Building.—Chairman, Henry Parker, Woodstock; L. C. Shipley, Greystead; Stephen White, Chatham; John C. Snell, Edmonton; Geo. Moore, Waterloo.

2. Finance and Printing.—Chairman, Charles Drury, Crown Hill; John Carnegie, Peterborough; D. P. McKinnon, South Finch; J. C. Rykert, St. Catharines.

3. Gates and Turnstiles.—Chairman, Henry Parker, Woodstock; Hugh Reid, Annan; J. B. Aylsworth, Newburgh; Joshua Legge, Gananoque; J. C. Snell, Edmonton; Ira Morgan, Metcalfe.

4. Prize Farms.—Chairman, D. P. McKinnon, South Finch; Ira Morgan, Metcalfe; Joshua Legge, Gananoque.

5. Herd Book.—Chairman, John Carnegie, Peterborough; Charles Drury, Chatham; J. C. Snell, Edmonton; L. C. Shipley, Greystead; Henry Wade, Toronto.

6. Fat Stock Show.—Chairman, J. C. Snell, Edmonton; S. White, Chatham; J. B. Aylesworth, Newburgh; Henry Wade, Toronto; Geo. Moore, Waterloo, President; Henry Parker, Woodstock, added at May meeting.

7. Educational Scheme.—Chairman, John Carnegie, Peterborough; C. Drury, Crown Hill; Prof. Mills, Guelph; A. Blue, Toronto.

All of which is respectfully submitted.

(Signed) C. DRURY,
D. P. McKINNON,
HENRY PARKER.

March 10th, 1885.

On motion of Mr. Drury, seconded by Mr. Parker, the report on Standing Committee was adopted.

Moved by C. Drury, seconded by J. Legge, That tenders be invited for printing the three-sheet posters, the prize lists, and auditor's report of receipts and expenditure, and that the other printing required for the current year be arranged for by the Printing Committee by private contract.—Carried.

Mr. Drury said he thought it would not be desirable to spend so much money in future for advertising in country papers as they had done in the past, as the Provincial was well known throughout the country.

Mr. Legge said the country papers took more notice of the Provincial than the city papers, and gave more local notices.

Mr. Aylesworth thought they should continue advertising in the country papers, and thought the money was well spent in doing so.

Mr. Drury thought it was a business matter, and that the majority of the people in the country knew without looking in the papers when the exhibition was to be held.

Mr. Parker said he thought the Chairman of Finance should make a budget speech at the annual meetings, stating to the members of the Council that he had examined the various accounts, showing the Council that the expenses incurred have been authorized by the Finance Committee.

Mr. Drury said if Mr. Parker would turn up to any item he required information on he would be pleased to explain to him. Mr. Drury then went over the Treasurer's statement and explained the various items.

The Council then adjourned until Wednesday morning, at 10 o'clock a.m.

HENRY WADE,
Secretary.

WEDNESDAY, March 11th, 10 a.m., 1885.

Members present—President, Geo. Moore; C. Drury, J. C. Snell, Stephen White, D. P. McKinnon, H. Parker, J. B. Aylesworth, J. Legge, L. E. Shipley, Ira Morgan, and Hugh Reid.

Not present—J. C. Rykert, M.P., John Carnegie, M.P.P.

Mr. Parker said that the Mayor of Woodstock and the President and Secretary of the Oxford Fat Stock Club were present to urge their claims for the holding of the next Fat Stock Show in Woodstock. He moved they be heard, which was seconded by J. B. Aylesworth.

Mr. E. W. Chambers, President of the Club, said—We come to ask that the next Provincial Fat Stock Show be held at Woodstock, thinking that the fat stock interest in the country is a very important one, and should have every encouragement. Our Oxford Club has only been organized two years, and in that time have had four very successful shows. Some of the best stock in the country have been at our shows, and should you hold your next one in Oxford it will prove an incentive to stock-raising there. The railway facilities are good, both the Grand Trunk and Canadian Pacific having stations there.

Mr. John Craig, Secretary, said—It gives me pleasure to ask for the next Provincial Fat Stock Show for Woodstock. The county of Oxford, both as to stock, grain, and dairying interests has a claim to look to their Association to hold its next Fat Stock Show there. We have not buildings suitable for holding the Provincial at Woodstock, or else we would claim that, but we do claim that we can accommodate their lesser show, and if it is held in Woodstock the exhibit will be by no means confined to the county of Oxford, for we will undoubtedly have large exhibits from the adjoining country. We can give the Association ample accommodation in either the Agricultural Hall or in the Skating Rink, where it has been held before.

Mr. Grant, Mayor of Woodstock, said that their town had a strong claim upon the Association for the holding of the next Fat Stock Show there, as they had already had two such successful ones. He believed that as good a show could be held there as at any place in the Province. Although they could not ask for the Provincial Exhibition this year, perhaps they would come before the Association and ask for it next year. The Dairymen's and Horticultural Exhibitions that have been held in Woodstock have been the most successful ones of the kind ever held in the Province. Both of these exhibitions had been assisted by the Council of the County of Oxford, and he had no doubt it would assist this one also if held in Woodstock. He could only repeat that the railway facilities could not be surpassed, and that the hotel accommodation was not to be excelled even in Toronto.

Mr. Drury asked the deputation if they had formed any scheme as to the finances. The Provincial Association have given each year that a Fat Stock Show has been held the sum of $500 towards the prize list, and the places in which it had been held had given another $500.

Mr. Chambers said the deputation had come prepared to promise that they would raise $500.

Mr. Moore said they expected deputations from Guelph and perhaps Stratford this afternoon, so the matter would not be decided until they had heard from them.

The Woodstock deputation then retired.

Moved by Mr. White, seconded by Mr. Legge, that a committee, consisting of Messrs. Drury, Morgan, and the mover, be appointed to draft a resolution of condolence in respect to the death of Prof. Geo. W. Buckland.—Carried.

Moved by Mr. Legge, seconded by Mr. Shipley, That a committee be appointed, composed of Messrs. Carnegie, Drury, Blue, and Wade, to revise certain portions of the Agriculture and Arts Association with a view of making its provisions more intelligible, and to submit such revision to the Council at some future meeting, and also to watch for any new Act that may come before the Legislature.—Carried.

Mr. Legge, in speaking of the resolution, said that there was difficulty in the election of members of the Council this year, which should be avoided in the future. He thought

it was their duty to bring this matter before the Legislature in some way, and have the Act revised in some shape, so that it could be readily understood.

Mr. Parker thought they should have a permanent committee on legislation, which could be called together in the event of any amendment. He thought that the proposition of Mr. Carnegie to make the Provincial purely an Agricultural Exhibition, taking away the art department, would not be attended with success. If this proposision was carried out their exhibiton would grow smaller and beautifully less till there would be nothing left.

A letter was received from Mr. Gifford, of Meaford, the Secretary of the Provincial Grange, praying that the Provincial Exhibition be held not earlier than September 22nd. If it were held on September 7th, as already agreed upon, a large majority of the farmers of the County of Grey would be unable to attend.

Mr. Reid spoke at some length on the matter, urging that the time be changed to the 22nd of September; said that he had heard from all of his district societies, and that they were as a unit in desiring the change, as on the 7th of September they would be too busy to attend the Provincial.

Moved by Mr. Parker, seconded by Mr. Snell, That if the information and request contained in the letter from the Secretary of the Ontario Provincial Grange, dated the 9th of March, 1885, as well as the information formerly and now submitted by Mr. Reid, the member of this Council for Division No. 10, had been before this Board before the date for holding the next Provincial Exhibition had been fixed and acted upon by us and by other Associations, that we would have met their views, but trust to be able to do so next year if thought advisable, and hope that we will still receive the help and support of the Grange for our next exhibition to be held in London under these circumstances.—Carried.

The Council then adjourned to meet again at 2 o'clock p. m.

HENRY WADE,
Secretary.

Wednesday, March 11th, 2 o'clock p.m.

The Council resumed their session—the same members present as were in the morning.

The President, Mr. Moore, in the chair.

At a meeting of the Agriculture and Arts Association, held on the 10th of March, 1885, the following Resolution of Condolence, on motion of C. Drury, M.P.P., seconded by J. C. Snell, was unanimously adopted:

1st. That the lamented death of Professor Geo. W. Buckland, late Assistant Commissioner of Agriculture—who for ten years, from 1848 to 1858, was Secretary of this Board of Agriculture, and afterwards until the elimination from the Council of the *ex-officio* members, had a seat on the Council Board, and who was the compiler of the Transactions of this Board, and the historian of all agricultural events in the early life of this Association—was learned by the members of this Council with deep and heartfelt regret.

2nd. That we avail ourselves of this opportunity to place on record our high opinion of the eminent and prolonged services rendered by Prof. Buckland to the agricultural interests of this Province during the last forty years.

3rd. That we desire also to convey our sense of the loss this Council has sustained in the demise of one whose ability, diligence and life-long zeal in the discharge of his various duties, as well as courtesy and urbanity in his intercourse with its members, qualified him in a very high degree for the position he filled.

4th. That a copy of the foregoing resolutions be engrossed, signed by the President and Secretary, sealed with the seal of the Association, and forwarded to Mrs. Buckland, who has the deep sympathy of this Council in her sore bereavement.

Mr. Drury moved the adoption of this report. Mr. Snell seconded the motion, and it was carried.

REPORT OF HERD BOOK COMMITTEE.

Your Committee having taken into consideration the recommendation of the Secretary to reduce the prices of volumes 4, 5, 6, 7, 8 and 9 of the Canada Short Horn Herd Book to enable them to be within reach of every breeder, cheerfully do so, as it is not their wish to make money out of the book, but only to pay expenses, consequently the price of the 4th vol. in two parts is reduced to $2.50; if taken together in single parts, $1.50; the price of the subsequent volumes under the new standard is reduced to $2.00 per volume.

The Committee are pleased that the Clydesdale and Shire Horse Stud Book are doing so well, and expect the Secretary to keep up the standard of the Clydesdale equal to the American Book.

All of which is respectfully submitted.—Carried.

J. C. SNELL,
Chairman.

A deputation from the City of Guelph, consisting of the Mayor, Mr. Wm. Stevenson; Mr. Robt. A. Kirby, President of Fat Stock Club, and Mr. James Laidlaw, M.P.P., waited upon the Council. The Woodstock deputation also returned.

On motion the deputation were heard. Mr. Kirby said they were ready with the five hundred dollars, and he hoped the Council's previous experience with Guelph would show that any agreement arrranged upon would be carried out to the letter.

Mayor Stevenson endorsed the remarks made by Mr. Kirby, and said that Guelph was the acknowledged centre of cattle raising, it was centrally situated, and he would guarantee the show a hearty reception.

Mr. James Laidlaw, M.P.P. for the County of Wellington, also advocated the claim of Guelph to have the next Fat Stock Show.

The Mayor of Woodstock and Mr. Craig then briefly advocated the claim of Woodstock.

Mr. Moore thanked the deputation, and they retired.

It was then moved by Mr. Parker, seconded by Mr. Morgan, That the prayer of the petitions of the County Council of the County of Oxford, and of the Fat Stock Club of that county be granted, and that our next Fat Stock Show be held in the Town of Woodstock, on the same terms and conditions as it was held in Guelph last year, and that it be held during the month of December next, the day to be named by the Joint Committee when appointed.

Mr. Parker said that there was no place he would sooner advocate than Guelph except Woodstock. Guelph had had the show one year, now he thought it was Woodstock's turn.

Mr. Morgan said that he thought this show should be moved around just the same as the Provincial Exhibition. There was no doubt that Guelph was the best place to hold such a show at, but it had been held there last year, and should be given to Woodstock this.

Mr. J. C. Snell said that he was opposed to the Fat Stock Show becoming peripatetic. Fat Stock Shows had become a success where they had been held regularly at the same place, as at Smithfield and Birmingham in the old country. The Chicago show was a success, and it was always held there. As Guelph had taken a great interest and had shown great enterprise in this show, he thought they should keep it there. If it was to be a success Guelph would make it so. He hoped the members of the Council would consider the matter seriously before changing the place, and he would move an amendment to Mr. Parker's motion, seconded by Mr. Drury,—

That this Council accept the invitation of the Mayor of Guelph and the President of the Fat Stock Club to hold the Fat Stock Show for 1885 in that city on the same terms and considerations as that of last year, that the show be held in the month of December next, the days to be fixed by the Joint Committee.

Mr. Parker said that the reason that the great Fat Stock Shows were held annually

at Smithfield, Birmingham and Chicago was because the great markets were situated at those places, here it was different, and if held only in one place would benefit only the people in that particular section, while all the other people of the Province would have to contribute to the expense.

Mr. Drury, as seconder of the amendment, said that he had some difficulty in making up his mind about the matter, but had concluded that it would be advisable to go to Guelph again this year. It was more central, and if it had treated the Association so well in the past, and carried out so faithfully their agreement, he would not say that he would not oppose the peripatetic system another year.

The President, Mr. Moore, said that it might seem somewhat selfish for him to advocate Guelph, but he did wish it to be looked upon in that light. A very strong argument in favour of Guelph was that a great many superior animals were fattened around Guelph, and there were farmers around Guelph who, if the show was held there, would exhibit, but who would not take their stock away to show them. He was not disposed to have the show always in one place, still he was under the impression that if they wanted to make it a success this year it should be held in Guelph.

On a division, the original motion of Mr. Parker to hold the next Fat Stock Show in the town of Woodstock was carried.

Moved by Mr. Legge, seconded by Mr. Aylesworth, That J. C. Rykert, M.P., Ira Morgan, Warden of the County of Carlton, and the Hon. Mr. Carling, M.P., for the city of London, be requested to wait upon His Excellency the Governor-General and invite His Excellency to visit and open the Provincial Exhibition to be held at London in September next, said opening, if convenient to His Excellency, to be held on Wednesday, the 9th of September.—Carried.

Moved by Mr. Aylesworth, seconded by Mr. White, That the Chairman of the Finance Committee be authorized to examine any accounts of this Association that require immediate payment, and if he finds them correct, to order the same to be paid between the meetings of the Association.

Your Committee recommend that an account of $27 from Williamson & Co. for books supplied to the Veterinary College, be paid out of the Museum Fund in the hands of the Treasurer of this Association. In accordance with instructions received at last meeting of the Council, an agreement has been made with Dr. Smith, that 300 Dpilomas be ordered for the Veterinary College at a cost of $230, and the cost price of the stone (which is to be the property of this Association). Of this sum, one-third is to be paid by Dr. Smith, one-third by this Association, and one-third to be paid out of the amount to the credit of the Museum fund in the hands of this Association.—Carried.

We have also to report that the mortgage held by Thomas R. Merritt against the Agricultural Hall, bearing interest at seven per cent., has been off and a loan of the same amount at six per cent. interest has been obtained for that purpose, thus effecting a saving of $50 per annum in interest.—Carried.

Respectfully submitted,

CHARLES DRURY,
Chairman.

Toronto, March 11th, 1885.

Report Number Two of Finance.

The Finance Committee beg to report, That the report of the Auditors, with a detailed statement of receipts and expenditures, has been considered by your Committee, and we beg to recommend that the said Treasurer's statement and Auditors' report be adopted by this Council.—Carried.

(Signed) C. DRURY,
Chairman.

Toronto, March 11th, 1885.

ABSTRACT OF RECEIPTS AND EXPENDITURES, as classified by the Auditors, for the year ending 31st December, 1884.

RECEIPTS.			DISBURSEMENTS.		
	$ cts.				$ cts.
To Cash in Bank, Current Account	3,025 56		By Cash Prizes	$ 13,306 71	
" Cash Prince of Wales Fund (Special)	800 00		" Dominion Medal Prizes	1,533 68	
" Prize Account (Specials)	360 00				14,840 39
" Refund of Prize Money paid in error	13 00		" Salaries, Agriculture and Arts Association		1,500 00
" Legislative Grant (Provincial)	10,000 00		" Herd Book Expenses	1,440 98	
" " " (Dominion)	4,650 00		" Proportion of Salaries for Herd Book	1,195 00	
" Interest	144 15				2,635 98
" Rents of Building	2,000 00		" Exhibition Printing and Advertising	1,626 83	
" Herd Book Sales	$ 899 00		" Exhibition Expenses	4,919 48	
" Registration Fees	1,688 00				6,546 31
	2,587 00		" Building Repairs	97 53	
" Exhibition Receipts, Members' Fees	$ 750 00		" Building Repairs, Ontario Government	2,000 00	
" " Rent of Booths	1,380 00				2,097 53
" " Turnstiles and Gates	7,315 99		" Educational Scheme		373 26
" " Licenses	220 50		" Postage		461 25
" " Horse-stable Fees	276 00		" To Fat Cattle Show		533 77
" " Cattle stalls	160 65		" Petty Cash		45 09
" " Sheep pens	55 05		" Stationery		48 65
" " Pig pens	29 80		" Interest on Mortgage		350 00
" " Poultry pens	33 50		" Insurance		83 75
" " Cattle Feed Sold	310 94		" Council Expenses, Ordinary	716 86	
" " Locks, etc., Sold	66 50		" " Exhibition	508 50	
	10,598 93				1,225 36
" Exhibition Expenses, returned from Fat Stock Show	$ 43 00		" Ordinary Printing Acct		89 35
" " Freight G. T. R. returned	14 80		" Veterinary College, including Medals		209 25
	57 80		" " Museum		46 50
" Antwerp Exhibition Fund	298 29		" Miscellaneous		86 50
" Miscellaneous Veterinary fine	25 00		" Library		19 50
" Error in Credit of Cheque	80		" Rent, to Ontario Government for Heating		300 00
			" Prize Farms		175 00
			" Legal Expenses		15 00
			" Antwerp Exhibition		298 29
			" Ploughing Matches		300 00
			" Furniture Account		2 25
			" Prince of Wales Fund, lent on Mortgage		800 00
			" Office Expenses		10 25
					$ 33,093 17
			" Balance		1,467 36
	$ 34,560 53				$ 34,560 53

Examined, Audited and Compared with Vouchers and found correct,

JOHN B. SMYTH, } *Auditors.*
JOHN I. HOBSON, }

TORONTO, January 23rd, 1885.

Statement of Assets and Liabilities of the Agriculture and Arts Association of Ontario, 31st December, 1884.

ASSETS.		LIABILITIES.	
	$ cts.		$ cts.
To Cash, Current Account	1,466 56	By Mortgage on Real Estate	5,000 00
" Real Estate, Cor. Queen and Yonge Streets	34,000 00	" Account owing to Ontario Government for repairs	2,000 00
" Library, 1,630 vols	2,500 00	" Balance owing Veterinary Museum	288 31
" Herd Books, 18 copies vol. 1 Short Horn $ 36 00			
" " 73 " 2 " 172 00			
" " 9 " 3 " 27 00			
" " 346 " 4 " Part 1 519 00			
" " 357 " 4 " Part 2 535 50			
" " 253 " 5 " 379 50			
" " 137 " 6 " 205 50			
" " 179 " 7 " 268 50			
" " 261 " 8 " 391 50			
" " 173 Vol. 1 Ayrshire 259 50			
	2,794 00		
" Office Furniture, Safe, etc	550 00		
	$ 41,310 56		
" Prince of Wales Fund	800 00	" Balance Assets over Liabilities	34,822 25
	$ 42,110 56		$ 42,110 56

Audited and found correct,

JOHN B. SMYTH, } *Auditors.*
JOHN I HOBSON, }

ORONTO, January 23, 1885.

To the Council of the Agriculture and Arts Association of Ontario:

GENTLEMEN,—We, your Auditors,, beg leave to report that we have examined the Treasurer's books and accounts, and find them correct. There are cheques which in the aggregate amount to $186.48, not yet returned.

Since the last audit, $2,000 has been paid to the Ontario Government on account of the Association's share of the expense in attention, and repairs to building, leaving yet to pay on the same account, $2,000.

In conclusion we have to repeat our remarks of last year, that every facility was afforded us by your Secretary and Treasurer for making a satisfactory audit, and that we found their books kept in a correct and business-like manner.

All of which is respectfuily submitted.

JOHN B. SMITH,
JOHN I. HOBSON, } Auditors.

TORONTO, January 23rd, 1885.

Moved by Mr. White, seconded by Mr. Aylesworth, That the next meeting of the Council be held in the City of London, to revise the prize list, examine the grounds and buildings where the Exhibition is to be held, etc., and that the Secretary notify the General Superintendent to have a report of the accommodation required ready to submit to the Council on the first Wednesday in May.—Carried.

HENRY WADE,
Secretary.

GEO. MOORE,
President.

WOODSTOCK, May 5th, 1885,

Seven o'clock p. m.

JOINT MEETING OF THE FAT STOCK COMMITTEE OF THE AGRICULTURE AND ARTS ASSOCIATION AND THE FAT STOCK CLUB OF THE COUNTY OF OXFORD, AT THE O'NEILL HOUSE, IN THAT TOWN.

Members present from the Agricultnre and Arts Association, Geo. Moore, Waterloo; J. B. Aylesworth, Newburgh; Stephen White, Chatham; J. C. Snell, Edmonton; Henry Parker, Woodstock; and Henry Wade, Secretary, Toronto.

From Oxford County Fat Stock Club, E. W. Chambers, President, Woodstock; Stephen Hall, Washington; Valentine Fitch, Oriel; F. Peat Bright, K. H. Green, Innerkip; R. Smith, Walmer; Joseph Blackburn, Woodstock; J. K. Janes, Woodstock; A. Clarkson, Woodstock; W. Strode, Norwich; G. A. Murray, Woodstock; S. Bickle, Woodstock; and John Craig, Secretary, Woodstock.

Moved by J. B. Aylesworth, seconded by Geo. Moore, That Mr. E. W. Chambers, the President of the Fat Stock Club, be appointed President of the Ontario Provincial Fat Stock Club for the ensuing year.—Carried.

Moved by Stephen Hall, seconded by S. White, That Geo. Moore, President of the Provincial Exhibition, be appointed Vice-President of the Ontario Provincial Fat Stock Show.—Carried.

Moved by John Craig, seconded by V. Fitch, That Henry Wade be appointed Secretary.—Carried.

Moved by F. Peat, seconded by J. B. Aylesworth, That John Craig be appointed Treasurer.—Carried.

Moved by F. Peat, seconded by J. K. Janes, That Mr. Stephen Hall be appointed Superintendent.—Carried.

The Executive Committee was then appointed by motion of J. B. Aylesworth, seconded by R. Smith, as follows:

FROM AGRICULTURE AND ARTS ASSOCIATION.

Geo. Moore, J. C. Snell, Henry Parker, and Henry Wade.

FROM OXFORD COUNTY FAT STOCK CLUB.

E. W. Chambers, Joseph Blackburn, Stephen Hall, V. Fitch, K. H. Green, and F. Peat.

FROM TOWN OF WOODSTOCK.

John M. Grant, Mayor; John White, President Board of Trade; James Sutherland, M. P., Co. of Oxford; and James Munroe, Warden, Co. of Oxford.

Moved by F. Peat, seconded by Joseph Blackburn, That Wednesday, Thursday and Friday, the 9th, 10th and 11th of December, be the days for holding the Third Provincial Fat Stock Show.—Carried.

Moved by V. Fitch, seconded by S. White, That, as before, three judges act on the classes of cattle and sheep, and but one on pigs and poultry; the ballot system to be used, each judge to give his decision without consultation.—Carried.

Mr. Wade suggested that the three judges on cattle, also on sheep, be made up with a butcher, a feeder, and a farmer or breeder; the scheme was approved of.

The prize list and rules and regulations were then carefully revised, and it was decided that the stock should be brought upon the ground on Wednesday afternoon at three o'clock.

The partnership basis was then decided upon as follows:

Moved by Geo. Moore, seconded by Joseph Blackburn, That the Agriculture and Arts Association of Ontario and the Oxford County Fat Stock Club do hold a Fat Stock Show in the Town of Woodstock, on the 9th, 10th and 11th days of December next; That each association grant the sum of five hundred dollars towards the undertaking, and if profits be made they be equally divided at the end of the year; or if there are losses they be equally met; and that the Fat Stock Show committee of the Agriculture and Arts Association, and whatever members are appointed by the Oxford County Fat Stock Club, be a committee to arrange for and manage such show.—Carried.

The meeting then adjourned.

HENRY WADE,
Secretary.

MAY MEETING OF THE COUNCIL.

London, May 6th, 1885.

Council met pursuant to adjournment at 2 o'clock p. m., at the Tecumseh House.

Members present, Messrs. McKinnon, Morgan, Legge, Aylesworth, Carnegie, M.P.P., Snell, Moore, Parker, Reid, Shipley, White and Drury, M.P.P.

Members absent, J. C. Rykert, M.P.

Geo. Moore, the President, in the chair.

The Secretary read the minutes of the March meeting, which, on motion of J. B. Aylesworth, seconded by S. White, were adopted.

The report of A. H. White, General Superintendent, was also read by the Secretary

To the President and Members of the Council of the Agriculture and Arts Association of Ontario.

Gentlemen,—Agreeably to your instructions I yesterday examined the Agricultural Grounds in the City of London in company with R. Whetter, Esq., formerly Superintendent and now President of the Western Fair Association, and have inspected the several buildings thereon, and beg leave to report as follows:

The grounds are in good order, clean and comparatively convenient to railway station. A very great improvement has been made in the horse ring since last you held

your exhibition in this city. It has been enlarged to one-third of mile track, levelled up with clay and gravel, and well fenced, making it one of the best rings on any agricultural show ground in Canada.

The palace will need some little repairing and scrubbing out. The joice under the floor and a few of the pillars are sunken, and will need raising. The roof also will require attention, as some leaks are noticed. On the grounds are 351 horse stalls, a number of which are in good order. I would say you would require at least 75 more: 25 to be made 10 × 14 ft. and 50 made 8 × 14 ft., the former or present stalls to be properly repaired, and the latter or new ones to be floored and furnished with proper mangers and food boxes. For the accommodation of cattle there are 228 stalls, which will stable 450 head, which will meet the requirements in this class. For sheep there are 334 pens, which I think will be all that is required for this class. There are 196 pig pens, a part of which are floored; the remainder require to have floors, and will then accommodate this class. Each of the above sheep and pig pens requires to have a proper feeding trough, which, I understand, the Association have on hand, made and stored away. For poultry there is a large building on the ground used as a skating rink, which, if whitened or colour-washed outside and fitted with stands for placing coops thereon, will answer the purpose. These will require at least 500 coops, which, I am informed, the W. F. Association have most of them stored away, also fittings for the building. A stove building is also on the ground. Size 40 × 120 ft., which requires some raised platforms through the centre and outside, and will then be adequate for this department. The horticultural hall is very large, 400 ft. long by 48 ft. in width, but will be required to be well decorated with evergreens, as the ceilings and walls are very streaked and dirty looking. I think this building may also hold the grain and seeds, also the dairy department, but would be very much better if the dairy could have a separate building, as this department requires to be kept very clean and cool. The carriage building is 250 × 50 ft., in which will be ample space for this class. There is also on the ground building with very little fitting making good offices for secretary and treasurer, and containing good room for meetings of the Board. A superintendent's office is also on the grounds. Hay and feed barn, water closets, etc., which need but small repairs. These will also require good water supply, which can be easily obtained from the water works by laying pipes throughout the grounds, attaching syphons thereto, and several large watering troughs, thus providing water for the stock, running of engines, and visitors.

All of which is respectfully submitted.

I remain your obedient servant,

A. H. WHITE,
General Superintendent.

I would also recommend that a temporary building be erected for machinery, say 400 × 24 ft., and that exhibitors be charged, say, 50 cts. foot for same.

The meeting then adjourned to visit the Fair grounds, and were accompanied by Messrs. Whetter and McBroom, of the Western Fair, and Aldermen Christie, Taylor, Green, and Cowan, of the City Council.

Evening Meeting, 7 30 p.m.

Tecumseh House.

Same members present as in the afternoon, the President, Geo. Moore, in the chair.

The Secretary then read the following correspondence from A. Blue, Assistant Commissioner of Agriculture:

Toronto, May 5th, 1885.

H. Wade, Secretary.

Dear Sir,—I have the honor to report that Ira Morgan, Esq., has been duly elected to represent Agricultural Division No. 2 in the Council of the Agriculture and Arts Association for the current term of three years.

The returns for Division No. 3 have not yet been received, and I am unable to report the result of the election for that division.

Your obedient servant,

A. BLUE,
Ass't Com'r.

Office of the Western Fair Association,
Victoria Buildings, opposite the City Hall,
London, Ont., Mar. 24th, 1885.

Henry Wade, Esq.,
Secretary Provincial Agriculture and Arts Association, Toronto, Ont.

Dear Sir,—I am instructed by the President of our Board to tender to your Association the use of the "Western Fair Board Room" for your meetings in connection with the Exhibition of '85.

Yours truly,

GEO. McBROOM,
Sec'y W. Fair.

Office of the Western Fair Association,
Victoria Buildings, opposite the City Hall,
London, Ont., May 5th, 1885.

Mr. Henry Wade,
Secretary Agriculture and Arts Association of Ont., Toronto, Ont.

Dear Sir,—At a meeting of the City of London Horticultural and Agricultural Society held in the office of the Western Fair Association, April 20th ult., the following resolution was passed, which explains itself:

Moved by Mr. W. Y. Brunton and seconded by Mr. J. B. Vining and carried, That the members of this Board give expression to their satisfaction and pleasure at the holding of the Provincial Exhibition in this city next fall, and that the Sec'y be instructed to notify the Agriculture and Arts Association that this Board will be pleased to render any service in their power to bring the Exhibition to a successful issue.

Please communicate same to your Council, and oblige

Yours truly,
GEO. McBROOM,
Sec'y.

Upper Canada College,
March 30th, 1885.

Dear Sir,—On behalf of Mrs. Buckland and the other members of the family of the late Professor Buckland, including myself, I desire, through you, to return our sincere thanks to the members of the Agriculture and Arts Association for the resolutions passed by them, which show so just an appreciation of the labours and of the character of the late Professor Buckland, and so kindly express regret for his decease, and sympathy with his family.

I remain, yours truly,
J. BROWN.

H. Wade, Esq.,
Secretary Agriculture and Arts Association.

METCALFE, March 20th, 1885.

DEAR WADE,—On my return from Toronto I called on the Hon. Mr. Carling, and he arranged a meeting the same day with his Excellency. The enclosed letter will show you the results. Mr. Rykert was not present, as he had the evening previous returned home to St. Catharines.

Yours truly,

IRA MORGAN.

OTTAWA, 19th March, 1885.

DEAR MR. MORGAN,—I have much pleasure in informing you that I have received a note from His Excellency the Governor-General, in which he asks me to intimate to you that he accepts the invitation to be present to open the Provincial Exhibition to be held on the 9th of September next at London.

His Excellency adds, "These exhibitions interest me very much, and I shall look forward to the agreeable opportunity which yours will afford me of making acquaintance with one of the best portions of the Dominion."

Yours truly,

JOHN CARLING.

IRA MORGAN, Esq., Metcalfe.

The election of Superintendents and Committee was then proceeded with :

General Superintendent.—A. H. White, Lurwell, re-elected.

Superintendent of Manufacturing and Mechanical Department.—E. Jackson, Newmarket, re-elected.

Moved by Mr. Ira Morgan, seconded by Mr. L. E. Shipley, That Mr. Partridge be appointed Superintendent of the Horticultural Department.

Moved by Mr. J. Legge, in amendment, seconded by Mr. J. Carnegie, That Mr. David Nicol, of Cataraqui, be re-elected Superintendent of that department.—Amendment carried.

Moved in amendment by Mr. H. Parker, seconded by Mr. Hugh Reid, That Mr. John Craig, of Woodstock, be appointed Superintendent of the Dairy Department.

On a division the amendment was lost, so Mr. D. Derbyshire, of Brockville, was re-elected Superintendent of Dairy Department.

Mr. Thomas Hunter, Superintendent of Arts Department, re-elected.

Miss G. Street, of London, Superintendent of Ladies' Department, elected.

R. Vallance, Osnabrook Centre, Superintendent of Horses, re-elected.

E. N. Chambers, Woodstock, Superintendent of Cattle, re-elected.

H. Chisholm, Paris, Superintendent of Sheep, re-elected.

R. Vance, Ida, Superintendent of Swine, re-elected.

Wm. McNeil, London, Superintendent of Poultry, re-elected.

Moved by Mr. Parker, seconded by Mr. McKinnon, and resolved, That the following members do compose the Committees :

On Horses—Messrs. White and McKinnon.
" Cattle—Messrs. Shipley and Snell.
" Sheep—Messrs. Carnegie and Reid.
" Poultry—Messrs. Aylesworth and Parker.
" Implements—Messrs. Morgan and Legge.
" Arts Department—Messrs Drury and Parker.
" Horticultural Products—Messrs. Rykert and Reid.
" Agricultural Products—Messrs. Carnegie and Aylesworth.
" Dairy Products—Messrs. Legge and Parker.

—Carried.

Moved by Mr. J. B. Aylesworth, seconded by Mr. Ira Morgan, That Mr. H. Parker be added to the Fat Stock Show Committee, as the show was to be held in Woodstock.—Carried.

On motion, Mr. Weld was heard by the Council.

He thought Dominion assistance could be got in the way of obtaining lower rates from the Maritime Provinces, and that way means should be used to make this exhibition a success.

The Chairman thanked Mr. Weld, and said that his advice would no doubt be acted upon.

At this stage of the proceedings His Worship Mayor Becher arrived in company with Aldermen Watson, O'Meara, Green, Christie and Taylor.

The Secretary was requested to read again the report of the General Superintendent.

Ald. Taylor then explained that this was the last time that an exhibition would be held at the present fair grounds, and that the Council did not intend to go to the expense of erecting new sheds, he then wondered who was going to pay for the proposed improvements mentioned in the report.

Mayor Becher also pointed out that the Council contemplated procuring new grounds, but he was sure the Council would meet their request as fairly as was done in other places.

Mr. L. E. Shipley said that the Council did not require permanent improvements, but only to last for the time being.

Mr. S. White thought there would be no trouble in coming to a decision in the matter, as the whole thing was so trivial. He suggested that the Engineer for the city and the General Superintendent should visit the grounds in the morning, and make an estimate of the cost.

Ald. Christie said that the Western Fair had not asked the city for a cent of late years, they had paid out everything themselves.

Ald. O'Meara explained that other cities had of late given all the accommodations required, and from what the City of London representatives had said in Guelph, we expected this city would do the same. It now appears that they will not, and the point now is, how much will you take and do the work required.

Mr. Aylesworth said that other cities had already given a guarantee that the necessary accommodation would be given, and he of course thought London would do the same.

Ald. Green said they were not asking anything extravagant, and the city was quite willing to put water in the grounds and make repairs to the sheds, but the erection of new buildings would be of no more advantage to the city than to the association itself, and they could hardly expect the city to go to this expense.

Ald. Taylor proposed that the city should put in the water only.

Mr. Carnegie said that it was the opinion of the citizens generally that only the water item should be borne by the city, and the other items by the association. He for one would seriously consider the advisability of holding any exhibition at all. The show would result in a gain to the city, and for this reason they should be willing to bear their share of the expenses.

Ald. Taylor said that if that was the feeling of the Council he was quite sure the Western Fair would be glad to step in and hold another exhibition.

Mayor Becher said he was sure the city would do all in its power to meet the association in a liberal spirit, and he was confident that the show would result in mutual benefit to both parties. He was quite sure that the association, should they hold a successful exhibition, would treat the city in a liberal manner.

It was then arranged that Ald. Taylor should instruct the city Engineer to view the grounds, together with the General Superintendent, and present his report of the expense of the improvement required to the council, they to report to the Council by noon morrow.

The meeting then adjourned until nine o'clock Thursday morning.

HENRY WADE,
Secretary.

THURSDAY MORNING, 9 o'clock.

The council resumed business, the same members being present.

Mr. Shaw, of the *Live Stock Journal* upon a resolution passed, first: On the subject of the amalgamation of the two Herd Books would like the association to appoint a committee to meet a committee from the other book. Second, he thought our Council should recognize in some way the services done by Mr. John Hope in bringing before the world the Short-horn breed of cattle. He thought that no one man had done more for the honour of his country than Mr. Hope, both in breeding and feeding this breed of cattle, especially his success in feeding the white steer, Duke of Clarence, and cow, Pride of Canada. Third, he was much pleased that in Ontario the farmers had a board of representatives, and that the Provincial Exhibition was a power in the land, and fairly and squarely a farmers' show, and as such they should not countenance the various clap-traps and side shows, now so commonly seen on show grounds. Fourth, he suggested that if possible separate prizes should be given for Canadian bred stock, the property of the exhibitors, that it was hardly fair to allow them to compete with importers' stock.

Mr. Drury thought there were a few things in Mr. Shaw's remarks well worthy of consideration; namely, the appointing of a committee to meet with a committee for the other Herd Book, and the propriety of giving some kind of a testimonial to Mr. Hope, and that he would move, seconded by Mr. Legge, That the chair do appoint a committee to report on Mr. Shaw's suggestions.—Carried.

The President then appointed Messrs. Drury, Carnegie and Snell to serve on the committee.

Sketches for lithograph posters from Rolph, Smith & Co., Eastwood & Barfoot, Clare & Cable, and the Toronto Lithograph Co., from Toronto, and from the Free Press Co., of London, were then shown the Council, and it was decided that the tender and design of the Toronto Lithograph Co. be accepted.

Mr. Weld was again heard. He wished the Council to appoint a committee of three gentlemen to confer with him on important subjects, such as contagious diseases and the management of agricultural matters.

Moved by Ira Morgan, seconded by J. Legge, That Messrs. Shipley, White and Parker be a committee to confer with Mr. Weld.—Carried.

Mayor Becher now appeared before the Council accompanied by Aldermen Taylor, Green, Christie and John W. Moore, city Engineer.

Mayor Becher stated that according to agreement last night, the city Engineer, together with the Chairman of the Board of Works, had made an estimate of the cost of the proposed repairs and improvements to the fair grounds.

Ald. Taylor said the total was $1,650, but for the sum of $1,500 the city would see that the work was properly done.

Mr. Parker said that last night the Council promised to put in the water, remove the fences and other things, now he saw they were all in the estimate; he wished to know what portion of the expense the city proposed to defray, if any?

Mr. Shipley asked if the city would guarantee to provide the water supply and close up the streets now running through the grounds, provided the association did the other work.

Mayor Becher promised that they would.

The members of the city Council then retired to allow the board to debate on the estimates.

Mr. Drury thought the city, from its own standpoint, was doing right, but our duty was to look after our own funds; he did not want to cast any reflection on the Council, but at the same time he thought the charges exorbitant.

Considerable discussion now took place on the estimates. Mr. Carnegie thought the item of $150 on repairs to palace had better be allowed to the city as he was afraid that if we undertook that it might cause trouble. Mr. Parker thought that charge was also too high.

It was ultimately moved by Mr. Drury, seconded by Mr. McKinnon, That the offer of the city Council to furnish a sufficient water supply and to remove the temporary

fences and close up the streets running through the grounds, be accepted, and that this association agree to pay the city Council $150, as estimated, to repair the main building, and that all necessary repairs be made under the supervision of our General Superintendent, and the city Council to agree to procure for the use of the association the military stables adjoining the grounds.—Carried.

Mayor Becher and the aldermen attending were then recalled.

Mr. Drury explained to them the position arrived at.

Ald. Taylor signified on behalf of the exhibition committee that the proposition would meet their views.

Mayor Becher expressed pleasure at the amicable settlement arrived at, and said he was sure the city would do its utmost to assist the association in making the exhibition an unqualified success.

The deputation then retired.

The committee appointed to consider certain suggestions made by Mr. Shaw, beg to report: That they recommend that the President do appoint a committee of three members of this Council to confer with any committee that may be appointed by the British American Short Horn Association on the question of the existing Herd Books. Your committee ask to be allowed further time to consider the question of giving some mark of esteem or appreciation of the success of our breeders who have successfully competed at exhibitions outside of the Dominion.

All of which is respectfully submitted.

(Signed) C. DRURY,

London, May 7th, 1885. Chairman.

On motion this resolution was carried, and the chair appointed the same three gentlemen, viz: Drury, Carnegie and Snell, to constitute said committee.

Moved by Mr. Parker, seconded by Mr. McKinnon, That the Secretary be authorized to advertise the sale of refreshment booths at the proper time, and to call the executive committee and treasurer to meet at London to sell and let the same, and to attend to any other business that may be found necessary in connection with the preparing of the grounds and buildings for the exhibition.—Carried.

The revising of the prize list was then commenced.

It was resolved that the Prince of Wales prize for this year be given to the best heavy draught stallion of any breed; judges to be taken from all the classes of horses but 1, 2 and 3, and that this decision be given by ballot without consultation.

The meeting adjourned at 4 o'clock p.m.

HENRY WADE,

Secretary.

London, Tuesday, July 28th, 1885, 2 o'clock p.m.

Minutes of a special meeting called by the President to take into consideration the allotment of the Dominion Grant of $10,000.

Members present—Messrs. Rykert, Snell, Moore, Parker, Legge, Aylesworth, Shipley, White, Drury, Reid, and the Secretary.

Members absent—Messrs. Carnegie and McKinnon.

The President, Mr. Moore, in the chair.

The minutes of the previous meeting were read, when it was moved by Mr. White, seconded by Mr. Snell, that they be adopted.—Carried.

A deputation from the London Horticultural Society was then heard. Mr. Brunton explained that they wished to make application for the ground to erect a roller coaster upon.

This matter was laid over until the grounds were visited.

A letter was then read from Mr. Lowe, Secretary of the Department of Agriculture, as follows :

OTTAWA, July 20th, 1885.

SIR,—It having been determined to place the vote of Parliament of $10,000 in aid of an exhibition in order to give it a Dominion character, as an assistance to the Provincial exhibition to be held in London, Ontario, during the current year under the auspices of your Society, I have an instruction to furnish you with some particulars as to the expenditure of such vote :

1st. The amount voted is placed under the administration of the Minister of Agriculture, he being thus made responsible to Parliament for its proper application.

2nd. The kinds of expenditure for which the vote in question should be used, refer to general, as distinct from simply local objects.

3rd. One important kind of expenditure contemplated by this vote, is to assist in the reduction of freight on exhibits, or in some circumstances paying it wholly ; such freight reduction is specially desired from distant points of the Dominion, so as to ensure as general and extended representation at the London Exhibition as possible. The freight reduction above referred to is in addition to that which many of the transportation companies will themselves be willing to agree to for the object in question.

4th. It is especially desired to obtain an instructive exhibition from Manitoba or parts of the North-West Territory, and it has been the custom of previous exhibitions, which have received votes in aid, to set aside an adequate sum for such purposes.

5th. The enlargement of the prize lists, having a general object in view, would be another expenditure within the scope of this vote, as would also the purchasing of medals.

6th. Payments under this vote will be made specifically, as the several services to which it is applied are rendered.

7th. The vote could not be properly used in the erection of buildings, fences, or other local objects of like nature.

I have the honour to be, Sir, your obedient servant,

(Copy) J. LOWE,
Sec. Dep. of Agriculture.

Moved by H. Parker, seconded by J. Legge, That the thanks of the Council be tendered to the Dominion Government at Ottawa for this very generous grant of $10,000 to this Association in furtherance of the agricultural interests of the Dominion, and that we accept the grant on the terms and conditions named in the letter dated 20th of July instant from the Department of Agriculture, Ottawa, informing us of the grant, and that a copy of the resolution be sent to the Minister of Agriculture.—Carried.

ONTARIO AGRICULTURAL COLLEGE, 12th June, 1885.

SIR,—I take the liberty of impressing upon your Board the importance of some prominent recognition of the dairy interest, other than cheese and butter exhibits, at your London meeting this year.

I am of opinion that the growth of the industry, in spite of the present low markets, demands from you something in the form of practical testing for the benefit of the public during the week of the Exhibition.

That parties be asked to exhibit at work, with all the necessary appliances for butter-making, "*Centrifugal Seperator*" to be run once every day at an hour named, that the most simple and efficient set of machinery for butter-making on the cream-gathering system be also arranged for, with appliances in the form of vats, churns, cans, butter-workers, and tubs, and particularly that milk be obtained from Holstein, Ayrshire, Devon, Jersey, and Grade cows, and any others desiring to compete, which would be tested separately in tubes in full view of the public. It would also be matter of unusual interest to have individual cow contests as to quantity and quality of milk, in which I can see no difficulty in arranging details. Would not "*Mary Ann of St. Lamberts*" be an exhibition of herself?

Abstracted, my propositions are :

1. To exhibit a working "Centrifugal Separator."
2. To exhibit a working butter factory as supplied by cream-gathering.
3. Testing of milk from different breeds.
4. That premiums be offered for a daily test of one cow's milk in quantity and quality.

The management to be under three parties : A dairy expert, a chemist, and a farmer.

Trusting your Board will consider these very favourably,

I have the honour to be, yours faithfully,

W. BROWN.

H. WADE, ESQ.,
Sec. Ag. and Arts Association, Toronto, Ont.

This letter was shown to Mr. Drury while in Toronto, who requested the Secretary to write Prof. Brown and get him and Prof. Barré to undertake the making of such an exhibition, and to report at our next meeting as to expenses, etc. Hon. A. M. Ross was also written to for his consent, which was given.

AGRICULTURAL COLLEGE, GUELPH, July 15th, 1885.

MY DEAR SIR,—I have yours of the 13th, and on the part of Mr. Barré and myself beg to say that we shall be glad to do our best for you at London. It is understood, I presume, that your Association is prepared to make a really good exhibition of a *practical working* centrifugal and butter-making establishment. It will not necessarily be a matter of much money, for we must clearly keep economy in view, otherwise our practical lessons will be comparatively valueless.

We will be able to obtain a good deal of the apparatus *in loan* from the different makers, but some will have to be made, and we will see that such cost will be moderate. We propose running a large and medium Centrifugal, which we can obtain in loan, I believe ; then there will also be milk and cream vats, heaters, churns, butter-workers, pails, tubs, cans, etc., etc. We intend to sell butter and buttermilk, so as to assist meeting expenses.

It will be better that the Association hold Mr. Barré and myself responsible for the whole concern, and you can intimate to your Board that the next important item is as regards *accommodation and fixtures at London* : as to this, it will be absolutely necessary for Mr. Barré and myself to meet you there within two weeks, so we shall wait your instructions.

Of course there are other details and points we can talk over, meantime I trust your Board will be satisfied with these indications.

Yours faithfully,

W. BROWN.

HENRY WADE, ESQ.

Profs. Brown and Barré were then heard, and explained the working of the scheme to illustrate the separating of cream from milk and the making of butter.

After hearing those gentlemen, a committee visited the grounds and decided to let them have one-half of the stone building.

It was then moved by Mr. J. B. Aylesworth, seconded by Mr. Henry Parker, That this Council accept the offer of Profs. Brown and Barré to take charge of a particular working dairy at our exhibition, aad to give instructions on manufacturing of butter, and breeds of cattle, and that this Council furnish the necessary requirements for the same.—Carried.

Ingersoll, July 7th, 1885.

H. Wade, Secretary.

Dear Sir,—I enclose a copy of a resolution passed at a meeting of the Western Dairymen's Association held to-day.

I am yours truly,

C. E. CHADWICK,
Secretary.

Moved by Mr. Lowe, seconded by Mr. Hay, That the sum of two hundred dollars out of the funds of this Association in aid of the dairy exhibit of the Agriculture and Arts Association to be held in London in September next, be granted on the understanding that the President of this Association shall be Joint Superintendent of the department with the President of the Eastern Association.—Carried

This amount was accepted with thanks, and Mr. Ballantyne was appointed Joint Superintendent of the Dairy Department.

A letter was read from R. Whitelaw, of Woodstock, offering to erect a sixty-horse power engine and boiler, and put up one length of shafting, say 16 feet, to connect other shafts at each end for the sum of one hundred and twenty-five dollars, and furnish what fuel might be required for the week, also to furnish extra shaftings at 50 cents per foot.

Moved by Mr. H. Parker, seconded by Mr. J. Legge, That the offer of Mr. Whitelaw, of Woodstock, offering to erect a sixty-horse power engine and boiler, and furnish the necessary power to drive machinery during the exhibition week for one hundred and twenty-five dollars, be accepted. He to furnish his own fuel, also that he be allowed 50 cents per lineal foot for the fitting up and running the necessary shafting to drive all the machinery that is required. The exhibitors to furnish their own pulleys, belting and oil. And that exhibitors be charged one dollar per foot for space and use of power. Those not using power to be charged 50 cents per foot for space, and that Mr. Whitelaw and other exhibitors requiring power be notified by the Secretary.—Carried.

The meeting adjourned until 8 o'clock p.m. to visit grounds.

Tecumseh House,
London, July 28th, 1885, 8 o'clock p.m.

The Council resumed—the same members present.

A letter was read from Geo. Bedgood, Esq., Secretary of the London Poultry Association, as follows, dated June 18th, 1885 :—

It was moved, seconded and carried unanimously, That this Association desire to express their gratitude to the Council of the Provincial Exhibition for their recognition of the poultry interests of this Province in increasing the numbers of the prizes, as well as giving a large amount on the old sections, and we do hereby pledge ourselves to do all in our power to further the interests of the coming Exhibition.

A letter was read from Heap's Patent Dry Earth and Ashes Closet Company, offering to supply their closets for the use of the public if we provided the necessary attendants and cartage.

It was moved by Mr. Snell, seconded by Mr. Parker, That one hundred dollars be paid to Heap Closet Company for fitting up the closets, and for them to provide all the attendance, and do the necessary cleaning.—Carried.

A letter was received from A. Gifford, Secretary of the Ontario Provincial Grange, dated July 21st, 1885, asking what arrangements could be made for a Grange day at the forthcoming Exhibition.

Moved by Mr. Reid, seconded by Mr. Aylesworth, That a certain day be allowed to be called a Farmer's Day, the same as two years ago.—Carried.

Moved by Mr. Parker, seconded by Mr. White, That Friday, the 11th, be set apart for that day, and that the same rule be adopted as was done two years ago.—Carried.

Moved by Mr. Parker, seconded by Mr. White, That the Horticultural Society be allowed to erect and run the Roller Coaster on the Fair Ground during exhibition week, by their paying us the sum of fifty dollars.—Carried.

Moved by Mr. Parker, seconded by Mr. White, That a committee of three be appointed to secure the services of competent bands to play on the grounds on the 9th, 10th and 11th of September next, and that they be authorized to spend a sum or sums for that purpose, not to exceed three hundred dollars; the committee to consist of the President, Mr. Aylesworth and the mover.—Carried.

Moved by Mr. Snell, seconded by Mr. Legge, That Messrs. Parker and McBroom be a committee to let tenders for the erection of a machinery building, and arrange other matters in connection with the show.—Carried.

The prize list was then taken up and dealt with item by item, and the prizes very much increased, owing to the Dominion grant, as far as the Horticultural Department fully $5,000 being added.

Moved by Mr. J. C. Rykert, seconded by Mr. S. White, That in order to make our Exhibition partake of a Dominion character, it will be necessary to have two thousand new three sheet posters ordered, and five thousand new prize lists printed, to be called the Second Edition.—Carried.

Moved by Mr. Legge, seconded by Mr. Ira Morgan, That $300 be voted to the Local Committee as a *nucleus* towards attractions for the coming Exhibition.—Carried.

The meeting then adjourned until the 5th of September.

HENRY WADE,
Secretary.

Minutes of meeting held in London during the holding of the Grand Dominion and 40th Provincial Exhibition:

SEPTEMBER 5th, 1885.

Board Room on the grounds, 3 o'clock p.m. Members present—Geo. Moore, President; Messrs. Parker, Shipley, Reid, White, McKinnon, Drury and Aylesworth.

Mr. Parker submitted the Report of the Committee on Music, saying they had engaged the 7th Battalion Band for Wednesday afternoon, at $2 per man, and Band Master $4. They had also engaged the Waterloo Band for all day Wednesday for $75. For Thursday the Woodstock Band for $60, and Thursday and Friday the Bell Organ Company Band, from Guelph, for $70.—Report adopted.

Moved by Mr. White, seconded by Mr. Shipley, That Mr. Christie's offer to build stalls in Mr. Carling's shed for 20 horses, at $1.50 per stall, be accepted.—Carried.

Moved by Mr. Parker, seconded by Mr. White, That the Building Committee be authorized to erect a covering over Mr. Whitelaw's engine.—Carried.

It was resolved that the tender of Mr. Wheaton to supply the butter factory with milk at 15 cents per gallon be accepted, and that he would require to furnish 600 lbs. of milk per day.

It was resolved that the Council should meet at 10 a.m. and 3 p.m. during the continuance of the Exhibition.

It was resolved that not less than $400 be accepted for the grand stand, and that if no offer of that amount be made by Monday night, the Committee be authorized to employ men to collect a fee of ten cents from each person admitted.

The Gate Committee was authorized to place a man at Wellington Street gate to sell tickets to those who desire to enter the grounds in carriages.

The Committee on Horses were instructed to arrange a programme, giving the time at which the different classes of horses would be judged.

It was authorized that the Chairman of the Executive Committee be empowered to eject any person from the grounds who may be found making any exhibit or carrying on any game of chance objectionable to him, and not in consistence with the rules laid down for this Exhibition.

The Secretary was ordered to pay one-half the freight on a car load of pigs, belonging to Mr. Cavan, from Manitoba, and charge it to the Dominion grant.

A Committee, consisting of the President, Messrs. Aylesworth and Drury, was appointed to prepare an address to be presented to His Excellency Lord Lansdowne on Wednesday the 9th.

The meeting then adjourned until Monday the 7th, at 10 o'clock.

HENRY WADE,
Secretary

Board Room, Sept. 7th, 1885, 10 o'clock a.m.

Members present, Messrs. Parker, McKinnon, Rykert, White, Carnegie, Reid, Snell Shipley and Drury.

Mr. Parker, Vice-President, in the chair.

Mr. Rykert brought up the question of the rule requiring those who hold badges to also have a ticket to admit him each day. It was ordered that the gate keepers be instructed to admit members of the Council and guests wearing badges, without the presentation of a ticket.

Moved by Mr. Carnegie, seconded by Mr. White, and resolved, That the resolution passed on Saturday directing that $400 be the upset fine for the grand stand be rescinded. —Carried.

Meeting adjourned.

H. WADE,
Secretary.

Board Room, Tuesday, Sep. 8th, 10 a.m.

All the members of the Council present.

President Moore in the chair.

It was ordered that Mr. Cootes be allowed to take such of his horses as may be required for the use of the Governor-General off the grounds upon the understanding that if such horses are not on the ground and come into the ring when the section is called in which they are, they will be debarred from competing for the prize for which they are entered.

Professor Brown submitted a plan for carrying on the milk test, which was adopted.

It was ordered that a programme be printed of the mode of conducting the operations of the dairy building.

The Committee on Cattle were authorized to erect additional accommodation for cattle now without shelter.

The Committee on Horses were empowerad to settle certain disputes as to the right of occupying certain stables on the grounds.

The Committee on Dairy Products, Messrs. Parker and Legge, were appointed as a committee of reference for the milk test.

Mr. A. N. McLellan was licensed to sell certain medicines underthe directions of Mr. Parker.

A letter was read from Mr. A. H White, the General Superintendent, complaining of the action of a crowd of roughs, headed by Mr. James McCauley, who gave great trouble on Sunday afternoon, breaking through the gates and assaulting himself and his gate-keepers. He advised the Council to prosecute this man, as an example.

Moved by Mr. Morgan, seconded by Mr. Aylesworth, That the President and Mr. Parker be appointed a committee with power to prosecute the parties that broke into the gates on Sunday last and assaulted the General Superintendent. if they find they can do so with prospects of success, and that they may employ Counsel if necessary.—Carried.

TUESDAY AFTERNOON, 3 o'clock.

All the members present. President in the chair.

Moved by Mr. White, seconded by Mr. Parker, That the President request the chief of police to furnish eight men from the city for Wednesday and Thursday, and five for Friday.—Carried.

Moved by Mr. White, seconded by Mr. Aylesworth, That Mr. Craig, of Woodstock, be appointed to report on the improvements of agricultural implements, more particularly on those that do not compete for prizes.—Carried.

DEPARTMENT OF AGRICULTURE,
TORONTO, Aug. 29th, 1885.

H. WADE, ESQ.,
Sec. Agriculture & Arts Association.

SIR,—I have the honor to report that Joshua Legge, Esq., of Gananoque, has been duly elected to represent Agriculture Division No. 3, in the Council of the Agriculture and Arts Association for the term commencing with the current year.

Your obedient servant,
(Signed) A. BLUE,
Asst. Commissioner of Agriculture.

The meeting then adjourned.

H. WADE,
Secretary.

BOARD ROOM ON GROUNDS,
WEDNESDAY, 10 a.m.

Not members enough for a quorum. Nothing could be done, however, as the weather all day Tuesday, and all this forenoon, was a continual downpour of rain, making everything look miserable, consequently all work is backward. Towards 2 o'clock, the hour for the opening of the Exhibition by His Excellency, the weather became clear, and the rain stopped very fortunately.

AT THE FAIR.

In the afternoon the party drove to the exhibition grounds for the formal opening of the fair, and assembled at the stand in the horse ring, surrounding which an immense crowd had gathered. Music was contributed by the 7th Battalion and Waterloo bands. As the party drove upon the ground, a guard of honor under Capt. Ed. McKenzie, consisting of some seventy-five members of the 7th Batttalion, who took part in the North-west campaign, were drawn up and presented arms. In addition to the Governor and party, and officials of the Provincial Fair, the following were upon the platform: Hon. A. M. Ross, Commissioner of Agriculture; Messrs. Drury, M.P.P. for East Simcoe; Dryden, M.P.P. for South Ontario; J. B. Freeman, M.P.P. of Norfolk; Balfour, M. P.P. of South Essex; Ballantyne, M.P.P. of Perth; D. McKenzie, M.P.P. for East Middlesex; Sir Charles Tupper; Col. Gzowski, of Toronto; Rykert, M.P.P. of St. Catherines; James Armstrong, M.P. of South Middlesex; Carnegie, M.P.P.; Hon. John Carling and others. President Moore, of the Provincial Fair Association, then read the following:

To His Excellency the Most Honourable Sir HENRY CHARLES KEITH PETTY-FITZMAURICE, *Marquis of Lansdowne, in the County of Somerset, Earl of Wycombe, of Chipping Wycombe, in the County of Bucks, Viscount Calne and Calnstone, in the County of Wilts, and Lord Wycombe, Baron of Chipping Wycombe, in the County of Bucks, in the Peerage of Great Britain; Earl of Kerry and Earl of Shelburne, Vicount Clanmaurice and Fitzmaurice, Baron of Kerry, Lixnaw and Dunkerron, in the Peerage of Ireland; Knight Grand Cross of the Most Distinguished Order of St. Michael and St. George; Governor-General of Canada and Vice-Admiral of the same:*

MAY IT PLEASE YOUR EXCELLENCY,—We, the President and Council of the Agriculture and Arts Association of Ontario, have much pleasure in welcoming Your Excel-

lency to this Dominion and Fortieth Provincial Exhibition. We hail your presence as an evidence of your lively sympathy with its objects, the great and important interests with which it is charged, and the agencies employed to give it stability and success, as well as of your desire to acquaint yourself personally with the rich and varied resources of our Province, and to lend the weight of your position and influence to whatever will tend to the welfare and happiness of our people.

Of all the public demonstrations of the Canadian year, there are none so truly representative in their character, so democratic in the best sense of the term, in their influence, and that enlist in their transactions so spontaneously and harmoniously all classes of our population, as these comparative and competitive displays of all that is best in our country. Whatever differences of opinion may exist in regard to other concerns, political and otherwise, are happily merged in the unanimity of spirit and action which animates these undertakings. This, we believe, is at once a proof and a pledge of their continuance as a Provincial institution, as well as of their far-reaching benefit and utility, and undiminished success.

Those who, like yourself, are familiar with similar displays in the old world will, we hope, find much that is full of suggestive thought and profitable speculation in this Exhibition of a newer and younger civilization. Our fair Province, and, to a certain extent, the Dominion, with all the wealth of their natural products, inventive ingenuity, industrial skill and artistic taste, are here presented in miniature. Here also are shown their attainments and progress in all those arts and employments which stimulate human skill and labor, quicken and diffuse knowledge in the various branches of human activity, and minister to the wants and gratifications of humanity. Perfection can not, of course, be claimed for the results, but as a whole we believe this Exhibition, especially in its agricultural and industrial departments, will bear favorable comparison with those in older countries and with any of its predecessors, and that Your Excellency will find ample proofs of a high standard of enterprise and excellence, and many grateful illustrations of solid advancement. The fact that on no previous occasion of the kind have so many entries been made in all the departments of the Exhibition, is in itself a fair index of progress, as well as of the wide-spread interest and wholesome rivalry and emulation which it has excited, and, in a large degree, revived.

It is well nigh half a century since these displays were inaugurated in this Province. The first undertaking was regarded as a somewhat daring experiment, but the good seed then sown returned so fair a harvest that recurrent exhibitions became as indispensable as the recurrent seasons themselves. In fact, the people of Ontario are now blessed in this respect with almost an embarrassment of riches. Nor can we forget how marvellous have been the changes wrought by the discoveries and triumphs of agricultural, mechanical, and natural science during all those years. In those comparatively primitive times a thoroughbred or a Canadian show ground was something of a natural wonder. Thoroughbreds may now be found almost everywhere, while amongst our domestic animals generally are many that may be ranked with the best in the world. Those, too, were the days of the sickle and the cradle, of hard manual toil and brute labor exclusively. These have all but disappeared before the ingenious and constantly improving mechanism of the reaper, mower and binder, to say nothing of the appliances of steam in gathering in the fruits of the earth. If, as some have predicted, electricity is to be the great and universal power of the future, what may not be witnessed on the fields and farms of Canada within the next fifty years!

Although Provincial in its organization and management, our association is really national in its resources, aims and achievements. We are generously aided in our work by the bounty of both the Central and Local Governments, and all our prizes and honours are open to competition by the people of the whole Dominion, who are cordially invited to enter the lists, and are there warmly welcomed. This is, we believe, a policy that will commend itself to every lover of his country, in the stimulus which it affords to national effort and excellence, and in the distinction which it seeks to win for Canada as the home of a prosperous people with all the elements of national greatness. By such means, quite as much as by the nostrums of politicians and the expedients of statecraft, will inter-provincial prejudices and heart-burnings be extinguished, and nationa

unity cemented and perpetuated. Nor can we doubt that thereby will be hastened that splendid epoch in our history, to which we may without presumption look forward, when the Governor-General of Canada shall proclaim awards of merit for the world's industries at the opening of a Canadian International Exhibition.

To Your Excellency, as the representative in this Dominion of our gracious sovereign the Queen, and to Her Majesty's throne and person, we respectfully tender our renewed expressions of loyal and devoted attachment. This sentiment of loyalty to Queen and country, to the Government of which Her Majesty is the exalted head, and to the great, free and powerful realm over which she so benignantly rules, is not a mere passionless idea. The thrilling events of the past year, both at home and abroad, have proved the magnetism and strength of that sentiment in the readiness of the Queen's subjects, the wide world over, to uphold the glories of her empire and preserve the blessings of her reign.

To Your Excellency personally, and to Lady Lansdowne, we tender our most sincere good wishes for continued health and happiness, and we trust that your residence in Canada and intercourse with our people in every section of the Dominion, may always be associated in your minds with the most pleasant recollections.

Dated at London, Ontario. this ninth day of September, A.D. 1885.

Signed on behalf of the Association,

GEO. MOORE, President.
H. WADE, Secretary.

His Excellency responded as follows:

Mr. President, Gentlemen of the Committee, and Gentlemen:

I am afraid that my chance of making myself heard by this large concourse is a very small one; but as we have no secrets up here I will endeavour to do so if you will kindly be as quiet as you can for a few moments. It gives me great pleasure to know that you wish this Exhibition to be formally opened by the Queen's representative. There is no duty which the holder of that office could more appropriately perform. He is never more legitimately employed than when he is giving what encouragement he can to those peaceful pursuits which it is the object of your association to promote—pursuits in which (as you have stated in your address) the whole country, without distinction of class or creed, is interested. (Applause.) I am not sure that as an old politician myself, and particularly in the presence of one of my advisers, I can venture to speak quite so disparagingly as you have done of the nostrums of politicians. (Laughter.) I do, however, entirely concur with you when you remind me that nothing is more calculated to efface sectional distinctions and jealousies of all kinds than a common effort such as you are making here—an effort in which all classes of the people are concerned for the advancement of the material interests of the country. I think, therefore, that you are well entitled upon such an occasion as this to call upon the Governor-General, whose official position connects him with the whole Canadian community, and not with any party or section within it, to co-operate with you, and I am, therefore, heartily glad to find myself here to-day. These annual Exhibitions form, in my estimation, a most important and interesting feature in your national life. They take place at the conclusion of the harvest when your agriculturists are released from the labours and anxieties of the summer season, and when it is natural and convenient that they should bring together for public display and comparison at your great industrial centres the products of the different industries of the country. Nor are these mere holiday shows. The addition to our knowledge obtained through the means of these competitions, and the opportunities for improvement which they offer, are of the greatest value. We are living in an age of competition at higher pressure than we have ever been subjected to before. Steam and electricity are overcoming the natural barriers by which the commercial transactions of one part of the globe were isolated from those of the rest. We may conquer a market one day, and be driven from it the next. It is only by producing the best article and by producing it by means of the most economical methods, and by maintaining a steady standard of excellence that we are able to hold our own and maintain the reputation of

our commodities. Now, although the agriculture of the Dominion has made immense progress, and although this section of the country is certainly not lagging behind the rest, there is unquestionably much room for improvement. A Parliamentary committee has recently reported upon the whole question of the agricultural interests of Canada, and it is impossible to read the report without becoming aware that, in spite of the efforts which have been made, made with so much success, our farmers have in some respects still a great deal to learn. You have spoken with just pride of the large introduction of thoroughbred stock which has taken place into this country. I have myself, thanks to the kindness of my friends, had opportunities of seeing some of your flocks and herds which have been recruited at the cost of immense trouble and expenditure from the best known strains of the old country, and which now contain animals which would do credit to the most famous collections of our great English breeders. There is, however, if the committee is to be believed, still a deficiency of pure bred males in the country, and also a want of knowledge of the adaptability of certain breeds to the special requirements of the different sections of the Dominion, while the products of the dairy too plainly show that sufficient care and skill are not exercised in their preparation for the market. The growing importance of this branch of agriculture is becoming every year more apparent. You speak with just pride of your "Fair Province." Its interest in these questions is immense. I had no idea until I came to examine the figures not long ago, of the stake which Ontario holds in the agricultural business of the Dominion. I find that of the total number of horses in the Dominion rather more than one-half are owned in Ontario. (Cheers.) Of the total number of cattle in the Dominion half again are owned by the Province. Out of the 32,000,000 bushels of wheat grown in all Canada, 22,000,000 are grown in Ontario; out of the 16,000,000 bushels of oats no less than 14,000,000 are grown in Ontario, while out of the 48,000,000 bushels of roots grown in the Dominion Ontario produces 40,000,000 (cheering), a pretty conclusive sign that your farmers are becoming alive to the importance of mixed farming with a rotation of crops in which root cultivation should take proper place. Nor is the kind of healthy emulation which these exhibitions encourage less necessary in regard to your manufactures. I am glad to know that these are making a steady progress both in respect of variety and excellence. And in regard to these, you will perhaps allow me to remind you that this year's Exhibition has a special importance as being the immediate precursor of the larger and more important Exhibition of Colonial Industries—a more remarkable exhibition, to my mind, than any which has yet been held in the United Kingdom—which will be held in London, England, next year. At that exhibition all the British Colonies will be represented, and we shall have such an illustration of their capabilities as never was afforded before. That exhibition has already attracted an immense amount of attention, and I sincerely trust that the Dominion will do itself justice by sending to England exhibits worthy of the country. This is a matter which concerns all your industries and agricultural associations. I hope they will each in its own neighbourhood make a determined effort to secure a thorough representation of the industries in which that neighbourhood excels. There is in Europe a good deal of misapprehension with regard to the extent of the industrial resources of Canada. Most people know that you produce in abundance and first-rate quality such products as lumber, fish and cereals, but many people are not aware of the excellence of your cotton and woollen fabrics, or of the ingenuity and light construction of your agricultural implements and vehicles of all sorts. I am inclined to think that in the matter of labour-saving implements so universally used here, and in regard to the possibility of combining lightness with strength in your carts and waggons, you will be able to teach your brother agriculturists in Great Britain a lesson. (Applause.) In regard to all these matters the Exhibition of 1886 will afford an opportunity which may never occur again for extending your trade and making known the immense resources of the country and the prospects which it holds out to those who wish to seek its shores. (Hear, hear.) But, gentlemen, to me these exhibitions are interesting, not only on account of the industries represented at them, but because they bring together a larger collection of the people of the country than could be collected under any other circumstances. It is a great pleasure to me to meet on such an agreeable occasion the sturdy yeomen of Ontario. You have got here not only the right sort of country, but you have got the right sort of people

in it. I have lately travelled over a considerable part of the western portion of the Province, and I certainly never looked upon a district more attractive or one the prosperity and enterprise of which made me prouder of the achievements of our race, or of the great Empire which it has inherited. (Applause.) Sir, you have reminded me of the efforts which have been lately made by your volunteers in the North-West in suppressing the recent rebellion. Let me say that I am very proud to have been met upon this ground by a guard of honour of the 7th Battalion. (Cheers.) The manner in which the people of this country have shown their ability to vindicate order and to restore confidence in the Dominion has raised the country immensely in the respect of the whole world. (Renewed cheers.) Well, sir, I have detained you long enough. ("No! no! Go on!"), and I will only, in conclusion, thank you very cordially for meeting me here to-day, and especially for your kind reference to Lady Lansdowne. I regret extremely that it is not in her power to be with us to-day. She has obtained three months leave of absence from the Governor-General upon urgent private (laughter) business. She has been good enough to acquaint me that at the expiration of the time she will be quite ready to rejoin me here, and when I tell her how kindly she has been spoken of in Western Ontario, I have no doubt she will insist upon paying an early visit to that part of the Dominion. (Cheers)

Compliments the Veterans.

The addresses over, the Governor inspected the guard of honour, viewing with particular interest the well-worn uniforms and accoutrements that had done service at Clark's Crossing. He addressed the men, complimenting them in the highest terms for their orderly and soldier-like bearing.

Thursday, September 10th, 1885, 10 p.m.

Meeting in Board Room on grounds.

Members all present—President Moore in the Chair.

Protests were read and disposed of.

The address to Sir Charles Tupper was read over and approved.

Mr. Rykert explained about the lien held by the Association on the fair grounds.

It was resolved that the President and Mr. Rykert be a committee to escort Sir Charles Tupper around the grounds.

Council adjourned to meet at grand stand at 2 o'clock to receive Sir Charles Tupper.

During the day the Association was honoured with a visit from a highly distinguished guest in the person of Sir Charles Tupper, the Canadian High Commissioner to Great Britain, whose object was to witness the exhibition of the agricultural productions of the Dominion. He arrived upon the grounds shortly before two o'clock, in company with the Hon. John Carling, Postmaster-General, and was immediately escorted to the stand in the centre of the horse ring, which was soon filled by the officers of the Agriculture and Arts Association and others. Mr. Moore, the President, then advanced to the front and read the following address:—

To the Hon. Sir Charles Tupper, K.C.M.G., C.B., High Commissioner for Canada.

Sir.—The Agriculture and Arts Association of the Province of Ontario desire to extend to you a most cordial welcome to this its Fortieth Annual Exhibition.

We have learned with pleasure of your appointment as Executive Commissioner for Canada for the Colonial and Indian Exhibition to be held in London, England, next year, and also of the naming of yourself in connection with H. R. H. the Prince of Wales as a member of the Royal Commission, and we feel assured that under your able direction such a display of the natural products, manufactures, arts and industries of the Dominion will be made as will worthily represent its progress, its wealth and its possibilities, and maintain its proud position as the premier colony of the empire.

The Colonial and Indian Exhibition will afford an admirable and unprecedented opportunity to Canada of demonstrating to the British and European public the great

advantages which it presents to those desiring to emigrate, and there is every reason to believe that it will also lead to a considerable extension of Canada's foreign trade. The favourable conditions offered by the Government, and the enthusiasm manifested by all who can in any way contribute to the display from Canada, afford an ample guarantee that the Dominion will take a foremost position in this great Exhibition. We trust that your inspection of this Dominion Exhibition will satisfy you that the Province of Ontario will not be backward on the occasion, and on behalf of the Agriculture and Arts Association we promise our hearty endeavours to secure success.

GEORGE MOORE, President.
HENRY WADE, Secretary.

In reply, Sir Charles Tupper delivered a lengthy, eloquent and deeply impressive address. He began by saying :—

Mr. President, Ladies and Gentlemen,—I feel deeply grateful to the Agriculture and Arts Association of Ontario for the very kind address which they have just presented to me. I accept it in the spirit in which it is offered, not as a personal compliment to myself, but as a recognition of the important office which I have the honour to hold as the Executive Commissioner for Canada at the great Colonial and Indian Exhibition to be held in London, England, from the 1st of May next till the 31st October. I have had the pleasure on former occasions of witnessing the great Provincial Exhibition held under the auspices of this distinguished Association, and I am happy to be able to say, after a careful inspection of the Exhibition which is presented on the present occasion, that I feel assured that the Association is keeping pace with the progress of the age. Whatever preceding exhibitions may have done, this year's Provincial shows a steady and continual advance worthy of the people of this great and important Province of the Dominion. I feel deeply grateful to the Association for giving me this opportunity of addressing so vast an assemblage of the people on so important an occasion. You have rightly stated in the address with which you have honoured me that the occasion of the Colonial and Indian Exhibition which is to be held in London next year is one of vast importance and great moment to the Dominion of Canada. In continuing he said all knew that the country possesses an enormous area—as large and important as that occupied by the 50 millions of people to the south of us. They possess the most healthy and invigorating climate in the world, have magnificent forests, inexhaustible fisheries, a fertile soil, the productiveness of which will compare favourably with any known, inexhaustible fisheries, and mineral wealth that might well excite the world. It was only right that the great attractions which Canada presents in all these respects should give it a position in the nations of the world of which they might be justly proud. They knew all that was necessary was that the people of overcrowded countries—of other countries, should know the attractions that Canada presents. As agriculturists he need not tell them that it was only necessary to witness the exhibits he had seen here to tell that Canada presents the finest lot to the people of the old world. To those possessing means, too, Canada offered attractions that could not be equalled by any other country in the world. He referred to the necessity existing for making known to the people of Great Britain and other foreign nations the resources, extent, wealth and fertility of the Dominion, and he called attention to the fact that the opportunity for so doing would be presented in the great exhibition to be held in London next year. He said all were aware that in 1851 Prince Albert started an international exhibition ; in 1862 another international exhibition was held, at which Canada, the United States, Prince Edward Island, British Columbia, Quebec and Ontario all made a most creditable display, but he reminded them that the space assigned to Canada on that occasion was one utterly insignificant in comparison with the great area that would be presented on this occasion. Next year they would enter an exhibition confined to the colonies alone. England expected and the world expected that Canada would then maintain the position he was proud to say they occupied to-day as the greatest colony in the British Empire. The country had reached a position which gave it the right to claim that it is the premier dependency of the empire, and when he told them that no less than 25,000 square feet had been assigned to Canada at the Exhibition, they could

realize what was expected of them at the Exhibition. The manner in which the Association had met this matter had given the most perfect assurance that they would not disappoint the great expectations formed. He reminded them that on this occasion they would not compete with England or its people ; that none of the British or foreign productions would be given a place in it, but that the Exhibition was intended to show what the Colonies, and Canada in particular, could do, and that they would comparatively have the field to themselves. He referred to the fact that the Colonies of Australasia, New Zealand and India would be represented, and said that it was necessary in the competition that Canada should maintain her high position. He was satisfied every patriot would, in justice to his country, his children and himself, put his shoulder to the wheel, and do full justice to the great resources of the country of which they were so proud. As he had told them, not a single British production could be put into the Exhibition, yet English noblemen contribute towards this Exhibition—in which they could take no part—no less than £150,000. The Prince of Wales asked that Canada should guarantee $10.000 and the other colonies $40,000 in all towards the expenses. He (the speaker) as High Commissioner had asked the Dominion Government for the $10,000, which was cheerfully given, and the other colonies had made up the other $40,000. Then these English noblemen came forward and pledged themselves for £150,000, so that the guarantee to-day was no less than £200,000, and thus they could see what interest is taken in their welfare in the mother country. It was seen that not only foreign nations but millions of British people visited former exhibitions, and though he was not a prophet, he would undertake to say that the largest number that ever entered these exhibition grounds would visit them for the purpose of witnessing this one. He (the speaker) wanted the people to make such a display that these visitors would be able to form a just and adequate conception of the vast resources that Canada possesses, so that the people would look on Canada as a place where they can secure a home and competence, as well as enjoy all the attractions. Not only from England, but from abroad, people would come with this idea in view to study in what way they could extend their empire, and in what part of the world they could extend their trade and business with the greatest profit to themselves. He alluded to another agency in this connection—the fact that the Australasian colonies would be represented, and would desire to know how Canada had grown and developed. He believed Canada stood in a position pre-eminently of bidding to secure the trade of these colonies. It would be opened up by the C. P. R., which in the following month, would be accomplished and opened up from the Atlantic to the Pacific. That railway would afford the most direct route to Australia through a line of steamers, and he believed the day was close at hand when a fast line of steamers would be in operation between Port Moody and Australia. It was the place of every one in this Dominion to seize and take advantage of any large lines of trade that might be developed. He went on to refer to the importance of the coming exhibition to Canada, and to compliment the Association upon the manner in which the Association had responded to his appeal. The Governments of Canada, Nova Scotia, New Brunswick and Quebec had all responded to the appeal, and promised to give their support. He had asked them to give a full representation of the resources of their Province, and in a few days he would wait upon the Premier of Ontario and the Minister of Education, and he knew they would give a ready response, and that they would have the fullest justice done to the great resources of Ontario. He alluded to the Antwerp Exhibition and Canada's connection therewith, speaking of the very creditable display made by the Dominion, and referring to the fact that the Committee of Judges had placed on record the fact that the cereals and grain shown by Canada surpassed those of the whole world—a fact the value of which to the country it was impossible to estimate. He mentioned the exhibit of the Massey Manufacturing Company, and the fact that the machine was thoroughly tested and awarded a gold medal, and he also instanced the organs shown by the Dominion Organ Company, and the surprise he had felt when the judges declared that in tone they surpassed any organs sent from Belgium or France. He spoke with pride of the honours gained by Canada at that exhibition—3 diplomas of honour, 13 gold, 31 silver and 33 bronze medals, and 33 honourable mentions. He concluded by appealing to them to do justice to themselves and the country, by reminding them that circulars would be sent to the gentlemen engaged in collecting goods to be sent

to the great Colonial Exhibition in London, and by expressing his desire to do the utmost to promote the welfare of our beloved country.

At the conclusion a vote of thanks was passed to the speaker, which he acknowledged in suitable terms.

A vote of thanks to Sir Charles Tupper, moved by Mr. Parker, seconded by Mr. Rykert, was carried with great enthusiasm.

The proceedings then terminated.

Board Room on Grounds,
Friday, Sep. 11th, 1885, 10 a.m.

All members present. The President in the chair.

Protests were decided. It was ordered that five dollars more be divided amongst three of the poultry judges. Some reductions on booths, on account of the wet weather, was allowed.

Messrs. Carnegie and Reid were appointed to assist the commissioners of Sir Charles Tupper to collect grains, etc.

Adjourned.

Friday Afternoon, 3 o'clock.

Same members present.

Mr. John Notman asked for a set of Dominion medals in lieu of that amount in cash awarded him.

Mr. Drury's list of medals and diplomas from the palace was passed.

Moved by Mr. Aylesworth, seconded by Mr. Shipley, That Mr. Drury be empowered to examine all accounts and pay lists, and order them to be paid if he thinks fit.—Carried.

It was resolved that the ditching machine of Mr. Rennie be awarded a gold medal in lieu of a silver one.

Tecumseh House,
Friday Evening, 8 o'clock.

Council all present. President Moore in the chair.

A number of accounts were passed.

A long discussion took place on the date of holding the next Provincial Exhibition, but no result was arrived at.

Mr. Drury remcomended that Mr. Lavierre, of Montreal, be awarded $10.00 on a Highly Recomemnded prize for wooden horses to show harness on, attached to a vehicle. —Carried.

A very largely signed testimonial was read as follows:

We, the undersigned exhibitors in the Crystal Palace building for the Dominion Exhibition, feel we would be remiss in our duty towards the management of the exhibition if we were not to mention how well pleased we have been with your Mr. Jackson, Superintendent for the allotment of space. Although a serious task to please so many, we have no hesitation in saying that he has caused every one of us to be perfectly satisfied, doing justice to all, and favouring none.

Signed, Pure Gold Mfg. Co., Toronto.
Lay Van Duven & Co., per H. B. Morse.
Alex. Johnston & Co., London.
And Forty-five Other Firms.

Meeting adjourned.

H. WADE,
Secretary.

SATURDAY, Sep. 12th, 10 a.m.

All the Council present but Messrs. Rykert and Reid.

President Moore in the chair.

Moved by H. Parker, seconded by L. E. Shipley, That the thanks of this Council be tendered to the Hon. John Carling, Postmaster-General, for his assistance in securing for us the Dominion grant, and in obtaining the consent of His Excellency, the Governor-General, to open the Exhibition; in giving us the free use of his commodious stables for our Exhibition, and for his presence and assistance during the Fair, and that a copy of this resolution, duly sealed and signed, be sent to him.—Carried.

A latter was read from the Superintendents of the Live Stock Departments, calling attention to the pay list of the Superintendents, and asking for more remuneration.—Not allowed, as our returns had been so small.

The lessees of the Grand Stand were allowed a reduction of $50.00 on account of wet weather.

Mr. McBroom applied for an increase on the $200 allowed him.—Not allowed.

CITY HALL, LONDON,

September 9th, 1885, 8 o'clock P.M.

ANNUAL MEETING OF THE AGRICULTURE AND ARTS ASSOCIATION.

The President, Geo. Moore, Esq., of Waterloo, in the chair.

The Secretary, Mr. Henry Wade, then called the roll; first the members of the Council, then the delegates from the different societies, and those gentlemen who respectively answered to their names will be found recorded below:

Members of the Council.—District No. 1, D. P. McKinnon, South Finch; No. 2, Ira Morgan, Metcalfe; No. 3, Joshua Legge, Gananoque; No. 4, J. B. Aylesworth, Newburgh; No. 5, John Carnegie, M.P.P., Peterborough; No. 6, John C. Snell, Edmonton; No. 7, Geo. Moore, Waterloo; No. 8, J. C. Rykert, M.P., St. Catharines; No. 9, Henry Parker, Woodstock; No. 10, Hugh Reid, Annan; No. 11, L. E. Shipley, Greystead; No. 12, Stephen White, Chatham; No. 13, Charles Drury, M.P.P., Crown Hill.

Delegates from Societies.—Addington County, Wm. Nugent, C. R. Storey; Bruce North, John Wallace; Carleton, Thomas Clarke; Durham, West, Robert Beith, Dr. Beith; Essex, North, A. R. Jones, Luke Montreuil; Grey, North, James Cannon; Grey, South, James Murray; Gray, East, W. G. Pickle, Thomas Kells; Halton, W. C. Beaty; Haldimand, J. R. Martin; Hastings. East, Andrew Coulter, P. R. Palmer; Huron, East, Daniel Stewart; Kingston, David Nicol; Kent, West, F. W. Charters, Andrew Neil; Lambton, East, Mark Wellington, G. G. Hartley; Lambton, West, R. Montgomery; Leeds, South, John Cook; Middlesex, North, C. M. Simmons; Middlesex, East, Richard Whetter, D. McKenzie, M.P.P.; Niagara, Geo. J. Miller, Robert Currie; Norfolk, North, Oliver Jarvis; Northumberland, West, James Barnum, Trueman McIvers; Peterboro. West, Wm. Rutherford, John Garbutt; Prescott, Albert Hager, M P.P.; Prince Edward, S. M. Haight, H. M. Williams; Russell, R. A. Cummings, J. C. Brennan, Simcoe, South, John Ross; Stormont, Wm. McLeod; Wellington, South, Thomas Gowdy, John I. Hobson; York, North, C. Playter, E. Jackson; York, West, Wm. Capner; Oxford, West, G. H. Cook; Oxford, North, Joseph Gult.

The minutes of the last annual meeting in Ottawa, published in our report to the Commissioner of Agriculture for 1884, were taken as read, and the President authorized to sign them.

The President then read the following address :

GENTLEMEN,—I am pleased to have an opportunity of addressing you, even though it be very briefly and imperfectly, on the great subject of agriculture. There is no other subject that is so intimately connected with the material welfare of this Province ; no other that engages so much of our attention ; and none that is more difficult to understand in the endless and varied details of its science and practice.

It is important that we have clever and scholarly men to fill the various professions that are necessary in this Province ; but more important that we have able, intelligent, and progressive men to work the farms of our fair domain. A lawyer, from lack of ability or knowledge, may mismanage a case and injure his client ; but the country is none the poorer. An ignorant, reckless doctor may violate the fundamental principles of medicine, and kill his patient, but other members of the community are neither better nor worse for his malpractice. Not so, however, with the farmer. He cannot occupy a piece of land and till it badly, without thereby contributing more or less towards the impoverishment of every citizen in the country. The soil is the source of all our wealth. We are dependent upon it for the comforts and necessaries of life ; and having only a limited amount, we cannot afford to have any cumberers of the ground. In fact the interests of the Province at large—the interests of all classes of people in the Province, demand that every foot of our land be tilled and managed so as to make the greatest possible addition to the wealth of the country.

CROPS.

As a people, we are again under obligation to return thanks for an abundant harvest. Our barns are filled with plenty, and the heart of the husbandman rejoices. The earth has yielded her increase without stint, to those who have sought it by right methods ; and the farmers of Ontario are, as usual, among the largest recipients. I say "as usual ;" for you will allow me to call your attention to a fact which I think is worthy of special mention, viz., that, as a grain-growing country, this Province of Ontario stands ahead of the best States in the American Union. It holds the first place on this continent as a producer of high averages in all the ordinary cereal and leguminous crops. For the last three years, the farmer in Ontario has had an advantage of five bushels per acre over the farmer in York State, of six bushels over the farmer in Michigan, and of six and a half bushels over the farmer in Ohio. And so of most of the other crops which are adapted to this climate.

The crop of 1885, when garnered, does not in some respects meet the expectations which were formed in the earlier part of the season. The spring wheat has been very much damaged by rust and midge ; the barley is a good average crop, but considerably discolored, and the oats were not a little injured by the wind and rain, which laid them flat before they were half matured, but the fall wheat and peas are good, the root crops promise well ; fruit is up to the average ; hay is plentiful ; and the pastures have been first-class. So, on the whole, we may say that we have a good crop.

COST OF PRODUCTION.

An important question in grain raising will always be the cost of production, and as our soils lose something of their native fertility, the reduction of the amount and cost of farm labor becomes one of the most important factors in all departments of agriculture. In manufacturing and other great money-making industries, the most successful men are not always those who do the largest business, and turn out the finest goods, but those who produce the best article at the least possible cost—who look most carefully after the details of expenditure, and most skilfully gauge the cost of production according to the market price of the manufactured article. It is so in farming, and if there is one thing more than another, which the rising generation of farmers in this Province should be taught, whether at home or at the Agricultural College, it is how to carry on the operations of farming in such a way as to make it pay. How can I put my farm in first-class

condition, is an important question ; but it is equally important to enquire how I can do so with as little outlay as possible. How I can grow large crops and raise good herds and flocks, are questions which should engage the attention of every farmer. But, having done all else, if he failed to consider the minutest details of loss and expense that may be incurred or avoided in every farm operation, his best efforts will be vain. The cost of production, I repeat, is a very important factor in farming.

AGRICULTURAL IMPLEMENTS AND MACHINERY.

Hence the propriety of doing all we can in our exhibitions and otherwise to encourage men of inventive genius to devote their time and energies to the invention and improvement of labour-saving machines. The progress that has been made under this head, during the last quarter of a century is, I venture to say, without a parallel in the history of the earth's tillage. We can scarcely realize the marvellous development that has taken place within the last few years in the efficiency and convenience of agricultural implements and machinery. Our most visionary speculations have been so often surpassed by the discoveries and inventions of this mechanical age, that nothing can now surprise us. And still the work goes on in Canada as elsewhere. The manufacturers are vieing with each other, and before long we shall have everything that we can desire, in the shape of self-binders, hay-tedders, hay-loaders, sulkey-ploughs, and all other implements for tillage, for sowing and planting, for cultivating, harvesting and threshing.

LIVE STOCK.

I am glad to see that the live stock industry in this Province is steadily growing from year to year. We have the climate, the feed, and all the other conditions necessary to raise the very finest kind of thoroughbred animals to supply the ever-increasing demand of the North-West and the Western States ; and our ability to breed and fatten the right type of steers for the British market is no longer questioned by any one.

We have never before had so many entries under this head in the Provincial Exhibition, and in the variety and quality of the animals exhibited I think the show will compare favourably with the best that has been held in this country. We have not merely a few fine samples of Shorthorns, Devons and Ayrshires, but large and excellent herds of all the important breeds that will be found in the best English show rings, including the Holsteins, which, within the last few years, have attracted so much attention in some parts of the United States. Equally good is the exhibit of sheep and pigs ; and the show of horses is very fine.

On the importance of this industry to the Province of Ontario it is not necessary that I should dwell. I believe that a great many farmers are beginning to realize that it is the secret of our success. We must raise and feed more live stock if we will restore fertility to our partially exhausted soils and keep up those that are still in good condition.

The fall in the price of beef and mutton during the past year has affected our export trade in cattle and sheep to some extent, but there is still a good demand for our well-fed animals, at remunerative prices—not such prices as will pay for fancy foods and feeding, but for good animals liberally, carefully and judiciously fed. There is no doubt but the trade will continue to develop and be a source of much gain to our farmers, if in their breeding and feeding they will only shape their course according to the demands and peculiarities of the English market.

THE DAIRY.

The farmers of Ontario are only waking up to the importance of dairying in this country. It was a long time before they learned that the manufacture of cheese could be made a sure and profitable industry in this Province. But, thanks to the Dairymen's Association and the enterprise of a few leading men east and west, it was some time since demonstrated that Canadians can make as fine cheese as ever tickled an English palate,

and can manage the business in such a way as to make it a source of much profit to themselves and a benefit to their friends across the Atlantic.

The science of butter-making, however, is still but imperfectly understood by the majority of our people. They can all make butter, but the price which it brings in the English market is a clear proof that a large proportion of the makers are still in practical ignorance of some or many of the details which must be generally observed before we can make in any considerable quantity, an article of such flavour and keeping qualities as will command the attention of English buyers and consumers.

The agricultural press and private enterprise led the way six or eight years ago in the establishment of a few creameries in the Province, and soon after the Legislature voted a sum of money for the same purpose. So that we now have a number of private creameries at different centres and the Government creamery at Guelph, all operated on the cream-gathering system and doing more or less to disseminate useful information regarding this very important branch of our profession. But I am strongly inclined to the belief that something more is necessary—that a really competent, common sense, practical man should be sent among the farmers to meet them, with their wives and daughters, at convenient centres during the fall and winter, to point out the principal defects in our present system, and indicate how improvements may be made in the management of private dairies. In other words, to do for the dairymaids of Ontario something like what Professor Arnold did for our cheese makers a few years ago.

The difficulty is to get the right kind of man. Some have the requisite knowledge, but they are mere theorists who have never practised what they preach ; others understand the subject very well, but they are hobbyists ; and a third class of aspirants have the necessary information and experience, but they lack the common sense and tact that are necessary to go amongst farmers. I think, however, that the right kind of a man can be found, and the interests of the country demand that he should be sent amongst the people at as early a date as possible.

As I have already intimated, all, or nearly all, our creameries in this Province are established on the cream-gathering system ; but there are persons who claim that the centrifugal process is superior to all other methods, and we, as an association, have shown our interest in the question by spending a considerable sum of money in arranging to have a centrifugal cream separator in operation under the direction of Professor Barré during the present exhibition, with lectures on the theory and practice of cheese and butter making by Professors Brown and Barré. We think that the importance of the subject warranted the expenditure, and we hope that much good may result from the experiment.

LINE OF PROGRESS.

Experts like Professor Sheldon and others, who visit us from time to time, say that a great deal of the farming in this country is very poor—so bad, in fact, that it scarcely deserves the name of farming. We may resent the criticism ; but a short tour of inspection, even through the Province of Ontario, will convince any competent judge that the Professor is not far astray. There is great room for improvement in our farming ; and it behooves us to wake up and inquire what we can do to remove the stigma. My own opinion is that there are three or four things which must be attended to before we can reasonably hope for much progress :

1st. We must pay more attention to under-draining.

2nd. We must not allow thistles and other noxious weeds to take possession of our farms.

3rd. We must sell less grain and feed more cattle for beef or for the dairy.

4th. In breeding, we must select only the best of our herds and flocks, and use none but pure bred males.

It is not necessary that I should dwell on each of these points separately, but one of them is so important that I must pause for a moment, and what shall I say ? At the risk of censuring myself with others, I shall give it as my conviction that the farmer who allows thistles, wild mustard, wild oats, pigeon weed, or any other kind of noxious weed to disfigure his farm and rob his crops, is a disgrace to the profession. All such hindrances

can be got rid of ; and the farmer who understands his business and attends to it, will not long allow any such nuisances to occupy a prominent place in his fields. Farmers who fail on this point, whatever their pretentions may be, are humbugs and cumberers of ground. Their example is pernicious. They should cease farming, and devote their attention to something else.

THE ASSOCIATION AND ITS WORK.

There are few who will deny that the Agriculture and Arts Association has done a good work in this country. Its exhibition, like the Royal of England, has from time to time been held, not only in the large centres of population and agricultural prosperity, but in poorer districts which never could have been successfully reached by the best managed local exhibitions ; and, further, it is a purely agricultural Exhibition, which has hitherto refused to assist in debasing the public taste by side shows and "attractions," such as have become a prominent feature in many large local exhibitions on this continent. Every one knows that the finest display of agricultural implements, live stock, and farm produce never will draw such crowds as Gatling-guns, horse-racing, blowing up boats, and such like ennobling amusements ; but the number of mere sight-seers and amusement-hunters should not be taken as the measure of the real value of an exhibition to the farmers of this country.

Aside from its annual exhibition, the Association has given some attention to other work of no less importance.

ESSAYS.

It has offered prizes for essays on a great variety of subjects which are of special interest to farmers, such as the restoration of fertility to partially exhausted soils, the best means of destroying noxious weeds, stock-breeding and feeding, fruit culture, forestry, draining, beautifying our homes and other practical questions. The prize essays on these subjects have been published from year to year, and thereby we think, a valuable work for agriculture has been done by the Association.

PRIZE FARMS.

For the last five years the Association has also granted medals for the best managed farms in the Province, and has been fortunate in securing the services of Mr. John I. Hobson, of Mosborough, and one or two other able judges, whose elaborate, practical and judicious reports have been extensively read and cannot fail to be of great benefit to the farming community.

COURSE OF READING AND EXAMINATIONS FOR FARMERS' SONS.

But, most important of all, the Association has lately instituted annual examinations on a prescribed course of reading in agriculture, for the benefit of farmers' sons, to encourage them to turn some of their spare time in winter evenings to profitable account, by reading agricultural papers and studying books which contain valuable information regarding the different departments of agricultural science and practice. It is only two years since the scheme was inaugurated, and already three second and nineteen third class certificates have been granted. Some candidates have failed, but the majority of them have given proof of extensive reading and careful study, which cannot fail to produce good fruit on the farm or in the public school. I commend this course of reading to our young farmers. It will pay them to prepare for the examinations.

PRESENT EXHIBITION.

The present Exhibition is in many respects one of the best that we have ever had. The grant made by the Dominion Government, though coming to late too be utilized to the best advantage has nevertheless enabled us to extend the prize list a good deal, and offer

greater inducements than usual to all classes of Exhibitors. We take this opportunity of thanking the Governor-General in Council, and express the hope that no worse use may ever be made of our Dominion funds Owing to this grant we have not only the extension of the prize list, but the exhibits from New Brunswick and Manitoba, which are a very interesting feature of the Exhibition. Add to all this the fact that His Excellency the Governor-General has favoured us with his presence, and has done us the honour of opening the Exhibition, I think we may congratulate ourselves and the people of London on having everything that could be desired in a great and successful show—a splendid prize list, a magnificent display of live stock, agricultural implements and exhibits in every other department, the patronage of the great, and a large attendance of those for whose benefit the Exhibition is held.

I shall close by thanking His Excellency the Governor-General for his visit, and the members of the Association for the kind attention they have given me this evening.

Moved by Ira Morgan, seconded by Stephen White, that the thanks of this Association and the delegates in attendance be tendered to the President, Mr. Geo. Moore, for his valuable and able address. Carried.

Mr. Moore responded briefly.

The Secretary then read the Report of the Judges on Prize Farms, as far as giving the names of the medal winners, in Group No. 6 :

Gold Medal.—Thomas Graham, Bell's Corners, Township of Nepean, County of Carleton,

First Silver Medal.—William Graham, Bell's Corners, Township of Nepean, County of Carleton.

Second Silver Medal.—John Airth, Renfrew, Township of Horton, County of Renfrew.

Bronze Medal.—Jonathan Francis, Pakenham, Township of Pakenham, County of Lanark.

Bronze Medal.—Richard Wilson, Duncanville, Township of Russell, County of Russell.

Bronze Medal.—D. P. McKinnon, South Finch, Township of Finch, County of Stormont.

Bronze Medal.—Henry Smith, Williamsburg, Township of Williamsburg, County of Dundas.

(Signed) JOHN I. HOBSON, THOMAS SHAW, } Judges.

This award was adopted by the Council, and the Report ordered to be published in full in the Association's Report to the Commissioner of Agriculture.

A discussion then took place on the desirability of giving a Sweepstakes Prize next year for the best Farm in the Province.

Professor Brown moved that a committee, consisting of Messrs. Drury, Carnegie, and the President, be appointed to report to the Council on the advisability of offering a cup of the value of one hundred dollars, for the best farm in the Province.

Mr. D. Derbyshire said that it should be open to the Province.

Mr. Thos. Shaw would like to see more than one prize given.

Mr. Hobson explained that so many farms were equal, and they were scattered over the east and west, that it would be a difficult matter if it was open to the Province for any one set of judges to come to a decision, besides being a great expense.

Mr. Drury would like to see the competition open to all the Province.

Moved by Mr. Drury, seconded by Mr. Derbyshire, That the competition be open for all who would enter their farms in the Province next season.

Mr. Shaw thought the expense of so doing should be carefully considered.

Moved by Mr. Ballantyne, M.P.P., in amendment, seconded by Mr. Carnegie, M.P.P., That the entries for the sweepstake be confined to those who had received medals in former years, and that, if possible, a Gold Cup be presented by the Agriculture and Arts Association.

On motion the amendment was carried.

REPORT ON ESSAYS THEN READ.

To Henry Wade, Esq.,
Secretary A. and A. Association.

Toronto, August 29, 1885.

The undersigned has the honour to report that he has read carefully the several competitive essays entered for the prizes offered by the Agriculture and Arts Association, and that he has made the awards as follows:

1. On the best method of Underdraining the different soils of Ontario, the Cost, and the practical benefits resulting therefrom: 1st prize, Thomas Shaw, Esq., Hamilton; 2nd prize, E. D. Smith, Esq., Winona.

2. The Apple, its importance as an article of Commerce in Canada, and for exportation; adaptability of the different kinds to the various localities; its propagation and cultivation; its principal insect enemies and remedies therefor:—1st prize D. Nicol, Esq., Cataraqui; 2nd prize M. S. Schell, Esq., Woodstock.

Five papers were entered in the competition—three on the first subject, and two on the second. All are valuable, but in the opinion of the undersigned the two successful papers on the first subject and the first prize paper on the second are deserving of special commendation. A large edition of them should be published for general distribution to farmers.

A. BLUE.

EXAMINATIONS IN AGRICULTURE.

To the Council of the Agriculture and Arts Association:

Gentlemen,—Your Educational Committee to whom were entrusted the preparation of questions and the examination of candidates for certificates in agriculture, beg leave to Report as follows:

Twenty-one third and seven second-class candidates, making twenty-eight in all, applied for examination; but for various reasons only half that number put in an appearance. Of these, eleven were third and three second class candidates.

The answers on the whole were good. They evinced careful reading and some degree of thought in the preparation of the work prescribed. A few were very creditable, and displayed, not only a good knowledge of the subject, but considerable skill in the art of answering.

Eight third and two second class candidates obtained the number of marks necessary to pass in their respective classes; and James Bowman, of Mount Forest, while failing to get a second-class certificate, received marks enough on the second-class papers to entitle him to a third-class certificate. Hence his name appears in the third-class list.

CERTIFICATES.

The following list contains the names of those who obtained certificates, arranged in alphabetical order:

Third-Class.

Barber, George	Hartford, Norfolk Co.
Bowman, Jas	Mount Pleasant, Wellington Co.
Egan, M. Charles	Cartwright, Lambton Co.
Herriman, W. L	Port Hope, Durham Co.
Husband, Edgar	Cairngorm, Middlesex Co.
Inksetter, W. E	Copetown, Wentworth Co.
Nairn, David	Fergus, Wellington Co.
Ptolemy, W. H	Stony Creek, Wentworth Co.
Stevenson, Chas. R	Fingal, Elgin Co.

SECOND-CLASS.

Lee, Erland.....Stony Creek, Wentworth Co.
Lick, Elmer .....Oshawa, Ontario Co.

PRIZES.

Third-Class—

1st.	Herriman, W. L	Port Hope, Durham Co	$30
2nd.	Barber, Geo.	Hartford, Norfolk Co	25
3rd.	Nairn, David	Fergus, Welliugton Co	20
4th.	Inksetter, W E	Copetown, Wentworth Co	15
			$90

Second-Class –

1st.	Lick, Elmer	Oshawa, Ontario Co	$25
2nd.	Lee, Erland	Stony Creek, Wentworth Co	20
			$45

CHARLES DRURY, M.P.P.
JAMES MILLS, M.A.
JOHN CARNEGIE, M.P.P.,
A. BLUE, Deputy Com. of Agriculture, } Examiners.

Mr. Drury spoke briefly on the subject of Agricultural Education as in favour of these examinations.

Moved by John Dryden, M.P.P., seconded by Mr. McKinnon, That in view of the importance of a large and representative display of the agricultural products, manufactures and natural resources of Canada, being made at the Colonial and Indian Exhibition to be held in London, England, during next year, this Association takes this opportunity of urging on the people of Ontario the importance of making such a display as will worthily represent the progress and resources of this Province, and that this Association hereby pledges itself to do all in its power to secure this end, and that a copy of this resolution be forwarded to the Honourable the Minister of Agriculture. Carried.

Mr. Weld, of the *Farmer's Advocate*, called attention to the fact that "Hog Cholera" was said to exist in the western portion of the Dominion. If the paragraph that appeared in the newspapers were untrue, the paper that printed such should be condemned. He suggested that the Association should appoint a committee to ascertain if there was any truth in the report.

The Mayor of Guelph, on behalf of his city, invited the Association to take the Provincial Exhibition there next year. He urged the claims of Guelph, and offered all the accommodation required.

Mr. Thos. Gowdy also spoke in favour of Guelph, also Mr. Hobson.

Mr. H. Parker said he favoured the idea of making the show peripatetic, and would therefore support Guelph's application. He hoped that the present show would be as successful financially as it was as an exhibition. He hoped the farmers would never support the proposition to abolish the Provincial, and create a monopoly of fairs in Toronto and London.

Mr. J. B. Aylesworth also said that Belleville was considering the question of inviting the Provincial.

Mr. Cummings spoke in favour of Ottawa soon having the Exhibition again.

Mr. John R. Martin, of Cayuga, rose to ask if there could not be some plan devised for merging the two short horn herd books.

It was explained to Mr. Martin that our Council had already appointed a committee to meet a committee from the other book.

The meeting then adjourned.

HENRY WADE,
Secretary.

REPORT OF PRIZE FARM COMPETITION IN GROUP No. 6.

To the President and Council of the Provincial Board of Agriculture and Arts.

Your Judges, appointed to examine farms entered for competition in Group No. 6 beg leave to present the following report:—

The district in which the competition for farm prizes took place this year was Group No 6, comprising the counties of Leeds, Grenville, Lanark, Dundas, Carleton, Stormont, Russell, Renfrew, Gengarry, Cornwall and Prescott.

The following were the chief points taken into consideration in estimating what is the best managed farm:

The nature of the farming, whether mixed, dairy, or any other mode, to be the most suitable under conditions affected by local circumstances.

The proper position of the buildings in relation to the whole farm.

The attention paid to the preservation of timber, and shelter by planting of trees.

The condition of any private roads.

The character, sufficiency, and condition of fences, and the manner in which the farm is subdivided into fields.

Improvements by removal of obstacles to cultivation, including drainage.

General condition of buildings, including dwelling house, and their adaptability to the wants of the farm and family.

The management, character, suitability, condition, and number of live stock kept.

The number, condition and suitability of implements and machinery.

State of garden and orchard.

Management of farm yard manure.

The cultivation of crops—to embrace manuring, clearing, produce per acre in relation to management, and character of soil and climate.

General order, economy and water supply.

Cost of production and relative profits.

ON THE ROAD.

On the evening of the 29th of June we met in Toronto and left by the night express on the G. T. R. for Morrisburgh, in the County of Dundas. The train was timed to reach that station at 4.30 a. m., but leaving Toronto about an hour late, and not making up time, it was 5.30 a. m. when we reached our destination.

The first thing to be done was to make arrangements to be driven to the three farms in this county. Making a good start we were soon at Mr. Van Allan's, the first to be inspected. The road from Morrisburgh runs along the edge of the St. Lawrence, and follows the windings of the river without even a fence between the river and road. The drive, aside from the fact that we saw nothing but ill-tilled land all the way, was a pleasant one. It could hardly be otherwise on a clear, bright June morning with the mighty waters of the St. Lawrence moving seaward on our right.

MR. VAN ALLAN'S FARM, TOWNSHIP OF WILLIAMSBURGH, COUNTY OF DUNDAS.

Mr. Van Allan's farm is five miles east of Morrisburgh, on the river road. It comprises 240 acres with narrow front to the river, and running more than two miles back. All the farms in this Township, and in fact all along the river in the Eastern Townships, were laid out in this way.

The G. T. R. divides this as well as the other two farms entered for competition. The fields are reached by a private road running from front to rear. On each side of the road is a single row of fields. At the rear is about sixty acres of well preserved bush, healthy looking, with a good second growth springing up.

The soil is mainly a clay loam running to sand at the back part of the farm, the whole being underlaid with a subsoil of clay. A great deal of draining requires to be done.

The system of farming may be termed mixed husbandry. It includes grain-growing, dairying and raising of young horses.

The rotation ordinarily followed is to grow wheat and rye on land summer fallowed. The land is always seeded down with these crops, grass is cut two years and pasture three. Sod broke up and sown with peas and oats, followed by spring wheat and barley. White crops are never grown more than two years in succession. Wheat is the only grain sold. All the coarse grains are crushed and consumed on the farm.

About twenty-four cows are usually kept. Previous to this year the milk used to be manufactured into butter at home. This season it is sent to the cheese factory. The cows are a pretty fair lot of grade Ayrshires.

Considerable is done in raising and fattening pigs. At the time of our visit there were a nice lot of Berkshires on hand; Southdown sheep are kept to the extent of about twenty breeding ewes. The lambs are sold in the fall to the butcher. The leading feature in the stock line are the horses, these are much above the average, mostly of the roadster class, and always bred from pedigreed sires. Mr. Van Allan displays good judgment in managing this department of the farm, and from the uniform good quality of the stock, we think it must be carried on with considerable profit.

The barn, stable, etc., are fairly good. The dwelling house is substantial and useful looking, is built of brick and appears to be well adapted for the requirements of the farm.

In concluding our remarks as regards the general management, we would say that comparing this farm with others we saw in the same county, it may be set down as fairly well managed. But when compared with the highly tilled and splendidly equipped farms afterwards seen, much requires to be done before Mr. Van Allan can be classed amongst the most progressive farmers of the day.

The specially weak points of this farm and the mistakes made in its management are so similar to those on many of the other farms entered, that we consider it better to deal with the whole question further on in the report, otherwise in describing many of the farms it would simply be a repetition.

MR. D. WILLARD'S FARM, TOWNSHIP OF WILLIAMSBURGH.

The next farm on the list was that of Mr. D. Willard, two miles from Morrisburgh. This like the one we had just left fronts on the St. Lawrence. The situation is very fine. The river at this point is one and a quarter miles wide. An extended view is here obtained of the country on the other side of the river.

The morning we were there was clear and bright, and the Southwood hills in the State of New York, sixty miles distant, could be readily seen.

This farm has a frontage of thirty-eight rods, is one and one half a miles deep, and comprises 140 acres; 100 acres are cleared, the balance is bush, fourteen acres of the woodland lie about a mile from the front, and the other twenty-six is at the extreme back part of the farm. If the cleared part of the farm had been as well managed as the woodland it might fairly be set down as a model farm. The fourteen acres first mentioned is an exceptionally good sugar bush, mostly second growth. The number of fresh, healthy maples, we were told, was not less that 2,000—some yet quite small, 400 of these are tapped annually. Mr. Willard considers that it does less injury to the trees when only tapped every two or three years. The sugar camp is the best we have ever seen. A roomy, neat, substantial building, fitted up with all modern improvements for boiling sap and making sugar. The pans are the ordinary large shallow sheet iron ones, built on brick and so arranged as to economize fuel. The fittings include a crane which works so nicely that a small boy can remove the pans from the furnace with ease and safety. The sap is collected in close vats and drawn to the sugar camp with a horse. The sap is then pumped from these vats into the pans. Everything required for use in next year's sugar-making is well cleaned and packed away, pans well scoured and bright, buckets clean and neatly piled up, mallets and all the little odds and ends required for tapping trees and making sugar, properly put away each in its place and ready for use when wanted. The balance of the woodland is well managed and healthy-looking. Bush roads in every direction for convenience in getting out dead timber which otherwise would waste.

Perhaps some reader may think that we place too much importance in the management of woodland, but we consider that one of the great mistakes which many of our Canadian farmers have made was when clearing their farms that they have cut down every tree except a few acres for firewood, and then allow their cattle to roam at will through this, destroying the roots of the tender saplings with their hoofs, and eating every green shoot within their reach. It is pretty well understood by those who have had opportunities of testing it that it does not take many acres of hardwood when properly managed to supply an ordinary farm house with firewood, and yet there be no diminution from the sum total, the growth of the vigorous young trees making up for the decaying and larger trees that are used.

The soil on the front and back of the farm is a clay loam with a somewhat retentive clay subsoil in the front, and a hard gravel subsoil underlying the back part. A wide stretch of sand runs across the centre. It may here be remarked that this belt in varying width runs nearly across the township, following the winding of the river and nearly parallel to it.

Some of the back fields are marred by having a number of stone heaps scattered about, these are always unsightly, but this can be helped a little by some attention being paid when piling. Considerable stone has been used for draining. These drains appear to have answered a good purpose.

The fences are the ordinary rail fence well put up. The fields, nearly all of the uniform size of six acres, open into a private road running along one side of the farm. This road has been well made and is well kept. Whenever it was liable in wet weather to be muddy a good deal of labour has been expended in putting down a solid stone bottom, so that now at any season of the year it can be travelled with ease.

The buildings form three sides of a square. One side consists of grain and hay barn with straw house between. On the east side is a horse stable, shed and implement house, and on the west is sheep house and cattle stable. The barn yard is well paved with stone.

The dwelling house is now being remodelled, the work being pretty well advanced. As far back as 1815 this building was used for a tavern. When finished it will be rather a pretty place, with its pleasant situation and its nice surroundings.

Occupying a position convenient to both homestead and dwelling house is a fowl house and yard. This is a neat, painted building, well fitted up, and it would appear to us that it was just such a building as is required to complete many of our otherwise well arranged homesteads, for if it pays to keep fowls at all, it will certainly pay all the better if properly attended to. The work connected with keeping them is mostly left to the farmers' wives and daughters, and as we all know it is not the most agreeable work hunting eggs in closely packed hay mowes and dirty sheds, if we can do something to make life on the farm for them more agreeable by all means let us do it, it is a step in the right direction.

From thirty to forty acres of grain is annually grown, this includes fall and spring wheat, peas, oats, corn, peas and oats together for stock feed, about two acres of potatoes and twenty-five acres of hay.

The fall wheat was very poor, the other grain crops fair but backward, owing to the late season. Some of the grass for hay would yield a pretty full crop; very little clover was to be seen either on this farm or the two adjoining ones. Mr. Willard gave various reasons why it is not more grown, amongst others the difficulty of getting a good catch. This we can readily understand, for where neither clover nor roots are grown, and where no stock of any sort is fattened, it need not be wondered at that a good catch of clover cannot be got. The only matter of surprise is that many of the farms in this part of Ontario have not been impoverished to that extent that they will grow neither clover nor anything else that money can be made out of. They are coming to it; it is only a question of time.

The fields, like those on all the adjoining farms, are badly overrun with wild mustard.

About a dozen cows are kept, the milk being sent to the factory.

There are many good points about the management of this farm, such as well kept fences, good private road, care bestowed on the woodland, and profits derived from sugar-making, but when we come down to those leading features that constitute good farming, such as thorough tillage and stock management, it is exceedingly weak.

HENRY SMITH'S FARM, TOWNSHIP OF WILLIAMSBURGH, COUNTY OF DUNDAS.

BRONZE MEDAL.

Our next and last visit in this county was to the farm of Mr. Henry Smith, one mile west of Morrisburgh. It contains one hundred and fifty acres and is two and one-quarter miles from the river front to the rear. From where the G. T. R. intersects it to the river the fields are about six acres each, and from the railroad to the back, the fields contain ten acres each. The front half is somewhat higher than the lands on the adjoining farms; this part has been nearly all well drained with stones. The drains were mostly dug to a depth of three and a half feet. Many of these have been laid from twelve to fourteen years, and are yet working quite well. A great deal of labour has been judiciously done on this part of the farm in freeing it from water and clearing the fields of stones. All the small ones are buried in the drains, and the large ones (and they are very large) have been drawn to the side of the private road for the purpose of being used in making a stone fence. This private road runs on the west side, with a single row of fields opening into it—for part of the way a row of trees has been planted.

The soil is a free working clay loam, with a clay subsoil. The back part of the farm is liable to be flooded in spring from water flowing from the adjoining lands. This causes Mr. Smith considerable trouble at that season, and the sooner effectual means are used to get rid of it the better.

The fences over the whole farm are strong and well put up. The farm buildings, like all the others in this section, are built on the level. They are a fair average, perhaps, if anything, hardly up to the requirements of the farm. The dwelling house is built of brick and shows well. It lies sufficiently far back from the road as to leave plenty of room for lawn and shrubbery without crowding. The house, with its surroundings, is above the average and looks well.

The system of farming followed is grain-growing, dairying and the cultivation of small fruits, chiefly strawberries. The acreage of the different crops this year is: barley, six acres; oats, twenty acres; two acres of buckwheat, and thirty-five acres of hay.

The usual system of cropping is to break up sod and sow oats and peas, followed with barley or corn, then oats, afterwards summer-fallowed and seeded down. Manure is applied to the summer-fallow, and for top-dressing grass land in September.

Fourteen cows are kept, the milk of which is sent to the cheese factory; the other stock consists of young cattle, a small flock of sheep, and a few colts of different ages.

As already said, Mr. Smith cultivates strawberries extensively. These are sent chiefly to the Montreal market. At this time there are eight acres of strawberries and two of orchard and small fruit. Two crops of strawberries are grown, and then the vines are ploughed up. The soil on the front part of the farm appears to be specially well suited for growing small fruit. It inclines somewhat to a sandy loam, works freely, and has been thoroughly underdrained. Mr. Smith informs us that draining has made a marked difference on the the productiveness of his land in fruit-growing; the difference has been as much as fifty per cent. in favour of the drained over the undrained land in a single year.

From three to four thousand quarts of strawberries per acre is considered a full crop. The general management of the fruit crop appears to be in advance of the system followed in the other departments of the farm, although we were informed that as much as sixty bushels of barley per acre has been grown.

Although we award the Bronze Medal to Mr. Smith, that decision has not been arrived at without a good deal of consideration, and while awarding him the medal we would remark that Mr. Willard is an exceedingly close second.

ON THE ROAD.

After finishing our work for the day we left Morrisburgh by the evening train for Prescott, arriving there about 8 p.m.

The following morning we left by first train for Osgoode, a station on the Prescott and Ottawa road. Here we expected to have met Mr. Ira Morgan, the representative of that division at the Board of Agriculture and Arts. This gentleman is also Chairman of the Prize Farm Committee. However, when we reached the station we found a message had been left instructing us to go on to Ottawa.

Little need be said about the country bordering on the road from Prescott to Ottawa, no doubt most readers of this report having travelled on that road at some time, but for the information of those who have not we may say that from Prescott to Spencerville the land appears to be neither good nor well tilled; it is also broken up somewhat with marshes. The buildings are inferior, and the general appearance not by any means inviting. From Spencerville to Oxford the same remarks are applicable, with the exception of a farm or two lying near the village. After leaving Oxford the land begins to improve, and nearing Kemptville the farms present a fine appearance, possessing excellent land, well tilled, and what appeared, as far as we could judge, from our view from the train good homesteads, the whole having a fine, prosperous look, and pleasing to the eye. The village, with its well constructed and nicely painted buildings, shows to advantage. Looking at this little village from our stand on the platform of the rear car we thought that we had seldom seen a prettier little place, or one that made a more charming picture as we saw it on this bright July morning. And it was rather a rude shock to find that before we were out of sight of the church steeple that the picture we had formed in our mind of this thriving village with its rich farming lands around had vanished, for instead of the fine and well tilled farms which we expected to see, we found that but a short distance from the village we were passing through a comparatively worthless tract of land.

By the time we left Osgoode (the next station) the train had become so crowded—this being the 1st of July—that we had not much opportunity of seeing anything except the crowd in the car, but what glimpses we did get of the country we were passing through led us to suppose that it was not by any means one of the best farming sections in Ontario.

On arriving at Ottawa we hoped to have met Mr. Morgan at the station. It may be here mentioned that we could do nothing in his county until we had seen him, for through some mistake the entries for the County of Russell had not reached us before leaving home, and before proceeding to work we required to have the names and localities of the parties who had entered. It was not until an hour or two after our arrival that we met; it was then arranged that we were to go back to Osgoode, and Mr. Morgan kindly offered to drive us from that station to Metcalfe, a further distance of nine miles, where we were to stay over night and then make an early start next morning, and try and get through in one day. But it appeared that we were to have nothing but ill-luck that day, for our hackman, after having been told by the proprietor of the hotel to drive us to the station of the Ottawa and Prescott road, drove us exactly in the opposite direction, landing us at the station of the C. P. R., and in this way we missed our train. The moral to be drawn from this, is, do not trust too much to hackmen, on the 1st of July, in a city where the Scott Act is not in force.

As the distance from the city to Metcalfe by the driving road is only twenty-two miles, we at once concluded to be driven, and we could then carry out the arrangement made with Mr. Morgan; but then again came in the trouble of being there on the 1st of July, for after trying every livery stable that could be reached by telephone we failed in getting horses. After considering the situation, we concluded that as it was impossible to reach Metcalfe by any means that night, that we would go to Renfrew and leave the County of Russell until later. We accordingly telegraphed the Secretaries at Renfrew and Lanark of our movements.

Reaching Renfrew about 10 p.m. we were met at the station by Mr. Barr, one of the directors, and arrangements were made for a start next morning at 5 o'clock; next morning we did not start at 5 o'clock, as it was a perfect down-pour of rain, but as soon as it slackened a little we started splashing through mud to the farm of Mr. James Leitch.

JAMES LEITCH'S FARM, RENFREW, TOWNSHIP OF HORTON COUNTY OF RENFREW.

This farm is situated two miles west of Renfrew on what is known as the Pinnacle Road. It comprises 135 acres, ten of which are rock. It is bounded on the north and west by the Laurentian range of mountains, on the south by the Township Line Road between Admaston and Horton.

The north-west side of this property is somewhat broken by the rough land at the foot of the mountain. A great deal of labour has been judiciously expended in bringing this farm into its present shape. Originally it was partly covered with pine, and the balance or larger part was timbered with poplar and other soft wood, and in the wet season of the year was covered with water.

The pine stumps are now all out and burnt except those in one field, where the stumps are out, but not yet burned. The land which was wet is now nearly all drained. Part of this has been thoroughly done, and the balance sufficiently well done to allow it to be classed as in pretty good shape. The work of putting in the drains appears to have been well done. The material used is cedar, sawn to ten inches; these pieces are laid together at the top, and the lower side of each piece fits firmly against the sides of the drain.

We may here remark that we have been on a number of farms at different times where cedar has been used in underdraining, and used in various ways; and in some cases these drains have been down for a great many years, and the conclusion we have come too, is, that where tiles cannot be got, or where it is very costly to get them on account of the distance they have to be brought, that cedar is an excellent substitute. If the cedar is fresh and sound, and can be had at a reasonable price, there is no reason why drainin cannot be carried out successfully in this way, and with an absolute certainty that the money expended will be repaid many times over before the work requires to be renewed. The main drains on this farm are four feet deep, and side drains not less than three feet. Mr. Leitch informs us that there have been years since he commenced to put down drains when the increase of a single crop on the drained over the undrained land has more than paid for the first cost.

The fences are like most of the best fences in this part of the country, made of cedar logs sixteen feet long, laid straight, with cross pieces where the panel joins.

The dwelling house is a new and pretty brick building, nestling at the foot of the mountain, and well protected from the cold winter winds which blow from the north and west The site has been well chosen, both as regards comfort and appearance.

The barn buildings consist of two barns and an open shed, no cattle being tied up in winter. The water supply is from a spring which rises in the mountain, and can at comparatively little cost be carried up to any desired height.

Not much fault can be found with the system followed in preparing the land for the different crops; in fact, it is decidedly above the average, and as far as this goes and in many other respects, Mr. Leitch's management may be said to be good. Besides, he displays excellent taste in his house-building, and in carrying out the arrangements of the farm generally, as well as evidently understanding the importance of deep and thorough cultivation. Yet with him, like many other farmers in all parts of the country, but especially in these eastern counties, it is only a question of time when the land will become utterly impoverished under a system of farming where little or no stock is fattened, and very few kept in any way, with no other means of supplying the lack of manure is resorted to.

MR. JOHN AIRTH'S FARM, RENFREW, TOWNSHIP OF HORTON, COUNTY OF RENFREW

SECOND SILVER MEDAL.

This farm is one and a half miles east of Renfrew. It contains 200 acres, a small proportion of which is rough and rocky.

While driving along the front and from the road to the house, we saw enough to satisfy us that we had struck a well managed farm. And while we had had a pretty

rough morning's work in sloppy fields with a heavy "Scotch mist" falling, we were just in that state of mind when we were beginning to think (at least one of your judges was) that we would have displayed quite as much good sense if we had staid at home and attended to our own business. However, the sight of this apparently well tilled farm, along with a clearing sky, sent our spirits up with a bound.

We have found from experience at this work of farm-judging, that as a rule first impressions are, in most cases, confirmed by closer examination. Mr. Airth's, we found to be no exception to this rule.

This farm, as already said, contains 200 acres. The C. P. R. passes through, cutting off 75 acres from the southern corner; 25 acres have been left in wood on this side where the land is too rocky for arable farming. The surface soil on the rest of the farm is clay loam with a free clay subsoil. A somewhat deep ravine runs near the front of the house and along the back of the barn buildings. Under different management this might have detracted very much from the appearance of this part of the farm, but as it now is, it is attractive and adds, rather than detracts, from the appearance of the surroundings. The second growth timber has been protected on the banks, as well as considerable planting having been done. This work has been carried out with a view to ornament, as well as to form a wind-break and shelter for the buildings. This is a good illustration of what could often be done in transforming the rough features of some unsightly spot. If farmers generally were to display the same good taste as Mr. Airth has done in judiciously planting some of the rough and rugged spots on their farms, and would leave the growing timber standing on portions that would be worthless if cleared, much would be done towards making the landscape view of our country more beautiful, and would, no doubt, if systematically carried out, materially ameliorate the climate. Besides the planting already spoken of, there is a lot of fine timber around the house, and although the dwelling house was one that had not cost a great deal in construction—being a plain frame building, yet the well-kept garden and surroundings generally made it so attractive, that in our eyes Mr. Airth was far in advance of the man possessing the costly house with everything naked and unprepossessing around it.

A general system of draining has been begun, and carried out to a considerable extent; already nine hundred rods have been put down, these are mostly mains. The fences are exceptionally good—strong, straight cedar. The timber being sound, and more than usual pains having been taken in putting them up, they will last for many years without any further expenditure.

This farm, as compared with other well managed farms, may be termed thoroughly clean, giving unmistakable evidence of a high system of tillage.

The usual rotation is, peas on sod, from fifteen to twenty-five acres ordinarily grown, this followed with wheat, then oats, after oats, summer fallow and roots.

It is not necessary to lengthen the report by describing the system of field culture further than to say that the working is thorough and complete. In 1883 there were forty-two acres of spring wheat grown, averaging a fraction over thirty-two bushels an acre over all. Twenty-seven acres of this was on summer fallow, and after roots; the whole of this was manured, the manure being applied much heavier on the land on which roots were grown. The wheat crop, as well as the next year's cut of grass, was much heavier on that part which was summer fallowed than after the roots, but the difference was not nearly so great, Mr. Airth considered, as to make up for the loss of the season's crop. The balance of the wheat was grown after peas. About fifty acres are usually cut for hay. This season there is a marked absence of clover, not only on this farm, but on all others in those eastern counties in which we have been travelling. On making inquiry we found out that it had perished during the winter, and that the past season was exceptional in that respect. But we also found that the quantity of clover seed sown to the acre is much smaller than it is in the west, no doubt largely owing to so little being done in stock-feeding and so much being done in selling hay; a system of farming which only requires time to bring about what naturally follows, an impoverished farm and smaller returns for labour expended. However, the farm we are now dealing with is not one carried on under the starving-out process. We here saw the first turnips growing that we had seen since our work began. These had been well put in on well prepared land. Sowing had

been done on the 20th of June; the plants forward and healthy; the drills straight and evenly made.

It is four years since cattle were first fattened regularly on this farm. Mr. Airth is now so convinced of the importance of fattening stock as a means of keeping up the fertility of the soil, that it is becoming a leading feature in his farming. Last year thirteen stall-fed cattle were sold. The system carried on in feeding is to cut all the fodder and mix with pulped turnips, pea meal and bran, and feed four times a day, being careful to give the stock no more than they will eat up clean without stinting, added to this a small quantity of uncut hay. Result—a large heap of rich manure and heavy crops. A difficulty is found in getting the right sort of stockers. That we can readily understand, judging from what we saw while travelling in these counties, the importance of grading up having been little considered by the majority of the farmers. Besides what is done in fattening, a number of cows are kept, the milk of which is sent to the cheese factory. This season thirteen are being milked. They appear to be a good class of cows for that purpose, looking like heavy milkers, and we would have supposed that the returns would have been greater than an average of $30 per cow, that being the amount realized; in addition to that, however, must be credited the raising of nine calves, and we think it likely that these calves got a more plentiful supply of milk than calves generally do on those farms where the milk is sent to the factory. In speaking of the stall-feeding we might have stated that about five hundred bushels of grain was fed to the stock last winter. The grain is all ground at home by means of a grain-crusher worked by horse power.

The flock of sheep consists of twenty-seven ewes, these are cross-bred Downs. The lambs generally sell in the fall for $2.50. Pigs sufficient for home use are kept.

The barn buildings are log, but exceptionally good of the sort, built of large solid cedar logs, neatly put up and well roofed. They are extensive and well fixed up. In the hay barn a horse fork is used, and what appeared to us a good idea was carried out in the construction of a ventilating shaft passing up from the floor to the roof in the centre of the mows. Altogether they are a pretty useful lot of buildings, including barns, stables, shed, implement house, etc.

Mr. Airth is a first-class, progressive farmer, and one who is not only likely to succeed himself, but by example to exercise an influence for good in awakening in the minds of others the advantages to be derived from carrying out a higher system of agriculture.

JOHN B. GIBBONS' FARM, RENFREW, TOWNSHIP OF HORTON, COUNTY OF RENFREW.

This farm is situated on the opposite side of the road from the one we had just left. It contains 350 acres, of which 150 acres are bush. It has a frontage on the public road of 70 chains. The woodland which lies on north and west side of the farm is rugged and broken. The river Boncherre runs through the bush land on the west side in a deep gorge, which in some places is one hundred and fifty feet deep. The timber is chiefly elm and pine. The soil on the cleared land varies from clay loam to clay, the former predominating. On the east of the homestead a few acres inclines to sand and gravel.

The whole farm is well fenced with straight log and rail fences; of the first there is 4,320 yards.

A great deal of work has been done in bringing this farm into its present shape. The land was mostly timbered with pine, running from thirty to forty stumps an acre. Besides these having to be contended with, there was a great lot of large stone. The fields are now all stumped and all the large stones have been taken off; a good deal of the latter work has been done this season. It has been costly and laborious, as many of the stones required blasting before they could be moved.

The fields, in addition to being cleared of all obstructions to cultivation, are kept clean and well worked. Most of the farm may be considered exceptionally clean, indicating unmistakably that thorough cultivation is the order of the day.

Over 1,800 yards of drains have been laid at a depth of three feet, this covering nearly if not all the land requiring draining.

The average of the crops this year is, spring wheat twenty-five acres; oats ten acres; twenty acres of peas and oats (this will be allowed to partially ripen and will then be cut and cured like hay); two acres of barley, not much of this grain is usually grown; ten acres of peas, an exceptionally fine crop; potatoes one and a half acres; corn one acre; carrots an acre and a half. Potatoes planted on sod had a fine growth; three acres of Hungarian grass is being grown this season to partially take the place of hay, which was expected to be light owing to the meadows being very much injured by the severe weather last winter; about forty acres for hay; and a small piece of oats for summer use. The crops generally speaking were good, and had the appearance of having been well put in on well prepared land.

It may be mentioned that Mr. Gibbons, like all good farmers, ploughs his land in the fall; but he also does what even some pretty fair farmers do not always do, that is, he invariably ploughs again for grain crops in the spring. All grain except wheat is, as a rule fed on the farm. At the time of our visit there were twenty eight cattle, twelve of these were cows. The milk is kept at home and made into butter. The young stock were thrifty looking and well grown, showing signs of having been well done to in the winter. The reader will have remarked that the coarse grains are fed to the stock, and the milk not having been sent to the factory no doubt has something to do with the growthy look of the young stock. And while we readily admit the importance of the cheese and butter interests of this country, and also the wisdom of the farmers in making it a specialty in certain sections which are peculiarly suited for it, yet there is no getting over the fact that we do not usually see fat and well grown calves and yearlings on those farms where the milk is sent to the factory. The sheep comprise a nice little flock of Leicester ewes, these have been crossed with an Oxford Down ram. The ram now on hand is a Shropshire, and a very good sheep. A few pigs are kept for home use, although this season there are twelve, this being about twice the number usually kept.

The dwelling house is built of stone and is a rather pretty farm house. The surroundings are good; the garden is well kept. A noticeable feature is a very beautiful grove of evergreens on the west side. The barns are frame and are fairly good. The implements not in use are kept under cover, are well attended to, and are in good repair.

Mr. Gibbons we class as a good and intelligent farmer, as well as one neat and orderly in his all arrangements.

JONATHAN FRANCIS'S FARM, PAKENHAM, TOWNSHIP OF PAKENHAM, COUNTY OF LANARK.

BRONZE MEDAL.

In the afternoon we took the train for the village of Pakenham in the County of Lanark. On getting off at the station we were fortunate in finding Mr. Francis's son waiting to drive us to the farm. This property lies two miles south of the village. It comprises two hundred acres. The soil is mostly a rich black loam with a porous clay subsoil. All the wet spots have been drained. It is nearly level, with just sufficient incline for water to run freely where drains are required. It comprises 200 acres of as good land probably as can be found in one block in any part of Ontario. There is not an acre of waste or partly waste on the whole farm. The property having been bought at different times, leaves the woodland (twenty-five) acres rather oddly situated. It is a square block exactly in the centre of the front 100 acres. The timber is soft maple, basswood, elm and oak. The elms especially are of immense size, some of them being five feet in diameter, and many of them from three to four. A small corner on the east side of the farm is cut off by the C. P. R., this has been planted with native trees and forms a pretty little grove which will be yet finer when the trees become larger.

The highway runs on two sides of the farm. The fences along these road sides are post and board, the other fences are strong cedar; altogether it is a well fenced farm. The meadows were heavy, and the grain fields had a healthy look with the promise of being a bulky crop if the season continued favourable, indicating a rich and well tilled

soil. If any objection was to be taken it was that some of the fields were not just as free from thistles as they ought to have been on this otherwise well farmed land.

The cattle include a fine lot of large fleshy cows and stylish heifers, showing more breeding than anything we had seen since leaving home. Besides good feeding, a great deal of attention is paid to breeding, which is shown by the use of a well-bred short-horn bull bought from John C. Snell, of Edmonton, County of Peel. Mr. Francis had at the time we were there, a lot of twenty-seven fat steers pasturing on another farm which lies at some distance from the one entered for competition; these steers were sold to be delivered off the grass in early summer. In the sheds were to be seen a lot of fat, contented-looking pigs enjoying life to the full. Every animal on this farm is fat and well cared for. The working teams are strong, blockey horses, just up to our ideas of what farm horses ought to be. Besides the working teams is a pair of drivers and a lot of colts of different ages, with no culls among them.

The homestead comprises an extensive lot of frame buildings. The main yard has buildings on three sides; on one side barn and shed, on the south-west a barn, and on the east horse stable, shed and box-stalls. This yard is all paved with stone; the plan we think an excellent one, and one that might be followed with great advantage and at comparatively little cost by most farmers. From our own knowledge the paving of barn yards is not nearly such a costly matter as some might suppose; but one thing has to be borne in mind, that it is very important that it should be gone about in the right way. Those that we have seen done and which have stood well have been paved with much larger stones than are used in ordinary paving.

At the back of the horse stable and facing the south is an implement shed and harness room. In connection with the first mentioned buildings is a root house built of cedar logs so as to form two walls, with an opening between. This opening is filled for the purpose of making it frost proof. A little to the south-east is a well constructed and nicely painted implement house two stories high; the upper storey is used chiefly for storing grain.

The dwelling house is frame. It, with the attachments, makes quite a large irregularly shaped building. The whole is well painted and very showy. It is surrounded by lovely grounds, comprising well kept lawns, dotted with flower beds, shrubbery and ornamental trees. At the back of the house is a clean and well stocked vegetable and fruit garden. Besides the house proper, with kitchens and woodshed, there is a two storey building adjoining the woodshed, the lower part of which is used for a store-house and the upper part for the bedrooms of the hired men. We need hardly add that at these well appointed premises is a well filled ice-house. In concluding the description of the house we may state that a nicely made drive, lined by a row of Norway spruce on one side and a cedar hedge on the other, leads from the road to the house.

To Mr. Francis we award the Riding prize. And when doing so we would just remark that the prize has not been awarded for the exceptionally pretty and well arranged buildings and finely kept grounds, although they may have been taken into consideration in balancing the weak and strong points of the management of the different competitors; but our decision has been arrived at from the fact that he is the best all round farmer. And while in no particular department of farm management may Mr. Francis be said to stand exceptionally high, yet on the other hand there is exceedingly little to be found fault with.

MR. JAMES PHEE'S FARM, PAKENHAM, TOWNSHIP OF PAKENHAM, COUNTY OF LANARK.

Our next visit was to the farm of Mr. James Phee, lying on the same road as that of Mr. Francis. It contains 100 acres—is nearly level, with a soil of free working clay loam with a porous subsoil. About three hundred and fifty rods of tile draining has been done, four-inch tiles having been used for the mains and three-inch for branches. On enquiry as to the good which draining had done on his farm, Mr. Phee informed us that in some cases he had been more than recouped for the whole cost by the increase in the yield in two years. Some of the very best land at this time was almost worthless before being drained. Eighty acres are under cultivation, and twenty acres in bush.

These twenty acres lies on the south-west side of the farm—near here and sheltered by this woodland, Mr. Phee intends to build a new homestead, the present buildings being located at a different part of the farm. The lumber and stone are already on the ground for a new dwelling house. In describing to us the style of homestead he proposed to build he mentioned that he intended his barn to be on the level as before. We ventured to advise him to build a bank barn, giving the various reasons why we considered it a mistake not to do so on farms where stock-raising and fattening have to be carried on. We don't think we made much impression upon him. Mr. Phee is evidently a man of considerable force of character, who has all his life thought for himself, and as he has been very successful, having worked with his own hands for every dollar he possesses, we can readily understand him, when he has once satisfied himself that a certain course is right for him, that he is disposed to stick to it. But for all that, if he builds his barn on the level he is wrong ; and after all, when he reads over this report he may think the matter over again and change his mind. If he does not, no doubt sometime after this he will wish he had done so.

The fences are fairly good, chiefly rail, cedar and black ash.

The buildings, as may be inferred from what has already been said, are plain, although the barn buildings are roomy.

The acreage of the crops this year is : wheat sixteen acres, barley ten, oats six, oats and peas five, peas five acres, mangolds, turnips and carrots three and a quarter acres ; about an acre of potatoes, and fifteen acres of meadow.

The crops generally had a healthy, strong look. Barley looked exceptionally well. The roots were well forward and had been well attended to. The land on which these were growing has never had manure for thirty-five years, and had only been pastured during that time for two years, making it evident that the manuring had been heavy and the cultivation thorough previous to the sowing of this year's crop.

Fifteen cattle, including seven cows, is the number ordinarily kept. A few are fattened. All the roots and hay, as well as considerable grain, is fed to the stock. A few sheep are kept. The manure is mostly applied to the land intended for roots

Mr. Phee is a practical money-making farmer, and while his farm is not in that shape that would entitle him to receive a prize, it is only fair to say that it is just five years since this farm was bought by its present proprietor ; previous to that it had been rented continuously for twenty-eight years. $7,000 was refused for it last fall. The price of the farm and all that is on it have been paid for out of money earned by himself.

The tract of land on which is situated the last two farms which we have reported on, can hardly be surpassed for fertility in Ontario. It may be described in general terms as lying between the Madawaska and the Mississippi; and then crossing the Mississippi, taking in a portion of Huntly and Pakenham and the greater part of Fitzroy, it follows the course of the Carp till this river empties into the Ottawa. This valley is one of extraordinary fertility and possesses some of the finest farms that are to be found in the eastern part of Ontario. The land in this section will stand a great amount of cropping, indeed it seems practically inexhaustible.

This is a fine level tract of rich clay loam, well suited for growing the ordinary crops of the farm. This land we would consider well adapted for the heavier breeds of beefing cattle. It is fairly dry, and under good management would produce abundance of food for both summer and winter feeding.

There is one feature connected with the farming in these counties not before mentioned, that is the marked absence of bank barns. This can be readily accounted for, as up to this time, the farmers generally speaking, have not paid the slightest attention to the fattening of stock. And it has been our experience in travelling in the different parts of Canada, that wherever farmers have gone largely into the production of beef, in nearly all cases they have found it an advantage to have bank barns. Not only is the stock more comfortable, which means earlier maturity and the laying on of beef more rapidly, but also increased weight for the quantity of food consumed. Besides the gain in that direction, there is a great saving in labour in the winter management of the stock. Nor are these all the advantages gained in building a bank barn as compared with the homestead built on the level. Economy in construction is a very important matter to be con-

sidered, for barn, stables, root-houses, water tanks, sheds, etc., can be more cheaply built under one roof than they can be when each is built under a separate one. This latter consideration is of no small account when every year the price of those materials which enter most largely into the construction of farm homesteads is becoming more costly.

But to return to the work in hand. In the morning we bid adieu to Mr. Francis and his family. We had staid over night at this gentleman's house. He had sent his carriage for us when we came, and he now had us driven back to Pakenham. We feel that we would be very ungrateful if we did not speak of the kindness we had received from him and his family.

We may here remark that a little consideration and assistance on the part of those living in the counties in which this work has to be done, and who are personally interested in it, goes a good deal towards making the work your judges have to perform more pleasing and agreeable than it otherwise would be.

On reaching Pakenham we soon made arrangements to be driven to the next farm. Owing to the rainfall of the day previous the roads were exceedingly heavy, and although good time was made in going from the village to Mr. Snedden's and from there to Almonte, the point at which we struck the C. P. R., the pluck and staying powers of Mr. Dixon's well-bred roadsters were pretty well tried, and if any of our readers in the course of their travels strike Pakenham and are in need of a team, we would advise them to inquire for Mr. Dixon's livery stable.

MR. SNEDDEN'S FARM, ALMONTE, TOWNSHIP OF RAMSAY, COUNTY OF LANARK.

The farm of Mr. Snedden is on the 7th concession, five miles west of Almonte. It comprises 100 acres. The soil, clay loam, with clay subsoil. Looking over the farm, it may be termed level, although when walking over the different fields it was found to be somewhat uneven. Mr. Snedden informed us that this uneveness interfered very much with the growing of evenly ripened crops. On the high points, although seldom more than a few feet higher than the hollows, the grain ripens sooner, and when these spots would be ripe, in the little hollows it would often be green and lodged.

Considerable draining has been done, but more money might yet be expended in that way to the advantage of the farm.

A lane runs from front to rear of the farm, with a single row of fields on one side and a double row on the other.

The field culture, judging from the cleanness of the land and the evenness of the crops at the season of the year when we saw it, is evidently carried on according to a pretty high standard. In fact it is an exceptionally clean farm. The fields are of a general size of about ten acres.

This year's crops consist of one field of spring wheat, two fields of oats, one of peas, and one of peas and oats, and a small piece of potatoes and mangolds. The spring wheat grown this season was after sod ploughed up last July and ploughed again before the frost set in. This crop, with the exception of a small part of the field, was grown without manure. The plan usually followed in preparing the land for wheat when sod is broken up, is to plough, as already said, in July and again before the frost sets in, and if any thistles or weeds make their appearance the gang plough and harrows are used freely between the regular ploughings. After spring wheat grown in this way a crop of oats is taken and then peas. The next season summer fallow, followed with wheat seeded down.

While we do not recommend this rotation, there is this to be said about it, that two important matters are attended to. That is, by the system of preparing the land by summer fallowing it is kept exceptionally clean, and the land is certainly benefited by such a thorough stirring of the soil.

Along the highway is a well put up board fence. The other fences are the ordinary rail, in fairly good shape.

The number of cattle usually kept is about twenty, eight of which are cows ; the milk being made into butter. The young cattle we did not see as they were pasturing on another farm owned by Mr. Snedden, at some distance from the one we were on. The cows are a good lot. Not much is done in fattening. Mr. Snedden is not very clear as

to the advantage derived from growing roots. The crops on some fields on which he has experimented having done better on summer fallow without manure than on similar soil manured, and on which roots had been grown. This, however, does not prove anything conclusively, as a pretty wide question is opened up, and many things have to be known and considered before an intelligent decision could be come to.

A few fairly good sheep are kept. Two pair of very superior horses are kept for the use of the farm—each pair being worth well up to $400. The barn buildings are roomy enough, but like all we have so far seen since our inspection began, not at all up to our idea of what first-class homestead outbuildings ought to be.

ON THE ROAD.

From Mr. Snedden's we drove to Almonte, and there took train to Ottawa. Next morning we were to leave Ottawa at 7 a.m. for Osgoode, in the County of Russell. This, however, being the 4th of July an excursion train was made up, to accommodate those who wished to spend the day with our American cousins on the other side of the St. Lawrence, and as a result the train was considerably behind time in leaving the city. Having a heavy day's work ahead of us the delay rather interfered with our plans, but we hoped to make up the loss of time, by securing a good team at Osgoode. Our disapointment may be imagined, when it was found on arriving at the station, that the village was composed of a small frame tavern, and an equally unpretentious-looking store opposite. We now gave up all thoughts of the first-class team, and began to think that the chances were that we would find ourselves in a fix, as Mark Twain occasionally did in his famous pedestrian tour in Europe. The difficulty had to be met in some way; the first step taken was to interview the tavern-keeper, but he being a very heavy man, and only having a single rig, it was evident at a glance, that it would be impossible for us all to get packed into it. Next the store-keeper was seen. He thought that a farmer living half a mile from the station, on the road on which we were to go, might be induced to take us. Word was at once sent to the gentleman, and the reply sent back that in about an hour he would be ready to start. Your judges being very anxious to make good time, started up the road, valise in hand, to the farmer's residence, and had the satisfaction of seeing preparations well under way. One of your judges, who never seems so well satisfied as when he is working, at once turned in and rendered good service, and we were soon to be seen rushing along the road at three miles an hour; but as ten miles had to be covered before reaching our first stopping-place, it was not to be supposed that we could keep continuously for the whole distance at that high rate of speed, so we gradually slowed down to about two miles an hour.

On reaching Metcalfe we were taken in hand by Mr. Ira Morgan, and our troubles for the day were now over, and we soon found that everything was going to work smoothly so long as we were in his hands. After being hospitably entertained at his house, he took his carriage, and drove us during the afternoon to the different farms, and gave us a most pressing invitation to go back with him and stay over until Monday, when he would drive us to other farms in the county. But as it would have taken us a good many miles from our work, and might have caused us to lose a day, which was to us a matter of considerable importance, as we were both anxious to get back to our own hayfields, while fully appreciating Mr. Morgan's kindness, we decided to stay with Mr. D. McDougall, of Houghton Lodge.

JOHN McDONALD'S FARM, TOWNSHIP OF OSGOODE, COUNTY OF RUSSELL.

The first farm that Mr. Morgan drove us to was that of Mr. John McDonald, six miles south-east of Metcalfe, on the Morrisburgh road.

The farm comprises 200 acres, with a frontage of 840 yards, and running a mile and a quarter back. The soil is a rich black loam, which if properly drained, and well farmed would produce immense crops. Some drainage has been done, but a great deal more is required before it can be called a fairly dry farm; at time of our visit the

greater part of a large field, at the back of the farm on which the cows were pasturing, was almost covered with water.

Eighty acres are in bush; about forty cattle, and a few sheep are kept. Of the cattle twenty-seven are cows, from these $30 per year is realized, the milk being sent to the factory.

A private road runs through the farm, with a row of fields on each side. The fences are fair. Forty-five acres are in grain.

Buildings large and roomy, with considerable stabling, dwelling-house good.

MR. DUNCAN McDONALD'S FARM, TOWNSHIP OF OSGOODE, COUNTY OF RUSSELL.

A mile further on we came to the farm of Mr. Duncan McDonald. This is a first-class 100 acre farm, eighty acres are cleared, the balance hardwood bush. The buildings are prettily situated, on rising ground near the road, and at about an equal distance from each end of the farm. From the buildings a lane runs both ways stopping at the north-east, where it reaches the corner of the wood, and at the opposite side, where it reaches the last two fields. Fields open into this lane from either side. The fences are exceptionally good, and will require but a small expenditure for many years to come, to keep them in repair. On the north corner a field of comparatively new land, was in the course of being cleared up. This work was being well done, and when finished the whole of the cleared part of the farm will be free from any obstructions that would interfere with the cultivation of the fields. Draining has been done to a considerable extent; Mr. McDonald appears to well understand the close connection there is between thorough draining and successful farming—many of the drains which were laid when the work was being done in past years, were done with stone. Latterly tiles have been solely used. Generally speaking the farm may now be said to be a pretty dry one; this was easily noticed from the appearance of the crops, which had that level, even look, which is never seen except on land of uniform dryness.

Besides the young cattle fourteen cows are kept for dairy purposes. On this farm we saw, for the second time since leaving, a pedigreed animal, this was a capital Ayrshire bull in good shape. The purchase was made from Mr. Guy, of Oshawa, and does credit both to the breeder and to the gentleman who bought him.

The stock management on this farm is of a much higher order than on that of many of the farms we had inspected. In the first place, the importance of using a first-class pedigreed sire is well understood, and along with grading, liberal feeding is carried on. All the course grains grown on the farm are consumed by the stock, and as well as dairying considerable is done in fattening cattle. All the grain is crushed at home; Mr. McDonald finds it to be quite a saving to use his own crusher, the work being done mainly in the winter, when the men's time is not so valuable, and at a season when the horses have comparatively little to do and are all the better for exercise. Besides a full stock of cattle, nine horses are now on hand. It was noticeable that all the animals had a well-fed and thriving look, indicating a productive farm, and which is likely to be yet more so from the liberal system of feeding carried on. The dwelling house is showy, useful, and well-constructed. At the time of our first visit the masons were at work building a back-kitchen and wood-shed. A well-made road runs from the highway past the house to the barns. This is nicely graded and planted on either side with maples. The barn buildings are fairly good with stabling for twenty-four cattle.

As we were exceedingly anxious to visit one more farm before night, and as there was all the appearance of a wet afternoon, we could not spare as much time as we would have liked, and for this reason cannot go so fully into the system of field culture as we might have done if more time had been at our disposal. But this can be safely said, that Mr. McDonald by comparison is an advanced farmer, and one who by example is doing a good work in raising the standard of agriculture in the section in which he lives.

MR. D. McDOUGALL'S FARM—HOUGHTON LODGE, DUNCANVILLE, TOWNSHIP OF RUSSELL, COUNTY OF RUSSELL.

Just as the rain began to fall we reached the farm of Mr. McDougall, situated two and a half miles from the tidy little village of Duncanville, in the Township of Russell. It

comprises 200 acres, of which 160 are cleared, the balance, a fine block of hardwood, with a small piece of cedar swamp sufficient for the requirements of the farm. We do not ever remember having seen a finer piece of hardwood bush. The timber is mainly maple, beech, elm and basswood, many of the maples and elms rnnning up to fifty or sixty feet without a branch, and the basswoods are of enormous size and of considerable money value.

During the sugar-making season a thousand trees are tapped, and a large business is done in making sugar and syrup. A well constructed sugar camp, fitted up in such a way as to reduce the labour as much as possible, is located in the most convenient part of the bush. Taking an average year, quite a largè sum is realized from the sale of sugar and syrup, besides what is ased by the family.

On the east and west the farm is bounded by the highway, that to the east being the road leading to Duncanville. Between these two roads, dividing the farm lengthwise, is a lane ; for the most part this lane is planted on each side with maples about fifteen feet apart. The field arrangement is good. This is generally the case where a farm of the ordinary size and shape has no road running through the centre. The fences are fairly good, being partly rail, and the balance (with the exception of a little wire fencing done this season), cedar log.

The homestead is finely situated on the highest point which happens to be just about the centre of the farm. It shows well, as seen from three sides, the view from the fourth being cut off by the wood already spoken of. The dwelling house is built of brick and is a fair stamp of the better class of modern farm houses. It is separated from the barns and stables by the private road, and surrounded on three sides with garden and orchard. The farm buildings, with the exception of a large driving house (which is frame), are log. At the time of our visit considerable alterations were being made, which caused them to be seen at a disadvantage. As already said, the buildings stand on the highest part of the farm, the land sloping to the east and west, terminating with the wood on the east and running down to flats on the west. These flats are as yet undrained, but are covered with a thick bottom of artificial grasses upon which the stock appear to be doing well. A large amount of drainage has been done with stone, the work having been going on more or less since the clearing began.

The soil is a strong clay loam, with a free clay sub-soil apparently of the best description, and like many of the farms we had seen since leaving Metcalfe, of a character to produce abundant crops under proper management. A pretty full stock of cattle are kept, at this time about forty, fourteen of these are being pastured out. A well bred Durham bull heads the herd, the rest of the stock are fair grades. We may say in reference to this herd, that while we deal in this farm examination strictly with things as we find them, and credit nothing to prospective improvement, yet we are warranted in saying that we will be a good deal mistaken if this herd does not, in the hands of such an intelligent farmer as Mr. McDougall, show to better advantage in a few years. He is beginning right by selecting a pure and well bred male. He possesses the knowledge and knows the importance and money value there is in raising the standard of his stock, and he owns a farm capable of raising cattle food in abundance. Most of the grain, excepting wheat, is fed to the stock, and a number of cattle are fattened.

The crops grown are chiefly wheat, peas, and oats ; not much is done in growing roots. There is nothing special in regard to field culture calling for particular remark.

We would sum up by stating that Houghton Lodge is a fine, strong farm, not yet quite in show shape. It is owned and worked by a highly intelligent young farmer, and one who if spared will be very likely to make his mark as an advanced and progressive agriculturist.

GRAPE VINE FARM, OWNED BY MR. RICHARD WILSON, DUNCANVILLE, TOWNSHIP OF RUSSELL, COUNTY OF RUSSELL.

BRONZE MEDAL.

This farm is owned by Mr. Richard Wilson, and is situated four miles from Duncanville. It comprises 300 acres, 100 of which may be termed the home farm ; the other

200 is divided from this by the concession road, and is kept mostly in grass. The soil is red clay with clay subsoil—one of the best private roads we have seen runs from front to rear of the 100 acre farm, coming out on the concession road at the back. Beyond this concession road lies the 200 acre farm. The fences on each side of the private road are as straight as a surveyor's line, the road is nicely graded, and where it would be at all likely to cut up in wet weather or when much teaming was being done, it is well macadamized, some people might think that a farm lane would answer the purpose required, without so much labour being expended upon it. Our idea is that Mr. Wilson acted wisely, and that it is a matter in which a good many farmers might follow his example with great benefit to themselves. It is not by any means a mere matter of looks, but in a case like Mr. Wilson's, where two-thirds of his farm is at the extreme end of this road, and where everything to and from it, as well as from the fields opening into it at either side, passes over it, it is of considerable importance that it should be in the best possible shape. We have no doubt that in actual money value he has been repaid the cost many times over, and besides the advantage, the satisfaction of using such a road every day of the year, and in some parts of the season every hour of the day, is not to be lost sight off. We trust that many farmers reading this report, before another year is over will go and do likewise, for we are sure that there is much need of it on nine farms out of ten. It is a pity that so many farmers think it is time wasted to gather even stones off a road that they are using every day.

The fields on the front 100 acres are of the uniform size of eight acres, on the back farm they are much larger. The fences are all exceptionally good, nearly all cedar log. The fences about the buildings are picket. The front farm has a gentle incline from front to rear, the back farm is level; considerable draining has been done with stone. On that part which has not been underdrained and on which the water would lie in wet weather, open ditches have been made well rounded, so that they can readily be crossed in working,. The fields are pretty free from thistles and weeds, although it is not what might be termed a thoroughly clean farm. A large part of the farm is kept in grass, from forty to fifty acres of grain being about the average quantity grown. This year there are ten acres of wheat, the balance barley, peas and oats; a field of fall wheat had been badly winter-killed. Mr. Wilson informed us, however, that fall wheat usually does well on his farm. The crops generally had a strong, healthy look, and gave indication of pretty good farming. Considerable is done in dairying at this time, thirty-five cows are milked. A bull descended from Model Farm Stock is in use. All the grain grown excepting wheat is fed to the stock.

The buildings are far above the average and well adapted for the requirements of the farm. The two main buildings are each 100 ft. by 36 ft. with two root houses atttached, one 80 ft. by 12 and the other 30 by 12. The stabling is extensive, in the main stables are stalls for thirty-six cows. Besides the stables there are also roomy sheds, for the young stock.

Between the barn buildings and the dwelling house is a long shed in which all the cows are tied when being milked in the summer time, this shed, as the yard adjoining is kept scrupulously clean.

Three teams are kept; we did not see all the horses but those we did see were of the right stamp.

The dwelling house and surroundings are good; pleasantly situated, well managed orchard and finely kept garden; with a full supply of small fruit and vegetables.

This farm is well up in nearly all the points that constitute good farm management, and to Mr. Wilson we award the Bronze Medal for the best managed farm entered for competition in the County of Russell.

Leaving Mr. R. Wilson's we were next driven to the farm of Mr. J. B. Wilson. A nephew of the gentleman whose farm we had just inspected.

MR. J. B. WILSON'S FARM, BEAR BROOK, TOWNSHIP OF CUMBERLAND, COUNTY OF RUSSELL.

This farm, with the historic name of Idlwhyld, is almost romantically located in the Township of Cumberland, ten miles from Eastman's Corners in the direction of Ottawa.

Eastman's Corners we may remark is a trim little village on the Canada Atlantic Railway, and is noted for its medicinal springs.

The little village of Bear Brook is situated on the westward side of the farm, which is also its front. The farm therefore lies easterly from the village in the form of an irregular square, which is rounded on its north-easterly corner by the waters of Bear Brook, which are constantly seeking those of "The Nation," heading towards those of the Ottawa. A spring creek nourishing grateful elm shades, and denser underwood, runs nearly parallel to the Bear Brook along the length of the farm, with an endless flow. A lane with some deviations leads through the farm to the rear, and a quaint old road leading to a quainter settlement runs with something of a slant through the northerly part, separating a high hill which commands a magnificent view of the farm. This hill is rimmed around the crown and down the steep sloping sides with lovely shades. From this hill one could look down on the rich level pastures watered by the Bear Brook and fresh from recent rains, where were feeding the twenty-five head of strong grade cows which supply milk for the cheese factory. These cows are being bred to a fairly good Short Horn Bull of Model Farm ancestry.

A more extended look caught sight of the forty head of store cattle in the rear of the farm, feeding amongst the new lands as yet numerously covered with the stumps of trees removed in clearing. On the north centre is a high sandy hill, but yet sufficiently production to grow good turnips. Indeed, this farm of 280 acres in extent embraces every variety of soil that a Canadian could wish for. With its continuous undulations, till the long stretch of flats along the brook is reached, the abundance of water everywhere upon it, and its great store of shade trees, it is pre-eminently fitted for a stock farm, and in this direction Mr. Wilson is looking so soon as suitable stock can be secured. At present large crops of spring wheat and oats are growing upon it, along with roots of a most luxuriant growth, and enough of hay for the wants of the farm.

The dwelling house built of brick is good, substantial and attractive in its appearance, but the barns and other buildings forming the homestead are only ordinary. However, a large new barn is now under construction. On this farm is a large natural basin fringed all around with shade trees. This basin can be easily filled with spring water, and it is the intention of the proprietor to utilize it as a fish pond. As it will cost but little, the idea appears to be a good one.

As Mr. Wilson, who is quite a young man, has been scarce a year on the farm, it is not to be expected that it will show to such advantage as it would have done had it been for a longer period under the present proprietor's management, and it will of course take time to erase all traces of the tenant system hitherto adopted in working, and which so soon shows to a disadvantage in almost all parts of the country where this system is in force.

ON THE ROAD.

On finishing our inspection we left for Eastman's Corners, with the hope that we would reach the station in time to catch the midday express for Ottawa. We did not catch the train, but the train caught us and passed just as we were going forward to the station, and we were left eleven miles from Ottawa in a village where no horse could be hired at any price, and no other train passing until late at night. Fortunately, however, after a good deal of fruitless inquiry, we met a farmer who for "a consideration" agreed to take us through to the city.

From Idlwyld to Eastman's Corners is a splended highway for pilgrims of a penitential turn of mind. It is cut through forest where the strong growths have been borne away, and is diversified with long stretches of the ancient corduroy, which was a relief from the mud-puddles alternating.

From Eastman's Corners to Ottawa the highway led us through a plain country with the valley of the green river much of the way on the right. As our seats were well fastened and the driver was canny, by dint of holding well to them we were not thrown out in crossing the dangerous gulleys that hindered our onward progress. It may have been an unkind thought, but we thought it all the same, that if the men who legislate so

much for the Pacific Railway would build a road within five miles of the capital that would not be positively dangerous to drive along at night it would not be amiss.

By the time we had reached Ottawa we had driven somewhere between thirty and forty miles that day, and examined two farms. The weather had also been intensely warm, so our readers can well imagine how pleased we were when at last we got seated in the parlor of our hotel. One more little matter had to be attended to, and then our day's work was over. The livery stable man was seen, and arrangements were made for a start at seven o'clock sharp next morning to go out to the farms on the Richmond road in the County of Carleton. Next morning our man and team were on hand at the appointed time, but as it was raining very heavily and continued to rain until noon, we did not get started till nearly one o'clock.

From Ottawa westward to "Lakeview," the home of Mr. William Graham, in the Township of Nepean, the scenery is surpassingly beautiful. Our drive along the Richmond road, which is uncommonly well kept, more than made up for the troubles of the previous day. Instead of our safety depending on the firm hold that we kept of our seats, without even the satisfaction of getting over the road rapidly, as was the case the previous day, we now had a pair of first-class roadsters making their nine miles an hour, with a comfortable carriage to ride in. For a few miles after leaving the city rich suburban residences rise up on either hand, with surroundings which ought to satisfy the taste of the most fastidious. Then over on the right there is the river with its restless waters half hidden with long rafts of unsawn timber, and on its farther shore what seems irregularly terraced hills, where numerous homesteads half hidden by the forests dot the land, while the mountains rise up higher in the distance.

In keeping with the scenery is the soil. Its fertility is very great, and is only outdone by the industry of the inhabitants, as we shall presently show.

We first called at Mr. William Graham's, but that gentleman being from home we did no more than take a look at his stock, some of which were pasturing in a field by the road side and others were in the stables. Passing on to Mr. Thomas Graham's, and from there to Mr. Beardman's, we soon saw enough to convince us that the highest prizes were going to be taken by these men on the Richmond road, and in view of the fact that the greatest care would require to be taken so that no injustice should be done in making the awards, we considered it the best plan to take notes of the appearance of the crops, cleanness of the land, and such other mattters as could be better seen at this time than afterwards, and then make a second and more careful inspection later in the season. Accordingly, after spending the afternoon on these three farms, we left for the city and took the night express for home

SECOND TRIP OF JUDGES.

On the evening of the 26th of August we again met in Toronto, and, taking the night express, reached Morrisburgh about 5 a. m. next morning. We should have mentioned that since our former examination of farms another had been entered in the County of Stormont, and to visit this it was necessary to go to Morrisburgh, and from there drive twenty-four miles. As we had arranged to be in Ottawa that night, and also had Mr. McKinnon's farm to inspect, making forty miles of a drive to reach the nearest railway station on the Canada Atlantic, it was necessary that no time should be lost. Having secured a good team, our first stage of twenty-four miles (the distance between Morrisburgh and Mr. McKinnon's) was made in good time, although four miles extra were added, through our taking a wrong turn. On our way we drove for the most part on a well made macadamized road, passing through a fine agricultural section. The farms appear to be well tilled and the homesteads as a rule are good, the whole having a prosperous look. On our way we passed through the villages of North Williamsburgh, Boak's Hill, Dunbar and Grantly. After leaving the last mentioned village the land for a mile or two was very stony, but was bearing good crops. At Dunbar we stopped for a few minutes and had a look at one of the two cheese factories that are there. These do a large business, manufacturing the cheese from the milk of 1,350 cows. The average amount realized per cow for the season we were told runs from $28 to $40.

D. P. McKINNON'S FARM, SOUTH FINCH, TOWNSHIP OF FINCH, COUNTY OF STORMONT.

BRONZE MEDAL.

This farm is twenty-four miles from Morrisburgh, two miles from the village of South Finch, and sixteen miles from South Indian, the nearest station on the Canada Atlantic Railroad. It is in the shape of a rectangle bounded on three sides by the public highway. It comprises 200 acres, 135 of which are cleared, the balance is bush and partially cleared land, sixty acres are timbered with second growth poplar, previous to this second growth springing up it was heavily timbered with pine and oak. This block of woodland is in the centre of the west hundred. There is also four or five acres of woodland in the north-east corner. At this corner a deeply bedded stream cuts off about four acres. This stream crosses the road and enters the farm near the front entrance, and runs just inside the edge of the bush and again crosses the highway on what is termed the end line, emptying its waters into the Nation, a tributary of the Ottawa, a mile and a half farther north. The timber along the banks of the stream is oak, rim ash and white ash. Between the east bank of this stream and the corner of the farm is a nice maple grove of two acres.

The soil is a mixture of clay and black loam, with a free subsoil of friable clay. It appears to be an exceptionally fine grain-producing farm. At the time of our visit Mr. McKinnon was in the midst of his wheat harvest. The crop was heavy and the straw bright and clean.

No underdraining has been done, but a complete system of surface draining has been carried out. A large main ditch runs lengthways of the farm from north to south, the water running in a northerly direction. This ditch is on the line between the 200 acres. The east hundred has a ditch around every ten acres; the cleared part of the west hundred is also drained in the same way. We have no doubt that many reading this report will picture in their minds long rows of weeds growing on the margins of these ditches; if so, in this case, they are mistaken, for while generally speaking, open ditches are nurseries for growing every sort of foul weed, there are exceptions. On Mr. McKinnon's farm they are kept absolutely clean, not a weed or thistle to be seen, and in this respect they are models of what open ditches ought to be.

Now we are not going to recommend this plan of getting rid of surplus water, on the contrary we think that as a rule it is a great mistake to have an open ditch at all where it can be avoided. We are the more particular in saying this, as we do not want anything appearing in this report as recommended by us which we believe as a rule to be wrong in practice. There are, however, exceptions to every rule, and as far as we could judge from seeing the farm at a dry season, and looking at the splendid crops to be seen in every field, we are inclined to think that the plan he is carrying out, under the circumstances is not far wrong. Wherein his farm differs from most others which are troubled with a superabundance of moisture, is that there are no wet or springy spots, the subsoil is free and porous, the fields nearly level, with just enough of fall for the water to run, and all that is required is to get rid of the surface water quickly in wet times.

There is a peculiarity about the soil of this farm which is not seen in many parts of Ontario. To those who are acquainted with the country around Chatham, there will appear a great similarity in the soils, perhaps best described by saying that these are rich, deep and porous.

The fences are made of sixteen feet cedar logs, they are well put up and in good shape.

A very noticeable feature of the management of this farm is the exceptional cleanness of the land, not a weed of any sort except a few thistles, and they are so few that if all that are on the farm were upon half an acre they would then be no thicker than they are to be seen over the whole area of many farms.

The cleared part of the farm is divided mainly into three large fields, which in the aggregate comprise one hundred and ten acres, the balance of the cleared land is made up of some small fields near the buildings. On a farm where much stock is pastured these large fields would be inconvenient, but as few cattle are kept these find sufficient pasture on the partially cleared land and the margin of grass land which is fenced with the bush, along with the run of the fields after harvest.

The crops comprise thirty-five acres of spring wheat, twenty-two acres of oats, and nine acres of peas. All the crops were exceptionally good, clean, bright straw, and heavy full heads; the oats were not what might be termed heavy, but, standing up well, the yield would be good. Twenty-five acres of the wheat were sown on sod, half of which was ploughed in the fall and half in the spring. That ploughed in the fall was turned up six inches deep, and worked thoroughly in the spring with cultivator and harrows; that ploughed in the spring was broken four inches deep, and worked with cultivator and harrows, until it was torn to pieces and made quite fine. After sowing it was rolled with heavy iron roller. The sowing was done from the 18th to 20th of May. Peas were sown on the 10th of June; these were heavily podded, with clean straw and no appearance of mildew. The sowing of all the grain was done much later than usual, on account of the lateness of the season. The rotation ordinarily followed is to sow wheat on sod, this followed with a crop of peas, and then wheat seeded down. Sometimes wheat is grown two years in succession, and seeded down the second crop. The oat crop is not grown as a crop in rotation, but is what may be termed a catch crop.

This year ten acres of wheat was on land that had grown wheat the year previous. No difference could be seen in this, as compared with the other twenty-five acres.

Very little stock of any sort is kept. No cattle or sheep are fattened. Ten or twelve pigs are raised and fattened annually. Taking a course of years, about one hundred tons of hay are grown annually, of which seventy-five are sold at an average of about $12 a ton.

The dwelling-house is a neat frame building. The barns and other buildings comprising the homestead are fairly good, and suitable for the system of farming followed by Mr. McKinnon.

Mr. McKinnon seems to obtain a maximum of profit by using a minimum of labour.

ON THE ROAD.

In the afternoon, our horses having had a good rest after their twenty-eight miles drive, we left for South Indian. Not much can be said of the country we passed through, excepting that after driving a few miles the land gradually became poorer, the buildings of a cheaper and meaner class, and the road decidedly worse as we came nearer the station. On our way we passed through the village of Crysler. The inhabitants of this place, as well as the farmers between this point and the station, are nearly all French Canadians, and while we do not wish to draw any comparison between the people of this nationality and those of the Anglo-Saxon race, we may be permitted to say that as farmers they cling a little too much to the habits, and follow rather closely the ways of their forefathers. And further, we may add that before they take a place in the front ranks of the progressive farmers of the day, many an old prejudice must be buried, and a great change must take place in their system of farming.

Leaving the station sharp on time, a half-hour run brought us to the city. Next morning we drove out to make our second inspection of the farms on the Richmond road near Bell's Corners. On the rising ground, a short distance from Mr. Graham's, on the Ottawa side, a view is obtained which, of the sort, is perhaps unsurpassed in Ontario. From this point can be seen some of the grandest farms in the Province, and some of the finest river scenery on the continent. But as the Provincial Association did not send us out to describe scenery, and as it is more than likely that we would fail if we tried, we will just go quietly on with the work we were intrusted to do. To resume, on our arrival at Mr. Graham's we were informed that Mr. Beardman did not wish to compete; this left the competition, as far as the County of Carleton was concerned, to the Messrs Graham. Although Mr. Beardman was not a competitor, he might well have been one. He owns a magnificent property, comprising 600 acres in one block, with buildings, which when finished this fall, will probably not have their equal in Ontario, as farm buildings, where farming is carried out in the ordinary way. Besides other accommodation there will be stalls for one hundred and fifty cattle—sixty are fattened annually. Last spring twenty were sold early in the season at five cents per lb., and forty some weeks later at five and three-quarter cents. To give an idea of the immense crops grown, besides the produce con-

sumed, 100 acres of grass was sold, in the summer of '84—this brought $10.50 per acre, the purchasers doing all the work of cutting, curing and hauling. The reason Mr. Beardman did not compete is owing to the extensive improvements being carried out this season, this leaving his farm not so trim as he would have liked it to have been when coming in competition with others.

MR. WM. GRAHAM'S FARM, BELL'S CORNERS, TP. OF NEPEAN, COUNTY OF CARLETON.

FIRST SILVER MEDAL.

The Richmond road, seven miles from Ottawa, passes through this farm, leaving nearly an equal quantity of land on either side. The whole farm comprises a little over 300 acres. The south end is bounded by the second concession, and the north by the Ottawa river. At this point the river widens out and is known as Lake Deschane, here is also situated Graham's Bay, a nice sheltered spot, thickly timbered down to the very edge of the clean, sandy shore. Those acquainted with the river will know the situation of this farm when we mention that here also is the light-house.

The farm is well watered by two small creeks, one of which crosses the second concession and enters the farm on the south-east corner, and the other entering on the east side, above the buildings. Both these streams cross the Richmond road and join their waters at a point a short distance below this road, and near the marsh line on the west side of the farm, then passing through the lower part of Mr. Thomas Graham's property, enter the Ottawa river. These streams add much to the value of this property, making it an exceptionally well watered farm. The small stream entering from the west runs through what was originally beaver meadow flats, and, as Mr. Graham described it, almost bottomless before being drained. Now that land is all well drained and produces heavy crops of grain and grass. At the time of our August visit a lot of grand growthy young cattle which had been raised on the farm were feeding on its rich pastures. We could not but contrast the difference in the lot of these contented-looking animals, passing through their short life with all that makes animal life enjoyable—in the warm summer days feeding in rich pastures, in which is abundance of clear running water and leafy shades—for we may add that in these fields are pretty clumps of evergreens, and on the banks of the little stream some graceful elms, and when the cold of winter comes on they are housed in comfortable quarters with food supply in abundance—with the miserable scrubs which in the summer are seen on too many road sides, starved and wretched-looking, hounded from every man's gate, and when winter comes on are to be seen with arched backs and staring coats dragging out a miserable existence in unsheltered barn-yards. The other and larger stream runs with winding course in a deep trough-like bed thickly fringed on either side with oak, elm, basswood and birch. It is very noticeable that on the banks of the streams in these counties in the eastern part of Ontario as well as in Lower Canada, the trees grow much more thickly than they do in the west. At the end of the farm next the river the cattle when pasturing there, have free access to the water. Altogether it is an exceptionally well-watered farm.

The soil varies a good deal; generally speaking it may be said to be loam, clay loam, and towards the back part of the farm where the land gradually rises, it is stiffish clay, just such a variety of soils as requires close observation, experience and a good knowledge of farming before the most can be made of them. The fields are mostly fifty-five rods one way by forty another.

The fences are the very best of their kind, strong, straight and neat, built of cedar logs sixteen feet long. This cedar costs nine cents per stick and has to be drawn fifteen miles. Fifteen to twenty sticks makes a full load; this will give a pretty good idea of the cost of the fences. Mr. Graham estimates that it would cost $2,000 to replace them. A good deal has been done in draining; wherever it was thought that the land would be benefited by a drain, one has been put down. These drains are all laid with stone, a system of draining not at all to compare with well-made tiles; but stones had to be used on account of the great distance the tiles would have had to be brought.

Not much has been done in planting, but great care has been exercised in nursing and fostering second growth trees, and now along the banks of the streams, and dotted here and there at different places about the farm, where it was thought they would be useful or beautiful, are trees single or in groups. And on this farm, it must be remembered, in the fall of 1875, after the great fire which left so many people houseless in the district, hardly a living tree or bush was left. The young trees, many of which are now quite large, are chiefly oak, birch, basswood, elm and butternut. The land, generally speaking, is very clean, and with the exception of one field, free from thistles. The exception is a field that was seeded down to grass this spring; the seeds were sown on the naked land, the grass has not taken well, and the thistles have come up somewhat thickly.

The ordinary rotation which is carried out on this farm, as far as practicable with its diversity of soil, is to plough up grass land in the fall, and sow with peas in the spring. After harvesting the peas, barnyard manure is ploughed in in the fall. The following spring the land is prepared for spring wheat which is drilled in, and the land is laid down to grass. Usually three crops of hay are taken, and then the land is either pastured or ploughed again. Oats are generally sown on land which has been pastured the year previous, and is followed by roots. For the root crop the land is ploughed in the fall, manure drawn out in the winter and piled in large heaps. The land is deeply cultivated in the spring, the manure is spread broadcast and ploughed in, and the soil thoroughly prepared before drilling. After the root crop is taken off the land is ploughed, and sown with wheat and seeded down the next spring.

A leading feature on this farm is the raising and fattening of cattle. This is carried on extensively—from thirty to thirty-five head of shipping steers are fattened annually—the past spring 5½ cents per lb. was realized for the whole lot, the average weight being 1,436 lbs., and in the spring of 1884, 6½ cents was made all round. This will let our western feeders see that there are some men down east who can make an average both in weight and price equal to anything done in the west. Men in the business, or those who understand it well, will have a pretty good idea which class of cattle Mr. Graham handles, and in what shape he turns them out. As regards the profit in feeding last winter—farmers and others can draw their own conclusions—the selling price we have given, and the price they were bought at was 3¾ cents per. lb.

The Messrs. Graham and Beardman generally buy their stockers in the Montreal market, finding it to their advantage to buy from middlemen rather than direct from the farmers. This is partly owing to the difficulty there would be in getting the class of cattle they like to feed in the section of country in which they live. If all our western farmers were fully alive to their own interests, it would make it a little more difficult for that class of cattle to be bought, even in the Montreal markets. As well as going largely into making beef, a good deal is done in raising short-horns. The herd comprises a number of good animals. This year's calves are large and growthy, possessing good points. This herd was started from two cows bought from Russell, of Richmond Hill, and a bull from J. C. Snell, of Edmonton; the next bull used in this herd was bred by M. H. Cochrane. Since then purchases have been made from Groffs, of Elmira, and the one now heading the herd from Messrs. J. and W. Watt, of Salem. Females have also been purchased at different times from the last named gentlemen, and at the model farm sale in the fall of 1883. We found the system of winter feeding practised on this farm similar to that adopted by most of the best stock men. All fodder is cut, when the straw is good a much larger percentage is used with the hay than is commonly done by those who follow this plan of feeding. Mr. Graham places a much higher value on straw when used as cut fodder than most farmers do. When the peas are got in without the straw being much damaged by the weather, it is all passed through the straw cutter and mixed with the other fodder, this we were informed answers exceedingly well. We mention this as it is a question whether many of our even good farmers make the most profitable use of their straw, and especially in seasons when coarse grains and bran are so low that they could with cut straw be used in a way that would make beef-making profitable, and add largely to the value of the manure heap.

The buildings are extensive and complete. We will try to describe them, and will commence by taking one side of the yard on which is a cattle stable, 130 feet by 30, with

two rows of single stalls facing the centre, and a wide feeding passage between the cattle. The cattle are all fed from this passage, a well and pump is also in this part of the stable, from which water is pumped into a small trough which runs along in front of all the cattle; this trough can be covered or uncovered, as required, with little trouble.

The stable is paved with stone, and a shallow flat gutter about a foot wide is behind the cattle, in this way all the soakage goes into this gutter, which being quite smooth at the bottom is easily kept clean, and the other parts of the floor are always dry. At a right angle joining this building at the east end is a barn 122 by 40; at the north side is a loose stable, a shed and a sheep house 90 by 22, with loft over all; on the fourth side is a barn 40 by 50, and root house 35 by 40 with loft above, on this side is also a horse stable with stalls for eleven horses; between this stable and the last mentioned is a wide drive way with a loft over it, the same height as the horse stable, this drive way has large double doors at each side to the height of the floor of the loft, this makes the yard quite close when the doors are shut or they can be left open in the summer time when desirable. The yard is about 100 feet square, is well graded and has a hard bottom at all seasons. We should have mentioned that between the passage way and small barn is a hen house with yard. The root house is stone and being mostly above ground is protected from frost by being lined inside with boards, and an opening of three inches left between the wall and the boards; this makes it frost-proof. On the west side and nearer the dwelling house is a large implement shed and granary; the object Mr. Graham had in having the granary a detached building, and on the west side, is on account of fire, thinking it to be safer there. While that is true, it certainly adds greatly to the work of handling the grain. The dwelling house is a substantial and showy building; the gardens well stocked with fruit and vegetables, clean, trim, and well kept; the yards and all about the buildings tidy, and in good order.

The management of the manure is in keeping with the general management of the farm; there is no loss going on here through undue exposure or waste from washing or leeching. All that is made in the summer is put on a pile convenient to the homestead, this is kept well edged up and all refuse is carted on to it.

At the time of our first visit the crops were strong and healthy looking; when we made the second inspection the wheat was all housed, it had ripened well and was free from rust, but had been injured somewhat with the midge. The peas were being drawn in at the time we were there, and were being housed in good order; the meadows had yielded heavily, and the hay had been got in without injury from rain.

Mr. Graham has one son at home who assists him in the management of the farm. None of the hired help is boarded in the house, all the work being accomplished by married men living in houses provided for them on the farm. We unhesitatingly pronounce in favour of the wisdom of this method. It has the following advantages, among others:

First. It frees farmers' wives and daughters from a large amount of oppressive drudgery which they would otherwise have to undergo. The wives and daughters of the merchant and manufacturer escape this humiliating yoke, and where is the reason or necessity for imposing it on the farmer. It is a stigma on the profession that the guardians of our homes should become the servants of servants. Home with all its sacred privacies and endearing associations is the heaven-born heritage of the farmer as well as of other men, and no custom nor even law of necessity has a right to demand that this privacy shall be broken in upon.

Second. Married men with families hesitate before leaving a situation, and are therefore likely to become more permanent workmen.

Third. Single men employed may be boarded with these, which obviates a difficulty that could not well otherwise be disposed of.

MR. THOMAS GRAHAM'S FARM, BELL'S CORNERS, TOWNSHIP OF NEPEAN, COUNTY OF CARLETON.

GOLD MEDAL.

A few minutes walk took us from Mr. Wm. Graham's to the next and last farm on the list. This is known as "Rock Farm," and is owned by Mr. Thomas Graham. The

farm consists of 298 acres. The lot on the west side comprises 200 acres. It extends back from the Ottawa river to the base line, a distance of 1¼ miles. It also includes in the same range, in the rear, 40 acres from the south-west quarter of lot 17, owned by Mr. Wm. Graham, and also 62 acres across the base line, on the Rideau front, and in rear of lots 16 and 17. The farm is divided in the centre by the Richmond macadamized road. The steading is on the south side of this road and westerly centrical in relation to the farm. Ottawa is seven miles distant, and Bell's Corners, the post-office, one mile. In front of the house is a beautiful grove of balsam, spruce, elm, soft maple, hard maple, birch, and other native trees, which would make a pretty picnic ground. In addition to the other vegetables growing in the garden, there is about a quarter of an acre of red onions. This piece of land was sown last year also with onions, and produced 150 bags, which sold at $1.00 per bag. Grapes are growing finely, and promise well, but are later than in the west. The orchard, like most of those in this neighbourhood, consists mainly of crab trees—three varieties of the Siberian, one of the Transcendant, and one of the Hislap, etc. It is surrounded on two sides by a fringe of wild plum trees, which hang full of their red, tempting fruit. This consists of about two acres, and is a source of much revenue, owing to the high prices paid at Ottawa for the fruit. The fields in the rear of the house are irregular in size, owing to the broken nature of the ground, and are fenced in the main with straight cedar logs, with a few lines of pine stump fence, and also of board fence. In this respect, Mr. Wm. Graham, on the whole, has the advantage. The rear 62 acres have only been in the possession of Mr. Graham two years. It shows signs of the deplorable neglect of long years, but also gives the most unmistakable indication of change of ownership. Underdrains are already doing their work of transformation. Little hollows intersect the land. These are densely wooded after the fashion of the Ottawa valley.

But this farm possessed an eyesore to the sluggish farmer which the enterprise of Mr. Graham is transforming into a source of blessing without any admixture of alloy. It consists of a spot of springy land on the crown of the highest ground. At the time of our first visit we had to hurry over the ground to prevent miring. At the time of the second visit, six weeks later, a cistern had been sunk, the aimless waters collected, and a drain cut averaging five feet deep and 177 rods long from this to the steading, where a large tank is to be built which will bring an abundant flow of waters into the house and into every apartment of the stables where needed. Three-inch tiles are used; these are laid in cement and also carefully cemented at each joint. Mr. Graham considers tiles laid in this way preferable to either iron or wood, and he can speak from experience, as the present water supply is from a spring at a distance of three-quarters of a mile from the buildings, the water being brought in underground pipes. Water is being sought from this new source because the spring furnishing the present supply has proved insufficient in a dry season, and for the further reason, at the time when the work was done Mr. G. did not own the property from which he is now conducting the water, and could not arrange satisfactorily with the then owner. The tiles which are being used were drawn from Arnprior, a distance of forty miles. This task, difficult as it may seem, has been accomplished thus far with an outlay of $250 outside of home labour.

The view from this height is singularly beautiful. In front, after looking over the lower ground of splendidly cultivated fields, the Deschane lake stretches on for twenty miles. Over the Ottawa rise the tree-clad hills, tree above tree, always looking up into the endless, though varying, beauties of an over-arching sky. Hills, hollows, tree-clad, and treeless ground alternating on every hand. This magnificent valley has been singularly favoured by nature, but we question as to whether nature or the Messrs. Graham have done the most to add to its great fertility. The soil is undoubtedly a drift deposit of very rich clay loam, with enough of sand to keep it in a crumbly state. The subsoil is also open.

Mr. Graham, like his neighbours on either side, goes largely into fattening cattle for the British markets—from thirty to thirty-five head are turned out yearly. Last spring they were sold for from 5½ to 6½ cents per lb. At the present time there are forty head on the farm. Double that number are wintered. The stockers have not yet been bought for next winter's feeding. Mr. Graham assures us that the success in crop production is

to be credited almost wholly to stock-keeping, as now they can grow three tons of hay to every one they grew before, and other things in proportion. They are pioneers in the work in this neighbourhood. On this farm, as on that last described, a good deal of the land is kept in grass; it is therefore almost unnecessary to say that on this well-drained, highly-tilled, and heavily-manured land the yield of grain per acre is exceptionally heavy. Last year the spring wheat averaged 43 bushels per acre. We neglected to mention that on Wm. Graham's farm the average all round was over 42 bushels per acre. On the farm we are now describing there is on hand at present a large quantity of peas and oats left over from last season, and this after 86 head of cattle had been wintered, 35 of which had been sold as heavy shipping steers. In addition to the grain fed to the cattle, all the working horses are kept in the stable in the summer and fed on grain and hay, only being turned on the grass for two weeks every spring after seeding. On the occasion of our first visit the growing crops were strong and even; when we were there the second time we found the grain, which was still uncut, strong, with clean straw, heavy heads, and free from rust.

The ordinary rotation is to plough up sod, sow peas on part and oats on the balance, then spring wheat after peas. That part on which oats are grown is followed with roots; after roots a crop of spring wheat is taken, and the land seeded down. Three grain crops are rarely grown in succession. The system followed in preparing the land for the different crops is to plough in the fall for peas and oats, plough in manure in the fall for spring wheat, cultivate as early as the land can be worked in the spring, 2 or 2½ inches deep, drill in one bushel of wheat per acre, and sow grass seed on the freshly cultivated land, harrow and roll, and get the work all done before the land gets too dry. Mr. Graham prefers when seeding to have the seed sown and all the work required to be done on each field completed while the freshly stirred up soil is still warm and moist. Potatoes are planted from the 15th to the 20th of May. The following is the method adopted: Well rotted manure is spread evenly over the land which had been ploughed in the fall, this having been ploughed in and the land well prepared by harrowing, a marker is used, which marks four drills at a time 2½ feet between the rows, and from 1½ to 2 inches deep, uncut potatoes are then planted two feet apart, and are covered with a drill plough. As soon as the seed is well sprouted the drills are harrowed with an oval harrow in a few days they are again covered with the plough, and again harrowed down, and then left until they are moulded up. We do not say that this way of growing potatoes is better than the method ordinarily followed, but we do say this, that the crop as we saw it looked remarkably well as a result of such treatment. The digging is done with a potato digger. This is a curious looking implement, but it does the work well, throwing all the potatoes on to the surface, leaving them in good shape to dry and easy to pick. The manure is ploughed in for turnips in the spring, the land well worked, and drilling and sowing follow directly after the last ploughing. To use Mr. Graham's own words, as soon as half an acre is ploughed it is drilled and sowed. The idea is carried out here as in sowing wheat, that is, to have the seed sown on the warm, freshly stirred soil. As soon as the turnips appear the horse hoe is put to work, and nothing but turnips is allowed to grow. Mr. Graham says he *can't afford* to grow thistles and weeds on his farm. The turnip tops are ploughed under, and next spring the land is sown with wheat and seeded down.

The management of the manure is in advance of anything we had seen on any of the farms previously inspected. Mr. Graham places too much importance on stock-feeding as a means of keeping up and increasing the fertility of the soil, and places too high a value on the manure heap to allow it to be wasted through carelessness and mismanagement. Convenient to the stables is a very large manure house, into which all manure from the stables is wheeled, and allowed to remain until partially rotted; it is then drawn and piled in large heaps in the fields in which it is going to be used. A layer of fresh manure from the horse stables is used as a foundation for these piles, and the sides are kept well squared up to prevent leaching. In the spring these piles are turned, and the manure used as required. No liquid manure is allowed to go to waste, a large tank, 25 by 20 feet and 12 feet deep, is so constructed that all soakage passes into it; this is drawn to the field in a tank, in which is fixed sprinklers, and is applied to the meadows or such other fields as may be desirable.

The system of stock-feeding need not be described; it is similar in every respect to that of Mr. Wm. Graham, already pretty fully detailed. We may just add that all grain is crushed, turnips fed uncut, fodder all cut, and sometimes the straw used for bedding is also cut; bran is used freely with crushed grain for the horses in the summer, and full feeding is the order of the day all the year round.

When sheep used to be kept they also were fed mainly on cut fodder; but a year or two ago all the sheep were sold from these two farms, and it is not likely any more will be raised or fed, unless there come a change in the relative value between them and cattle, as the Messrs. Graham consider that the greatest profit is derived from raising and feeding the cattle.

The buildings make three sides of a square, opening to the south.

The main building on the north is 150 by 40 feet broad; 100 feet of the basement, which is under the whole of it, is devoted to root-house, and stabling for fifty head of cattle.

On the south front is a granary facing the yard, 86 by 16 feet, with cow-house under neath. The wing at the east side extends southward from the barn 86 by 36 feet. Basements with nine feet of stone wall are under the whole range of buildings. The wing at the west side is 25 by 80 feet, the basement of which at the south end is used for a horse stable, and the other part for a sheep house, with a drive way in the centre and a hay-loft overhead. The straw shed and manure house are at the back of the barn. The former is at the N. E. corner, and is 64 by 25 feet with 25 feet posts on the back. The manure house is to the west of the straw house, but under the same roof, and is floored above on a level with the barn, which portion is used as a tool and implement house.

The number of stalls we in some way neglected to take a note of; but I think, speaking from memory, that 105 head of cattle can be housed, all, or nearly all of which would be tied in single stalls.

The water supply to these buildings, as well as to the dwelling houses and yards, is exceptionally good. As already said, it is brought from a spring, three-quarters of a mile in wooden and iron pipes. The expense was borne jointly with his enterprising neighbour, Mr. Beardman, who also is supplied in this way. The water first comes into Mr. Graham's kitchen, then flows to the stables and yards. The cattle in the stables are supplied with water in a trough in front of the feed boxes. This is filled by means of a large tap.

The work connected with watering the stock when in the stables is so simple that a boy can perform the whole operation, including covering and uncovering the troughs, in a few minutes. The spring from which this water supply is derived is on Mr. Beardman's property. When Mr. Graham finishes laying the pipe to the spring on his own farm, the one now in use will no longer be required.

The work of the farm is performed by men boarding in the house, varying in number according to the work to be done; from three to five are the usual number employed.

The competition between this farm and that of Mr. Wm. Graham was an exceedingly close one. In natural advantages of situation the farms are very nearly equal. In natural fertility of soil, if anything, the advantage lies with Mr. Thomas Graham. In cleanness of cultivation, the rotation practised, and the kind and character of the stock kept, they are pretty evenly balanced. In the prices and natural water supply, Mr. Wm. Graham has a slight advantage, but in the artificial water supply, the construction of the barns and the management of the liquid manure, Mr. Thomas Graham has sufficiently the advantage to entitle him to the proud position of owning the Gold Medal Farm of 1885.

It was to your Judges exceedingly refreshing to meet with two such farms as those owned by the Messrs. Graham, in a region looked upon by many in Western Ontario as one of rock and sterile stony ground, and in a country where the ordinary cultivation is such that prize farms cannot be said to abound.

The Messrs. Graham fearlessly took hold of the lands they own, when they were shunned by other men on the supposition that they were hopelessly wet; and by dint of hard blows and unceasing efforts directed by well utilized brain power, have transformed them into the Gold and first Silver Medal Farm of 1885. A striking instance of that pluck which placed the Anglo-Saxon in the ownership of nearly half the globe, and in possession of all that is best worth having in the onward march of civilization. Nor would it be fair to

those men who have shown such unfaltering determination of purpose, not to mention that this result has been achieved in the face of providential disaster that would quite have crushed the spirit of weaker men. In the autumn of 1870, a desolating fire swept over the district, commencing near Arnprior, which stayed not its work of desolation until a strip of country 40 miles long and 15 miles wide had been left one blackened, smoking ruin. The Messrs. Graham lost everything above ground that would burn. The buildings were burned to the foundations, the fences were wiped out of existence, the implements numbered with the things that were, the pigs were turned to cinders and the horses almost ruined. All that was left was the clothing that happened to be worn, the grounds that would not burn, and a calm constancy of purpose that defied the fury of the flames, and which the aggravated tribulation could not crush. While the men along the St. Lawrence were allowing wild mustard to disfigure their fields with its mournful yellow, a thankless heritage handed down from their fathers, the Messrs. Graham with a resolution that is but feebly set forth by the use of the term heroic, commenced, while the air was yet stifling, and clouds of smoke lowered in portentious silence in the heavens, to re-erect the work of previous life that had been demolished in a day, and by dint of energies applied have not only obliterated all traces of the devouring scourge, but during the fifteen years that have intervened have put their farms in shape, and erected buildings that would well-nigh provoke the envy of many of our foremost farmers of the West. Canada has had her heroes as well as England, and some of them dwell in the Ottawa Valley, and their grand achievements deserve the fitting recognition, at the hands of their countrymen, of a gold and silver medal for the excellence of their farms.

Many are the lessons that might be drawn from the various features of the farms visited, and the differences in the mode of culture ; but as the report has already out-grown reasonable dimensions, we allow the reader to draw these deductions himself. We would fain, however, rivet the attention of every farmer in the Dominion to this fact. The gold and silver medals have not only gone this year to men who paid much attention to the keeping and feeding of good stock, but so it has been during the six years of farm competition in the Province in almost every instance. This cannot be wholly accidental. It surely proves, if accumulated evidence will prove anything, that there is a close connection between stock-keeping and successful farming. Stock-keeping in the east, west, north and south has brought the keepers to the front, whether the lines adopted were for breeding, feeding, or for dairy purposes.

We would that our farmers would ponder this fact. What has been done by one farmer, can under similar conditions be accomplished by another. If stock-keeping has fertilized the farms of the successful medalists, it will also accomplish the same for the humblest farmer, if judiciously engaged in. Indeed, so striking is the connection between stock-keeping and good farming, that your judges feel fully satisfied that those who ignore it as an important factor in farm operations in the future will be left in the race.

JOHN I. HOBSON,
THOMAS SHAW, } Judges.

ESSAY ON THE BEST METHOD OF UNDERDRAINING THE DIFFERENT SOILS OF ONTARIO, THE COST AND THE PRACTICAL BENEFITS RESULTING THEREFROM.

By Thomas Shaw, Editor of Canadian Live Stock Journal.

To which was awarded the First Prize by the Agriculture and Arts Association.

When the Council of the Agriculture and Arts Association of Ontario request an essay on a subject so comprehensive, compressed within the limits of "twenty" pages, they ask a hard thing, nevertheless, it is the part of the essayist not to repine, but with one strong arm to hold it fast and with the other to hew it down within the assigned proportions.

The importance of the subject is beyond all estimate, and if properly handled may prove more beneficial to our Province in a single year than the entire annual cost to it of the Association, by the increased attention it may draw toward a subject too frequently looked upon with the most apathetic indifference, by an overwhelmingly large majority of our hard-working yeomen. It is well to remove obstructions that hinder cultivation, as stones and stumps, at the earliest possible moment; it is wise to give back to the soil in some form as much as we take away; thorough surface cultivation is grandly important, but none of these is more so than the carrying away in buried channels the surplus waters that so very much hinder almost every process of agriculture.

Water next to food is the most essential earthly bestowment of an All-wise Providence, at least so far as our sensuous natures are concerned; yet, like a wanton child, is not to be allowed to roam at large working mainly mischief, where, under proper conditions and with right guidance, its presence would be freighted with naught but blessing.

Lands in a state of nature sufficiently drain themselves, or adapt the vegetation they sustain to their present conditions, although in very many instances they contain the elements locked up within them which would sustain a vegetation immensely superior when aided by the hand of man. In undisturbed soils that are free from surface waters the hidden channels of percolation that have run for ages take away the waters, but when the surface has been disturbed by cultivation this condition of things is altered. Constant pressure of the horse-hoofs and other causes close up those hidden avenues, and hence the necessity of opening artificial ones, to carry away the superabundant moisture which, like an unwelcome and indiscreet guest, unduly prolongs its stay by lingering near the surface.

The sources from which excessive moisture arises in surface soils are three:—ooze water, spring water and rain water. Ooze water is that which has soaked out from adjoining land and left most of its nutriment in the soil which it has traversed. Its presence, therefore, is baneful to vegetation. Similarly, spring water is collected only from sources more remote and conveyed through avenues more deeply buried. However essential its presence is to animal life, it has the upas blight for most forms of vegetation. Rain water is the rightful heritage of the soil, and if it could be made to pass through three or four feet of the soil from the surface downwards, and were then conveyed away within the unwearying little tile workers, the Province would be many millions the richer annually, as every drop of it is freighted with fertilizing properties washed out of the air.

Sorrowfully we have watched the silent flow of streams brimfull, the waters of which were soiled or blackish by reason of the immense stores of fertilizing matter washed out of the soil through means of surface drainage or from the lack of underdrainage.

The stores of enrichment washed out of the air join company with those of the surface soil, and are thus forever lost to lands from whence they are borne. They may tend to increase the harvest of the fisherman whose hut rises by our lakes and rivers, but they come not again to gladden the heart of the husbandman. We verily believe the tide of wealth thus borne away from our bountiful lands from year to year would more than suffice to meet the entire annual expenditure of our Government. And wherefore this waste? Because the inability, or the ignorance, or the indifference of perhaps nineteen out of twenty of the landowners of our beautiful Province permits it.

The *indications* of lands that require underdraining are usually not far to seek. Waring has put the thing in a nut-shell when he says: "All lands of whatever texture or kind in which the spaces between the particles of soil are filled with water (whether from rain or from springs) within less than four feet of the surface of the ground, except during and immediately after heavy rains, require draining." The *surface* indications are standing water, prolonged dampness in the appearance of ploughed land, and in dry weather cracks in the soil. The *vegetative* indications are (unless in very poor soils) the curling of corn in the leaf, a wiry appearance in the growth of grass, a mossy appearance of the surface of the ground, and a spindling growth of grain with a lightness of tinge, as lands ordinarily fertile will produce good crops with an almost unfailing certainty, when properly drained, let the season be what it may. When a pit dug in the earth to the depth of three or four feet collects water it is a sure indication of the need of drainage, and such test should always be made during wet spring weather when possible.

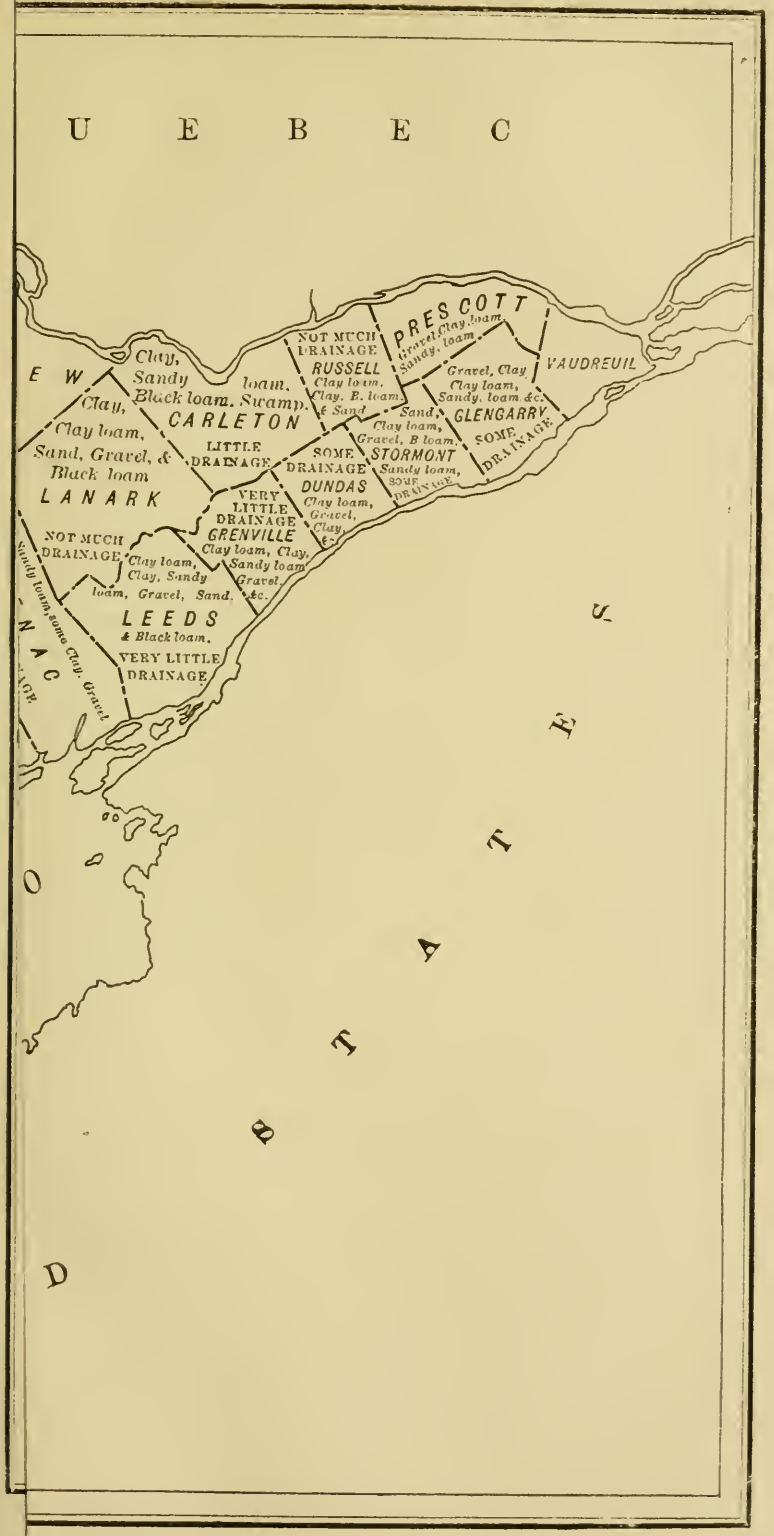
As underdraining is a costly operation, no wise man will engage in it who does not first completely satisfy himself that his lands require it. It would be money lost to drain soils which have subsoils as open as those which overlie them, as is sometimes the case with sandy soils, gravels, light loams and moulds. Other soils may be so remotely situated as to markets as not to justify such expenditure at once, and still others lie in a plane so level, as did the marshes of Essex and Welland, that a sufficient fall cannot be obtained until canals of a suitable depth are cut to carry off the surface water. Some stretches of soggy land are so cumbered with stones as to forbid the outlay for the present, and in other places the surface soil is so thin upon the impenetrable bed that underlies it as to lead one to hesitate.

The area of these lands in Ontario is, however, comparatively limited, as will be apparent on reference to the accompanying map, which is grounded on information obtained from "Appendix B" of the "Ontario Agricultural Commission, 1881." We would fain have indicated the exact areas of the different soils by shading on this map, but the information that we could glean upon the subject was far too meagre to justify the attempt. The individual who shall present our Government with such a work, and the Government which shall furnish the same to our public schools, shall be deserving of the gratitude of all who are interested in agriculture, as then those in one locality could learn wise lessons from the practice of those in another possessing a precisely similar soil, and they would know at once in what quarter to seek the information.

The *materials* that have been used hitherto in underdraining are various, as sods, brush, wood, stones and tiles. It is important that it should be well understood which class of material used will on the whole give the best results, or, in other words, prove the cheapest in the end. The use of sods and brush are now almost universally discarded. Stones have been used in many parts of Ontario, but are less in favour now than formerly; a large number of those who have tried them are now using tiles instead. There are two classes of stone drains, the one consisting of field stones thrown loosely into a trench of sufficient depth through which the water filters, and covered with earth lying on a layer of straw. These are very apt to fill with sediment and choke, hence their growing disfavour. The other class consists of a continuation of parallel lines of flat stones with an opening of from three to six inches between them, overlaid with broader stones, and covered similarly. Of the many individuals who have practised this mode of draining in the Province, Messrs. Charles and William Graham, of Ottawa, Nepean Township, have perhaps the most perfectly constructed drains, being singularly favoured by the formation of the stones, which are smooth and flat and lie open in inviting layers in quarries upon their farms. As the ditches for stone drains have to be cut much wider, and considerably longer time is required for laying in the stones and filling the drains, the first cost is usually greater than that of constructing tile drains, including the cost of the tiles, so that even where stones cumber the soil it may be cheaper in the end to remove them by some other mode.

Wood drains have been largely laid in various parts, more especially where cedar has been plentiful. We have met with four patterns. The first consists of two poles laid parallel, a little distance apart, with a third on the top. These have not given satisfaction. The second is made by nailing two narrow boards at right angles in the form of a V inverted when in position. The third is similarly formed, with the difference that the

TARIO.


U E B E C
PRESCOTT
Gravel, Clay loam, Sandy loam.
VAUDREUIL
Gravel, Clay Clay loam, Sandy, loam &c.
GLENGARRY
SOME DRAINAGE
NOT MUCH DRAINAGE
RUSSELL
Clay loam, Clay, B. loam, & Sand
Sand, Clay loam, Gravel, B loam.
STORMONT
Sandy loam,
SOME DRAINAGE
DUNDAS
Clay loam, Gravel, Clay, &c.
CARLETON
Clay, Sandy Black loam. Swamp.
loam.
LITTLE DRAINAGE
SOME DRAINAGE
E W
Clay,
Clay loam, Sand, Gravel, & Black loam
LANARK
VERY LITTLE DRAINAGE
GRENVILLE
Clay loam, Clay, Sandy loam Gravel &c.
NOT MUCH DRAINAGE
Clay loam, Clay, Sandy loam, Gravel, Sand.
LEEDS
& Black loam.
VERY LITTLE DRAINAGE
Sandy loam, some Clay, Gravel
N A C
O
T A T E S
B
D

MAP SHEWING DRAINAGE OF COUNTIES IN PROVINCE OF ONTARIO.

angle of the V is lessened by bevelling both boards equally where they are nailed, which enables them the better to resist pressure from above. The fourth, and perhaps the best form of wooden drain, consists of two scantlings of cedar or other resinous wood, laid parallel, with a board of the same nailed on the top but so as to break the joints. This, too, is costlier than tiles, requiring as in stone drains wider ditches and from eighteen to thirty feet of lumber for every twelve feet of drain, which at $10 per thousand amounts to from 18 to 30 cents, while the same length of two or three inch tiles will cost but 7 to 12 cents at the tile yard. Then, like stone drains, they are more apt to clog; nor will they last so long as tiles, especially where the ground is not always kept soaked. Tile drains properly constructed practically last forever. All things considered then, we pronounce unhesitatingly in favour of tiles as the best material to be used in the construction of underdrains.

Our essay calls for information (1) *On the best method of underdraining the different soils of Ontario*; (2) *the cost*; (3) *the practical benefits resulting therefrom.* Regarding the nature of the information asked by the divisions 2 and 3 there need be no uncertainty, but we frankly confess we are not quite clear as to what was in the minds of the framers of the subject when they use the term "best method" as applied to the underdraining of the different soils of Ontario, nor have we any means of certainly divining. And yet this is just where the bull's eye should be pierced; here it is that the spring should be tapped by the lateral which is to convey its waters to the main drain of the whole argument. If the term "best method" has reference only to the materials used as best adapted to the different soils, then the subject is very much narrowed, as we claim that we have already shown that tile is incomparably the best material on the grounds of cheapness, efficiency and durability, which latter quality alone gives them an immense advantage over every other form of material. But if the clause referred to include the details of construction, the subject is greatly widened. We are inclined to take this latter view, and shall proceed accordingly.

The surface of Ontario is made up of clay, clay loam, sandy loam, sand, black loam, gravelly soil, stony ground and rock, with a limited amount of swamp, bottom land and springy ground, which latter are included in one or other of the varieties of soil first named. Swampy land is usually made up of black loam, and springy land is oftener sandy in its texture. When sandy soil rests on an open subsoil of considerable depth it does not need draining; when very light and resting on other subsoils, it will not repay the draining. Gravelly soil, porous a long way down, will not give back the outlay, and soils in which both the surface and subsoils abound in large stones had better be left alone.

The principal soils of the Province are clay, clay loam and sandy loam. These largely predominate in many of the counties, and in area, clay loam exceeds the others. Although this latter is sometimes found resting on a subsoil of gravel, hard pan, etc., it oftener rests on one of clay more or less porous, so that if we give a hurriedly detailed description of the "best method" as yet known of draining this class of land, we shall then have a fair type of the method to be adopted in draining the other "different soils" of the Province, for really the variations in mode are far fewer and less important than one would imagine at first thought. The material to be used is the same, tile; there are not many variations in mode of cutting ditches, and fewer in the mode of laying the tiles.

We shall give, therefore, in brief detail what we consider the best method of tile-draining clay soils. This we shall regard as our leading main, and dovetail into it the laterals of divergence relating to any differences of procedure that are necessary in treating of the "different soils" other than clay, something after the fashion in which Messrs. Boynton & Co., of New Jersey, unite them with their junction pieces. We shall thus try and keep out the silt of all extraneous reference, and after constructing the submains relating to "cost" and "advantages" conduct them to the one grand outlet, the magnificent return in Canadian gold which is the certain and speedy outcome of the judicious underdraining of our soils.

And here we pause to remark that in giving the details of method we are indebted not a little to that inimitable work, "Draining for Profit and Health," by Waring, a book that every farmer in Ontario should not only read with the utmost care, but the contents of which he should talk over with his sons, both in the house and in the field.

Of the considerable number of Canadian farmers whom we have consulted, and with whom we have corresponded in order to ascertain their practice, we may mention the names of James Thompson, of Whitby, one of the few pioneer tile-drainers of Ontario; John Dryden, M.P.P., Brooklin; W. Heron, Ashburn; Messrs. C. and W. Graham, Ottawa; W. Rennie, Toronto; S. Rennie, Milliken (Markham); A. Hood, Hagerman, (Markham); F. Green and F. Malcolm, Innerkip; and J. McMillan, Constance (County Huron). Where we have occasion to refer to the concurrent testimony of these men and of others not named here, but whom we shall refer to further on, we shall do so by the use of the phrase *Canadian Practice*, as these are representative men and living as several of them do, in places widely apart.

Laying-out and Constructing the Drains.

We shall treat of these together. Underdraining a piece of land requiring it, is like making a deposit which gives a splendid return every year and where the security is absolutely secure; but only on the condition, first, that the work be economically done, and second, that it be well done. The first of these conditions qualifies the laying-out of the drains, and the second their construction. When the work is done properly it will last a very long time, but if injudiciously performed (not necessarily in a careless manner), it is only a source of sorrow to the spirit. Mr. Dryden speaks of a farm in his county where the draining was done by contract without the proper supervision, which in certain parts has been *made a quagmire* in time of wet, through means of the wretchedly laid drains.

By laying a system of drains out properly, a saving may be effected in the length of them, amounting in some instances to *one-fourth*. Where it is undertaken, then, on a large scale, it would be money well invested to call in the aid of a practical draining engineer, not a professional ditcher, who too often finds reasons for placing a large number of drains. The best thing, however, in ordinary practice is to secure the assistance of some neighbour who has had experience in the work in laying-out the drains, until that day dawn so full of promise, when a considerable number of our young men shall have learned at least the outlines of practical engineering.

It is better to make a *map* of the land before the work is commenced, containing the proposed route of all the drains, after having first carefully taken in the contour of the land. Where this has not been done before it should certainly be done after, that when any repairs are needed the drains may be easily located.

The best instrument, perhaps, in ascertaining the *levels* is the ordinary telescope level used by railroad engineers, especially when in the hands of one of mechanical tastes. Some use the ordinary level and straight-edge. The level in favour with Mr. Dryden and others. "is made by inserting a common glass level or tube in a piece of hardwood which will not warp or twist, nor become easily bruised by occasional hard knocks. The wood must be planed perfectly smooth and true, and should be eight or ten feet long, one and a quarter inches thick, and say six or eight inches broad. The glass is firmly imbedded in the centre or edge of the wood, so as to be below or even with the surface, that the sight may not be impeded. If desirable the whole may be firmly bolted to a strong stake, which may be driven in the ground at any desired point."

In laying out the drains, the location, depth and finish of the *outlet* should be most carefully considered, and also the course and depth of the *main* drains, the *sub-mains* and the *laterals*, which in practice may be indicated by placing stakes at certain points. It is more systematic usually to ascertain where to locate these by actual measurement. It is well to weigh the provision that should be made when necessary for carrying off the water of *springs* or that flows over rock that may lie near the surface, or for the prevention of the accumulation of silt, and to give due thought as to the kind and size of tile to be used.

The *outlet* should, where at all practicable, be placed at the lowest point. A good strong floor of stone should be placed below. All the better if the bottom stone is a broad flag extending some distance forward to receive the flow, and up the drain to prevent undermining, as drainage repairs are costly and particularly unpleasant. Stones can then

be built up around the tile and extending a little distance up the drain, and forward beyond the end of the tile. Brick will answer the same purpose where stones are not at hand, in which case they should be laid on a stout, broad plank. The end tile should be of glazed work or vitrified ware, with earthenware grating, which is moveable, as manufactured by Messrs. Boynton & Co., of Woodbridge, New Jersey, and should extend over a step, to show perfectly the action of the water. The number of outlets should be reduced to a minimum, owing to the cost of constructing them properly and keeping them in good repair. For this reason, amongst others, open ditches are objectionable, even where there is a strong flow of water. Where the land slopes both ways toward a depression, channelled by an open ditch into which the drains flow, it necessitates the construction of a large number of outlets. The open ditch is also a serious injury to tillage, and is not in any sense ornamental. It is better then, unless there is a very strong flow of water at certain seasons, to lay one large main instead. Canadian practice is divided in reference to the matter. The names of Messrs. Thompson, Dryden and Rennie are arrayed against the open ditch.

The *main* drains should lead up the lowest part of the valley, be of sufficient depth to secure a fall, and the utmost pains should be taken to have the grade uniform in its different sections; when it is desirable to reduce the size of the bore in the ascent, a decreasing tile, as manufactured by Messrs. Boynton & Co., may be used as the connecting link, which interferes less with the uniformity of flow than the method of old-time practice. Formerly, main drains were placed sufficiently low to admit of their receiving the water from the sub-mains and laterals at the top, but now, by the use of the Messrs. Boynton's junction piece (now made in Canada), which is a part of the pipe itself where the union takes place; these are made to enter near the bottom which accelerates the flow, and thus reduces to a minimum the accumulation of silt at the points of intersection, which so troubled the ditcher at these points under the old system.

The *sub-mains* should ascend the lesser valleys. Where the valley is wide, there should be two of them, the course of each skirting the base of one of the hills, and with one or more laterals between them, if required.

The *laterals*, heeding the lesson that nature has taught us, should as far as is practicable, follow the descending inclination of the land, and enter the sub-mains or the mains at an angle, as streamlets do when joining water-courses, to facilitate the egress of the water. When one drain approaches another at a right angle, this must be changed into an acute angle by the use of curved pipes, as made by the enterprising New Jersey men already referred to. They should never be carried across the side of a hill, as in such a case the drain draws from the upper side only. Sometimes it is overfull, and seams of hard pan may bar the water on its downward journey.

The *depth* of laterals should depend, not so much on the character of the soil as on the necessities of the crops to be grown upon it, which are very similar in all soils with those of the same species, which, therefore, points toward a uniformity of depth where this is practicable. What this depth shall be is an unsettled point. Practice is at war with science in reference to it, especially the practice of our countrymen. Scientists, as J. Parks, say to us four feet should be the general average depth. The practice of our countrymen—and we have inquired of many of them—points to three feet and under. In stiff clay lands they incline to a less depth, and only in Mr. Green's and Mr. Malcolm's practice have we met with a greater depth, some of their mains being three and a half feet. The essayist of ten years hence will speak more pronouncedly than we dare to-day. It is not at all improbable that science here, too, will win, as the opinion expressed above is that of science founded at least upon the practice of some in other lands. Waring says, "If any fact connected with tile drainage is established beyond a doubt" (and yet our foremost drainers do doubt) "it is that in the stiffest clays ever cultivated, drains four feet deep will act effectually, the water will find its way to them more and more freely and completely, as the drying of successive years, and the penetration and the decay of the roots of successive crops modify the character of the land, and they will eventually be practically so porous that—so far as the case of drainage is concerned—no distinction need in practice be made between them and less retentive loams."

This is a most joyous proclamation for those who till the cruelly retentive clays

which marble the water-shed that lies east of the line of the N. & N. W. Railway from Hamilton to Port Dover, and which extends through the counties of South Wentworth, and parts of Lincoln and Welland. But we have not been able to discover that ten rods of underdraining have been done in all that section, other than to prevent the flooding of cellars. If scientists are right, here, the drainers of Ontario will certainly have to re-examine their bearings.

We can conceive the importance of coming to a right conclusion on this point. The prevailing idea, that just sufficient depth to escape the action of frost is sufficient, is certainly fallacious. We have to consider the action of the drain in lowering the line of saturation, and thereby keeping out of reach of mischief all water drawn upward through the medium of capillary attraction to the domain which should be given to the rootlets of vegetation. The moment when these reach this line, they at once cease to search for food in what is to them a land of the shadow of death.

Economy points in the direction of deeper drains, as one four feet in depth, drawing twenty feet each way, will certainly cost less than two drains drawing ten feet each way, providing the one does the work of the two; but in Ontario we wait for light here.

In reference to the *distance* of laterals from each other, there is no infallible rule, but for complete drainage, Waring—following Prof. Mapes—specifies forty feet as the distance for four feet drains, and (in reference to which there is apparently a concensus of opinion amongst drainage writers) twenty feet as the distance for three feet drains.

Large portions of the land in Ontario where underdraining has been done are but partially drained. In very many instances the mains only have been laid, but with grand results. In other portions, the laterals have been put in at wide intervals in a tentative way, and with equally encouraging results. In no instance have we met with a whole farm, regarding which the owner considered the drainage as complete (although there are a few such in the Province) save the one hundred and ninety-six acre farm of Mr. James Thompson, of Whitby, who commenced underdraining this farm some twenty-five years ago. In conjunction with the late James Dryden, he brought out a tile machine and a tile maker from Britain, paying him in advance for his work. Supplanting what slab and auger-hole perforated pine box draining he had done, with tile, he gradually extended his operations to his whole farm. The soil is clay loam, with a clay, hard pan sub-soil a little gravelly in its texture. In constructing the mains, tiles from six inches downwards are used, in the laterals two inch tiles, but he thinks those one and one-half inches would answer, and favours the use of small tile. Where water is plentiful, silt then is not likely to choke them. They are laid one a half rods apart on an average, and three feet in depth, and have proved not only a source of great comfort but also of much gain to the owner. Canadian practice, however, oftener places them three to four rods apart, some thinking this distance sufficiently near, and others intending as they get time to put in an intermediate drain. Most are of opinion that obstinate clays should have the drains frequent and shallow to enable them to draw more readily, which opinion, as we have shown, is at variance with scientific theories, and we have met with no practical work in the drainage of this class of soils in Ontario from which to draw deductions.

To drain land completely, at once, is certainly important. It obviates the collection and removal of the machinery of drainage every time the work is recommenced on the same plot of land, and the work is more likely to be the finished product of one consistent comprehensive plan. Other reasons might be given; but where there is a scarcity of capital we do not object to the plan of running a main here and there—as time and means afford it. In this way the inexperienced will become schooled in the work, and thus mistakes will be avoided when the work is undertaken on a larger scale. It is very much easier to correct a few mistakes than when these have been committed on a huge scale, and the principle is a safe one for those weak in capital to keep out of reach of that interest serpent which is feeding upon itself.

Where a *spring* is to be drained, the water should be collected in a pit or pits containing stones or gravel, with a large tile in the centre of these, tapped by a line of tile running directly to a sub-main or a main drain.

When quantities of water run over a ledge of *rock*, as in a rainy time, and thus greatly wet the land below, a ditch should be cut near its base, and filled with stones up

to the level of the line intended for the tiles, which are laid on boards and covered with some material before being filled, to prevent the earth from getting in.

Of the four kinds of tiles used, viz: the *horse-shoe*, the *sole*, the *double sole* and the *round*; we have only met with the sole and the round in Canadian practice, and the latter, for the Canadian reason that they make better joints, while Old Country and American practice covets them, since a collar may be used with them, which effectually protects the joints from the entrance of earth, and gives more room for the entrance of water which is mainly at the joints. We have not met with the use of collars at all in Canadian practice, which is to be deplored, as they add but one-fourth to the cost of the tile, and certainly add very much to the permanency of the work. The sole tile has been used most frequently in draining in this country, for the reason that this kind was principally manufactured at the yards, but round tiles are coming into general favour. The chief objections to the use of sole tiles, are that in drying, owing to the more rapid contraction of the top side, the joints are not good, and collars cannot be used in laying them. Our tile manufacturers here turn them out thirteen inches long, but more recent American practice makes them two feet long where the clay is suitable, which lessens the number of the joints, and yet sufficiently admits the water which flows the more evenly in proportion as the number of joints is reduced.

The *size* of the tile to be used depends much upon the nature of the work required. Canadian practice has used them from six inches down to two inches for the mains, and those from three inches down to two inches for the laterals, those two and one-half inches being a favourite size with the majority. English practice often uses one and one quarter inch tile, but never without collars, and science has shown that this size will carry off the water (as laterals) of the rainfall of any ordinary season. The less the fall the larger the tile required. The size of the tile sufficient to do the work should be carefully weighed, as more than this is money wasted. No tile should be used that is not well burned, and that will not ring clearly when struck with a piece of steel. One single defective tile may lead to more loss of crop in one season and greater outlay in repairs than would construct many rods of drain.

Silt is the deposit of soil held in solution by running water. It is sure to be deposited in slack water, which may be caused by a break in the fall or by unevenness in the grade of the drain, amongst others a strong argument, in favour of a drain of perfectly even grade from the outlet to the head, where it can be obtained—and where it cannot the sections which have not a common grade should have one that is uniform throughout each section. Silt may be caught in a basin beneath the drain, which may consist of a single large tile set on end, into which the water flows, deposits the sediment, and then flows on. For large drains, or where the waters of several drains are collected, the basin may consist of a chamber built of stones, or better still, bricks; it should be covered with a flat stone "well packed around the sides with clay, and the place marked that it may occasionally be cleaned out." The drainers of Ontario do not we fear give the attention to the item of silt which its importance demands, and hence the tendency to use tiles so large. Although silt basins have till recently been thought indispensable in an efficient system of drainage, the recent improvements made by the New Jersey tile-makers in the construction of junction tiles, etc., have almost entirely obviated the necessity for their use. The curved tiles, made by this firm of various degrees of curvation, greatly assist in abruptly changing the direction of drains. The use of these tiles has not extended to our Province, so far as we are aware, nor have they been manufactured here; why, we cannot say, as clay in the hands of the potter is very plastic.

Obstructions other than silt should be guarded against. Roots of trees often obstruct drains, especially willows. Deep rooting trees and under-drains cannot peacefully occupy the same ground. Mr. Wm. Rennie directed our attention to a piece of spring wheat growing on his "Seed Farm" considerably injured in consequence of the stoppage of the flow in a three foot drain, as he supposes by the fibres of a mangold, which had penetrated the joints and had then become washed downward by an accelerated flow of the water in the drain, thus forming an effectual dam. This points in the direction of deeper drainage. For sometime after the construction of the drains occasional *flushing* will be advantageous.

This is done by simply preventing the flow for a little and then suddenly removing what has kept it in check.

The *details* of procedure in construction are far from unimportant. When the ground is mapped, and the land staked, the *tiles* should be laid down, as material in constructing a fence, and here the fruits of forethought will be sweet, if anywhere. It is cheering to witness intense energy in action, but not to the extent of two stalwart brother farmers humiliating themselves by heaping passionate abuse the one on the other as they snatch for tile in a yard, while the benignant face of an eastern sun is creating the smiles of the morning. The County of Oxford can tell the humiliating details which we have left untold, but the grave of oblivious silence is their fitting resting-place. A Von Moltke is quite as useful in planning a campaign of drainage as in planning a Franco-Prussian war.

The *tools* should be on hand. Those of elaborate construction have been manufactured, but great difficulty has been found in getting men to use them, which after all is the true test of the value of a tool. In Canadian practice the chief tools used in digging are the ordinary spade or shovel, a ditching spade, longer and narrower, of polished steel, a second ditching spade longer and narrower and stronger than the first, a snipe-bill scoop, a finishing spade, and a pick, are the principal tools used in cutting the ditches. The ditching spade may be twenty inches long, six inches wide at the top and four inches at the bottom, and in ground not too hard can be sunk the whole depth by the operator using an iron shank screwed upon the sole of his boot. The digger always works backwards, clearing out the earth with the scoop every two or three feet. These implements, till recently brought from England, are now kept by advanced hardware-men. The best implement, however, that we have yet heard of, may be obtained from Mr. Wm. Rennie of Toronto, at a cost of $275. It is his recently invented "Elevator Ditching Machine," which is guaranteed to cut from one hundred to two hundred rods of three feet ditch in a day in ordinary subsoil, of which we shall say more further on. It is therefore extremely probable that this labor-saving invention will soon leave the ditching spade in its place in the tool-house, keeping company with the scythe and the cradle swung by a dying generation.

In *cutting* the drains the plough is frequently used; four furrows usually are ploughed and the earth shovelled back. A subsoil plough is sometimes used with a strong horse walking in the furrow, then draining spades No. 1 and 2 come into use till the required depth is reached. Sometimes the sides may be so loose that the earth excavated must be thrown well back and then supported by boards, braced by strips of wood.

Grading the bottoms requires great care, otherwise, if the grade is uneven, silt will accumulate in the depressions, underlying water will so soften the ground as in some instances to displace the soil, and even decompose the tile itself. The scientific method is to use a measuring staff with arm at intervals, to get the exact depth at these places, boning rods for sighting planted where the measuring rod stood, and the line and plummet. In grading these spaces three men are required, one to sight, one to hold the plumb-rod, and one to do the grading with the finishing spade, and scoop or pick as the case may be. The method discovered and practised by Mr. F. Malcolm of Innerkip, and since it has been made known adopted by many others, is simpler, quite as effective for ordinary purposes, and therefore more scientific. We quote his own words: It simply amounts to this! "The erection of a line five feet above where the bottom is intended to be, so that the eye may be used in making it horizontally straight. Drive stakes in pairs one on each side of the drain, and nail a strip of board between them, the upper edge to be straight and level and five feet from the intended bottom. If the drain is to be three feet and a half deep the upper edge of this board will be one and a half feet from the surface of the ground. The distance between those sights will depend on the length of the drain, that is on a straight line. The finisher of the drain should always have some two of the sights before him, and with a rod similar to the half of a carpenter's ten foot pole try the bottom by setting it on end at every two or three feet, and sighting over the top, which (when the proper depth is reached) should always correspond with some two of these horizontal sights. The trouble of erecting those sights may be largely dispensed

with by simply driving board stakes (the upper end being a few inches wide) at such points as will not interfere with the digging beyond the point to be dug at either end of the drain. But the upper end must always correspond with the line five feet above the intended bottom. I say five feet, but any height may be used that is most convenient to the digger. If his sights are six feet above the bottom, then his rod must be six feet long in order to correspond." The prime importance grading occupies in cutting drains will justify the length of the quotation.

Canadian practice oftener grades by means of the water in the ditches at the time of digging, but this is objectionable when it can be avoided, owing to the softening of the foundation by the action of the water. It is common practice to place the foot on each tile as it is laid to ensure the firmness of position, when the bottom of the drain has been thus softened it is difficult to make even joints.

The *width* of the ditch should be considered, which will vary with the depth and the nature of the soil. The wise rule is to avoid all unnecessary handling of earth. Ditches four feet deep do not require a width of more than twenty inches at the top, when three feet deep fifteen to eighteen inches will suffice.

Brooks carrying the water from springs should be "jumped" until the tiles are ready to receive the water, lest it undermine the banks of the newly cut drains and keep the bottom too soft for efficient work. If need be the water may be conveyed temporarily in a different channel for a time, where this does not entail too much labour and where the nature of the ground admits it.

Tiles may be placed in *position* by an instrument made for the purpose, but Canadian practice usually places them in front of the operator standing in the drain and making the joints as close as possible where necessary, by means of the tile pick. A close joint is very desirable especially when collars are not used. The difficulty is not in securing means of ingress for the water, but in having the joints sufficiently close to keep out silt. Round tiles may be laid on any side which lessens the labour of jointing, the large ones being kept in position by lumps of earth and stones between them and the sides of the ditch. While great care is necessary in laying the tiles properly, it may be in a decreasing ratio, as the workman ascends the drain. In ditches when there is running water the laying of the tiles should follow close upon the grading.

Practice differs as to whether the drain should be laid open from end to end and the tile-placing commence at the beginning or the terminus of the drain, or whether it should be done by commencing at the lower end working upwards and finishing piece by piece. The condition of the soil and the extent of the fall should decide the course of action here, when the soil is wet and soft and the fall is slight, the former course should be adopted, as it is not wise to allow such muddy water to run through the tubes, but when there is little or no water it is preferable to commence at the outlet and work upward, in which case but little is hazarded from the fall of heavy rains.

In *filling* the trench, some first chip down the sides of the drain, trampling the earth thus dislodged with the feet firmly around and above the tiles. Where this is not done the firmest of the earth, free from stones, should be thrown in, gently at first, and when filled to the depth of fifteen to eighteen inches, trampled by the feet of the workman, and some say that it will be labour well spent to ram down the earth occasionally with a maul for the purpose, with a view to hinder the too free filtration of water from the surface, which carries silt with it. Surface water should reach the drains laterally or, better still, from beneath, which is usually the case.

Our countrymen, however, do not usually take this trouble; after the first few inches are trampled above the tiles the aid of the plough is called in, or some form of scraper, made of stout wide planks of suitable length placed on the edge, and so fastened together with rods, that the ends nearly converge at the rear. A chain fastened to the two diverging ends forms the draught medium. This style of instrument has been used by Mr. A. Hood, of Markham. It is his invention, and its use very greatly facilitates the filling of the drains.

We have thus given what we consider the best method of under-draining clay loam, which, as we said before, is a fair type of the method of procedure in draining most soils.

We now take up the laterals of divergence, or the variations of method that apply to other soils.

The best method of draining the extensive *fens* of Welland and Essex, and the lesser ones of various other counties, brooded over by surface water for so large a portion of the year, is to seek Government aid in one or other of its forms to open ditches that will carry away the surface water and drain into these as described above. Lesser *marshes* may be drained by individuals in the same way by private enterprise. The work will be more comfortably done in autumn when these are partially or wholly dry. When soaked full of water the under drainage must of course proceed from the outlet upward. In subsoils with more or less of *quicksand*, drains are difficult to construct. They must be sunk a little deeper than the depth intended for the tile, and a board placed in the bottom or, better still, hard clay, packed in for the tile bed, and around the tiles, which tends to keep out the silt deposit that waters running through quicksand are sure to carry with them, and also aids in keeping the tiles in their proper place.

Springy lands that are always wet are difficult to dig, owing to the constant tendency to cave in. It is advantageous in such a case to dig in successive periods a portion of the depth at a time, completing the work in the dry weather of autumn.

Wherever proper supervision of labour on the farm is neglected, it should not be in the construction of tile drains. It is of the utmost importance that the work be *thoroughly* done. On its efficiency will depend the return to be reaped, whether in the form of satisfaction or increasing bank deposits. Unlike many other investments, the measure of duration is the mighty factor which decides its whole worth. How truly, then, is the worst laid tile the "measure of the goodness and the permanence of the whole drain, just as the weakest link of a chain is the measure of its strength." As but one jar in the mysterious providential government of the universe would destroy the harmony of all succeeding ages, so would one defective or improperly laid tile, though on a scale infinitely lower, impair the usefulness of the entire system of which it forms a part. No ordinary landowner can therefore afford to bury so much money in the earth without either exercising the utmost vigilance himself as to how it is done, or employing some one competent and tried to inspect the work for him.

It is not enough that water runs freely in drains when newly made. This is likely to be the case with any form of drain. It is when the old man, white and hoar, revisits the drains of fifty years before, made by his own hands, and finds them working as at the first, as did Mr. Jas. Thompson, of Whitby, that there is deep satisfaction in the work. The drains we want are such as will work as ungrudgingly for those who shall come after us as for the hands that first laid them, the rich fruits of their beneficent labour going down to succeeding generations.

THE COST OF UNDER-DRAINING.

While some of the departments of under-draining should differ but little in the outlay they entail, in others the variation is great; therefore it is impossible to fix upon a sum that will apply to all soils. We can only arrive at an approximation. Usually there should not be much difference in the outlay in *laying out the drains*, but even here a varied surface will give much more labour than one where there is but one slope, and that possessing considerable uniformity. For *cutting the ditches* there will be a difference that is simply astonishing. In free soils with a subsoil not very retentive the ditcher will get over three times as much work as where the subsoil is hard, and when he meets with the occasional obstruction of a huge stone. The crossing of a water-course, the tapping of a spring, the contest with the water of springy land, all increase the cost of laying open the ditch, as does the extra widening of the same where soils are soft, thus furnishing many items of variation of a sort of intangible nature, which it is exceedingly difficult to reduce to figures. Indeed, it seems impossible to give an accurate estimate that will apply to every phase of soil. The *grading* of the drains with quicksand bottoms will cost much more than will those of a different nature. The laying of the tiles should cost about the same, and also the tiles themselves, with allowances made for the differences in distance of

drawing. Nor should there be very much difference in the filling of the drains. The virtual cost of labour, too, to the farmer may be greatly qualified by the amount of it which he performs himself in seasons that are less busy, although this should not be considered by the essayist in the computation. We see no better plan, therefore, than to compute the cost of under-draining one rod of clay loam, with a subsoil of clay more or less retentive, as a basis of computation, which may be done with some accuracy, and content ourselves with the simple statement of the variations as given above, which will avoid a complication of figures that might in the end mislead. The cost of draining an acre on the proposed basis may then be easily made by any one desiring the information, which will, of course, depend upon the distance of the drains apart. Canadian practice gives the cost of cutting such drains (three feet deep) and laying the tiles as 15 cents per rod—board of ditcher 5 5-7 cents at 40 cents per day, cost of two and a half inch tile at $10 per thousand, 10 cents, and we allow 4 2-7 cents for contingencies, as laying out the ground, supervision, drawing tiles, filling the ditch, etc., which runs up the cost to 35 cents per rod when the work is done by hand, and this may be looked upon as a minimum, owing to the kind of soil.

The cost of two inch tiles in the yard is usually $8 per thousand, two and one-half inch $10, three inch $12, four inch $18, five inch $30, and six inch $40. These prices are higher than they should be, and than they will be in all probability when there is sufficient competition between the makers. Ontario wants many more of them, and the prospect of an increasing demand is sure.

But why persist in digging drains by hand when there is an almost infinitely more speedy way? Why rest content to pay 15 cents per rod and board for opening drains when the same can be done for one-third of the amount? The "Elevator Ditching Machine" already referred to will do this and more, as we shall presently see. Mr. A. Hood, of Markham, was the first man in Canada to run this machine in its perfected form. He it was who drove it on that eventful day at Columbus, Ohio, when it won such laurels for its owner and for Canada. With one of them he has cut twelve miles of drains on his own farm and eight miles for other farmers. He assures us that it will easily cut two hundred rods of three feet drain in a day in a clay soil free from obstructions, and that it will work in any soil save gravel, which needs little or no draining, providing the ground is sufficiently solid to bear up the four horses working it. In hard pan it is necessary that one or two hands loosen the earth with picks, and where stones abound these must be thrown out by one or two assistants. In one day Mr. Hood cut one hundred and fifty rods of drain from which seven waggon loads of stones were drawn.

Allowing one hundred and fifty rods of three feet drain as an average day's work for the "ditcher" in a clay soil, and seven rods as that of an average ditcher, who is allowed fifteen cents a rod and board, the cutting of one rod in the first instance costs four cents, and in the second twenty and five-sevenths cents, a gain in favour of the machine of 16 5-7 cents per rod. We apprehend the machine will not grade the bottom of the ditch with perfect evenness. We therefore allow one cent per rod for grading, and a similar sum for interest on money invested in the machine (a liberal allowance), and still the machine has the advantage to the extent of 14 5-7 cents (nearly fifteen cents) per rod.

We look upon the inventor of the "Elevator Ditching Machine" as one of the truest benefactors of his country. Mr. Rennie is worth a thousand of those oratorical charmers whose only aim is to make stepping-stones of the unwary. If the oarsman who beat the world was deserving of the freedom of a metropolitan city, how much more is the inventor of this machine worthy of the freedom of our wide dominion? We predict for him an immortality in the grateful remembrance of true-hearted tillers of the soil, so long as there are soils to drain and waters to percolate in the drains. Now the sturdy yeoman seated upon the ditcher drawn by his own stout horses, can tear open the bosom of his grounds from morn till dewy eve, and cut the earth in channels at his will. In a few brief years very many of our farmers shall have filled their grounds with those silent workers which so surely attract the surplus waters, and bear them away. And thus the grievous waste of fertility which has run away in our water-courses since first our lands were cleared shall have received a perpetual check.

THE PRACTICAL BENEFITS RESULTING FROM UNDER-DRAINING.

These are legion. We can only enumerate some of them, as our space will soon be gone, and every one of them points in the direction of a practical gain, since whatever affects the soil beneficially so as to promote the growth of vegetation or to facilitate the working of it, must be of great practical advantage to those who live by the proceeds of its cultivation. Farmers of Ontario! lend us your ears while for a little time we break open the seals, and read to you of the rich legacy that is left to every one of you in the vast stores of latent fertility that lie buried in your lands, regarding the existence of which, although ye may have had an inkling, like the dying old cultivator, ye have never been able to discover its exact whereabouts. His parting injunction was, "dig for it." So, too, is ours. Dig drains smooth, and deep, and long, and ye shall be sure to find it.

One principal advantage of under-draining consists in its beneficial action upon the *soil*. Like those silent forces in the spiritual world which gradually, but surely, transform the arid wastes of unrenewed hearts into suitable receptacles for the seed of the Word of Life, where it may grow with resplendent beauty, those buried channels hidden from human ken, by the abundance and constancy of their labours transform even the dreary wastes of the soggy marsh into a garden of the most wonderful fertility. Like the busy earth worm—the most ancient of under-drainers, they are tireless in their labours. (1) It renders the soil more *porous*, which is attended with many advantages. Porous soils are capable of absorbing far greater quantities of moisture than those which are not so, which is a potent factor in the advancement of plant life. Water filtering downward through the earth forms minute channels which draw off the surface waters. By the process of absorption and evaporation experience has taught us that drained lands become so porous that they usually assume the pulverulent state. In the minute openings between the particles of soil, plants luxuriate on all the richness which the land contains. The rootlets in decay leave open these apertures in addition to the enrichment they produce. Behind the happy ploughman's furrow the friable earth seems alive as it crumbles down, and when the seed is sown it is imbedded in those conditions as regards moisture and exclusion from the air most suitable to germination. This, too, greatly facilitates *easy*, *deep* and *thorough* cultivation, and thereby greatly reduces the cost thereof. (2) It prevents drying by *evaporation*. When earth becomes dried by evaporation it becomes so encrusted on the surface after heavy rains in clay soils as to become almost impervious to the action of the air. Rapid drying causes it to gape open in fissures tearing asunder the rootlets of plants which struggle to make headway upon it. These irregular pieces of clay remain selfishly locked up in blocks until the next rain moistens them, vegetation in the meantime pining or making but a doubtful advance.

Removing water by evaporation lowers the temperature of the soil in a marked degree, thus robbing vegetation of one of the essentials of growth—heat. Waring, quoting from Dr. Madden, makes the difference between drained and undrained lands as 6½ fah., which is equal to a difference of 1950 feet in elevation. It comforts us to think that while only the tremendous upheaval of a mighty earthquake could throw up our Province 2000 feet higher, that placing little circular sections of burned clay in the earth certain distances apart will practically place the conditions of our plant life in many of its essentials, on a plane 2000 feet lower.

But be it remembered that clay soils will not remain porous even though under-drained, if worked when unduly moist. The process of filtration in these is always slow, and therefore both man and beast must be allowed to tread upon them with a prudent caution after heavy rains, hence the owner of stiff clays in this Province will always be more at the mercy of the elements than the possessor of lighter soils; but in this world, remarkable for its compensations, his soil will hold more faithfully what he commits to its keeping. That under-draining will completely obviate the cracking of stiff clays has yet to be demonstrated in Ontario, and also as to whether it will enable the cultivator to dispense entirely with open furrows, so destructive to harvest machinery and to the quietude of spirit of him who drives it.

Under-draining is a grand friend to *vegetable* life. It stands by it as a trusty friend, both in the heat and drought of summer and in the destructive frosts of winter. It

never labours more assiduously than when the desolating storm king is flooding other lands with disaster. No *replanting* is required in drained soils, nor is the hope of the husbandman cut down by a ruinous shortage in crops, let the season be what it may, where he has done his part. It fosters plant life in many ways. (1) By extracting *nutriment* from the air, when the friendly rains fall down to earth with their rich stores of fresh air, carbonic acid, ammonia, nitric acid and heat, they generally leave these in the upper earth, and bear the water away so soon as it has done its work. Hence the wisdom of utilizing every drop of this that falls to earth. In sloping soils it is sometimes arrested by horizontal furrows. What a comment on the almost universal practice of trying by means of open ditches (though necessary in undrained soils) to hurry surface water away. (2) By lowering the *water-table*, and thereby extending the foraging ground for plants. In undrained soils in spring-time, the top of the water of saturation in heavy soils lies within a few inches of the surface. Drains lower this to their own level or nearly so. Below the water-table no rootlet from our cereals dare venture. To most forms of plant life it is one dreary realm of death. But when the table is lowered porosity follows in the subsoil, rootlets find new fields of exploration where they may revel amid congenial supplies that hitherto were latent, but which are now rendered available by the aid of the vast quantities of oxygen that penetrate the soil on the lowering of the line of saturation. (3) By its beneficial action on *manures*. The soil has been well compared to a chemical laboratory in which a succession of changes, separations, combinations and re-combinations is continually going on. The free admission of air hastens these changes, by which organic and unorganic substances are assimilated as plant food. The atmosphere, by its oxydizing influence on mineral substances, present in a greater or less degree in every soil, renders their fertilizing parts available for the use of rootlets. So too will animal manures lie inert, and vegetable matters but partially decompose, in proportion as the air is excluded. Manures can only be effective when properly incorporated with the soil, which incorporation is much facilitated by the fine mould produced by under-draining. (4) By enabling plant life to successfully withstand *drought*. The idea that in dry seasons under-draining dries the land unduly should be ashamed to lift its head in this century of light. Science has demonstrated what experience has corroborated, that soils absorb moisture from the atmosphere and from the dews in proportion to their porosity, and that they attract moisture from the water-table on the principle of capillary attraction. The ability of plants to withstand drought depends in a marked degree upon the depth to which their roots penetrate, which is always very much greater in well-drained soils. These soils also prevent the *heaving* of vegetation by the action of the frost.

The unenumerated *mechanical* advantages of under-draining, its lengthening of the season of labour, clothing of useless lowlands with abundant crops of the most nutritious kind, its effects upon salubrity, and its benefits in a hundred other ways, cannot be dwelt upon here. But its *remunerativeness* is its greatest practical benefit. This is the grand ultimatum of all the others, the mighty outlet where they all discharge with a continuous flow. And here we leave the domain of all theory to sun ourselves in that of *indisputable fact*.

Messrs. C. & W. Graham, of Ottawa, who have a greater outlay buried underneath the ground than expended in improvements above it, consider that in two or three years the expense of draining is returned in the increased crops. Mr. James Leitch, of Renfrew, told us that partial draining on his farm repaid the outlay the first season, which proved a wet one. Mr. Jas. Phee, of Pakenham, is convinced that his tile drains gave him back the cost in two years. Mr. F. Smith, of Morrisburg, increased the return of strawberries the first year fully fifty per cent. by placing drains 60 feet apart and 3½ feet deep. Messrs. Dryden & Thompson conclude that the under-drainer is sure to be repaid in from one to five years; Mr. Simpson Rennie in from one to eight years; Mr. Geo. Morgan, of Lamaroux, Scarborough, in from one to two years. Mr. F. Malcolm fixes the time at from one to two or three years. Similarly, Mr. F. Green and Mr. Davis, of Woodstock, and Mr. McMillan, whose experience has been most extensive, thinks it one of the best possible investments. Mr. W. Heron told us of having reaped thirty bushels of wheat after draining, where but little would grow before. The first year it increased the spring wheat yield in one of Mr. A. Hood's fields from eight to thirty bushels, and secured for Mr. P.

Rennie, of Fergus, an almost fabulous crop of turnips. And thus we might continue to pile up this class of evidence, but where is the necessity, in the absence of every particle of that which is to the contrary?

It is not easy to over-estimate the advantages of under-draining, or to apply to it the language of extravagance. Since first practised its march has been victorious—a succession of triumphal conquests. It has drawn the line of demarcation between the domain of the living and the dead in plant life. The battle-ground of occupancy between the principles of vegetative production and vegetative destruction, it has given to the former. It has broken the iron sway of the fitfulness of the seasons, and taken away its yoke. It has supplanted a sickly delicacy in plant life by the robust vigour of a strong growth. It has unlocked the hidden chambers of the secreted forces of the soil, driven them out from their hiding-places, and forced them to give of their hoarded wealth to the husbandman. It has given abundant "seed to the sower" and "bread to the eater," has filled the barns of the yeomen brimful, and their pockets with yellow gold. It has practically chained the frost-king to ice-rocks of the north for two whole weeks in autumn, and broken his fetters a fortnight earlier in spring. It has smitten the grasses of the marsh (comparatively useless), which love a watery domain, with a hopeless decay, and covered the abode of the frog and the lizard with rich, ripe shocks of well-eared corn. It has turned the joyless fen, where seeds of death hovered in the air, into the happy abode of singing bird and laughing child; and what it has done it will continue to do, if only given a chance.

When individuals first hung out this "banner with a strange device," their neighbours thought the quagmire a strange bank in which to put their money, but "wisdom" here, as elsewhere, "is justified of her children." It was not long till derision was changed to respectful attention, which in turn gave way to serious consideration, and this in due time gave birth to imitative action, and thus it is that the uncomplaining little tile workers, buried in a three foot grave, have secured a fresh resurrection for truth, insomuch that tile drainage is now the watchword of the most enterprising of our farmers from Lake Huron to the Ottawa, and from the Georgian Bay to the St. Lawrence.

ESSAY ON THE BEST METHOD OF UNDER-DRAINING THE DIFFERENT SOILS OF ONTARIO, THE COST AND THE PRACTICAL BENEFITS RESULTING THEREFROM.

By E. D. Smith, Winona.

To which was awarded the Second Prize by the Agriculture and Arts Association.

The advantages of under-draining, theoretically and practically proven in all civilized countries since the time of the Romans, and on an extensive and systematic scale in Britain during the last half century, and a no mean scale, both in the United States and Canada during the last twenty years, are shown to be so great that no farmer who aspires to be successful to the extent of the capabilities of his farm, can afford to postpone the operation any longer than is necessary to learn how to do it properly—and this may be learned in a very short time. The following are some of the advantages and beneficial effects of under-draining:—

First.—Early seeding in the spring. This is the most apparent advantage, because every farmer knows that it is the early sown grain that yields the heaviest crop. Hence many sow the land when it is injurious to drive upon it, as they know from experience

that it often happens that about the time it is fit to work another rain comes, so that the one who waits until the land gets into proper condition is often delayed until it is too late. The spring of 1883 was one of these bad seasons. On very many farms the land was never in fit condition to work until the middle of June, so that grain either had to be sown in the mud, to the serious injury of the land, or left unsown altogether. Few people got corn planted before the middle of June, and as the autumn was unfavourable, corn did not ripen. If the land had been thoroughly under-drained corn might have been planted at the usual time and a fair crop harvested. The difference in the crops would have paid for under-draining the field in a single year in this instance, and indeed on many farms the whole cost of under-draining the tilled land would have been paid by the increased crop of 1883. Then, during the summer, how many have not had corn ground too wet to cultivate at the critical time, when the corn first comes up, and have been delayed until the weeds have gotten the upper hand and taken off all the profit on the crop, or summer fallows so wet that thistles and weeds could not be killed, or roots smothered, because the ground has been too wet to work at the proper time? These serious losses do not occur every year, but every farmer has seen such seasons if he has followed farming in Ontario very long. All this is changed on drained land—farming then ceases to be a matter of luck and becomes one of skill and science, where one may expect a reward for his labours in proportion as he labours intelligently.

Second.—Though the above are the most apparent advantages, I do not know that they are the greatest; for, when land is under-drained, it may be sub-soiled advantageously. To sub-soil land not under-drained is to a great extent time and money wasted, as there is no outlet for the water lying stagnant in the sub-soil, and plants will not send down their roots into stagnant water, no matter how loose the soil may be; and, moreover, the water in the sub-soil soon sets it as firm as ever. But when drained below, when loosened, it will never set as firm as before, and being dry and loose adds another farm to the one previously tilled by the owner. It has been truly said, "it matters little whether a man works 100 acres two feet deep, or 200 acres one foot deep, as to the amount of produce raised, whilst the former can be done much more cheaply." For in the sub-soil is stored up vast quantities of plant food, to be obtained only by admitting the air; and no matter how rich a soil may be it will not give up its fertility to plants without the aid of the oxygen of the air; and if the sub-soil is filled with water, of course the air cannot permeate it. The stagnant water is like the dog in the manger—it will not do any good itself, nor let in the air, that would.

Third.—The retention of moisture by land that is under-drained is another advantage. It seems paradoxical that we should drain land to make it dry, and also to make it moist; but, nevertheless, this is the effect. It is evident, how it makes it dry. How it makes it moist will become plain if we bear in mind two things: First, that drained land is more porous than land not drained; secondly, that the air parts with moisture on coming in contact with a cooler body.

That land is more porous when drained must be evident, for who has not noticed the wide difference between the porosity of the better drained portions of a field, or of a land, and the low spots or flat places, that bake hard in dry weather? and the fact of warm air parting with moisture on contact with a cooler body, is seen when a pitcher of water sweats. It is not the water oozing through the pitcher that causes it to sweat—it is the warm air parting with its moisture when it comes in contact with the cool pitcher. So a window-pane sweats when the outside air is cooler than the inside air. These two facts being granted, then it becomes evident that the warm air of summer, penetrating the loose, dry soil, parts with its moisture there.

Soil is rendered porous by under-draining on account of the frequent contraction and expansion caused by frequent changes from wet to dry, consequently the effect of draining is not so manifest the first year as later. Every time the soil is dried after a soaking rain the contraction tears fresh pieces of earth asunder. This operation being repeated numberless times, the whole soil above the level of the drains becomes torn to fragments and thus rendered porous to water in every part, thus, also, providing channels for a better distribution of plant food in the liquid form.

Fourth.—Another important advantage is the increased fertility of the soil. This comes in various ways. In the first place, rain-water, falling from the clouds, carries with it to the earth many valuable ingredients in solution—carbonic acid, ammonia nitric acid, etc. In England and Germany, it has been proven that about half the rain-water that falls is absorbed by the land. The other half either percolates into the under-drains, or flows off to open ditches over the surface, if the land is not under-drained. It has also been shown that rain-water, or any liquid, parts with nearly all important matters held in solution in passing through a stratum of soil, say, two feet thick. This may be proven by filling a barrel with earth and pouring on liquid manure. If drawn off at the bottom, it will be found the liquid will have parted with its impurities and only clear water comes through. So it is seen that the rain water, in falling upon drained land and passing through it, instead of over it, leaves its accompanying fertilizers in the soil, whereas, if the land were not drained, not only would this be lost, but the water, rushing away over the surface, would carry much additional matter from the soil and deposit the whole in the ditches and creeks, where it is of no use. Beside this, the land being freed from stagnant water and rendered porous, admits the air freely, which, besides carrying fertilizing matter mechanically mixed, is the decomposed of all organic matter and hence makes these, lying dormant in the soil, available for plant food. For no matter how much vegetable and animal matter is contained in the soil, until it is decomposed by the action of oxygen it is of no use to plants. It is just like the iron ore in the mountain or moor—of no use until purified and melted down and worked up. Hence we see how important to have the soil always permeable to the air.

Fifth.—The temperature of the soil is warmer in drained land. From numerous experiments it has been shown that the temperature is often raised as much as ten degrees. It is evident that this is a matter worthy of our serious consideration. For instance, in the spring of 1882, the ground was so cold, owing to excessive wet, that corn planted on 24th May rotted in the soil. This involved immense loss. Probably if the soil had been only five degrees warmer the seed would have germinated. Besides, we know that the warmer the soil the greater the growth, providing there is moisture. The greater warmth of the soil is caused by its greater porosity, admitting into its insterstices more fully the warm air and warm rains of summer, and by the prevention of evaporation, which goes on to a very much greater extent in undrained land. Evaporation always has a chilling effect on the soil, and this is largely prevented where the water is carried quickly away by the pipes. The warmer soil giving off its heat at night also prevents, in a great measure, those destructive frosts that sometimes occur late in the spring or early in the autumn. We have all noticed the wide difference in the amount of frost on low land and high land, where there would probably not be as much difference in the temperature as there would be between drained and undrained land in the same field. This is, therefore, a very important consideration, especially for the fruit grower and market gardener, who sometimes lose a whole crop by a single night's frost, that might have been prevented, had the land been thoroughly under-drained.

Sixth.—Farmers, who have parts of their farms under-drained, say that even if sown at the same time the crop matures a week to ten days earlier on the drained portions. To our farmers, in sections liable to late summer frosts, this would be a very important advantage. Many a fine promising crop of spring wheat has been ruined by frost when in head. If the land had been under-drained, not only would it have been seeded earlier, but the crop would have matured quicker, owing, no doubt, to the greater warmth of the soil, and the crop would have been ripe when the frost struck it.

Seventh.—The season for farm work, all too short in Canada, would be considerably lengthened by the ability to commence work earlier, and to work many times in the season when others could not.

Eighth.—There is not only a saving of land, fewer furrows being required, but many farm operations are much more comfortably performed without furrows, especially reaping. Furrows are only required to carry off surface water in the spring before the frost is out, when the land is underdrained.

Ninth.—The liability to washing is reduced to a minimum, as most of the water,

even on rolling land, will soak into the soil, instead of passing off over the surface, digging great ditches in the fields and filling up those constructed at the lower ends.

Tenth.—It causes the poisonous excrementitious matter of plants to be carried out of reach of the roots.

Eleventh.—It prevents the grasses from running out, and wheat and clover from heaving out to a great extent, for it is the water in the soil freezing and thawing that causes the above.

Twelfth.—It prevents the formation of acetic and other acids, which induce a growth of sorrel and other weeds.

Thirteenth.—Last, but not least, it prevents in a great measure rust and the attacks of weevil and other noxious insects. The difference between the crop of spring wheat upon land under-drained and that not drained, is often the difference between a good crop and no crop at all—the former being clear and bright in the straw and not attacked by midge or weevil, being earlier and more vigorous, the latter being completely destroyed by these enemies.

Kind of Soil.

With regard to the soils requiring under-draining, it may safely be said all require it. But some are already naturally under-drained. The object of under-draining is to remove water from the soil before it stagnates or stands still for any appreciable time, so that any soil that permits water to stand on it any appreciable time requires under-draining, though there may be a wide difference in the cause of the stagnation and consequently a similar difference in the means of removal.

If, for instance, a piece of level land is underlaid with gravel or sand and is wet and springy, it is evident there is a barrier at the lower side, or the tract is so large that the water cannot soak away to a lower level quick enough. In this case probably a large pipe along the lower side of the field, having a good outlet, would answer every purpose. Sometimes a low place is underlaid by clay, and this by a bed of gravel or sand. If this gravel or sand has an outlet and is capable of carrying off a quantity of water, then a hole bored through the clay will drain the place; but such cases are rare: stagnation usually occurs because of the tenacity of the sub-soil, or the level nature of the ground, which will not allow the water to soak away fast enough. Of course water will soak away in time on almost any land,—it is only a question of time—but to get good results we must have it away quickly. Twenty-four hours after a heavy rain we should be able to go on any land and work it without injury in the summer time. If we cannot do this, it is not thoroughly drained. Probably there are exceptional times when forty-eight hours might elapse.

The depth at which drains should be laid, and the distance between the drains, depends upon a variety of considerations. For instance, land that would do for rice would be too wet for any of our farm crops; and, according to the experiments at the Model Farm conducted by Professor Hare, permanent pasture at Guelph needs no under-draining at all, for he found no drainage water at all from one ten-thousandth of an acre of permanent pasture. Again, according to the same experimenter, sand requires no draining, whilst clay does. He found water running through the clay in pailsful, but none through the sand. Where it went to I, cannot imagine, for it could not lie near the surface of the sand long enough to evaporate. The only solution I can give is that the sand was so dry that it soaked up all the rain, then, in the intervals, carried the water to the surface by capillary attraction, from whence it was evaporated. However, be this as it may, I know of many sandy fields underlaid with pipes that run water the season through, so that it would not be safe to say sandy land does not require drainage; more depends on the position and the sub-soil, than on the nature of the surface soil. I do not think land requires so close drainage in our dry climate as in England, nor would it be advisable to drain so deeply. In time of drouth the surface may be kept moist if kept stirred, moisture being drawn from the sub-soil by capillary attraction. Hence, the closer a reservoir of moisture is to the surface the better. This reservoir would lie below the drains, so the nearer the

drains are to the surface the better at such a time. But of course we must have them below the frost. Again, very springy land would admit of deeper drainage than other land. For land devoted to fruit trees that have far-reaching roots, deep drainage would be advisable, as the pipes would be less likely to get choked up. So there is no hard and fast rule as to depth of drains or width between. The width between can best be ascertained by experiment. Lay two drains, and see if they will draw the water from a point midway between them. It must not be expected to do so at first, however, not thoroughly, until the second year, when the soil will have become more permeable and channels will have been formed. The deeper the drains are the wider apart they may be placed. In Britain four feet is the usual depth at present, the width between varying according to the texture of the soil, from eight yards in stiff clay, to three times that distance in sand. In our dry climate I think drains two and a-half feet deep, at these distances apart, would be sufficient. For orchards and vineyards, I lay the tile not less than three feet, however, as I find roots all through the stiff sub-soil at two and a-half feet. In speaking of the reservoir of moisture being below the drains, it must not be imagined that there would be any more moisture in time of drouth on land not drained, however, as at such a time such land would be set hard and would not allow moisture to rise from below, nor to descend into it with the air from above. Under-drained land, in time of drouth, is much more moist than any other. Drains laid near elm trees, or other trees delighting in moist sub-soils, should have collars to protect the joints, else the roots will soon fill the pipes. The fall required for a drain depends on the nature of the soil and the care in laying the pipe. If soil is sandy or loose and peaty, a fall of one inch to the rod is necessary to insure success; but in clay the smallest appreciable fall is sufficient if the grade is uniform. There should be no small depressions. The bottom should be perfectly true where there is very little fall. I have drains running clean that have only six inches fall in sixty rods, others running perfectly that have, for long stretches, no fall at all, but having a fall near the lower end. If possible, the grade should not be changed from a steep grade to one level, or nearly level, near the lower end. The reverse is all right. If the grade increases as it nears the mouth, all the better. If it is necessary to change the grade to a level, or nearly level, as you approach the mouth, a silt-basin should be built beneath the drain at the change of grade. This will catch the silt or fine dirt running down and allow it to settle and clear water run out, which will not choke on the level stretch. These silt-basins should be made of brick and water-lime cement and covered with a heavy oak plank, so that they may be uncovered and cleaned out as often as they fill up. The place, of course, should be marked—in fact one should have a map of the under-drains carefully drawn up, so that if one gets choked up its location can be ascertained exactly without digging for it. Besides a uniform grade, the ends of the tile should fit snugly together. In clay, no covering except clay is required, but in loose soil it is necessary to cover the tile with straw, or similar material, to the depth of a few inches, to prevent the fine particles from washing in too quickly. A fall of six inches at the mouth of the drain is desirable, as it often gets choked with mud if nearly on a level with the bottom of the open ditch.

In laying out a field, the main drains should run along the lower side and through the lower flats, with the laterals or feeders running into them. No plan can be proposed, as all depends on the formation of the land. Where a field has a gradual descent to one end, as mine have, I lay the main drain beneath the head furrow and run the feeders at right angles up the field, having no furrows except immediately over the drains. Very little water ever reaches the headland. The laterals should not run into the main at right angles; as the lateral approaches the main it should be turned in the direction of the main. There should also be a drop of at least an inch from the lateral into the main. As the main is usually an inch larger than the lateral this would place the tops level. The junction can be made by carefully chipping a hole near the end of a tile in the main to fit the last tile in the lateral, and the joint covered with bits of broken tile. Laterals should not enter a main immediately opposite each other.

Mains should not enter an open ditch immediately beneath the head furrow. It is better to turn the main down a rod or two back from the open ditch and allow it to enter the open ditch a few feet, at least, below the head furrow. For soft, springy land, that

will not afford a good solid bottom, tile should be used, with collars to prevent shifting, and where very bad, narrow boards should be placed beneath.

As to the size of tile required, if the drain is properly laid, two-inch laterals are amply large enough. I would sooner have one-inch tile laid true and on uniform grade than three-inch, tumbled in as they are, sometimes, where draining is done by the job. A three-inch main will carry off all the water that will fall upon ten acres as fast as it will get into the drain ; a four-inch tile will carry all that falls on twenty-five acres, or twice that amount of land, if there is a good fall. I have mentioned only tile drains, because I consider them much better than any others and cheaper than stone, even if the latter were on the ground, as it requires less than half the digging for tile. A good tile drainer will cut a three-foot drain, not over eight or ten inches wide at the top and only the width of the tile for twelve or fifteen inches at the bottom, whereas a ditch more than twice this size is required to lay a stone drain. The tile only cost eleven or twelve cents per rod, the digging costs fifteen to twenty. However, where tile cannot be had, I would say put in stone drains or wood drains. A pole laid on one side and a slab laid on this makes a drain that will last a long time ; or even two poles laid beside each other. Loose gravel will answer a very good purpose also.

The cost of draining, of course, depends upon many things—cost of tile, rate of wages, nature of soil, depth of drain and distance apart. To drain an acre of clay loam two and a-half feet deep, two rods apart, will cost about as follows :—

1,300 tile, at $7 per thousand	$ 9 10
Digging by hand labour, at 18c. per rod	14 40
Levelling, laying tile and covering, at 5c. per rod	4 00
Total	$27 50

But a great revolution has taken place in under-draining of late. Mr. Rennie, of Toronto, now offers for sale a machine which reduces the cost of digging very materially. A party owning one in this district makes money digging drains three feet deep at eight cents per rod. This would reduce the cost of draining an acre to less than $20. This is for two-inch tiles ; of coure larger tiles would be more expensive. Three-inch cost about $12 per thousand and four-inch, $20. In draining peat bogs, the tile should be put down five or six feet deep, as the bog, when drained, will settle, the organic matter being decomposed by the oxygen of the air, which is allowed to enter the soil when the water is drawn off.

A trip through Markham, Vaughan, Scarborough, Pickering and adjacent townships, would well repay anyone contemplating under-draining, or who is sceptical about the benefits to be derived from it. Much draining has been done in these townships and with wonderful results. The general increase in the yield of wheat is from eight to ten bushels per acre, other grains in proportion.

Since under-draining his farm, Simpson Rennie states that his average yield of wheat has been thirty-two bushels per acre, and that for a period of eighteen years ; I doubt if there is a farm in Canada not under-drained, naturally or artificially, that has averaged twenty-four bushels per acre for that period of time.

Mr. Rennie also shows a field that formerly only yielded twenty-five bushels of barley per acre in favourable years that has since yielded forty, fifty-three and fifty-four bushels per acre, on the three years respectively that it has been sown with barley since being drained.

Mr. Wm. Rennie has raised thirty-nine hundred bushels of mangold-wurtzel on three acres of under-drained and sub-soiled land.

Mr. Gibson, of Markham, before the Agricultural Commission, said : "Before I drained my farm, it was of hardly any use for me to sow fall wheat upon it. The highest average was sixteen to twenty bushels per acre, and when the midge came round a great many of my neighbors gave up growing wheat altogether ; but after I had drained my farm I had almost always good crops of fall wheat during the time the midge was at the worst." The vigour and earliness of the plant enabled it to resist or escape the midge.

The following prominent farmers also testified in unmistakable language to the value of under-draining: Mr. Dickson, of Tuckersmith, Mr. Alanson Elliot, Mr. James Black, of Ramsay, Mr. Andrew Cochran, of Lanark, Mr. James Thompson, of Brooklin, Mr. Smellie, of Vaughan, also Professors Brown, Buckland and Bell. A perusal of their testimony ought to convince the most doubting farmer of the profit of under-draining. In many cases the whole cost of draining has been paid in a single year; but in every case it is declared to be a profitable investment. One of these gentlemen stated he would borrow money at ten per cent., if necessary, to under-drain with; and when we reflect that one bushel of wheat per acre, at $1.25 per bushel, would pay good interest on the outlay, it must be evident that an increased yield, such as is reported by all who have tried draining, would yield a handsome profit on the enterprise.

In conclusion, let me say to the inexperienced, do not wait for skilled labourers. Get a tile spade and scoop and go at it. Secure a good outlet, at the lowest possible point, run a line from this along the lowest side, or through the lowest part of the field. Dig a ditch as narrow as possible, to save labour, and within a foot or fifteen inches of the bottom, with a common spade, make the bottom level as possible. Now follow along with tile spade, cutting out as narrow a "spit" as possible; take out loose dirt with scoop, make the bottom as level as possible by the eye. Then, if there is no water in the ground, pour some in at the upper end and make the bottom so smooth and uniform that water will run the whole length without settling anywhere. Now commence at the upper end and lay the tile, fitting the ends closely as possible; walk on the tiles and crowd them down tight and jam them close together, and fix them with clay so they will not move sideways. Then, if the soil is heavy, tumble it in, putting the heaviest soil in first. If the soil is loose, cover and tramp down three or four inches of straw, and put dirt on this. This is a simple matter. Any labourer can dig the drain and any farmer can lay the tile. Skilled drainers will do it much faster and it will pay to hire them to do the digging; but level the bottom and lay the tile yourself, if you want a good job done. I know tile are generally put in with a hook from the top of the ground, but they cannot be put in properly, and a more uniform level can be secured by the use of a *level*; but mistakes and vexation often occur, whilst the water will not run down the drain unless the bottom has a fall all the way, at any rate, even if it is not perfectly uniform. When the main drain is laid the laterals or feeders can be put in at leisure. There are often odd days in the spring and fall that can be utilized in this way to great advantage. Drain the low places first; then follow it up by a thorough system, and you will not regret it.

ESSAY ON THE APPLE, ITS IMPORTANCE AS AN ARTICLE OF COMMERCE IN CANADA, ITS PROPAGATION, CULTIVATION, INSECT ENEMIES AND THEIR REMEDIES.

By D. Nicol, Cataraqui, Ontario.

To which was awarded the First Prize by the Agriculture and Arts Association.

At what period or in what manner the apple first became known to the British people is very uncertain; for the wild crab is the only fruit of the kind known to be indigenous to Europe, or indeed to any other country.

From it, by some means or other, all our numerous improved varieties now cultivated so extensively in Europe and America have been derived.

There is no doubt that the cultivated apple, as we now have it, owes its existence chiefly to the art of man, and is not, as some have asserted, the natural production of any particular soil or climate.

Apples were cultivated in Italy by the Romans in the time of Pliny, in the fifth century, but nowhere in his writings does he allude to them being known in Britain. So

it seems quite probable that it was not until after the Norman conquest that apples were much known or cultivated in that country.

It is, however, reasonable enough to suppose that they were introduced from the fertile orchards of Normandy as soon after that time as the state of society would admit of the minds of men being directed to more peaceable pursuits than that of war. In Italy, even in Pliny's time, the cultivated apple was probably scarce; for he states that there were some apple trees in the villages near Rome which yielded more profit than some small farms.

The English historian Stowe informs us that a variety called "Pippins" was introduced into England by one "Mascal," about the year 1572.

Parkinson, in 1629, distinctly enumerates fifty-seven sorts, and Harris, a gardener to Henry VIII., who introduced the fruits of Flanders, planted apple trees in Kent, laying the foundation of the great orchards for which that county has ever since been so conspicuous.

The second edition of the catalogue of fruits published by the Horticultural Society of London contains the names of over 1,400 sorts of apples; and although some of these were synonymous, the accessions of new varieties for some years afterwards soon extended the number of sorts to beyond 1,500.

Of all fruits, either cultivated or uncultivated in any country, the apple is unquestionably the most important, and by far the most useful. It can be raised with less expense than any other, consequently it is the fruit of the poor as well as of the rich. It is both healthful and nutritious, and is now generally admitted to be one of the most desirable articles of food. It can be prepared and used in a greater variety of forms than any other fruit. It can be had in green state, in perfection throughout the year, which cannot be said of any other fruit. Nor among the fruits is there any comprising so much diversity of flavour, for of all the innumerable varieties, scarcely two are alike in this respect—differing from the rich saccharine to the tart, acid and subacid in every degree, or combined in different proportions, thus affording a choice for every taste however fastidious.

ITS IMPORTANCE AS AN ARTICLE OF COMMERCE.

The apple is essentially a fruit of the colder and more temperate regions of the globe; its climatic range in North America may be said to be between the 40th and 46th parallels of latitude; and it is somewhat remarkable that the farther north they can be brought to perfection, the richer do we find them in flavour; while the farther south they are grown, the more incipid do they generally become. Hence it has become an established fact that every kind of apples grown in Canada is superior in flavour to the same kind grown south of the great lakes. Some years ago the Boston *Herald* contained the following remarks: "The various qualities of Canadian apples have now reached such a degree of excellence that they are greatly sought after and eagerly bought up for the American market. A few years ago it was just the reverse." In all the Provinces of Canada wherever the apple can be grown to advantage, do we find it attaining a richer flavour than it attains in any other country; this is proved by the fact that Canadian apples now bring the highest price in British markets. In the March, 1877, number of the *London Garden*, the editor on receipt of a package of Canadian apples, remarks that, "in size these apples do not surpass what one may see among fairly well-grown fruit here; in colour they are much higher than ours, several of the kinds being a deep purplish red. In flavour, the real essential point, they are very remarkable and far beyond our own fruit." It is strange, but nevertheless true, that in Canada we can, in spite of the duty, purchase American apples at a lower price than is being paid by traders for the same varieties raised in Canada. There can be no other reason for this than that the latter are of superior quality.

For many years the Pomological Society of Western New York has pronounced the Northern Spy one of the very best apples, and I presume there are but few who will gainsay that opinion. I have seen it throughout that State in all conditions—in the garden and in the orchard, on old and on young trees, on standards and on dwarfs, but nowhere have I seen it in such perfection as in Prince Edward County, Ont.

Wm. Brown Smith, of Syracuse nurseries, is a gentleman of very extensive experience, and perhaps the best authority in the State on such matters. He remarked to me that the "Spy was the most valuable apple in that part of the country, but that they could never get them equal either in flavour or colour to those grown in Canada."

So it seems to be pretty generally conceded that for those qualities which are certainly of the utmost importance, Canadian apples are unsurpassed. And there is also this other important advantage, that all kinds of apples grown in Canada keep longer and better than when grown farther south. Indeed many of our best winter apples when grown as far south as Alabama become but inferior fall apples.

Long-keeping apples of good quality are quite as much a staple article as either pork or cheese. With immensely increased facilities for shipping, they can be shipped to almost any part of the world in a green state, if care be taken that they be not overheated or frozen. Some say the market will be overstocked. But the danger to be apprehended from a "glut" is very remote indeed, so long as the population of the world continues to increase at the present rate. There is danger of flooding foreign markets with inferior trash, which had better be fed to cattle and swine, but good fruit will, in all probability, find a ready market at remunerative prices, for several generations to come.

Some times the home markets are overstocked in the fall with apples which cannot be kept for any length of time, but even this difficulty is being rapidly overcome by the use of new and improved appliances for evaporating fruit, and apples in a dried state are now becoming a more important article of commerce than either currants or raisins. Last year evaporated American apples were freely advertised in the newspapers of China and Japan. In 1882 over three million pounds of dried apples were exported from the United States to the markets of China, Japan, India, South Africa and Australia.

There is no means of obtaining a correct account of all apples exported from Canada, but the secretary of the "Board of Trade" at Montreal informs me that there were shipped from that port for England in the year 1882, 67,893 bbls; in 1883, 12,615; and in 1884, 91,690 bbls. In 1883 we had a scant crop, which caused prices at home to be higher than usual, and this doubtless accounts for the smallness of the exports that year. In 1884 we had abundant crops and ocean freight was considerably reduced. These causes no doubt led to the large increase of shipments that year. At the port of Liverpool in 1882 the arrivals of Canadian apples were over 200,000 bbls. According to the census returns of 1880 Ontario produced 11,400,517 bushels of apples, which was more than double that of 1870. By the same report it seems that 80 per cent of all the apples raised in the Dominion is produced in Ontario. From these figures we may be enabled to form a faint idea of what dimensions the trade might attain to if our productions were increased according to our capabilities. Increased production of apples of good uniform quality will just as certainly bring increased demand, as has been the case with first-class Canadian cheese.

The following extracts are taken from Dr. LeBaron's essay on this subject:

1. *Destroying the insects in their winter quarters.*—When we consider that each female moth is capable of laying fifty eggs or more, and that every worm of the first brood ruins an apple, we can see the importance of destroying these insects before they leave their winter quarters. We have already observed that in the state of nature these worms pass the winter in cocoons, concealed under the bark, or in the crevices of apple trees. The summer brood of worms, which remain but two weeks in the pupa state, sometimes content themselves with a very slight protection, but it is the nature of the insect to seek deep concealments, and the instinct of the second brood, which is to survive the winter, leads them to search for the deepest protection they can find. We therefore rarely find them under shallow and loose scales of bark, but very often in deep cracks and crevices, partially embedding themselves in the substance of the wood or bark. Any superficial scraping of the trees, or whitewashing, or other outward applications would not, therefore, be likely to reach many of them; and inasmuch as they may be hidden upon any part of the trunk or large branches, any attempt to discover them with the intention of digging them out, would evidently be impracticable; but at the point where we become powerless the woodpeckers come to our aid. In their search for such hidden worms as these, those

busy foragers unite business with pleasure, and all through the wintry day the sharp rattle of their beaks may often be heard in the orchard, as with ear intent and sharpened beak and appetite not less sharp, they pursue their hidden prey with unerring and fatal precision. A far more efficacious way of destroying these worms, as far as our own instrumentality is concerned, is to search for them about the barrels and bins in which fall and winter apples have been kept. I have heard of instances where the side boards of the bins have been taken away from time to time as the apples were removed and thrown over upon the other, in which these boards became so fastened together by the webs of the worms between them that a number of boards could be raised by taking hold of the upper one only. There can be no doubt that the destruction of the codling-worm at this stage of its existence would be very effective, and that it has been by far too much neglected.

2. *Picking wormy apples from the trees.*—We have stated that the young worms soon after they have entered the apple begin to throw out their castings through the hole which they made on entering. As this hole must originally be very small, it is evident that they must enlarge the opening for the purpose. We further stated that a portion of the castings adhere to the calyx, forming a rust-coloured mass, which is easily seen from the ground below. Some culturists have availed themselves of this circumstance for the purpose of removing the wormy apples from the trees before the worms have escaped. The plan is to beat off the wormy apples, or else pick them off by means of a wire hook attached to the end of a pole. These two methods can be very usefully combined by first jarring or beating off those apples which readily fall, and then going over a second time with the pole and hook. The apples thus removed should of course be fed to the swine or otherwise treated so as to destroy the worms within. In the case of small orchards these simple expedients might be made to supersede the necessity of any other treatment.

3. *Gathering the wormy wind-fall apples from the ground, or letting sheep or swine have the range of the orchard* —The efficacy of this, of course, depends upon the proportion of worms which fall to the ground in the apples, as compared with those which leave the apples whilst hanging on the tree. Those which crawl down the branches spin up before reaching the ground, and those which let themselves down by a thread, would for the most part be detected only by birds or by domestic fowls, and as there is reason to believe that they usually perform this act in the night, even these must fail to capture them.

The apples which contain worms do not usually fall until the worm is nearly matured, consequently should be gathered as soon as possible after dropping, for before they can be gathered a large proportion of the worms will have escaped. But the most important question in this connection is, what proportion of the worms leave the apples before they fall from the tree? I have endeavoured to arrive at an approximate estimate upon the subject by putting two or more bands around the same tree upon the presumption that the worms descending from above will spin up in the upper band, and those crawling up from the ground in the lower. On the fourth of July, 1882, I selected a smooth, thrifty apple tree, six inches in diameter, growing upon grass land, and well filled with apples bearing many marks of being wormy but remarkably tenacious, and consequently but few lying upon the ground, put two bands upon the trunk, one a foot and a half above the other.

"Examined July 23rd—a moderate number of apples having in the meantime fallen to the ground. Whole number in the lower band was 150: in the upper band 110, total 260. The bands were made of carpet, six inches wide and long enough to go twice round the tree, making a very abundant cover for the worms. As might have been anticipated, in this case the greater part of the worms in the upper band were found in its upper half, indicating that the worms had reached it by descending from above; and on the other hand, the greater part of the worms in the lower band were in the lower half, showing that they had come up from the ground. We infer from this that the gathering of wind-fall apples, either by ourselves or by the aid of pigs and sheep, enables us to destroy less than half of the codling worms."

The method of entrapping the worms under bands is, without doubt, the most effective remedy yet devised, and if it were generally and persistently followed, would effect a large yearly saving in the crop of this valuable fruit. Bandages may be made of old carpet, sacking, but where these materials are not readily procurable, strong paper or cotton can be used. They should be from four to eight inches wide, and either fastened with a string

or with tacks at the ends, and all the better if they are long enough to go twice round the tree. They should be fastened about half way up the trunk of the tree during the latter part of June, and examined every ten days until the last of August, and at least once after the crop is secured.

C. W. Raymond, of Dundas county, states that with a glass lantern set in a tin-pan of water an inch deep he caught on the night of August 20th, over 1,000 moths. Light attracts the moths, they fly around the lantern, and when they strike the water they are caught.

We are encouraged by the fact that lately a number of parasites which attack and feed upon this enemy in its different stages, have been discovered, and it is to be hoped that in course of time they may so multiply as to completely annihilate the pest.

MARKETING.

I have only space for a few words. All apples should be assorted before shipment. The mean, contemptible practice of placing a few good apples at the bottom and top of the barrels, while the great bulk is of an inferior quality, may serve the purpose of tricky dishonest brokers for a time, but it is ruinous to the trade. And in order that the rogue should not have such advantages over the honest dealer, the rascally custom should be stopped by a regular system of inspection. Each barrel should be branded according to quality and kind, besides having the dealer's name on it. Never can we realize the full benefits of good markets while there exists such conveniences for fraudulent practices.

The almost illimitable prairie countries of the North-west which are being rapidly populated, and in which numerous towns and cities are rising up, will eventually open to us an extensive home market; for, on account of the intensity of the frost there, apples can never be profitably grown to any extent. There is indeed but a comparatively small portion of this vast continent on which apples can be grown to advantage, and even within their climatic range, there is but a small proportion of the land really well adapted to the purpose, perhaps not more than one acre in twenty—but I think I am safe in stating that there is not yet more than two in a hundred acres so occupied.

Thirty years ago apples could be purchased in this neighbourhood at 12½ cents per bushel by the waggon-load—now they average from 50cts. to $1.50 per bushel, according to quality. Even at the lower figures it is doubtful whether an acre of suitable ground could be made to produce one-fourth as much profit in any other crop as in apple orchard judiciously managed; neither is there any way in which capital can be invested with less risk, provided it be attended with skill.

There is this consideration which should be observed, a very large proportion of trees already planted are of fall varieties, many of them will not endure transhipment, consequently must either be disposed of at local markets or be converted into dryed fruit. The supply of good keeping winter apples can scarcely for many years be equal to the demand; they will always command a higher price than fall sorts; therefore it is important that intending planters should select chiefly those kinds that are of a staple character.

Suitability of the Different Varieties to the Different Localities.

In that part of Ontario known as the "western peninsula," almost all varieties of apples succeed tolerably well. The climate of that part of the country is so modified by the influence of the open waters of the adjacent lakes, that even the tenderest varieties of apples are but little affected by the severest winters. The fact that the peach thrives in some of the southern counties is satisfactory proof of this, for it is much more tender than the tenderest sorts of apples. It is made still more evident by the fact, that on the south shores of the Georgian Bay almost all the leading varieties of apples are to be found in a prosperous condition. Pears also, of sorts that never succeed well in land farther south, thrive there remarkably well; even the peach is found bearing in some favourable localities. It is also proven by the fact that even south and west of the great lakes, a few miles, tender sorts of apples which prosper near the lake shores, cannot be grown at all,

and so it is east of Toronto, away from the influence of the western lakes, tender sorts can only be grown within a certain distance north of Lake Ontario and the River St. Lawrence. A correspondent of the *Farmers' Advocate* found fault with my statement, that only crabs could be successfully grown as far north as the Ottawa River, because he had seen some fine apples of various sorts grown on the north shore of that river. I did not think it worth while replying, because I know that a little more experience would much more effectually convince him than anything I could say on the subject.

We sometimes have a succession of moderate winters, which many kinds of apple-trees withstand even as far north as the Ottawa—but that does not by any means make it certain that such trees are suitable for that climate, because we are just as likely to have the occasional severe winter as we have been, and when that comes, these apple-trees are just as sure to be destroyed as are the peach-trees which the experimentalist is trying to acclimate in this locality. As the correspondent did not give his name, it is quite probable he is a tree peddler, and it is noticeable that they never remain long enough in a locality to have their assertions either proved or condemned.

For over thirty years I have been experimenting with all the popular sorts. I have had Baldwins and R. I. Greenings come nicely into bearing state, and just when becoming profitable they were completely killed by one night's intense frost, which, had they escaped, they might have flourished several years longer.

Therein lies the whole trouble; all soft-wooded varieties of the apple that make large young shoots, which continue to grow late in the fall, are liable to be killed by a severe winter when planted beyond their climatic range. The young wood not being ripened is much more tender than that of the hard wooded sorts, such as the Duchess, Fameuse, St. Lawrence, Mann and Tetofsky. Mostly all the known hardy sorts which have their young wood ripened early in the fall, produce fruit of short duration, and unsuitable for exportation, hence of less value than winter fruit. So the great necessity of the northern districts is some hardy sorts of long-keeping apples, which will not only furnish winter supplies at home, but bring a remunerative price for surplus stock. The "Mann," although scarcely equal to the R. I. Greening in quality, is a very good, long-keeping apple, and very well adapted for shipping, because it bears handling remarkably well; the tree is quite as hardy as any of the so-called "ironclads," consequently, is a suitable as well as a profitable apple to grow in regions farther north than those in which the more tender sorts can be grown.

The "Gibson" is another excellent winter apple, somewhat resembling the "Fameuse" but much superior in flavour, of larger size and keeping well until March—the tree is quite as hardy as the Duchess of Oldenburg, and an annual bearer.

Be it observed that in growing apples for profit, it is not economic to plant a large number of sorts. In the Annapolis Valley, N.S., the most experienced orchardists grow chiefly the Nonpareil, which has long been celebrated in the English Markets as one of the best Canadian apples. That variety seems to be completely adapted to that locality, and it has proved to be the most profitable.

In the south-western counties of Ontario, the Baldwin, which is one of the best shipping apples, can be grown to perfection, and it is doubtful whether any other sort grown in that part of the country would give more satisfactory returns. The R. I. Greening, King of Tomkins County, Blenheim, Orange and Gravenstein are about equal in tenderness with the Baldwin, and wherever it thrives they may safely be planted.

The Northern Spy, Roxburg Russet, Beauty of Kent, Nonsuch, Fall Pippin, Colvert, Rambo, Sherwood's Favorite, and Twenty Ounce, are considerably hardier than the beforementioned varieties, and will stand pretty well in favourable localities where the thermometer seldom falls more than 26° below zero.

The Golden Russet, Ribston Pippin, Cranberry Pippin, Grimes' Golden, Hawthornden, Red Canada and Early Harvest are somewhat hardier than the last mentioned group, and kinds still hardier than any of the preceding and suitable for the front townships of Eastern Ontario, I have found to be the Fameuse or Snow, St. Lawrence, Maiden's Blush, Ben Davis, Alexander, Red Astrachan, Keswick Codlin, Indian Rareripe, Benoni and Wagner. And hardiest of all I have found to be the Duchess, Mann, King of Pippins, Wealthy, Peach, Gibson, Talman Sweet, Pomme Grise and Tetofsky; all these kinds I

have known to endure a climate where the thermometer occasionally falls as low as 32° below zero. The Tetofsky, although much recommended by dealers, is but of poor quality, scarcely equal to some of the best crabs. Indeed, it is but a crab. The Ben Davis is perhaps the most remarkable apple we have. It seems to be adapted to a much wider range than any other known variety; it is said to fully retain its flavour when grown even as far south as Alabama. It is certainly not of the best quality, but its very handsome appearance commands for it the highest price in foreign markets. It is a rapid grower and an early and heavy bearer—the only objection to it we have ever heard, is, that the fruit requires to be thinned in order to have a uniform quality.

Acclimating Apple Trees.

We have heard and read a great deal of nonsense about "Acclimating Apple Trees." I have seen thousands of experiments made in trying to acclimate fruit as well as other kinds of trees, but I have not seen a single instance of success.

I have been trying in every way for the last thirty years to acclimate some of the tender sorts of apples, but I cannot see that I have yet accomplished anything that would lead me to believe in the hardening process. I know that by sowing the seeds of the hardiest kinds, hardier seedlings may be and are obtained. I have seen such thriving much farther north than any of the known kinds of grafted trees could exist, but I have never seen any such that could be considered worth propagating. I know also that the common apple hybyridized with crabs produces hardier seedlings, and, although I do not yet know of any sort so produced that is worthy the name of an apple. I think it is by that means that apples suitable for a severer climate must be obtained.

I find that by top-grafting some kinds of good apples on crab-trees the wood ripens earlier in the fall, and is consequently hardened so as to endure more intense frost than when grown on the common stock. Only a few varieties, however, make good union with crab stocks, but that again depends somewhat upon the kinds of crabs the stock is taken from. The "Transcendent crab" is quite as hardy as the Siberian, but a much more robust grower, therefore far better adapted for grafting robust growing kinds upon. On the "Yellow Siberian or Golden Beauty," I have found the Early Harvest, Jeffers, Maiden's Blush and Porter, do remarkably well, while the Alexander, Fill Basket and Twenty Ounce were a failure; I have, however, good reason to believe that they will succeed on the more robust growing crabs.

I am confident that good apples can be grown farther north when grafted upon crabs, than upon common stock; besides, they more readily adapt themselves to inferior soils.

It should be observed here, that, if the intense frost occurs towards spring after a mild spell of weather, when the trees have become gorged with sap, the effects are most disastrous. Fruit-trees are not nearly so susceptible to injury in the forepart of winter before the sap begins to ascend.

Tree Peddlers.

It is of the utmost importance that intending planters should know what kinds are suited to their locality, and not be induced to purchase whatever is recommended by travelling tree peddlers. An immense loss accrues annually, besides an incalculable deal of disappointment from the trickery and deceptions of fraudulent brokers.

I would not at one sweep condemn all tree agents as frauds, for I have known many upright men engaged in the business for a time—formerly nursery men used to employ agents who could be relied upon as dealing fairly between man and man, but latterly that part of the business has been taken out of the hands of the nurserymen by brokers, who deal entirely on their own responsibility. The temptations to dishonesty in this kind of business are so strong that unless he who engages in this, is guided by right principles, he soon loses whatever regard he may have had for his own moral character. Bogus jewellery, quack medicines and patent humbugs do not altogether afford half as convenient facilities for defrauding the people as does the dealing in trees and plants by irresponsible itinerant brokers.

Nurserymen, I think, are generally reliable. Indeed no nurseryman can long succeed who is not reliable. It is a business that cannot be established in a short time, and a good reputation is the first essential in this as in every other permanent business. No nurseryman who intends to follow up the business could afford to deceive his customers. Not so, however, with unprincipled travelling dealers; character to them is of little importance, for they seldom reside long in one locality. They are generally of that class who have been disqualified for holding positions of trust, will not work, dare not steal, but must resort to some means of obtaining a livelihood. We find but few of them devoting their entire attention to this pursuit, many of them are expert at gambling, which also is favoured by their initerent habits. There are but few of them who know anything at all about the nursery business, but are generally able to talk in such a way as to readily deceive the credulous and often too confiding farmer. In fact it is on this faculty, along with their plate-books and jars of specimens that success in the nefarious trade depends. The difference between hardy and tender sorts is nothing to them, they fill orders with whatever they have in stock; in this way thousands of tender trees are sold in localities where the severity of the climate precludes any possibility of satisfactory results. Summer and fall apples are often substituted for winter sorts ordered. I was invited to see an orchard in the Township of Adolphustown. The proprietor had two hundred apple trees just arrived at bearing state, but he was surprised to find so much similarity among the varieties, for he had ordered fifteen different kinds, chiefly of winter fruit. On examination we found that every one of the two hundred was of the variety known as the "Lowell" or Tallow Pippin, a fall apple of but medium quality.

Some of the unscrupulous scamps can always supply whatever is asked for, even though their stock in trade consists of but one kind. I once heard one peddler bragging to another that he had filled in an order for ten pears, ten plums and five apple trees all assorted out of a bundle of crab apple trees, but the other related some transactions of the sort that completely eclipsed him.

Sometimes nurserymen have an over stock of one sort, beside a lot of refuse trash, which they offer at a very cheap rate, this is the brokers' opportunity, and doubtless they are often a great accommodation to the nurserymen, as such stuff would otherwise have to be destroyed.

Four years ago the appraiser of the Kingston customs called on me with an invoice of 600 grape vines sent by an American nurseryman to a dealer at that port. He suspected that there must be something wrong, as they were only valued at four and a half cents each. There had been no other entries there of the kind. During the previous winter there had been two young men taking orders throughout the country for a grape vine to which they pleased to give the euphonious name of "Incomparable" which, according to their description was "equal to the Catawba in size, but much superior in flavour, perfectly hardy, would climb over the houses and stand the severest winters without any protection." The price was $3 each, but some were sold at $2.50. On future inquiry we found that all the orders for this extraordinary grape had been filled with Clinton vines which were charged in the invoice four and a half cents apiece.

Now, of course, most of those who purchased those vines four years ago have discovered that they were deceived without any possibility of redress. But this one thing is still more remarkable, that those very individuals who were so notoriously gulled with the grape vines, will again and again grab at the bait when thrown out in different forms. How long will intelligent men allow themselves to be made the dupes of irresponsible tramps, who have no stake or interest in the country, which can in any way be affected by their dishonest dealings.

P. T. Barnum said, "Most people like to be humbugged occasionally." One would think, however, that they would get tired of it when it is so expensive.

Next comes specialties, in the shape of "Russian Ironclad" apple trees, which can neither be affected by climate, soil, or any sort of insect enemies. Prices range from $1 to $2.50 each, although such trees are entirely unknown to nurserymen. Be it observed that this trade in specialties is far more remunerative than the usual custom of supplying trees at the ordinary price. The costs of boxes, packing, freight and delivery is but trifling compared with the old fashioned method of doing business.

There is a traveller just now in this neighbourhood taking orders for two kinds of pear trees that are "hardy as the hawthorn, blight-proof, bearing fruit of a quality far superior to anything ever offered before," and at the low price of $3 each, or two for $5, and it is surprising to hear of his success. Many seem to think that trees are not worth having unless the price asked for them is very high. It really seems as if Carlyle was not very far astray after all when he said, "Most of the people are fools." It is simple nonsense to talk about law for this class of swindlers. The very fact of their being absolutely irresponsible renders them perfectly independent, while the absence of any remedy simply affords them encouragement to play upon their victims, in which they seem to take a fiendish delight.

There is nothing from hindering any one from ordering whatever he may require directly from the nurserymen, who must always find it to their own interest to endeavour to give satisfaction, at all events, they being responsible, the law can be brought to bear upon them.

Then instead of incalculable loss of time and labour, besides the disappointment, and chagrin at being deceived by some oily-mouthed, brassy-faced constitutional liar, you find that after years of patient care and good culture, the trees arriving at a bearing state you are possessed of a treasure, which will be to you an enduring comfort.

I cannot think of any evil from which the Canadian farmer is more in need of protection. Lightning-rod men, quack doctors and all the other parasites in human form, have not abstracted from the honest, industrious farmer half as much hard-earned money for so little value returned as have these swindling hawkers of apple trees. Is it not time to have a check put on such blood-suckers?

The most effectual remedy would be a heavy license and a proper guarantee, and a severe punishment for transgressors. This, I think, could be brought about through the instrumentality of the "Fruit Growers' Association."

Propagation.

The apple is propagated either by seeds, layers, cuttings, budding or grafting.

For the reproduction of all plants that produce seeds, the most usual process of propagation is that which is pointed out by nature, viz: the sowing of seeds. It is also the mode by which new and improved varieties of fruit are obtained. It must not, however, be inferred that every tree so originated is likely to be an improvement on its parent stock, for we find innumerable varieties of indifferent fruit raised in this way. "Philosophers," says Lindley, "are unacquainted with the reason why there should be any tendency to variation from the character first stamped on any species by nature, but all know that this tendency does exist, and that in a most remarkable degree in some species. There is in all beings a disposition to deviate from their original nature when cultivated, or even in a wild state, but this disposition is so strong in some as to render them particularly well adapted to become subjects of domestication." Then, says the same authority, "without vainly endeavouring to discover the cause of this disposition to form varieties, let us take it as the naked fact that such a disposition does exist." Cultivators increase this disposition chiefly in two ways: either by selecting the finest varieties from seedlings raised, or by intermixing the pollen and stigmas of two varieties, for the purpose of procuring something of an intermediate nature. This power of obtaining cross-bred varieties at pleasure has only existed since the discovery of the sexes in plants, but as it has been satisfactorily proved that it exerts a most extensive influence over alterations in the vegetable kingdom, it may be considered as one of the most controlling powers which we possess.

Layering.—The apple is seldom propagated by layers unless for obtaining stocks of the Paradise and Doucain, stock, which are not so easily got by seed.

Cuttings.—At one time, in England, apples were extensively propagated by cuttings, but now it is seldom resorted to, although a process exceedingly simple and with most varieties of apples tolerably successful. A cutting is a young shoot taken from the tree with a small portion of the old wood, which is smoothed over with a sharp knife; these prepared cuttings are inserted in sandy loam to the depth of four inches, and covered with glass to exclude the air, and shaded until they have started two or three inches.

Grafting.—Grafting, in some of its various forms or modifications, is now the chief

mode by which the apple is propagated. Its objects are: 1. To multiply and increase the number of any desired kind, which could not be accomplished so rapidly by any other mode except by budding. 2. It accelerates the fructification of trees which are tardy in producing fruit. Scions inserted in branches of bearing trees bear fruit in two or three years after the operation, while, were the same scions grafted on young seedlings, they would perhaps not bear fruit for nine or ten years. 3. To change the sorts of fruit on trees. There are thousands of healthy grown up seedling trees producing fruit that is almost worthless, which, with comparatively little trouble and expense, may be made quite profitable.

Important modifications are frequently wrought upon the size and fruitfulness of trees, and the quality of their fruits, by grafting one species upon another of the same natural order. In the case of the apple, however, experience has established the fact that there must be a close alliance between the scion and the stock. The pear may, with a certain degree of success, be worked upon the Quince, Thorn, Medlar and Mountain Ash. Not so with the apple, it only succeeds well when grafted upon some of the different species of the apple.

In proportion as scion and stock approach each other closely in constitution, the less effect is produced by the stock, and, on the contrary, in proportion to the constitutional difference between the stock and the scion, is the effect of the stock important. Thus, when grafted on the common apple stock, the scion is in regard to fertility, exactly in the same state as if it had not been grafted at all. While on the other hand, an increase of fertility is the result of grafting the common apple upon the Paradise stock, because it is a tree of slower growth, and the food absorbed from the earth by the root of the stock is communicated slowly and unwillingly to the scion; the communication between one and the other is not as free and perfect as if their natures were more nearly the same; the sap is impeded in its ascent, and the proper juices are impeded in their descent, which causes the accumulation of secretion, which is sure to be attended with increased fertility.

Grafted on the common stock and grown under ordinary circumstances, an apple tree does not usually bear fruit until seven or eight years old from the graft; while the same variety grafted on Paradise or Doucain stock will generally produce fruit in three years after grafting. Grafting some varieties on the Siberian crab has a similar effect, but not in so marked a degree.

The different modes of grafting practised in different ages and countries, for the attainment of particular objects, are almost innumerable. As but few of them are of practical utility in the propagation of the apple, it would be useless to occupy space here with historical accounts or descriptions of them. Only those methods which are most universally adopted, with slight modifications, by the best practical propagators everywhere, need be described.

Whip-grafting on the root is the mode in most general use in the best fruit nurseries. For this purpose the roots of apple seedlings of any kind one or two years old are used, and in order that the work may be done in winter, they are taken up in the fall, and placed in moist sand to keep them from shrivelling. The scions also should be taken off in the fall and preserved in the same manner.

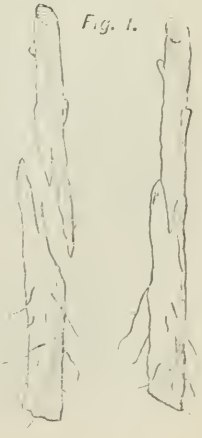


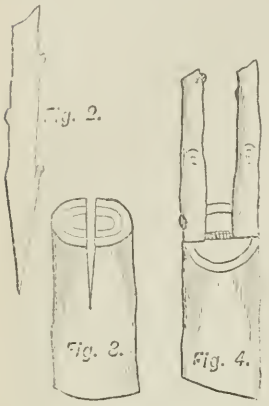
Fig. 1.

The stock or root, and scion, are cut obliquely at corresponding angles; a tongue is cut in each, which should correspond exactly with each other, so that they can be neatly fitted together; the tongue of the one within the incision of the other, as in Fig. 1. The inner bark of both should be placed in close and perfect contact at least on one side. After being firmly pressed together, they are bound with a shred of paper, or thin cotton, pasted with a composition of wax, resin and lard in equal proportions, after which the grafted plants are closely packed in shallow boxes, with earth sand or sawdust, and placed in a cellar free from frost until spring.

Small trees standing in the open ground are grafted in precisely the same manner—only the operation is performed in spring just before the buds begin to open. Trees that are an inch in

diameter can be grafted in this way; and on larger trees the branches that are about an inch in diameter can be made the stocks, and in this way an excellent head can be formed.

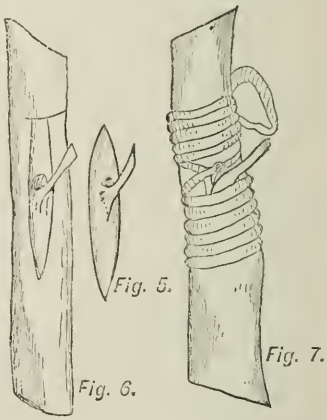
Cleft-grafting is the principal mode practised on trees or branches that are too large for whip-grafting, for this purpose the scion is cut in the form of a wedge. Fig. 2. The branch to be grafted is sawed off horizontally. The surface is then pared smooth with the knife, a split is made in the centre of the stock (Fig. 3) with the grafting chisel, and two of the wedge-shape scions are inserted; one on each side, as in Fig. 4. The inner bark of the scion must be in close contact with that of the stock, and every portion of the split perfectly covered with a composition of wax tallow and resin, two parts of resin to one each of tallow and wax, with a small portion of brick-dust added. If both scions grow, one of them should be cut away as they would be too close together.



The essential particulars to be observed in grafting of every kind is, to use only sharp instruments that will make smooth, clean cuts, and to have the inner barks of scion and stock placed in perfect contact, and the whole cut surface perfectly covered so as to exclude air and water.

In top-grafting large trees the whole top should never be cut off in one season; the too severe check readily kills the tree; a much more successful way is to take and leave branches alternately the first year, and the next year operate on the remainder.

Budding.—This consists of separating a bud with a portion of bark attached, as in Fig. 5, from a shoot of the current season's growth of one tree, and inserting it under the bark of another. The operation is performed with a thin-bladed knife made for the purpose, by making an incision in the stock, and raising the bark so as to admit of the detached bud being inserted without disturbing more of the bark than is actually necessary. (Fig. 6.) After the bud is inserted the stock is wound round with a string of bass-wood bark or some other soft material, leaving only the bud protruding as in Fig. 7. This must be done as soon in the summer season as the buds are perfectly developed on the young shoots, which in Ontario is generally about the end of July.



The following spring all the stock above the bud is cut off—the bud starts to grow, and eventually forms a tree of the same variety as that from which it was taken.

Success with this method of operating depends chiefly on the neatness, quickness and exactness with which the operation is performed; and the condition of the stock and bud. It is most essential that the bark rise freely on the stock, and this only occurs when the stocks are in a thrifty growing state. In the propagation of pears, peaches and plums this is the chief method employed, but with apples it is seldom adopted, except in cases where scions of any particular sort cannot be had in desired quantity, because root-grafting answers the purpose equally as well, and with it the work can be done in winter when time is less valuable.

Stocks.—The common or free stock is obtained from the seeds of common apples without regard to kind, and is generally used for orchard trees.

The Paradise stock is entirely used for dwarfing, making trees produce earlier than they would on common stock. The tree is of a low-growing shrubby nature. It is propagated chiefly by layers and suckers from old stock; apple-trees worked on this stock do not attain a large size, consequently are well adapted for gardens.

The Doucain apple is of a dwarfish creeping nature ; the apple when grafted on its stock is of very stunted growth ; well adapted for growing in pots for ornament—much used in France, but of little practical utility here.

The crab stock is obtained from the seed of the crab-apple. The principal object in grafting on this stock is that being exceedingly hardy, it renders the trees worked on it more hardy and better adapted for a severe climate and inferior soils.

CULTIVATION.

Successful culture of the apple depends very much on the suitableness of the ground. The colour and flavour of the fruit, the general healthfulness and duration of the tree, are most commonly the results of the condition of soil and climate.

The apple is not so particular as to the kind of soil, for it is known to thrive on stiff clay as well as on sandy land, or on any grade between the two, provided it be in suitable condition. By deep draining, deep plowing and manuring, almost any land can be made suitable for the purpose, if it is in a favourable locality. Low flat land on a watery subsoil (which is the home of the willow and alder), can never be sufficiently drained for successful apple culture.

Apple trees naturally root deeply, and although they thrive best in moist summers, they cannot endure long in a healthful condition with their roots in stagnant moisture. The most important essential in this matter is a dry bottom. Therefore all land except that which is on a subsoil of either sand, gravel or shaley rock, must be underdrained before success is attainable, no matter if it be on a hillside where water is never seen standing on the surface ; if the soil is on a cold wet bottom it is unfit for an apple orchard until it is thoroughly under-drained to the depth of at least three and a half feet.

The most essential thing is deep tillage ; no common two-horse plough is sufficient to stir up the soil to the required depth, it should be followed by the subsoil plough so that the soil may be stirred up to the depth of eighteen or twenty inches.

On cold ground an excellent plan is to plough the ridges several times the same way, which raises them higher in the middle and gives more depth of surface-soil in which to plant the trees. It should be observed, however, that on all low-lying lands the effects of frost are much more injurious to fruit trees than on elevated positions in the same locality ; late spring frosts often have a fatal effect on trees planted in the flats, while they sometimes escape uninjured on the hill sides.

Shelter or wind-breaks, it is almost needless to say, are of immense benefit to apple orchards. When the blossom is opening out and the young leaves in a tender state they are very readily injured by sharp winds. The fruit also is sometimes almost all shaken from the trees by the north-westerly winds which prevail at that season of the year. So, wherever young orchards are being planted it is always advisable to provide protection from the north and west winds by mixed belts of trees, such as Norway spruce and hard maples.

Land that has become impoverished by continued cropping need not be expected to yield satisfactory results as an orchard any more readily than it would a crop of potatoes or corn, unless its condition is improved by the liberal application of manures.

The annual exhaustion of salts by ordinary grain crops is from 180 to 250 lbs., or more, from every acre of ground. So to most ordinary minds it must appear quite clear that unless an equivalent is returned to the soil in some form it cannot continue to produce.

Wood ashes consist of such elements as are always required by plants and trees, and are most essential for perfecting their maturity. They are to the earthy part of trees what milk is to the human system. They contain every element, and that generally in the right proportion for insuring a full and rapid growth. Wood ashes may be pronounced the best of saline manures, and, applied at the rate of about fifty bushels per acre annually, are the most economical for the apple orchard when an abundance of barnyard manure cannot be conveniently obtained. Land, deep, rich and thoroughly drained is in the most favourable condition for apple culture.

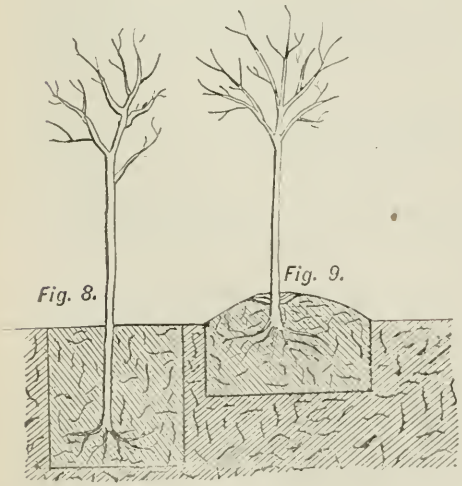
TIME TO PLANT.

Long experience has established the fact that in this part of the world spring is, all things considered, the best time to plant apple trees.

Fall planting is sometimes followed with success, but that occurs only in favourable seasons. Newly transplanted trees which have not yet obtained a roothold of the ground are much more susceptible to injury by a severe winter than trees having their roots established in the ground by a summer's growth. All fruit trees are less or more injured by intense frost, therefore if they are taken up in the fall, and buried in dry ground until spring, they can be taken out and planted in as sound condition as they were when taken from the nursery row. They have been protected from the bad effects of a severe winter, and are certain to make a much more vigorous growth than if they had been standing exposed. These remarks may, to some, appear superfluous, but I know that experience would convince any one who may try this method.

Another common error, is planting large sized trees on the supposition that time is gained thereby. It is almost impossible to dig a tree out of the ground without in some way injuring its roots; a two or even a three year old tree can be removed without suffering serious damage; but when a tree is left standing in the nursery row, until it is four years old, it cannot be removed without severe mutilation of the roots, unless a great deal of time and labour is expended, which costs more than can be realized for the tree after it is lifted: consequently large sized trees are almost invariably devoid of fibrous roots. Mostly every one who has transplanted trees must have observed that when there is a deficiency of fibrous roots, the tree makes but very feeble growth, even if it survives the mutilation: whereas the smaller tree with abundance of fibrous roots, starts freely and makes rapid growth, so that in a year or two it is away ahead of its elder brother with the stump roots. Just according to the size of the tree is the severity of the check: and, generally speaking, the larger the tree the longer will it be in recovering the check it sustained by the operation.

Too deep planting is another cause of failure, and it is surprizing to know how common is this stupid practice of sticking the roots down to the cold bottom of a deep pit as in Fig. 8. Inexperienced persons are very apt to go to extremes. I am persuaded, that nearly half of the disappointments with young trees have been caused through this egregious error.



Far better that the roots be spread out in a horizontal position near the surface, in a shallow hole as in Fig. 9, and a small mound formed around the tree, sufficient to cover the uppermost roots to the depth of five or six inches. The warmth of the surface soil encourages early growth. Very few young trees as they come from the nursery require a hole more than a foot deep.

Allowing the roots of the lifted trees to get dried by exposure is another very common error, which is the cause of many failures. Almost every one knows that a fish cannot long survive when out of its natural element. The effects of drought on the roots is more disastrous to young apple-trees than is the exposure of a fish to the sun. Whoever neglects keeping the roots perfectly fresh will probably find it necessary to purchase frequently before he can establish a healthy orchard.

Planting tall trees is still another great mistake. Tall trees can hardly be kept standing straight unless they are staked; tying to stakes almost invariably chafes the

bark so much that the tree is injured. The only advantage that can be claimed for tall trees, is that the ground can be plowed closer up to them than it can be under low spreading trees; but the ground close around young trees should be worked by hand-hoe and mulched, which does away with the danger of having the young roots injured or the trunks barked by horse implements. With low standard trees there are the following advantages: They are in a great measure secure against the numerous fatal diseases that attack the trunks; they stand straight without stakes: the ground around them being shaded is easier kept clean, and is always more moist; consequently low trees grow more freely than tall ones: the fruit is always larger and of better quality, is more easily gathered, not so easily shaken off by the wind, and less injured if it is shaken off. I think trees with trunks about four feet long answer the best purpose.

The distance at which trees should be planted depends somewhat on circumstances; some varieties require more room than others; early and heavy bearers, such as the Wagner, Duchess and Red Astrachan, do very well planted twenty-five feet apart, because they never grow to be as large trees as the Golden Russet, N. Spy, Canada Red, and many others which require much more room and should be planted thirty or forty feet apart. While trees are small they do better closer together, because they shelter one another. So I prefer planting fifteen feet apart in rows thirty feet apart, and thinning out as they require room. On light sandy land apple trees never grow as large as on rich clayey loam, and planters must be guided accordingly.

Care of Orchards.—One would think it almost needless to remark that during the first six or eight years of their existence the soil should be kept thoroughly tilled. Yet after all that has been said and written on the subject by experienced culturists, the practice of planting out orchards, sowing the ground with some kind of grain, and seeding down with grass, is not uncommon. It is only, however, among that class who do not take the trouble to avail themselves of the useful information disseminated through the many agricultural papers now published in Canada, and through which intelligent answers are readily given in reply to all reasonable questions by subscribers.

The fact that some of the oldest orchards now standing were treated in this way, leads to the existing belief in this stupid notion. At the time these orchards were planted circumstances were far different from what they now are. A choice spot was selected and cleared off; the wood ashes on the ground, the surface of which was already rich with the accumulations of decomposed tree leaves, and before any foul weeds or any insect pests had made their appearance; the apple trees were planted among the decaying stumps. The surrounding bush afforded excellent shelter from the cold winds, and caused the snow to be evenly distributed over the ground, besides supplying a genial moisture to the atmosphere. All these conditions favoured the growth of apple trees, and knowledge on the subject was unimportant. But now in the cleared up country of this age, these favourable conditions do not exist; prevailing adverse circumstances render care and culture absolutely necessary. Knowledge is now all important, and only he who takes the trouble to obtain a knowledge of the essentials, and practically applies it, need reasonably expect to succeed in apple culture.

Orchard ground must not only be properly prepared before planting; it must be kept in good condition. After the trees become so large that the ground cannot be cultivated without injuring the branches, it is better to seed down with clover and top dress with manure, and also with wood ashes, which supply the most essential salts to be taken up and assimilated as plant food.

Pruning.—From the time that the trees are first planted in the orchard, attention is required to see that all the branches and their members maintain a uniform growth. Many varieties have a tendency to form heads so dense, that the sun and air are in a great measure excluded, so that the fruit on the outside of the tree only is marketable. Too much wood is very objectionable; the head should be kept open rather in the form of a vase, so that the blossom, leaves and fruit may all enjoy the benefit of the sun and air, without which they cannot properly perform their functions, or attain to maturity.

Some will argue that apple trees will take care of themselves in this respect, as well as the trees of the forest; on the ground that nature preserves a balance in all her works.

But let it be observed, than an apple tree is not exactly a natural production, but is far removed from its natural state by culture, and as its nature is refined and improved the more it requires the care of the culturist.

Time to Prune.—There is much diversity of opinion as to what time of the year apple trees should be pruned. I have found, however, that if trees have been carefully and sufficiently pruned from the time they were planted, there will be no necessity for cutting off large branches at any time after the tree is advanced to a large size; and small branches may be taken off at almost any time of the year without risk of injuring the tree. For this purpose I have generally found the fall to be the most convenient time. But if large branches must be amputated, it should be done in early summer, after the first rush of sap is past, and before the trees have made much growth in new wood. A long practical experience has convinced me of this. When the operation is performed in winter, a considerable time must elapse before the wounds made begin to heal over; during this time the continued action of the frost and sun are injurious to the newly cut, exposed open wounds, the bark around the edges being killed, becomes hard and dry, and it takes a much longer time to heal over than if the wound were made at the time when the tree is beginning to make new wood.

When trees are pruned in early spring, while the sap is in a thin watery state, it oozes out of the cut, and often causes premature decay. When pruning is deferred until the trees have fairly commenced to make new wood the wounds at once commence to heal over and are less injured by exposure; when trees are pruned at an improper season the wounds should be covered with a paint of gum shellac dissolved in alcohol.

Insects that are Injurious to the Apple Tree.

Limited space prevents the giving of a detailed account of each of the different species, for they are about twenty in number; therefore a description of a few of the most troublesome, and an account of their workings, along with methods of destroying them, must suffice.

Borers.—The most formidable of this class is that known as the Saperda Bivittata; a long-horned beetle of a pale brown colour, and about three-fourths of an inch long. It has two broad white stripes, one on each side extending from the front of the head to the extremity of the wing cases. This insect in its perfect state is seldom seen, as it generally remains in concealment during the day time, and flies only at night. In the month of May the female deposits her eggs in the bark at the base of the trunk of the tree, near the level of the surface of the ground. From these eggs, tiny white grubs are soon hatched, which work their way under the bark and establish themselves in the sapwood upon which they feed. At this stage they eject their castings through the entrance; it appears like fine sawdust, and is a certain indication of their presence. This is the time they are most readily discovered, and also most easily destroyed. As they have not yet got far from the place of entrance, the removal of asmall piece of bark discloses the depredators.

The larva, which is of a yellowish colour, grows to be over an inch in length, has a hard brown head furnished with a pair of powerful mandibles or jaws by which he is enabled to cut his way. Sometimes he takes a circuitous route, and if not checked in his course, very soon encircles the tree. I have frequently seen three or four of them in their infant state in the same cavity; but as each starts out on their own account, they take different directions, and make short work with small sized trees. Hence it is important that they be destroyed before they go far from the place of their birth. Of all the different methods I have seen tried for the accomplishment of this, I think there is none more effectual than vigilance in catching them in their early stages. An expert boy with a sharp-pointed knife and a piece of wire to punch them in their holes can examine and destroy what grubs there may be in from fifty to a hundred trees in a day. I have found that this done twice during the early part of the summer, at a cost of less than two cents per tree per annum is sufficient to prevent any serious damage from this enemy.

Painting the trees at the base of the trunk will prevent them, but the bark of young trees is very easily injured, and any application in this way is likely to do more harm

than the borers. A scroll of tin or tarred paper tied around the trees close to the ground is also a preventative, but this involves a great deal more labour than merely examining the trees.

Buprestes.—The Buprestes (crysobothis femorata) flat-headed borer, also attacks the apple tree. It is a beetle of dark, glossy bronze or metallic colour, and about half an inch in length. The grub is yellowish white, with a hard, horny head, and is easily distinguished from the cylindrical larvæ of the Saperda, by the flattened shape of its body, which is broad towards the head and tapering towards the other extremity. As the mode in which this insect operates is precisely the same as that of the former, the remedies to be applied are the same, only be it observed that the Buprestes does not confine its approaches to the base of the tree, but places its eggs as far up as the dividing of the branches. A coating of cold-made soft soap, applied in time, will prevent the female from setting on the tree, but as it is liable to be washed off by heavy rains, a portion tied in a rag should be placed in the crotch of the tree.

The Canker-worm.—As yet in Canada this insect has been kept in abeyance: but last year, in the Eastern States, I saw hundreds of large orchards completely defoliated by this dreadful enemy. Mr. Saunders, of London, observes that "during the last few years there have been several valuable essays on the Canker-worm published. Among these is one by C. V. Riley, of St. Louis; one by B. P. Mann in the proceedings of the Boston Society of Natural History: and another by H. K. Morrison in the sixth volume of the *Canadian Entomologist;*" and it is from Mr. Saunders' summary of what is known respecting these insects that the following information is obtained:

The insect in its perfect state is a very handsome and delicately marked moth, with wing structure so thin as to be almost transparent, but although delicate in appearance it is nevertheless one of the hardiest of its race. Careful observation has led to the discovery of two distinct species, possessing similar habits, and many points of resemblance; one producing a perfect insect in the fall, the other partly in the fall and partly in the spring. The former species being known under the name Anisopterix Vernata, the latter as A. Pometaria, but as the habits are so nearly the same we can only treat of the one species, *Vernata.* The eggs, which are of a delicate texture and pearly lustre, are laid in masses without any regularity or order, often as many as a hundred together, and secreted in the crevices of the bark of trees infested. The eggs are usually hatched between the first and middle of May, about the time the buds begin to open out. The newly-hatched caterpillars, on making their escape from the eggs, cluster upon and consume the expanding buds. This caterpillar, in its first stage, is of a dark green or brown colour, with a dark shining head, and a horny plate of the same colour on the second segment; when full grown they are about an inch in length, and are called "loopers," because when travelling they loop their bodies. When farther advanced, the colour varies from greenish yellow to dusky or dark brown. The head is mottled and spotted, and has two transverse lines in front; the body is longitudinally striped with many pale lines, and down the back are some blackish spots. When not eating they remain stretched out at full length, resting on their fore and hind legs under the leaves. When full-grown they leave the trees, either by creeping down the trunk, or by letting themselves down from the branches by silken threads. Having reached the ground, they at once begin to burrow, and having penetrated the earth to the depth of from two to six inches, a simple earthen cell is formed by compressing the earth, and lining it with a few silken threads, this makes but a fragile home for the chrysalis, and is easily broken to pieces.

The female moths of both species of canker-worm are wingless, and present a very odd spider-like appearance, but with a slow ungainly manner; after emerging from the chrysalis, she drags along until she reaches the base of a suitable tree, up which she climbs, and there awaits the arrival of the male.

The male is active, although a delicate and slender looking creature. Its fore wings are ash-coloured or brownish gray, with a broken whitish band crossing them near the outer margin. The hind wings are plain, pale and ash-coloured, with a dusky dot about the middle of each.

In the case of these insects, since the females are without wings, if they can be prevented from crawling up the trees to deposit their eggs, a great point will be gained. In

the State of Massachusetts, where this enemy has been the most troublesome, the following method has been found the most effectual as well as the cheapest and easiest employed. Strips from six to ten inches wide of old canvas or strong brown paper are placed tightly around the trunk of the tree, and then besmeared with tar, printers' ink, molasses or slow drying varnish. This, however, must be borne in mind; that any of these sticky substances must be kept in a sticky condition by frequent paintings, or else the application will be useless. These strips should be applied as early as the latter part of October and kept on until the leaves are well expanded the following spring.

I have seen orchards, which by the use of an engine had been sprayed with a solution of Paris green (a quarter of a pound to a barrel of water), perfectly free from the pest, while a large orchard on the opposite side of the road was without a green leaf; but this remedy is very unsafe, as any animals permitted to eat of the grass growing underneath the trees would certainly be poisoned.

The canker-worm, moreover, has natural enemies which prey upon them in every stage of their existence, and it is probable they will disappear, as other plagues have gone before.

Tent Caterpillars.—These insects are the most conspicuous in their work of destruction, and probably the most common known to people generally.

They are of two different species; one, the Clisocampa Americana, has a white stripe extending along the back from head to tail; while the other (C. Sylvanica) has a series of white spots instead. The habits of the two are nearly alike; only the former especially attacks the apple tree, although often found on the plum, pear and cherry, and more frequently the wild cherry. The eggs from which these caterpillars are hatched, are laid by the parent moth about the end of June or first of July, upon the smaller twigs of the tree, arranged in the form of a bracelet containing about 250 eggs. These eggs are always protected by a covering of thick leathery varnish, and just about the time the buds begin to open out the larvæ are hatched, and are thus enabled at once to find a suitable supply of such tender food as they require. They at once begin to construct a shelter for themselves by stretching their web across some fork of the small branches, near their place of birth. As they increase in size they keep adding to the web until it forms a large commodious "tent," in which they repose when not feeding. They continue in the caterpillar state for five or six weeks, feeding voraciously on the foliage; and if suffered to go unmolested year after year, they soon strip whole orchards of their leaves.

After arriving at maturity they leave the trees, and crawl off to find some secluded spot in which to form their cocoons. In this state the insect continues for about three weeks, and then comes forth a thick-bodied, brownish moth. These moths are very short-lived—only a few days, during which time they pair and provide for the perpetuation of their race; the female laying her bracelet of eggs from which the next year's brood is to come.

Remedy.—Search the orchard during winter and cut off all the bracelets of eggs and burn them. Such as are missed may be easily destroyed in their tents by crushing them by the hand on the tree, or cutting off the branch with the tent and tramping it. This is the simplest remedy, but all cocoons to be found about the end of June should be destroyed. The moths are attracted by light, and may be killed with little trouble; but they have now many natural enemies, which are doubtless on the increase, and by this means we may hope for the utter extinction of the pest.

Oyster Shell Bark Louse.—This insect (aspidiotus chouchiformis), like several other of our insect enemies, is an importation from Europe. About the end of August the mother insect lays a quantity of very minute eggs beneath a scale previously formed in some mysterious way. Soon after laying the eggs she dies; but the eggs remain under the scale until the following spring. About the first week in June the eggs hatch, and produce a number of very small lice, which soon leave the protection of the scale and spread over the young branches of the tree. For a few days they possess the power of moving; but after selecting a spot to settle and suck the sap, they remain stationary during the rest of their life. A scale is gradually formed over each, with secretions from its own body. About the end of July it arrives at maturity, and in due time lays its eggs, and finally dies, leaving the seed of another generation.

A most effectual remedy I have found to be, a strong solution of soft soap applied to all affected parts in the month of June, with a common paint brush ; also at any time when the bark is wet, these scales are easily scraped off with a chip of wood ; and I have observed that when once scraped off they do not readily attack the same part a second time.

White-marked Tussock Caterpillar (Orgyia bencostigma).—These insects do not spin webs, but simply feed on the leaves of the apple and other trees, and when numerous do considerable damage , they form the cocoons on the twigs of the tree, and draw down a leaf for a covering, and attach it to the cocoon. The eggs are laid upon the cocoon, and covered with a curious substance which becomes hard and brittle, and protects them from the weather. The best remedy is to go through the orchard late in the fall and take off all the cocoons, which can easily be discovered by the weathered leaves attached to them.

Codling Moth (carpocapsa pomonella).—This is certainly one of the most troublesome pests that infest the apple tree, and it has now become one of the most common. The small maggot, which is so frequently to be found about trees, is called the codling maggot. It leaves the fruit in summer, and soon after selects some secluded spot under loose bark, or other convenient hiding-place, for the spinning of its cocoon, in which it remains in the larval condition until about the time of opening of the blossom, when it emerges from its winter dwelling and appears as a winged moth. The female generally deposits her eggs singly in the calyx or eye of the young apple just as it is forming. In about a week after, the little worm is hatched, and at once begins to eat its way into the heart of the apple. Its castings are usually ejected out through the hole by which the worm has entered ; sometimes as the larva approaches maturity, it eats a passage through the apple, and here escapes a full-grown worm. The occupied apple generally drops prematurely, sometimes with the worm in it, but very often the worm escapes before the apple drops. The second brood of moths appear in August. In the winged state they live but a few days, but during this time they pair, and the female deposits her eggs for the second brood of larvæ.

Mr. Saunders thinks that "each female moth probably lays about fifty eggs; these are not all matured at once, but may be found, by careful dissection of the body of the moth, in various stages of development—hence they are deposited successively."

Concerning remedies, Mr. Saunders remarks, that " this is an all-important matter in which, in this instance, man must rely chiefly on his own efforts, for although doubtless a large number of the worms and chrysalides are annually destroyed by birds, and another limited portion by parasitic insects ; still, from the advantageous shelter afforded them by the apple, and the fact of their movements after leaving it being mostly in the night-time, the codling moth enjoys much immunity from natural foes."

ESSAY ON THE APPLE—ITS IMPORTANCE AS AN ARTICLE OF COMMERCE IN CANADA AND FOR EXPORTATION—ADAPTABILITY OF THE DIFFERENT KINDS TO THE VARIOUS LOCALITIES—ITS PROPAGATION AND CULTIVATION—ITS PRINCIPAL INSECT ENEMIES AND REMEDIES THEREFOR.

BY M. S. SCHELL.

To which was awarded Second Prize by the Agriculture and Arts Association.

1st. Canada has long been noted for its peculiar adaptability for the cultivation and growth of apples, having a reputation extending far and wide for the exceptionally clean and fine rich-flavoured ones produced.

During the past ten or fifteen years the cultivation of the apple has been made the subject of careful, practical, and scientific investigation.

The questions of soil, drainage, fertilization, insect pests, varieties of fruit, and many other important subjects were taken up and discussed, laid down, and then taken up and discussed again, by the ablest minds connected with the business. The Canadian people always want the best; the markets demand the best; and the live Canadian is not satisfied until something like perfection is attained.

As a result, our orchards are loaded with rich golden fruit, and our tables are graced by the finest specimens, and the most luscious and best flavoured apples that are grown on the face of the globe; a fact which has been clearly demonstrated, when our apples on being placed in competition with those from other countries, either in the world's great markets or fairs, have by universal consent been awarded the first place. In the English markets their superiority was at once recognized, and a position accorded them surpassing those grown in any of the European countries, and (with the exception of one or two varieties) the Eastern and New England States, not even excepting those grown throughout the famous Hudson River district; so that the market reports quoted the Canadian apples at one figure, and those from the States at another figure, indicating the former to be worth from $1 to $3 per barrel more than the latter.

But while we can grow *quality*, it is also a well ascertained fact that the *quantity* can be raised, making it doubly important as an article of commerce in Canada, and for exportation. After years of practical test, it has been found that the larger portion of Ontario is eminently suited for apple culture, while in some of the more northerly and eastern counties, where it was thought at one time that apples would not grow, or at least could not be raised with profit; yet by selecting and cultivating the more hardy varieties they have been found to produce fair crops and of excellent quality. Hence, when we take into account the large tracts bordering on Lakes Ontario and Erie, which have been proverbial for the productiveness of their apple orchards, together with the rapid development steadily going forward in the inland and northern counties, until it is estimated that there are now nearly 100,000 acres, or one acre to each 100 acres of clear land, devoted to apple culture in the Province, we are in a position to form some estimate of its importance.

But Ontario is not the only Province in the Dominion deserving of special mention in this connection. Nova Scotia occupies a position similarly important. The belt of country that may be termed the fruit region is the Annapolis valley, so called. This tract commences at Digby Gut, extending eastward through the counties of Annapolis, King's, and part of Hants. It is nearly 100 miles in length, and is skirted on either side by parallel mountain ranges the entire distance. One writer has said that "these have a valley, counting the lower slopes, of an average of fifteen miles wide, and an acreage, deducting 12 per cent for lakes, rivers and bogs, of 840,000 acres for orchard purposes, of which about ten per cent., or say 80,000 acres, is already in fruit."

Apples are also raised to some considerable extent in Quebec. The Island of Montreal, which contains 197 square miles, produces large quantities, especially of the Fameuse variety.

Now, then, estimating the amount of territory devoted to apple culture in Canada to be, say 150,000 acres, and each acre to produce on an average, say forty barrels yearly, and we have a total of 6,000,000 barrels. Then deduct 50 per cent. for common, fall, and damaged fruit, which, perhaps, is too much, but we still have 3,000,000 barrels for good fruit, an amount that seems almost incredible.

But let us look at it. Out of the 468,643 barrels landed in Liverpool during the past season we find that up to the 6th of December those shipped from Montreal amounted to 85,248 barrels. Then after navigation closed those sent through by rail to Portland and forwarded were 30,658 barrels. Now it must be borne in mind that these were all, or nearly all, Ontario apples. Besides, there were also some very large consignments from Western Ontario *via* New York, to the same port.

Consequently the shipments from Ontario alone to Liverpool during this last season amount to nearly 150,000 barrels. Now when we add to this those shipped from the eastern Provinces to the same port, with those sent to Glasgow, London, and the Western States, besides the quantities used at home and distributed throughout the length and breadth of the Dominion, we think the amount estimated as being produced to be quite within the probabilities. Admitting such to be the case, and estimating the 3,000,000

barrels at $1.50 per barrel, we have the handsome sum of $4,500,000, plainly showing that as a source of wealth and revenue to the country the apple is entitled to a very high position. No account has been taken of the common or fall fruit, which, until recently, was thought to be worth scarcely more than sufficient to pay for the handling.

But since the introduction of the evaporating system, large quantities are being worked up, establishing a market for the producer and turning out a product that is becoming an additional source of revenue, and for which there is a constantly increasing demand, especially from foreign countries.

Hence in view of the foregoing facts relative to the quality of fruit, the extent of territory devoted to its culture, and quantity produced, together with its value financially, its importance as an article of commerce in Canada and for exportation becomes apparant.

ADAPTABILITY OF THE DIFFERENT KINDS TO THE VARIOUS LOCALITIES.

In the onward march of progress made relative to the more successful cultivation of the apple, some valuable conclusions have been reached, prominent among which is one which indicated that some varieties of apples reached nearer perfection in some localities and on some soils than others. From practical experience it has been found that a great mistake has been made by many in the past in planting too many varieties, which is becoming more patent every year. We will therefore confine ourselves to a few of the varieties that have been proven to be the most profitable, either for home consumption or for export.

(*a*) For the more favoured localities as regards climatic changes, such as the Niagara peninsula and the track of land lying contiguous to Lake Ontario, nearly all the standing varieties have been found to thrive so well that a specification of the most productive would not in all probability be the kinds most deserving of recommendation. It becomes rather a matter of selection, aiming at quality rather than quantity. Respecting varieties to plant for profit, it would indeed be difficult to name the one or two most profitable. At the same time there are a few varieties that have succeeded so well and are so much in demand that a mistake could hardly be made in their culture. Of, say eight varieties most to be recommended, the following we think could scarcely be surpassed, viz: Snow apples, Ribston Pippins, King of Tompkins Co., Wealthy, American Golden Russet, R. I. Greening, Northern Spy, and Baldwin.

(*b*) But for those localities that are subject to late spring frosts the American Golden Russet, Roxbury Russet and Northern Spy are decidedly the surest bearers. Owing to their being several days later in blossoming, good crops have been secured of those varieties when others have been almost fruitless.

(*c*) Again, for the northern districts that are colder and more exposed, some varieties are found to be much better adapted than others. Notably in that respect the Duchess of Oldenburgh for an early apple is perhaps the hardiest and most productive kind we have. Colverts have also been found to do reasonably well. An English winter variety, the Salina, lately introduced into Canada, has proved to be specially suited for the colder localities. It is of excellent quality, a beautiful red, and bears heavily. The Wealthy, another new variety introduced, has succeeded so well that it is apparently destined to be the apple for northern sections. It is a firm grower, fruit of uniform medium size, a good bearer, and an excellent shipping apple. Of those most generally known the Northern Spy, King of Tompkins Co., American Golden and Roxbury Russets are perhaps the most hardy and productive.

(*d*) Another very important consideration to be borne in mind is, that where the formation of the soil varies all the way from a heavy clay to a light sandy or gravelly bottom, with the different localities, the greatest care needs to be taken in selecting the varieties to cultivate. In localities where the soil is that of a heavy clay with a cold bottom, even though a thorough system of under-draining be adopted. only a few varieties will be found to thrive well or prove at all satisfactory. The Baldwin, though in many respects a hardy apple, would not grow at all, or else would grow so soft in the wood that the limbs would be continually breaking off. Besides, the trunks of the trees would soon

begin to decay at the heart, so that at best they would be but short-lived. From our experience would recommend the Rhode Island Greening, Wagner, Northern Spy, Ben Davis and Canada Reds. The latter though of rather inferior quality, yet owing to their thick skin and good colour, are excellent shippers, and command good prices in foreign markets.

(*e*) On the other hand, if the soil has a light or gravelly bottom, although more suitable if well fertilized than heavy clay, yet there are some kinds that almost invariably die before they come to full bearing. On account of such soils being deficient in natural fertility, and also easily affected by summer droughts, such trees should only be planted as send out a large number of small roots and fibres. They draw their nourishment more from the surface and are less susceptible to dry weather than trees with long roots. We have seen Greenings do well on such soils for five or six years, and then die, when to all appearances it might be expected that all danger of loss was over.

PROPAGATION AND CULTIVATION.

The measure of success achieved in any undertaking is determined very much by the plan adopted in the beginning, and is commensurate with the intelligence and attention bestowed.

(1) In order to insure success in the propagation and cultivation of the apple the first and fundamental principle is the location and selection of soil. Where the land is rolling it is very essential that the site chosen be that the most sheltered from the northern and eastern winds, as the former are very trying on trees in the winter, and the latter quite as destructive to the blossoms in the spring. Another thought to be borne in mind is to guard against winds from any quarter, as in the fall many thousands of barrels are blown to the ground, rendering them entirely worthless for shipping purposes. It might be as well to state here that where no natural protection from winds is practicable it will pay to plant a row of trees around the orchard for protection. They would add beauty to the farm, and for that reason, if no other, would more than pay for the labour incurred. The maple is the best, and if planted, say sixteen feet apart, would in a few years form an admirable protection. Regarding the selection of soil, we would not infer that that suited for orchard purposes to be at all scarce, but where there is a great variation in a short distance it becomes a problem of selection to employ the best. The question that naturally arises here is, What is the *best?* In our opinion the best would mean that which is naturally dry, or easy of being thoroughly under-drained, a necessity upon which it is impossible to put too much stress. A cold, soggy subsoil, even though the surface be dry, will inevitably show its bad effects on the life and growth of the tree.

(2) The quality of soil we consider preferable is that of a warm, porous, lightish soil, on the top, with a clay loam for bottom. Having occasion to dig up a number of large trees at one time, it was found that the larger portion of the roots penetrated deeply into the soil. there being usually a large trunk root going down directly under the tree. It therefore becomes manifestly important that the soil should be open in its composition to allow the food intended for the nourishment of the trees to find its way down to the small roots and fibres, and at the same time be of such a firmness and texture as to keep the tree firm and erect when heavily laden with fruit.

(3) *Preparing the Ground.*—Whoever sets out an orchard, of course does it with the expectation of a return in fruit. In planting an orchard the ground should first be prepared by thorough plowing and manuring. The plowing should be as deep as the character of the soil will allow, and the subsoil plow may generally follow the other with benefit. The ground should be summer fallowed the year prior to planting to make it mellow and to destroy all noxious weeds and grasses. A liberal under-draining of the soil should also be seen to, as it it absolutely essential to the growth and fruitfulness of an orchard on damp or clay soils. The proper distance for the drains must be determined by the nature of the soil, as what would do in some localities would be quite insufficient in others.

(4) *Selection of Varieties.*—From an experience in the exportation of apples we have found that some varieties sell very much better than others, so that it is yearly becoming

more important that only those of the finest quality be raised, even though the yield be not quite so large. The same expense is incurred in picking, shipping and handling, so that the actual profit realized from one kind may be such that it will pay to raise said variety, even though the yield be but half the crop produced by some inferior kinds. As we must look to the Old Country for our principal market it becomes us to raise such fruit as will ship well and command the best prices. The following were about the average prices realized by us during the last season in Liverpool :

King of Tompkins Co	17/0
Ribston Pippins	16/6
Snow Apples	15/0
American Golden Russets	13/0
Baldwins	12/0
Northern Spy	12/0
Rhode Island Greening	11/6

It will be seen that dessert apples are in much the best demand, but such apples as the Ribston Pippins and Snow Apples must be shipped early to prevent bruising. It will also be observed that prices vary considerably, which is even greater when the shipments are small, showing clearly that quality, either in dessert or high coloured apples, command handsome prices. As the foregoing varieties are among the most hardy and productive, we think a better selection could scarcely be made for localities where they are suited. Of course it might be well to supplement them with one or two varieties for home consumption, such as harvest and fall fruit for cooking purposes.

(5) *Time to Plant.*—Fall planting has been advocated and practised by many successfully, yet it cannot be recommended indiscriminately. In localities where there is a long and mild autumn it is in some respects preferable to spring planting. The trees become established, and get an earlier start than in the spring, and are better able to withstand a drought that may come in midsummer. But, viewing the question from its many sides, we would unhesitatingly advocate spring planting. The ground is then moist and the trees are full of sap, so that a failure in taking root is indeed a rare occurrence. The atmosphere is also more moist, so that the roots of the trees are not as liable to dry out from the time they are taken from the nursery till they are replanted. On the other hand, the ground in the fall is often very dry, while the trees are not as likely to withstand the frosts of winter as those that have had a summer's growth.

(6) *Ordering Trees.*—It always pays to buy the best. A few cents per tree may mean all the difference between profit and loss. Deal only with thoroughly reliable nurserymen, so that the varieties and quality of the trees may be depended upon. Home-grown trees are preferable, as they transplant better and less risk of loss from wilting is incurred. In order to secure the varieties and class of trees desired it is of great importance that the order be sent in to the nurserymen during the winter or very early in the spring. Orders first received are first filled, and it very often happens that late orders can only be partly filled, and sometimes by culls at that, which the purchaser must accept or try another nursery with perhaps a like result. And even should the desired kinds be secured there is greater danger of loss from failure in growth on account of dry weather which is, indeed, a very serious consideration.

(7) *Laying out the Ground.*—All things considered, we think the common method of setting out trees, viz : in a square, the most convenient to cultivate and for all purposes the best. In staking out the ground pains should be taken to have the trees in true rows. They should not be planted less than thirty feet apart each way. Another method, the quincurex, by which each tree stands at the corner of an equal sided triangle and also at the centre and equally distant from six surrounding trees, is recommended for all orchards of small sized trees. It gives a more uniform space on all sides of the tree, as each tree is surrounded by a circle of six trees, instead of being at the corner of a square.

(8) *Planting* should be done systematically and with care. For convenience in picking and handling the fruit, each variety should be kept separate in planting. No matter how carefully a tree may be taken up some of its roots will be injured, and, as

ordinarily lifted, the trees that come from the nursery, do not have half the roots that belong to them. If in planting we cut, as we should, every bruised or broken root back to a sound place, which should be done with a sharp knife, and cut obliquely so as to allow the fresh cut to rest evenly on the ground, in a short time these roots will have overcome the bad effects of the removal.

(*a*) *Trimming the Tops* before planting is a matter of vital importance, the whole future of the tree depending upon its being properly done. It is safe to say that one-third of the length of shoots should be cut away so that the evaporating leaf surface of the transplanted tree may correspond pretty nearly with the reduced amount of absorbing root surface. Great care and judgment needs also to be exercised to secure the height desired for the trunk of the tree.

(*b*) *Setting* a tree is often too hurriedly and carelessly done. The hole should be large enough to allow the roots to be spread out evenly and to their full length, and the soil worked in thoroughly and evenly with the hand so that there will be no hollow places. A little water may be used to advantage to settle the soil and make it adhere to the roots. The soil should not be stamped with the foot, but pressed firmly, leaving the surface mellow and open. The tree should be set the same depth that it stood in the nursery.

(9) *Cultivation.*—The health and growth of a young orchard will depend very materially upon the cultivation bestowed. The soil should be kept thoroughly worked up until the tree begins to bear. Only such crops should be raised as will serve to keep the ground perfectly clean and moist. Roots or corn will answer best, but if grain is sown at all it should be peas. In working the ground horse cultivators will be more or less used, when pains must be taken to not bruise the bark, break the lower branches or otherwise injure the trees. The ends of the whiffletrees should be thickly wound with cloth or provided with leather pads to prevent their doing damage to the trees. After the trees begin to bear, a rotation of crops will be found beneficial. I would recommend seeding down with clover for two or three years, then summer fallowed or planted with a hoe crop, followed with barley and re-seeding. By that method the ground will be kept mellow and open, while the crops will be those least damaging to the growth of trees. The ground will also be clean for the fallen fruit, excepting the year when cultivated, which should be the off year for fruit.

(10) *Manuring* orchards is very often sadly neglected. Where there is the double drain upon the soil, it becomes essential that a liberal supply of manure be constantly applied. Circumstances will determine the kind of manure to use. That from the stables is always in order. A heavy coat spread all over the whole surface before ploughing in the spring is the best way to apply it. Top dressing when done early in the spring is very beneficial. Ashes, as a fertilizer for orchards, are unequalled. They contain all the constituents of plant food that the ordinary soil needs, except nitrogen. By their chemical action they render much of the inert nitrogen in soils available, and in that way may be said to furnish nitrogen. Ashes, moreover, have a good mechanical effect upon the soil, especially heavy clay soils, which are made lighter and more porous, so that air and water circulate more freely. Their effects are also more lasting than most fertilizers. Lime is also very valuable, especially on heavy soils. Its value depends greatly upon its power of making nitrogen available. The refuse from lime kilns can often be had at a low price. The lime used to purify gas, generally known as "gas lime," answers very well. It also serves a good purpose in keeping away insects. Salt has also been used with good results on open or light soils, but should never be applied on heavy clay soils.

(11) *Pruning.*—Many are the theories that have been entertained regarding when and how to prune. One of the first requisites to be borne in mind in pruning is a round open head, that the air and sunlight may readily reach the interior. The best time, we think, is May or June. As the greatest flow of sap is then over there will be very few sprouts sent out where the limbs have been cut off; besides, the large stubs from which limbs have been cut will dry up quicker and be less liable to rot than if the flow of sap were large. If shellac varnish or paint were used to cover all large wounds it would be found very beneficial. Of course, should a large amount of wood be allowed to accumulate, early pruning would be best.

(12) *Thinning fruit* on the trees has been advocated by many horticulturists. It is

most practicable on young trees just starting into bearing. Thinning increases the size and improves the quality. It is best to be left till the fruit is well set, and then take off all but the best.

(13) *Marketing.*—Fruit to sell well must always be handled with the greatest care. In fact it only pays when handled in that way, and any extra trouble bestowed will be more than made up in the increased price obtained. They should all be carefully hand-picked and put in heaps for a few days to allow them to sweat before being barrelled. A very excellent plan is to have the barrels on hand when commencing to pick, taking the heads out and placing them in the bottom of each barrel to prevent mixing, then fill up carefully, allowing them to stand until ready to pack. The barrels must be kept perfectly dry. A good plan is to use a stone boat, drawing them into an open shed or barn floor, when the annoyances incident to rain, fowls, etc., will be avoided. Packing must be done with the greatest care. When freights and handling charges are so high it will never pay to ship inferior or damaged fruit. Farmers with no experience in the shipping business should not attempt handling their own apples. There is so much risk incurred and so much to be learned that can only be found out by practical experience, that it becomes the height of folly for a novice to attempt shipping when there are so many regularly engaged in the business ready to assume the risk with a prospect of fair remuneration.

PRINCIPAL INSECT ENEMIES AND REMEDIES THEREFOR.

To contend effectually against the many insects that prey upon orchards requires constant and persistent efforts. Saunders, a high authority on horticulture, says there are eighty-one different insects that prey upon the apple tree, its leaves, and its fruit. As our subject suggests, we will treat of a few of the more common pests and the methods that have been found the most effective in destroying them. Mice, though properly speaking not of the insect "genus," may with propriety be referred to under this head. They are one of the first and worst enemies that the young tree has to contend against. As they burrow in the ground, fall ploughing should not be done in an orchard, leaving the ground open underneath. If the ground is kept perfectly clean no mice will burrow near the trees, so that the two outside rows are the only ones that will need protecting. Banking fine earth around the trunks of the trees to the height of six or eight inches has been highly recommended by some. We would unhesitatingly advocate tin or sheet iron circlets, having tried them, and proved their efficiency. Three inches in diameter at first, with enough material overlapping to allow its being enlarged to five inches, will be large enough. It is not necessary to remove them in the spring so long as they are kept from rubbing the trees.

The "Tent Caterpillar" is one of the first insects that comes with the warm and growing weather. Their eggs are amongst the first to produce worms, and if left to themselves will soon begin their ravages upon the foliage. Their coming is easily recognized by their "tents," and should be destroyed at once. Early in the morning, when the dew is still on, is the best time to destroy them. They are still in their nests, and are more easily seen while the dew is still glistening upon the web. The bare hand is the best for all within reach, and for those upon high branches use a pole with a swab dipped in ley or petroleum.

The "Borer" of the apple tree should be carefully looked to. There is no surface remedy after it has eaten its way into the tree. Its ravages are confined solely to the trunk and larger limbs of the tree. There are two kinds, the "trunk or apple borer," which works on the trunks at the base, and the "flat headed borer," which attacks the upper part of the trunk and larger limbs. The "apple-tree borer" is a brown and whitish striped beetle, with long feelers; it places its eggs near the base of the tree. Sawdust from its boring is a sign of its presence. Heaping earth around the base of the tree or using a close fitting paper band will keep the female insect from depositing her eggs. If the worms have penetrated the tree the use of the knife with a wire or whalebone probe is the most effectual cure. The flat headed borer deposits her eggs on the bark of the tree in latter part of June or early in July. As "prevention is better than cure," a paint composed of soft soap, washing soda, and water, if applied early in June, will deter the

parent beetle from laying her eggs. Wrapping the trunks of the trees with tarred building paper, extending up about thirty inches from the ground, has been found a perfect protection against borers. Coal ashes applied to the roots of the trees are also very beneficial.

"Bark louse" is another serious insect with which the orchardist has to contend. Like the borer, they are hatched from eggs that have been deposited under the scales of bark on the trunk and larger branches of the tree. Though small, yet owing to the rapidity with which they multiply, when left to themselves they do untold injury to the growth of a tree. If the trees are scraped with a short handled hoe, removing the scales of old bark before the eggs are deposited, say in April, then washed with a strong solution of soft soap made from ley or potash, it will be found a most effectual cure. If a newly set tree is found infested with oyster-shell bark lice, the best plan is to pull it up, and burn it at once.

The Codling Moth is perhaps the cause of more direct loss to the orchardist than any other insect. Very often one-fourth of the apples are entirely ruined for shipping purposes, and that when a remedy might be easily effected. The moth worm leaves the fruit, unless it falls to the ground, and crawls around in search of a hiding place. If cloths or bands of hay were wrapped around the trunks of the trees and examined, say every ten days, a large number might be caught and destroyed. Sheep or hogs should be allowed to run in the orchards to pick up the fallen fruit. If carefully attended to its injurious effects might soon be reduced to a minimum, if not entirely avoided. The Curculio was thought at one time to be only an enemy of the plum, but we have been sadly mistaken, as it has been found to extend its ravages to the apple. Spraying the trees with Paris green is said to be a most effectual cure, and if so will be hailed with delight. The same remedy has also been applied with much success towards the destruction of those insects that feed upon the leaves, such as the palmer worm, canker worm, tussock moth, and aphis. By the use of a force pump a large orchard may be gone over in a few days. If the beneficial effects resulting from the application of Paris green in the above mentioned way are as great as claimed, a great problem affecting the success of apple culture has been solved.

EDUCATIONAL SCHEME OF THE AGRICULTURE AND ARTS ASSOCIATION.

ANNUAL EXAMINATIONS.

PAPERS USED IN 1885.

AGRICULTURE.

Instructions.

Put the number of the question before your answer.
Confine your answers *strictly* to the questions proposed.
Your name is not given to the examiners, and you are requested not to write to them about your answers

SECOND CLASS.

First Paper.—TIME: Three Hours.

1. "The constituents which form the dry matter of plants may be divided into two classes—the combustible and the incombustible." Enumerate and describe briefly the *essential* chemical elements of each class separately; state approximately the percentage of each of these substances in vegetable matter; and give the chemical elements which enter into the composition of cellulose, starch, sugar, fat, and the albuminoids.

(a) What other substances, besides those which are considered essential, will generally be found in the ash of plants?

(*b*) State definitely *whence*, *in what form*, and *how* plants obtain each of the substances in the classes given above.

(*c*) What part of a plant varies little or none in composition?

2. Describe the principal points of difference in the development of annual, biennial, and perennial plants; and state to which class *timothy*, *red clover*, *wheat*, *carrots*, and *potatoes* respectively belong.

3. At what stage of their growth do cereals cease to assimilate nitrogen? potash? phosphoric acid? arbon? silica?

4. How do you judge as to when *timothy*, *red clover*, *wheat*, *barley*, and *oats* are respectively fit to cut? Point out the advantages of early cutting in the case of the first three.

5. Give the composition of the atmosphere, and note concisely how it is affected by plants and animals.

6. "Soil consists of an organic and inorganic, or mineral part."

(1) What percentage of organic matter is found in fertile soils? Name its sources and write a full description of its functions and uses.

(2) Enumerate the mineral constituents of soil: also give a systematic statement of the quantity of each, the combinations in which it exists, and its special uses as a factor in the production of crops.

7. About what percentage of an average fertile soil is available for plant food at any particular time? And why is chemical analysis alone insufficient to determine whether a soil will produce a given crop or not?

SECOND CLASS.

Second Paper.—TIME: Three Hours.

1. "The opertions of *tillage* and *drainage* serve in several ways to increase the amount of plant food which is at the disposal of a crop." State fully the different ways in which each serves this purpose.

(*a*) Enumerate the other advantages of thorough tillage.

(*b*) What other benefits result from drainage?

(*c*) Why will not open furrows serve the same purpose as under-draining?

(*d*) Where slopes occur, what should be the direction of the lateral drains? and why?

2. State concisely what you know regarding the relative powers of different soils to absorb and retain moisture and useful gases. Describe the texture of soils which possess these powers in a high degree, and enumerate the best means of preparing clay and sandy soils respectively to withstand drought.

(1) Name the substances to which the absorptive and retentive powers of all soils are chiefly due.

3. There is a loss of certain valuable constituents in the water which drains through soil. What are these constituents? and in what condition is soil subject to the greatest loss from this cause.

(*a*) There are also other substances which are soluble and equally valuable, but they are rarely found in drainage water. What are the most important of these? and how do you account for their retention in the soil?

4. What are the three most valuable constituents of farm-yard manure? State and explain briefly the circumstances which affect its value; and point out the principal precautions necessary to guard against the loss of valuable ingredients.

(1) Compare cattle, horse, and sheep manure.

5. Enumerate the principal nitrogenous, phosphatic, and potash manures; state the special value of each, and name the crops which are most benefited by it.

6. Do you approve or disapprove of summer-fallowing? and why? Enumerate its advantages and disadvantages. What other methods of cultivation are recommended as substitutes for it?

7. Describe what you consider the best method of restoring fertility to a cold, low-lying, whitish clay soil, partially overrun with thistles and other weeds.

SECOND CLASS.

Third Paper.—TIME: Three Hours.

1. Explain what is meant by "nitrification" in the soil, and state the conditions without which it cannot take place.

2. What are the advantages of autumn over spring cultivation, and upon what classes of soils are they most fully realized?

(*a*) Should all ground intended for spring crop be plowed in the fall? Why?—once or twice? And how should it be treated in the spring?

3. State the principles which underlie a rotation of crops, and distinguish between a good and bad rotation.

(1) Describe the soil on your farm or in your locality; and give a rotation which, under ordinary circumstances would be suitable and profitable, considering the climate, cost of labour, markets, and other uncontrollable conditions.

4. Classify the ordinary crops grown in Ontario as shallow, medium, or deep feeders.

5. What description of land is most suitable for *barley*, *wheat*, *oats*, and *mangolds* respectively? and what s the proper kind of seed-bed for each?

6. After what crops may wheat come in a rotation? and how should the land be prepared in each case?

7. Describe- (1) The kind of farm which you think best adapted for profitable dairying; (2) The leading characteristics of a good dairy cow.

8. Compare the following breeds of animals, indicating the distinctive peculiarities and best points of each; (1) Shorthorn and Polled Angus cattle; (2) Ayrshire and Holstein cows; (3) Shropshire and Southdown sheep.

9. How have the distinguishing characteristics of the various improved breeds of animals been mainly produced? State the law of "correlation" in breeding.

10. Explain the term *nutritive ratio* in the feeding of animals, and state how to find it.

(1) "It is evident that animals thrive best on a mixed diet. What classes of substances should a proper diet contain, and what is the special use of each class? State the kind of diet most useful for maintenance, for fattening, and for the production of milk.

(2) Discuss the feeding values of turnips, mangolds, and potatoes.

11. Enumerate the distinctive characteristics of a sample of good wool.

12. What are the principal objects of conserving forests and planting forest trees in this Province? Mention the precautions necessary in transplanting trees and in the first three years' management, in order to avoid loss and secure a healthy growth.

AGRICULTURE AND ARTS ASSOCIATION.

ANNUAL EXAMINATIONS.

AGRICULTURE.

Instructions.

Put the number of the question before your answer.

Confine your answers *strictly* to the questions proposed.

Your name is not given to the examiners, and you are requested not to write to them about your answers.

THIRD CLASS.

First Paper.—TIME: Three Hours.

1. Name the natural agents which are instrumental in producing and improving soil: describe the action of each; and state concisely when and how this action may be artificially promoted at certain seasons of the year.

2. "The principal ingredients of the soil are sand, clay, lime, and humus." Give the composition, the characteristics, and the most important properties of each.

3. State particularly how different soils are affected by the addition of *lime* and *humus*.

(*a*) What are the ordinary means of increasing the supply of humus in soil? Describe how it may be most cheaply and effectively done in fall cultivation and in summer fallowing.

4. Enumerate in detail the injurious effects of stagnant water in soil.

5. "The operations of *tillage* and *drainage* serve in several ways to increase the amount of plant food which is at the disposal of a crop." State fully and systematically the different ways in which each serves this purpose.

(*a*) What other advantages result from drainage?
(*b*) Why will not surface furrows serve the same purpose as under-draining?
(*c*) Account for the mellowness of well drained soil.
(*d*) If I had to borrow money at 10 per cent., I think it would pay me to drain my wet lands.—*Agricultural Commission*. Discuss this statement.

6. State and explain the circumstances which influence the character of farm-yard manure.

(1) Compare the relative values of the solid and the liquid excrements of animals.
(2) Name the three most valuable ingredients in all kinds of manure.
(3) Why is Plaster of Paris sometimes scattered over the manure heap? Explain the chemical action which takes place.

7. In most fertile soils there are two or three ingredients which absorb ammonia from the atmosphere. What are they?

8. Marked advantages result from frequent stirring of the soil about trees, corn, turnips, potatoes, etc., in dry weather. Enumerate and account for these advantages.

THIRD CLASS.

Second Paper.—TIME: Three Hours.

1. What is the most abundant ingredient in every living plant?

2. "The constituents which form the dry matter of plants may be divided into two classes—the combustible and the incombustible." Give the chemical substances which are generally found in each class, and state definitely *whence, in what form*, and *how* the plant obtains each of them?

3. Write notes on the necessity and importance of a rotation of crops. Distinguish between a good and a bad rotation. Describe the soil of your farm or in your locality, and give a rotation which would be suitable and profitable, considering the climate, cost of labour, markets, and other uncontrollable conditions.

4. Give approximately the composition of the atmosphere, and name the substances which plants absorb directly from it.

5. What is the chief ingredient in *oats? peas? linseed?* On what does their value as food respectively depend?

6. State the conditions necessary to the germination of seed and describe the process.

(*a*) Explain how it is that too deep sowing prevents germination.
(*b*) What is the proper kind of seed-bed for barley? for wheat and oats? and for root crops?

7. Compare the Short-horn, Hereford, and Polled Angus breeds of cattle, giving the general and the distinctive characteristics of each; also the Shropshire and Oxford Down breeds of sheep.

8. What are the principal points to be considered in selecting a dairy cow?

9. In what way have the most valuable characteristics of the improved breeds of animals been produced

10. "It becomes evident that the health of animals cannot be sustained without a mixed diet." Name the classes of substances which a proper diet should contain, and state what is the special use of each class.

(*a*) Explain what is meant by the term *nutritive ratio* in the feeding of animals.

11. Describe what you consider the cheapest and best method of restoring fertility to a low lying clay farm which is partially exhausted and overrun with thistles and other noxious weeds.

REPORT ON NEW ORLEANS EXHIBITION OF 1884-5, BY HENRY WADE, SECRETARY OF THE AGRICULTURE AND ARTS ASSOCIATION.

To THE HON. A. M. ROSS, COMMISSIONER OF AGRICULTURE, AND THE COUNCIL OF THE AGRICULTURE AND ARTS ASSOCIATION OF ONTARIO:

GENTLEMEN,—I beg herewith to present a report of my visit to New Orleans and the World's Cotton Exposition.

A journey to New Orleans in the month of February is a revelation to a Canadian. One night's sleep in a Pullman after leaving Detroit, a foot deep in snow, brings the traveller to the city of Cincinnati, where not a vestige of it can be seen, but in lieu of it there is plenty of mud. After that, as you travel southward through Kentucky and Tennessee, nothing is visible to suggest our Canadian winter of snow and ice. Still it is the winter of the desolate south—trees without leaves and ground without verdure, showing that even with a comparatively mild temperature, the earth, as well as the trees, must have time to recuperate, in order to gladden us with results the next season.

On our journey south from Cincinnati, which is in southern Ohio, we passed into Kentucky, and through the city of Lexington, the centre of the blue grass district, which is an excellent farming country and widely celebrated for fine and fleet horses and noble shorthorn cattle. The southern part of the State is rough and hilly, and not well adapted to farming. The next State is Tennessee, which is also hilly. In this State we see the first evidences of cotton and tobacco growing, the typical negro cabin, and specimens of their race. We then passed through a corner of Georgia, and crossed through Alabama towards the south-west. We passed through this State by night on our way down, but on our return journey travelled over it by daylight, and my impressions were anything but favourable. The poor class of houses or cabins for the negroes, the absence of towns of

any size, the shallow, sandy nature of the soil, and the short cotton and corn stalks, spoke volumes as to the wealth, or rather poverty, of this portion, at all events, of the State. From conversation with the negroes I ascertained that since the "war," which is the new starting point to the negroes of the south, cotton is cultivated on shares with the owners of the land. One bale of 750 lbs. is considered a good yield for an acre; it is much oftener less. The owner of the land provides the seed, and the negro gets two-thirds of the cotton for his labour, which puts me in mind of a story told down south of a negro who planted three acres of cotton on those terms. After the picking there were only two bales from the three acres. When the land owner called for his share he was politely told that there was "no third bale for massa," it did not grow. Early in the morning on our downward journey we reached Meridian, a large town of 9,000 inhabitants in the State of Mississippi, and a railway centre. We were allowed twenty minutes here to inhale a little fresh air and bask in the sunshine. So warm was the atmosphere that overcoats were thought superfluous. The buildings are nearly all of wood, and not of modern architecture. The ebony inhabitants nearly all go barefooted. They thought it would be impossible to live in our climate, and shuddered at the thought of the thermometer ranging below zero. We then travelled through the south-eastern part of Mississippi, which seemed to have much better land, but was nearly all—at least what we saw from the cars—a dense yellow pitch-pine forest of splendid straight high trees, with cotton plantations occasionally intervening. The timber used in building the Exposition Departments at New Orleans was all brought from this State, showing that it is of great value for building purposes, although not so valuable as our white pine, and it is surprising that it has not, like the pine in our country, been all used up before now. All through Alabama and Mississippi, turpentine, tar, and resin are manufactured from this same pitch-pine, and at night the forests and hill-sides are made picturesque by the fires from the stills, and the spirit-like figures of the blacks working amongst the flames.

As we approach Louisiana we find more low land and many Cypress swamps, the trees covered with the beautiful hanging long grey Spanish moss of parasitical growth, which covers the branches in the south. It is also an article of commerce, making an excellent stuffing for furniture upholstering. The land, where not cultivated, is covered with the palmetto, a bush of evergreens of the same nature as the bush from which palm leaf fans are taken. Many of the trees are altogether different from ours. Here we find the cypress, the live oak, which is an evergreen, several other kinds of oak not evergreens, ash, gum, hickory, black walnut, pecan, sycamore, and the beautiful magnolia, also an evergreen. The live oak, pecan, magnolia and the sour orange are the shade trees of the south, and they make the gardens, avenues, and parks look beautiful at this our inclement season. What a change from Toronto and zero to the southern climate as regards the weather, the cultivation of the soil, the habits of the people, and the different classes. The work of cultivating the soil is done principally by the negroes, who live in little cabins made of cyprus, hewed with the axe, shingled with the same wood split into huge shingles like staves, with about sixteen inches to the weather; chimneys at one end outside also made of wood, plastered with mud—this constitutes the universal Uncle Tom's cabin of the South. The negroes appear to be a happy, unenergetic race. They seem to have the happy faculty of standing still brought to an art, and while still look like a bronze antique. At the same time, when in conversation with any one of them, if a remark happens to please him he is all life and energy; his white teath gleam, his eyes flash, and his jolly laugh peals forth in an inexhaustable flood. The boys and girls in the country go ragged and barefoot all the season, and with their woolly heads and bright rolling eyes, look as happy as possible. The white and coloured people live more happily together than in the more advanced north. They work together during the day, but do not associate in any other way. They have separate churches and schools; they travel in separate cars; all their little social affairs are separate, consequently there is a better feeling than in the north, where they have to rub against one another more.

On approaching New Orleans we pass over the celebrated trestle work Ponchartrain Bridge, the longest in the world, over twenty-six miles, and the bridge proper, from shore to shore, is seven miles long, with two drawbridges for vessels. It is built of creosoted lumber to protect it under the water from barnacles and above from decay.

Arriving safely and punctually at New Orleans, we made the best time we could up to the city, and after about three hours' energetic searching got comfortable quarters in a lodging-house, a once fashionable residence on St. Peter Street, facing the celebrated Jackson Square, formerly the "Place d'Armes," and of historic fame. In former times a flagstaff stood in the centre of the square, and from it at different epochs in the history of the colony floated the royal banners of France, Spain, and then of France again, which was succeeded by the flag of the United States. This square has also been the scene of many important events, for on this spot the different transfers of the Province have taken place. On August 16, 1769, Captain General O'Reilly, the Spanish Commissioner, in the presence of royal troops of Spain brought with him, received the transfer of the Province of Louisiana from France through the French Governor Aubrey, very much to the dissatisfaction of the French Creole inhabitants. In the year 1800, during the palmy days of Napoleon Bonaparte, when kings and dynasties were frequently changing hands, Spain again ceded Louisiana back to France, but this change was kept secret (as France was at war with England) until Nov. 30, 1803, when the Spanish commissioner, at the "Place d'Armes," transferred the Province to Monsieur Laussat, the representative of France. The flag of Spain was again lowered, and that of France raised in its stead. Before this date, on the 30th of April, 1803, the astute Napoleon, fearing the Province would be seized by the English, they being in possession of Florida at the time, sold it to the United States for $15,000,000. This was not made public until the 20th of December, 1803. So inside of one month this fine Province of Louisiana was again publicly ceded to the United States by Monsieur Laussat, the French Governor, and, it is needless to add, that with the exception of the three or four years of the civil war, the American Flag has waved on Jackson Square ever since. In 1812 Louisiana was admitted into the Union as the eighteenth State. One more historical event from an American point of view took place at the "Place d'Armes." This was the celebration of the battle of New Orleans, a victory gained by General Jackson over the British forces under General Sir Edward Pakenham, a distinguished veteran of the Peninsular War. This battle was fought on the 8th of January, 1815. A "Te Deum" was sung and a service of thanksgiving held at the old French Cathedral at the front of the square. The cathedral is still standing, and the buildings on each side of it remain as they were in Spanish times, and are now used for a court-house and police-station. Jackson Square has an equestrian statue of General Jackson in the centre, and is beautifully laid out and planted with orange, magnolia, banana, fig, lemon, and palm trees, not seen in the north, and the grass is green all the winter. Thus historical digression is necessary to explain why Louisiana is settled by so many nationalities.

New Orleans is called the "Crescent City," on account of the shape of the river front. It has an area of about 105 square miles between the Mississippi River and Lake Ponchartrain at the other side. According to the census of 1880 the total population is 216,090, of which 158,367 are white and 57,617 are coloured, but in the winter months the population may be estimated at 250,000, as so many people come to the city at that time, from the north to seek the warm climate, and from the plantations around for society and business. The centre of the city is built of brick and stone, but outside of the fire limit nearly all the dwelings are of wood. As the climate is damp wooden buildings answer the best. They all have galleries, or verandas, for every story, as every one lives out of doors most of the season, a characteristic of the people in the south.

The streets of the city are several feet below the level of the river, quite upsetting one's idea of the fitness of things. Owing to the marshy soil of the city underground sewerage is not in use, and surface drains are used to carry off all sewerage except that of house sinks, the contents of which are carted away and dumped into the river. So a stranger is presented with the odd sight of the surface water running away from the river. This is helped every morning by flushing the drains from the river, and by men assisting with swabs, following up the different sewers. They all empty into a system of canals at the end of which powerful drainage wheels pump the contents into channels running into the lake in the rear. The business streets of the city are paved with flagstones, and I doubt if any city of its size has so many stone pavements as New Orleans, but where there are no stone pavements there are literally no streets. as in the winter months it would

be a moral impossibility to drive a carriage through them as the mud has no bottom. In fact very few carriages are kept in New Orleans, the universal bob-tailed street car is the means of locomotion for both rich and poor, and is drawn by a single unfortunate mule. The city is perfectly level, so the street car system is good. Altogether they have one hundred and forty miles of track. They all start from Canal Street to every part of the city for the modest sum of a nickle, the smallest change in vogue, which you have to deposit in the box yourself. In every alternate car smoking is allowed; the other is for ladies and their attendants.

The streets in the French part of the city are called after the different French princes and noblemen of that date, thus we have the Rue Royal, Chartres, Dauphine, St. Louis, Conti, Toulouse, and Dumaine. In the American part they are called after muses, nymphs, and mythological deities, such as Dryades, Nyades, Clio, Thalia, Erato, and many others. Canal, the principal street, was named after a canal or moat or bridge of the old city wall.

All nationalities are represented among the population, but the two most distinct white classes are the Creoles and Americans, the former living mostly below Canal street, and the latter above it. A Creole is not what is often supposed, a mixed race of whites and blacks, but he is a child born of European parents in the colonial possessions of either France or Spain in America or Africa, so it is only the descendants of these nationalities that can be properly called Creoles. The mixture of white and blacks are called quadroons, and are an isolated race, looked down upon by both whites and coloured people.

There are several fine hotels in New Orleans; the Royal, on St. Louis Street, which has a dining room with a magnificent dome over 100 feet high, with frescoes painted by the celebrated Canova. It was formerly used for a state building, and before that as a slave market. The St. Charles, another fine old building resembling the Pantheon at Rome, with fine columns not of stone but of stucco. It is now very old-fashioned and dirty. Most of the visitors prefer renting rooms, and take their meals at the quaint French restaurants kept by Frenchmen in the French style. The dishes are a mixture of French and Creole cooking, and the writer can vouch for the excellency of the broiled sirloin steak, gumbo soup, and different varieties of fish. The floors are sanded, and look very old-fashioned to a Canadian.

One of the principal sights in New Orleans is the French market. It is in full blast on Sunday morning, showing the difference between French popular feeling and that of the Anglo-Saxon. It is one of the most lively scenes of this more than lively city. One here meets with various races of people, hears many different languages spoken, and sees the productions of various zones. Here are English, Irish, Germans, French, Italians, Spaniards and Mexicans. Here are negroes and quadroons in plenty, and Indians talking both French and English. Most of those who offer articles for sale now are Italians. They are superseding the native Creole and Arcadian Frenchman because they can live cheaper, eating their own stale salads and the remnants of the meals served up to the outside public, showing the Europeans to be a more penurious or saving race of people, but they have not the charming manner that graces the Arcadian and Creole.

The stalls are piled up with meat, oysters, fish, game, fruit and flowers, bread and confectionery, grain and vegetables, and any quantity of nicknacks from a needle to an anchor, showing the abundant products of the earth from every hemisphere. The fruit is a grand sight,—oranges from Sicily and other Mediterranean ports alongside of oranges from Florida, Cuba, Havana, and Louisiana itself, of all degrees of sweetness. During the Exposition this market has been uncomfortably crowded by tourists from the north, enjoying the sights and breakfasting on fish and oysters fresh from the Gulf of Mexico as well as the orthodox beafsteak of the north. On the outskirts of the market amidst all this noise and confusion you find Indians, women and girls, sitting on the ground wrapped in the proverbial blanket, with their serious, stiff countenances and downcast eyes fixed upon a cloth before them, on which are displayed wild roots, herbs, and the celebrated (Gumbo) powder used for soups, for sale. These Indians are of the Choctaw race, a few of which are still to be found in Western Louisiana.

The New Orleans people are fond of amusements and recreation; they spend thousands of dollars on their Mardi Gras festivities. There were three immense proces-

sions this year and three balls, all supported by private subscription. They are managed by the Club people. King Rex pays $1000 to reign over the city for a couple of days. On summer evenings the citizens rush to the water at the west end and to the Spanish Fort, both on Lake Ponchartrain, where there is fishing, boating, bathing, lots of music, and refreshments as a matter of course. The wealthier people go to the coast of the Gulf of Mexico, at Biloxi, Pass Christian, Bay St. Louis and other places with their families for the summer months, coming back and forward to the city occasionally for business. They have beautiful country places, and grow large quantities of fruit and vegetables on the shore of the Gulf.

The Orleanists claim that despite the prevalent malaria and epidemics their city is as healthy as any in the Union. They show figures for this. The police records are better than those of New York, which I am afraid does not say much for that city.

The government works at the mouth of the river, 110 miles below the city, what is called the jetties, engineered by the celebrated Captain Eads, has revived the commerce of the city. Large steamers and men-of-war vessels were lying in the river and at the levee. One steamer, the Louisiana, could take 22,000 bales of cotton to New York on one trip. Our first experience of a large Mississippi steamer was in taking this trip. It is marvellous how well they provision and entertain nearly a thousand people. We saw several kinds of flowers in bloom at Port Eads, and a cauliflower cut about sixteen inches in diameter. Our friend, Mr. Stephen White, knows how they sleep on board.

Another strange thing in New Orleans is the way they bury their dead. This is done in tombs of brick or marble, all above the ground, costing from $100 to $1,000, and in some cases even more. The tombs generally consist of two vaults, one above the other, the one below for bones. They are well cemented to prevent exhalations, and rigorous laws are enforced against vaults being opened too soon after a burial. The rows of vaults are called ovens. After a year or two, if the vault is needed for another person, the coffin is broken up and burned and the bones deposited in the vault below, so that in this way many burrials can be made in the same tomb during a series of years.

In the neighbourhood of the city are many orange groves, although there are more down the river. We visited the Roundtree grove on Nine Mile Point, across the river from Carrollton, further up than the Exposition Grounds. We crossed the river, one man rowing six or seven of us, against the rapid current. On Major Roundtree's place there are 6,000 bearing trees, several of them are of the Mandarin species, a dwarf tree brought from Japan. They produce a small, flat-shaped, very sweet orange, with a skin that easily peals and with a juice of a pleasant taste. We were regaled on Louisiana oranges while there, and certainly they were delicious. We did not see the sweet oranges growing, but saw the blossoms commencing for the next season's fruit, and for the benefit of those Canadians who do not understand all about oranges, I may mention that there are two kinds of oranges, distinguished by the size of the leaves and blossoms; the sour and the sweet. When we reached New Orleans we did not know this fact, and we admired the orange trees filled with ripe fruit in the gardens and lawns and wondered why as they looked so ripe and luscious they were not all picked. One day while going to visit one of the cemeteries, one of our party (a lawyer) mustered up courage and volunteered to go to the door of a very nice dwelling, with beautiful orange trees in front, to ask if we could pick an orange, that we were from Canada and had never seen an orange on a tree nor had ever picked one. A lady came to the door, not a servant, and answered, "Certainly, take as many as you like." Our friend noticed a smile on the lady's face, but as he is somewhat of a ladies' man and a bachelor, he thought, of course, she was somewhat taken with his appearance, but to our sorrow afterwards we found that the smile was at our freshness in not knowing a bitter orange from a sweet one, as we found on entering the cemetery to our cost, when, after peeling our oranges, we found them as much sourer than vinegar as vinegar is sourer than honey. And bitter aloes and rhubarb combined would be molasses beside that orange. There is nothing like experience in this world. The day we visited this grove the men were planting out cabbages and cauliflowers—the second crop. The owner grows them for the Chicago market, as well as cucumbers and tomatoes. He shipped twenty-five tons of cabbage last year. The Major is somewhat of an humorist, and told us that during

the war he was in the Confederate army and tried to kill as many northerners as possible; since then he had been growing green cucumbers and shipping them to the north, to try and continue the decimating process. Amongst other curious things seen that day was a Chameleon spied by one of our party; they are quite plentiful down in that alligator country.

Sugar Trade.

Louisiana, before the war, produced yearly a crop of about 400,000 hogsheads of sugar (each hogshead weighs 1,000 lbs.), but the crop does not at present reach half that amount. Several reasons are given for this immense falling off: the reduction of the tariff, the abolition of slavery, the increased cost of production, and the low selling price have all had their effect. Many of the largest planters are plowing up the cane, and turning their attention to the growing of rice. Sugar, in Louisiana, is produced from the ribbon cane, a hardy species of violet and yellow cane that is able to stand the early frosts. In this State it hardly ever tassels, which shows that it is a forced crop. In Southern Florida and Cuba it tassels beautifully, and consequently can be crushed at a much later season than in Louisiana. Cane is planted in rows, the seed being the cane itself, the sprout coming from points from five to six inches apart. It starts to grow in the month of March, and at first resembles corn. This plant attains, with careful weeding and cultivation, a height of about seven feet, and is ready to cut in October. From the same roots in the next year, unless injured by cold, drought, or excess of moisture, there springs a second growth of sprouts, similar to the first. This subsequent repeated growth from the same root is called *ratooning*, and in very favourable climates is repeated for three or four years, but in Louisiana only twice. We saw the negroes planting cane on several plantations on our way to Shell Beach, about twenty miles from New Orleans. When the cane is ripe it is cut the same as we cut corn, and is hauled in mule carts to the sugar mills, where it is unloaded on a cane carrier and conveyed to a set of huge rollers, turned by steam (in the case of large plantations), through which the cane passes, and the juice is extracted by pressure. The juice, a milkish white liquid, with a peculiar fresh, sweet odour, is purified with lime and the fumes of sulphur, is then boiled in a series of mammoth open iron kettles until it reaches the granulating point. It is then conveyed to large vats, called coolers, and left there to cool and granulate into sugar. After a few days this mass of cooked juice, which has become sugar, is carried to the purgery, and the molasses drained off; it is then ready for the market as brown sugar, and is packed in hogsheads of a thousand pounds each. The larger plantations have refineries for producing white sugars from the brown, but it is generally done in large establishments in the cities. A fair crop of sugar per acre is from 1,500 to 2,000 lbs., although 4,000 is often taken from rich land, but in a more favourable climate than that of Louisiana.

Cotton Planting.

Cotton is planted from the seed every year, commencing in the month of March. A good cotton plant grows to the height of four feet. There are too many plants that do not. Owing to light land and lazy negroes, the soil requires the use of strong fertilizers, one of which is made of the ground cotton seed, thus restoring part of the constituents taken from the soil. It can not be a very exhausting crop, as it is grown year after year on the same soil. In June the blossoms commence to appear, which after blooming form bolls or seed pods. These burst open in the process of ripening, and expose small seeds, to which the cotton lint is attached. The cotton harvest commences in September, and by December it is finished. The bolls do not all open at once, consequently the cotton pickers have to go over the ground two or three times before finishing their harvest. This is the busy season of the South. Every coloured individual turns out for the picking, and as in everything else, some excel. The art is to pick it without getting any of the pod or boll, which if mixed up with cotton cannot be easily separated. The seed is sown in rows five feet apart, each row having its seeds planted in holes eighteen inches apart, and with several seeds in a hole. The land should be kept well weeded. When the plants come up they are thinned out, leaving two or three of the strongest in each hole.

A few months later they are again thinned and topped, to the extent of an inch or two, to check the upward growth and develop side branches. From the field the cotton is taken in baskets to the gin-house, and there the seed is separated by a gin, composed of a series of circular saws enclosed in a box, which does the work admirably; it is only a few years ago that this work had to be done by hand. At the gins, which are principally worked by steam, are presses by which the cotton is pressed into bales of about 450 lbs. each, and bound with bands of iron, called cotton ties. Railways and steamboats bring the crop to markets, of which New Orleans is the principal one. Cotton is nearly always shipped to the cotton factors or merchants who have advanced money on the crop. It is by them sent to a particular cotton press to be stored and assorted, like grain is sent to an elevator here, and when finally shipped is compressed again into about half the size by powerful hydraulic presses. Classing cotton is done by experts, and it is sold by the factors by samples. The value of the cotton crop annually exported is estimated to be about one hundred millions of dollars, and although many hands are needed to move this crop, perhaps there is no trade which is more systematically organized and requires a less number in proportion to its value. Formerly the cotton seed was not much used outside of planting, now it is a very valuable article of commerce. It is ground into cotton seed meal and used as a fertilizer, and it is also largely used to make oil. I visited one of these oil mills, and was much interested in the process. The seed comes from the country in bags, and is passed through several very fine gins, so as to remove the lint remaining on it. The seed is then passed through a huller, which removes the hull, leaving the kernel. This kernel is ground up, steamed, and placed in bags about eighteen inches long, and these bags are put in presses and the oil pressed out. The residuum is a hard yellow cake called "oilcake," which is sold for cattle feed, and sometimes ground into meal for the same purpose. Soap is made from the settlings of the oil, but the greater part of the oil is shipped to Europe, there refined, and doubtless lots of it sent back to America, after being mixed with the crushings of olives, as delicious French and Italian sweet olive oil.

The World's Industrial and Cotton Centennial Exposition

Was originally contemplated as a Cotton Centennial alone, as the year of our Lord 1884 was the 100th anniversary of the first export of raw cotton to England. The idea was first presented at a meeting of the National Planters' Association, held in the City of New Orleans in 1882, under the presidency of Frank C. Morehead, Esq., and it was then only contemplated to hold an exposition of cotton, the implements for raising cotton, its manufacture, and manufactures of cotton. The scheme by necessity to make it a success became gradually enlarged until the scope was extended to include machinery and manufactures of all kinds as well as artistic treasures. The great desire to open up a trade with Mexico and the great countries of Central and South America, nearly three times as large as the United States, led to the idea of making the enterprise not altogether Southern but national in its character. A charter was granted by the Congress of the United States in February, 1883. All the nations of the world were invited to contribute exhibits, and the City of New Orleans was designated by a proclamation of the President of the United States as the place in which the Exposition should be held. The question whether New Orleans was a proper place to hold such an immense exhibition, taking into consideration the scarcity of settlers in the immediate vicinity, is now open to debate. The South is not a populous country like the North, and for five or six hundred miles in the neighbourhood the attendance has been small, so very different to what it would have been at any locality farther north. A financial success, however praiseworthy, was not the prime motive of the directors of the affair, and still less was the monetary consideration thought to be the main feature by the Government of the United States. New Orleans was chosen on account of it being the capital city of the South, a city that had been nearly ruined by the just abolition of slavery during the war, a city that is struggling to again appear at the head as the great commercial city of the South, and a city from which cotton had been first shipped to England in 1784. There was also wisdom in selecting New Orleans as the place on account of the immense Central America regions south of it, without manufactures of their own, without flour of a good quality, without

thousands of the necessaries of civilized life but what they get from Europe, 3,000 miles away, instead of getting them from their next door neighbours. It was also thought that visitors from the North, leaving the frost and snow of their native States and Provinces, would see this favoured country, especially the State of Louisiana, at a favourable season and thus act largely as an emigration stimulant for the future. The general impression abroad has been that Louisiana is an unhealthy and pestilential State and could only be visited in winter with impunity, while the fact of the matter is that 160 miles from New Orleans a healthy and beautiful region exists, where land can be bought from $2 to $5 per acre. I mean in the parish of St. Landry, in the western part of the State, where two crops of vegetables can be raised in a year, and overcoats are required only as a luxury. No doubt this emigration scheme entered largely into the minds of the shrewd leading spirits of this immense undertaking.

The holding of the Exposition here was also thought to be of great importance to the large coloured population of the South, and it was supposed that they would flock in thousands to witness the achievements of the skill and industry of the world. To a certain extent they have done so, but the want of means, and the high railway rates, have prevented this large class of people from attending in as large numbers as was expected.

Congress loaned the sum of $1,000,000 to the stock company organized by the citizens of New Orleans, who subscribed $500,000, and the State of Louisiana and the City of New Orleans each loaned them $100,000. Mexico also contributed $200,000 to erect special buildings for their own exhibit. Out of this total amount $5,000 was granted to each State and Territory. Since the opening of the Exposition, Congress has again granted them $300,000 to pay liabilities accrued up to the month of February, 1885, thus enabling them to keep the exhibition open during the rest of the term, so you can judge that it has been a costly undertaking. The average amount of money taken per day through March and April has been about $4,000. The buildings at Philadelphia cost $5,242,295 while those at New Orleans only $978,000, while for practical purposes they were equally as good and covered more space.

Unfortunately the time left for constructing such buildings as were thought necessary was so short that the work had to be carried on by night as well as by day, which added very much to the cost, and the immense grants were not found sufficient to finish the buildings, as originally intended. Had there been another year allowed for the construction it would have been very much better. As it was nothing was in a finished state when the time arrived for the opening of the Exposition, which fact carried away and discussed by the visitors at the time, has added very much to the non-success of it financially.

The Exhibition is located in what is called the Upper City Park, at a distance of four miles from Canal Street, the centre of the city. The park is on the Mississippi River, and consists of 249 acres of grounds, with groves of live oaks, the branches of which are covered with the hanging Spanish moss. The grounds are also planted with tropical trees and shrubs, as well as aloes, beds of tulips, hyacinths, jonquils, and other early flowers, making a delicious fragrance and a treat to the eyes of storm-bound Canadians.

The buildings consist of—

1st. The main building, devoted to general exhibits and machinery, and is 1,378 feet x 905 feet, covering 33 acres of land.

2nd. The United States Building, devoted to United States exhibits, women's department and coloured people's department, 565 x 885 feet.

3rd. Horticultural Hall, 194 x 600 feet.

4th. Mexican Building, 190 x 300 feet.

5th. Art Gallery, 100 x 250 feet. This is constructed entirely of iron, and contained the art treasures of the exhibition.

6th. Live Stock Stables, six in number.

7th. A Machinery Hall annexed to Main Building, also several smaller buildings for private exhibition purposes, as well as refreshment departments.

On entering the Main Building, by the main entrance, the visitor is at once struck by the vastness of it. Before him is the arched Music Hall, with a seating capacity of

11,000 persons, with an immense organ in front of him, where concerts are given daily. Here also the celebrated Mexican band, consisting of some sixty-three performers, play frequently, and here the tired crowd sit and rest from their weary but pleasant perambulations.

In the naves to the right and left of the entrance are placed exhibits from the United States. In the corresponding naves in the rear of the Music Hall is the machinery. It is also found in an annex running from the Main Building. To drive this machinery and that in the Main Building more than two miles of shafting is used, which is driven by twenty gigantic engines, furnishing 4,200 horse-power. In the aisles connecting these front and rear naves are placed the foreign exhibits. In the aisles to the right of the Music Hall are the exhibits of Russia, Germany, Belgium and Turkey. They consist chiefly of trinkets and articles of virtu for sale; in those to the left, Italy, France, England, Jamaica, Siam, Republic of Honduras, Japan, China, British Honduras, Guatemala, Brazil and Mexico. The exhibits of those foreign countries also consisted chiefly of saleable articles, while those of Central America were of native woods, grain, and the various productions of the soil and of the people. The exhibit of Mexico was second only to that of the United States. It must be a wonderful country to produce such a variety of articles; beautiful leathers dressed in imitation of cloths, from all kinds of animals down to alligators and vipers. There were woods of every description worked up into varieties of articles; some naturally perfumed, which retain the perfume always; a wood fibre made up into cloth; all kinds of minerals of great value, from the solid silver brick weighing 5,640 lbs. downwards; cases of Indian work well done; wonderful pottery of fast colours, cloth made from silk bark nearly as fine as silk; cases of woollen and and cotton manufactures, including shawls and the wonderful rotoza, a long narrow shawl used for wearing over the head and shoulders, were there. These shawls are so finely woven that they can be drawn through a finger-ring. There were also wonderful sets of highly-carved furniture, and a bedroom set of scripture wood, finer than mahogany, valued at $5,000. The specimens of taxidermy were astonishing. The gay plumage of the birds was very striking. There appeared to be about twenty varieties of the humming-bird, or a small bird just like it. The feather flowers also were beautiful, such as half a bird mounted on a card and with the feathers arranged naturally. The collections of antiquities and Indian relics were very interesting, especially the pottery and picture-writing of the celebrated Aztecs, before the time of Cortez. This Main Building was well filled. Nearly one-half was taken up with farm implements from both the North and the South. One could not help being struck by the different kinds of machinery used in the South for cotton and sugar growing purposes, such as cotton gins, corn presses, and sugar-crushing machinery. The gallery in this immense building took a good half day to walk around, without giving much time to examine the magnificent exhibits of carriages and furniture. This latter exhibit was generally shown in compartments fitted up for that purpose to represent drawing-rooms, bed-rooms, etc., some of which were very artistically finished. The Canadian exhibit in this building was not much to be proud of. Owing to international etiquette our invitation had to be sent through England, and whether it was ever sent to our Government by England I cannot say. However, at the last moment, after our fall exhibitions had all taken place, Commissioner Morehead waited on our Government, but they considered it was then too late and did not think it was advisable to assist the transport of articles at that late date. A few very good easy chairs exhibited by Mr. Anderson, from London, in the gallery, a cider mill from Mr. Sells, and Mr. Stong's celebrated hoisting gate of Provincial celebrity were the only articles I could find. Mr. Stong deserves the sincere thanks of his countrymen, as he kept a visitors' book, the Toronto papers, and some comfortable chairs for the use of the wandering members of his country. The well-beloved word Canada was attached to the post of this department. At night this vast building is lighted by 800 electric arc lights and 4,000 Edison incandescent lights, making it as light as day.

The United States Building holds the most wonderful exhibit ever gathered under one roof on this continent, or in fact in the world. As a national effort it is beyond praise. No less than forty States and Territories are represented. Each State or Territory bearing the expense, with the exception of $5,000 granted by Congress, of

collecting, forwarding and exhibiting its own produce of the fields, factories or mines. They are all arranged by the Commissioners appointed by the Government from each State and their assistants, each State having been allotted its proportion of space. Great taste has been shown in arranging the articles and decorating the space. Here you will see a pagoda covered with cotton or sugar cane, another with rice; other buildings and temples with corn and grain in the straw of all kinds. The native woods in layers from the logs are tastefully displayed, while the minerals are built in pyramids, with the statistics of the quantities raised painted on obelisks. Each State has a large room for its headquarters, with the immense visiting-book, and the office of the Commissioner from that State, so every wanderer has his own special congregating place. One could almost tell the State department he was in by the articles around him, even if no banners were displayed. The Southern States say cotton is king, while Nebraska has in large letters corn is king. One is amazed at the vastness of this immense country, and in this building the proud American can see the mighty resources of his own land. The Washington authorities make a most interesting display from their Smithsonian Institute, from the Patent Office, from their Educational Department. Canada's system of school education is here represented, along with that peculiar to each State. They also show interesting relics of the several Polar expeditions, and their army and navy systems, with all kinds of modern artillery and fire arms.

The Horticultural Building is built of iron and glass, and is surmounted by a dome ninety feet high. Inside are plants from the tropics, ferns and palms, and the largest collection of cacti and the aloe family ever made. Orange and lemon trees bearing fruit, bananas, dates, coffee tree, the cotton plant, with blossoms and bolls, the ginger plant, and others too numerous to mention. In fruit each State and Territory was represented, and could be compared with the display from Russia, England and France. Our own country was represented by a very indifferent collection of apples not worthy of being sent, and consequently not winning a solitary prize.

The different varieties of oranges and other fruits of the *Citric* kind from the southern countries were wonderful—shaddocks, grape fruits, limes, plantains, bananas, yams—a large kind of sweet potato, an article extensively used by the coloured people—the ordinary sweet potato. Our potato is called the Irish potato down there. There were also cocoanuts and the alligator pear, besides numerous other fruits never before seen by others than natives or visitors of the tropics. This building and contents were of great interest to visitors.

The Art Gallery was only opened a few days before I left. It was well filled with masterpieces from almost every country, and they were naturally very much admired.

Live Stock Buildings.

The contents of these buildings naturally interested me more than the articles in any of the others, as they contained our Canadian stock. The buildings themselves were very good of their kind. There were four of them. They were plain and substantially finished, with a row of stalls down each side, having the heads of the animals to the wall, and a large alley-way or space down the centre of the buildings for the public to walk and examine them without finding the upper door closed to obstruct their view; in fact this passage way was so wide that both horses and cattle were exercised and judged there, as the weather at that time was often wet.

The show of horses and fat cattle in the month of January was very good, both in quality and numbers, but the display of cattle, sheep and hogs there in Feburary as regards numbers was very poor, although the animals themselves were good of their kinds; some classes, noticeably the blacks, neither Angus nor Galloway were represented at all. Shorthorns were not numerous, but there were good individual animals. The sweepstakes bull was raised at Bow Park. It is quite evident that the South is not the country for this noble race of cattle, as the specimens on exhibition from Mississippi State were very small and stunted in their growth and appeared to be hide-bound, no doubt owing to the severe heat and poor kinds of grasses. There were some very fair specimens of red polled cattle,

Herefords and Jerseys. The Devons were very small. There were also good specimens of the Holstein. The financial aspect of the exhibition at that time, the extra $300,000 not having been granted, had the most to do with the paucity of the exhibit. The fear of contagious diseases also added to the apathy of the cattle men, while the great distance south and the almost total absence of purchasers also added their quota to the causes of the smallness of the exhibit. Our own Canada was well represented. Mr. R. Marsh, of Richmond Hill, under the care of his two careful sons, had thirty-four head of very fine sheep of three or four different varieties, and succeeded in carying away nearly $1,000 in premiums. Mr. Featherstone, of Credit, had twenty-eight head of swine of the Suffolk, Essex and Yorkshire breeds. He also won about the same amount in prizes awarded him. I hope it has been paid them before this. This Canadian exhibit attracted great attention, the marvellous difference between a Cotswold sheep and one of their Merinos was a great source of wonder to them. Many curious questions were asked. I had the honour to be appointed one of the judges on the various breeds of cattle along with an English gentleman, whose name I have forgotten.

This great exposition as a whole may well be called the latest wonder of modern times. It represents the labour and resources of the United States in a nutshell. It is a thoroughly national exhibit, the best ever shown, and as such a marvellous success. As a foreign exhibit it is not a success, with the exception of Mexico, which country can hardly be called foreign. The display from other foreign nations was principally of the catch-penny varieties. One may wander up and down the long aisles, and across from side to side of the different buildings, from morning until night, from week's end to week's end, gazing at the beautiful displays of art and skill, spaces crowded with the work of the field, the factory, the workshop, in all their various forms, and feast his eyes upon millions of articles, estimated to have values equal to $40,000,000 in gold, until the eyes are weary, not to speak of the legs, and then, like the Queen of Sheba, he will have to say in utter amazement "That a half was never told him."

N.B.—I am indebted to the valuable guide to New Orleans by Mr. James S. Macherie for much information.

OFFICIAL LIST OF PRIZES AWARDED AT THE GRAND DOMINION AND FORTIETH PROVINCIAL EXHIBITION OF THE AGRICULTURE AND ARTS ASSOCIATION OF ONTARIO, HELD AT LONDON, FROM SEPTEMBER 7TH TO 12TH, 1885.

HORSES.

CLASS I.

THOROUGHBRED HORSES.

THOROUGHBRED STALLION, 4 YEARS OLD AND UPWARDS.

59 ENTRIES.

JUDGES.—Jas. Sutton, M.D., Clandeboy; J. D. Lutz, Stony Creek; Wm. McLeod, South Finch.

PRIZES OFFERED:

First prize, $35. Second prize, $25. Third prize, $15.

1st prize, Haines & Brown, Owen Sound, "Woodstock," foaled 1881, bred by John White, England, sold to Baron de Rothschild, London, Eng., then purchased and imported by Haines & Brown. Sire, Sir Bevis; dam, Stella, by Magadore.

2nd do W. & I. Peters, London, "Caligula," foaled 1875, bred by the late J. W. H. Rynolds, Frankfort, Ky.; sire, Enquirer; dam, Clarina, by (imp.) Australian.

3rd do W. & I. Peters, London, "Lord Byron," foaled May 22nd, 1868, bred by Col. A. Belmont, Nursery Farm, Long Island; sire, Kentucky; dam, Lady Blessington, by (imp.) Eclipse.

THOROUGHBRED STALLION, 3 YEARS OLD.

PRIZES OFFERED:

First prize, $30. Second prize, $20. Third prize, $10.

1st prize, John Dyment, Orkney, "Troublesome," foaled Aug. 19, 1882, bred by John Dyment; sire, Inspector; dam, Fanny (vol. 3, p. 27) by King Tom.

THOROUGHBRED STALLION, 2 YEARS OLD.

PRIZES OFFERED:

First prize, $20. Second prize, $12. Third prize, $8.

1st prize, W. & I. Peters, London, "Lord Grosvenor," foaled June 18th, 1883; bred by W. & I. Peters; sire, Lord Byron; dam, Fleetfoot, by (imp.) Sir Tatton.
2nd do W. & I. Peters, London, "Telephone," foaled July 27th, 1883; bred by W. & I. Peters; sire, Lord Byron; dam, Minnie, by Uncle Vic.
3rd do W. & I. Peters, London, "Bonnie Boy," foaled May 8th, 1883, bred by W. & I. Peters; sire, Lord Byron; dam, Blink Bonnie, by Jerome Edgar.

THOROUGHBRED YEARLING COLT.

PRIZES OFFERED:

First prize, $15. Second prize, $10. Third prize, $5.

1st prize, Wm. Hendrie, Hamilton, "Lucky Star," foaled 1884; bred by Wm. Hendrie; sire, Big Sandy; dam, Beautiful Star, by Harry Bassett.
2nd do H. Fanson & Son, Toronto, "Wilful," foaled April, 1884; sire, True Blue; dam, Alice Conn (vol. 4, p. 66, Bruce), by Derby.

THOROUGHBRED STALLION, ANY AGE.

PRIZE OFFERED:

Dominion Silver Medal.

Prize, Haines & Brown, Owen Sound, "Woodstock," foaled 1881, bred by John White, England, sold to Baron de Rothschild, London, Eng., then purchased and imported by Haines & Brown; sire, Sir Bevis; dam, Stella, by Magadore.

THOROUGHBRED 3 YEARS OLD FILLY.

PRIZES OFFERED:

First prize, $20. Second prize, $12. Third prize, $8.

1st prize, John Dyment, Orkney, no name or pedigree given.

THOROUGHBRED 2 YEARS OLD FILLY.

PRIZES OFFERED:

First prize, $15. Second Prize, $10. Third prize, $5.

1st prize, Wm. Hendrie, Hamilton, "Bright Star," foaled 1883, bred by Wm. Hendrie; sire, Big Sandy dam, Beautiful Star, by Harry Bassett.
2nd do T. D. Hodgens, London, "Maggie Bruce."

THOROUGHBRED YEARLING FILLY.

PRIZES OFFERED:

First prize, $10. Second prize, $6. Third prize, $4.

1st prize, W. & I. Peters, London, "Bonny Gertrude," foaled June 9th, 1884, bred by W. & I. Peters; sire, Lord Byron; dam, Blink Bonnie, by Jerome Edgar.

THOROUGHBRED BROOD MARE, WITH FOAL BY HER SIDE.

PRIZES OFFERED:

First prize, $30. Second prize, $20. Third prize, $10.

1st prize, T. D. Hodgens, London, "Tolima."
2nd do A. Fanson & Son, Toronto, "Alice Conn," (vol. 4, p. 66, Bruce): sire, Derby; dam, Alice, by Zero, etc.
3rd do John Dyment, Orkney, "Nettie," foaled 1874, bred by C. M. Jarvis, Waterdown; sire, Luther; dam, Lucy, by Wagner, Jun.

THOROUGHBRED FEMALE, ANY AGE.

PRIZE OFFERED:

Dominion Silver Medal.

Prize, T. D. Hodgens, London, "Tolima."

THOROUGHBRED FOAL OF 1885.

PRIZES OFFERED:

First prize, $10. Second prize, $6. Third prize, $4.

1st prize, A. Fanson & Son, Toronto, "Waiting," foaled April 11, 1885; sire, Terror; dam, Alice Conn, by Derby.
2nd do T. D. Hodgens, London.
3rd do John Dyment, Orkney.

CLASS II.

294 ENTRIES.

ROADSTER HORSES, FOR DRIVING, OR THE SADDLE.

JUDGES.—James Sutton, M.D., Clandeboy; William McLeod, South Finch; J. D. Lutz, Stoney Creek.

ROADSTER STALLION, 4 YEARS OLD AND UPWARDS.

PRIZES OFFERED:

First prize, $50. Second prize, $25. Third prize, $15.

1st prize, John Beacom, Clinton.
2nd do James R. Trimble, Markham.
3rd do F. W. Wood, Sarnia.

ROADSTER STALLION, 3 YEARS OLD.

PRIZES OFFERED:

First prize, $30. Second prize, $20. Third prize, $10.

1st prize, Wm. Hendrie, Hamilton.
2nd do J. N. Willson, Ridgetown, "Major Rooke."
3rd do J. H. Milton, Newbury.

ROADSTER STALLION, 2 YEARS OLD.

PRIZES OFFERED:

First prize, $20. Second prize, $12. Third prize, $8.

1st prize, Wm. K. Newton, Salford.
2nd do Abram M. Van Sickle, Jerseyville.
3rd do D. M. Coal, Lakeside.

ROADSTER, YEARLING STALLION COLT.

PRIZES OFFERED:

First prize, $15. Second prize, $10. Third prize, $5.

1st prize, Rowe & Lawrey, Fernhill.
2nd do A. Fanson & Son, Toronto.
3rd do R. M. Wilson, Delhi.

ROADSTER STALLION, ANY AGE.

PRIZE OFFERED:

Dominion Silver Medal.

Prize, John Beacom, Clinton.

ROADSTER FILLY OR GELDING, 3 YEARS OLD.

PRIZES OFFERED:

First prize, $20. Second prize, $12. Third prize, $8.

1st prize, Harry Shoff, Belmont.
2nd do Jas. O'Neil, Birr.
3rd do Dan O'Shea, London.

ROADSTER FILLY OR GELDING, 2 YEARS OLD.

PRIZES OFFERED:

First prize, $15. Second prize, $10. Third prize, $5.

1st prize, Thos. Tipling, Clinton.
2nd do W. J. Thompson, Orkney.
3rd do T. D. Hodgens, London.

ROADSTER YEARLING FILLY OR GELDING.

PRIZES OFFERED:

First prize, $10. Second prize, $6. Third prize, $4.

1st prize, Robt. Shoff, Birr.
2nd do Geo. Storrie, Birr.
3rd do J. N. Willson, Ridgetown.

ROADSTER BROOD MARE, WITH FOAL BY HER SIDE.

PRIZES OFFERED:

First prize, $30. Second prize, $20. Third prize, $10.

1st prize, Wm. Hendrie, Hamilton.
2nd do Abram M. Van Sickle, Jerseyville.
3rd do W. J. Thompson, Orkney.

ROADSTER FOAL OF 1885.

PRIZES OFFERED:

First prize, $10. Second prize, $6. Third prize, $4.

1st prize, Wm. Hendrie. Hamilton.
2nd do Abram M. Van Sickle, Jerseyville.
3rd do Thos. C. Patteson, Eastwood.

ROADSTER PAIR MATCHED HORSES (Stallions excluded), in harness, 15¾ hands and under.

PRIZES OFFERED:

First prize, $50. Second prize, $30. Third prize, $20.

1st prize. W. H. Hurdman, Hurdman's Bridge.
2nd do Thos. Bissett, Sr., Exeter.
3rd do G. A. Routledge, Lambeth.

ROADSTER SINGLE HORSE (Stallions excluded), IN HARNESS, 15¾ HANDS AND UNDER.

PRIZES OFFERED:

First prize, $30. Second prize, $20. Third prize, $10.

1st prize, W. J. Thompson, London.
2nd do Jas. Colear, Beachville.
3rd do A. J. Jarvis, London.

ROADSTER SADDLE HORSE, 16 HANDS AND OVER.

PRIZES OFFERED:

First prize, $20. Second prize, $15. Third prize, $10.

1st prize, Hendrie & Douglas, Hamilton.
2nd do S. B. Fuller, Woodstock.
3rd do Thos. C. Patteson, Eastwood.

ROADSTER SADDLE HORSE, UNDER 16 HANDS.

PRIZES OFFERED:

First prize, $20. Second prize, $15. Third prize, $10.

1st prize, J. B. Thornton, Sweaburg.
2nd do J. D. O'Neil, V. S., London.
3rd do Leonard Hunter, Exeter.

ROADSTER PAIR OF PONIES, UNDER 13 HANDS, IN HARNESS.

PRIZES OFFERED:

First prize, $12. Second prize, $8.

1st prize, J. G. Wing, New Dundee.
2nd do Wm. G. Morrison, Sarnia.

ROADSTER PONY IN SINGLE HARNESS, UNDER 13 HANDS.

PRIZES OFFERED:

First prize, $8. Second prize, $4.

1st prize, Richard Gibson, Delaware.
2nd do Jeffery Bros., Whitby.

CLASS III.

220 ENTRIES.

CARRIAGE HORSES TO BE 16 HANDS AND OVER.

JUDGES.—Judge Daniels, L'Orignal; S. B. Fuller, Woodstock; R. B. Pringle, Cobourg.

CARRIAGE STALLION, 4 YEARS OLD AND UPWARDS, 16 HANDS AND OVER.

PRIZES OFFERED:

First prize, $50. Second prize, $30. Third prize, $20.

1st prize, Henry Hammond, Cainsville.
2nd do Geo. R. West, Harwich.
3rd do Jas. McCartney, Thamesford.

CARRIAGE STALLION, 3 YEARS OLD.

PRIZES OFFERED:

First prize, $30. Second prize, $20. Third prize, $10.

1st prize, Alex. Davidson, Seaforth.
2nd do Geo. Buttery & Sons, Strathroy.
3rd do E. L. Sutherland, Bennington.

CARRIAGE STALLION, 2 YEARS OLD.

PRIZES OFFERED:

First prize, $25. Second prize, $15. Third prize, $10.

1st prize, R. H. Snider, Brantford.
2nd do P. Cavin & Sons, Birr.
3rd do R. M. Brown, Brigden.

CARRIAGE YEARLING COLT.

PRIZES OFFERED:

First prize, $15. Second prize, $10. Third prize, $5.

1st prize, A. Nichol, St. Mary's.
2nd do E. B. Tole, Blenheim.
3rd do Ewin McKinley, Ridgetown.

CARRIAGE STALLION, ANY AGE.

PRIZE OFFERED:

Dominion Silver Medal.

Prize, Henry Hammond, Cainsville.

CARRIAGE FILLY OR GELDING, 3 YEARS OLD.

PRIZE OFFERED:

First prize, $20. Second prize, $15. Third prize, $10.

1st prize, Thos. C. Patteson, Eastwood,
2nd do Geo. J. French. New Dundee.
3rd do R. M. Wilson, Delhi.

CARRIAGE FILLY OR GELDING, 2 YEARS OLD.

PRIZES OFFERED:

First prize, $15. Second prize, $10. Third prize, $5.

1st prize, Robert Beacom, Clinton.
2nd do Frank Ball, Eastwood.
3rd do Thos. R. Smith, New Hamburg.

CARRIAGE YEARLING FILLY OR GELDING.

PRIZES OFFERED:

First prize, $10. Second prize, $6. Third prize, $4.

1st prize, Artemus O'Neil, Birr.
2nd do R. M. Wilson, Delhi.
3rd do J. A. Spraklin, Woodstock.

CARRIAGE BROOD MARE WITH FOAL BY HER SIDE.

PRIZES OFFERED:

First prize, $30. Second prize, $20. Third prize, $10.

1st prize, R. M. Wilson, Delhi.
2nd do Wm. Hendrie, Hamilton.
3rd do Robert Shoff, Birr.

CARRIAGE FOAL OF 1885.

PRIZES OFFERED:

First prize, $10. Second prize, $6. Third prize, $4.

1st prize, M. Wilsie, Belmont.
2nd do James O'Neil, Birr.
3rd do James McCartney, Thamesford.

PAIR MATCHED CARRIAGE HORSES (Stallions excluded), IN HARNESS, 16½ HANDS AND OVER.

PRIZES OFFERED:

First prize, $50. Second prize, $30. Third prize, $20.

1st prize, John Coote, London.
2nd do Wm. Norton, Aldershot.
3rd do Hartley & Ellis, Zimmerman.

PAIR OF MATCHED CARRIAGE HORSES NOT LESS THAN 15¾, AND UNDER 16½ HANDS IN HARNESS.

PRIZES OFFERED:

First prize, $50. Second prize, $30. Third prize, $20.

1st prize, Thos. Abraham, Norwich.
2nd do John Coote, London.
3rd do Wm. Ardiel, Thorndale.

SINGLE CARRIAGE HORSE (Stallions excluded), IN HARNESS, 16½ HANDS AND OVER.

PRIZES OFFERED:

First prize, $30. Second prize, $20. Third prize, $10.

1st prize, Thos. C. Patteson, Eastwood.
2nd do R. W. Jackson, Arva.
3rd do Levi W. Skelton, London.

SINGLE CARRIAGE HORSE IN HARNESS, NOT LESS THAN 15¾ AND UNDER 16½ HANDS.

PRIZES OFFERED:

First prize, $30. Second prize, $20. Third prize, $10.

1st prize, Thos. Abraham, Norwich.
2nd do James McCartney, Thamesford.
3rd do Wm. Babb, Carlingford.

CLASS IV.

HORSES FOR AGRICULTURAL PURPOSES (Exclusive of Pure Clydesdales, Percherons and Suffolks).

158 ENTRIES.

JUDGES—M. McIntyre, Gananoque; John Oliver, Duncrief; Richard Quickfall, Waterloo.

AGRICULTURAL STALLION, 4 YEARS OLD AND UPWARDS.

PRIZES OFFERED:

First prize, $40. Second prize, $20. Third prize, $10.

1st prize, James Brooks, Tiverton.
2nd do Richard Maters, Chiselhurst.
3rd do Anthony Hughes, Kerrwood.

AGRICULTURAL STALLION, 3 YEARS.

PRIZES OFFERED:

First prize, $35. Second prize, $15. Third prize, $10.

1st prize, Jas. A. Reid, Widder.
2nd do Thos. T. Cornish, Crampton.
3rd do T. & A. B. Snider, German Mills.

AGRICULTURAL STALLION, 2 YEARS OLD.

PRIZES OFFERED:

First prize, $20. Second prize, $12. Third prize, $8.

1st prize, Thos. Ward, Varna.
2nd do Wellington O'Neil, Birr.
3rd do Geary Bros. Co., Bothwell.

AGRICULTURAL YEARLING COLT.

PRIZES OFFERED:

First prize, $15. Second prize, $10. Third prize, $5.

1st prize, John Mason, Londesborough.
2nd do Rowe & Lawrey, Fernhill.
3rd do Thomas McMichael, Seaforth.

AGRICULTURAL STALLION, ANY AGE.

PRIZE OFFERED:

Dominion Silver Medal.

Prize, James Brooks, Tiverton.

AGRICULTURAL FILLY OR GELDING, 3 YEARS OLD.

PRIZES OFFERED:

First prize, $20. Second prize, $12. Third prize, $8.

1st prize, Anthony Hughes, Kerrwood.
2nd do Geo. Taylor, Kippen.
3rd do W. J. Thompson, Orkney.

AGRICULTURAL FILLY OR GELDING, 2 YEARS OLD.

PRIZES OFFERED:

First prize, $18. Second prize, $10. Third prize, $5.

1st prize, Walter Rae, Avonton.
2nd do Hartley & Ellis, Zimmerman.
3rd do Wm. L. Taylor, Doncaster.

AGRICULTURAL YEARLING FILLY OR GELDING.

PRIZES OFFERED:

First prize, $10. Second prize, $6. Third prize, $4.

1st prize, James Chambers, Salford.
2nd do Dan. Yoke, Kintore.
3rd do John M. McKay, Thamesford.

AGRICULTURAL BROOD MARE, WITH FOAL BY HER SIDE.

PRIZES OFFERED:

First prize, $25. Second prize, $15. Third prize, $10.

1st prize, W. & S. McClure, Elder's Mills.
2nd do James Chambers, Salford.
3rd do Samuel Doupe, Simcoe.

AGRICULTURAL FOAL OF 1885.

PRIZES OFFERED:

First prize, $10. Second prize, $6. Third prize, $4.

1st prize, John A. Mason, Norwich.
2nd do John A. Mason, Norwich.
3rd do D. McPherson, Thamesford.

MATCHED FARM TEAM, IN HARNESS.

PRIZES OFFERED:

First prize, $35. Second prize, $25. Third prize, $15.

1st prize, Hugh McDonald, Fernhill.
2nd do James White, Rodgerville.
3rd do Dan. Yoke, Kintore.

CLASS V.

HEAVY DRAUGHT HORSES, IMPORTED OR BRED FROM PURE IMPORTED HEAVY DRAUGHT STOCK ON THE SIDE OF BOTH SIRE AND DAM, INCLUDING CLYDESDALES AND SHIRE BRED HORSES.

151 ENTRIES.

JUDGES—Wm. Miller, Napanee; Robert Montgomery, Petrolia; Jas. Jackson, Mount Charles.

HEAVY DRAUGHT CLYDESDALE STALLION, 4 YEARS OLD AND UPWARDS.

PRIZES OFFERED:

First prize, $50. Second prize, $30. Third prize, $20.

1st prize, E. W. & G. Charlton, Duncrief, "Glengarry" [18], foaled 1876; bred by Mr. Geo. Marr, Carrnbrogie, Oldmeldrum, Scotland, imported by Mr. Chas. Brooks; sire, Farmer's Glory, (McRobie's app.) dam, Jess, by Glengarry (1444).

2nd prize, Jeffery Bros., Whitby, "Ambition" (3374), foaled May, 1881, bred by J. C. Ford, Cuttlehill, Crossgates, Fifeshire, Scotland; imported by Jeffery Bros; sire, Lord Derby (1742); dam, Metal (2231), by Dainty Davy (212).
3rd do Robert Beith, Bowmanville, "Peter the Great" (3884), foaled 1881; bred by Jas. Dunlop, Ayrshire, Scotland; imported by and the property of Robert Beith, Bowmanville; sire, King of the Forest (1170); dam, Maggie (3422), by Largo Jack (444).

HEAVY DRAUGHT CLYDESDALE STALLION, 3 YEARS OLD.

PRIZES OFFERED:

First prize, $40. Second prize, $25. Third prize, $15.

1st prize, John Davis, Windsor, "Prince of Newbridge" (3103), foaled June 1st, 1882; bred by D. Kerr, Newbridge Farm, Dumfries, Scotland, property of Jno. Davis, Windsor; sire, Prince David (2342); dam, Darling (2422), by Young Byron (928).
2nd do R. Beith, Bowmanville, "General Gordon" (3626); foaled May 1st, 1882; bred by Jas. Roberts, Greenhead of Arnot, Leslie, Scotland, imported by and the property of R. Beith; sire, Laird of Aboyne (1175); dam, Flora of Greenhead (879), by Duke of Edinburgh (246).
3rd do W. H. Wilson, Ilderton, "Ready Cash" (3123); foaled May, 1882; bred by John Hendrie, Chapel, Kirkcudbright, Scotland, property of W. H. Wilson; sire, Carsewall (1420); dam, Bell (1319), by Lorne (499).

HEAVY DRAUGHT CLYDESDALE STALLION, 2 YEARS OLD.

PRIZES OFFERED:

First prize, $25. Second prize, $15. Third prize, $10.

1st prize, Chas. E. Mason, Brucefield, "McCartney," foaled May, 1883; bred by John McCartney, Portmay, Kirkcudbright, Scotland, imported by and the property of Mr. C. E. Mason; sire, Prince Albert (616); dam, Sally (1538), by Victor 2nd (1338).
2nd do James Miller & Sons, McGillivray, "Lauchy Macdonald" (3761); foaled May, 1883, bred by Wm. McKinnell, Butterbole, Dalbeattie, Scotland, imported by Hiram Miller; sire, Prince Albert (616); dam, Bet (3908), by King William (437).
3rd do Jeffrey Bros., Whitby, "Wellwood" (4109); foaled 1883; bred by Robt. Williams, Green, Wishaw, Lanarkshire, Scotland, imported by Jeffrey Bros.; sire, Baron Renfrew (37); dam, Sally of Wishaw (3102), by Farmer (286).

HEAVY DRAUGHT CLYDESDALE YEARLING COLTS.

PRIZES OFFERED:

First prize, $15. Second prize, $10. Third prize. $5.

1st prize, Wm. L. Taylor, Doncaster, "Grey Simon," imported by Simon Beattie.
2nd do John McMillan, Constance, "Laird of Duchal" (vol 8, S. C. S. B.).
3rd do John McMillan, Constance, "Playboy" sire, Premier Prince; dam, Darroch, by Johnny Cope (416).

HEAVY DRAUGHT CLYDESDALE STALLION, ANY AGE.

PRIZE OFFERED:

Dominion Gold Medal.

Prize, E. W. & G. Charlton, Duncrief, "Glengarry" [18], foaled 1876, bred by Geo. Marr, Carrnbrogie, Scotland, imported by Chas. Brooks, Mitchell; sire, Farmer's Glory; (McRobie's app.) dam, Jess, by Glengarry (1444).

SHIRE STALLION, 4 YEARS OLD AND UPWARDS.

PRIZES OFFERED:

First prize, $50. Second prize, $30. Third prize, $20.

1st prize, R. J. Turner, Brucefield, "Farmer's Glory" (3082), foaled 1879; bred by Thos. Cawdron, Gasberton, Spalding, England; imported by R. J. Turner; sire, Honest Tom 2nd (1121); dam, Brisk, by Hertford (1038).
2nd do Geary Bros., London, "Geary," sire, Thumper (2136); dam, by England's Glory (753).
3rd do Wm. Stevenson, Glammis, "Young Waggoner" [61], (imp.); foaled 1881; bred by John Clark, Buckinghamshire, Eng.; sire A 1 (6); dam, Primrose, by Black Prince.

SHIRE STALLION, 3 YEARS OLD.

PRIZES OFFERED:

First prize, $40. Second prize, $25. Third prize, $15.

1st prize, Jas. Gardhouse & Sons, Malton, "King of the Castle" (3171); foaled 1882; bred by S. Roberts, Mount Pleasant, Sibsey, Boston, England; imported by Chas. Harrison, York Mills; sire, Honest Tom (1111); dam, Smart, by Honest Tom (3143).
2nd do Hendrie & Douglas, Hamilton, "Dainty," no pedigree furnished.

3rd prize, A. Fanson & Son, Toronto, "Temptation" [52] (4085) (imp.); foaled 1882; sire, Royal Honest Tom (3990); dam, Madam, by Brown George (2543).

SHIRE STALLION, 2 YEARS OLD.

PRIZES OFFERED:

First Prize, $30. Second Prize, $20. Third Prize, $10.

1st Prize, Francis Coleman, Hills Green; "Farmer's Glory (3082); dam, Deppa Sire.
2nd do Henry Hammond, Cainsville, "Sir Roger" [62] (imp.); foaled March 12th, 1883; bred by George Ekins, Warbury, Eng.; sire, Rufus (3997); dam, mare by Grand Prince (960).
3rd do John Bell, L'Amaroux, "Waggoner 2nd" (4147); bred by John Crowther, Lofthouse Grange, Harewood, Yorks, England; sire Waggoner (2508); dam, Star, by Masterman (1496).

SHIRE STALLION, ANY AGE.

PRIZE OFFERED:

Dominion Gold Medal.

Prize, James Gardhouse & Sons, Malton, "King of the Castle" (3171).

CLYDESDALE, OR SHIRE FILLY, 3 YEARS OLD.

PRIZES OFFERED:

1st Prize, John McMillan, Constance, "Lucy Gray" (vol. 5); foaled May, 1882; imported in June, 1885; sire, Lord Lyon (489); dam, Jessie Gray (69).
2nd do John Davis, Windsor, "Lady Worsley."
3rd do W. B. Fotheringham, Woodham, "Jess"; bred by James Leys, Aberdeenshire, Scotland; sire, Lonarch (479).

CLYDESDALE, OR SHIRE FILLY, 2 YEARS OLD.

PRIZES OFFERED:

First Prize, $20. Second Prize, $15. Third Prize, $10.

1st Prize, William Hendrie, Hamilton, "Princess Louise."
2nd do Josiah Skinner, Mitchell, "Jean"; foaled 1883; sire, Old Lord Haddo (3872); dam, 5th Pearl (4104), by Gleniffer (361).
3rd do Francis Coleman, Hill's Green; dam by "Farmer's Glory" (3081).

CLYDESDALE, OR SHIRE FILLY, 1 YEAR OLD.

PRIZES OFFERED:

First Prize, $15. Second Prize, $10. Third Prize, $5.

1st Prize, William Hendrie, Hamilton, "Princess Alice."
2nd do Josiah Skinner, Mitchell, "Ella"; foaled 1884; sire, Old Lord Haddo (3872); dam, 5th Pearl (4104), by Gleniffer (361).
3rd do Francis Coleman, Hill's Green.

CLYDESDALE, OR SHIRE BROOD MARE, WITH FOAL BY HER SIDE.

PRIZES OFFERED:

First Prize, $40. Second Prize, $25. Third Prize, $15.

1st Prize, John Davis, Windsor, "Comley" (472).
2nd do John Davis, Windsor, "Fife Maggie" (2087).
3rd do Robert Martin, Clinton, "Kilkerran Nell" (Vol. 7).

CLYDESDALE OR SHIRE FOAL OF 1885.

PRIZES OFFERED:

1st Prize, Josiah Skinner, Mitchell, "Minnie"; foaled 1885; sire, Old Lord Haddo (3872); dam, 5th Pear (4104), by Gleniffer (361).
2nd do John Davis, Windsor.
3rd do Francis Coleman, Hill's Green.

CLASS VI.

30 Entries.

Heavy Draught Horses. Grade (Canadian Bred).

Judges.—William Miller, Napanee; Robert Montgomery, Petrolia; James Jackson, Mt. Charles.

Grade—Canadian Bred Brood Mare, with Foal by her side.

Prizes Offered:

First Prize, $25. Second Prize, $15. Third Prize, $10.

1st Prize, Thos. S. Meadows, Maplewood.
2nd do George Spearn, St. Mary's.
3rd do D. McPherson, Thamesford.

Grade—Canadian Bred Yearling Filly.

Prizes Offered:

First Prize, $12. Second Prize, $8. Third Prize, $6.

1st Prize, D. McPherson, Thamesford.
2nd do Jas. Robinson, Birr.

Grade—Canadian Bred Foal of 1885.

Prizes Offered:

First Prize, $10. Second Prize, $6. Third Prize, $4.

1st Prize, James Robinson, Birr.
2nd do Thos. S. Meadows, Maplewood.
3rd do James Chambers, Salford.

Grade—Canadian Bred Span of Heavy Draught Horses in Harness.

Prizes Offered:

First Prize. $35. Second Prize, $25. Third Prize, $15.

First Prize, John A. Mason, Norwich.

CLASS VII.

Suffolks Heavy Draught Horses Imported or Bred from Pure Imported Heavy Draught Stock on the side of both Sire and Dam.

7 Entries.

Judges.—William Miller, Napanee; Robert Montgomery, Petrolia; James Jackson, Mount Charles.

Suffolk Stallion, 3 Years Old and Upwards.

Prizes Offered:

First Prize, $30. Second Prize, $15.

1st Prize, William Sadler, Galt, "Young Hero."

2nd do James Beck, Thorndale.

Suffolk Stallion, 2 Years Old.

Prizes Offered:

First Prize, $15. Second Prize, $10.

1st Prize. William Sadler, Galt. "Exhibition."

SUFFOLK STALLION, ANY AGE.

PRIZE OFFERED:

Dominion Silver Medal.

Prize, William Sadler, Galt, "Young Hero."

SUFFOLK FEMALE, ANY AGE.

PRIZES OFFERED:

First Prize, James Beck, Thorndale.

CLASS VIII.

PERCHERONS, HEAVY DRAUGHT HORSES, IMPORTED OR BRED FROM PURE IMPORTED DRAUGHT STOCK ON THE SIDE OF BOTH SIRE AND DAM.

73 ENTRIES.

JUDGES.—Richd. Quickfall, Waterloo; M. McIntyre, Gananoque; Jno. Oliver, Duncrief.

PERCHERON STALLION, 3 YEARS OLD AND UPWARDS.

PRIZES OFFERED:

First prize, $40. Second prize, $20. Third prize, $10.

1st prize, T. & A. B. Snider, German Mills; "Bardine" (998) 754.
2nd do Geo. Bean, Denfield.
3rd do J. P. Fischer, Auburn.

PERCHERON YEARLING COLT.

PRIZES OFFERED.

First prize, $15. Second prize, $10. Third prize, $5.

1st prize, P. Whelihan, St. Mary's, "Duke of Normandy," 2709.
2nd do T. & A. B. Snider, German Mills, "Young Duke of Normandy."

PERCHERON STALLION, ANY AGE.

PRIZE OFFERED:

Dominion Silver Medal.

T. & A. B. Snider, German Mills, "Bordine," 7544 (998).

PERCHERON FILLY, 3 YEARS OLD.

PRIZES OFFERED:

First prize, $20. Second prize, $15. Third prize, $10.

1st prize, D. E. Adams, Oxford Centre, "Lina" (2688) 3925.

PERCHERON BROOD MARE WITH FOAL BY HER SIDE.

PRIZES OFFERED:

First prize, $25. Second prize, $15. Third prize, $10.

1st prize, P. Whelihan, St. Mary's, "Lily," 2708.

PERCHERON FOAL OF 1885.

PRIZES OFFERED:

First prize, $10. Second prize, $6. Third prize, $4

1st prize, P. Whelihan, St. Mary's.

PRINCE OF WALES' SPECIAL PRIZE FOR BEST HEAVY DRAUGHT STALLION, OF ANY BREED OR AGE.

To be awarded by the Judges of Classes 4, 5, 6, 7, and 8, by ballot.

PRIZE OFFERED:

Fifty Dollars.

1st prize, E. W. & G. Charlton, Duncrief, Glengarry [18].

DOMINION SPECIAL PRIZE FOR LADY RIDERS.

PRIZES OFFERED:

1st prize, Dominion Silver Medal and $10. Second prize, $10.

1st prize, Miss Jennie Swan, Brucefield.
2n do Mrs. Thos. Leo Belcher. London.

EXTRA ENTRIES OF HORSES.

Silver Medal awarded to the Hon. H. M. Anson, Ottawa, for pure bred Arabian Stallion "Cyprus."
Five Diplomas awarded to A. Fanson and Son for five imported Coach Stallions.

CATTLE.

CLASS IX.

DURHAMS.—318 ENTRIES.

JUDGES.—Wm. Rutherfort, Bensfort; Ed. Jeffs, Bond Head; Wm. Lang, St. Mary's.

DURHAM BULL, 3 YEARS OLD AND UPWARDS.

PRIZES OFFERED:

First prize, $40. Second prize, $25. Third prize, $15.

1st prize, J. Fothergill & Sons, Burlington, "Prince James" [10329]; roan, calved Dec. 23, 1880, bred by J. & R. Hunter; Alma, got by Knight of Warlaby [1634] (29014) (imp), dam Queen of the May 5th, by Baron Booth of Killerby [4271].
2nd prize, T. & A. B. Snider, German Mills, "Abbotsburn" roan, calved May 7th, 1882, bred by A. Cruickshank, Sittyton, Scotland: got by Roan Gauntlet (35284), dam Amaranth by Barmpton (37763).
3rd prize, Green Bros., Innerkip, "Earl of Marr" (imp.); rich roan, calved May 2nd, 1881, bred by W. S. Marr, Tarves, Scotland; got by Bentick (42787), dam Emma II. (vol. 23, p. 555 E. H. B.) by Golden Eagle (26267).

DURHAM BULL 2 YEARS OLD.

PRIZES OFFERED:

First prize, $40. Second prize, $25. Third prize, $15.

1st prize, T. Nelson & Sons, Brantford, "Sir Arthur Ingram;" roan, calved Sep. 26, 1882; bred by G. H. Caldwell, Crown Hill; got by Prowler, dam Sherriff; Hutton Queen (imp.) by Sir Arthur Ingram (32490)
2nd prize, Jas. Fisher, Hyde Park, "Scottish Victor" (50422).

DURHAM YEARLING BULL.

PRIZES OFFERED:

First prize, $40. Second prize, $25. Third prize, $15.

1st prize, John Dryden, Brooklin, "Victor Royal" (imp); dark roan, calved Feb. 27, 1884; bred by E. Cruickshank, Scotland; got by Perfection (37185), dam Victoria 67th by Lord of the Isles (40218).
2nd prize, Thos. Russell, Exeter, "The Don" (imp.), calved May 27th, 1884; bred by S. Campbell, Kinellar, Scotland; got by Vermont, dam Mina 3rd, by Duke.
3rd prize, John Currie, Everton, "Baron" (imp): roan, calved March 19, 1884; bred by S. Campbell, Aberdeenshire, Scotland; got by British Flag (46009), dam Jessamine 2nd, by Baron Killerby (27949).

DURHAM BULL CALF, UNDER 1 YEAR.

PRIZES OFFERED:

First prize, $20. Second prize, $15. Third prize, $10.

1st prize, J. Fothergill & Sons, Burlington, "Champion;" red and little white; calved Oct. 2nd, 1884; bred by exhibitors; got by Prince James [10329], dam Balsam Lady, by Kansas.
2nd prize, Thos. Nicholson & Sons, Sylvan, "Valasco 6th;" roan, calved Oct. 22, 1884; bred by exhibitors: got by Prince Albert, dam Vacuna 3rd, by Udores Oxford [4123].
3d prize, Thos. Nicholson & Sons, Sylvan, "Valasco 7th;" roan, calved Dec. 26, 1884; bred by exhibitors; got by Prince Albert, dam Vacuna 5th, by Baron Stanley, 25644.

DURHAM BULL, ANY AGE.

PRIZE OFFERED:

Dominion Gold Medal.

Prize, Thos. Nelson & Sons, Brantford, "Sir Arthur Ingram."

DURHAM COW.

PRIZES OFFERED:

First prize, $30. Second prize, $20. Third prize, $15.

1st prize, Thos. Nelson & Sons, Brantford, "Julia 21st" (imp.); roan, calved Jan. 31, 1881; bred by J. J. Sharp, Brougham, England; got by Baron Shendish 5th (44374), dam Julia 14th, by Clara's Rose (25784).
2nd prize, Thos. Russell, Exeter, "Bracelet 2nd;" calved April 5th, 1879; bred by Jno. Taylor, Kincardineshire, Scotland; got by Chevalier (41223).
3rd prize, Thos. Nelson & Sons, Brantford, "White Stockings" (imp.); red and white, calved April 21, 1881; bred by J. S. Ludlow, Mansfield, England; got by Canuck (46036), dam Rosa, by Roseland 2nd (32343).

DURHAM COW, 3 YEARS OLD.

PRIZES OFFERED:

First prize, $30. Second prize, $20. Third prize, $15.

1st prize, Thos. Nelson & Sons, Brantford, "Gusta 4th" (imp.); red and white, calved Jan. 2, 1882; bred by W. H. Wakefield, Kendal, England; got by Duke of Holker (38153), dam Gusta 3d, by Baron Barrington 4th (33006).
2nd prize, Thos. Russell, Exeter, "Medora 8th;" red, calved May 16th, 1882; bred by J. Johnston, Newseat of Dumbrock, Scotland; got by Cabul (42860), dam Medora 7th by Vanguard (30204).
3rd prize, Thos. Nelson & Sons, Brantford, "Julia 22nd" (imp.); red, calved Dec. 2, 1881; bred by J. J. Sharp, Brougham, England; got by Baron Shendish 5th (44374), dam Julia 19th by Duke of Darlington 4th (38138).

DURHAM HEIFER, 2 YEARS OLD.

PRIZES OFFERED:

First prize, $20. Second prize, $15. Third prize, $10.

1st prize, Thos. Nelson & Sons, Brantford, "Augusta 6th" (imp.); roan, calved Jan. 20, 1883; bred by W. H. Wakefield, Kendal, England; got by Baron Sedgwick (44373), dam Augusta 5th, by Baron Barrington 4th (33006).
2nd prize, J. Fothergill & Sons, Burlington, "Fame;" dark roan, calved Dec. 29, 1882; bred by exhibitors; got by Prince James [10329], dam Balsam Belle by Kansas.
3rd prize. Jno. Dryden, Brooklin, "Coquette;" red and white, calved March 14, 1883; bred by exhibitor; got by Baron Surmise (45933), dam Cornflower, by Perfection (37185).

DURHAM YEARLING HEIFER.

PRIZES OFFERED:

First prize, $16. Second prize, $12. Third prize, $8.

1st prize, Thos. Nelson & Sons, Brantford, "White Heifer" (imp.); white, bred by W. H. Wakefield, Kendal, England.
2nd prize, J. Fothergill & Sons, Burlington, "Nelson's Pride;" roan, calved January 23, 1884; bred by exhibitors; got by Prince James [10329], dam Belle of Nelson, by Kansas.
3rd prize, C. M. Simmons & Quirie, Ivan, "Elvira 10th;" white, calved Oct. 29, 1883; bred by exhibitors; got by Duncan [8335], dam Elvira 3rd, by Royal Oxford [2196].

DURHAM HEIFER CALF, UNDER 1 YEAR.

PRIZES OFFERED:

First prize, $15. Second prize, $10. Third prize, $5.

1st prize, John Dryden, Brooklin, "Sincerity," dark roan; calved October 14, 1884; bred by exhibitor; got by Lord Glammis (48192); dam, Sultana, by Pride of the Isles (35072).
2nd do John Campbell, Jr., Woodville, "Evening's B" [14794], red; calved Oct. 20, 1884; bred by exhibitor; got by McDuff [10200]; dam, Evening [11510]; (imp.); by Rapid Rhone (25205).
3rd do D. Grant & Sons, Woodville, "Lady Necklace" [14889], red; calved Sep. 15, 1884: bred by exhibitors; sire, McDuff [10200]; dam, Necklace 11th [11517]; by General Prim [3237] (31234).

DURHAM FEMALE, ANY AGE.

PRIZE OFFERED:

Dominion Silver Medal.

Prize, Thos. Nelson & Sons, Brantford.

OPEN TO CANADIAN BRED SHORTHORNS ONLY.

DURHAM BULL, 3 YEARS OLD AND UPWARDS.

PRIZES OFFERED:

First prize, $40. Second prize, $25. Third prize, $15.

1st prize, Jas. Hunter, Alma, "British Hope" [12214], roan; calved Aug. 15, 1880; bred by exhibitor; got by Knight of Warlaby [1634], (29014); dam, Rose of Autumn (imp.); by Prince Alfred (27107).
2nd do H. & J. Groff, Elmira, "Young Pilot" [10658], roan; calved Jan. 2, 1882; bred by exhibitors; got by Pilot [5851]; dam, Princess 2nd, by Young Aberdeen [4512].
3rd do John Morgan & Sons, Kerwood, "Barmpton Duke of Wellington" [10675], red, with star; calved Oct. 19, 1880; bred by J. & W. Watt, Salem; got by Barmpton Hero [6595]; dam, Lea, by Under Sheriff [4184].

DURHAM BULL, 2 YEARS OLD.

PRIZES OFFERED:

First prize, $40. Second prize, $25. Third prize, $15.

1st prize, Thos. Nicholson & Sons, Sylvan, "Prince Albert" [13245], roan; calved Oct. 2, 1882; bred by Alex. Brockie, Fergus; got by Barmpton Hero [6595]; dam, Butterfly [6037], by Under Sheriff [4184].
2nd do T. & A. B. Snider, German Mills, "Captain," red; calved Jan. 6, 1883; bred by Jas. Gardhouse & Sons, Malton; got by Captain Cook; dam, Fairy Circle, by Count Grindlewald.
3rd do Major Lloyd, Oakville, "Ontario King," red; calved Oct. 13, 1882; bred by John Dryden, Brooklin; got by Baron Surmise (45933); dam, Belle, by Royal Barmton (32996).

DURHAM YEARLING BULL.

PRIZES OFFERED

First prize, $40. Second prize, $25. Third prize, $15.

1st prize, Jas. Oke, Alvinston, "Lady Rose's Oxford" [11601], roan; calved Oct. 28, 1883; bred by Jas. Graham, Ailsa Craig; got by Elvira's Oxford [9954], (38768); dam, Lady Rose, by Famosa Chief [3183], (17076).
2nd do Henry Hammond, Cainsville. "Sir Christopher," roan; calved Sep. 10, 1883, and bred by John Isaac, Bomanton; got by Prince of Northumberland (46911); dam, May 7th (imp.), by Duke 28342).
3rd do W. G. Pettit, Burlington, "The Premier," red and little white; calved July 2nd, 1884; bred by R. Johnston, Greenwood; got by Premier Earl (imp.): dam Fame 2nd (imp.), by Arthur Victor (39380).

DURHAM BULL CALF, UNDER 1 YEAR.

PRIZES OFFERED:

First prize, $20. Second prize, $15. Third prize, $10.

1st prize, Jas. Graham & Sons, Ailsa Craig, "Lord Darlington," red and a little white; calved Oct. 18th, 1884; bred by exhibitors; got by 7th Earl of Darlington; dam, Lily of McGillivray, by 9th Duke of Sylvan (6992).
2nd do John Dryden, Brooklin, "Loyalist," red; calved March 15, 1885, bred by exhibitor; got by Lord Glammis (48192); dam, Lovely 37th, by Perfection (37185).
3rd do Thos. Nicholson & Sons, Sylvan, "Brideman 11th," roan; calved Oct. 9th, 1884, bred by exhibitor: got by Prince Albert [13245]; dam, 6th Maid of Sylvan, by Prince Royal [10943].

DURHAM BULL, ANY AGE.

PRIZE OFFERED:

Dominion Gold Medal.

Prize, Thos. Nicholson & Sons, Sylvan, "Prince Albert" [13245].

DURHAM COW.

PRIZES OFFERED:

First prize, $30. Second prize, $20. Third prize, $15.

1st prize, T. & A. B. Snider, German Mills, "Rose of Strathallan II.;" roan, calved Jan. 7th, 1880, bred by John Miller, Brougham; got by Blooming Mayflower [8153]; dam, White Rose of Strathallan, by Filligree Duke [5244].
2nd do W. G. Pettit, Burlington, "Belle 2nd," red and little white; calved Oct. 6th, 1880, bred by exhibitor; got by Kansas; dam, Nelson Belle, by Red Jacket.
3rd do Thomas Russell, Exeter, "May Riverside," roan; calved May 22nd, 1881, bred by John Isaac, Bomanton; got by Statesman 1st (44096); dam, May 8th, by Golden Crown.

DURHAM COW, 3 YEARS OLD.

PRIZES OFFERED:

First prize, $30. Second prize, $20. Third prize, $15.

1st prize, T. & A. B. Snider, German Mills, "Rose of Strathallan III., red and little white; calved April 21st, 1882, bred by exhibitors; got by Sir George; dam, Rose of Strathallan II., by Blooming May Flower [8153].
2nd do Jas. Hunter, Alma, "Rose of Sunnyside," roan; calved July 22nd, 1882, bred by J. & R. Hunter; got by Socrates (45640); dam, Rose of Killerby, by Knight of Warlaby (28014).
3rd do Jas. Gardhouse & Sons, Malton, "Maid of April," red and little white; calved April 1st, 1882, bred by Arthur Johnston, Greenwood; got by General Armstrong; dam, Greenwood Maid, by Lancaster.

DURHAM HEIFER, 2 YEARS OLD.

PRIZES OFFERED:

First prize, $20. Second prize, $15. Third prize, $10.

1st prize, Jas. Hunter, Alma, "Gaiety II," roan; calved Oct. 18, 1882, bred by J. & R. Hunter; got by Socrates (45640); dam, Glisten, by Baron Booth of Killerby.
2nd do H. & I. Groff, Elmira, "Rosabelle V.," red; calved March 5th, 1883, bred by exhibitors; got by Knight of Warlaby (29014); dam, Rosabelle III., by Athelstane XIII.
3rd do T. & H. B. Snider, German Mills, "Ruby Hill X.," red; calved Feby. 23rd, 1883, bred by S. C. Isaac, Baltimore; got by Duncan; dam, Ruby Hill IX., by Golden Crown.

DURHAM YEARLING HEIFER.

PRIZES OFFERED:

First prize, $16. Second prize, $12. Third prize, $8.

1st prize, H. & I. Groff, Elmira, "Rose of Brampton," red; calved Dec. 8th, 1883, bred by exhibitors; got by Senator; dam, Bell, by 2nd Earl of Shrewsbury.
2nd do Jas. Hunter, Alma, "Queen of the May XI.," red and little white; calved Feby. 13th, 1884, bred by exhibitor; got by Socrates (45640); dam, Queen of the May III., by Knight of Warlaby (29014).
3rd do T. & A. B. Snider, German Mills, "Eva," red; calved Oct. 14th, 1883, bred by H. Snell & Sons, Clinton; got by Prince of Seaham; dam, Agnes Buckingham, by Liberator.

DURHAM HEIFER CALF (under 1 year).

PRIZES OFFERED:

First prize, $15. Second prize, $10. Third prize, $5.

1st prize, John Meyer, Kossuth, "Lady Maxwell III.," red and white; calved Sept. 2nd, 1884.
2nd do John Dryden, Brooklin, "Welcome," red; calved Jan. 18th, 1884, bred by exhibitor; got by Lord Glammis (48192); dam, Winsome, by Royal Barnpton (32996).
3rd do D. Grant & Sons, Woodville.

DURHAM FEMALE, ANY AGE.

PRIZE OFFERED:

Prize, T. & A. B. Snider, German Mills, "Rose of Strathallan II."

DOMINION SPECIAL PRIZE.

FOUR DURHAM CALVES, UNDER 1 YEAR OLD (Bred and owned by Exhibitor).

PRIZES OFFERED:

Set of Canada Shorthorn Herd Books, except first volume, value $20, and cash $20.

Winner, John Dryden, Brooklin.

DOMINION SPECIAL PRIZE.

FOR BEST HERD DURHAM CATTLE (Consisting of One Bull and Four Males.) Open to all Shorthorns

PRIZE OFFERED:

Prize, $100.

Winner, Thos. Nelson & Sons, Brantford.

DOMINION SPECIAL PRIZE (Canadian Bred Herd, consisting of 1 Bull and 4 Females).

PRIZE OFFERED:

Set of Canada Shorthorn Herd Books, except first volume, value $20, and $80.—$100.

Winner, T. & A. B. Snider, German Mills.

SPECIAL OFFERED BY THE EMPIRE HORSE AND CATTLE FOOD CO.—For best Shorthorn beast on the ground; No other makers' condiment to be used by exhibitor.

PRIZE OFFERED:

PRIZE, $10.

Winner, T. & A. B. Snider, German Mills, "Rose of Strathallan II."

CLASS X.

HEREFORDS.

71 ENTRIES.

JUDGES.—John Weir, West Flamboro'; Daniel Barker, Paris; John Paxton, Chatham.

HEREFORD BULL, 3 YEARS OLD AND UPWARDS.

PRIZES OFFERED:

First prize, $40. Second prize, $25 Third prize, $15.

1st prize, L. G. Drew, Oshawa, "Bonnie Lad 2nd" (12296); calved November 6th, 1879; bred by F. W. Stone, Guelph; sire Duke of Manchester (5308); dam Bonny Lass 9th; by Commander-in-Chief (3035).
2nd do F. W. Stone, Guelph, "Victor 7th" 3890 (7333); calved September 8th, 1881; bred by exhibitor; sire Quebec (6125), (imp.); dam Vesta 9th (11375); by Governor 4th 1293 (4620), (imp.)
3rd do F. W. Stone, Guelph, "Quebec" (6125), calved May 10th, 1879; bred by exhibitor, got by Marquis of Waterford (5454); dam Spot 7th, 9208, (imp.); by Sir George (3439).

HEREFORD BULL, 2 YEARS OLD.

PRIZES OFFERED:

First prize, $40. Second prize, $25. Third prize, $15

1st prize, Green Bros., Innerkip, "Cronkhill 8th" (8461); calved June 3rd, 1883; bred by John Hill, Fellhampton Court, Eng.; sire Merry Monarch (5466); dam Plum 2nd, by Dauphine 2nd (3783).
2nd do R. J. Mackie, Oshawa, "Cecil," (imp.); calved April 6th, 1883; bred by Aaron Rogers, The Rodd, England; sire Charity 3rd (6350); dam Curly 5th, by Broad Cloth (4376).
3rd do Jas. Sharmon & Sons, Stratford, "President, Grant" (9044); calved May 9th, 1883; bred by T. J. Carwadine, Stockhan Bury, Leominster, England; sire President Arthur (7177); dam Ladybird, by Rodney (4907).

HEREFORD BULL, 1 YEAR OLD.

PRIZES OFFERED:

First prize, $30. Second prize, $20. Third prize, $10.

1st prize, F. W. Stone, Guelph, "Grandee 12th" (8686); calved December 12th, 1883; bred by exhibitor; sire Picture 3rd (6104); dam Graceful 27th, 13809, by Rambler 4th (6181), (imp.)
2nd do F. W. Stone, Guelph, "Wanderer" (9386); calved December 7th, 1883; bred by exhibitor; sire Duke of Manchester (5308), (imp.); dam Waxy 6321, (imp.); by the Earl 2nd (5048).
3rd do F. A. Fleming, Weston, "Champlain," (imp.); calved June 18th, 1884; bred by Thomas Penn, Ludlow, Hereford, England: sire Prince Morris (9071); dam Picture, by Experiment (7605).

HEREFORD BULL CALF, UNDER 1 YEAR.

PRIZES OFFERED:

First prize, $20. Second prize, $15. Third prize, $10.

1st prize, R. J. Mackie, Oshawa, "Sir Oliver Moreton"; calved October 24th, 1884; bred by Thomas Rogers, The Homme, England; sire Moreton (7128); dam Spangle 6th, by Strapper (4159).
2nd do F. W. Stone, Guelph, "Sweetlad 5th," 13882; calved September 15th, 1884; bred by exhibitor; sire Picture 3rd (6104); dam Sweetheart 17th, 13881, by Quebec (6125), (imp.)
3rd do Green Bros., Innerkip, "Pirate King;" calved February 23rd, 1885; bred by exhibitors; sire Garfield 3rd (8642); dam Polka, by Othello (6092).

HEREFORD BULL, ANY AGE.

PRIZE OFFERED:

Dominion Silver Medal.

Prize, Green Bros., Innerkip, "Cronkhill 8th" (8461), (imp.); calved June 3rd, 1883; bred by John Hill, Fellhampton Court, England; sire Merry Monarch (5466); dam Plum 2nd, by Dauphine 2nd (3783).

HEREFORD COW.

PRIZES OFFERED:

Frst prize, $30. Second prize, $20. Third prize, $10.

1st prize, F. W. Stone, Guelph, "Cherry 6th" (imp.) 11370; calved August, 1876; bred by B. Rodgers, Pembridge, England; sire Sir Roger 2nd (4993); dam Cherry 8961, by Speculation (4149).
2nd do F. A. Fleming, Weston, "Stanton Change," (imp.); calved March 21st, 1881; bred by T. Richards, Bicton, Shrewsbury, England; sire Marc Antony (6561); dam Stanton Duchess, by Tomato (5070).
3rd do F. W. Stone, Guelph, "Peach 7th" (9240); calved February 13th, 1878; bred by exhibitor; sire Governor 4th (4620), (imp.); dam Peach 4th 1405, by Commander-in-Chief (3033).

HEREFORD COW, 3 YEARS OLD.

PRIZES OFFERED.

First prize, $30. Second prize, $20. Third prize, $10.

1st prize, F. W. Stone, Guelph, "Graceful 30th," 13858; calved September 1st, 1881; bred by exhibitor; sire Quebec (6125) (imp.); dam Graceful 15th 12321, by Governor 4th (4620), (imp.)
2nd do F. W. Stone, Guelph, "Sweetheart 17th" 13881; calved May 21st, 1882; bred by exhibitor; sire Quebec (6125), (imp.); dam Sweetlass 2nd 13693, by Defiance (4507).
3rd do F. A. Fleming, Weston, "Bangle 2nd" (imp.); calved March 24th, 1883; bred by Thomas Rogers, Dilwyn, Herefordshire, England; sire Moreton (7128); dam Spangle 7th, by Doctor 2nd (5873.)

HEREFORD HEIFER, 2 YEARS OLD.

PRIZES OFFERED:

First prize, $20. Second prize, $15. Third prize, $10.

1st prize, F. W. Stone, Guelph, "Cherry 11th," 13837; calved November 14th, 1882; bred by exhibitor; sire Crown Prince (3778); dam Cherry 6th (imp.) 11370, by Sir Roger 2nd (4993).
2nd do F. A. Fleming, Weston, "Lady Annie" (imp.); calved January 12th, 1883; bred by Thomas Fenn, Herefordshire, England; sire Auctioneer (5194); dam Annie, by Lord Severns (4735).
3rd do F. A. Fleming, Weston, "Lady Downton" (imp.); calved February 27th, 1883; bred by Thomas Fenn, Ludlow, Herefordshire, England; sire Downton Boy (5879); dam Nell, by Bidney Boy (6310).

HEREFORD HEIFER, 1 YEAR OLD.

PRIZES OFFERED:

First prize, $15. Second prize, $10. Third prize, $5.

1st prize, F. A. Fleming, Weston, "Downton Rarity" (imp.); calved January 18th, 1884; bred by Thomas Fenn, Ludlow, Herefordshire, England; sire Downton Boy (5877); dam Rarity 4th, by Silver Prince (5583).
2nd do R. J. Mackie, Oshawa, "Velvet," calved September 17th, 1883; bred by exhibitor; sire Duke of Argyle (7562); dam Victoria 2nd, by Hero.
3rd do F. W. Stone, Guelph, "Cherry 13th" 13854; calved November 24th, 1884; bred by exhibitor; sire Regent (15532; dam Cherry 6th (11376, (imp.), by Sir Roger 2nd (4993).

HEREFORD HEIFER CALF, UNDER 1 YEAR.

PRIZES OFFERED:

First prize, $12. Second prize, $8. Third prize, $5.

1st prize. R. J. Mackie, Oshawa, "Albania" 18459; calved September 20th, 1884; bred by A. Rogers, Kingston, England; sire Albany (7364); dam Cinnamon 2nd, by Grateful (4622).
2nd do R. J. Mackie, Oshawa, "Victoria 6th" 16800; calved September 4th, 1884; bred by exhibitor; sire Duke of Argyle (7562); dam Victoria, by Sir Charles (3434).
3rd do R. J. Mackie, Oshawa, "Velvet 2nd" 16793; calved September 10th, 1884; bred by exhibitor; sire Duke of Argyle (7562); dam Victoria 2nd, by Hero.

HEREFORD FEMALE, ANY AGE.

PRIZE OFFERED:

Dominion Silver Medal.

Prize, F. W. Stone, Guelph, "Graceful 30th," 13858.

HERD OF HEREFORDS, CONSISTING OF 1 BULL AND 4 FEMALES, ANY AGE OR AGES.

PRIZE OFFERED:

Dominion Gold Medal.

Prize, F. W. Stone, Guelph, "Grandee 12th," 13865, (8686); "Cherry 6th," 11370; "Peach 7th," 9240; "Graceful 30th," 13858; "Cherry 11th," 13857.

CLASS XI.

26 ENTRIES.

DEVONS.

JUDGES.—Robt. Scott, Clifford; Dudley Miller, Oswego, N.Y.; Robt. Currie, Wingham; Thos. Clark, Skead's Mills.

DEVON BULL, 3 YEARS OLD AND UPWARDS.

PRIZES OFFERED:

First prize, $20. Second prize, $15. Third prize, $10.

1st prize, W. & I. Peters, London.

DEVON BULL, 2 YEARS OLD.

PRIZES OFFERED:

First prize, $25. Second prize, $15. Third prize, $10.

1st prize, W. J. Rudd, Arkell. "Victor" [884]; calved May 15th, 1883. bred by Jno. Hawes & Sons, Marden; sire Marquis [773], dam Blue Bell [343] by Samson 6th [310].

DEVON BULL, 1 YEAR OLD.

PRIZES OFFERED:

First prize, $20. Second prize, $15. Third prize, $10.

1st prize, W. J. Rudd, Arkell, "Early Prince;" calved September 19, 1884, bred by exhibitor; sire General Windham [802], dam Thrifty [608] by Monarch [604].
2nd prize, W. & I. Peters, London, "Red Duke."

DEVON BULL CALF, UNDER 1 YEAR.

PRIZES OFFERED:

First prize, $15. Second prize, $10. Third prize, $5.

1st prize, W. J. Rudd, Arkell, "Lord Lansdowne" [933]; calved May 20th, 1885; bred by exhibitor; sire General Windham [802], dam Beauty [800] by Kempenfelt [719].
2nd prize, W. J. Rudd, Arkell, "Ringer" [930]; calved March 15, 1885; bred by Geo. Rudd, Guelph; sire General Windham [802], dam Rose [849] by King of the Ocean [727].
3rd prize, W. J. Rudd, Arkell, "Rolf;" calved September 2, 1885; bred by exhibitor; sire Marquis 2nd [871], dam Thrifty [608] by Monarch [604].

DEVON BULL, ANY AGE.

PRIZE OFFERED:

Dominion Silver Medal.

Prize, W. J. Rudd, Arkell, "Victor" [884].

DEVON COW.

PRIZES OFFERED:

First prize, $25. Second prize, $15. Third prize, $10.

1st prize, W. J. Rudd, Arkell, "Thrifty" [608]; calved July 25, 1881; bred by H. H. Spencer, Whitby; sire Monarch [604], dam Red Rose [607], by Prince of Wales [199].
2nd prize, W. J. Rudd, Arkell, "Beauty" [800]; calved June 2, 1880; bred by Geo. Rudd, Guelph; sire Kempenfelt [719]; dam Cherry Pie [578] by young Curly Prince of Wales [451].
3rd prize, W. & I. Peters, London.

DEVON COW, 3 YEARS OLD.

PRIZES OFFERED:

First prize, $25. Second prize, $15. Third prize, $10.

1st prize, W. J. Rudd, Arkell, "Daisy" [848]; calved June 1st, 1882; bred by J. Hawes, Marden; got by General Wyndham (802], dam Blue Bell [343], by Samson VI. [310].
2nd prize, W. & I. Peters, London, "Beauty."

DEVON HEIFER, 2 YEARS OLD.

PRIZES OFFERED:

First prize, $20. Second prize, $10. Third prize, $5.

1st prize, W. & I. Peters, London.
2nd prize, W. J. Rudd, Arkell, "Red Rose" [890]; calved August 10th, 1883; bred by Jno. Hawes & Sons Marden; sire Professor [847], dam Golden Beam [805] by Kempenfelt [719].

DEVON HEIFER, 1 YEAR OLD.

PRIZES OFFERED:

First prize, $15. Second prize, $10. Third prize, $5.

1st prize, W. J. Rudd, Arkill, "Lady Creamer" [929]; bred by Geo. Rudd, Guelph; sire Marquis 2nd [871], dam Rose [849] by King of the Ocean [727].
2nd prize, W. and I. Peters, London, "Blueball."

DEVON HEIFER CALF, UNDER 1 YEAR.

PRIZES OFFERED:

First prize, $10. Second prize, $6. Third prize, $4.

1st prize, W. & I. Peters, London

DEVON FEMALE, ANY AGE.

PRIZE OFFERED:

Dominion Silver Medal.

Prize, W. J. Rudd, Arkell, "Beauty" [800].

HERD OF DEVONS, CONSISTING OF 1 BULL AND 4 FEMALES, ANY AGE OR AGES.

PRIZE OFFERED:

Dominion Gold Medal.

W. J. Rudd, Arkell.

CLASS XII.

93 ENTRIES.

AYRSHIRES.

JUDGES.—F. W. Wilson, Chatham; Alex. Acheson, Philipsville; Thos. Walker, Wellman's Corners.

AYRSHIRE BULL, 3 YEARS AND UPWARDS.

PRIZES OFFERED:

First prize, $40. Second prize, $30. Third prize, $20.

1st prize, T. Guy, Oshawa, "Satellite" [1443], white marked with brown; bred by exhibitor; got by William Wallace [1247], dam Snowflake [1373], by Warrior [780].
2nd prize, T. G. Nankin, Merivale, "Sultan" [1288]; red and little white: calved August 26, 1879; bred by W. K. Secord, Winona; got by Mars 1st [803]; dam Lucy [905] by Wilson [438].
3rd prize, Jas. McCormick, Rockton, "Frank."

AYRSHIRE BULL, 2 YEARS OLD.

PRIZES OFFERED:

First prize, $40. Second prize, $30. Third prize, $20.

1st prize, T. Guy, Oshawa, "Stonealsay 4th [1456]; red and white; calved December 19th, 1882; bred by Ontario Experimental Farm, Guelph; sire Stonealsay [1435], dam Flora 3rd of Drumlaunig (1567) (imp.) by Blood.
2nd prize, W. C. Beaty, Omagh, "Prince of Ashdale" [1473]; red and while; calved March, 1883; bred by exhibitor; sire Sir Colin [1259]; dam May Queen [772] by Bismarck [500].

AYRSHIRE BULL, 1 YEAR OLD.

PRIZES OFFERED:

First prize, $30. Second prize, $20. Third prize, $10.

1st prize, W. M. and J. C. Smith, Fairfield Plains, "Jock" [1609]; spotted white and red; calved October 14th, 1884; bred by exhibitor; got by Promotion [1608], dam Dove [1820], by Duke of Athol [1607].
2nd prize, T. Guy, Oshawa, Monarch.
3rd prize, Jas. McCormick, Rockham, "Hero."

AYRSHIRE BULL CALF, UNDER 1 YEAR.

PRIZES OFFERED:

First prize, $15. Second prize, $10. Third prize, $8.

1st prize, W. C. Beaty, Omagh, "General Stewart" [1638]; red roan; calved May 5th, 1885; bred by exhibitor; sire Prince of Ashdale [1473], dam Daisy 2nd [1540] (imp) by Chester Hall.
2nd prize, T. Guy, Oshawa, "Royal Prince" [1614]; dark red and white; calved September 8th, 1884 bred by exhibitor; sire Satellite [1443], dam Oshawa Lass 2nd [306] by Indian Chief [1174].
3rd prize, Geo. Hill, Delaware.

AYRSHIRE BULL, ANY AGE.

PRIZES OFFERED:

Dominion Silver Medal and 1st Volume "Dominion Ayrshire Herd Book."

Prize, T. Guy, Oshawa, "Satellite" [1443]; white marked with brown; calved April 10th, 1882; bred by exhibitor; sire William Wallace [1247]; dam Snowflake [1372] by Warrior [780].

AYRSHIRE COW.

PRIZES OFFERED:

First prize, $30. Second prize, $15. Third prize, $10.

1st prize, T. Guy, Oshawa, "Oshawa Lass 2nd" [1306]; brown and white; calved September 20th, 1878; bred by exhibitor; sire Indian Chief [1174], dam Oshawa Lass [515] by Burns [513].

2nd prize, T. Guy, Oshawa, "Model" [1179]; white and red; calved December, 1877; bred by exhibitor; sire Bismarck [500], dam Perfection [381] by Eclipse [103] 539.

3rd prize, T. G. Nankin, Merivale, "Primrose" [640]; brown and white spots; calved May 17th, 1875; bred by Joseph Yuill, Carleton Place; got by Prince of Wales [366]; dam Marigold [362], by Duncan [370].

AYRSHIRE COW, 3 YEARS OLD.

PRIZES OFFERED:

First prize, $30. Second prize, $15. Third prize, $10.

1st prize, W. M. & J. C. Smith, Fairfield Plains, "Gurta 6th" [1506]; brown and white; calved September 5th, 1881; bred by T. Guy & Son, Oshawa; sire William Wallace [1247]; dam Gurta 4th [1181], by Cyrus [601].

2nd do T. Guy, Oshawa, "Lady Wallace" [1549]; red and white; calved August 4th, 1882; bred by exhibitor; sire William Wallace [1247]; dam Empress [1373], by Grand Duke [1141].

3rd do T. Guy, Oshawa, "Lily Dale" [1508]; white, spotted with red; calved September 10th, 1881; bred by exhibitor; sire William Wallace [1247]; dam Model [1179], by Bismarck [500].

AYRSHIRE HEIFER, 2 YEARS OLD.

PRIZES OFFERED:

First prize, $20. Second prize, $12. Third prize, $8.

1st prize, T. Guy, Oshawa, "Gurta 7th" [1726]; red and a little white; calved September 11th, 1879; bred by T. Guy & Son, Oshawa; got by William Wallace [1247], dam Gurta IV. [1181], by Cyrus [600].

2nd do W. M. & J. C. Smith, Fairfield Plains, "Empress" [1550]; red and white; bred by T. Guy & Son, Oshawa, the property of exhibitors; got by William Wallace [1247]; dam Queen [1509], by Oarsman [972], 1573.

3rd do W. C. Beaty, Omagh, "Rhea" [1791]; red and white; calved May 10th, 1883; bred by E. W. Ware, Hamilton; sire Sir Allan [1338]; dam Nancy [112], by Prince of Wales [17], 305.

AYRSHIRE HEIFER, 1 YEAR OLD.

PRIZE OFFERED:

First prize, $15. Second prize, $10. Third prize, $5.

1st prize, T. Guy, Oshawa, "Violet" [1729]; dark red and white; calved March 23rd, 1884; bred by exhibitor; sire William Wallace [1247]; dam Perfection [381], by Eclipse [103] 539.

2nd do W. M. & J. C. Smith, Fairfield Plains, "Gurta 8th" [1666]; dark red and white; calved September 9th, 1883; bred by T. Guy & Son, Oshawa; sire Robert Bruce [1447]; dam Gurta 6th [1506], by William Wallace [1247].

3rd do W. C. Beaty, Omagh, "Varina" [1714], dark red and white; calved January 2nd, 1884; bred by E. W. Ware, Hamilton; sire Mars of Winchester [1362]; dam Rosalind [1176], by Tri Mountain [599].

AYRSHIRE HEIFER CALF, UNDER 1 YEAR.

PRIZES OFFERED:

First prize, $12. Second prize, $8. Third prize, $5.

1st prize, T. Guy, Oshawa, "Gurta 10th."

2nd do W. C. Beaty, Omagh, "Bessy" [1867]; red; calved November 10th, 1884; bred by exhibitor; sire Prince of Ashdale [1473]; dam Pet 3rd [1532], by William Wallace [1247].

3rd do W. M. & J. C. Smith, Fairfield Plains, "Gurta 9th" [1867].

AYRSHIRE FEMALE, ANY AGE.

PRIZE OFFERED:

Dominion Silver Medal and Dominion Ayrshire Herd Book.

Prize, T. Guy, Oshawa.

HERD OF AYRSHIRES, CONSISTING OF 1 BULL AND 4 FEMALES, ANY AGE OR AGES.

PRIZE OFFERED:

Dominion Gold Medal.

Prize, T. Guy, Oshawa.

CLASS XIII.

22 ENTRIES.

GALLOWAYS.

JUDGES.—John Garbutt, Peterboro; Daniel Vanderwater, Belleville; James Cannon, Sr., Annan.

GALLOWAY BULL, 3 YEARS AND UPWARDS.

PRIZES OFFERED:

First prize, $40. Second prize, $20.

1st prize, Thomas McCrae, Guelph, "MacLeod 2nd, of Drumlanrig," (imp.), [553], (1676); calved March 5th, 1881, bred by Duke of Buccleuch; sire Stanley of Drumlanrig (2622), by Black Prince of Drumlanrig (546).

GALLOWAY BULL, 1 YEAR OLD.

PRIZES OFFERED:

First prize, $25. Second prize, $15.

1st prize, Thomas McCrae, Guelph, "Milligan" [1153].

GALLOWAY BULL CALF, UNDER 1 YEAR.

PRIZES OFFERED:

First prize, $15. Second prize, $10.

1st prize, William McCrae, Mountsburg, "Dumfries" [1963].
2nd do Thomas McCrae, Guelph, "McAlpine" [1964].

GALLOWAY BULL, ANY AGE.

PRIZE OFFERED:

Dominion Silver Medal.

Thomas McCrae, Guelph, "MacLeod II. of Drumlanrig" [553], (1676); calved March 5th, 1881; bred by Duke of Buccleuch, Scotland; sire Stanley of Drumlanrig (1348); dam Harriet 4th, of Drumlanrig (2622), by Black Prince, of Drumlanrig (546).

GALLOWAY COW:

PRIZES OFFERED:

First prize, $30. Second prize, $15.

1st prize, Thomas McCrae, Guelph, "Nellie, of Corwall."
2nd do Thomas McCrae, Guelph, Maggie II. of Killimingan [571], (3877); calved January 2nd, 1878; bred by Joseph Neilson, Dalbeattie; sire Scottish Chief (1040), dam Maggie of Killimingan (2745), by Markman III. (1245).

GALLOWAY COW, 3 YEARS OLD.

PRIZES OFFERED:

First prize, $30. Second prize, $15.

1st prize, Thomas McCrae, Guelph, "Lady Geills" [568]; calved October 6th, 1882; bred by Thomas Fisher, Glenluce; sire Islesman (1590); dam Belted Lass [657], by Craiguraget [611].

GALLOWAY HEIFER, 2 YEARS OLD.

PRIZES OFFERED:

First prize, $20. Second prize, $12.

1st prize, Thomas McCrae, Guelph, "Fairy Dell" [690]; calved January 29th, 1883; bred by exhibitor sire MacLeod of Tarbreoch (1471), dam Nellie of Corwall (3885), by Dominie Sampson (1149)
2nd do Thomas McCrae, Guelph, "Cherry Bud" [844].

GALLOWAY HEIFER, 1 YEAR OLD.

PRIZES OFFERED:

First prize, $15. Second prize, $10.

1st prize, Thomas McCrae, Guelph, "Nina" [783]; calved November 3rd, 1883; bred by exhibitor; sire Lochiel [591]; dam Nettie [610], by Maori Chief [592].
2nd do Thomas McCrae, Guelph, "Oakshade" [784]; calved October 30th, 1883; bred by exhibitor; sire MacLeod II. of Drumlanrig [553]; dam Nancy II. of Belgray [578], by Olden Times.

GALLOWAY HEIFER CALF, UNDER 1 YEAR.

PRIZES OFFERED:

First prize, $12. Second prize, $8.

1st prize, Thomas McCrae, Guelph, "Lady Mary Fisher" [1940].
2nd do Thomas McCrae, Guelph, "Lily Leaf" [1941].

GALLOWAY FEMALE, ANY AGE.

PRIZES OFFERED:

Dominion Silver Medal.

Prize, Thomas McCrae, Guelph, "Nellie of Corwall" [581], (3885).

DOMINION SPECIAL PRIZE.

HERD OF GALLOWAYS, CONSISTING OF 1 BULL AND 4 FEMALES, ANY AGE OR AGES.

PRIZE OFFERED:

Silver Medal.

Thomas McCrae, Guelph.

CLASS XIV.

ANGUS OR POLLED ABERDEENS.

52 ENTRIES.

JUDGES.—John Garbutt, Peterboro'; Daniel Vanderwater, Belleville. James Cannon, Sr., Annan.

ANGUS OR POLLED ABERDEEN BULL, 3 YEARS OLD AND UPWARDS.

PRIZES OFFERED:

First prize, $40. Second prize, $25. Third prize, $15.

1st prize, Mossom Boyd & Co., Bobcaygeon, "King of Trumps," 2895; calved March 27th, 1882; bred by Sir George Macpherson Grant, Scotland; got by Young Viscount (736); dam Katie Moor (2984), by Elchies (563).

ANGUS OR POLLED ABERDEEN BULL, 2 YEARS OLD.

PRIZES OFFERED:

First prize, $40. Second prize, $25. Third prize, $15.

1st prize, Hay & Paton, New Lowell, "Black Judge" [1]; calved January 29th, 1883; bred by J. Morrison, Knockie Mill, Scotland; sire Jury Twin (2174); dam Flower of Knockiemill [1], (5875), by Black Prince of Bricklay (943).

ANGUS OR POLLED ABERDEEN BULL, 1 YEAR OLD.

PRIZES OFFERED:

First prize, $30. Second prize, $20. Third prize, $10.

1st prize, Mossom Boyd & Co., Bobcaygeon, "Abbotsford."
2nd do Geary Bros. Co., London, "Banco" (3452); calved February 10th, 1884; bred by Geary Bros., London; sire Leotard of Balquhain (2200); dam Flower Girl of Eastertown (6464), by Viceroy of Balquhain (3338).
3rd do Hay & Paton, New Lowell, "Fair Leader" [42]; calved September 10th, 1883; bred by Mossom, Boyd & Co., Bobcaygeon; sire Lord Dundreary of Ambleside (2946); dam Fair Lady of Collithie, by Malcolm of Westertown (1457).

ANGUS OR POLLED ABERDEEN BULL CALF, UNDER 1 YEAR.

PRIZES OFFERED:

First prize, $15. Second prize, $10. Third prize, $5.

1st prize, Hay & Paton, New Lowell, "Baron Kinnoul" [43]; calved October 7th, 1884; bred by exhibitors; sire Black Judge [1]; dam Mary 2nd of Knockiemill [2], (5877), by Black Prince of Baucklay (943).
2nd do Geary Bros. Co., Bothwell, "Nightshade" (2946).
3rd do Hay & Paton, New Lowell, "Grenadier" [40]; calved February 18th, 1885; bred by H. Walker & Sons, Walkerville; sire Pure Polled Bull; dam Ruby of Methlick 2nd [81], by Knight of the Garter (1763).

ANGUS OR POLLED ABERDEEN BULL, ANY AGE.

PRIZE OFFERED:

Dominion Silver Medal.

Prize, Hay and Paton, New Lowell, "Black Judge" [1].

ANGUS OR POLLED ABERDEEN COW.

PRIZES OFFERED:

First prize, $30. Second prize, $20. Third prize, $10.

1st prize. Hay & Paton, New Lowell, "Nannie 2nd" [4]; calved Mar. 18, 1880; bred by A. Mitchell, Balgreen, Scotland; sire Rex (1607), dam Nannie of Balgreen by Avean (888).
2nd prize, Mossom Boyd & Co., Bobcaygeon, "Wanton."
3rd prize, Mossom Boyd & Co., Bobcaygeon, "Caroline 2nd of Kildonning.'

ANGUS OR POLLED ABERDEEN COW, 3 YEARS OLD.

PRIZES OFFERED:

First prize, $30. Second prize, $20. Third prize, $10.

1st prize, Hay & Paton, New Lowell, "Mary 3rd of Knockiemill" [5]; calved August 13, 1883; bred by exhibitors; sire Chivalry [2] (1765), dam Mary 2nd of Knockiemill [2] (5877) by Black Prince of Barcklay (943).

ANGUS OR POLLED ABERDEEN HEIFER, 2 YEARS OLD.

PRIZES OFFERED:

First prize, $20. Second prize, $15. Third prize, $10.

1st prize, Mossom Boyd & Co., Bobcaygeon, "Duchess of Verulam" (6532); calved January 5th, 1883; bred by Geary Bros., London; got by Polester (1772), dam Duchess of Balucnie (4374), by Moraystown (1439).
2nd prize, Geary Bros. Co., London, "Bluebell 8th."
3rd prize, Geary Bros. Co., London, "Vine 19th" (8563); bred by Wm. Adam Bush, Banchovy, Scotland; sire Superior (2359); dam Vine 15th (4328), by Hollins (1493).

ANGUS OR POLLED ABERDEEN HEIFER, 1 YEAR OLD.

PRIZES OFFERED:

First prize, $15. Second prize, $10. Third prize, $5,

1st prize, Hay & Paton, New Lowell, "Emma of Kinnoul Park" [61]; calved December 26th, 1883; bred by exhibitors; sire Chivalry [2], (1765); dam Flower of Knockiemill [1], (imp.), by Black Prince of Brucklay (943).
2nd prize, Geary Bros. Co., London, "Tibbie of Bothwell" (8561); calved January 27th, 1884; bred by exhibitors; sire Dauphin (2045); dam Tibbie 5th, by Bridgend (5215), by Knight of the Garter (1763).
3rd prize, Geary Bros. Co., London, "Blackcap of Keillor Lodge" (8546); calved March 9th, 1884; bred by exhibitors; sire Knight of St. Patrick (2194), dam Waterside Blackcap (6293), by Julius (1819).

ANGUS OR POLLED ABERDEEN HEIFER CALF, UNDER 1 YEAR.

PRIZES OFFERED:

First prize, $12. Second prize, $8. Third prize, $5.

1st prize, Mossom Boyd & Co.; "Pride 2nd of Big Island."
2nd prize, Hay & Paton, New Lowell. "Miss Charcoal" [80]; calved January 29th, 1885; bred by exhibitors; sire Chivalry (1765); dam Flower of Knockiemill [1], (5875), by Black Prince of Brucklay (943).
3rd prize, Robert Craik, M. D., Montreal, "Fanny of Ardgowan"; calved November 10th, 1884; bred by C. J. Alloway, Montreal; sire Prince Leopold of Kinochlay (2297); dam Favorite 11th (4337), by Shab (680).

HERD OF ANGUS OR POLLED ABERDEENS, CONSISTING OF 1 BULL AND 4 FEMALES, ANY AGE OR AGES.

PRIZE OFFERED:

$100.

Hay & Paton, New Lowell.

Highly Commended:

Mossom Boyd & Co., Bobcaygeon.

CLASS XV.

58 ENTRIES.

JERSEY OR ALDERNEY CATTLE.

JUDGES.—Henry J. Le Fevre, Lakefield; David Duncan, Don; H. Aldrich, Lisbon Centre, N.Y.

JERSEY OR ALDERNEY BULL, 3 YEARS OLD AND UPWARDS.

PRIZES OFFERED:

First prize, $40. Second prize, $30. Third prize, $20.

1st prize, V. E. Fuller, Hamilton, "Canada's John Bull," 8388.
2nd prize, W. C. Beaty, Omagh, "Prince of Ashdale," 1473.
3d prize, V. E. Fuller, Hamilton, "Thalma," 4288.

JERSEY OR ALDERNEY BULL, 2 YEARS OLD.

PRIZES OFFERED:

First prize, $40. Second prize, $30. Third prize, $20.

1st prize, Samuel Smoke, Canning, —— 14361.
2nd prize, V. E. Fuller, Hamilton, "Rankin's Stoke Pogis."
3rd prize, Carpenter & Smith, Grimsby, "Bijou's Hugo."

JERSEY OR ALDERNEY BULL, 1 YEAR OLD.

PRIZES OFFERED:

First prize, $30. Second prize, $20. Third prize, $10.

1st prize, V. E. Fuller, Hamilton, "Rubano Pogis."
2nd prize, V. E. Fuller, Hamilton, "Arawana Rajah."

JERSEY OR ALDERNEY BULL CALF, UNDER 1 YEAR.

PRIZES OFFERED:

First prize, $15. Second prize, $10. Third prize, $8.

1st prize, Carpenter & Smith, Grimsby, "Bulletin Pogis 1st."
2nd prize, V. E. Fuller, Hamilton, "Canada's Stoke Pogis," 14209.
3rd prize, V. E. Fuller, Hamilton, "Lopez Stoke Pogis."

JERSEY OR ALDERNEY BULL, ANY AGE.

PRIZE OFFERED:

Dominion Silver Medal.

Prize, V. E. Fuller, Hamilton, Canada John Bull, 8388.

JERSEY OR ALDERNEY COW.

PRIZES OFFERED:

First prize, $30. Second prize, $15. Third prize, $10.

1st prize, V. E. Fuller, Hamilton, "Victory," 16379.
2nd prize, V. E. Fuller, Hamilton, "Rose of Eden," 13437.
3rd prize, V. E. Fuller, Hamilton, "Jessie Brown of Maxwell," 7266.

JERSEY OR ALDERNEY COW, 3 YEARS OLD.

PRIZES OFFERED:

First prize, $30. Second prize, $15. Third prize, $10.

1st prize, Samuel Smoke, Canning, —— 29523.
2nd prize, V. E. Fuller, Hamilton, "Lady Vexation," 31122.
3rd prize, Carpenter & Smith, Grimsby, "Miss Stoke Pogis."

JERSEY OR ALDERNEY HEIFER, 2 YEARS OLD.

PRIZES OFFERED:

First prize, $20. Second prize, $12. Third prize, $8.

1st prize, V. E. Fuller, Hamilton, "Brevia," 32890.
2nd prize, Samuel Smoke, Cannington, —— 20755.
3rd prize, Samuel Smoke, Cannington, —— 20740.

JERSEY OR ALDERNEY HEIFER, 1 YEAR OLD.

PRIZES OFFERED:

First prize, $15. Second prize, $10. Third prize, $5.

1st prize, Carpenter & Smith, Grimsby, "Witch's Hugo."
2nd prize, Samuel Smoke, Cannington.
3rd prize, Carpenter & Smith, Grimsby, "Crocus' Hugo."

JERSEY OR ALDERNEY HEIFER CALF, UNDER 1 YEAR.

PRIZES OFFERED:

First prize $12. Second prize, $8. Third prize, $5.

1st prize, V. E. Fuller, Hamilton, "Carin Pogis."
2nd prize, V. E. Fuller, Hamilton, "Violetta Pogis."
2rd prize, Samuel Smoke, Cannington, —— 3680.

JERSEY OR ALDERNEY FEMALE, ANY AGE.

PRIZE OFFERED:

Dominion Silver Medal.

Prize, V. E. Fuller, Hamilton.

DOMINION SPECIAL PRIZE.
HERD OF JERSEY OR ALDERNEY CATTLE, CONSISTING OF 1 BULL AND 4 FEMALES, ANY AGE OR AGES.

PRIZE OFFERED:

Dominion Gold Meda

Prize, V. E. Fuller, Hamilton.

CLASS XVI.

165 Entries.

Holsteins.

Judges.—Dudly Miller, Oswego, N.Y.; Thomas Clarke, Skead's Mills; Robert Scott, Clifford; Robert Currie, Wingham.

Prizes Offered:

First prize, $40. Second Prize, $30. Third prize, $20.

1st prize, E. Macklin & Sons, Fenella.
2nd prize, Wyton Stock Breeders' Association, Wyton, "Sir James of Aagie," 1452.
3rd prize, Lord, Cook & Son, Aultsville, "Lord Byron" (2241); black and white; calved May 19th, 1882; bred by P. W. Broemer, Bossen Triesland; got by Jen, dam Sneeker.

Holstein Bull, 2 Years Old.

Prizes Offered:

First prize, $40. Second prize, $30. Third prize, $20.

1st prize, H. M. Williams, Picton, "Sir Archibald."
2nd prize, John F. Ferguson, Wyoming.

Holstein Bull, 1 Year Old.

Prizes Offered:

First prize, $30. Second prize, $20. Third prize, $10.

1st prize, S. Shunk, jr., Edgely, "Earl Barrington," 2903.
2nd prize, Wyton Stock Breeders' Association, Wyton, "Movie Haltog 3rd," 408.
3rd prize, H. & W. F. Bollert, Cassel, "Barnton" (3237).

Holstein Bull Calf, under 1 Year.

Prizes Offered:

First prize, $15. Second prize, $10. Third prize, $8

1st prize, S. Shunk, jr., Edgely.
2nd prize, H. M. Williams, Picton, "John A."
3rd prize, Hiram C. Ranney, Salford, "Lord Bollert," 67.

Holstein Bull, any Age.

Prize Offered:

Dominion Silver Medal.

Prize, S. Shunk, jr., Edgely.

Holstein Cow.

Prizes Offered:

First prize, $30. Second prize, $15. Third prize, $10.

1st prize, M. Cook & Sons, Aultsville, "Guagartha."
2nd prize, H. M. Williams, Picton, "Glen Burine."
3rd prize, Ed. Macklin & Sons, Fenella.

Holstein Cow, 3 Years Old.

Prizes Offered:

First prize, $30. Second prize, $15. Third prize, $10.

1st prize, Wm. Shunk, Sherwood.
2nd prize, M. Cook & Sons, Aultsville, "Xanthe."
3rd prize, A. C. Hallman & Co., New Dundee, "Lady Rosamond," 2186.

HOLSTEIN HEIFER, 2 YEARS OLD.

PRIZES OFFERED:

First prize, $20. Second prize, $12. Third prize, $8.

1st prize, M. Cook & Sons, Aultsville, "Doralia."
2nd prize, Ed. Macklin & Sons, "Fenella."
3rd prize, S. Shunk, jr., Edgely, "Brema," 6300.

HOLSTEIN HEIFER, 1 YEAR OLD.

PRIZES OFFERED:

First prize, $15. Second prize, $10. Third prize, $5.

1st prize, A. C. Hallman & Co., New Dundee, "Dreamy Eyes."
2nd prize, Wm. Shunk, Sherwood.
3rd prize, A. C. Hallman & Co., New Dundee, "Sara Jane."

HOLSTEIN HEIFER CALF, UNDER 1 YEAR.

PRIZES OFFERED:

First prize, $15. Second prize, $10. Third prize, $5.

1st prize, Hiram C. Ranney, Salford, "Lady Archibald."
2nd prize, S. Shunk, jr., Edgely.
3rd prize, A. C. Hallman & Co., New Dundee, "Waterloo Daisy."

HOLSTEIN FEMALE, ANY AGE.

PRIZE OFFERED:

Dominion Silver Medal.

Prize. M. Cook & Sons, Aultsville.

HERD OF HOLSTEIN CATTLE, CONSISTING OF 1 BULL AND 4 FEMALES, ANY AGE OR AGES.

PRIZE OFFERED:

Dominion Gold Medal.

Prize, H. M. Williams, Picton.

CLASS XVII.

GRADE CATTLE.

46 ENTRIES.

JUDGES.—W. J. Hill, Bracebridge; J. W. Vanduzen, Grimsby; Albert Hagar, Plantagenet.

GRADE COW.

PRIZES OFFERED.

First prize, $20. Second prize, $15. Third prize, $10.

1st prize, H. & I. Groff, Elmira.
2nd prize, J. Fothergill & Sons, Burlington.
3rd prize, H. & I. Groff, Elmira.

GRADE COWS, 3 YEARS.

PRIZES OFFERED:

First prize, $20. Second prize, $15. Third prize, $10.

1st prize, H. & I. Groff, Elmira.
2nd prize, H. & I. Groff, Elmira.
3rd prize, H. L. Ross, Georgetown.

GRADE HEIFER, 2 YEARS.

PRIZES OFFERED:

First prize, $15. Second prize, $10. Third prize, $5.

1st prize, John Kelly, jr., Shakspeare.
2nd prize, H. & I. Groff, Elmira.
3rd prize, H. & I. Groff, Elmira.

GRADE HEIFER, ONE YEAR OLD.

PRIZES OFFERED:

First prize, $12. Second prize, $8. Third prize, $4.

1st prize, Jas. Oke, Alvinston.
2nd prize, H. & I. Groff, Elmira.
3rd prize, H. & I. Groff, Elmira.

GRADE HEIFER CALF, UNDER 1 YEAR.

PRIZES OFFERED:

First prize, $10. Second prize, $6. Third prize, $4.

1st prize, John Campbell, jr., Woodville.
2nd prize, Jas. Oke, Alvinston.
3rd prize, J. Fothergill & Sons, Burlington.

FOUR GRADE FEMALES, ANY AGE.

PRIZE OFFERED:

Dominion Silver Medal.

Prize, H. & I. Groff, Elmira.

EMPIRE HORSE & CATTLE FOOD CO. BEST GRADE ANIMAL ON GROUND.

PRIZE OFFERED:

First prize, $10.

1st prize, H. & I. Groff, Elmira.

CLASS 17½.

DOMINION SPECIAL PRIZES FOR MILCH COWS.

20 ENTRIES.

JUDGES.—Prof. Brown, Prof. Barré, Ontario School of Agriculture.

AYRSHIRE MILCH COW, HAVING CALVED PREVIOUS TO 1ST JULY, 1885.

PRIZES OFFERED:

First prize, $20. Second prize, $10.

First, Geo. Hill, Delaware, "Louise."
Second, Thos. Guy, Oshawa, "Rosette."

JERSEY MILCH COW, HAVING CALVED PREVIOUS TO 1ST JULY, 1885.

PRIZES OFFERED:

First prize, $20. Second prize, $10.

First, Valencey E. Fuller, Hamilton, "Rose of Eden."
Second, Valencey E. Fuller, "Belle of Glengairn."

HOLSTEIN MILCH COW, HAVING CALVED PREVIOUS TO 1ST OF JULY, 1885.

PRIZES OFFERED:

First prize, $20. Second prize, $10.

First, H. M. Williams, Picton, "Nixie L."
Second, M. Cook & Sons, Aultsville, "Jenny Lord."

GRADE COW, HAVING CALVED PREVIOUS TO 1ST OF JULY, 1885.

PRIZES OFFERED:

First prize, $20. Second prize, $10.

First, Wm. Patrick, Ilderton, "Rosie."
Second, Wm. Patrick, Ilderton, "Queen of the West."

EMPIRE HORSE AND CATTLE FOOD CO. OF MITCHELL. FOR BEST MILCH COW, EITHER JERSEY OR AYRSHIRE, HAVING CALVED PREVIOUS TO 1ST OF JULY, 1885.

PRIZE $10.

Prize, Valencey E. Fuller, Hamilton, "Rose of Eden."

Having no report of these tests from Professors Brown and Barre, but the Table of Milk, Butter and Cheese points, scored by the cows in contest, and the different breeds, I cannot give the results of the experiments very satisfactorily. The Professors have not furnished me with any official table of the percentages of cream, so I copy the first table from the *Farmers' Advocate* of October, 1885:—

"The cows tested were all on the show grounds, and the conditions of the tests were all alike, except that the owners fed their cows according to their own individual judgment.

TABLE No. 1.—SHOWING THE PERCENTAGES OF CREAM.

HOLSTEINS.

Test No. 1	8.2	12.0	14.8	16.0	13.0	12.8	16.0	9.8
Test No. 2	10.8	14.0	15.9	14.1	14.3	12.9	18.0	11.5

AYRSHIRES.

Test No. 1	15.2	8.4	14.8
Test No. 2	21.6	9.8	17.4

JERSEYS.

Test No. 1	12.8	24.0
Test No. 2	23.2	25.0

SHORTHORN GRADE.

Test No. 1	12.4	17.3
Teft No. 2	14.3	13.0

It will be seen from the above figures that there were in the competition eight Holsteins, three Ayrshires, two Jerseys, and two Shorthorn Grades. The two tests were made on separate consecutive days, and the milk stood twelve hours at each test in deep tubes set in ice water at 40° Fahr. The percentages of cream are by measure, not by weight. The figures in both tests are placed in the same order, so that in each case the figures in No. 2, placed under those of No. 1, represent the same cow. It will be seen that no cow stands two tests alike, and the difference in the individual is sometimes greater than the difference in the breed. This may be partly accounted for in the difference of temperature, the day on which the first test took place having been cold and wet, while the succeeding day was fine. The variation in the quality of the food, and in the worry incident to the journeys, have also had considerable influence.

The same cows were further tested with regard to their respective butter producing capacities, the results being shown in the following tables:—

TABLE NO. II.—SHEWING THE MILK, BUTTER AND CHEESE POINTS SCORED BY THE TESTED COWS AND BREEDS.

Breeds and Breeders.	Name of Cow.	Age.	Milk in 24 Hours.	Time since Calving.	Per cent. of Butter.	Per cent. of Curd, per 100 lbs.	Total Points.	Prize.
Holsteins:			Lbs.	Days.				
H. M. Williams	Lorena	2 years	26.00	75	2.86	13.12	40.22	
Wyton Br. Association	Lepolka	3 years	23.60	109	2.65	20.00	48.00	
H. M. Williams	Dennise	3 years	30.90	133	2.37	19.37	51.97	
E. Macklin & Son	Sunnyside	2 years	26.25	83	3.62	16.87	52.62	
J. T. Ferguson	Aggie Bell	5 years	37.60	113	2.75	11.25	52.65	
Wyton Br. Association	Aagie Ida	4 years	35.00	116	2.81	15.60	55.30	
H. M. Williams	Nexie L.	6 years	25.37	207	3.36	19.62	64.29	First prize.
M. Cook & Son	Jenny Lord	7 years	28.80	153	3.31	16.07	59.07	Second prize.
Averages			29.19	124	2.97	16.59	53.02	
Ayrshires:								
A. Nankin	Lady Bell	3 years	25.90	79	2.75	23.12	49.42	
Geo. Hill	Louise	5 years	29.50	138	5.43	21.25	83.85	First prize.
T. Guy	Rosette	6 years	18.12	161	4.53	23.75	68.27	Second prize.
Averages			24.51	126	4.24	22.71	67.18	
Jerseys:								
V. E. Fuller	Rose of Eden	6 years	24.12	114	8.81	20.60	109.22	First prize.
V. E. Fuller	Belle of Glengairn	5 years	27.00	86	5.75	20.00	78.10	Second prize.
Averages			25.56	100	7.28	20.30	93.66	
S. H. Grades:								
W. Patrick	Rosie	7 years	46.80	129	3.60	20.62	81.52	First prize.
W. Patrick	Queen of the West	6 years	24.25	145	3.12	20.62	55.57	Second prize.
Averages			35.53	137	3.36	20.62	68.55	

(Signed,) WM. BROWN, S. M. BARRE, } Judges.

The standard of the scale of points was adopted from the Edinburgh show and follows closely that adopted by the British Dairy Farmers' Association. It will be seen from the above tables that the Jerseys score the highest, Short Horn grades second, Ayrshires third, and Holsteins have not maintained the reputation gained by them.

CLASS XVIII.

9 Entries.

Judges.—W. I. Hill, Bracebridge; J. W. Vanduzen, Grimsby; Albert Hager, M.P.P., Plantagenet.

Fat and Working Cattle, any Breed.

Fat Steer, Under 4 Years.

Prizes Offered:

First prize, $30. Second prize, $20. Third prize, $10.

1st prize, H. & I. Groff, Elmira.
2nd prize, Walter West, Guelph.
3rd prize, John Kelly, jr., Shakespeare.

FAT COW, 3 YEARS OLD AND OVER, ANY BREED.

PRIZES OFFERED:

First prize, $20. Second prize, $10. Third prize, $5.

1st prize, H. & I. Groff, Elmira.
2nd prize, Mossom, Boyd, & Co., Bobcaygeon.
3rd prize, H. & I. Groff, Elmira.

YOKE OF WORKING OXEN.

PRIZES OFFERED:

First prize, $25. Second prize, $15. Third prize, $10.

1st prize, John Nixon, London.

SHEEP—LONG WOOLLED.

CLASS XIX.

65 ENTRIES.

COTSWOLDS.

JUDGES.—John Ross, Cookstown; Wm. Nugent, Newburgh; John J. Anderson, Dominionville.

Best Ram, 2 shears and over,	Wm. Jackson, Pond Mills		$20 00
2nd do	Wm. G. Laidlaw, Wilton Grove		15 00
3rd do	Wm. Main, Boyne		10 00
Best shearling ram,	Wm. Main, Boyne		20 00
2nd do	do do		15 00
3rd do	Wm. Jackson, Pond Mills		10 00
Best ram lamb,	Wm. Main, Boyne		15 00
2nd do	Wm. Main, Boyne		10 00
3rd do	Wm. Main, Boyne		5 00
Best ewe, 2 shears and over,	Wm. Main, Boyne		12 00
2nd do	do	Wm. Main, Boyne	8 00
3rd do	do	Wm. Main, Boyne	4 00
Best shearling ewe,	Wm. Main, Boyne		12 00
2nd do	Wm. Main, Boyne		8 00
3rd do	Wm. Main, Boyne		4 00
Best ewe lamb,	Wm. Main, Boyne		10 00
2nd do	Wm. Main, Boyne		6 00
3rd do	Wm. Main, Boyne		4 00

DOMINION SPECIAL PRIZE.

Best pen of Cotswolds—1 ram, any age, 2 ewes, 2 shears and over, 2 shearling ewes, and 2 ewe lambs, Wm. Main, Boyne 25 00

DOMINION SPECIAL PRIZE.

Best pen of Cotswolds—1 ram any age, 2 ewes, 2 shears and over, 2 shearling ewes, and 2 ewe lambs, (Canadian bred), Wm. Main, Boyne 25 00

CLASS XX.

75 ENTRIES.

LEICESTERS.

JUDGES.—John Cook, Lansdowne; Henry H. Julien, Oxley; Alex. Jeffrey, Whitby.

Best ram, 2 shears and over,	Wm. Somers, St. Mary's		$20 00
2nd do	Humphrey Snell & Sons, Clinton		15 00
3rd do	Thos. Evans & Bros., Hespeler		10 00

Best shearling ram,		John Kelly, jr., Shakespeare	20 00
2nd	do	Wm. Somers, St. Mary's	15 00
3rd	do	John Kelly, jr., Shakespeare	10 00
Best ram lamb,		John Kelly, jr., Shakespeare	15 00
2nd	do	Wm. Somers, St. Mary's	12 00
3rd	do	Wm. Somers, St. Mary's	8 00
Best ewe, 2 shears and over,		John Kelly, jr., Shakespeare	12 00
2nd	do	Wm. Somers, St. Mary's	8 00
3rd	do	H. Snell & Sons, Clinton	4 00
Best shearling ewe.		John Kelly, jr., Shakespeare	12 00
2nd	do	John Kelly, jr., Shakespeare	8 00
3rd	do	John Kelly, jr., Shakespeare	4 00
Best ewe lamb,		John Kelly, jr., Shakespeare	10 00
2nd	do	David Beattie, Wilton Grove	6 00
3rd	do	Thos Evans & Bros., Hespeler	4 00

DOMINION SPECIAL PRIZE.

Best pen of Leicesters—1 ram any age, 2 ewes, 2 shears and over, 2 shearling ewes, and 2 ewe lambs, John Kelly, jr., Shakespeare 25 00

DOMINION SPECIAL PRIZE.

Best pen of Leicesters—1 ram any age, 2 ewes, 2 shears and over, 2 shearling ewes and 2 ewe lambs, (Canadian bred), John Kelly, jr., Shakespeare 25 00

CLASS XXI.

87 ENTRIES.

LINCOLN SHEEP.

JUDGES.—Jas. Haggerty, West Huntingdon; H. Wilmot, M.P.P., Kingston; David Armstrong, Annan.

Best ram, 2 shears and over,		Jas. Murray, Clanbrassil	$20 00
2nd	do	Wm. Oliver, Avonbank	10 00
3rd	do	C. J. Campbell, Mayfair	5 00
Best shearling ram,		Earnest Parkinson, Eramosa	20 00
2nd	do	Earnest Parkinson, Eramosa	10 00
3rd	do	Earnest Parkinson, Eramosa	5 00
Best ram lamb,		Wm. Walker, Ilderton	15 00
2nd	do	Wm. Oliver, Avonbank	10 00
3rd	do	Wm. Walker, Ilderton	5 00
Best ewe, 2 shears and over,		Jas. Murray, Clanbrassil	12 00
2nd	do	Jas. Murray, Clanbrassil	8 00
3rd	do	Wm. Walker, Ilderton	4 00
Best shearling ewe,		Jas. Murray, Clanbrassil	12 00
2nd	do	Wm. Oliver, Avonbank	8 00
3rd	do	Jas. Murray, Clanbrassil	4 00
Best ewe lamb,		Wm. Walker, Ilderton	10 00
2nd	do	Wm. Walker, Ilderton	6 00
3rd	do	Jas. Murray, Clanbrassil	4 00

DOMINION SPECIAL PRIZE.

Best pen of Lincolns—1 ram any age, 2 ewes, 2 shears and over, 2 shearling ewes, and 2 ewe lambs, Jas. Murray, Clanbrassil 25 00

DOMINION SPECIAL PRIZE.

Best pen of Lincolns—1 ram any age, 2 ewes, 2 shears and over, 2 shearling ewes, and 2 ewe lambs, (Canadian bred), Jas. Murray, Clanbrassil 25

SHEEP—MEDIUM WOOLLED.

CLASS XXII.

106 Entries.

Southdowns.

Judges.—E. C. Carpenter, Simcoe; Thos. Russell, Charing Cross; Abraham VanAllen, Morrisburg.

Best ram, 2 shears and over,	John Jackson, Abingdon		$20 00
2nd do	John Jackson, Abingdon		10 00
3rd do	E. & A. Stanford, Markham		5 00
Best shearling,	Robert Marsh, Richmond Hill		20 00
2nd do	E. & A. Stanford, Markham		10 00
3rd do	E. & A. Stanford, Markham		5 00
Best ram lamb,	John Jackson, Abingdon		12 00
2nd do	Robert Marsh, Richmond Hill		8 00
3rd do	E. & A. Stanford, Markham		4 00
Best ewe, 2 shears and over,	John Jackson, Abingdon		12 00
2nd do	John Jackson, Abingdon		8 00
3rd do	E. & A. Stanford, Markham		4 00
Best shearling ewe,	John Jackson, Abingdon		12 00
2nd do	E. & A. Stanford, Markham		8 00
3rd do	John Jackson, Abingdon		4 00
Best ewe lamb,	John Jackson, Abingdon		10 00
2nd do	E. & A. Stanford, Markham		6 00
3rd do	David Beattie, Wilton Grove		4 00

Dominion Special Prize.

Best pen of Southdowns—1 ram any age, 2 ewes, 2 shears and over, 2 shearling ewes, and 2 ewe lambs, John Jackson, Abingdon 25 00

Highly Commended.

E. & A. Stanford, Markham.

Dominion Special Prize.

Best pen of Southdowns—1 ram any age, 2 ewes, 2 shears and over, 2 shearling ewes, and 2 ewe lambs (Canadian Bred), John Jackson, Abingdon 25 00

Highly Commended.

Robert Marsh, Richmond Hill.

CLASS XXIII.

138 Entries.

Shropshire Downs.

Judges.—Joseph Salkeld, Stratford; Hubert Kerr, Ottawa; P. R. Daly, Belleville.

Best ram, 2 shears and over,	John Campbell, jr., Woodville		$20 00
2nd do	D. Grant & Sons, Woodville		10 00
3rd do	Wm. H. Beattie, Wilton Grove		5 00
Best shearling ram,	Simon Beattie, Markham		20 00
2nd do	John Miller & Sons, Brougham		10 00
3rd do	Simon Beattie, Markham		5 00
Best ram lamb,	J. Campbell, jr., Woodville		15 00
2nd do	Simon Beattie, Markham		10 00
3rd do	J. Campbell, jr., Woodville		5 00
Best ewe, 2 shears and over,	John Dryden, Brooklin		12 00
2nd do	John Dryden, Brooklin		8 00
3rd do	J. Campbell, jr., Woodville		4 00
Best shearling ewe,	J. Campbell, jr., Woodville		12 00
2nd do	John Dryden, Brooklin		8 00
3rd do	D. Grant & Sons, Woodville		4 00
Best ewe lamb,	John Dryden, Brooklin		10 00
2nd do	J. Campbell, jr., Woodville		6 00
3rd do	J. Campbell, jr., Woodville		4 00

DOMINION SPECIAL PRIZE.

Best pen of Shropshires—1 ram any age, 2 ewes, 2 shears and over, 3 shearling ewes, and 2 ewe lambs, John Dryden, Brooklin 25 00

DOMINION SPECIAL PRIZE.

Best pen of Shropshires—1 ram any age, 2 ewes, 2 shears and over, 2 shearling ewes, and 2 ewe lambs (Canadian bred), J. Campbell, jr., Woodville 25 00

CLASS XXIV.

42 ENTRIES.

HAMPSHIRE AND OXFORDSHIRE DOWNS.

JUDGES.—T. H. Price, Welland; John Buchanan, Branchton; Simon Lemon, Kettleby.

Best ram, 2 shears and over, Peter Arkell, Teeswater		$20 00
2nd	do Smith Evans, Gourock	10 00
Best shearing ram, Peter Arkell, Teeswater		20 00
2nd	do Peter Arkell, Teeswater	10 00
Best ram lamb, Peter Arkell, Teeswater		15 00
2nd	do Peter Arkell, Teeswater	10 00
Best ewe, 2 shears and over, Peter Arkell, Teeswater		12 00
2nd	do Smith Evans, Gourock	8 00
Best shearling ewe, Peter Arkell, Teeswater		12 00
2nd	do Smith Evans, Gourock	8 00
Best ewe lamb, Peter Arkell, Teeswater		10 00
2nd	do Peter Arkell, Teeswater	6 00

DOMINION SPECIAL PRIZE.

Best pen of Hampshire and Oxford Downs—1 ram, 2 ewes, 2 shears and over, 2 shearling ewes, and 2 ewe lambs, Peter Arkell, Teeswater 25 00

DOMINION SPECIAL PRIZE.

Best pen of Hampshire and Oxford Downs—1 ram, 2 ewes, 2 shears and over, 2 shearling ewes, and 2 ewe lambs (Canadian bred), Peter Arkell, Teeswater 25 00

CLASS XXV.

51 ENTRIES.

MERINO SHEEP.

JUDGES.—T. H. Price, Welland; John Buchanan, Branchton; Simon Lemon, Kettleby.

Best ram, 2 shears and over, W. M. & J. C. Smith, Fairfield Plains		$15 00
2nd	do W. M. & J. C. Smith, Fairfield Plains	10 00
3rd	do W. M. & J. C. Smith, Fairfield Plains	5 00
Best Shearling ram, Rock Bailey, Union		15 00
2nd	do Rock Bailey, Union	10 00
3rd	do Rock Bailey, Union	5 00
Best ram lamb, W. M. & J. C. Smith, Fairfield Plains		8 00
2nd	do W. M. & J. C. Smith, Fairfield Plains	6 00
3rd	do Rock Bailey, Union	4 00
Best ewe, 2 shears and over, W. M. & J. C. Smith, Fairfield Plains		8 00
2nd	do Rock Bailey, Union	6 00
3rd	do Rock Bailey, Union	4 00
Best shearing ewe, Rock Bailey, Union		8 00
2nd	do W. M. & J. C. Smith, Fairfield Plains	6 00
3rd	do Rock Bailey, Union	4 00
Best ewe lamb, Rock Bailey, Union		6 00
2nd	do W. M. & J. C. Smith, Fairfield Plains	4 00
3rd	do W. M. & J. C. Smith, Fairfield Plains	2 00

SPECIAL PRIZE.

Best pen of Merinos—1 ram any age, 2 ewes, 2 shears and over, 2 shearling ewes, and 2 ewe lambs, Rock Bailey, Union $25 00

CLASS 25½.

FAT SHEEP.

28 ENTRIES.

JUDGES.—W. J. Hill, Bracebridge; J. N. Vanduzen, Grimsby; Albert Hagar, M.P.P., Plantagenet.

Best two fat wethers, 2 shears and over,			John Rutherford, Roseville	$12 00
2nd	do	do	John Rutherford, Roseville	8 00
3rd	do	do	Jas. Glennie, Guelph	6 00
Best two fat wethers, under 2 shears,			E. & A. Stanford, Markham	12 00
2nd	do	do	John Rutherford, Roseville	8 00
3rd	do	do	John Rutherford, Roseville	6 00
Best two fat ewes, 2 shears and over,			John Rutherford, Roseville	12 00
2nd	do	do	John Rutherford, Roseville	8 00
3rd	do	do	Wm. Walker, Ilderton	6 00

Highly Commended.

E. & A. Stanford, Markham.

PIGS—SMALL BREEDS.

CLASS XXVI.

103 ENTRIES.

IMPROVED BERKSHIRE.

JUDGES.—Geo. W. Fitzgerald, Lakefield; Alex McIntyre, Boston; Malcolm McArthur, Lobo.

Best boar, over 2 years,			J. G. Snell & Bro., Edmonton	$20 00
2nd	do		C. M. Simmons & Quirie, Ivan	10 00
3rd	do		Geo. Green, Fairview	5 00
Best boar, over 1 year and under 2 years,			J. G. Snell & Bro., Edmonton	20 00
2nd	do	do	Geo. Green, Fairview	10 00
3rd	do	do	J. G. Snell & Bro., Edmonton	5 00
Best boar, over 6 months and under 12 months,			C. M. Simmons & Quirie, Ivan	20 00
2nd	do	do	J. G. Snell & Bro., Edmonton	10 00
3rd	do	do	J. Hemer & C. Jordon, Guelph	5 00
Best boar, under 6 months,			J. G. Snell & Bro., Edmonton	12 00
2nd	do		Geo. Green, Fairview	8 00
3rd	do		J. G. Snell & Bro., Edmonton	4 00
Best boar, any age,			C. M. Simmons & Quirie, Ivan	Dominion Silver Medal
Best sow, over 2 years,			J. G. Snell & Bro., Edmonton	$20 00
2nd	do		Geo. Green, Fairview	10 00
3rd	do		J. G. Snell & Bro., Edmonton	5 00
Best sow, over 1 year and under 2 years,			J. G. Snell & Bro., Edmonton	20 00
2nd	do	do	J. G. Snell & Bro., Edmonton	10 00
3rd	do	do	Geo. Green, Fairview	5 00
Best sow, over 6 months and under 12 months,			J. G. Snell & Bro., Edmonton	20 00
2nd	do	do	J. G. Snell & Bro., Edmonton	10 00
3rd	do	do	C. M. Simmons & Quirie, Ivan	5 00
Best sow, under 6 months,			J. G. Snell & Bro., Edmonton	12 00
2nd	do		Geo. Green, Fairview	8 00
3rd	do		C. M. Simmons & Quirie, Ivan	4 00
Best sow, any age,			J. G. Snell & Bro., Edmonton	Dominion Silver Medal

SPECIAL PRIZE.

Best Berkshire boar and 3 sows of any age, J. G. Snell & Bro., Edmonton $25 00

SPECIAL PRIZE.

Best Berkshire boar and 3 sows of any age (Canadian bred), J. G. Snell & Bro., Edmonton 25 00

CLASS XXVII.

164 ENTRIES.

SUFFOLK.

JUDGES.—John Prain, Harriston; Thos. Kells, Vandeleur, Hugh Crawford, Canboro'.

Best boar, over 2 years,	A. Frank & Son, The Grange	20 00
2nd do	F. Kingsmill, London	10 00
3rd do	J. Featherston, Credit	5 00
Best boar, over 1 year and under 2,	W. & S. McClure, Elder's Mills	20 00
2nd do do	F. Kingsmill, London	10 00
3rd do do	J. Featherston, Credit	5 00
Best boar, over 6 months and under 12,	Malcolm McArthur, Lobo	20 00
2nd do do	Robt. Dorsey & Son, Summerville	10 00
3rd do do	J. Featherston, Credit	5 00
Best boar, under 6 months,	H. George & Son, Crampton	12 00
2nd do	W. & S. McClure, Elder's Mills	8 00
3rd do	W. & S. McClure, Elder's Mills	4 00
Best boar, any age,	Malcolm McArthur, Lobo	Dominion Silver Medal
Sow, over 2 years,	W. S. McClure, Elder's Mills	$20 00
2nd do	A. Frank & Son, The Grange	10 00
3rd do	A. Frank & Son, The Grange	5 00
Best sow, over 1 year and under 2 years,	A. Frank & Son, The Grange	20 00
2nd do do	W. S. McClure, Elder's Mills	10 00
3rd do do	W. S. McClure, Elder's Mills	5 00
Best sow, over 6 months and under 12 months,	Robt. Dorsey & Son, Summerville	20 00
2nd do do	J. Featherston, Credit	10 00
3rd do do	W. S. McClure, Elder's Mills	5 00
Best sow, under 6 months,	H. George & Sons, Crampton	12 00
2nd do	H. George & Sons, Crampton	8 00
3rd do	W. S. McClure, Elder's Mills	4 00
Best sow, any age,	W. S. McClure, Elder's Mills	Dominion Silver Meda

SPECIAL PRIZE.

Best Suffolk boar and 3 sows of any age, W. S. McClure, Elder's Mills $25 00

SPECIAL PRIZE.

Best Suffolk boar and 3 sows of any age (Canadian bred), Jos. Featherston, Credit 25 00

CLASS XXVIII.

POLAND CHINA.

46 ENTRIES.

JUDGES.—Jos. Featherston, Credit; John Forth, Glen Buell; G. J. Morgan, Osnabrook Centre.

Best boar, over 2 years,	T. G. Nankin, Merivale	15 00
Best boar, over 1 and under 2 years,	A. H. White, Larwell	15 00
2nd do do	Robt. Dorsey & Son, Summerville	10 00
Best boar, over 6 months and under 12,	Robt. Dorsey & Son, Summerville	15 00
2nd do do	W. M. & J. C. Smith, Fairfield Plains	10 00
Best boar, under 6 months,	Robt. Dorsey & Son, Summerville	12 00
2nd do do	A. H. White, Larwell	8 00
Best boar, any age,	A. H. White, Larwell	Dominion Silver Medal
Best sow, over 2 years,	A. H. White, Larwell	$15 00

2nd, sow, over 2 years, Robt. Dorsey & Son, Summerville $10 00
Best sow, over 1 and under 2 years, W. M. & J. C. Smith, Fairfield Plains 15 00
2nd do do Robt. Dorsey & Son, Summerville 10 00
Best sow, over 6 months and under 12, T. G. Nankin, Merivale 15 00
2nd do do W. M. & J. C. Smith, Fairfield Plains 10 00
Best sow, under 6 months, A. H. White, Larwell 12 00
2nd do Robt. Dorsey & Son, Summerville 8 00
Best sow, any age, W. M. & J. C. Smith, Fairfield Plains ..... Dominion Silver Medal

SPECIAL PRIZE.

Best boar and 3 Poland China sows, any age, W. M. & J. C. Smith, Fairfield Plains $25 00

Highly Commended.

A. H. White, Larwell.

CLASS XXIX.

ESSEX PIGS.

28 ENTRIES.

JUDGES.—George Leak, Woodslee; Charles Brampfylde, Hamilton.

Best boar, over 2 years, J. Featherston, Credit 15 00
2nd do J. Featherston, Credit 10 00
Best boar, over 1 year and under 2, J. Featherston, Credit 15 00
2nd do do J. Featherston, Credit 10 00
Best boar, over 5 months and under 12, J. Featherston, Credit 15 00
2nd do do J. Featherston, Credit 10 00
Best boar, under 6 months, J. Featherston, Credit 12 00
2nd do J. Featherston, Credit 8 00
Best boar, any age, J. Featherston, Credit ..... Dominion Silver Medal
Best sow, over 2 years, J. Featherston, Credit $15 00
2nd do J. Featherston, Credit 10 00
Best sow, over 1 year and under 2, J. Featherston, Credit 15 00
2nd do do J. Featherston, Credit 10 00
Best sow, over 6 months and under 12, J. Featherston, Credit 15 00
2nd do do J. Featherston, Credit 10 00
Best sow, under 6 months, J. Featherston, Credit 12 00
2nd do J. Featherston, Credit 8 00
Best sow, any age, J. Featherston, Credit ..... Dominion Silver Medal

SPECIAL PRIZE.

Best Essex boar and 3 sows, any age, J. Featherston, Credit $25 00

PIGS—LARGE BREEDS.

CLASS XXX.

60 ENTRIES.

YORKSHIRE, CHESTER WHITES, OHIO IMP. CHESTER, WHITE LANCASHIRE, AND OTHER LARGE BREEDS.

JUDGES.—Geo. Leak, Woodslee; Charles Brampfylde, Hamilton.

Best boar, over 2 years, John Hord & Son, Park Hill $15 00
2nd do J. Featherston, Credit 10 00
Best boar, over 1 year and under 2, T. G. Nankin, Merrivale 15 00
2nd do do J. Featherston, Credit 10 00
Best boar, over 6 months and under 12, J. Featherston, Credit 15 00
2nd do do J. Hemer & Chas. Jordon, Guelph 10 00
3rd do do John Hord & Son, Park Hill 5 00

Best boar, under 6 months,	W. S. McClure, Elder's Mills	$10 00
2nd do	J. Hemer & C. Jordon, Guelph	6 00
3rd do	John Hord & Son, Park Hill	4 00
Best boar, any age,	John Hord & Son, Park Hill	Dominion Silver Medal
Best sow, over 2 years,	T. G. Nankin, Merivale	$15 00
2nd do	J. Featherston, Credit	10 00
3rd do	Ed. Kendrew, Pond Mills	5 00
Best sow, over 1 year and under 2,	T. G. Nankin, Merivale	15 00
2nd do do	J. Featherston, Credit	10 00
3rd do do	John Hord & Son, Park Hill	5 00
Best sow, over 6 months and under 12,	J. Featherston, Credit	15 00
2nd do do	Chas. B. Stewart, Pond Mills	10 00
3rd do do	T. G. Nankin, Merivale	5 00
Best sow, under 6 months,	J. Hemer & C. Jordon, Guelph	10 00
2nd do	W. S. McClure, Elder's Mills	6 00
3rd do	J. Featherston, Credit	4 00
Best sow, any age,	T. G. Nankin, Merivale	Dominion Silver Medal

SPECIAL PRIZE.

Best Yorkshire or other large breed boar and three sows, any age,	T. G. Nankin, Merivale	$25 00

CLASS XXXI.

266 ENTRIES.

POULTRY, ETC.

JUDGES.—Eli Griffith, London; W. H. Doel, Doncaster; G. J. Miller, Virgil; Thos. Puzey, Simcoe.

Best pair Dorkings, white,	A. & D. Bogue, London	$3 00
2nd do	A. & D. Bogue, London	2 00
3rd do	Wm. McLeod, Lucan	1 00
Best pair Dorkings, silver grey,	A. & D. Bogue, London	3 00
2nd do	A. & D. Bogue, London	2 00
Best pair Dorkings, colored,	A. & D. Bogue, London	3 00
2nd do	A. & D. Bogue, London	2 00
3rd do	Wm. McLeod, Lucan	1 00
Best pair Polands, white,	A. & D. Bogue, London	3 00
2nd do	A. & D. Bogue, London	2 00
3rd do	A. & D. Bogue, London	1 00
Best pair Polands, golden, unbearded,	James F. Williams, London	3 00
2nd do do	James F. Williams, London	2 00
3rd do do	W. M. & J. C. Smith, Fairfield Plains	1 00
Best pair Polands, golden bearded,	A. & D. Bogue, London	3 00
2nd do do	A. & D. Bogue, London	2 00
3rd do do	Saml. K. Stewart, London	1 00
Best pair Polands, silver, bearded,	A. & D. Bogue, London	3 00
2nd do do	A. & D. Bogue, London	2 00
3rd do do	James F. Williams, London	1 00
Best pair Polands, white-crested, black,	A. & D. Bogue, London	3 00
2nd do do	A. & D. Bogue, London	2 00
3rd do do	Richard Oke, London	1 00
Best pair Plymouth Rock,	W. R. Garner & Bro., London	3 00
2 d do	W. H. Crame, St. Catharine's	2 00
3rd do	James F. Williams, London	1 00
Best pair Brahmas, light,	F. Nixon, Ingersoll	3 00
2nd do	J. H. Saunders, London	2 00
3rd do	J. H. Saunders, London	1 00
Best pair Brahmas, dark,	F. Nixon, Ingersoll	3 00
2nd do	Keiley Bros., London	2 00
3rd do	H. R. K. Tozen, London West	1 00
Best pair Cochins, buff,	J. Hemer & C. Jordon, Guelph	3 00
2nd do	Wm. McLeod, Lucan	2 00
3rd do	W. H. F. Bartlett, London	1 00
Best pair Cochins, white,	Chas. M. Forbes, Stratford	3 00
Best pair Cochins, black,	H. G. W. Hay, Woodstock	3 00
2nd do	J. H. Saunders, London	2 00
3rd do	E Herbert Parich, London	1 00
Best pair Cochins, partridge,	A. & D. Bogue, London	3 00
2nd do	J. H. Saunders, London	2 00
3rd do	Wm. McLeod, Lucan	1 00

Best pair Houdans,	A. & D. Bogue, London	$ 3 00
2nd do	A. & D. Bogue, London	2 00
3rd do	Geo. Bentley, Kirkleen	1 00
Best pair Langshans,	W. H. Crame, St. Catharine's	3 00
2nd do	Bert Harding, London	2 00
Best pair Wyandottes,	W. H. Crame, St. Catharine's	3 00
2nd do	A. Flawn, London	2 00
Best pair Game fowls, black-breasted or other reds,	Wm. McLeod, Lucan	3 00
2nd do do do	Walter Cousins, London South	2 00
3rd do do do	E. Tolhurst, London West	1 00
Best pair Game fowls, duck-wing,	Daniel McGraac, Burford	3 00
2nd do	Keily Bros., London	2 00
3rd do	Keiley Bros., London	1 00
Best pair Game fowls, pile,	W. M. & J. C. Smith, Fairfield Plains	3 00
2nd do	Keiley Bros., London	2 00
Best pair Game fowls, any other variety,	Keiley Bros., London	3 00
2nd do do	Wm. McLeod, Lucan	2 00
Best pair Leghorns, white,	Wm. Moore, London	3 00
2nd do	Whiting & Hamell, St. Catharine's	2 00
3rd do	F. Nixon, Ingersoll	1 00
Best pair Leghorns, brown,	Whiting & Hamel, St. Catharine's	3 00
2nd do	Wm. Moore, London	2 00
3rd do	Henry Goddard, Listowel	1 00
Best pair Spanish fowls,	Geo. P. Bartlett, London	3 00
2nd do	G. Bogue Smart, Brockville	2 00
3rd do	Geo. P. Bartlett, London	1 00
Best pair Hamburgs, golden-pencilled,	H. R. K. Tozen, London West	3 00
2nd do do	H. R. K. Tozen, London West	2 00
Best pair Hamburgs, silver-pencilled,	A. & D. Bogue, London	3 00
2nd do do	A. & D. Bogue, London	2 00
3rd do do	H. R. K. Tozen, London West	1 00
Best pair Hamburgs, golden-spangled,	Saml. K. Stewart, London	3 00
2nd do do	H. R. K. Tozen, London West	2 00
3rd do do	A. & D. Bogue, London	1 00
Best pair Hamburgs, silver-spangled,	A. & D. Bogue, London	3 00
2nd do do	A. & D. Bogue, London	2 00
3rd do do	Richard Oke, London	1 00
Best pair Hamburgs, black,	Thorpe & Scott, London	3 00
2nd do	Richard Oke, London	2 00
3rd do	H. R. K. Tozen, London West	1 00
Best pair Crevecours,	W. M. & J. C. Smith, Fairfield Plains	3 00
2nd do	W. M. & J. C. Smith, Fairfield Plains	2 00
Best pair Bantams, Sebright, golden,	Saml. K. Stewart, London	3 00
2nd do	Richard Oke, London	2 00
3rd do	J. & G. W. Hay, Woodstock	1 00
Best pair Bantams, Sebright, silver,	Richard Oke, London	3 00
2nd do	Geo. W. Winterbottom, London	2 00
3rd do	Richard Oke, London	1 00
Best pair Bantams, black-breasted or other reds,	Geo. W. Winterbottom, London	3 00
Best pair Bantams, pile,	W. H. Crame, St. Catharine's	3 00
2nd do	G. W. Winterbottom, London	2 00
3rd do	G. W. Winterbottom, London	1 00
Best pair of Bantams, duck-wing game,	W. H. Crame, St. Catharine's	3 00
2nd do do	J. & G. W. Hay, Woodstock	2 00
3rd do do	W. M. & J. C. Smith, Fairfield Plains	1 00
Best pair Bantams, Japanese,	Richard Oke, London	3 00
2nd do	Richard Oke, London	2 00
3rd do	Richard Oke, London	1 00
Best pair Bantams, black, African,	Richard Oke, London	3 00
2nd do do	Geo. W. Winterbottom, London	2 00
3rd do do	Richard Oke, London	1 00
Best pair Turkeys, any color,	P. C. Lewis, London	3 00
2nd do	W. M. & J. Smith, Fairffeld Plains	2 00
3rd do	Geo. Bentley, Kirkton	1 00
Best pair Turkeys, white,	W. M. & J. C. Smith, Fairfield Plains	3 00
2nd do	W. M. & J. C. Smith, Fairfield Plains	2 00
Best pair Turkeys, wild,	W. M. & J. C. Smith, Fairfield Plains	3 00
Best pair Turkeys, bronze,	Wm. Main, Boyne	3 00
2nd do	Wm. Main, Boyne	2 00
3rd do	W. M. & J. C. Smith, Fairfield Plains	1 00
Best pair Geese, Bremen,	Wm. Main, Boyne	3 00
2nd do	W. M. & J. C. Smith, Fairfield Plains	2 00
3rd do	W. M. & J. C. Smith, Fairfield Plains	1 00
Best pair Geese, Toulouse,	John Hord & Son, Park Hill	3 00
2nd do	Daniel McIsaac, Burford	2 00
3rd do	John P. Anderson, Guelph	1 00
Best pair English Geese, grey and common,	W. H. K. Talbot, Ealing	3 00
2nd do do do	William McLeod, Lucan	2 00

3rd	Best pair English Geese, grey and comon, Neil Campbell, Gladstone	$1 00
	Best pair English Geese, wild, W. M. & J. C. Smith, Fairfield Plains	3 00
	Best pair Geese, any other kind, S. Hemer & C. Jordan, Guelph	3 00
2nd	do do S. Hemer & C. Jordan, Guelph	2 00
	Best pair Ducks, Aylesbury, A. & D. Bogue, London	3 00
2nd	do W. M. & J. C. Smith, Fairfield Plains	2 00
3rd	do A. & D. Bogue, London	1 00
	Best pair Ducks, Rouen, W. M. & J. C. Smith, Fairfield Plains	3 00
2nd	do William Main, Boyne	2 00
3rd	do William Main, Boyne	1 00
	Best pair Pekin Ducks, A. & D. Bogue, London	3 00
2nd	do David Beattie, Wilton Grove	2 00
3rd	do Walter Cousins, London South	1 00
	Best pair Ducks, Cayuga, Keiley Bros., London	3 00
2nd	do W. M. & J. C. Smith, Fairfield Plains	2 00
3rd	do William McLoud, Lucan	1 00
	Best pair Ducks, any other kind, William McLoud, Lucan	3 00
2nd	do do Margaret Wells, London	2 00
3rd	do do W. M. & J C. Smith, Fairfield Plains	1 00
	Best pair Guinea Fowls, W. M. & J. C. Smith, Fairfield Plains	3 00
2nd	do Thomas Patrick, Ilderton	2 00
3rd	do George Nixon, Hyde Park	1 00
	Best pair any other variety of Fowls not included in these sections, J. & G. W. Hay, Woodstock	3 00
2nd	do do do Henry Goddard, Listowel	2 00
3rd	do do do W. M. & J. C. Smith, Fairfield Plains	1 00

Dominion Special Prize.

	Best Collection of Poultry, A. & D. Bogue, London	12 00
2nd	do W. M. & J. C. Smith, Fairfield Plains	8 00
3rd	do Richard Oke, London	6 00

CLASS XXXII.

327 Entries.

Chickens, Ducks, Etc., 1884.

Judges.—Eli Griffith, London; W. H. Doel, Toronto; G. J. Miller, Virgil; Thomas Puzey, Simcoe.

	Best pair Dorkings, white, A. & D. Bogue, London	3 00
2nd	do A. & D. Bogue, London	2 00
3rd	do A. & D. Bogue, London	1 00
	Best pair Dorkings, silver grey, William Main, Boyne	3 00
2nd	do William Main, Boyne	2 00
3rd	do A. & D. Bogue, London	1 00
	Best pair Dorkings, coloured, A. & D. Bogue, London	3 00
2nd	do A. & D. Bogue, London	2 00
	Best pair Polands, white, A. & D. Bogue, London	3 00
2nd	do A. & D. Bogue, London	2 00
3rd	do A. & D. Bogue, London	1 00
	Best pair Polands, golden, unbearded, A. & D. Bogue, London	3 00
2nd	do James F. Williams, London	2 00
3rd	do James F. Williams, London	1 00
	Best pair Polands, golden, bearded, A. & D. Bogue, London	3 00
2nd	do A. & D. Bogue, London	2 00
3rd	do Samuel K. Stewart, London	1 00
	Best pair Polands, silver, unbearded, W. M. & J. C. Smith, Fairfield Plains	3 00
	Best pair Polands, silver, bearded, A. & D. Bogue, London	3 00
2nd	do A. & D. Bogue, London	2 00
	Best pair Polands, white-crested, black, A. & D. Bogue, London	3 00
2nd	do A. & D. Bogue, London	2 00
3rd	do Richard Oke, London	1 00
	Best pair Plymouth Rock, R. D. Dulmage, London	3 00
2nd	do W. R. Garner & Bro., London	2 00
3rd	do W. H. Crame, St. Catharines	1 00
	Best pair Brahmas, white, J. H. Saunders, London	3 00
2nd	do J. H. Saunders, London	2 00
3rd	do Joseph Anderson, Strathroy	1 00
	Best pair Brahmas, dark, J. W. Bartlett, Lambeth	3 00
2nd	do W. H. Crame, St. Catharines	2 00
3rd	do Thomas Munegall, London	1 00

Best pair Cochins, buff,	William McLeod, Lucan	$3 00
Best pair Cochins, black,	G. Herbert Parish, London	3 00
2nd do	G. Herbert Parish, London	2 00
3rd do	G. Herbert Parish, London	1 00
Best pair Cochins, partridge,	George Bedggood, London	3 00
2nd do	A. & D. Bogue, London	2 00
3rd do	A. & D. Bogue, London	1 00
Best pair Houdans,	A. & D. Bogue, London	3 00
2nd do	A. & D. Bogue, London	2 00
3rd do	George Bedggood, London	1 00
Best pair Langshan,	W. H. Crame, St. Catharines	3 00
2nd do	C. A. Gillespie, London	2 00
3rd do	Walter Cousins, London South	1 00
Best pair Game Fowls, black-breasted and other reds,	William Main, Boyne	3 00
2nd do	do William McLeod, Lucan	2 00
3rd do	do William Main, Boyne	1 00
Best pair Game Fowls, duck-wing,	Keiley Bros., London	3 00
2nd do	Keiley Bros., London	2 00
3rd do	W. M. & J. C. Smith, Fairfield Plains	1 00
Best pair Game Fowls, Pile,	Keiley Bros., London	3 00
2nd do	Joseph C. Kelly, London	2 00
3rd do	Keiley Bros., London	1 00
Best pair Game Fowls, any other variety,	E. Tolhurst, London	3 00
2nd do	Keiley Bros., London	2 00
3rd do	Keiley Bros., London	1 00
Best pair Wyandottes,	William Moore, London	3 00
2nd do	William Moore, London	2 00
3rd do	A. Flawn, London	1 00
Best pair La Fleche,	W. M. & J. C. Smith, Fairfield Plains	3 00
2nd do	W. M. & J. C. Smith, Fairfield Plains	2 00
3rd do	W. M. & J. C. Smith, Fairfield Plains	1 00
Best pair Leghorns, white,	William Moore, London	3 00
2nd do	Thorpe & Scott, London	2 00
3rd do	William Moore London	1 00
Best pair Leghorns, Whiting & Hamill,	St. Catharines	3 00
2nd do	Whiting & Hamill, St. Catharines	2 00
3rd do	William Moore, London	1 00
Best pair Spanish Fowl,	George Ph. Bartlett, London	3 00
2nd do	Thorpe & Scott, London	2 00
3rd do	G. Bogue Smart, Brockville	1 00
Best pair Hamburgs, golden Pencilled,	A. & D. Bogue, London	3 00
2nd do	A. & D. Bogue, London	2 00
3rd do	Hart & Taylor, London South	1 00
Best pair Hamburgs, silver-pencilled,	H. R. K. Tozen, London West	3 00
2nd do	E. William Freeman, London	2 00
3rd do	A. & D. Bogue, London	1 00
Best pair Hamburgs, golden-spangled,	A. & D. Bogue, London	3 00
2nd do	Samuel K. Stewart, London	2 00
3rd do	A. & D. Bogue, London	1 00
Best pair Hamburgs, silver-spangled,	A. & D. Bogue, London	3 00
2nd do	A. & D. Bogue, London	2 00
3rd do	Richard Oke, London	1 00
Best pair Hamburgs, black,	H. R. K. Tozen, London West	3 00
2nd do	Wm. McLeod, Lucan	2 00
3rd do	G. William Freeman, London	1 00
Best pair Crevecours,	W. M. & J. C. Smith, Fairfield Plains	3 00
2nd do	W. M. & J. C. Smith, Fairfield Plains	2 00
3rd do	W. M. & J. C. Smith, Fairfield Plains	1 00
Best pair Bantams, Sebright, golden,	Richard Oke, London	3 00
2nd do	Richard Oke, London	2 00
3rd do	Hart & Taylor, London South	1 00
Best pair Bantams, Sebright, silver,	Richard Oke, London	3 00
2nd do	Richard Oke, London	2 00
3rd do	George Winterbottom, London	2 00
Best pair Bantams, black-breasted, or other reds,	George Winterbottom, London	3 00
2nd do	George Winterbottom, London	2 00
3rd do	Hart & Taylor, London South	1 00
Best pair Bantams, Pile,	W. H. Crame, St. Catharines	3 00
2nd do	W. H. Crame, St. Catharines	2 00
3rd do	George W. Winterbottom, London	1 00
Best pair Bantams, duck-wing game,	W. H. Crame, St. Catharines	3 00
2nd do	G. W. Winterbottom, London	2 00
3rd do	Hart & Taylor, Fairfield Plains	1 00
Best pair Bantams, Japanese,	Richard Oke, London	3 00
2nd do	Richard Oke, London	2 00
3rd do	George Bedggood, London	1 00
Best pair Bantams, black, African,	Richard Oke, London	3 00
2nd do	Richard Oke, London	2 00

3rd Best pair Bantams, black Africans, George W. Winterbottom, London			$1 00
Best pair Turkeys, any colour, W. M. & J. C. Smith, Fairfield Plains			3 00
Best pair Turkeys, white, W. M. & J. C. Smith, Fairfield Plains			3 00
2nd	do	W. M. & J. C. Smith, Fairfield Plains	2 00
Best pair Turkeys, wild, W. M. & J. C. Smith, Fairfield Plains			3 00
Best pair Turkeys, bronze, William Main, Boyne			3 00
2nd	do	Lucian McNames, Hyde Park	2 00
3rd	do	William Main, Boyne	1 00
Best pair Geese, Bremen, W. M. & J. C. Smith, Fairfield Plains			3 00
2nd	do	William Main, Boyne	2 00
3rd	do	William Main, Boyne	1 00
Best pair Geese, Toulouse, John Hord & Sons, Park Hill			3 00
2nd	do	John P. Anderson, Guelph	2 00
Best pair Geese, English grey and common, W. H. Talbot Ealing			3 00
Best pair Geese, wild, W. M. & J. C. Smith, Fairfield Plains			3 00
Best pair Geese, any other kind, J. Hemer & C. Jordon, Guelph			3 00
Best pair Ducks, Aylesbury, A. & D. Bogue, London			3 00
2nd	do	A. & D. Bogue, London	2 00
Best pair Ducks, Cayuga, Keiley Bros., London			3 00
2nd	do	Keiley Bros., London	2 00
3rd	do	W. M. & J. C. Smith, Fairfield Plains	1 00
Best pair Ducks, Rouen, William Main, Boyne			3 00
2nd	do	John P. Anderson, Guelph	2 00
3rd	do	J. Hemer & C. Jordon, Guelph	1 00
Best pair Ducks, Pekin, A. & D. Bogue, London			3 00
2nd	do	A. & D. Bogue, London	2 00
3rd	do	John Hemer & C. Jordon	1 00
Best pair Guinea Fowls, J. W. Bartlett, Lambeth			3 00
2nd	do	George Nixon, Hyde Park	2 00
3rd	do	Thomas Patrick, Ilderton	1 00
Best pair any other variety, not included in these sections, J. & G. W. Hay, Woodstock			3 00
2nd	do	do Henry Goddard, Listowel	2 00

DOMINION SPECIAL PRIZE.

Best collection of Young Poultry, A. & D. Bogue, London			12 00
2nd	do	W. M. & J. C. Smith, Fairfield Plains	8 00
3rd	do	Richard Oke, London	6 00
Best pair Carrier Pigeons, H. B. Donovan, Parkdale			2 00
2nd	do	H. B. Donovan, Parkdale	1 50
3rd	do	G. Herbert Parish, London	1 00
Best pair Pouter Pigeons, H. B. Donovan, Parkdale			2 00
2nd	do	H. B. Donovan, Parkdale	1 50
3rd	do	H. B. Donovan, Parkdale	1 00
Best pair Tumbler Pigeons, H. B. Donovan, Parkdale			2 00
2nd	do	G. Herbert Parish, London	1 50
3rd	do	G. Herbert Parish, London	1 00
Best pair Jacobin Pigeons, H. B. Donovan, Parkdale			2 00
2nd	do	H. B. Donovan, Parkdale	1 50
3rd	do	H. B. Donovan, Parkdale	1 00
Best pair Fantail Pigeons, H. B. Donovan, Parkdale			2 00
2nd	do	H. B. Donovan, Parkdale	1 50
3rd	do	H. B. Donovan, Parkdale	1 00
Best pair Barb Pigeons, Tucker & Cooper, London			2 00
Best pair Trumpeter Pigeons, H. B. Donovan, Parkdale			2 00
2nd	do	H. B. Donovan, Parkdale	1 50
3rd	do	G. Herbert Parish, London	1 00

DOMINION SPECIAL PRIZE.

Best collection of Pigeons, any other kind, G. Herbert Parish, London			10 00
2nd	do	do H. B. Donovan, Parkdale	5 00

RABBITS.

Best pair long-eared Rabbits, H. G. W. Hay, Woodstock			2 00
2nd	do	H. G. W. Hay, Woodstock	1 50
3rd	do	H. G. W. Hay, Woodstock	1 00
Best pair common Rabbits, C. Hardie, London			2 00
2nd	do	R. D. Dulmage, London	1 50
3rd	do	Edward Smith, London	1 00

Diploma.—Incubator, J. W. Barnett, Lambeth.

AGRICULTURAL IMPLEMENTS.

CLASS XXXIII.

211 Entries.

Agricultural Implements and Machines for Exhibition Only.

In this case, by request of numerous manufacturers, entries of the undermentioned articles were received for exhibition only, not in competition for prizes. The articles were entered in the books in the same manner as articles in other classes, and were provided with ample space for exhibition in the same manner as articles in other classes, and were provided with ample space for exhibition in the same manner as if competing for prizes.

Grain drill	Coulthard, Scott & Co., Oshawa. J. O. Wisner, Son & Co., Brantford. W. T. Dingle, Oshawa. Jas. N. Rogers, Kingsmill. G. A. Masson, Oshawa. F. W. Glen, Oshawa. Noxon Bros. Manufacturing Company, Ingersoll.
Seed drill for sowing two or more drills of turnips, mangels, or other seeds	John McCullum, Gladstone.
Broad-cast grain and seed sower	Coulthard, Scott & Co., Oshawa. J. O. Wisner, Son & Co., Brantford. The J. W. Mann Manufacturing Company, Brockville. W. T. Dingle, Oshawa. G. A. Masson, Oshawa. F. W. Glen, Oshawa. Noxon Bros. Manufacturing Company, Ingersoll. W. Buchanan, Ingersoll. Farm Implement Company, Brantford. John Elliott & Son, London.
Mowing machine	Gurney Manufacturing Company. Dundas. Patterson & Bro., Patterson. A. Harris, Son & Co., Brantford. Watson Manufacturing Company, Ayr. The Chatham Harvester Manufacturing Company, Chatham. L. D. Sawyer & Co., Hamilton. B. Bell & Son, St. George. McPherson & Lindsay, London. The Cochrane Manufacturing Company, St. Thomas. David Maxwell, Paris. Massey Manufacturing Company, Toronto. The North-American Manufacturing Company, London. F. W. Glen, Oshawa. Noxon Bros. Manufacturing Company, Ingersoll. Thos. Gowdy & Co., Guelph. Watson Manufacturing Company. Ayr. John Russell & Co., Ingersoll. Thorn & Doherty, Watford. J. Jackson, Lucan. John Elliott & Son, London. Sarnia Manufacturing Company, Sarnia.
Reapir machine	Gurney Manufacturing Company, Dundas. Patterson & Bro.. Patterson. A. Harris, Son & Co., Brantford. Watson Manufacturing Company, Ayr. The Chatham Harvester Manufacturing Company, Chatham L. D. Sawyer & Co., Hamilton. Thos. Gowdy & Co., Guelph. B. Bell & Son, St. George. McPherson & Lindsay, London. The Cochrane Manufacturing Company, St. Thomas. David C. Maxwell, Paris. Massey Manufacturing Company, Toronto. The North-American Manufacturing Company, London. F. W. Glen, Oshawa. Noxon Bros. Manufacturing Company, Ingersoll. Watson Manufacturing Company, Ayr. John Russell & Co., Ingersoll. John Elliott & Son, London.

Combined mower and reaper	Noxon Bros. Manufacturing Company, Ingersoll. John Elliott, London.
Self-binding reaper	Gurney Manufacturing Company, Dundas. Patterson & Bro., Patterson. A. Harris, Son & Co., Brantford. Watson Manufacturing Company, Ayr. The Chatham Harvester Manufacturing Company, Chatham. Knight & Wilson, Alliston. McPherson & Lindsay, London. The Cochrane Manufacturing Company, St. Thomas. David Maxwell, Paris. Robert Aldred, Glencoe. Massey Manufacturing Company, Toronto. The North-American Manufacturing Company, London. Alex. Turnbull, London. Noxon Bros. Manufacturing Company, Ingersoll. Watson Manufacturing Company, Ayr. John Elliott & Son, London. Sarnia Manufacturing Company, Sarnia.
Horse-power thresher and separator	Haggart Bros. Manufacturing Company, Brantford. Morris & Watts, Brantford. F. W. Glen, Oshawa. James Sharman, Stratford. Simpson Munn, New Hamburg.
Vibrator thresher and separator	Haggart Bros & Co., Brantford. L. D. Sawyer & Co., Hamilton. Macdonald, Macpherson & Co., Stratford. John Abell, Woodbridge. F. W. Glen, Oshawa. James Shammer, Stratford. Thorn & Doherty, Watford. Macpherson & Co., Fingal. Stevens, Turner & Burns, London. Sarnia Manufacturing Company, Sarnia. D. Darville & Co., London. Farran, Macpherson & Hovey, Clinton.
Clover-cleaning machine	L. D. Sawyer & Co., Hamilton. John Abell, Woodbridge. F. W. Glen, Oshawa.
Field or two-horse cultivator, iron	McPherson & Lindsay, London.
Two-horse cultivator, wood	I. O. Wisner Son & Co., Brantford. B. Bell & Son, St. George. James Walker, Odell, McPherson & Lindsay, London.
Two furrow plough	Thos. Gowdy & Co., Guelph. Geo. McSherry, Ingersoll,
Cylinder cultivator	John Elliott & Son, London.
Draining plough or ditching machine for digging drains	Wm. Rennie, Toronto. Wm. Ansley, Watford.
Portable grist mill	Haggart Bros. Manufacturing Company, Brampton.
Grain cracker	Patterson & Bro., Patterson. Ontario Pump Company, Toronto. David Maxwell, Paris. Waterous Engine Works Company, Brantford. Watson Manufacturing Company, Ayr. John Russell & Co., Ingersoll. John Elliott & Son, London.
Two horse power for general purposes, for farmers' use	The North American Manufacturing Company, London. John Russell & Co., Ingersoll. D. Darvill & Co., London.
Drag saw	Waterous Engine Works Company, Brantford. M. F. Tupper, London.
Spring tooth harrow	Patterson and Bro., Patterson. J. O. Wisner Son & Co., Brantford. John Elliott & Son, London,
Cider mill and press	H. Sills & Sons, Toronto. D. Darvill & Co., London.
Horse pitchfork and tackle	Wortman & Ward, London. J. A. Buchanan, Dorchester Station. M. Buchanan, Ingersoll.
Horse rakes without wheels	James Walker, Odell.

Sulky horse rake	Gurney Manufacturing Company, Dundas. Patterson & Bro., Patterson. Watson Manufacturing Co., Ayr. I. O. Wisner Son & Co., Brantford. The W. Mann Manufacturing Company, Brockville. The Cochrane Manufacturing Company, St. Thomas. Massey Manufacturing Company, Toronto. The North American Manufacturing Company, London. G. A. Masson, Oshawa. F. W. Glen, Oshawa. Thorn & Doherty, Watford. W. Buchanan, Ingersoll, John Elliott & Son, London.
Fanning mill	Manson Campbell, Chatham. Coulthard, Scott & Co., Oshawa. Thos. Gowdy & Co., Guelph. John Costin, Brantford. W. T. Duigh, Oshawa. McPherson & Lindsay, London. A. Wren & Co., Forest. Watson Manufacturing Co., Ayr. Farm Implement Company, Brantford.
Specimen farm fence, wood	James Haldane, Strathroy.
Specimen farm fence, wire	James Walker, Odell.
Potato digger	James Ley, Ellesmere. M. F. Tupper, London. Merner Keller & Co., Waterloo.
Straw cutter	Thos. Gowdy & Co., Guelph. B. Bell & Son, St. George. McPherson & Lindsay, London. David Maxwell, Paris. The North American Manufacturing Company, London. John Russell & Co., Ingersoll. John Jackson, Lucan. D. Darvill & Co., London.
Sulky Plough	Patterson & Bro., Patterson. B. Bell & Son, St. George. Aurora Plough Works, Aurora. W. J. McLean, Lucan. M. F. Tupper, London. Showers & Plummer, London. Merner Killer & Co., Waterloo. John Elliott & Son, London.

EXTRA PRIZE.

Gold Medal to Wm. Rennie, of Toronto, for ditching machine.

The report on self-binders will be found amongst other reports of the exhibition after the prize list.

CLASS XXXIV.

70 ENTRIES.

AGRICULTURAL IMPLEMENTS.

JUDGES.—R. T. Banting, Cookstown; Arch. McDiarmid, Ridgetown; Alex. McFarlane, Otterville.

Best double mould plough,			B. Bell & Sons, St. George	$8 00
2nd	do		Aurora Plough Works, Aurora	6 00
3rd	do		Cockshutt Plow Co., Brantford	4 00
Best gang plough,			Thos. Gowdy & Co., Guelph	8 00
2nd	do		John Elliott & Son, London	6 00
3rd	do		W. D. Verity & Son, Exeter	4 00
Best horse-hoe or single horse cultivator, iron,			B. Bell & Son, St. George	4 00
2nd	do	do	Cockshutt Plow Co., Brantford	3 00
3rd	do	do	Essex centre Mfg. Co., Essex Centre	2 00
Best horse-hoe or single horse cultivator, wood,			John Elliott & Son, London	4 00
2nd	do	do	John Bermet, Chatham	3 00
3rd	do	do	J. H. Boake, London	2 00

Best root seed drill, horse, 2 drills sown, Thos. Gowdy & Co.. Guelph	$4 00
2nd do do James Walker, Odell	3 00
3rd do do John McCollum, Gladstone	2 00
Best iron beam plough, with steel mould board and wood handles, John Bermet, Chatham	8 00
2nd do do do Aurora Plough Works, Chatham	6 00
3rd do do do B. Bell & Son, St. George	4 00
Best iron plough, John Bermet, Chatham	8 00
2nd do James Walker, Odell	6 00
3rd do Geo. McSherry, Ingersoll	4 00
Best chill plough with jointer attachment, B. Bell & Son, St George	8 00
2nd do Merner, & Killer & Co., Waterloo	6 00
3rd do Thos. Gowdy & Co., Guelph	4 00
Best subsoil plough, The Higganam Mfg. Co., London	8 00
Best wooden plough, James Walker, Odell	8 00
2nd do John Elliott & Son, London	6 00
3rd do Essex Centre Mfg. Co., Essex Centre	4 00
Best machine for cutting roots for stock, Thos. Gowdy & Co., Guelph	8 00
2nd do David Maxwell, Paris	6 00
Best machine for pulping roots, B. Bell & Son, St. George	8 00
2nd do David Maxwell, Paris	6 00
Best pair of iron harrows, James Walder, Odell	8 00
2nd do Thos. Tipling, Clinton	6 00
3rd do John Evans, Cayuga	4 00
Best pair of wooden harrows, H. Gibson, Chatham	6 00
2nd do James Walker, Odell	4 00
Best wooden roller, John Russell & Co., Ingersoll	6 00
2nd do Thos. Gowdy & Co., Guelph	4 00
Best and largest collection of agricultural implements, John Elliott & Son, London	40 00
2nd do do Thos. Gowdy & Co., Guelph	20 00

Extras.

Dominion Silver Medal.—McHay's corrugated metallic and wooden picket fence, Garwin & McDonald, London. Harrington improved Shir-sling hay and grain unloader, Browne. Seymour & Co. Port Perry. Patent hay and stock rack, Francis Carlin, Mitchell. Scarafier Harrow, John Evans, Cayuga.

Diploma.—Corn sheeler and bag barrow, Watson Mfg. Co.. Ayr. Sheep rack, Garvin & McDonald London. Grass seeder attachment to rooter, St. Lawrence Mfg. Co., Prescott. Dish harrow with seeder attachment, St. Lawrence Mfg. Co., Prescott. Load-lifting Machine, Wm. Sargent, Berkeley. Sheaf lifter, Notman & Ward, London. Hay loader, W. Buchanan, Ingersoll. Hay loader, M. Wilson & Co., Hamilton. Road scraper shed, Wm. Elliott & Son, London.

ighly Commended.—Sulky plough, Essex Centre Mfg. Co., Essex Centre.

CLASS XXXV.

221 Entries.

Carriages and Sleighs, and Parts Thereof.

Judges.—Wm. Eager, South Mountain; A. Coulter, Thomasburgh; Wm. McLeod, South Finch.

Best axle, wrought iron, Ashley Carriage Co., Belleville	$4 00
2nd do Linton, Lake & Co., Galt	2 00
Best axle, steel, T. Pepper & C., Guelph	4 00
2nd do Linton, Lake & Co., Galt	2 00
Best buggy, double seated, covered, W. J. Thompson, London	12 00
2nd do N. & A. L Lariviere, Montreal	8 00
Best buggy, double seated, uncovered, John Campbell, London	10 00
2nd do N. & A. L. Lariviere, Montreal	6 00
Best buggy, single seated, covered, John Turner, London	12 00
2nd do W. J. Thompson, London	8 00
Best buggy, single seated, uncovered, W. J. Thompson, London	10 00
2nd do Joseph, Lawrie, Sarnia	6 00
Best carriage, hack, John Campbell, London	20 00
2nd do N. & A. L. Lariviere, Montreal	10 00
Best carriage, two horse, pleasure. N. & A. L. Lariviere, Montreal	20 00
2nd do John Campbell, London	10 00
Best buck board vehicle, John Campbell, London	6 00
Best skeleton speeding waggon, W. J. Thompson, London	6 00
Best carriage (child's perambulator) John Campbell, London	5 00
2nd do J. H. Moran, London	3 00
Best carriage and buggy, woodwork, assortment of, F. W. Hore & Son, Hamilton	15 00
2nd do do John Campbell, London	10 00

Best two passenger village road cart, John Campbell, London	$6 00
2nd do J. H. Moran, London	4 00
Best dog cart, N. & A. L. Lariviere, Montreal	6 00
2nd do John Campbell, London	4 00
Best pair bob sleighs, Chatham Mfg. Co., Chatham	8 00
2nd do James Walker, Odell	4 00
Best one horse cart, Chatham Mfg. Co., Chatham	6 00
2nd do John Turner, London	4 00
Best Hubs, carriage, one dozen, F. W. Hore & Son, Hamilton	3 00
Best two horse team waggon, iron axle, John Campbell, London	15 00
2nd do N. & A. L. Lariviere, Montreal	10 00
Best two horse team waggon, thimble skein, Joseph Lowrie, Sarnia	15 00
2nd do do Chatham Mfg. Co., Chatham	10 00
Best Phaeton uncovered, John Campbell, London	10 00
2nd do N. & A. L. Lariviere, Montreal	6 00
Best Phaeton, covered, N. & A. L. Lariviere, Montreal	10 00
2nd do John Campbell, London	6 00
Best pleasure cutter, John Turner, London	6 00
2nd do W. J. Thompson, London	4 00
Best sleigh, two horse, pleasure, N. & A. L. Lariviere, Montreal	8 00
Best and largest display of vehicles, N. & A. L. Lariviere, Montreal	Dominion Gold Medal
2nd do John Campbell, London	Dominion Silver Medal
Best spokes, carriage, twelve sets, F. W. Hore & Son, Hamilton	3 00
Best one horse light market waggon, J. H. Moran, London	10 00
2nd do Roger Dart, London	5 00
Best one horse sulky, W. J. Thompson, London	6 00
Best two horse spring market waggon, L. W. Crawford, London	15 00
2nd do Hodson, G. Abbott, London	10 00
Best wheels, one pair, carriage, unpainted, F. W. Hore & Son, Hamilton	4 00
2nd do John Campbell, London	2 00
Best collection of carriage material in the rough, John Turner, London	Dominion Silver Medal.
Best collection of carriage and waggon hardware, A. Smith, London	do
Best two artificial horses, N. & A. L. Lariviere, Montreal	10 00

EXTRAS.

Diploma.—Bicycles, Chas. Robinson & Co., Toronto. 8 children's cutters, 28 hand sleighs assorted, 1 chair rocker, 1 Dexter rocker, 1 boy's wheelbarrow, 2 doll's carriages, 1 doll's cradle, 1 doll's bedstead, 1 express waggon, Dominion Baby Carriage Co., London.

Highly Commended.—Patent buggy wheel and hub, Francis Culham, Princeton. Collection carriage gear, A Smith, London. One team cart, one dog cart sleigh, one pony sleigh. Horse shoe, buggy gear, Wright & Johnston, Gananoque.

CLASS XXXVI.

85 ENTRIES.

AGRICULTURAL TOOLS AND IMPLEMENTS, CHIEFLY FOR HAND USE.

JUDGES.—Jos. Rosser, Ailsa Craig; James Murdoch, Yeoville; Herain Capes, Leeds.

Best set draining tools, Ames Mfg. Co., North Eaton, per Frank C. Wheeler, of London	$6 00
2nd do Groom Shovel Co., per Hobbs, Osborne & Hobbs, London	4 00
3rd do James Walker, Odell	3 00
Best assortment of drain tiles, Peter McIntosh, Odell	4 00
2nd do do Charles Pratt, London	3 00
Best half-dozen spades, Groom Shovel Co., per Hobbs, Osborne & Hobbs, London	3 00
2nd do do Ames Mfg. Co., North Eaton, per Frank C. Wheeler, of London	2 00
Best half-dozen steel hoes, Asthbula Mfg. Co., per Frank C. Wheeler, London	3 00
2nd do do Oswego Fork Mills Co., per Hobbs, Osborne & Hobbs, London	2 00
Best half-dozen steel shovels, Ames Mfg. Co., North Eaton, per Frank C. Wheeler, London	3 00
2nd do do Groom Shovel Co., per Hobbs, Osborne & Hobbs, London	2 00
Best do grain scoops, Ames Mfg. Co., North Eaton, per Frank C. Wheeler, agent, London.	3 00
2nd do do Groom Shovel Co., per Hobbs, Osborne & Hobbs, London	2 00
Best do manure forks, Oswego Fork Co., do do do	3 00
2nd do do Asthbula Mfg. Co., Asthbula, per Frank C. Wheeler, agent, London.	2 00
Best do spading forks, Welland Rake Works. St. Catharines, do do	3 00
2nd do do Oswego Fork Co., per Hobbs, Osborne & Hobbs, London	2 00
Best seed-drill, or barr ow for turnips, etc., James Walker, Odell	3 00
2nd do do Geo. McCollum, Gladstone	2 00
Best half-dozen scythe snaths, H. E. Ketchum, per Hobbs, Osborne & Hobbs, London	3 00
2nd do do Asthbula Mfg. Co., per Frank C. Wheeler, agent, London	2 00

Best grain cradle, H. E. Ketchum, per Hobbs, Osborne & Hobbs, London $2 00
2nd do Ames Mfg. Co., North Eaton, per Frank C. Wheeler, agent, London 1 00
Best half-dozen grass scythes, Welland Vale Works, St Catharines 3 00
2nd do do Oswego Fork Mills Co., per Hobbs, Osborne & Hobbs, London 2 00
Best do cradle scythes, do do do 3 00
2nd do do Welland Vale Works, St. Catharines, per Frank C. Wheeler, agent, London 2 00
Best lawn mower, Hobbs, Osborne & Hobbs, London 3 00
2nd do Wm. Russell, Guelph 2 00
Best half-dozen hay rakes, H. E. Ketchum, per Hobbs, Osborne & Hobbs, London 2 00
2nd do do Brown Mfg. Co., New York, per F. C. Wheeler, agent, London 1 00
Best do hay forks, Oswego Fork Mills, per Hobbs, Osborne & Hobbs, London 2 00
2nd do do Asthbula Mfg. Co., per F. C. Wheeler, agent, London 1 00
Best do axe handles, C. Lewis, Lalford 1 00
2nd do do H. E. Ketchum, per Hobbs, Osborne & Hobbs, London 0 50
Best set horse shoes, heavy, Thomas Trigger, St. Thomas 2 00
2nd do do Thomas Tipling, Clinton 1 00
Best do light, Thomas Trigger, St. Thomas 2 00
2nd do do John Brown, London 1 00
Best farm gate, James Walker, Odell 3 00
Best assortment agricultural tools for hand use, of Canadian manufacture, exhibited by the manufacturer or his agent, J. C. Wheeler, London ..... Dominion Silver Medal.
Best apple parer, Wm. Russell, Guelph 2 00
2nd do do 1 00
Best fruit evaporator, Wm. Dudenhoffer, London 6 00

CLASS XXXVII.

314 Entries.

Field Grains, Hops, Etc.

Judges:—J. M. Eastman, Osgoode Station; Ogle R. Ferguson, Cookstown; T. McIvers, Camborne.

1st prize—The Canada Company's prize for the best red or white 25 bushels of fall wheat, the produce of the Province of Ontario, being the growth of 1885. Each sample must be of one distinct variety, pure and unmixed, of the best quality for seed, and not to be tested merely by weight. The prizes to be awarded to the actual grower only of the wheat, which is to be given up to and become the property of the Association, for distribution in the several agricultural districts for seed, Wm. Tuck, Waterdown $100 00
2nd do by the Association, R. C. W. Harvey, Waterdown 20 00
3rd do do H. L. Ross, Georgetown 10 00
Best white winter wheat, 2 bushels, Wm. Tuck, Waterdown 8 00
2nd do do R. C. W. Harvey, Waterdown 6 00
3rd do do W. M. & J. C. Smith, Fairfield Plains 4 00
4th do do Geo. Baker, Simcoe 2 00
Best red or amber winter wheat, 2 bushels, Charles Grant, Thornbury 8 00
2nd do do W. H. K. Talbot, Ealing 6 00
3rd do do Wm. Tuck, Waterdown 4 00
4th do do Geo. Baker, Simcoe 2 00
Best Fife spring wheat, 2 bushels, Richard Wilson, Sheridan 8 00
2nd do do Chas. Grant, Thornbury 6 00
3rd do do John Hay, Clarksburg 4 00
Best white Russian or Lost Nation wheat, 2 bushels, John Kennedy, Ilderton 8 00
2nd do do Chas. Grant, Thornbury 6 00
3rd do do John Hay, Clarksburg 4 00
Best white spring wheat of other varieties, 2 bushels, Chas. Grant, Thornbury 8 00
2nd do do Richard Wilson, Sheridan 6 00
3rd do do John Hay, Clarksburg 4 00
Best spring wheat of any other variety, 2 bushels, H. L. Ross, Georgetown 8 00
2nd do do Richard Wilson, Sheridan 6 00
3rd do do James Stephens, Clarksburg 4 00
Best buckwheat. 1 bushel, Daniel Yake, Kintore 3 00
2nd do J. D. Lutz, Stony Creek 2 00
3rd do John Doyle, Lambeth 1 00
Best barley (2 rowed), 2 bushels, Chas. Grant, Thornbury 5 00
2nd do W. M. & J. C. Smith, Fairfield Plains 3 00
3rd do John Duff, Myrtle 2 00
Best barley (6 rowed), 2 bushels, Chas. Grant, Thornbury 5 00
2nd do John Duff, Myrtle 3 00
3rd do John Hay, Clarksburg 2 00

Best barley, black, 2 bushels,	W. M. & J. C. Smith, Fairfield Plains	$5 00
2nd do	Thos. Elmes, Princeton	3 00
3rd do	W. A. Wilkins, Lambeth	2 00
Best winter rye, 2 bushels,	W. H. K, Talbot, Ealing	5 00
2nd do	E. Hendrick, Pond Mills	3 00
3rd do	Chas. Grant, Thornbury	2 00
Best oats, white, 2 bushels,	John Hay, Clarksburg	4 00
2nd do	John Duff, Myrtle	2 00
3rd do	Chas. Grant, Thornbury	1 00
Best oats, black, 2 bushels,	John Duff, Myrtle	4 00
2nd do	James Murray, Glendale	2 00
3rd do	Richard Wilson, Sheridan	1 00
Best small field peas, 2 bushels,	John Duff, Myrtle	5 00
2nd do	H. Nickerson, Byron	3 00
3rd do	Chas. Grant, Thornbury	2 00
Best marrowfat peas, white, 2 bushels,	John Duff, Myrtle	5 00
2nd do do	Chas. Grant, Thornbury	3 00
3rd do do	Chas. Scott, Melville Cross	2 00
Best marrowfat peas (black eyes), 2 bushels,	John Duff, Myrtle	5 00
2nd do do	Chas. Scott, Melville Cross	3 00
3rd do do	Chas. Grant, Thornbury	2 00
Best field peas, 2 bushels of any other kind,	John Duff, Myrtle	5 00
2nd do do	John Hay, Clarksburg	3 00
3rd do do	Chas. Grant, Thornbury	2 00
Best small white field beans, bush.,	C. Lewis, Salford	5 00
2nd do do	Chas. Grant, Thornbury	3 00
3rd do do	E. Hendrick, Pond Mills	2 00
Best large white field beans, bush.,	C. Lewis, Salford	5 00
2nd do do	John Duff, Myrtle	3 00
3rd do do	James Griffin, London	2 00
Best Indian corn in the ear (white), 2 bushels,	George Cairns, Virgil	5 00
2nd do do	John Fenwick, Lambeth	3 00
3rd do do		2 00
Best Indian corn (yellow), 2 bushels,	Wm. Patrick, Ilderton	5 00
2nd do do	Geo. Baker, Simcoe	3 00
3rd do do	Thos. Russel, Charing Cross	2 00
Best sweet corn, 1 bushel,	Geo. Cairns, Virgil	5 00
Best bale of hops, not less than 160 lbs.,	H. L. Ross, Georgetown	15 00
2nd do	Wm. Oliver, Crumlin	10 00
3rd do	W. H. K. Talbot, Ealing	5 00
Best collection of grain in the straw,	Chas. Grant, Thornbury	Dominion Silver Medal.
2nd do	Thos. Elmes, Princeton	3 00

CLASS XXXVIII.

70 Entries.

Small Field Seeds, Flax, Hemp, Etc.

Judges.—J. D. Webster, Doon; James Cochrane, Kilsyth.

Best Timothy seed, bushel,	Chas. Grant, Thornbury	$4 00
2nd do	E. C. Bennett, do	2 00
3rd do	Richard Wilson, Sheridan	1 00
Best clover seed, bushel,	Geo. Baker, Simcoe	6 00
2nd do	W. M. & J. C. Smith, Fairfield Plains	4 00
3rd do	John Kennedy, Ilderton	2 00
Best clover Alsike seed,	Thos. Elmes, Princeton	6 00
2nd do	W. M. & J. C. Smith, Fairfield Plains	4 00
Best clover seed, white, half bushel	Pearce, Weld & Co., London	6 00
2nd do	W. M. & J. C. Smith, Fairfield Plains	4 00
Best perennial rye grass, half bushel,	Walter Hartman, Clarksburg	4 00
2nd do	Pearce, Weld & Co., London	2 00
Best orchard grass seed, half bushel,	Chas. Grant, Thornbury	4 00
2nd do	Walter Hartman, Clarksburg	2 00
Best flax seed, bushel,	John Duff, Myrtle	4 00
2nd do	Chas. Grant, Thornbury	2 00
3rd do	Richard Wilson, Sheridan	1 00
Best Swedish turnip seed from transplanted bulbs, not less than 12 lbs,	Pearce, Weld & Co., London	4 00
Best Greystone turnip seed, 12 lbs.,	Pearce, Weld & Co., London	4 00
Best white Belgian field carrot seed, 12 lbs.,	Pearce, Weld & Co., London	4 00
2nd do do	Chas. Scott, Melville Cross	3 00
Best long red mangel-wurzel seed, 12 lbs.,	do	4 00
2nd do do	Pearce, Weld & Co., London	3 00

Best yellow globe mangel-wurzel seed, 12 lbs., Pearce, Weld & Co., London	$4 00
Best tares, bushel, Chas. Grant, Thornbury	3 00
2nd do John Hoy, Clarksburg	2 00
Best millet, bushel, W. M. & J. C. Smith, Fairfield Plains	3 00
2nd do Chas. Grant, Thornbury	2 00
Best Hungarian grass seed, bushel, Chas. Grant, Thornbury	3 00
2nd do W. M. & J. C. Smith, Fairfield Plains	2 00
Best parsnip seed, Geo. J. Griffin, London	3 00
2nd do Chas. Scott, Melville Cross	2 00
Best half bushel mixed grass, named seed for permanent pastures, accompanied by a statement based on experience, W. M. & J. C. Smith, Fairfield Plains	10 00

CLASS XXXIX.

508 Entries.

Field Roots, Etc.

Judges.—Fred B. Lewis, Lockport, N.Y.; George Cairns, Virgil; Hugh K. MacLean, Cheboygan, Mich.

Best Chicago market potatoes, half bushel, Abel Steele, Hyde Park	$3 00
2nd do Lucian McNames, Hyde Park	2 00
Best Early Ohio, half bushel, M. A. Redman, London	3 00
2nd do Lucian McNames, Hyde Park	2 00
3rd do Geo. Nixon, Hyde Park	1 00
Best Pride of America, half bush, Abel Steele, Hyde Park	3 00
Best Magnum Bonum, half bushel, Geo. Nixon, Hyde Park	3 00
2nd do Abel Steele, Hyde Park	2 00
Best Early Rose potatoes, half bushel, Geo. Parkinson, Garling	3 00
2nd do Geo. E. Jarvis, Byron	2 00
3rd do M. A. Redman, London	1 00
Best Late Rose potatoes, half bushel, A. Swaffield, Union	3 00
2nd do C. Trebilcock, Grove	2 00
3rd do B. Cornell, Delaware	1 00
Best Hebron potatoes, half bushel, Geo. E. Jarvis, Byron	3 00
2nd do Geo. Parkinson, Earling	2 00
3rd do Edward Robinson, Lambeth	1 00
Best Early Sunrise, half bushel, A. Swaffield, Union	3 00
2nd do John Lackey, London	2 00
3rd do George Nixon, Hyde Park	1 00
Best Brownell's Best, half bushel, Geo. Nixon, Hyde Park	3 00
2nd do John Lackey, London	2 00
Best Mammoth Pearl, half bushel, Bruin Cornell, Delaware	3 00
2nd do Geo. Nixon, Hyde Park	2 00
Best White Star, half bushel, Wm. Endicott, Lucan	3 00
2nd do Alfred Stilwell, London	2 00
3rd do L. Nichols, White Lake	1 00
Best Burbank's Seedling, half bushel, Augustine Swaffield, Union	3 00
2nd do J. Hemer and J. Jordon, Guelph	2 00
Best White Elephant, half bushel, Bruin Cornell, Delaware	3 00
2nd do Wm. Endicott, Lucan	2 00
3rd do Lucian McNames, Hyde Park	1 00
Best any other sort, half bushel, W. H. K. Talbot, Ealing	3 00
2nd do Bruin Cornell, Delaware	2 00
3rd do Lucian McNames, Hyde Park	1 00
Best collection of field potatoes, ½ peck of each sort named, Geo. Nixon, Hyde Park	6 00
2nd do do Lucian McNames, Hyde Park	4 00
3rd do do Abel Steele, Hyde Park	2 00
Best eight roots purple Swede turnips, Wm. G. Laidlaw, Wilton Grove	3 00
2nd do Jas. Murray, Glendale	2 00
3rd do W. J. Thompson, Orkney	1 00
Best eight roots bronze Swede turnips, Wm. G. Laidlaw, Wilton Grove	3 00
2nd do Jas. Murray, Glendale	2 00
3rd do Chas. Scott, Melville Cross	1 00
Best eight roots green Swede turnips, W. J. Thompson, Orkney	3 00
2nd do Jas. Murray, Glendale	2 00
3rd do Geo. Baker, Simcoe	1 00
Best eight roots white Swede turnips, Chas. Scott, Melville Cross	3 00
Best eight roots white Globe turnips, Wm. G. Laidlaw, Wilton Grove	3 00
2nd do Chas. Scott, Melville Cross	2 00
3rd do Jas. Murray, Glendale	1 00

Best eight roots Greystone turnips, Wm. G. Laidlaw, Wilton Grove		$3 00
2nd do	Jas. Glennie, Guelph	2 00
3rd do	Chas. Scott, Melville Cross	1 00
Best eight roots yellow Aberdeen turnips, Wm. G. Laidlaw, Wilton Grove		3 00
2nd do	Chas. Scott, Melville Cross	2 00
Best eight roots purple top Aberdeen turnips. W. J. Thompson, Orkney		3 00
2nd do	Chas. Scott, Melville Cross	2 00
Best four varieties turnips, eight of each, Chas. Scott, Melville Cross		3 00
Best eight roots red carrots, W. H. K. Talbot, Ealing		3 00
2nd do	Chas. Scott, Melville Cross	2 00
3rd do	Thos. Magladerry, Parkhill	1 00
Best eight roots white or Belgian carrots, Thos. Magladerry, Parkhill		3 00
2nd do	Jas. Murray, Glendale	2 00
3rd do	Henry Fitzimmons, Thorndale	1 00
Best six roots mangel-wurzel, long red, Wm. Murray, Glendale		3 00
2nd do	Jas. Murray, Wilton Grove	2 00
3rd do	Alex. Hislop, Lambeth	1 00
Best six roots red globe mangel-wurzel, John Murray, Wilton Grove		3 00
2nd do	Thos. Magladerry, Parkhill	2 00
3rd do	Jas. Murray, Glendale	1 00
Best six roots intermediate red mangel-wurzel, John Jackson, Pond Mills		3 00
2nd do	James Murray, Glendale	2 00
3rd do	Alex. Hislop, Lambeth	1 00
Best six roots yellow globe mangel-wurzel, Wm. Murray, Wilton Grove		3 00
2nd do	Alex. Hislop, Lambeth	2 00
3rd do	Jas. Murray, Glendale	1 00
Best six roots long yellow mangel-wurzel, Wm. Murray, Wilton Grove		3 00
2nd do	Jas. Murray, Glendale	2 00
3rd do	Levi Lewis, Asken	1 00
Best six roots intermediate yellow mangel-wurzel, Thos. Magladerry, Parkhill		3 00
2nd do	Jas. Murray, Glendale	2 00
3rd do	Wm. H. Beattie, Wilton Grove	1 00
Best six roots kohl rabi, Chas. Scott, Melville Cross		3 00
2nd do	Wm. G. Laidlaw, Wilton Grove	2 00
3rd do	Bruin Cornell, Delaware	1 00
Best six roots white sugar beet, Thos. Magladerry, Parkhill		3 00
2nd do	R. M. Wilson, Delhi	2 00
3rd do	Ed. Kendrew, Pond Mills	1 00
Best eight roots parsnips, Thos. Magladerry, Parkhill		3 00
2nd do	Chas. Scott, Melville Cross	2 00
3rd do	Samuel Pope, London	1 00
Best eight roots chicory, John Lakey, London		3 00
2nd do	Chas. Scott, Melville Cross	2 00
Best large squash for cattle, Abel Steele, Hyde Park		3 00
2nd do	W. H. K. Talbot, Ealing	2 00
3rd do	L. Nichols, White Oke	1 00
Best mammoth field pumpkin, Josh. Johnston, Crumlin		3 00
2nd do	Bruin Cornell, Delaware	2 00
Best two yellow field pumpkins, James Griffiths, London		3 00
2nd do	C. S. Hammond, London	2 00

CLASS XL.

233 Entries.

Dairy Products, Etc.

Judges.—Wm. Garvey, Morrisburg; E. Casswell, Ingersoll; John Robertson.

Best three firkins of butter, fitted for exportation, not less than 50 lbs. in each firkin, made at any creamery or private dairy, with a capacity not less than one hundred cows' milk, exhibitors to furnish mode of manufacture, including breed and number of cows, description of factory, treatment of milk, quantity, brand, and make of salt used, and any other practical information that they may be able to afford, before being paid the amount of premium. For exportation.

1st prize (creamery), John Hannah, Seaforth		$25 00
2nd do	North Valley Creamery, Haysville	15 00
3rd do	John McLurg, Falkirk	10 00
4th do	Chas. Stock, Stratford	5 00
1st prize (dairy), John McLurg, Falkirk		25 00
2nd do	Wm. Herbison, Clinton	15 00
3rd do	Mrs. Alex. Begg, London	10 00

Best firkin of butter not less than 50 lbs. in shipping order, manufactured at any private dairy, or creamery, capacity and manufacture not over 50 cows. For exportation.

1st prize	(dairy),	Robert McClure, Brampton	$20 00
2nd	do	Arch. Kains, Byron	12 00
3rd	do	John McLurg, Falkirk	8 00
4th	do	Thomas Langford, London	4 00
1st prize	(creamery),	John McLurg, Falkirk	20 00
2nd	do	North Valley Creamery, Haysville	12 00
3rd	do	Wm. Herbison, Clinton	8 00

Butter, not less than 28 lbs., in firkin, crocks or tubs, "for home use," "home consumption."

1st prize,	John McLurg, Falkirk	$15 09
2nd do	Arch. Kains, Byron	10 00
3rd do	Robert Martin, Clinton	7 00
4th do	John Tuckey, Ferguson	4 00

Butter, not less than 10 lbs., in rolls, prints, or pats, "table use," home consumption, known as 5 day butter.

1st prize,	J. H. Wall, London	$10 00
2nd do	Mrs. Alex. Marr, Brampton	8 00
3rd do	David Beattie, Milton Grove	6 00
4th do	Mrs. Alex. Begg, Brampton	4 00

Three factory cheese (white), capacity of factory and manufacture of not less than the milk of 50 cows. Best cheese made during the first 15 days of August, 1885.

1st prize,	Murdock Morrison, Glammis	$35 00
2nd do	John Isaac, Mount Forest	25 00
3rd do	Geo. Webb, North Bruce	15 00
4th do	B. J. Connolly, Underwood	10 00
5th do	H. O. Foster, Millarton	6 00

Three factory cheese (colored), capacity of factory and manufacture of not less than 50 cows milk. Best cheese made during the first 15 days of August, 1885.

1st prize,	J. G. Drewry, Belleville	$35 00
2nd do	John Morrison, Newry	25 00
3rd do	Robert Tracey, Harrietville	15 00
4th do	Henry White, Pine River	10 00
5th do	Robert Robertson, Harriston	6 00

Best three dairy cheese not less than 8 lbs.

1st prize,	B. J. Connolly, Underwood	12 00
2nd do	John McEwen, Delaware	8 00
3rd do	Mrs. Wm. Bagshaw, Exeter	5 00

Best three Stilton cheese, not less than 8 lbs. each.

1st prize,	Mrs. Parsons, Guelph	12 00
2nd do	Jas. Liddle, jr., Dundas	8 00
3rd do	W. H. Thompson, Pittston	5 00

Best three Gloucester or Wiltshire Loaf or Truckle cheese, not less than 8 lbs. each.

1st prize,	John H. Burt, Newbridge	12 00
2nd do	Chas. Ovens, Bluevale	8 00
3rd do	Wm. Eager, South Mountain	5 00

Best collection of butter tubs for shipping purposes.

1st prize,	L. & E. Garnett, Bethany	6 00
2nd do	C. Lewis, Stratford	4 00

Best five cheese boxes, for shipping purposes.

1st prize,	Kalbfeusch & Scharfer, Tavistock	6 00
2nd do	W. H. Thompson, Pittston	4 00

EXTRAS.

Diploma.—Assortment of cheese hoops—C. Lewis, Salford. Collection of milk products—Diploma and $5—Samuel Cooper.

Highly Commended.—Combined milking bucket, stool and strainer—F. R. Pitt, Chatham; C. D. Van Allen, Exeter.

CLASS XLI.

20 Entries.

Sugar, Bacon, Etc.

Judges.—R. L. Denison, Toronto; John Morgan, Ailsa Craig; Alanson Elliott, Oxley.

Best maple sugar, 15 lbs., cake,	Mrs. R. E. Whiting, Muncey	$6 00
2nd do	John Jackson, Abingdon	4 00
3rd do	Thomas Patrick, Ilderton	2 00
Best maple sugar, 15 lbs., stirred,	Mrs. R. F. Whiting, Muncey	6 00
Best maple syrup, 1 gallon,	John Kennedy, Ilderton	3 00
2nd do	Mrs. R. E. Whiting, Muncey	2 00
3rd do	John Jackson, Abingdon	1 00
Best side of cured bacon,	Michael F. O'Mera, London	4 00
Best ham, cured,	Michael F. O'Mera, London	3 00
Best meats and bacon, spiced and preserved,	Michael F. O'Mera, London	10 00

Highly Commended.—20 lbs. lard, pure leaf, Michael F. O'Mera, London.

CLASS XLII.

71 Entries.

Honey and Apiary Supplies.

Judges.—Robert Cummings, Cummings' Bridge; Wm. Saunders, London.

Largest and best display of extracted honey in marketable condition,	J. B. Aches, Amiens	$12 00
2nd do do do	D. P. Campbell, Parkhill	8 00
3rd do do do	R. H. Smith, Galing	4 00
Largest and best display of honey in the comb and in marketable condition,	D. P. Campbell, Parkhill	12 00
2nd do do do	J. W. Wheally, Lakeside	8 00
3rd do do do	J. B. Aches, Amiens	4 00
Best honey in the comb, not less than 10 lbs.,	R. H. Smith, Ealing	8 00
2nd do do	D. P. Campbell, Corunna	6 00
3rd do do	J. W. Wheally, Lakeside	4 00
Best jar of extracted honey,	W. C. Beaty, Omagh	4 00
2nd do	J. W. Wheally, Lakeside	2 00
3rd do	Mrs. F. Linyard, Mitchell	1 00
Best bees' wax, not less than 10 lbs.,	Jas. Skeoch, Corunna	3 00
3nd do	Wm. McEvoy, Woodburn	2 00
Best bee hive,	D. P. Campbell, Parkhill	3 00
2nd do	John Rudd, London	2 00
3rd do	R. H. Smith, Ealing	1 00
Best wax extractor,	D. P. Campbell, Parkhill	Dominion Bronze Medal
Best honey extractor,	D. P. Campbell, Parkhill	Dominion Bronze Medal
Best and largest display of apiarian supplies,	D. P. Campbell, Parkhill	Dominion Silver Medal
2nd do do	John Rudd, London	$4 00

Highly Commended.—White bees' wax, Wm. McEvoy, Woodburn.

CLASS XLIII.

37 Entries.

Domestic Wines.

Judges.—Robert Cummings, Cummings' Bridge; William Saunders, London.

Best half dozen dry wines,	Barre & Co., Montreal	$5 00
2nd do	J. G. Hamilton & Co., Brantford	3 00
Best half dozen sweet wines,	J. G. Hamilton & Co., Brantford	5 00
2nd do	Barre & Co., Montreal	3 00

Best half dozen sparkling wines, J. G. Hamilton & Co., Brantford	$5 00
2nd do Barre & Co., Montreal	3 00
Best half dozen Canada claret, Barre & Co., Montreal	5 00
Best ginger ale, 6 bottles, Wm. Richardson, Strathroy	3 00
Best soda water, 6 bottles, Wm. Richardson, Strathroy	3 00
Best assortment of wines made from Canadian grapes. Open to all professionals and amateurs. J. S. Hamilton, Brantford	Dominion Silver Medal
Best three bottles dry wine, white, J. D. Lutz, Stoney Creek	$5 00
2nd do Henry Lutz, Stoney Creek	3 00
Best three bottles dry wine, red, J. D. Lutz, Stoney Creek	5 00
2nd do Henry Lutz, Stoney Creek	3 00
Best three bottles sweet wines, white, J. D. Lutz, Stoney Creek	4 00
2nd do Henry Lutz, Stoney Creek	2 00
Best three bottles any other sort of grape wine, J. D. Lutz, Stoney Creek	4 00
2nd do do Henry Lutz, Stoney Creek	2 00
Best three bottles raspberry wine, J. D. Lutz, Stoney Creek	3 00
2nd do Mary E. McKerlie, London	2 00
Best three bottles cherry wine, Mary E. McKerlie, London	3 00
2nd do J. Lutz, Stoney Creek	2 00
Best three bottles currant wine, Mary E. McKerlie, London	3 00

HORTICULTURAL DEPARTMENT.

CLASS XLIV.

37 Entries.

Fruits, Vegetables, Plants and Flowers.

Fruit—Professional Nurserymen's List.

Judges.—R. Currie, Niagara; James Barnum, Grafton.

Best twenty varieties apples, correctly named, five of each, A. M. Smith, St. Catharines	$10 00
2nd do do D. Vanduzen, Grimsby	8 00
Best four varieties fall table apples, named, five of each, D. Vanduzen, Grimsby	3 00
2nd do do A. M. Smith, St. Catharines	2 00
Best six varieties of fall cooking apples, named, five of each, A. M. Smith, St. Catharines	3 00
2nd do do D. Vanduzen, Grimsby	2 00
Best six varieties of winter table apples, named, five of each, A. M. Smith, St. Catharines	3 00
2nd do do D. Vanduzen, Grimsby	2 00
Best six varieties of winter cooking apples, named, five of each, D. Vanduzen, Grimsby	3 00
2nd do do A. M. Smith, St. Catharines	2 00
Best fifteen varieties pears, correctly named, five of each, A. M. Smith, St. Catharines	10 00
2nd do do D. Vanduzen, Grimsby	8 00
Best six varieties pears, correctly named, five of each, D. Vanduzen, Grimsby	5 00
2nd do do A. M. Smith, St. Catharines	3 00
Best six varieties plums, red or blue, correctly named, six of each, D. Vanduzen, Grimsby	5 00
2nd do do A. M. Smith, St. Catharines	3 00
Best six varieties plums, green or yellow, correctly named, six of each, D. Vanduzen, Grimsby	5 00
2nd do do A. M. Smith, St. Catharines.	3 00
Best ten varieties peaches, correctly named, six of each, D. Vanduzen, Grimsby	6 00
2nd do do A. M. Smith, St. Catharines	4 00
Best twelve varieties grapes, grown in open air. two bunches each, correctly named, A M. Smith, St. Catharines	8 00
2nd do do D. Vanduzen, Grimsby	6 00
Best four varieties black grapes, grown in open air, two bunches each, correctly named, A. M. Smith, St. Catharines	3 00
2nd do do D. Vanduzen, Grimsby	2 00
Best four varieties white grapes, grown in open air, two bunches each, correctly named, A. M. Smith, St. Catharines	3 00
2nd do do D. Vanduzen, Grimsby	2 00
Best four varieties red grapes, grown in open air. two bunches each, correctly named, A. M. Smith, St. Catharines	3 00
2nd do do D. Vanduzen, Grimsby	2 00

Best display of fruit, the growth of exhibitor, not more than five specimens of each variety of apple and pear, named, grown under glass and in open air,		A. M. Smith, St. Catharines	$15 00
2nd	do	do D. Vanduzen, Grimsby	10 00
Best collection of one dozen each of six varieties of crabs, cultivated,		A. M. Smith, St. Catharines.	3 00
2nd	do	do D. Vanduzen, Grimsby	2 00

CLASS XLV.

1,681 Entries.

Fruit—General List—Apples and Pears.

Judges.—B. Gott, Arkona; Fred. Mayer, Bridgeport; Alex. McD. Allan, Goderich.

Best twenty varieties apples, correctly named, five of each,		R. Currie, Niagara	$10 00
2nd	do	do H. J. Brown, Niagara	8 00
3rd	do	do J. D. Lutz, Stoney Creek	6 00
4th	do	do Geo. Ott, Arkona	4 00
Best ten varieties apples, correctly named, five of each,		H. J. Brown, Niagara	6 00
2nd	do	do A. G. Alfred Deadman, Lambeth	4 00
3rd	do	do C. G. Fitzgerald, Rebecca	2 00
Best four varieties dessert apples, correctly named, five of each,		W. McKenzie Ross, Chatham	3 00
2nd	do	do H. J. Brown, Niagara	2 00
3rd	do	do Walter Hay, Delaware	1 00
Best four varieties cooking apples, correctly named, five of each,		Walter Hay, Delaware	3 00
2nd	do	do Geo. E. Jarvis, Byron	2 00
3rd	do	do J. D. Lutz, Stoney Creek	1 00
Best five Early Joe,		A. P. Saunders, London	2 00
2nd	do	Charles Scott, Melville Cross	1 00
Best five Hawley,		A. W. Taylor, Hamilton	2 00
2nd	do	W. M. & J. C. Smith, Fairfield Plains	1 00
Best five Duchess of Oldenburg,		H. W. Brethour & C. T. Thresher, London	2 00
2nd	do	A. W. Taylor, Hamilton	1 00
Best five Snow Apples,		A. G. & Alfred Deadman, Lambeth	2 50
2nd	do	George Ott, Arkona	2 00
3rd	do	W. McKenzie Ross, Chatham	1 50
4th	do	George Buttery & Sons, Strathroy	1 00
Best five Fall Pippins,		George Buttery & Sons, Strathroy	2 00
2nd	do	Walter J. Stipe, Hamilton	1 00
Best five Gravenstein,		H. Wickerson, Byron	2 00
2nd	do	R. Currie, Niagara	1 00
Best five Shiawassee Beauty,		G. J. Miller, Virgil	2 00
2nd	do	H. J. Brown, Niagara	1 00
Best five Maiden's Blush,		Fred. B. Lewis, Lockport	2 00
2nd	do	C. J. Fitzgerald, Rebecca	1 00
Best five Cayuga Red Streak,		W. McKenzie Ross, Chatham	2 00
2nd	do	H. J. Brown, Niagara	1 00
Fest five Mother,		T. R. Merritt, St. Catharines	2 00
2nd	do	Geo. Cairns, Virgil	1 00
Best five St. Lawrence,		Augustus Like, Lambeth	2 00
2nd	do	Ira C. Diey, London	1 00
Best five Colvert,		P. Currie, Niagara	2 00
2nd	do	G. J. Miller, Virgil	1 00
Best five Porter,		Noah Smiley, Guelph	2 00
2nd	do	Geo. Buttery & Sons, Strathroy	1 00
Best five of any other variety fall apple, correctly named,		W. McKenzie Ross, Chatham	2 00
2nd	do	Francis Peck, Albury	1 00
Best five fall seedling apples,		Wm. Branston, Lambeth	2 00
2nd	do	Geo. Cairns, Virgil	1 00
Best five Ribston Pippin,		H. W. Brethour and C. T. Thresher, London	2 00
2nd	do	Geo. E. Jarvis, Byron	1 00
Best five Alexander,		Francis Peck, Albury	2 00
2nd	do	H. W. Brethour and C. T. Thresher, London	1 00
Best five Æsopus Spitzenburg,		H. Nichols, Glendale	2 00
2nd	do	C. M. Simmons and Quirie, Ivan	1 00
Best five Beauty of Kent,		A. G. Alfred Deadman, Lambeth	2 00
2nd	do	Geo. Nixon, Hyde Park	1 00
Best five Baldwin,		J. G. Miller, Virgil	2 50
2nd	do	W. A. Wilkins, Lambeth	2 00
3rd	do	J. D. Lutz, Stoney Creek	1 50
4th	do	Bruin Cornell, Delaware	1 00
Best five Rhode Island Greening,		R. Currie, Niagara	2 50
2nd	do	R. C. W. Harvey, Waterdown	2 00
3rd	do	H. J. Brown, Niagara	1 50
4th	do	John Doyle, Lambeth	1 00

Best five	Wagner,	W. A. Wilkins, Lambeth	$2 00
2nd	do	J. Fennick, Lambeth	1 00
Best five	Yellow Bellflower,	H. J. Brown, Niagara	2 00
2nd	do	T. R. Merritt, St. Catharines	1 00
Best five	King of Tompkins Co.,	A. G. and Alfred Deadman, Lambeth	2 00
2nd	do	H. J. Brown, Niagara	1 00
Best five	Talman's Sweet,	Geo. E. Jarvis, Byron	2 00
2nd	do	W. McKenzie Ross, Chatham	1 00
Best five	Grimes' Golden,	R. Arnold, Thamesville	2 00
2nd	do	Francis Peck, Albury	1 00
Best five	Seek-no-Further,	A. W. Taylor, Hamilton	2 00
2nd	do	J. Foreman, Lambeth	1 00
Best five	Roxbury Russet,	A. W. Taylor, Hamilton	2 50
2nd	do	H. J. Brown, Niagara	2 00
3rd	do	Richard Stephens, Askin	1 50
4th	do	R. Currie, Niagara	1 00
Best five	Swaar,	R. Currie, Niagara	2 00
2nd	do	H. J. Brown, Niagara	1 00
Best five	Fallawater,	George Nixon, Hyde Park	2 00
2nd	do	W. A. Wilkins, Lambeth	1 00
Best five	American Golden Russet,	R. Currie, Niagara	2 50
2nd	do	Geo. Cairns, Virgil	2 00
3rd	do	A. G. and Alfred Deadman, Lambeth	1 50
4th	do	W. A. Wilkins, Lambeth	1 00
Best five	Swayzie Pomme-Grise,	Joseph Gorden, Hamilton	2 50
2nd	do	Francis Peck, Albury	2 00
3rd	do	G. J. Miller, Virgil	1 50
4th	do	R. Currie, Niagara	1 00
Best five	Pomme Grise,	H. J. Brown, Niagara	2 00
2nd	do	A. G. and Alfred Deadman, Lambeth	1 00
Best five	Northern Spy,	Walter Hay, Delaware	2 50
2nd	do	J. A. Wilkins, Lambeth	2 00
3rd	do	W. McKenzie Ross, Chatham	1 50
4th	do	John Behuke, Delaware	1 00
Best five	Jonathan,	Geo. Buttery & Sons, Strathroy	2 00
2nd	do	Francis Peck, Albury	1 00
Best five	Wealthy,	Francis Peck, Albury	2 00
2nd	do	Jas. F. Peck, Albury	1 00
Best five	Scott's Russet,	Geo. Nixon, Hyde Park	2 00
Best five	Ben Davis,	Jas. F. Peck, Albury	2 00
2nd	do	Wm. Branston, Lambeth	1 00
Best five any other variety (winter apple) correctly named,		G. J. Miller, Virgil	2 00
2nd	do	do R. & W. Harvey, Waterdown	1 00
Best twelve varieties pears, 5 of each,		Fred. B. Lewis, Lockport	10 00
2nd	do	Samuel Woodley, Hamilton	8 00
3rd	do	Wm. Anderson, Hamilton	6 00
4th	do	G. J. Miller, Virgil	4 00
Best six varieties of pears, 5 of each,		Samuel Woodley, Hamilton	4 00
2nd	do	G. J. Miller, Virgil	2 00
Best five Kirtland.		Fred B. Lewis, Lockport	2 00
2nd	do	H. J. Brown, Niagara	1 00
Best five Clapp's Favourite,		Wm. Anderson, Hamilton	2 00
2nd	do	T. R. Merritt, St. Catharines	1 00
Best five Annas d'Ete,		T. R. Merritt, St. Catharines	2 00
Best five Tyson,		Fred B. Lewis, Lockport	2 00
2nd	do	Joseph Gorden, Hamilton	1 00
Best five Bartletts,		Joseph Gorden, Hamilton	2 50
2nd	do	Geo. Wilds, Hamilton	2 00
3rd	do	T. R. Merritt, St. Catharines	1 50
4th	do	G. J. Miller, Virgil	1 00
Best five Seckel,		Fred B. Lewis, Lockport	2 00
2nd	do	T. R. Merritt, St. Catharines	1 00
Best five Souvenir de Congress,		Samuel Woodley, Hamilton	2 00
2nd	do	G. J. Miller, Virgil	1 00
Best five Louise Bonne de Jersey,		R. Currie, Niagara	2 50
2nd	do	Geo. Wilds, Hamilton	2 00
3rd	do	Joseph Gorden, Hamilton	1 50
4th	do	Wm. Anderson, Hamilton	1 00
Best five Bell Lucrative,		G. J. Miller, Virgil	2 00
2nd	do	Joseph Gorden, Hamilton	1 00
Best five Beurre Bosc,		G. J. Miller, Virgil	2 00
2nd	do	Geo. Cairns, Virgil	1 00
Best five Beurre Hardy,		Samuel Woodley, Hamilton	2 50
2nd	do	Joseph Gorden, Hamilton	2 00
3rd	do	Fred B. Lewis, Lockport	1 50
4th	do	A. P. Saunders, London	1 00
Best five Goodale,		G. J. Miller, Virgil	2 00
2nd	do	Fred B. Lewis, Lockport	1 00

Best	five White Doyenne,	Fred B. Lewis, Lockport	$2 00
2nd	do	Joseph Gorden, Hamilton	1 00
Best	five Sheldon,	Joseph Gorden, Hamilton	2 00
2nd	do	T. R. Merritt, St. Catharines	1 00
Best	five Flemish Beauty,	R. Currie, Niagara	2 50
2nd	do	T. R. Merritt, St. Catharines	2 00
3rd	do	Geo. Cairns, Virgil	1 50
4th	do	E. C. Fearnside, Hamilton	1 00
Best	five Beurre, Superfine,	T. R. Merritt, St. Catharines	2 50
2nd	do	Alex. Glass, St. Catharines	2 00
3rd	do	G. J. Miller, Virgil	1 50
4th	do	E. C. Fearnside, Hamilton	1 00
Best	five Duchesse d'a Pitmaston,	Fred B. Lewis, Lockport	2 00
2nd	do	Joseph Gorden, Hamilton	1 00
Best	five Beurre Diel,	Wm. Anderson, Hamilton	2 00
2nd	do	Samuel Woodley, Hamilton	1 00
Best	five Beurre d'Anjou,	Fred B. Lewis, Lockport	2 50
2nd	do	G. J. Miller, Virgil	2 00
3rd	do	Geo. Nixon, Hyde Park	1 50
4th	do	R. Currie, Niagara	1 00
Best	five Beurre Clairgeau,	Geo Wilds, Hamilton	2 00
2nd	do	Wm. Anderson, Hamilton	1 00
Best	five Duchesse d'Angouleme,	Fred B. Lewis, Lockport	2 50
2nd	do	G. J. Miller, Virgil	2 00
3rd	do	Joseph Gorden, Hamilton	1 50
4th	do	Isaac Pollock, Hamilton	1 00
Best	five Doyenne Boussock,	T. R. Merritt, St. Catharines	2 00
2nd	do	Fred B. Lewis, Lockport	1 00
Best	five Grey Doyenne,	Joseph Gorden, Hamilton	2 00
2nd	do	T. R. Merritt, St. Catharines	1 00
Best	five Swan's Orange,	G. J. Miller, Virgil	2 00
2nd	do	Wm. Anderson, Hamilton	1 00
Best	five Beurre de l'Assomption,	Samuel Woodley, Hamilton	2 00
Best	five of any other variety of fall pear, correctly named,	Joseph Gorden, Hamilton	2 00
2nd	do do	Samuel Woodley, Hamilton	1 00
Best	five Seedling pears, fall,	Geo. Cairns, Virgil	2 00
2nd	do	A. W. Taylor, Hamilton	1 00
Best	Five Mount Vernon,	A. P. Saunders, London	2 00
2nd	do	T. R. Merritt, St. Catharines	1 00
Best	five Glout Morceau,	Alex. Glass, St. Catharines	2 00
2nd	do	T. R. Merritt, St. Catharines	1 00
Best	five Beurre d'Hiver Noveau,	T. R. Merritt, St. Catharines	2 00
2nd	do	Samuel Woodley, Hamilton	1 00
Best	five Winter Nelis,	Fred B. Lewis, Lockport	2 50
2nd	do	T. R. Merritt, St. Catharines	2 00
3rd	do	Geo. Cairns, Virgil	1 50
4th	do	D. Murray, Hamilton	1 00
Best	five Vicar of Winkfield,	Samuel Woodley, Hamilton	2 00
2nd	do	A. W. Taylor, Hamilton	1 00
Best	five Lawrence,	Fred B. Lewis, Lockport	2 50
2nd	do	Joseph Gorden, Hamilton	2 00
3rd	do	R. Currie, Niagara	1 50
4th	do	D. Murray, Hamilton	1 00
Best	five of any other variety of winter pear, correctly named,	Samuel Woodley, Hamilton	2 00
2nd	do do	Alex. Glass, St. Catharines	1 00

Diploma.—Winter apples grown in 1884, Jabez Metcalfe, Sr., London, East.

CLASS XLVI.

FRUIT—GENERAL LIST CONTINUED—PLUMS, PEACHES, GRAPES, ETC.

694 ENTIES.

JUDGES.—Allen McD'Allan, Goderich; A. M. Smith, St. Catharines; John Wallace, Dumblane.

Best	six varieties plums, green or yellow, correctly named, 6 of each,	Alex. Glass, St. Catharines	$4 00
2nd	do do	Geo. Wilds, Hamilton	3 00
3rd	do do	T. R. Merritt, St. Catharines	1 00
Best	six varieties plums, red or blue, correctly named, 6 of each,	Joseph Gorden, Hamilton	4 00
2nd	do do	Alex. Glass, St. Catharines	3 00
3rd	do do	E. C. Fearnside, Hamilton	1 00
Best	twelve Bradshaw,	Joseph Gorden, Hamilton	2 00
2nd	do	Henry Goddard, Listowel	1 00

Best twelve	Lombard,	John F. Welsh, Stratford	$2 00
2nd	do	Samuel Woodley, Hamilton	1 00
Best twelve	Washington,	Joseph Gorden, Hamilton	2 00
2nd	do	Geo. Wilds, Hamilton	1 00
Best twelve	Victoria,	Samuel Woodley, Hamilton	2 00
2nd	do	Alex. Glass, St. Catharines	1 00
Beat twelve	Huling's Superb,	Alex. Glass, St. Catharines	2 00
2nd	do	T. R. Merritt, St. Catharines	1 00
Best twelve	Coe's Golden Drop,	James Morgan, London	2 00
2nd	do	D. Murray, Hamilton	1 00
Best twelve	Yellow Egg plums,	J. B. Flock, M.D., London	2 00
2nd	do	T. R. Merritt, St. Catharines	1 00
Best twelve	Smith's Orleans,	D. Murray, Hamilton	2 00
2nd	do	Alex. Glass, St. Catharines	1 00
Best twelve	Green Gage,	Geo. Wilds, Hamilton	2 00
2nd	do	Alex. Glass, St. Catharines	1 00
Best twelve	Imperial Gage,	J. B. Flock, M.D., London	2 00
2nd	do	James Morgan, London	1 00
Best twelve	McLaughlin,	Geo. Wilds, Hamilton	2 00
2nd	do	D. Murray, Hamilton	1 00
Best twelve	Pond's Seedling,	Fred B. Lewis, Lockport	2 00
2nd	do	E. C Fearnside, Hamilton	1 00
Best twelve	Glass Seedling,	T. H. Parker, Woodstock	2 00
2nd	do	Alex. Glass, St. Catharines	1 00
Best twelve	Fallenburg,	Joseph Gorden, Hamilton	2 00
Best twelve	Peach plums,	T. R. Merritt, St. Catharines	2 00
2nd	do	Alex. Glass, St. Catharines	1 00
Best twelve	General Hand,	Joseph Gorden, Hamilton	2 00
2nd	do	A. W. Taylor, Hamilton	1 00
Best twelve	Jefferson,	D. Murray, Hamilton	2 00
2nd	do	Alex. Glass, St. Catharines	1 00
Best twelve	Rheine Claude de Bavay,	Joseph Gorden, Hamilton	2 00
2nd	do	Jas. R. Harris, Woodstock	1 00
Best twelve	dessert plums, one variety, correctly named,	Joseph Gorden, Hamilton	2 00
2nd	do	do	Alex. Glass, St. Catharines	1 00
Best twelve	cooking plums, one variety, correctly named,	Joseph Gorden, Hamilton	2 00
2nd	do	do	Alex. Glass, St. Catharines	1 00
Best twelve	seedling plums,	Alex. Glass, St. Catharines	2 00
2nd	do	T. R. Merritt, St. Catharines	1 00
Best six	varieties of peaches, correctly named, 6 of each,	H. J. Brown, Niagara	4 00
2nd	do	do	W. J. Stipe, Hamilton	2 00
3rd	do	do	R. Currie, Niagara	1 00
Best six	Early awfords,	R. Currie, Niagara	2 00
2nd	do	H. J. Brown, Niagara	1 00
Best six	Late Crawfords,	H. J. Brown, Niagara	2 00
2nd	do	R. Currie, Niagara	1 00
Best six	peaches, any other variety, correctly named,	W. J. Stipe, Hamilton	2 00
2nd	do	do	H. J. Brown, Niagara	1 00
Best six	peaches, white flesh, any other kind, correctly named,	Geo. Cairns, Virgil	2 00
2nd	do	do	J. D. Lutz, Stoney Creek	1 00
Best six	peaches, yellow flesh, any other variety, correctly named,	R. Currie, Niagara	2 00
2nd	do	do	Alex. Glass, St. Catharines	1 00
Best six	seedling peaches, white flesh,	W. J. Stipe, Hamilton	2 00
2nd	do	Geo. Cairns, Virgil	1 00
Best six	seedling peaches, yellow flesh,	R. Currie, Niagara	2 00
2nd	do	Walter Armstrong, Byron	1 00
Best collection	of grapes grown in open air, 12 varieties, two bunches of each,	Saml. Burner, Hamilton	8 00
2nd	do	do	do	W. Anderson, Hamilton	6 00
3rd	do	do	do	Jos. Gorden, Hamilton	4 00
Best six	varieties of grapes (open air), two bunches of each,	Saml. Burner, Hamilton	5 00
2nd	do	do	Wm. Anderson, Hamilton	3 00
3rd	do	do	Joseph Gorden, Hamilton	2 00
Best two	bunches Concord grapes,	Wm. Anderson, Hamilton	2 00
2nd	do	Alex. Glass, St. Catharines	1 00
Best two	bunches Delaware,	C. F. Knapp, Penn Yan	2 00
2nd	do	Saml. Burner, Hamilton	1 00
Best two	bunches Moore's Early,	Saml. Burner, Hamilton	2 00
2nd	do	Joseph Garden, Hamilton	1 00
Best two	bunches Diana,	Wm. Anderson, Hamilton	2 00
2nd	do	Saml. Burner, Hamilton	1 00
Best two	bunches Creveling,	Joseph Gorden, Hamilton	2 00
2nd	do	Wm. Anderson, Hamilton	1 00
Best two	bunches Rogers' 4,	Saml. Burner, Hamilton	2 00
2nd	do	Wm. Anderson, Hamilton	1 00
Best two	bunches Rogers' 3,	Saml. Burner, Hamilton	2 00
2nd	do	Wm. Anderson, Hamilton	1 00
Best two	bunches Rogers' 9,	Joseph Gorden, Hamilton	2 00
2nd	do	Wm. Anderson, Hamilton	1 00

Best two bunches Rogers' 15, Saml. Burner, Hamilton		$2 00
2nd do	C. F. Knapp, Penn Yan	1 00
Best two bunches Rogers' 19, Saml. Burner, Hamilton		2 00
2nd do	Wm. Anderson, Hamilton	1 00
Best two bunches Rogers' 44, Saml. Burner, Hamilton		2 00
2nd do	Joseph Gorden, Hamilton	1 00
Best two bunches Empire State, C. F. Knapp, Penn Yan		2 00
Best two bunches Salem, Saml. Burner, Hamiltou		2 00
2nd do	C. F. Knapp, Penn Yan	1 00
Best two bunches Eumelan, S. R. Merritt, St. Catharines		2 00
2nd do	Saml. Burner, Hamilton	1 00
Best two buches Hartford Prolific, Saml. Burner, Hamilton		2 00
2nd do	Wm. Anderson, Hamilton	1 00
Best two bunches Iona, C. F. Knapp, Penn Yan		2 00
2nd do	Wm. Anderson, Hamilton	1 00
Best two bunches Israella, Saml. Burner, Hamilton		2 00
2nd do	C. F. Knapp, Penn Yan	1 00
Best two bunches Allen's Hybrid, Saml. Burner, Hamilton		2 00
2nd do	Wm. Anderson, Hamilton	1 00
Best two bunches white Niagara, C. F. Knapp, Penn Yan		2 00
2nd do	T. R. Merritt, St. Catharines	1 00
Best two bunches Burnet, Wm. Anderson, Hamilton		2 00
Best two bunches Pocklington, C. F. Knapp, Penn Yan		2 00
2nd do	Saml. Burner, Hamilton	1 00
Best two bunches Clinton, D. Carter, London		2 00
2nd do	Ira C. Dicy. London	1 00
Best two bunches Walter, Wm. Anderson, Hamilton		2 00
2nd do	Saml. Woodley, Hamilton	1 00
Best two bunches Martha, Saml. Burner, Hamilton		2 00
2nd do	Wm. Anderson, Hamilton	1 00
Best two bunches any other variety, Jas. R. Harris, Woodstock		2 00
2nd do	C. F. Knapp, Penn Yan, N.Y	1 00
Best collection grapes, grown under glass, 6 varieties, one bunch each, correctly named, T. H. Parker, Woodstock		8 00
Best two bunches black Hamburg, T. R. Merritt, St. Catharines		2 00
2nd do	T. H. Parker, Woodstock	1 00
Best two bunches black grapes, any other variety, T. R. Merritt, St. Catharines		3 00
2nd do do	T. H. Parker, Woodstock	2 00
Best two bunches red grapes, any other variety, H. W. Brethour & C. T. Thresher, Brantford		2 00
2nd do do	T. R. Merritt, St. Catharines	1 00
Best two bunches white grapes, grown under glass, correctly named, H. W. Brethour & C. T. Thresher, Brantford		2 00
2nd do do	T. H. Parker, Woodstock	2 00
Best six Nectarines, named, G. J. Miller, Virgil		3 00
2nd do	Geo. Cairns, Virgil	2 00
Best six Quinces, Joseph Gorden, Hamilton		2 00
2nd do	R. Currie, Niagara	1 00
Best green flesh melon, T. R. Merritt, St. Catharines		2 00
2nd do	E. S. Cronyn, London	1 00
Best red or scarlet flesh melon, George Wilds, Hamilton		2 00
2nd do	Alexander Glass, St. Catharines	1 00
Best water melon, George Wilds, Hamilton		2 00
2nd do	B. Fletcher, Strathroy	1 00
Best Citron, W. B. Giles, Ealing		2 00
2nd do	George Wilds, Hamilton	1 00
Best quart uncultivated native wild plum, Francis Peck, Albury		2 00
Best three clusters uncultivated native wild grape, J. D. Lutz, Stoney Creek		1 00
Greatest variety native wild crab, 12 each, George Ott, Arkona		2 00
2nd do do	W. H. K. Talbot, Ealing	1 00
Best four varieties cultivated crab, 12 each, W. McKenzie Ross, Chatham		2 00
2nd do do	T. R. Merritt, St. Catharines	1 00
Largest and best collection cultivated crab, W. McKenzie Ross, Chatham		4 00
2nd do do	Francis Peck, Melville Cross	2 00

EXTRAS.

Diploma.—Lawton's early Blackberries, Jas. Griffith, London.

CLASS XLVI.

42 Entries.

Collections.

Judges.—Allen McD'Allan, Goderich; A. M. Smith, St. Catharines; John Wallace, Dunblane.

Apples.

Best collection of 40 varieties, 5 of each,		Grimsby Fruit Grounds Association, Grimsby	$12 00
2nd	do	J. D. Lutz, Stoney Creek	8 00
3rd	do	H. J. Brown, Niagara	6 00

Pears.

Best collection of 20 varieties, named, 5 of each,		G. J. Miller, Virgil	$10 00
2nd	do	Alex Glass, St. Catharines	8 00
3rd	do	Samuel Woodley, Hamilton	5 00

Plums.

Best collection of 20 varieties, named, 6 of each,		Alex. Glass, St. Catharines	$10 00
2nd	do	Grimsby Fruit Grounds Ass., Grimsby	8 00
3rd	do	Joseph Gorden, Hamilton	5 00

Peaches.

Best collection of 12 varieties, named, 6 of each,		Grimsby Fruit Grounds Ass., Grimsby	$10 00
2nd	do	H. J. Brown, Niagara	8 00
3rd	do	Robert Currie, Niagara	5 00

Grapes—(Grown in the open air).

Best collection of 20 varieties, named, 2 bunches of each,		Samuel Burner, Hamilton	$10 00
2nd	do	Wm. Anderson, Hamilton	8 00
3rd	do	Grimsby Fruit Grounds Ass., Grimsby	5 00

CLASS XLVII.

801 Entries.

Garden Vegetables.

Judges.—James Edge, Edgehill; Charles E. Brown, Niagara.

Best beans, French, quart,		W. H. K. Talbot, Ealing	$2 00
2nd	do	Charles Scott, Melville Cross	1 50
3rd	do	George Wilds, Hamilton	1 00
Best beets, long blood, six,		George Cairns, Virgil	2 00
2nd	do	Wm. Hyslop, London	1 50
3rd	do	Samuel Pope, London	1 00
Best beets, turnip, six,		John Taylor, Wilton Grove	2 00
2nd	do	Augustin Swaffield, Union	1 50
3rd	do	W. H. K. Talbot, Ealing	1 00
Best Brussels sprouts, six,		Chas. Scott, Melville Cross	2 00
Best cabbage, Drumhead Savoy,		James Gammage, London	2 00
2nd	do	Samuel Pope, London	1 50
3rd	do	W. H. K. Talbot, Ealing	1 00
Best cabbage, winter, three heads,		Thomas Olde, Union	2 00
Best cabbage, summer, three heads,		A. N. Murdock, London, West	2 00
2nd	do	Richard Fletcher, London	1 50
3rd	do	Samuel Pope, London	1 00
Best cabbage, Winningstadt, three heads,		Richard Fletcher, London	2 00
2nd	do	R. Arnold, Thamesville	1 50
3rd	do	James Gammage, London	1 00
Best cabbage, red, three heads,		George Wilds, Hamilton	2 00
2nd	do	Samuel Pope, London	1 50
3rd	do	Abel Steele, Hyde Park	1 00
Best Scotch Kale, three heads,		John Stott, Ealing	2 00
2nd	do	Charles Scott, Melville Cross	1 50
3rd	do	Samuel Pope, London	1 00

Best cauliflower, three heads,	Abel Steele, Hyde Park	$2 00
2nd do	Isaac Pollock, Hamilton	1 50
3rd do	John Lackey, London	1 00
Best capsicums, twelve,	George Cairns, Virgil	2 00
Best capsicums, collection,	Isaac Pollock, Hamilton	3 00
2nd do	Walter G. Stipe, Hamilton	2 00
3rd do	A. W. Taylor, Hamilton	1 00
Best carrot, early horn, twelve,	Geo. Cairns, Virgil	2 00
2nd do	W. H. K. Talbot, Ealing	1 50
3rd do	R. Arnold, Thamesville	1 00
Best carrot, intermediate, twelve,	W. H. K. Talbot, Ealing	2 00
2nd do	Wm. Jones, London	1 50
3rd do	J. Hewer & C. Jordon, Guelph	1 00
Best carrot, long red, twelve,	W. H. K. Talbot, Ealing	2 00
2nd do	Isaac Pollock, Hamilton	1 50
3rd do	J. Hewer & C. Jordon, Guelph	1 00
Best celery, white, six heads,	Samuel Pope, London	2 00
2nd do	A. W. Taylor, Hamilton	1 50
3rd do	Abel Steele, Hyde Park	1 00
Best celery, red, six heads,	H. W. Brethour & C. T. Thresher, Brantford	2 00
2nd do	Abel Steele, Hyde Park	1 50
3rd do	Joseph Gorden, Hamilton	1 00
Best Celery, large ribbed, six heads,	A. W. Taylor, Hamilton	2 00
2nd do	Abel Steele, Hyde Park	1 50
3rd do	Margaret Wells, London	1 00
Best cucumbers, pickling, quart,	George Wilds, Hamilton	2 00
2nd do	W. H. K. Talbot, Ealing	1 50
3rd do	George Cairns, Virgil	1 00
Best twelve ears sweet corn, fit for the table,	George Wilds, Hamilton	2 00
2nd do do	Isaac Pollock, Hamilton	1 50
3rd do do	Abel Steele, Hyde Park	1 00
Best onions, red, twelve,	Samuel Pope, London	2 00
2nd do	T. R. Merritt, St. Catharines	1 50
3rd do	Wm. Hyslop, London	1 00
Best onions, yellow, twelve,	T. R. Merritt, St. Catharines	2 00
2nd do	Samuel Pope, London	1 50
3rd do	J. Curtis, Askin	1 00
Best onions, white, twelve,	A. W. Taylor, Hamilton	2 00
2nd do	George Wilds, Hamilton	1 50
3rd do	Wm. Endicott, Lucan	1 00
Best onions, potato, twelve,	A. W. Taylor, Hamilton	2 00
2nd do	George Wilds, Hamilton	1 00
Best onions, pickling, quart,	H. W. Brethour & W. C. Thresher, Brantford	2 00
2nd do	Isaac Pollock, Hamilton	1 00
Best Leeks, six,	Isaac Pollock, Hamilton	2 00
2nd do	Samuel Pope, London	1 50
3rd do	D. Campbell, London	1 00
Best three-egg plant, fruit (purple),	A. W. Taylor, Hamilton	2 00
2nd do	T. R. Merritt, St. Catharines	1 50
3rd do	Alex. Glass, St. Catharines	1 00
Best parships, six,	Chas. Scott, Melville Cross	2 00
2nd do	R. Arnold, Thamesville	1 50
3rd do	A. W. Taylor, Hamilton	1 00
Best radish, winter, black, twelve,	W. H. K. Talbot, Ealing	2 00
2nd do	Samuel Pope, London	1 00
Best radish, other kinds, twelve,	Geo. Wilds, Hamilton	2 00
2nd do	Isaac Pollock, Hamilton	1 00
Best salsify, twelve.	Geo. Cairns, Virgil	2 00
2nd do	D. Campbell, London	1 50
3rd do	A. W. Taylor, Hamilton	1 00
Best table squashes, three varieties, two of each,	Jabez Metcalf, sr., London East	2 00
2nd do	Jas. Griffith, London	1 50
3rd do	Agustin Swaffield, Union	1 00
Best twelve turnips, white, table variety,	Geo. Wilds, Hamilton	2 00
2nd do	Isaac Pollock, Hamilton	1 50
3rd do	Chas. Scott, Melville Cross	1 00
Best twelve yellow turnips (table),	Geo. Wilds, Hamilton	2 00
2nd do	Isaac Pollock, Hamilton	1 50
3rd do	Walter J. Stipe, Hamilton	1 00
Best tomatoes, Trophy, twelve,	George Cairns, Virgil	2 00
2nd do	Alex. Glass, St. Catharines	1 50
3rd do	A. W. Taylor, Hamilton	1 00
Best tomatoes, Gen. Grant, twelve,	George Cairns, Virgil	2 00
2nd do	E. C. Fearnside, Hamilton	1 00
Best tomatoes, Acme, twelve,	George Cairns, Virgil	2 00
2nd do	Isaac Pollock, Hamilton	1 00
Best twelve Conqueror tomatoes,	A. W. Taylor, Hamilton	2 00
2nd do	E. C. Fearnside, Hamilton	1 00

Best Livingstone's Perfection, twelve,			A. W. Taylor, Hamilton	$2 00
2nd	do		Isaac Pollock, Hamilton	1 00
Best Cardinal, twelve,			E. C. Fearnside, Hamilton	2 00
2nd	do		Thomas Oliver Veale, Hamilton	1 00
Best twelve tomatoes (large yellow),			Thomas Oliver Veale, Hamilton	2 00
2nd	do		Isaac Pollock, Hamilton	1 00
Best twelve any other variety tomatoes, not specified,			Isaac Pollock, Hamilton	2 00
2nd	do	do	Alex. Glass, St. Catharines	1 00
Best assorted collection tomatoes,			E. C. Fearnside, Hamilton	3 00
2nd	do		Samuel Pope, London	2 00
3rd	do		Abel Steele, Hyde Park	1 00
Best vegetable marrow, two,			Wm. Jones, London	2 00
2nd	do		M. A. Redman, London	1 00
Best four varieties garden potatoes, peck each,			W. H. K. Talbot, Ealing	3 00
2nd	do	do	Augustin Swaffield, Union	2 00
3rd	do	do	J. Hewer & C. Jordon, Guelph	1 00
Best collection sweet pot herbs,			Chas. Scott, Melville Cross	3 00
2nd	do		E. C. Fearnside, Hamilton	2 00
Best collection garden vegetables, largest and best,			W. H. K. Talbot, Ealing	6 00
2nd	do	do	Samuel Pope, London	4 00
3rd	do	do	John Scott, Ealing.	2 00

CLASS XLVIII.

392 Entries.

Plants and Cut Flowers.

Judges.—Jas. Goodall, London; Thomas Partridge, London.

Best greenhouse plants, twelve distinct varieties,			J. B. Cairncross, London	$6 00
2nd	do	do	E. Wells, London	4 00
3rd	do	do	A. R. Murdock, London, West	2 00
Best greenhouse plants, six distinct varieties,			E. Wells, London	3 00
2nd	do	do	J. B. Cairncross, London	2 00
Best foliage plants, twelve distinct varieties,			A. R. Murdock, London, West	4 00
2nd	do	do	E. Wells, London	2 00
3rd	do	do	J. B. Cairncross, London	1 00
Best Colenses, twelve distinct varieties,			E. Wells, London	4 00
2nd	do	do	J. B. Cairncross, London	3 00
3rd	do	do	Samuel Pope, London	2 00
Best Cockscombs, in pots,			F. Mitchell, Innerkip	2 00
2nd	do		John F. Welsh, Stratford	1 50
Best Cacti, twelve varieties,			A. Pegler, Ealing	4 00
2nd	do		E. Wells, London	3 00
Best fuchsias, six varieties,			Mrs. R. Copley, London	4 00
2nd	do		John Scott, Ealing	3 00
3rd	do		A. R. Murdock, London, West	2 00
Best ferns, foreign, twelve varieties,			J. B. Cairncross, London	5 00
2nd	do		A. R. Murdock, London, West	3 00
Best ferns, native, twelve varieties,			Thomas Waterhouse, Ealing	3 00
2nd	do		J. G. Metcalf, jr., London	2 00
3rd	do		John Scott, Ealing	1 00
Best begonias, flowering, six,			E. Wells, London	4 00
2nd	do		J. B. Cairncross, London	3 00
3rd	do		John Scott, Ealing	1 00
Best begonias, tuberous rooted, six,			A. R. Murdock, London, West	3 00
2nd	do		E. Wells, London	2 00
3rd	do		Chas. Scott, Melville Cross	1 00
Best roses, tender, six, in pots,			A. Pegler, Ealing	2 50
2nd	do		Wm. Warner, London	1 50
Best balsams, six varieties,			John F. Welsh, Stratford	2 00
2nd	do		G. J. Griffith, London	1 50
3rd	do		D. Campbell, London	1 00
Best hanging baskets, pair,			Mrs. R. Copley, London	3 00
2nd	do		Thomas Waterhouse, Ealing	2 00
3rd	do		John Scott, Ealing	1 00
Best geraniums, single, twelve distinct varieties,			E. Wells, London	4 00
2nd	do	do	Samuel Pope, London	3 00
3rd	do	do	John Scott, Ealing	2 00
Best geraniums, double, six,			E. Wells, London	3 00
2nd	do		Samuel Pope, London	2 00
Best geraniums, tricolor, six, golden,			J. B. Cairncross, London	2 50
2nd	do		E. Wells, London	1 50

Best	geraniums, silver, six varieties,	Samuel Pope, London	$2 50
2nd	do	E. Wells, London	1 50
3rd	do	J. B. Cairncross, London	1 00
Best	display of plants, distinct from other entries—not less than eighteen, nor more than twenty-four varieties,	E. Wells, London	8 00
2nd	do	J. B. Cairncross, London	6 00
3rd	do	John Scott, Ealing	4 00
Best	Dahlias, standard, 12 distinct varieties, one of each,	Webster Bros., Hamilton	3 00
2nd	do	do Jas. Vick, Rochester, N.Y	2 00
3rd	do	do F. Mitchell, Innerkip	1 00
Best	twelve bouquet dahlias, named, one of each,	Webster Bros., Hamilton	3 00
2nd	do	do Jas. Vick, Rochester, N.Y	2 00
3rd	do	do D. Crombie, Jr., Komoka	1 00
Best	largest and best collection of dahlias, one of each,	Jas. Vick, named, Rochester, N.Y	4 00
2nd	do	do Webster Bros., Hamilton	3 00
3rd	do	do D. Crombie, Jr., Komoka	2 00
Best	two large vase bouquets (without frames),	A. R. Murdock, London West	4 00
2nd	do	do A. C. Johnston, Askin	3 00
3rd	do	do D. Campbell, London	2 00
Best	pair side table or fan bouquets,	A. R. Murdock, London West	3 00
2nd	do	James Gaumage, London	2 00
3rd	do	Jabez Metcalf, Sr., London East	1 00
Best	hand bouquet, with paper,	A. Pegler, Ealing	3 00
2nd	do	Webster Bros., Hamilton	2 00
3rd	do	A. R. Murdock, London West	1 00
Best	bouquet, everlastings, natural flowers,	Mrs. John Thompson, Fergus	4 00
2nd	do	do Thos. Oliver Veale, Hamilton	3 00
3rd	do	do J. D. Davis, Hamilton	1 50
Best	bouquet wild flowers,	A. C. Johnstone, Askin	3 00
2nd	do	Thos. Waterhouse, Ealing	2 00
3rd	do	Clara Shore, White Leak	1 00
Best	pansies, 18 varieties,	Chas. Scott, Melville Cross	2 00
2nd	do	D. Crombie, Jr., Komoka	1 50
3rd	do	Webster Bros., Hamilton	1 00
Best	collection of annuals in bloom, distinct varieties, named,	S. E. Partridge, London	5 00
2nd	do	do A. C. Johnstone, Askin	4 00
3rd	do	do G. J. Griffith, London	2 00
Best	asters, 18 varieties,	John F. Welsh, Stratford	3 00
2nd	do	Mrs. T. Lingard, Mitchell	2 00
3rd	do	J. B. Cairncross, London	1 00
Best	ten weeks' stocks, 12 distinct varieties,	Chas. Scott, Melville Cross	2 50
2nd	do	do Thos. Oliver Veale, Hamilton	1 50
3rd	do	do Webster Bros., Hamilton	1 00
Best	marigolds, 18 varieties,	Thos. Oliver Veale, Hamilton	2 00
2nd	do	Chas. Scott, Melville Cross	1 50
3rd	do	Webster Bros., Hamilton	1 00
Best	collection of hybrid perpetual and perpetual moss roses, named,	Webster Bros., Hamilton	4 00
2nd	do	do F. Mitchell, Innerkip	3 00
3rd	do	do Wm. Warner, London	2 00
Best	collection of Bourbon tea and Noisette roses, named,	A. Pegler, Ealing	4 00
2nd	do	do Webster Bros., Hamilton	3 00
3rd	do	do Wm. Warner, London	2 00
Best	roses, 3, any other variety,	Webster Bros., Hamilton	2 00
2nd	do	J. B. Cairncross, London	1 50
3rd	do	A. Pegler, Ealing	1 00
Best	floral design for supper table,	Mrs. S. Woodliffe, London	4 00
2nd	do	Jabez Metcalf, Sr., London East	3 00
3rd	do	A. R. Murdock, London West	2 00
Best	Verbenas, 12, named,	Webster Bros., Hamilton	2 00
2nd	do	J. B. Cairncross, London	1 50
3rd	do	Chas. Scott, Melville Cross	1 00
Best	collection verbenas,	Webster Bros., Hamilton	3 00
2nd	do	J. B. Cairncross, London	2 00
3rd	do	Mrs. T. Lingard, Mitchell	1 00
Best	Petunias, double, 6,	John F. Welsh, Stratford	2 00
2nd	do	Chas. Scott, Melville Cross	1 50
3rd	do	Webster Bros., Hamilton	1 00
Best	Petunias, single, 6,	Chas. Scott, Melville Cross	2 00
2nd	do	Webster Bros., Hamilton	1 50
3rd	do	D. Murray, Hamilton	1 00
Best	Phlox Drummondii, collection,	Jas. Vick, Rochester, N.Y	3 00
2nd	do	Chas. Scott, Melville Cross	2 00
3rd	do	Thos. Oliver Veale, Hamilton	1 00
Best	Dianthus, collection,	A. Pegler, Ealing	3 00
2nd	do	Thos. Oliver Veale, Hamilton	2 00
3rd	do	J. G. Davis, Hamilton	1 00
Best	Phloxes, perennial, 12 distinct varieties,	J. B. Cairncross, London	3 00
2nd	do	do Webster Bros., Hamilton	2 00

3rd Phloxes, perennial, 12 distinct varieties, D. Crombie, Jr., Komoka	$1 00
Best shrubs, hardy, 10 varieties, to include variegated or remarkable foliage, Webster Bros., Hamilton	2 00
2nd do do do E. Wells, London	1 50
Best Hollyhocks, 12 distinct varieties, D. Campbell, London	2 00
2nd do Jas. Griffith, London	1 50
3rd do Webster Bros., Hamilton	1 00
Best Gladiolus, collections, Jas. Vick, Rochester, N.Y.	4 00
2nd do Wm. Warner, London	3 00
3rd do F. Mitchell, Innerkip	2 00
Best zinnias, 18 distinct varieties, J. G. Davis, Hamilton	2 00
2nd do Thos. Oliver Veale, Hamilton	1 50
3rd do Jas. Vick, Rochester, N.Y	1 00
Best collection of cut flowers, annuals, biennials and perennials, largest and best display, correctly named, S. E. Partridge, London	8 00
2nd do Jas. Vick, Rochester, N.Y	6 00
3rd do E. C. Fearnside, Hamilton	4 00

EXTRAS.

Highly Commended.—Sunflower, A. G. Proctor, London, East.

ARTS AND MANUFACTURES' DEPARTMENT.

COMPETITON OPEN TO THE WORLD.

CLASS XLIX.

259 ENTRIES.

FINE ARTS—OILS.

Professional or Amateur—(Original).

All views from nature, in any section of this or next class, to have attached the name of locality, or other necessary particulars, where view was obtained.

JUDGES.—T. W. Moran, St. Catharines; Wm. Armstrong, Toronto.

Best animals from life, Paul Peel, London	$10 00
2nd do Edward Blackmore, St. Thomas	5 00
Best flowers or fruit, M. E. Dignan, London	8 00
2nd do F. M. Bell-Smith, London	4 00
Best figure or historical subject, F. M. Bell-Smith, London	12 00
2nd do Paul Peel, London	8 00
3rd do M. E. Dignan, London	4 00
Best landscape, Canadian subject, R. A. Kirkham, London	10 00
2nd do do H. W. McEvoy, London	6 00
3rd do do Chas. Chapman, London	3 00
Best landscape or marine painting, not Canadian subject, F. M. Bell-Smith, London	10 00
2nd do do Walter Danks	5 00
Best marine painting, Canadian subject, F. M. Bell-Smith, London	10 00
2nd do do W. L. Judson, London	6 00
Best portrait, W. L. Judson, London	9 00
2nd do J. P. Hurst, London	6 00
3rd do Edward Blackmore, St. Thomas	3 00
Best still life, not flowers or fruit, Emily M. Gunn, London	8 00
2nd do Paul Peel, London	4 00

AMATEUR LIST—OILS (Copies).

Best any subject, M. E. Dignan, London	$8 00
2nd do Mrs. L. Peters, London	5 00
3rd do Mrs. A. Sneaton, London	3 00
Best animals from life, Emily M. Gunn, London	8 00
2nd do M. E. Dignan, London	4 00
Best figure subject, Emily M. Gunn, London	8 00
2nd do Miss Celia McNutty, St. Thomas	4 00
Best flowers or fruit, M. E. Dignan, London	8 00
2nd do J. M. Dunsmore, Stratford	4 00

Best landscape or marine view, Canadian subject,	Laura Hendersholt,	London	$8 00
2nd do	M. E. Dignan,	London	4 00
Best still life, not flowers or fruit,	Miss Strickland,	Oshawa	7 00
2nd do	Acad. Sacred Heart,	London	4 00
Best painting on porcelain, professional Canadian work, three pieces,	John H. Griffiths,	London	6 00
2nd do	Harriet N. Harrison,	Woodstock	4 00
Best painting on porcelain, amateur Canadian work, three pieces,	Mrs. A. Sneaton,	London	5 00
2nd do	M. E. Dignan,	London	3 00
Best collection of decorated porcelain, Canadian work, open to all,	Emily M. Gunn,	London	10 00
2nd do	Miss Hawkesworth-Wood,	London	6 00

Bronze Medal.—Collection decorated china and porcelain (imp.), W. T. Reid & Co., London; Collection of cut and engraved glassware and fancy colored glass, W. T. Reid & Co., London.

CLASS L.

294 Entries.

Fine Arts in Water Colours, Crayons, Etc.

Judges.—T. W. Moran, St. Catharines; Wm. Armstrong, Toronto.

Water Colours.

Professional List—(Originals.)

Best animals from life,	W. L. Judson,	London	$5 00
2nd do	Wm. N. Cresswell,	Seaforth	3 00
Best flowers or fruit,	F. M. Bell-Smith,	London	5 00
2nd do	W. L. Judson,	London	3 00
Best figure or historical subject,	F. M. Bell-Smith,	London	5 00
2nd do	W. L. Judson,	London	3 00
Best landscape, Canadian subject,	F. M. Bell-Smith,	London	6 00
2nd do	Chas. Chapman,	London	4 00
3rd do	Chas. Chapman,	London	3 00
Best landscape or marine view, not Canadian subject,	W. L. Judson,	London	5 00
2nd do do	F. M. Bell-Smith,	London	3 00
Best marine view, Canadian subject,	F. M. Bell-Smith,	London	6 00
2nd do do	Wm. N. Cresswell,	Seaforth	4 00
Best portrait,	F. M. Bell-Smith,	London	5 00
Best still life, not flowers or fruit,	F. M. Bell Smith,	London	5 00

Part 2—Amateur List (Originals).

(Definitions same as in previous class.)

Best any subject,	M. E. Dignan,	London	$5 00
2nd do	Miss Strickland,	Oshawa	3 00
3rd do	John J. Biggins,	Clinton	2 00
Best animals from life,	Miss Mary Strickland,	Oshawa	5 00
2nd do	John Chapman,	London	3 00
Best flowers or fruit,	Mrs. C. C. Neville,	Ottawa	5 00
2nd do	M. E. Dignan,	London	3 00
Best figure or historical subject,	M. E. Dignan,	London	5 00
2nd do	John Chapman,	London	3 00
Best landscape or marine view, Canadian subject,	D. J. MacMurchy,	Toronto	6 00
2nd do	John Chapman,	London	4 00

Part 3—Amateur List—(Copies).

Best animals, grouped or single,	Miss Strickland,	Oshawa	$4 00
2nd do	Wm. Milroy,	London	2 00
Best flowers or fruit,	Miss M. Strickland,	Oshawa	4 00
2nd do	M. E. Dignan,	London	2 00
Best figure or historical subject,	Emily M. Gunn,	London	4 00
2nd do	M. A. A. D. Smith,		2 00
Best landscape,	Mrs. A. Sneaton,	London	4 00
2nd do	Laura Hendersholt,	London	2 00
Best marine view,	Mrs. Field,	London	4 00
2nd do	Miss E. Errington,	Glanworth	2 00
Best still life, not flowers or fruit,	Miss M. Strickland,	Oshawa	4 00
2nd do	D. J. MacMurchy,	Toronto	2 00

CRAYON, PENCIL, SEPIA, AND PEN AND INK SKETCH.

Part 1—Professional List (Originals).

(Definitions same as in previous class.)

Best crayon, coloured,	Jas. Griffiths, London	$4 00
2nd do	F. M. Bell-Smith, London	2 00
Best crayon, plain,	J. C. Rollston, London	4 00
2nd do	Mrs. C. H. Owen, London	2 00
Best pen and ink sketch,	Wm. N. Creswell, Seaforth	4 00
2nd do	F. M. Bell-Smith, London	2 00
Best pencil drawing,	Jas. Griffith, London	4 00
2nd do	F. M. Bell-Smith, London	2 00
Best sepia drawing,	F. M. Bell-Smith, London	4 00
2nd do	Jas. Griffiths, London	2 00

Part 2—Amateur List—(Originals).

(Definitions same as in previous class.)

Best crayon, coloured,	Emily M. Gunn, London	$4 00
2nd do	Miss M. Strickland, Oshawa	2 00
Best crayon, plain,	Emily M. Gunn, London	4 00
2nd do	Thomas Beall, jr., Alliston	2 00
Best pen and ink sketch,	Miss G. Sewell, Toronto	4 00
Best sepia drawing,	Mrs. Field, London	4 00
2nd do	John Chapman, London	2 00
Best Christmas cards, hand painted,	Mrs. Chas. Symmonds, London	4 00
2nd do	Miss E. Brierley, London	2 00

Part 3—Amateur List (Copies).

Best crayon, coloured,	Emily M. Gunn, London	$4 00
2nd do	Mrs. R. J. Batter, London	2 00
Best crayon, plain,	Bertie Burnell, London	4 00
2nd do	Academy Sacred Heart, London	2 00
Best pen and ink sketch,	Miss L. Errington, Glanworth	4 00
2d do	M. A. A. D. Smith, London	2 00
Best pencil drawing,	A. Johnstone, Askin	4 00
2nd do	Miss M. Strickland, Oshawa	2 00
Best sepia drawing.	Mrs. Field, London	4 00
2nd do	D. J. MacMurchy, Toronto	2 00

CLASS LI.

87 ENTRIES.

PENMANSHIP, LINEAR DRAWING, PHOTOGRAPHING, ENGRAVING, MAPS, STATUARY, ETC.

JUDGES.—T. W. Moran, St. Catharines; Wm. Armstrong, Toronto.

Part 1.—Penmanship, Geometrical, Architectural and Mechanical Drawing, Engraving, Lithography, Etc.

Best drawing, architectural, geometrical and prospective view,	E. R. Babington, London	$8 00
Best drawing, geometrical, of engine or mill work, coloured,	E. R. Babington, London	4 00
2nd do do	G. Goward, London	2 00
Best penmanship, business hand, without flourishes,	D. McLachlan, Chatham	4 00
2nd do do	George Evans, London	2 00
Best penmanship, ornamental (not pen and ink pictures),	J. W. Westerbelt, London	4 00
2nd do do	George Evans, London	2 00

Part 2.—Photography, Lithography, Engravings and Etchings, Printed Maps and Atlases.

Best photograph portraits, collection of, in duplicate, one set coloured,	Edy Bros., London	$8 00
2nd do do	Frank Cooper, London	5 00
Best photograph portraits, collection of plain,	Edy Bros., London	6 00
2nd do do	Frank Cooper, London	4 00
Best photograph landscapes and views, collection of,	Robert Black, Detroit	6 00
2nd do do	John Chapman, London	4 00
Best photograph portrait, finished in Indian ink,	Edy Bros., London	3 00
Best photograph portrait, finished in water colours,	Edy Bros., London	3 00
Best engraving on wood, with proof,	London Free Press Printing Co., London	4 00
Best engraving on copper, with proof,	London Free Press Printing Co., London	4 00

Best lithographic drawing, plain,	Wilberney Hermes, Berlin, Germany, per Selby & Co., Toronto	$4 00
2nd do	London Free Press Printing Co, London	2 00
Best lithographic drawing, colours printed,	London Free Press Printing Co., London	4 00
Best lithographic commercial work, in black or colours,	London Free Press Printing Co., London	4 00
Best printed maps and atlases,	H. C. Tunison, London	8 00
2nd do	London Free Press Printing Co., London	4 00

Part 3.—Statuary, Etc., Professional or Amateur.

Best carving in wood,	Richard R. Bland, London	8 00
Best model in clay or wax, with plaster case,	Emily M. Gunn, London	8 00
Best statue or group, in stone,	Wm. D. Weekes, Exeter	8 00
Best school appliances,	Selby & Co., Toronto	5 00

EXTRAS.

Highly Commended.—Written visiting cards, C. W. Fleming, Owen Sound.

Diploma.—Statue of the Holy Virgin, R. Beullac, Montreal: job printing and book binding, letter-press, F. M. Gardner, London; printing, book and pamphlet, card printing, posters, plain and fancy letter-press, London Free Press Printing Co., London.

CLASS LII.

33 ENTRIES.

NATURAL HISTORY AND MINERALOGY.

JUDGES.—H. B. Spotton, Barrie: P. R. Palmer, Belleville.

FOSSILS.

Best collection of Canadian, named and classified,	John Notman, Toronto	$6 00

INSECTS.

Best collection of native, with common and technical names attached, and classified so as to show those injurious and those beneficial to agriculture and horticulture,	A. B. Saunders, London	8 00
2nd do do	H. P. Bock, London	6 00

PLANTS.

Best collection of native, arranged in their natural families and named,	W. Saunders, London	8 00
2nd do do	Chas. O. Baker, London	4 00

MINERALOGY, ETC.

Copper ores of the Dominion, best collection of,	John Notman, Toronto	8 00
Iron ores of the Dominion, best collection of,	John Notman, Toronto	8 00
Lead ores of the Dominion, best collection of,	John Notman, Toronto	8 00
Silver ores of the Dominion, best collection of,	John Notman, Toronto	8 00
Specimens, illustrating the mineralogy of Canada, best collection of,	John Notman, Toronto	15 00
2nd do do do	A. P. Saunders, London	10 00
Mineral phosphates, display of Canadian,	John Notman, Toronto	Silver Medal
Collection of Canadian gems,	John Notman, Toronto	Diploma
Display of plumbago, Canadian,	John Notman, Toronto	Diploma

Bronze Medal.—Collection of spectuals, S. Solomon, Toronto.

Gold and Silver Medal.—Marbles, sand with product in glass, gypsum, quartz, feldspar in china, Palaeontology, John Notman, Toronto.

Silver Medal.—An exhibit of Indian productions, W. J. Thompson, St. John, N.B.

CLASS LIII.

427 ENTRIES.

LADIES' WORK.

JUDGES.—Miss A. Gibson, Berlin; Mrs. Beddome, Parkdale; Miss Helen Christie, Bowmanville.

No imported work, or work done by professional lace makers, fancy goods' storekeepers, milliners shirt makers, etc., or anything which has previously taken a prize at a Provincial Exhibition in Ontario will be allowed to compete in Classes 53 or 54.

Articles soiled or defaced by wear not eligible for competition. All specimens of plain sewing, tatting, crotchet, embroidery, knitting, etc., to be new and unwashed.

Best painting on china,	Nellie G. McIntosh, St. Marys	$3 00
2nd do	M. Lauder, London	2 00
Best painting on Terra Cotta,	Mrs. A. Screaton, London	3 00
2nd do	Miss Strickland, Oshawa	2 00

Best	painting on silk or satin, water colours,	C. B. Bagley, London	$3 00
2nd	do	do Flora M. Zimmerman, London	2 00
Best	painting on silk or satin, oils,	Mrs. A. Screaton, London	3 00
2nd	do	Miss T. A. Joslyn, Seaforth	2 00
Best	painting on Wedgewood ware,	Miss Strickland, Oshawa	3 00
Best	painting on plush,	Harriet N. Harrison, Woodstock	3 00
2nd	do	Hodson G. Abbott, London	2 00
Best	painting on tapestry,	Mrs. A. Heaslip, Toronto	3 00
2nd	do	L. M. Hanson, London	2 00
	Painting on glass,	Mrs. C. C. Neville, Ottawa	3 00
2nd	do	Mrs. A. Screaton, London	2 00
Best	painting on jars,	Miss Strickland, Oshawa	3 00
	Fancy work (any kind, by girls under 14 years of age),	Ada Metcalf, London	3 00
2nd	do	do Jeanette Routledge, London	2 00
Best	applique work,	Miss E. McVean, Woodhill	3 00
2nd	do	Miss Mary Strickland, Oshawa	2 00
Best	Oriental embroidery, (in silk),	Mrs. Helen Cowan, Harriston	3 00
2nd	do	Miss Mary Strickland, Oshawa	2 00
Best	ladies' bonnets (collection of)	R. Walker & Son, London	5 00
Best	ladies' mantles (collection of)	R. Walker & Son, London	5 00
2nd	do	A. McDonald, London	3 00
Best	hairdressers' work,	F. J. Miller, London	3 00
Best	hair jewellery,	F. J. Miller, London	3 00
2nd	do	Miss M. Strickland, Oshawa	2 00
Best	plaits for bonnets or hats,	Canadian straw, Mrs. Geo. Webster, London	2 00
2nd	do	do Mrs. A. Warren, St. Marys	1 00
Best	Crewell work (wool)	Miss E. McVean, Woodhill	2 50
2nd	do	Alfred Stilwell, London	1 00
Best	tinsel work,	Miss E. McVean, Woodhill	3 00
2nd	do	Mrs. McLachlan, London	2 00
Best	arresine work, with silk,	Mrs. Helen Cowan, Harriston	3 00
2nd	do	Mrs. H. F. Whetter, London	2 00
Best	Berlin wool work for framing,	Mrs. Susan Rowdon, Brampton	4 00
2nd	do	Kate E. MacLean, Wendigo	3 00
Best	Berlin wool work, raised,	Miss E. McVean, Woodhill	4 00
2nd	do	Miss Strickland, Oshawa	3 00
Best	slippers, pair, worsted work,	Mrs. Field, London	3 00
2nd	do	John Day, Thamesford	2 00
Best	sofa cushion, embroidery,	Mrs. John Thompson, Fergus	3 00
2nd	do	Mrs. St. John Hyttenranch, London	2 00
Best	Netting, fancy,	Miss E. McVean, Woodhill	3 00
2nd	do	Miss M. Strickland, Oshawa	2 00
Best	mats, wool,	Geo. Rogers, St. Thomas	3 00
2nd	do	Miss Mary Strickland, Oshawa	2 00
Best	teapot cosey,	M. Lauder, London	3 00
2nd	do	Mrs. Susan Rowdon, Brampton	2 00
Best	chenille work,	Miss M. Strickland, Oshawa	3 00
2nd	do	Mrs. MacLachlan, London	2 00
Best	work on plush,	Mrs. MacLachlan, London	3 00
2nd	do	Miss Strickland, Oshawa	2 00
Best	carriage or sofa afghan,	Amy L. Doty, London	3 00
2nd	do	Miss Strickland, Oshawa	2 00
Best	Crotchet work (fancy wool,	Mrs. Thos, Drummond, Kingston	3 00
2nd	do	Nellie G. McIntosh, St. Marys	2 00
Best	braiding,	Mrs. R. W. Johnston, Northfield Centre	3 00
2nd	do	Mrs. J. H. Bowman, Northfield Centre	2 00
Best	Queen Anne darning,	Miss E. McVean, Woodhill	3 00
2nd	do	Miss Strickland, Oshawa	2 00
Best	embroidery on cotton or muslin,	Mrs. Jane L. Smith, London	3 00
2nd	do	Jennie Creighton, St. Marys	2 00
Best	embroidery on silk or cloth,	Mrs. J. W. Biggins, Clinton	3 00
2nd	do	Mrs. Helen Cowan, Harriston	2 00
Best	embroidery on flannel,	Miss E. McVean, Woodhill	3 00
2nd	do	Jennie Creighton, St. Marys	2 00
Best	guipure work,	L. S. Mackintosh, Strathroy	3 00
2nd	do	Miss J. Maingareth, London	2 00
Best	tatting,	Mrs. A. Screaton, London	2 00
2nd	do	A. E. Johnstone, Askin	1 00
Best	lace (point)	Nora Cunningham, Detroit, Mich	3 00
2nd	do	Jennie Creighton, St. Marys	2 00
Best	lace (Honiton),	Miss Mary Strickland	2 00
Best	lace (pillow or bobbin),	Miss E. McVean, Woodhill	3 00
Best	lace (macrame or twine),	Mrs. N. Ormsby, London	3 00
2nd	do	Mrs. J. C. Pocock, London South	2 00
Best	wax flowers (coloured),	Miss Kate Haydon, London	3 00
2nd	do	Kate E. McLean, Windigo	2 00
Best	wax flowers, or design (white),	Mrs. J. B. Buttrey, London	2 00
2nd	do	Miss Kate Haydon, London	1 00

Best wax work (autumnal leaves), Mrs. J. B. Buttrey, London	$3 00
2nd do Miss Kate Haydon	2 00
Best ornamental leather work, C. L. Bennett, New Edinburgh	3 00
2nd do Mrs. Jane Piper, London	2 00
Best worked mottoes, Mrs. Ella Metcalf, London	3 00
2nd do David Lundie, London	2 00
Best collection of embroidery, on cotton, silk or cloth (the work of one person) Mrs. W. G. Morgan, St. Thomas	Diploma
Best collection of lace work (the work of one person), Mrs. Hessy, Petrolia	Diploma
Best and greatest collection of ladies' work, ornamental (the work of one person), Mrs. Wm. Connor, London	Silver Medal

EXTRAS.

Highly Commended.—Ribbon work, Mrs. T. E. Joslyn, Seaforth. 1 basket and 1 vase made of Alume, Miss Savery, London. Silk embroidery, Mrs. W. G. Morgan, St. Thomas. Feather work, Mrs. Jane Piper, London. Paper ornaments, Miss G. Paton, London. Pillow sham holder and lifter, Mrs. S, Vanduzen, London.

Diploma.—Shell work, Mrs. T. H. Bowman, Northfield Centre. Case feather flowers, E. Winder, London. Feather wreath, Miss Shanklin, Lobo. Wreath of hair flowers, Mrs. Jas. Holman, London.

CLASS LIV.

306 ENTRIES.

LADIES' WORK—USEFUL.

JUDGES.—Mrs. J. B. Aylesworth, Newburgh; Miss Grace McLean, Essex Centre; Mrs. Mary J. McKibbon, Peterborough.

Best machine sewing (family), Miss George, London	3 00
2nd do Geo. Rogers, St. Thomas	2 00
Best hand sewing, Miss E. McVean, Woodhill	3 00
2nd do Mrs. Wm. McKenzie, Teeswater	2 00
Best shirt, man's fine, unwashed, hand-made, Mrs. Wm. McKenzie, Teeswater	3 00
2nd do do Mrs. J. H. Bowman, Northfield Centre	2 00
Best shirt, man's fine, unwashed, machine-made, Geo. Rogers, St. Thomas	3 00
2nd do do Miss George, London	2 00
Bsst shirt, man's coarse, unwashed, hand-made, Mrs. Thos. Ellis, Innerkip	2 00
2nd do do Mrs. A. Warren, St. Marys	1 00
Best shirt, man's flannel, hand-made, Miss Rose Swaffield, Goderich	2 00
2nd do do Mrs. T. Lingard, Mitchell	1 00
Best plain sewing, by girl under 14 years, Eva F. Fletcher, Strathroy	2 00
2nd do do Florence A. E. Fletcher, Strathroy	1 00
Best darning, specimen on stockings, Mrs. Susan Rowdon, Brampton	2 00
2nd do Mrs. Thos. Ellis, Innerkip	1 00
Best counterpane, crochet, Mrs. T. Lingard, Mitchell	3 00
Best counterpane, knitted, A. E. Johnstone, Askin	4 00
2nd do Miss C. Cook, North Grove	3 00
Best quilt, patchwork, calico, Mrs. T. H. Bowman, Northfield Centre	3 00
2nd do Mrs. H. Wilson, Ilderton	2 00
Best quilt, patchwork, cloth, John Day, Thamesford	3 00
Best quilt, patchwork, silk, Miss E. McVean, Woodhill	3 00
2nd do Miss Louisa Smith, London	2 00
Best quilt, white, quilted, Miss Mary Strickland, Oshawa	3 00
Best quilt, log cabin, Mrs. Geo. Webster, London	3 00
2nd do Bessie Wickett, St. Thomas	2 00
Best crazy patchwork, Mrs. E. A. Taylor, London	3 00
2nd do Mrs. H. E. Wilson, Woodstock	2 00
Best gloves, 2 pairs, coarse, hand-made, Mrs. J. H. Bowman, Northfield Centre	3 00
Best gloves, 2 pairs, fine, hand-made, Mrs. Thos. Hyde, St. Marys	2 00
2nd do Miss Mary Strickland, Oshawa	1 50
Best mitts, 2 pairs, coarse, hand-made, Mrs. T. H. Bowman, Northfield Centre	2 00
2nd do do Jas. Skeoch, Corunna	1 50
Best mitts, 2 pairs, fine, hand made, Mrs. Wm. McKenzie, Teeswater	2 00
2nd do Mrs. Thos. Drummond, Kingston	1 50
Best knitted stockings, 2 pairs, wool, hand-made, John Day, Thamesford	2 00
2nd do do Mrs. Thos. Drummond, Kingston	2 00
Best knitted socks, 2 pairs, wool, hand-made, Mrs. John Thomson, Fergus	2 00
2nd do Miss M. Strickland, Oshawa	1 50
Best stockings or socks, 2 pairs, knitted by girl under 14 years, Thos. Russell, Charing Cross	3 00
2nd do do do Mabel Smith, Galway	2 00
Bes, stockings, 2 pairs, fancy cotton, hand-made, A. E. Johnstone, Askin	3 00
2nd Jo do Mrs. Wm. Stewart, Embro	2 00
Best knitted shirt, man's, hand-made, Miss M. Strickland, Oshawa	3 00

Best knitting, fancy wool, Mrs. G. Webster, London	$3 00
2nd do Mrs. Thos. Drummond, Kingston	2 00
Best knitted drawers, man's, hand-made, Mrs. Thos. Drummond, Kingston	3 00
2nd do do Miss M. Strickland, Oshawa	2 00
Best tidy, crochet, cotton, Annie L. Heaslip, Toronto	2 00
2nd do Mrs. Thos. Ellis, Innerkip	1 00
Best darned net, A. Heaslip, Toronto	2 00
Best collection of knitting, Jas. Skeoch, Corunna	Diploma
Best lambrequin, Mrs. Helen Cowan, Harriston	2 00
Best table valance, Jennie Creighton, St. Marys	2 00
Best skeleton leaves, Mrs. J. E. Joslyn, Seaforth	2 00

Extras.

Highly Commended.—Scrap jar, Miss Eliza Tibbs, London. Hood crochet, woollen, Mrs. A. Warren, St. Marys. Collar and cuffs, crochet, Minnie Cahoon, London.
Diploma.—Wool mats, Mrs. R. W. Ross, Guelph.

CLASS LV.

27 Entries.

Chemical Manufactures and Preparations.

Oils.

Judges.—H. B. Spotton, Barrie; P. R. Palmer, Belleville.

Best collection of fancy soaps, A. Watts & Co., Brantford	4 00
Best glue, 14 lbs., Hobbs, Osborn & Hobbs, London	3 00
Best medicinal herbs, roots and plants, native growth, Geo. J. Griffiths, London	4 00
Best oils, linseed, Hobbs, Osborn & Hobbs, London	6 00
Best petroleum, refined, half gallon, Hobbs, Osborn & Hobbs, London	6 00
Finest display of petroleum products exhibited by one person or firm, Ross Bros., & Co., London,	Silver medal and 6 00

Extras.

Diploma.—Horse and cattle food, Empire Horse and Cattle Feed Co., Mitchell. Pyle's pearline washing compound, Jas. Pyle & Sons, London. Carbon blacking, Pure Gold Mfg. Co., Toronto. Varnishes, Japans, J. L. Dunn & Co., Windsor. Collection of chemicals and acids manufactured by Canada Chemical Co., T. H. Smallman, London. Kirby Climax horse and cattle feed, London Feed Co., London. Flavoring extracts, Pure Gold Co., Toronto.
Dominion Silver Medal.—Electro Therepeutic appliances, Addison Norman, Toronto.

CLASS LVI.

73 Entries.

Musical Instruments.

Entered for exhibition only.

Case for or on any kind of instrument	W. Bell & Co., Guelph. D. W. Karn & Co., Woodstock.
Melodeon, with one set of reeds, W. Bell & Co., Guelph.	
Melodeon, any other kind, W. Bell & Co., Guelph.	
Organ, cabinet or parlor	W. Bell & Co., Guelph. D. W. Karn & Co., Woodstock. W. Doherty & Co., London. A. Goodacre, Lucan. E. G. Thomas & Co., Woodstock. R. S. Williams, London.
Organ, church, with pipes	W. Bell & Co., Guelph. D. W. Karn & Co., Woodstock. A. Goodacre, Lucan.
Organ, church, with reeds	W. Bell & Co., Guelph. A. Goodacre, Lucan. A. G. Thomas & Co., Woodstock.
Piano, grand	R. S. Williams, London. Lewis Allin, Agent, London. A. & S. Nordheimer, agents, Toronto and London.

Piano, square	Evans Bros. & Little, London. A. Goodacre, Lucan. R. S. Williams, London. A. & S. Nordheimer, agents, Toronto and London. Lewis Allin, agent, London.
Piano, cottage	A. Goodacre, Lucan. A. & S. Nordheimer, agents, Toronto and London. Lewis Allin, London.
Piano, any kind	R. & S. Williams, London. A. & S. Nordheimer, agents, Toronto and London.

CLASS LVII.

34 Entries.

Building Materials, Painting, Marble Works, Etc.

Judges.—Matthew Kennedy, Owen Sound; James Ross, Falkirk; Robt. Romaine, Ottawa.

Best brick, pressed, 1 doz, Yorkville and Carleton Brick Mfg. Co., Toronto		$2 00
Best brick, kiln-burnt, 1 doz., Peter McIntosh, Odell		2 00
2nd do	Yorkville and Carleton Brick Mfg. Co., Toronto	1 00
Best granite, Canadian polished specimens, J. Matheson, London		6 00
Best mantelpiece, in marble, J. Matheson, London		8 00
Best mantelpiece, any other kind, The Bennet Furnishing Co., London		6 00
Best marbles, Canadian polished specimens, Dr. C. Cortland, Aylmer		6 00
Best monument of Canadian marble, J. Matheson, London		5 00
Best monumental headstone, J. Matheson, London		6 00
Best pottery, an assortment of, Fety Macerice & Ungor, London		6 00
2nd do	Henry Totten, London	4 00
Best sewage pipe, stoneware, assortment of, Great Western Fire Clay Co., Toronto, Ohio		Silver Medal
2nd do	Summers & Co., London	5 00

Extras.

Highly Commended.—Self-acting dry earth closet, self-acting dry bed room commode, Kennedy Bros., Owen Sound; self-acting closet with urine seperator, self-acting commode with urine seperator, Heap's Patent Dry Earth Closet Co., Toronto.

CLASS LVIII.

108 Entries.

Cabinet Ware, and other Wood and Hair Manufactures.

Judges.—James Hay, Woodstock; James Bissell, Algonquin.

Best bedroom furniture, set of, London Furniture Co., London		$12 00
Best book case, London Furniture Co., London		6 00
Best carving in wood, decorative, not connected with any other article on exhibition, Richard R. Bland, London		6 00
Best centre table, London Furniture Co., London		6 00
Best chair, easy, for invalids, C. E. Anderson, London		4 00
2nd do	D. W. Blackwell, London	2 00
Best drawing room furniture, set of, D. W. Blackwell, London		10 00
2nd do	D. W. Blackwell, London	8 00
Best inlaid veneer work, Wm. Brodison, London		6 00
Best scroll and fretwork, Jas. W. Curtis, London		4 00
2nd do	Allen & Thompson, Halifax	2 00
Best sideboard, London Furniture Co., London		8 00
2nd do	The Bennet Furnishing Co., London	4 00
Best school furniture, assortment of, The Bennet Furnishing Co., London		10 00
2nd do	W. Stahlschmidt, Preston	8 00
Best folding camp bed, National Mfg. Co., Ottawa		2 00
Best hotel or house cot, National Mfg. Co., Ottawa		2 00
Best table, folding, National Mfg. Co., Ottawa		2 00
Best chair, folding, National Mfg. Co., Ottawa		2 00
Best hammock, frame, National Mfg. Co., Ottawa		2 00
Best stove, with kit, National Mfg. Co., Ottawa		2 00
Best stove, without kit, National Mfg. Co., Ottawa		2 00
Best combination table and bed, National Mfg. Co., Ottawa		2 00
Best flags, National Mfg. Co., Ottawa		2 00

Best awnings, National Mfg. Co., Ottawa		$2 00
Best tarpaulins, National Mfg. Co., Ottawa		2 00
Best street horse covers, National Mfg. Co., Ottawa		2 00
Best tents, National Mfg. Co., Ottawa		5 00
Best clothes wringer, Hamilton Industrial Works, London		2 00
2nd do	Dowsell Bros., London	1 00
Best mangle, Dowsell Bros., London		3 00
2nd do	Hamilton Industrial Works, London	1 00
Best washing machine, Dowsell Bros., London		3 00
2nd do	Hamilton Industrial Works, London	1 00

HOLLOW-WARE, BRUSHES, BROOMS, ETC.

Best brushes, hair, assortment of, Thos. Bryan, London		$6 00
Best brushes, for manufacturing, Thos. Bryan, London		6 00
Best buttons, an assortment of, Fay & Wyckoff, New York		6 00
Best turning in wood, collection of, C. Lewis, Salford		6 00
Best turned hollow woodenware, assortment of, C. Lewis, Salford		6 00
2nd do	do David C. White, Hamilton	3 00
Best washtubs and pails, factory made, 3 of each, C. Lewis, Salford		4 00

EXTRAS.

Gold Medal.—Hammock chair, bed canopy, window curtain chains, shade pulls, camp stools, National Manufacturing Co., Ottawa.

Diploma.—Office furniture, W. Stahlschmidt, Preston; pillow sham holder, Swan W. Cady, Seaforth; dental bracket and table, nitrous oxide gasometer, dental spittoons, Dr. H. McLaren, London; three easy chairs, D. W. Blackwell, London; drawing room cabinet, assortment of church furniture, The Bennet Furnishing Co., London.

Highly Commended.—Iron dental chair, iron barber chair, Dr. H. McLaren, London; dunnage bags, National Manufacturing Co., Ottawa; set of dining room furniture, London Furniture Co., London; carpet sweeper, Edgar Haight, St. Thomas.

CLASS LIX.

125 ENTRIES.

MACHINERY AND PARTS THEREOF, AND TOOLS.

PART 1.—*Steam Engines, Hydraulic Machinery.*

JUDGES.—Robert Romaine, Ottawa; James Ross, Falkirk; M. Kennedy, Owen Sound.

Best portable steam engine for agricultural purposes, not less than six-horse power, to be put in operation on the ground, L. D. Sawyer & Co., Hamilton		$15 00
2nd do	Stevens, Turner & Burns, London	10 00
3rd do	Geo. White, London	5 00
Best engine, steam, stationary, 1 to 4 horse power, in operation, E. Leonard & Sons, London		15 00
Best engine, steam, stationary, 5-horse power and upwards, in operation, E. Leonard & Sons, London		20 00
Best fire escape, Wm. Russell, Guelph		6 00
Best pumps, metal, for wells or cisterns, assortment, J. M. Cousins & Sons, London		6 00
Best pump, double-acting, lift or force, Arthur M. Parker, Detroit		4 00
2nd do	J. M. Cousins & Sons, London	2 00
Best pump, force, for hand use, Ontario Pump Co Toronto		4 00
2nd do	J. M. Cousins & Sons, London	2 00
Best windmill, in operation, J. M. Cousins & Sons, London		8 00
2nd do	Ontario Pump Co., Toronto	4 00

EXTRAS.

Gold Medal.—Road traction engine, F. W. Glen & Co., Oshawa.

Diploma.—Bicycles, trycicles, etc., Wm. Payne, London; ship pump, W. F. & J. W. Myers, St. John's.

Best chopping axes, 1 dozen, Hobbs, Osborn & Hobbs, London		$4 00
2nd do	Powel Axe Co., Cleveland	2 00
Best emery grinding machine, Wm. Russell, Guelph		6 00
2nd do	Wm. Malloch & Co., London	4 00
Best files, an assortment of, Spear & Jackson, Sheffield		4 00
2nd do	Hobbs, Osborn & Hobbs, London	2 00
Best milling machine, London Machine Tool Co., London		6 00

Best planing machine for metals, London Machine Tool Co., London	$10 00
Best radial driller, London Machine Tool Co., London	6 00
Best saws, circular, assortment of, Shurley & Detrich, Galt	6 00
Best saws, hand, including cross-cut, Shurley & Detrich, Galt	4 00
2nd do do Hobbs, Osborn & Hobbs, London	2 00
Best turning lathe, brass work, London Machine Tool Co., London	6 00

EXTRAS.

Silver Medal.—Pressure blower, Canadian Blower Co., London.
Diploma.—Standard surface plates, Chas. Thonger, London.

Best band saw, Wm. Malloch & Co., London	4 00
Best boring machine for wood, Hobbs, Osborn & Hobbs, London	6 00
2nd do do Shurley & Detrich, Galt	4 00
Best collection of wood-working machinery, Wm. Malloch & Co., London ..... Silver Medal and	6 00
Best jig saw, Cooper & Co., Strathroy	4 00
2nd do Wm. Malloch & Co., London	2 00
Best saw-mill, steam, in operation, Waterous Engine Works Co., Brantford ..... Silver Medal and	15 00
Best shingle and heading machine, Waterous Engine Works Co., Brantford	4 00
Best bolting cloth, N. Whitelaw, Woodstock	4 00
Best brain duster, N. Whitelaw, Woodstock	4 00
Best brick-making machine, David Dawell & Co., London	10 00
Best knitting machine (hand), Toronto Knitting Machine Co., Toronto	4 00
Best mill machinery, assortment, N. Whitelaw, Woodstock ..... Diploma and	6 00
Best smut machine and separator, N. Whitelaw, Woodstock	6 00
Best writing machine, A. J. Henderson, Toronto	6 00

EXTRAS.

Silver Medal.—Sugar pulverizing mill, J. R. Woodburn & Co., St. Johns.
Diploma.—1 Jack, David Maxwell, Paris. Feather renovator, Henry R. Readings, Elgin County.
Highly commended.—Rag machine, Mrs. R. W. Ross, Guelph.

CLASS LX.

34 ENTRIES.

SEWING MACHINES FOR EXHIBITION ONLY.

The prizes in this class have been discontinued, by request of the manufacturers.

Sewing machine, manufacturing	Singer Manufacturing Company, London. G. & T. Burness, London. Raymond Sewing Machine Co., J. F. Sherbet, agent, London. Williams Manufacturing Co., Fessenden Bros., agent, London. White Sewing Machine Co., T. W. Standfield, agent, London.
Sewing machine, family	Singer Manufacturing Co., London. G. & T. Burness, London. Raymond Sewing Machine Co., J. F. Sherbet, agent, London. Williams Manufacturing Co., Fessenden Bros, agents, Montreal. White Sewing Machine Co., T. W. Standfield, agent, London.
Sewing machine, button-hole	Singer Manufacturing Co., London. Raymond Sewing Machine Co., J. F. Sherbet, agent, London. Williams Manufacturing Co., Fessenden Bros., agents, Montreal.
Sewing machine embroidery	Singer Manufacturing Co., London. Raymond Sewing Machine Co., J. F. Sherbet, agent, London. Williams Manufacturing Co., Fessenden Bros., agents, Montreal. White Sewing Machine Co., T. W. Standfield, agent, London.
Sewing machine, single thread	Singer Manufacturing Co., London. Raymond Sewing Machine Co., J. F. Sherbet, agent, London. White Sewing Machine Co., T. W. Standfield, agent, London.
Sewing machine, wax thread	Singer Manufacturing Co., London. Raymond Sewing Machine Co., J. F. Sherbet, agent, London.

EXTRAS.

Diploma.—Display of artistic sewing machine embroidery, Raymond Sewing Machine Co., London, and Williams Manufacturing Co., Montreal.

CLASS LXI.

97 Entries.

Mechanical Metal Work (Miscellaneous).

Judges.—M. Kennedy, R. Romaine, James Ross.

Part 1.—Hardware, Cutlery, Bells, Safes, Scales, etc.

Best bells, hand, assortment of,	Sheffield Bell Co.,	Sheffield	$4 00
2nd do	Hobbs, Osborn & Hobbs,	London	2 00
Best nails, 20 lbs., cut,	Montreal Nail Co., F. C. Wheeler, agent,	London	4 00
2nd do	Hobbs, Osborn & Hobbs,	London	2 00
Best nails, 20 lbs., pressed,	Hobbs, Osborn & Hobbs,	London	4 00
2nd do	Montreal Nail Co., F. C. Wheeler, agent,	London	2 00
Best horse shoe nails, 20 lbs.,	American Nail Works Co., Hobbs, Osborn & Hobbs,	London	4 00
2nd do	Montreal Nail Co., Frank C. Wheeler, agent,	London	2 00
Best refrigerator,	Jos. Hook,	London	6 00
2nd do	McClary Manufacturing Co.,	London	4 00
Best scales, counter,	John Fox,	London	4 00
2nd do	Gurney & Ware,	Hamilton	2 00
Best scales, platform,	John Fox,	London	4 00
Best screws and bolts, assortment,	Hobbs, Osborn & Hobbs,	London	4 00
2nd do	John Morrow,	London	2 00
Best skates, an assortment of,	Wm. Russell,	Guelph	4 00
Best sugar and coffee mills,	Hobbs, Osborn & Hobbs,	London	4 00
Best table cutlery,	F. C. Wheeler, agent,	London	4 00
2nd do	Hobbs, Osborn & Hobbs,	London	2 00
Best water filter,	McClary Manufacturing Co.,	London	4 00
Best sad irons, an assortment of,	Wm. Russell,	Guelph	3 00

Extras.

Silver Medal.—Reaper and mower sickle grinder, saw sets, barn door hangers, parlour door hangers, tree pruners, Wm. Russell, Guelph.

Diploma.—Metallic folding spring bed, H. A. Wilder & Co., Montreal; one waggon scale, John Fox, London.

Best gas fixtures,	Smith & Sadler,	London	$4 00
Best goldsmiths' work,	F. F. Trebilcock,	London	4 00
Best malleable cast steam and gas fittings, an assortment,	Smith & Sadler,	London	4 00
Best plumbers' work, assortment,	Smith & Sadler,	London	4 00
Best picture frame, ornamental gilt,	E. N. Hunt,	London	4 00
Best sheet brass work, assortment,	Booth & Son,	Toronto	4 00
Best silversmiths' work,	F. F. Trebilcock,	London	4 00
2nd do	A. S. Murray & Co.,	London	2 00
Best tinsmiths' work, assortment,	Wm. Stevely,	London	4 00
2nd do	McClary Manufacturing Co.,	London	2 00
Best tinsmiths' lacquered work,	McClary Manufacturing Co.,	London	4 00
Best lamps of metal, assortment of,	John Milier, agent for N. Spencer & Co.,	London	Silver Medal

Extras.

Diploma.—Self-filling cabinet oil tank, W. H. Southworth, London; assortment of ærated leverage machines, etc., assortment of brass goods, Smith & Sadler, London; Australian fence wire stretcher and permanent fastener, J. E. Pounds, Melbourne, Australia.

CLASS LXII.

Stoves and Castings.

84 Entries.

Judges.—Geo. Clare, Preston; Wm. Russell, Guelph.

Best castings for general machinery,	W. Whitelaw,	Woodstock	$10 00
Best cast wheel, spur or bevel, not less than 50lbs weight,	Wm. Russell,	Guelph	6 00
2nd do	do	N. Whitelaw, Woodstock	4 00
Best cooking range, portable,	McClary Mfg. Co.,	London	6 00
2nd do	Burrow, Stewart & Milne,	Hamilton	4 00
Best cooking stove for wood,	J. W. Williams & Co.,	Hamilton	6 00
2nd do	Doherty Mfg. Co.,	Sarnia	4 00

Best cooking stove for coal, E. & C. Gurney, Toronto; John Miller, agent, London		$6 00
2nd	do Burrow, Stewart & Milne, Hamilton	4 00
Best enamelled hollow ware, assortment of, F. P. Tansey, Montreal		4 00
2nd	do do Standard Mfg. Co., Hobbs, Osborn & Hobbs, London	2 00
Best furniture for cooking stove, 1 set, McClary Mfg. Co., London		4 00
Best hall stove, for wood, Burrow, Stewart & Milne, Hamilton; McBride & Boyde, agents		4 00
2nd	do Dundas Stove Mfg. Co., Dundas	2 00
Best hall stove, illuminated base burner, McClary Mfg. Co., London		4 00
2nd	do do J. M. Williams & Co., Hamilton	2 00
Best hot air furnace for coal, Wm. Stevely, London		6 00
2nd	do Doherty Mfg. Co., Sarnia	4 00
Best hot air furnace for wood, Beecher Bros., London		6 00
2nd	do Doherty Mfg. Co., Sarnia	4 00
Best parlor stove for wood, Burrow, Stewart & Milne, Hamilton		4 00
2nd	do Doherty Mfg. Co., Sarnia	2 00
Best parlor stove for coal, Peninsular Stove Co., Detroit; John Milne, agent		4 00
2nd	do Burrow, Stewart & Milne, Hamilton; McBride & Boyde, agents	2 00
Best parlor cooking stove, Burrow, Stewart & Milne, Hamilton		4 00
2nd	do J. M. Williams & Co., Hamilton	2 00
Best parlor grate, McClary Mfg. Co., London		4 00
Best stoves, ranges, and hollow ware, best and largest display, McClary Mfg. Co., Hamilton, Silver Medal		
Best coal oil stove, Burrow, Stewart & Milne, Hamilton		$4 00
2nd	do Doherty Mfg. Co., Sarnia	2 00

Extras.

Silver Medal and Diploma.—Wrought iron ranges, John Burns, Montreal.

CLASS LXIII.

Saddle, Harness, and Trunkmakers' Work, and Engine Hose and Belting.

54 Entries.

Part 1.—*Saddlery, etc.*

Judges.—Jas. McCormick, London; Wm. Cummings, Strathroy.

Best collars, an assortment of heavy, J. Darch & Sons, London		$4 00
Best collars, an assortment of carriage, J. Darch & Sons, London		4 00
Best harness, set of single carriage, Geo. A. Shannan, Clinton		6 00
2nd	do J. Darch & Sons, London	4 00
Best harness set of team, J. Darch & Sons, London		6 00
Best harness, set of cart, J. Darch & Sons, London		4 00
Best saddle, lady's, J. Darch & Sons, London		6 00
Best saddle, gentleman's, plain shaftoe, J. Darch & Sons, London		5 00
Best trunks, assortment of, Alex. Johnston & Co., London		6 00
2nd	do J. Darch & Sons, London	4 00
Best valises and travelling bags, an assortment of, Alex. Johnston & Co., London		4 00
2nd	do do J. Darch & Sons, London	2 00
Best whips, an assortment of, Lay, Vandenson & Co., London		4 00
2hd	do American Whip Co., London; J. Marsh & Sons, agents	2 00
Best whip thongs, an assortment of, American Whip Co., London; J. Marsh & Sons, agents		2 00
2nd	do Hobbs, Osborn & Hobbs, London	1 00

Part 2.—*Saddle and Harness Stock.*

Best brown strap and bridle, two sides of each, Alex. Johnston & Co., London		$4 00
2nd	do do Thos. Pellow, Wolverton	2 00
Best carriage cover, 2 skins, whole, Alex. Johnston & Co., London		4 00
2nd	do A. J. Jarvis, London	2 00
Best check, for horse collar, 1 piece, H. & J. B. Winger, Elmira		4 00
Best enamelled cloth, A. J. Jarvis, London		4 00
Best harness leather, 2 sides, Alex. Johnston & Co., London		4 00
2nd	do Thos. Pellow, Walkerton	2 00
Best hog skins, for saddles, 3, Alex. Johnston & Co., London		4 00
Best horse blankets, 2 pairs, T. Herbert Marsh, London		4 00
2nd	do H. & J. B. Winger, Elmira	2 00
Best kersey, for horse clothing, 1 piece, T. Herbert Marsh, London		4 00
2nd	do H. & J. B. Wagner, Elmira	2 00
Best lace, leather, 30 lbs., Hobbs, Osborn & Hobbs, London		4 00
2nd	do Alex. Johnston & Co., London	2 00
Best patent leather, for carriage or harness work, 20 feet, Alex. Johnston & Co., London		4 00
2nd	do do A. J. Jarvis, London	2 00
Best skirting for saddles, 2 sides, Alex. Johnston & Co., London		4 00
2nd	do C. S. Hyman & Co., London	1 00

EXTRAS.

Diploma.—Assortment of iron buckles, Halter furniture, double or bit snaps, V. A. Coleman, Port Hope.

Highly Commended.—Horse collars, H. & J. B. Winger, Elmira.

CLASS LXIV.

63 ENTRIES.

SHOE AND BOOT MAKERS' WORK AND MATERIAL.

JUDGES.—John Wilson, Roslin; Donald Callum, Sarnia.

PART 2.—*Shoemakers' Tools and Stock.*

Best boots, ladies', hand-made, an assortment of, Pocock Bros., London	$6 00
Best boots, gentlemen's, hand-made, an assortment of, Pocock Bros., London	6 00
2nd do do J. Boivin, Montreal	4 00
Best boots, gentlemen's, machine made, an assortment of, C. S. Hyman & Co., London	6 00
Best boots, ladies', machine made, an assortment of, Pocock Bros., London	6 00
2nd do do C. S. Hyman & Co., London	4 00
Best boots, men's, single pair, hand-made, Pocock Bros., London	4 00
2nd do C. S. Hyman & Co., London	2 00
Best children's shoes, assortment of, Pocock Bros., London	4 00
Best felt overshoes, Pocock Bros., London	4 00
Best felt shoes, an assortment of, S. F. Taylor & Son, Walkerton: Pocock Bros., agents London,	Diploma
Best gaiters, Balmorals, Oxford ties, etc., hand-made, assortment of, Pocock, Bros., London	$6 00
Best gaiters, Balmorals, Oxford ties, etc., machine-made, assortment of, Pocock Bros., London	6 00
Best assortment of boots and shoes of Canadian manufacture, Pocock Bros., London	Diploma
Best boot and shoe uppers, assortment of, Pocock Bros., London	4 00
Best boot and shoe makers' tools, an assortment, Alex. Johnston & Co., London	6 00
Best boot and shoe makers' lasts and trees, Alex. Johnston & Co. London	6 00
Best calf skins, 1 dozen, Alex. Johnston & Co., London	4 00
2nd do Thos. Pellow, Walkerton	2 00
Best calf skins, grained, 1 dozen, C. S. Hyman & Co., London	4 00
2nd do Alex. Johnston & Co., London	2 00
Best calf skins, morocco, 1 dozen, Alex. Johnston & Co., London	4 00
Best Cordovan, two skins, Alex Johnston & Co., London	2 00
Best cow, buffed, two sides, C. S. Hyman & Co., London	2 00
2nd do Alex. Johnston & Co., London	1 00
Best cow, pebbled, two sides, C. S. Hyman & Co., London	2 00
2nd do Alex. Johnston & Co., London	1 00
Best dog skins, two, dressed, C. S. Hyman & Co., London	2 00
2nd do Alex. Johnston & Co., London	1 00
Best kip, two skins, Alex. Johnston & Co., London	2 00
2nd do Thos. Pellow, Walkerton	1 00
Best kip, grained, two sides, C. S. Hyman & Co., London	2 00
2nd do Alex. Johnston & Co., London	1 00
Best leather, kinds not otherwise described, assortment of, Alex. Johnston & Co., London	4 00
Best linings, six skins, russet, Alex. Johnston & Co., London	2 00
2nd do G. & H. Jackson, Egmondville	1 00
Best patent leather, for bootmakers, 20 feet, Alex. Johnston & Co., London	4 00
Best sheepskins, 6 coloured, Alex. Johnston & Co., London	2 00
Best shoemakers' pegs, an assortment of, Alex. Johnston & Co., London	2 00
Best sole leather, two sides, slaughter, C. S. Hyman, London	2 00
2nd do Alex. Johnston & Co., London	1 00
Best splits, two sides, C. S. Hyman & Co., London	2 00
2nd do Alex. Johnston & Co., London	1 00
Best upper leather, two sides, Alex Johnston & Co., London	2 00
2nd do C. S. Hyman & Co., London	1 00
Best upper leather, grained, two sides, C. S. Hyman & Co., London	2 00
2nd do Alex. Johnston & Co., London	1 00

EXTRAS.

Diploma.—Two sides Spanish sole leather, Bunthampt Bros. & Hall, Penetanguishene; lace boots made in one piece, G. Boivin, Montreal; straps for harvest binders, C. S. Hyman & Co., London.

CLASS LXV.

56 Entries.

Wearing Apparel and Furs, Flax, Hemp and Cotton Goods.

Part 1.—*Wearing Apparel.*

Judges.—Jas. Clarke, Barrie; J. C. Brennan, Ottawa.

Best gloves and mitts, woollen, Dan. N. Conrad, St. Thomas	$4 00
Best hats, felt, assortment of, Alex. McDonald, London	4 00
Best hats, silk, Alex. McDonald, London	4 00
Best overcaat, of Canadian cloth, R. Walker & Son, London	4 00
2nd do Burns & Bapty, London	2 00
Best shirts, gentlemen's, assortment of, R, Walker & Son, London	3 00
Best made gentleman's suit, Canadian cloth, Burns & Bapty, London	5 00
Best suit, boy's, Burns & Baptie, London	5 00
2nd do R. Walker & Son, London	3 00
Best ties and scarfs, assortment of, Burns & Bapty, London	2 00

Part 2.—*Furs.*

Best furs, set of ladies', Canada mink, Alex. McDonald, London	4 00
Best furs, set of ladies', seal, Alex. McDonald, London	6 00
Best furs, set of ladies', lambskin, Alex. McDonald, London	6 00
Best furs, set of ladies', any other kind, Alex. McDonald, London	4 00
Best furs, set of gentleman's, Alex. McDonald, London	6 00
Best collection of manufactured furs, Alex. McDonald, London	Silver Medal
Best fur sleigh robes, assortment, not less than three kinds, Alex. McDonald, London	6 00
Best sheepskin mats, dressed and coloured, assortment of, W. J. Robinson & Co., Toronto	4 00
2nd do do Brown, Bird & Co., Kingsville	2 00
Best linen thread, assortment of, not less than 3 lbs. of each kind, Alex. Johnston & Co., London	4 00
Best hosiery, assortment of, Dan. N. Conrad, St. Thomas	4 00

Extras.

Silver Medal.—Corsets, Crompton's, H. H. & A. Trebilcock, London.

CLASS LXVI.

139 Entries.

Woollen Goods.

Judges.—J. H. Parker, Woodstock; David Graham, Inglewood.

Best blankets, white, 2 pairs, H. & J. B. Winger, Elmira	6 00
2nd do Brown, Bird & Co., Kingsville	4 00
Best blankets, grey, 2 pairs, H. & J. B. Winger, Elmira	6 00
2nd do Brown, Bird & Co., Kingsville	4 00
Best cloth, fulled, 3 pieces. A. G. Van Egmond's Sons, Seaforth	6 00
2nd do H. & J. B. Winger, Elmira	4 00
Best counterpanes, woven, Miss C. Cook, North Gower	3 00
Best etoffes, assortment, 3 pieces, A. G. Van Egmond's Sons, Seaforth	6 00
2nd do H. & J. B. Winger, Elmira	4 00
Best flannel, all wool, white and coloured, 3 pieces, 40 yards, Brown, Bird & Co., Kingsville	5 00
2nd do do S. V. Willson, Union	3 00
Best flannel, union, white and coloured, 3 pieces, H. & J. B. Winger, Elmira	6 00
2nd do do Brown, Bird & Co., Kingsville	3 00
Best assortment flannels, of Canadian manufacture, A. G. Van Egmond's Sons, Seaforth	Diploma
Best satinets, assortment, 3 pieces, A. G. Van Egmond's Sons, Seaforth	6 00
2nd do S. V. Willson, Union	4 00
Best serge, white and coloured, 3 pieces, S. V. Willson, Union	5 00
2nd do H. & J. B. Winger, Elmira	3 00
Best tweeds, winter, assortment of, 6 pieces, S. V. Willson, Union	6 00
Best tweeds, summer, assortment of, 6 pieces, S. V. Willson, Union	6 00
Best tweeds, waterproof, assortment of, 6 pieces, S. V. Willson, Union	6 00
Best assortment of Canadian tweeds, S. V. Willson, Union	Diploma
Best wincey, assortment of, 3 pieces, S. V. Willson, Union	6 00
2nd do A. G. Van Egmond's Sons, Seaforth	3 00
Best yarn, collection of, made from Canadian superfine wool, assortment of mixtures, 3 lbs. each. Brown, Bird & Co., Kingsville	Diploma
Best yarn, collection of, made from merino, or foreign wool, white, dyed, and mixtures, 3 lbs. each, McCrae & Co., Guelph	Diploma
Best yarn, collection of, combed, white, dyed, and mixtures, 3 lbs. each, McCrae & Co., Guelph	Diploma

EXTRAS.

Silver Medal.—72 inch, all wool sheeting, 36 inch Union all wool sheeting, Brown, Bird & Co., Kingsville.; grey sheets, 2 pairs, A. G. Van Egmonds' Sons, Seaforth; yarn for manufacturing purposes, McCrae & Co., Guelph.

Highly Commended.—Double shawls, Canadian wool, Brown, Bird & Co., Kingsville.

Part 2.—Knitted Goods.

Best half hose, assortment, 1 dozen,		Dan. N. Conrad, St. Thomas	$3 00
2nd	do	Brown, Bird & Co., Kingsville	2 00
Best hose, ladies' and misses', plain and ribbed, assortment, half-dozen of each,		Brown, Bird & Co., Kingsville	3 00
2nd	do	Dan. N. Conrad, St. Thomas	2 00

Part 3.—Carpets, etc., Canadian Manufacture.

Best carpets, 3 pieces,		H. Stroud & Co., Paris	6 00
2nd	do	H. Stroud & Co., Paris	4 00
Best carpet, stair, 3 pieces,		H. Stroud & Co., Paris	6 00
2nd	do	Miss C. Cook, North Gower	4 00
Best rag carpets,		Miss H. Willsie, Belmont	3 00
2nd	do	Joseph Hopkins, Hamilton	2 00
Best rag mats,		Mrs. R. Copley, London	3 00
2nd	do	Mrs. John Thompson, Fergus	2 00
Carriage rugs,		W. J. Robinson & Co., Toronto	4 00

Part 4.—Domestic Woollens from Home Spun Yarn.

Best cloth, fulled, farmers' make, piece not less than 20 yards,		Mrs. R. E. Whiting, Muncey	4 00
2nd	do	Miss C. Cook, North Gower	2 00
Best flannel, plain, white, not factory made,		John Duff, Myrtle	4 00
2nd	do	Miss H. Willsie, Belmont	2 00
Best flannel, plaid, not factory made,		Mrs. J. H. Bowman, Northfield Centre	4 00
2nd	do	Miss C. Cook, North Gower	2 00
Best flannel, Union, not factory made,		Miss C. Cook, North Gower	4 00
2nd	do	Miss H. Willsie, Belmont	2 00
Best carpet, all wool, farmers' make,		Mrs. R. E. Whiting, Muncey	4 00
2nd	do	Miss H. Willsie, Belmont	2 00
Best yarn, white and dyed, not factory made,		Mrs. E. Craig, London	2 00
2nd	do	Jas. Skeoch, Corunna	1 00
Best woollen shawls, home made,		Seldon Casey, Derwent	3 00
2nd	do	Miss H. Willsie, Belmont	2 00
Best blankets, home made,		Miss C. Cook, North Gower	3 00
2nd	do	Miss Skeoch, Corunna	2 00

EXTRAS.

Silver Medal.—Three pieces Anderson carpet, three pieces Brussels carpet, three pieces tapestry carpet, F. Hughes & Sons, England; Turkish rugs, H. Stroud & Co., Paris.

Highly Commended.—Collection of mats, Mrs. R. W. Ross, Guelph.

CLASS LXVII.

140 ENTRIES.

GROCERIES AND PROVISIONS.

JUDGES.—R. L. Denison, Toronto; John Morgan, Ailsa Craig; Alanson Elliott, Oxley.

Best barley, pearl, 25 lbs.,		Muirhead, Gray & Gartley, London	$3 00
Best barley, pot, 25 lbs,		Muirhead, Gray & Gartley, London	3 00
Best barley, flour,		A. Leith, Nilestown	3 00
2nd	do	Ed. Kendrew, Pond Mills	2 00
Best bottled fruit, assortment of, manufactured for sale,		John R. Flock, M.D	4 00
Best baking powder, sample of,		Pure Gold Mn'fg Co., Toronto	Diploma
Best bottled pickles, an assortment of, manufactured for sale,		Mrs. M. Coleman, London	4 00
2nd	do	Mary E. McKerlie, London	2 00
Best buckwheat flour, 25 lbs.,		Ed. Kendrie, Pond Mills	3 00
2nd	do	J. D. Lutz, Stoney Creek	2 00
Best candies,		E. Walker, London	5 00
Best peaches, dried, peeled, 4 quarts,		Wm. Dudenhoffer, London	2 00
Best plums, dried, 4 quarts,		Wm. Dudenhoffer, London	2 00
2nd	do	Francis Peck, Albury	1 00
Best raspberries, dried, 2 quarts,		Wm. Dudenhoffer, London	2 00
2nd	do	Francis Peck, Albury	1 00
Best blackberries, dried, 2 quarts,		Francis Peck, Albury	2 00

Cherries, dried, pitted, 2 quarts, Wm. Dudenhoffer, London		$2 00
2nd do	J. D. Lutz, Stoney Creek	1 00
Best currants, dried, 2 quarts, Francis Peck, Albury		2 00
2nd do	Wm. Dudenhoffer, London	1 00
Best jellies, 3 jars or pots, made up by private persons, for home use, Jas. F. Peck, Albury		3 00
2nd do	J. D. Lutz, Stoney Creek	2 00
Best preserves, 3 jars, made up by private persons, for home use, J. D. Lutz, Stoney Creek		3 00
2nd do	John R. Flock, M.D	2 00
Best fruits and vegetables, evaporated, assortment of, Wm. Dudenhoffer, London		3 00
2nd do	Francis Peck, Albury	2 00
Best canned fruit, largest and best varieties, made in factories for sale, Aylmer Canning and Evaporating Company, Aylmer		Silver Medal
Best canned vegetables, largest and best varieties, made in factories for sale, Aylmer Canning and Evaporating Company, Aylmer		Silver Medal.
Best canned and potted meats, made in factories for sale, Aylmer Canning and Evaporating Company, Aylmer		Silver Medal
Largest and best display of all kinds of canned goods, Aylmer Canning and Evaporating Company, Aylmer		Silver Medal.
Best coffee and spices, assortment of, J. M. Mayell & Co., London		4 00
2nd do	Pure Gold M'fg Co	2 00
Best confectionery, fancy, E. Walker, London		4 00
2nd do	Hewett, Tysh & Co., London	2 00
Best fish, dried or smoked, in kits or boxes, Jardine & Co., St. John's, N.B		1 00
Best Indian corn meal, 25 lbs., Ed. Kendrew, Pond Mills		3 00
2nd do	Muirhead, Gray & Gartley, London	2 00
Best oatmeal, 25 lbs. standard, Muirhead, Gray & Gartley, London		3 00
2nd do	A. Leith, Nilestown	2 00
Best Oatmeal, granulated, Muirhead, Gray & Gartley, London		3 00
2nd do	A. Leith, Nilestown	2 00
Best salt, 1 barrel coarse Canadian, North American Chemical Co., Goderich		4 00
2nd do	F. C. Rogers, Brussels	2 00
Best salt, 1 barrel fine Canadian, Elarton Salt Works Co., Warwick, West		4 00
2nd do	North American Chemical Co., Goderich	2 00
Best salt, 30 lbs.; table or dairy, Canadian, North American Chemical Co., Goderich		3 00
2nd do	F. C. Rogers, Brussels	2 00
Best salt, dairy, in sacks, F. C. Rogers, Brussels		Silver Medal
Best sauces for table use, assortment of, manufactured for sale, John Symmonds, London		4 00
2nd do	Mrs. M. Coleman, London	2 00
Best starch, 12 lbs., flour, John Jackson, London		2 00
2nd do	Mary E. McKerlie, London	1 00
Best starch, 12lbs., John Jackson, London		2 00
2nd do	Mary E. McKerlie, London	1 00
Best wedding cake, Hewett, Lysh & Co., London		3 00
2nd do	E. Walker, London	2 00
Best fall wheat flour, 50 lbs., J. D. Saunby, London		4 00
2nd do	Hunt Bros., London	2 00
Best spring wheat flour, G. Leith, London		4 00
2nd do	J. D. Saunby, London	2 00

EXTRAS.

Diploma.—Mustard, ground, T. M. Mayell & Co., London; Rolled Oatmeal, Muirhead, Gray & Gartley, London; St. John card match, Jardine & Co., St. John's.

Highly Commended.—Mustard, Geo. Pears, Toronto; mustard sauce, W. P. McLaren; dessicated wheat, steel cut oatmeal, Muirnead, Gray & Gartley; Hungarian patent roller process flour, Hunt Bros., London; "Blueine," Wm. Gilmour, London.

CLASS LXVII.

5 ENTRIES.

ESSAYS.

THE APPLE.

1.	Its importance as an article of commerce in Canada, and for exportation. Adaptability of the different kinds to the various localities. Its propagation and cultivation. Its principal insect enemies, and remedies therefor, D. Nicol, Cataraqui	$30 00
2.	do M. S. Schell, Woodstock	20 00

(Manuscripts not to exceed twenty-five pages.)

UNDERDRAINING.

1.	The best method of underdraining the different soils of Ontario, the cost, and the practical benefits resulting therefrom, Thos. Shaw, *Live Stock Journal*, Hamilton	$30 00
2.	do E. D. Smith, Winona	20 00

(Manuscripts not to exceed twenty-five pages.)

RESULTS of the Grand Dominion and Fortieth Provincial Exhibition of 1885, shewing the amount offered in Prizes, the Amount awarded, and the Number of Entries in 1885, 1884, 1883, 1882 and 1881.

CLASSES.	Amount offered 1885.	Amount awarded 1885.	Number of Entries London, 1885.	Number of Entries Ottawa, 1884.	Number of Entries Guelph, 1883.	Number of Entries Kingston, 1882.	Number of Entries London, 1881.
	$ c.	$ c					
Thorough-bred Horses	373 00	303 00	59	14	64	6	46
Roadster Horses	672 00	672 00	294	125	170	76	200
Carriage Horses	735 00	735 00	220	107	215	142	245
Agricultural Horses (exclusive of Pure Clydesdales, Percherons and Suffolks)	438 00	438 00	158	80	215	50	149
Heavy Draught Horses (imported and bred from pure Heavy Draught stock)	775 00	745 00	151	60	161	40	
Heavy Draught Horses, grade, Canadian bred	236 00	125 00	30	11	40	.....	109
Heavy Draught Suffolk Horses	128 00	85 00	7	4	10	4	
Heavy Draught Percheron Horses	300 00	150 00	73	24	27	21	
Durham cattle	1302 00	1287 00	318	160	221	137	174
Hereford cattle	585 00	585 00	71	50	77	76	62
Devon cattle	410 00	320 00	26	42	75	56	73
Ayrshire cattle	578 00	558 00	93	106	111	90	104
Galloway cattle	342 00	342 00	22	34	68	43	34
Angus or Polled Aberdeen cattle	585 00	475 00	52	43	36	27	6
Jersey or Alderney cattle	578 00	568 00	58	82	79	59	51
Holstein cattle	583 00	563 00	165	20	24	.....	.....
Grade cattle	174 00	174 00	46	34	90	52	90
Fat and working cattle (any breed)	145 00	120 00	9	18	57	40	62
Cotswold sheep	238 00	238 00	65	27	89	49	153
Leicester sheep	243 00	243 00	75	36	190	75	184
Lincoln sheep	218 00	218 00	87	19	114	53	143
Southdown sheep	212 00	212 00	106	35	155	80	107
Shropshire Devon sheep	218 00	218 00	138	82	157	45	55
Hampshire and Oxfordshire Devon sheep	191 00	191 00	42	18	51		
Merino sheep	151 00	151 00	51	29	55	32	26
Fat sheep	78 00	78 00	28	11	57	20	36
Berkshire pigs	308 00	308 00	103	63	144	92	126
Suffolk pigs	308 00	308 00	114	63	130	115	108
Poland China pigs	215 00	205 00	46	44	47	18	57
Essex pigs	215 00	215 00	28	22	68	50	50
Yorkshire and other large breed pigs	245 00	235 00	60	76	59	67	48
Poultry, etc	374 00	329 00	266	106	201	226	319
Chickens, ducks, etc., 1884, pigeons, rabbits	423 00	376 00	327	82	75	162	313
Agricultural implements (Exhibition only)	.....	.....	211	175	152	96	160
Agricultural implements	299 00	267 00	179	100	188	60	195
Carriages and sleighs, and parts thereof	465 00	405 00	221	167	156	196	160
Agricultural tools and implements (chiefly for hand use)	156 00	116 00	85	43	85	16	109
Field grains, hops, etc	425 00	418 00	314	268	354	324	319

Small field seeds, flax, hemp, etc	186 00	113 00	70	100	70	90	85
Field roots, etc	218 00	190 00	508	325	375	300	416
Dairy products, etc	539 00	536 00	233	150	938	155	172
Sugar, bacon, etc	65 00	34 00	20	60	25	10	44
Honey and Apiary supplies	88 00	88 00	71	20	42	21	
Domestic wines	95 00	77 00	37	36	35	33	42
Fruit (Professional Nurserymen's List)	200 00	149 00	37	90	36	35	61
Fruit, general list (apples and pears)	384 00	364 00	1681	900	1460	1306	1283
Fruit, general list (plums, peaches, grapes, etc.)	436 00	401 00	736	458	815	437	432
Garden vegetables	216 00	208 50	801	400	500	436	543
Plants and cut flowers	364 00	314 50	392	160	256	138	312
Fine arts (oils)	255 00	240 00	259	70	188	131	185
Fine arts (water colours, crayons, etc.)	276 00	237 00	294	112	234	237	288
Penmanship, linear drawing, photography, etc	233 00	139 00	87	37	46	50	69
Natural history and mineralogy	260 00	106 00	33	47	53	40	45
Ladies' work (ornamental)	237 50	223 50	427	306	532	512	311
Ladies' work (useful)	136 50	127 00	306	328	340	285	261
Chemical manufactures and preparations	92 00	37 00	27	15	30	12	36
Machinery and parts thereof and tools	721 00	256 00	125	106	100	50	97
Printing, book-binding, paper, etc							20
Musical instruments			73	43	23	30	45
Building materials, painting, work in marble, etc	210 00	145 00	34	4	20	15	33
Cabinet ware and other wood and hair manufactures	359 00	273 00	108	130	70	86	81
Sewing machines (for exhibition only)			47	34	60	15	31
Mechanical metal work (miscellaneous)	300 00	218 00	97	62	75	50	66
Stoves and castings	196 00	118 00	84	32	67	50	89
Saddle, harness and trunkmakers' work, belting and engine hose	215 00	138 00	54	44	33	30	26
Shoe and bootmakers' work and material	179 00	134 00	63	20	10	32	32
Wearing apparel and furs, flax, hemp and cotton goods	222 00	79 00	72	50	34	75	36
Woollen goods	315 00	214 00	130	90	162	95	103
Groceries and provisions	227 00	140 00	142	70	30	55	66
Essays	100 00		5	25	19	9	11
Thorley Horse and Cattle Food Co., special price for herd of Durham cattle				8			
Empire Horse and Cattle Food Co., special prize for herd of Durham cattle				6			
Farmers' Advocate Annual, special prize for fall, spring and winter wheat					48	4	
Prince of Wales' annual special prize	50 00	50 00	20	3	5	2	
Dominion special prize, milch cows	160 00	130 00		11		11	
Manitoba Exhibit			200	150		321	
Medals (for Exhibition)	1680 00	1680 00					
Medals (for prize farms)	100 00	100 00					
Muskoka Exhibit				114		21	
Totals	$23236 00	$20235 50	11662	7554	11004	7915	9385

FINANCIAL RESULTS.—The total amount received for members' fees, booths, stables, cattle, sheep, pigs, poultry, prize grants, licenses and admission fees was $15,838,50, against $11,867.93 in Ottawa in 1884; $13,179.41 in Guelph in 1883; $9,026 in Kingston, in 1882; $20,029.26 in London in 1881.

Comparative Table, showing the Progress of the Provincial Exhibition since its commencement in 1846.

Year.	Places of Exhibition.	Total amount offered in Prizes.	Total number of entries.	Total amount awarded.
		$ c.		$ c.
1846..	Toronto	1600 00	1150	1100 00
1847..	Hamilton	3000 00	1600	2400 00
1848..	Cobourg	3100 00	1500	2300 00
1849..	Kingston	5600 00	1429	2850 00
1850..	Niagara	6106 00	1638	3400 00
1851..	Brockville	5017 85	1466	3223 75
1852..	Toronto	5916 95	4048	4913 00
1853..	Hamilton	6410 15	2820	5293 25
1854..	London	7176 10	2933	5427 50
1855..	Cobourg	9216 30	3077	6941 70
1856..	Kingston	9238 00	3791	6799 50
1857..	Brantford	10071 40	4337	8136 00
1858..	Toronto	10700 59	5572	9215 00
1859..	Kingston	10513 30	4830	8067 50
1860..	Hamilton	15015 50	7532	12900 00
1861..	London	12031 00	6242	10188 00
1862..	Toronto	12236 00	6319	10722 00
1863..	Kingston	11866 00	4756	9166 00
1864..	Hamilton	12559 50	6392	10304 25
1865..	London	13434 00	7221	11036 75
1866..	Toronto	12712 00	6279	10288 50
1867..	Kingston	12731 00	4825	9311 50
1868..	Hamilton	13304 50	6620	11120 00
1869..	London	13428 00	7649	11459 50
1870..	Toronto	14110 00	6847	12441 70
1871..	Kingston	15724 50	6682	12951 00
1872..	Hamilton	16092 00	7714	13142 00
1873..	London	16016 00	8420	13797 00
1874..	Toronto	16640 00	8162	14070 00
1875..	Ottawa	16996 50	7318	14651 00
1876..	Hamilton	18237 00	10011	15631 50
1877..	London	16320 60	10618	14387 00
1878..	Toronto	17947 40	10292	13980 00
1879..	Ottawa	18525 00	9668	14957 50
1880..	Hamilton	16994 00	11252	13147 50
1881..	London	17154 50	9486	13456 50
1882..	Kingston	19927 00	7916	14912 00
1883..	Guelph	18494 50	10315	14819 50
1884..	Ottawa	20290 50	7380	15281 50
1885..	London	23236 00	11662	20235 50

Osnabrook Centre.

To H. Wade,
Secretary Agriculture and Arts Association of Ontario, Toronto:

Dear Sir,—As Superintendent of the Horse department at the grand Dominion and Provincial Exhibition held at London, 1885, I have to report as follows:

Class 1.—Thoroughbred Horses.—This class made a very large show, in point of quality and numbers greatly in advance of former years. Eight stallions were shown, double the number shown in that section in 1884, and of superior quality, the other sections of colts were also better filled, especially one year olds; of the females there were not so many, but upon the whole this class was for once in a number of years a reality. A special feature in connection with this also was an imported Arab stallion, "Cyprus," which attracted much notice.

Class 2.—In the Roadster class there was a very fine show. Stallions of all ages were numerous and of good style and action. Fillies and geldings of the different ages also turned out well and made a good show, although some of them were not in the best condition for exhibition. The matched teams shown in harness were also fine and attracted great attention. The same pair that gained first prize at Ottawa in 1884, again carried the red ticket. The single drivers were rather mixed; some were beautiful roadsters, while in others their only chances lay in their fast trotting, possessing beauty in neither form nor action. Saddle horses very good, and made an interesting show.

Class 3.—The Carriage class, as in the two former, turned out a good array of aged stallions promising well for the improvement of this class in the Dominion. One, two and three-year-old stallions made a large exhibit of promising colts. There was also a good show in the other sections of young stock. Brood mares and foals a very large exhibit and of superior quality. The matched pairs of both sires made a good turn out of fine animals of good style and action. The single carriage horses also were many and fine. To this class a special attraction was shown in the English Coach Stallions (five in number), of Fanson & Son, of Toronto, the real models for the family horse.

Class 4.—In agricultural horses there was a goodly number of good sized animals shown in all the sections, aged stallions predominating. The teams in harness alone being behind the show of 1884, both in point of numbers and excellence.

Class 5.—The call for heavy draught Clydesdale stallions brought out a grand display of no less than twelve in the four-year-olds and upwards, and eleven three-year-olds. In the list of competitors were Beith, Beattie, Jeffry, Davis and other well-known horsemen with large exhibits of well selected animals. There were also some good specimens of the Shire. The other sections of this class showed some very promising colts of great bone and substance. The brood mares and foals were alone a good exhibition of that breed, four heavy mares with foals by their side being shown by one exhibitor, besides several others, all good.

Class 6.—In the heavy draught Canadian bred the competition was small throughout, especially the show of spans in harness, but quality good.

Class 7.—The show in Suffolks was small—1 aged stallion, 1 two-year-old stallion and one yearling, one mare,—all first-class.

Class 8.—In class eight the Percheron stallions made a good show of superior animals which occupied considerable time in judging, the competition being very close. In the rest of the class there was little competition.

Class 9.—The competition of lady riders for the Dominion Silver Medal was rather interesting. The first and second especially in their performance in the saddle with whip and rein, would eclipse many gentlemen on horseback. This ended the duties of the judges on Friday afternoon, being kept busy in the ring from Wednesday morning.

I think we are safe in saying that this was the largest and best show of horses ever held in the Dominion.

The great amount of accommodation required, and the new stables not being finished quite soon enough, caused a little extra work to give the constantly arriving horses shelter until stables were provided for all, but through the hearty co-operation of Supt. White

and his able and obliging assistant, we surmounted every difficulty, and finally got everyone satisfied, as nearly as such a thing is possible.

From the scatttered nature of the stables we anticipated some difficulty in getting all exhibitors into the ring in good time, but upon the whole (although there was a little fault-finding) we have reason to believe that under the circumstances everything connected with the exhibition of horses was more satisfactory than usual. By the attention and assistance given by your committee on horses, Messrs. White and McKinnon, there is no need of any suggestions from me. After the experience of 1885, I am convinced that the Secretary, with the committees and officials generally, will be capable of carrying out successfully any Dominion or Provincial Exhibition that may be held in future under the auspices of the Agriculture and Arts Association of Ontario. "Long may she live" to advance the improvement of agriculture in all its branches in the future as in the past, as the exhibition of this year is abundant proof. All of which is respectfully submitted.

I have the honor to be, dear sir,
Yours respectfully,

ROBERT VALLANCE,
Supt. of Horses, Dominion and Provincial Exhibition,
London, 1885.

Woodstock, Dec. 27th, 1885.

To the Council of the Agriculture and Arts Association of Ontario:

Gentlemen,—Having had the honour for the second time of the appointment of Superintendent of the Cattle Department I beg to submit the following report of the cattle exhibited at the last Provincial Exhibition held in the city of London. I arrived on the grounds, according to instructions, on Friday evening, and found a goodly number of cattle scattered through the sheds, and had to move them to the sheds allotted to each class of cattle, which could be avoided if the superintendent was on the ground a day or two earlier.

There was a much larger exhibit of cattle this year than any preceding year; the commodious sheds on the ground were all filled as full as possible, and then we had to have a long shed erected to accommodate the large number of cattle that were without shelter; in fact, we had to stow one herd of Ayrshires away under the chief superintendent's office. The following is a list of the cattle exhibited:—

In the Durham Class there were one hundred and twenty (120) head on exhibition, most of them very superior animals, a good number of them imported, some of them making their first appearance in the show ring on this side of the water in London this year. Prominent among these was the herd owned by Mr. Nelson and Sons, Bow Park, which arrived in splendid condition, and were much admired; T. & A. B. Snider, German Mills, Waterlo Co., had a herd on exhibition, and they were very superior animals; John Dryden, M.P.P., Brooklin, exhibited 10 head of choice cattle of various ages. Green Bros., Innerkip, Oxford Co., had their famous bull Earl of Mar and four extra fine calves on exhibition. H. & I. Groff, Elmira, were the largest exhibitors in this class, and showed 12 head of very superior smooth cattle. James Hunter, Alma, Wellington Co., exhibited 11 head of first-class animals that were good enough to suit the most fastidious; Thomas Russell, Exeter, Huron Co., had 6 head of good cattle on the ground; Simmons & Quirie, Ivan and Delaware, had on exhibition 5 head; William Patrick, Ilderton, Middlesex Co., exhibited 7 head of good useful animals; T. Nicholson & Sons, Sylvan, Middlesex Co., showed 5 head; D. Grant & Son, Woodville, Victoria, had six head of good cattle; J. Campbell, jr., Woodville, Victoria, exhibited 3 head; T. F. Kingsmill, London, 1 bull; G. S. Alton, Burlington, 1 bull W. G. Pettit, Burlington, 2

head; James Graham & Sons, Ailsa Craig, had two head present; John Currie, Everton, Wellington Co., had 2 head; Mr. Fisher Hyde Park, London, 1 bull; John Morgan, Kerwood, Middlesex Co., 1 bull; James Oak, Alviston, Lambton Co., 3 head; Mr. Hogg, London, 1 bull; W. J. Biggins, Clinton, Huron Co., showed 2 head.

The Hereford class was well represented, considering they are not so generally bred as the Durham. There were on exhibition 41 head, nearly all of them being of an excellent quality. F. A. Fleming, Weston, York Co., exhibited 14 head of choice animals which showed that they had been well cared for; F. W. Stone, Guelph, Wellington Co., had on the show ground 15 head of exceedingly fine cattle, and as Mr. Stone is perhaps the oldest breeder of this class of cattle in Canada, it shows that they still hold his favour; Green Bros., Innerkip, Oxford Co., had 3 head of very choice animals on exhibit; R. J. Mackie, Oshawa, had 7 head of first-class stock; L. G. Drew, Oshawa, exhibited 3 head, also good.

In the Devon Class only two breeders came forward to maintain the reputation of this breed, and they brought 19 head. W. J. Rudd, Guelph, Wellington Co., had 10 head of excellent quality; W. & J. Peters, London, exhibited 9 head of very good cattle.

Galloway Class.—Thomas McCrae & Son, Guelph, were the only exhibitors of this breed of cattle, and had on exhibition 17 head of their black glossy-coated animals, which they say are very hardy and suitable for our vigorous climate.

In the Aberdeen Angus Polled Class there were on exhibit 40 head of very fine even cattle, and they were greatly admired by the visitors. Hay & Paton, New Lowell, Simcoe, had on exhibition 15 head, most of them imported, and they were a grand lot, large, smooth, and full of quality. Mossom, Boyd & Co., Bobcaygeon, exhibited 12 head of exceptionally fine animals; Dr. Craik, Montreal, showed 5 head of first-class cattle; Geary Bros., London, had on exhibition 8 head, also first-class.

The Ayrshire class was well represented, there being 63 head present: T. Guy & Son, Oshawa, exhibited 18 head of extra fine ones; W. C. Beaty, Omagh, Halton County, had 15 head—a fine lot; James McCormack, Rockton, Wentworth, showed 12 head, choice animals; T. G. Nankin, Merrivale, Ontario, had on the ground 11 good animals; George Hill, Delaware, Middlesex Co., had 4 head; Joseph Youill, Carleton Place, 2 head; Thos. Nichol, Plattsville, Oxford, 1 bull. These were all good animals. This breed is chiefly noted for the dairy, as they give a large quantity of milk of good quality.

The Jersey class was also well represented, there being on the show ground 38 animals: Valency E. Fuller, of Hamilton, exhibited a very large herd, consisting of 22 beautiful animals, which were the admiration of all who beheld them; Samuel Smoke, Canning, Oxford, had on exhibition 7 very choice animals; Smith & Carpenter, Grimsby, showed 8 very fine animals; W. C. Beatty, Omagh, Halton, had 1 present. This herd of cattle has been brought before the Canadian farmers as being wonderful dairy producers both in quality and quantity, and they deserve the attention of all lovers of first-class butter.

The Holstein class was a surprise to everybody, coming out in larger numbers than any other class, and more of a surprise on account of their being comparatively unknown to a great number of farmers. There were on exhibition 138 head, most of them splendid representatives of the breed: Wyton Stock Breeders Association had on exhibition 34 head; H. M. Williams, Picton, Prince Edward, 37 head; Cook & Son, Aultsville, Stormont, 13 head; H. M. & F. W. Bullert, Cassel, Oxford, showed 11 head; A. C. Hollman & Co., New Dundee, Waterloo, had 10 head; Ed. Macklin & Son, Fenella, Northumberland, 7 head; T. Shunk, Edgely, York, 3 head; J. Ferguson, Wyoming, Lambton, 2 head; W. Sushring, Sebringville, Perth, 1; Mr. Ross, Sebringville, 13 head. The breeders of this class of cattle claim for them wonderful milking qualities.

In the Grade class there were a large number in competition, and the most of them being of excellent quality: H. & I. Groff, Elmira, were the largest exhibitors in this class, having on the ground 12 head of very fine beasts; J. Kelly, Shakespeare, 1 head. There were other exhibitors in this class, but I failed to get their names.

The fat cattle class was very meagrely represented. J. Kelly, Shakespeare, one grand steer; H. & I. Groff, 3 steers, all extra fine; Mr. West, Guelph, 1 steer, also very fine

I might suggest, in conclusion, would it not be well, seeing that you have a fat stock show later in the season, to withdraw this class and give it a more extended prize list at the Xmas show?

I am,
Yours respectfully,

E. W. CHAMBERS,
Sup't. of Cattle.

HENRY WADE, ESQ.,
Secretary Agriculture and Arts Association:

DEAR SIR,—It gives me much pleasure to present to you a report of the sheep department, on account of its being the largest exhibition which the Association have witnessed for a number of years, if not the largest since its formation; the quality as a whole surpasses any former year. The number of sheep exhibited exceeded 600 head. Shropshires head the list in numbers, 142, Southdowns 123, Lincolns 90, Leicesters 72, Merino 61, Oxfords 39, Cotswolds 35. Fat sheep 47, Dorset horned sheep 5, a new variety.

Taking them in order as in the catalogue, first, Cotswolds, the exhibitors were Wm. Main, Boyne, 24 head, 12 imported in 1885; Wm. Jackson, Westminster, 6 head, one aged ram imported; W. G. Laidlaw, Westminster, 5 head, one ram imported. Cotswolds as a class were not as good as I have seen it in former years. There is not the demand for them as formerly.

Leicesters appear to hold their own with the most popular breed. There were a good show of them. John Rowell, London Township, one shearling ram; Wm. Somers, St. Marys, 20 head, all bred from imported stock; John Kelly, Shakespeare, 15 head, bred from imported stock (mostly prize winners); Thos. Nichol, Platsville, 9 head, one ram imported; Thos. Evans, Hespeler, 8 head Canadian bred; E. Gaunt, Hespeler, 8 head; H. Snell & Son, Clinton, 9 head, and R. Marsh, 3 head. The quality exceeds any former year.

Lincolns—C. J. Campbell, Mayfair, 2 head, Canadian bred; Earnest Parkinson, Eramosa, 16 head, Canadian bred, takes first, second and third prizes in shearling rams; Wm. Walker, Ilderton, 18 head, all Canadian bred; Wm. Oliver, Avon Bank, 20 head, bred from imported stock; James Murray, Clanbrassil, 24 head, Canadian bred; John Rowell, 1. This class of sheep has lost that true type which characterizes the breed.

Southdowns—E. A. Stanford, Sussex, England, 33 head, all imported in August; Robt. Shaw, Renton Station, 24 head, 6 imported; John Jackson, Abdington, 30 head, 7 imported; Robert Marsh, Richmond Hill, 26 head, 10 imported; John Baker, 10 head. This class was well represented both in quantity and quality; the competition was very strong and well divided amongst the exhibitors.

Shropshires—H. Snell & Son, Clinton, 5 head from imported stock; John Dryden, Brooklin, 14 head, 4 imported; John Miller, Brougham, 19 head; Simon Beatey, Annan, Scotland, 19 head, all imported; James Glennie, Gourock, 15 head, 10 imported; Wm. C. Right, Westminster, 5 head, 2 imported; D. Grant & Son, Woodville, 22 head, 5 imported; Jas. Cooper, Huron Township, 11 head, 3 imported; W. H. Beatie, Westminster, 12, all bred from imported stock; John Campbell, Woodville, 20 head, 2 ewes imported. This class heads the list in numbers, and equal in quality with any other breed on exhibition. The decision in some sections gave dissatisfaction.

Oxfords—Peter Arkell, Teeswater, 30 head, 10 imported; Smith Evans, Gourock, 9 head, 3 imported. This is a good class of sheep, both for wool and mutton.

Merinos—Rock Baily, Union, 30 head, 11 imported from U. S.; and W. M. and J. C. Smith, Fairfield Plains, 31 head, 5 imported. This class is making its way up the hill by degrees; they are *the* sheep for wool.

Fat Sheep—John Rutherford, Roseville, 15 head: James Glennie, Gourock, 6 head; Robt. Marsh, 8 head; Robt. Shaw, 2 head; E. & A. Stanford, Sussex, England, 4 head.

Never was there such a display of fat sheep on exhibition as this year; it was the admiration of all. Messrs. Stanford exhibit 5 head of Dorset horned sheep, a new variety in this country.

As regards extent, quality and variety, this show has never been surpassed: there were 34 exhibitors in this department.

As regards improvement, there are a few things that should be amended. The appointment of good, practical judges. It would be well if the Association would try the one judge system; I think it would work more satisfactorily than the present system of appointing men who want to attend the show, and who always make judging a secondary matter; they are in a great hurry to get through to do some other business which concerns them more (I am speaking from what I have seen). In the one judge system he must give his own judgment; he cannot be influenced by another, and if he be a good practical man he would give general satisfaction. Exhibitors attend the Provincial Fair, because the honour of winning a prize is more than at any other show. I have often heard this remark.

I have been asked by the exhibitors to mention to the Board, for better accommodation of stockmen, attendants who sleep on the grounds with the stock; also an office for each superintendent, it would be more convenient for the exhibitors, who could always find them at any time, for anything they may require. This office could be fitted up in connection with each department One stall or pen could be taken and enclosed in, and, with very little trouble or expense, made very convenient. In concluding my report, I would say, that the exhibitors of sheep, at the last exhibition, have good reason to thank the Association for the accommodation they received, while at the fair. Everything was done to make them comfortable under the unfavourable weather. The exhibitors of sheep all say, they are better used at the Provincial Fair than at any other. Their kindness towards me, as their superintendent, was more than I deserved, for at the close of the exhibition they presented me with a beautiful gold-headed ebony walking stick and pipe.

Thanking the Association for the position they have placed me in, I have endeavoured to do my duty, have done my best to make the exhibitors comfortable, and strengthen the tie between them and the association.

I am, yours respectfully,

HORACE CHISHOLM,
Superintendent of Sheep Department.

Ida, Ont., October, 1885.

H. Wade, Esq.,
Secretary Agriculture and Arts Association.

Dear Sir,—It is with pleasure I present my report of the Swine Department for the Dominion and Provincial Exhibition held in London, September, 1885. Class 26, Improved Berkshires.—There were 65 on the ground. J. G. Snell & Bro. had 20 very fine animals, 14 of them imported. G. Green had 10, of which 5 were imported. Simmons and Querie, J. Hewer, and W. G. Cavan, showed some very good animals. In Class 27, Suffolks.—There were 115. W. & S. McClure, T. F. Kingsmill, R. Dorsy & Son, Frank & Son, and M. McArthur, made a good exhibit, giving the judges hard work to decide. Class 28, Poland China.—Was not so well filled, but the quality was good. A. H. White, R. Dorsy & Son, W. M. & J. C. Smith, and T. G. Nankin, were the principal exhibitors. Class 29.—Essex J. Featherstone was the only exhibitor. Class 30.—Large Breeds.—J. Featherstone, J. Hewer, and T. G. Nankin, were the only exhibitors, showing 20 head, all very good, principally Yorkshire and Chester White. In conclusion, I may say that the exhibitors were all well pleased with the accommodation in pens that

were all that could be desired, with plenty of good straw for bedding. The wish of all was that the Provincial Exhibition may go on and prosper. So say I.

I am, Yours respectfully,

ROBERT VANCE,
Superintendent of Swine Department.

London, November 7th, 1885.

H. Wade, Esq.,
Secretary of the Agriculture and Arts Association of Ontario.

Dear Sir,—The Provincial Exhibition held in this city, on the 7th and following days of September, proved a grand success in the Poultry Department, over which I had the honour to superintend. There was the largest and best display of poultry I have ever perceived at a fall show. There were over 500 pairs exhibited, which was a great improvement over last year, both in quality and quantity. The prize list on poultry is the best in Canada; takes in more varieties, and I am satisfied it was the liberal prize list and specials that brought out such a grand display of poultry. I have one suggestion to make, which I think would be a great improvement in the Poultry Department, that is, for the judges to commence work Tuesday noon, then they will get through early on Wednesday; the doors of the poultry hall will not have to be closed upon the public Thursday. This year I had to close the doors to keep the public out, which was a great inconvenience, as the judges could not see to do their work when the crowd was in; but they did their judging well and gave entire satisfaction, and I don't think there was a protest in all the Department.

Yours respectfully,

WM. McNEIL.

HORTICULTURAL DEPARTMENT, PROVINCIAL EXHIBITION.—SUPERINTENDENT'S REPORT TO THE BOARD OF DIRECTORS.

Gentlemen,—I have to report that in the "General List" the show of apples was much larger than that of previous years. Of the 20 varieties, 3 of each, there were 15 exhibits, and in some of the single varieties there were over 40 exhibits.

In the collections of 40 varieties there were seven competitors. The late or winter sorts (on account of the earliness of the show and the lateness of the season) were not well coloured, but the early ripening sorts were better than usual. On the whole the display of apples excelled that of former years.

Pears—For the best 12 varieties there were 9 competitors, and for the best 20 varieties, 7 competitors, and every exhibit of considerable merit. The samples of early sorts were decidedly fine.

Grapes were not at all equal to the show on former occasions; indeed none of the out-door sorts were ripe, except perhaps, the "Champion," "Brighton" and "Hartford." This of course was the result of so much cloudy weather.

Peaches were not nearly up to the standard, but Plumbs were very good, and some samples were exceedingly fine. Glass' Seedling was particularly worthy of notice.

The display of cut flowers was far superior to that of former years, and the foliage plants were very fine. Green-house plants quite equal to last year's show.

Garden vegetables, on the whole, were surprisingly fine, considering the earliness of the show.

In the Agricultural Department the field roots were well nigh up to the standard, but of course not genrally as large as they would have been had the show been later.

The various exhibits of grain, in the straw and dried grasses, were exceedingly inter-

esting, and the competition in grain was more than ordinarily keen. For the Canada Co's. $100 prize there were 6 competitors, and each exhibit being fine, the judges had much difficulty in deciding which was the best 25 bushels of fall wheat.

The Manitoba exhibit of grain, field roots and vegetables was very creditable indeed, and to a great many visitors was very interesting.

The potatoes, onions, cauliflowers and squashes, although they had been lifted some time before the show, were superior to anything of the kind on exhibition.

The display of grain, in the straw and dried grasses, was well calculated to increase confidence in the productiveness of that country. A competent man was in charge of the exhibit during the exhibition, and he reports that enquiries were innumerable.

Your obedient servant.

D. NICOL,
Superintendent Horticultural Department Provincial Exhibition.

AGRICULTURAL IMPLEMENTS.

Class 33.

In this class no prizes are awarded, consequently no judges are appointed to decide on the merits of the articles exhibited therein. The Council of the Association recognize the fact that the exhibit made in this class is a most important and interesting feature in any agricultural exhibition, and is therefore worthy of special notice in the annual report.

The necessity for labour-saving machines in the practice of farming has long been acknowledged. Under the pressure of that necessity invention after invention has been introduced, and improvement after improvement has been made thereon. The way is strewn with them; the number of them and the perfection to which they have reached is marvellous. The entries in this class amounted to 219; they were especially numerous in harvesting machines and in threshers, vibrators and seperators. The entries in mowers were 31, in reapers 21, in self-binders 29, and in threshers and seperators 22. It is in improvements in these machines that our agricultural implement manufacturers are bending all their skill and energy at present. Great has been the progress made, and the promise is that advancement will yet be made. At the shows held by the Royal Agricultural Society of England, it is usual to test the merits of the several reaping machines by actual work in the harvest field, and mechanical experts make a detailed and elaborate report thereon. Occasionally this has been attempted in Canada, but not of late years. It may be mentioned that it was intended to have had a trial of this kind at Guelph in 1884. But owing to weather hindrances it did not come off. No doubt such a practical trial is the most satisfactory way of showing the particular advantages claimed for the different machines. Failing this kind of trial, however, the mode of illustrating the working of each machine as adopted and seen at the exhibition of 1885 is the next best. From the opening of the exhibition to its close, mowers, reapers, binders, threshers, and traction engines, etc., etc., were put in motion by steam power, thus showing, comparatively speaking, their capabilities. Crowds of farmers thronged the long gallery in which the mowers, reapers, and binders were exhibited, observing their operation, asking questions, and listening to the exposition of the merits of each machine as given by the manufacturer or his agent. It would be unfair on the part of the Association in this report to single out one or more of the machines, and describe their merits. Except where judges have given their awards, all exhibitions must, as far as possible, be treated alike. It would, however, unduly lengthen this report to notice every kind of machine in this class. The Association, therefore, will confine this report chiefly to the self-binders' show, and seek to give an epitome of the excellencies claimed for them. They do so because it is these machines which are engrossing the attention of farmers at the present time.

The Gurney Manufacturing Co., Dundas, claims preeminence for their self-binder on the ground of its over head trip, its three packers, the closeness of the knife to the canvas, and the facility with which the reel may be adjusted by the operator to move either in a lateral, vertical, or longitudinal position. This company also exhibited mowers, reapers, and sulky rakes of high merit.

Patterson & Bro., Patterson & Whitby, seek public favour for their self-binder, because of the quality of the material and workmanship used in its construction, also because of the closeness of the knife to the canvas, and the evenness and straitness with which the grain is delivered at the elevating canvas. It is so constructed as to be free from choking in heavy and badly lodged grain, and can bind a perfect sheaf in the shortest barley that grows, and the longest wheat or rye. It has an improved divider, a long sectioned knife, and is portable through an ordinary farm gate. This firm also offered to public inspection other harvesting implements of excellent virtue.

Harrison, Son & Co., Brantford, say that competent judges pronounce their binder as "the best in use." Its specialties are—new extension on finger bar, new adjustable extension on outside divider, and new patent inside grain lifter. Its other features are such as fit it to cut satisfactorily the most difficult crops of down, tangled, twisted, and short grain. The other harvesting machines shown by this firm were all that could be desired.

The Watson Manufacturing Co., Ayr, assert the Watson-Deering Binder to be at the head of its class. Its supremacy is said by them to be due to its light draught, light weight, and simplicity. This machine is nicely balanced upon the axle of the main wheel, all the gearing being at the rear. It has also a contrivance for keeping the sheaf square at the butt. Its knotter is simple, and it cuts a 6ft. swath. By what is called a "gate escapement" it can pass readily through an eleven feet gate. This firm devotes their whole time and attention to harvesting machinery, and claim to have the finest assortment in Canada. Specimens thereof were exhibited by them.

Knight and Wilson, Alliston, allege that their Cord Binding Harvester has met with unparalleled success. It is so constructed that the binding attachment can be folded against the elevator so that it can be passed through an ordinary farm gateway. It is entirely automatic. The device for raising and lowering the machine upon the main carrying wheel is unique. And the driver can operate the whole machine from his seat by crank and screw with great ease. The Queen Reaper and Mower are also manufactured at the Alliston works, besides the Excelsior Fanning Mill and the Clipper Gang Plow, all of which are worthy of commendation.

MacPherson & Lindsay, London. entered 3 self-binders for exhibition, but only showed one, their season's manufacture being exhausted. They say that farmers want their binder because it combines more perfectly than any other all the important advantages of strength, durability, lightness of draught, portability, variety and ease of adjustment, with capacity to do good work in all kinds and conditions of grain. It is called the "London Light Binder." Besides manufacturing this binder they also turn out from their factory corn reapers and mowers, also single reapers and mowers, fanning mills and cultivators. Their increasing business shows the esteem in which their implements are held.

The Cochrane Manufacturing Co., St. Thomas, invites attention to their Minneapolis and Little Minnie Binders as the beau ideal of harvesters. They advertise them as "recognized perfection," inasmuch as the double packer trip is one of their compotent parts, which absolutely prevents clogging, whatever the condition of grain. In order to avoid cramping in packing shaft these machines are provided with self-adjusting boxes, so that the tear, wear and draft are lessened on this the fastest running shaft on the binder. The other qualifications of the Minneapolis are important, and seem to support all that is claimed for it. The Tiger Hay Rake and the Meadow Lark Rear-cut mowers are also issued by this company.

David Maxwell, of Paris, asks the favourable notice of the farmers to what he calls Maxwell Low-Down Binder. He thus introduced it, "Knowing that the present machines were too heavy and too complicated to come into common use, my efforts were directed towards the production of a machine light in draft, simple in construction, and which at

the same time would do the work required." Twenty-five of these binders were placed in the fields in 1884, and so successfully did they stand the test that 300 were prepared for 1885, and this number did not supply the demand. Mr. Maxwell has also been experimenting with a new binder called the "Little Maxwell." This is a front cut machine, which is preferred by some farmers. Two of them were this season put to the severest tests possible, and they worked to the satisfaction of all who used them. In addition to the self-binders Mr. Maxwell exhibited other reapers and mowers, all bearing his name, also rakes and several stock raisers' implements, for which he has long been celebrated.

Another Low-Down Reaper was exhibited by A. Turnbull, its inventor, and which bears his name. Only three or four of these machines up to the time of exhibition had been tested, and were reported to work satisfactorily. The inventor of this binder is confident that it will revolutionize the style of binders, and that the clumsy and complicated machine now in use will give place to his as efficient, but infinitely more simple, machine. We understand that Muir, of the Ontario Car Works, has an interest in it, which is a guarantee that more will be seen and heard of it yet.

Noxon Bros.' Manufacturing Co., Ingersoll, comes to the front with still another Low-Down Binder. A large number of these binders have gone through a most difficult harvest. They have proved themselves strong and reliable. One of the distinguishing features of this machine is that it is made throughout of iron, steel, and wood, *is free from all canvas and leather*, and will do its work for years without frequent or expensive repairs. The machine is only 9ft. 6in. wide, is small, light, and compact, and can be driven through bars and gates the same as the common reaper. Noxon Bros.' also exhibited mowers and reapers, both combined and single, and their well known grain drill.

The North American Agricultural Implement Co., London, was present at the exhibition with their N. A. binder. They state that their machine possesses all the latest improvements which experience in the field suggested, and that it heads the list of all other harvesting machines. Nothing but the best material and skilled workmen are used in its construction. For the coming season they propose to introduce a new device for shifting the knotter, also a sheaf regulator. By the application of a new device their binder can pass through a nine feet gate and run smoothly and easily along an ordinary road on wheels belonging to it. The N. A. Company also manufacture the John P. Manny Mower, which is unequalled. In 1883 this company received the Gold Model at the Western Fair for the best collection of agricultural implements.

The firm of John Elliott & Son, London, calls the attention of agriculturists to their own new two-horse binder, which before determining to build they subjected to a thorough and severe trial in the worst condition of crops they could find. The result proved it to be the most perfect self-binder that has ever been put in the harvest field. The knotter is made in such a way that it gives no annoyance or trouble by becoming disarranged. The cutter bar is made of steel, and the centre of the table is so braced that a very short stubble can be cut, and there is no danger of the table ever sagging or getting out of shape. This Company also makes a specialty of the New Warrior Mower and the Moline Sulky, with steel stubble plough.

The Sarnia Agricultural Implement Manufacturing Company are offering for examination and approval, the "Eureka Binder," which they pronounce the latest improved, simplest and best binder in the world. It has two drive wheels, independent of each other, and either will drive the machine. The highest point of this binder is less than four feet, and the grain is elevated only 26 inches. The whole construction of this machine is on an entirely new principle, and makes a complete revolution in the construction of binders, and has not more than one-half of the machinery that is now used in the ordinary binder of the day. This firm also manufactures the Sarnia Harvester, the Humming Bird, and the Gauze Mowers, machines with all the latest improvements.

R. Aldride, of Glencoe, exhibited self-binder, with recommendation little short of any of the preceding machines.

We now come to the last of the exhibitors on our list, viz., the Massey Manufacturing Company, Toronto. They exhibited a machine designated the Toronto Light Binder. In describing other machines, one has been classed A 1 and the other, as being to the front, and another as heading the list, but the Toronto Light Binder is crowned "Monarch

of the Binders." Like others it cuts and binds short grain successfully, but mark this, it has no "rickety canvas cutter," neither does it "slobber," as regards choking; don't mention the word. Its capacity takes in any kind of weather-beaten grain, and makes capital work on any kind of ground. It looks around on a harvest field, stocked in regular array, and, with conscious superiority, says "Behold my work." Besides this king of the harvest field, the Massey Manufacturing Company introduces to the sovereign people a "Peerless Toronto Mower," also a little gem, the "Massey Mower," and last, but not least, the "Massey Harvester." As described by them, this harvester is characterized by "elegance and ease, adaptation and art," but lest the farmers might think it altogether too dudish a machine, they take care to speak of its "stability and strength, and its excellency and efficiency," and tell them "that any one in want of a first-class machine cannot make a mistake in buying a Massey Harvester."

In concluding this report we would briefly refer to the splendid specimens of threshing machines on the grounds. As mentioned before, there were 22 entries. The exhibitors were: Haggart Bros, Morris & Watts, F. W. Glen, Jas. Sharman, Simpson Munn, L. D Sawyer, Macdonald Macpherson & Co., John Abell, Farron, Macpherson & Hovey, Thom & Doherty, Macpherson & Co., Stevens, Turner & Burns, Sarnia Manufacturing Company, and D. Danville & Co. The speed and thoroughness with which threshing is now effected is due to the great improvements made on threshers of late years, and to the application of steam as the propelling power. The splendid Traction Engine, from the Joseph Hall Machine Works, Oshawa, with its train of separators, as it moved with ease and precision through the grounds, is especially worthy of notice. Ontario indeed has reason to be proud of the skill and enterprise of its manufacturers of agricultural implements. In the race for pre-eminence in this branch of manufacturing industry, Canada bids fair to occupy a first place among the nations. The Council of the Association hopes that at future exhibitions the display of implements will bulk as largely as it did this year, and be as remarkable for quality, excellence and progress.

JOHN CRAIG, Woodstock,
Reporter.

COUNCIL MEETING.

Held at Woodstock, O'Neill's Hotel, Dec. 9th, 1885, 4 o'clock p.m.

Members present—Messrs. White, Aylesworth, Snell, Reid, Drury, Shipley, Parker, McKinnon, and the Secretary.

Vice-President Parker in the chair.

The minutes of the various meetings held in London, during the Exhibition, were read and confirmed.

The following letter was read:

London, 5th December, 1885.

To H. Wade, Esq.,
Secretary Agriculture and Arts Association, Toronto.

Sir,—I am directed by the chairman of committee number two of the City Council, to ask upon what terms the Association will release the lien held by them on part of the exhibition grounds here, other than a transfer thereof to Queen's Park. An early reply is requested.

I have the honour to be, sir,
Your obedient servant,

A. S. ABBOTT,
City Clerk.

Mayor Beecher and Alderman Scarrow, of London, then waited upon the Council to urge the matter of the lien being settled as soon as possible.

Mayor Beecher explained that the Agriculture and Arts Association held a lien of $4,000 upon a portion of the old Western Fair Grounds, and as they were now preparing to move to the new grounds, they would like to settle the lien on a cash basis, and hoped the Council during the present session would come to some arrangement and let them know the result. Ald. Scarrow also spoke in favour of the cash basis, and said that the East Middlesex Society had arrived at an understanding with the Council as to their claim.

The matter was laid over by the Council till the next day, as several members had not arrived.

A communication was read from the Hon. A. M. Ross, Commissioner of Agriculture, stating that he had again appointed Mr. John B. Smyth, of London, one of the Auditors of the Association.

Moved by Mr. Chas. Drury, seconded by Mr. S. White, That Mr. John I. Hobson, of Mossborough, be the other Auditor.—Carried.

A letter was read from Geo. McBroom, asking that $100 more be paid him for services rendered during the exhibition.

Mr. Moore explained that Mr. McBroom asked $300 for his services when engaged, but that they could not offer more than $200, but promised that if the exhibition was successful probably the Council would do better.

Mr. White and Mr. Shipley corroborated what Mr. Moore said.

Moved by Mr. White, seconded by Mr. Snell, That the sum of fifty dollars be paid in addition to what had been paid in full settlement of Mr. McBroom's claim.—Carried.

Mr. Reid objected.

The following letter was read :

MONTREAL, 24th September, 1885.

HENRY WADE, ESQ.,
Secy. Agr. & Arts Ass'n, Toronto, Ontario.

DEAR SIR,—On behalf of the Council I desire to return to your Association and yourself our warm thanks for your courteous invitation to visit the Dominion Exhibition, which was held in London during the present month. I desire also to return thanks for the kind reception accorded to the delegates from our Council, and to express the pleasure which they experienced in visiting the splendid exhibition held under the auspices of your Association.

I remain,
Very faithfully yours,

S. C. STEVENSON,
Secretary.

Letters were read from the Messrs. Kennedy Bros., of Owen Sound, asking for prizes awarded them at London and withheld on account of an injunction filed in Chancery against them by the Heap Patent Dry Earth Closet Company.

Mr. Heap was heard in reference to this claim, and stated that an appeal was entered against the decision of Justice Proudfoot in this matter, and urged the Council not to award prizes to the firm of Kennedy Bros., as they had infringed on his Company's patent.

A letter was also read from John G. Ridout, Solicitor for Heap Closet Co., saying that he had given notice of appeal to the proper parties.

Mr. Drury explained what had been done by him as chairman of the committee on this exhibit, that the matter was left in abeyance pending the judgment to be delivered by Chancellor Proudfoot, and if any prize was awarded by the judges, of which he was not aware at the time it was withheld pending the suit, and that Mr. Wade was perfectly right in not sending out any statement before this meeting.

Moved by Mr. C. Drury, seconded by Mr. J. C. Snell, That whereas the judges in Class 57, sec. 23, awarded the first prize to Kennedy Bros., of Owen Sound, and the

second to the Heap Dry Earth Closet Company, of Toronto, and no action was taken by the Council, owing to an injunction having been obtained, restraining the Kennedy Bros. from exhibiting. The Kennedy Bros. have notified the Secretary that such injunction has been dissolved, but it is stated an appeal has been taken from such decision, it is hereby further resolved that if it be found that the case is to come before a higher court, no action be taken pending the trial, but if no appeal is taken from the decision of Mr. Justice Proudfoot, then the Council do award a silver medal to Kennedy Bros., and a bronze medal to the Heap Dry Earth Closet Company.—Carried.

Moved by Mr. Drury, seconded by Mr. White, That the Finance Committee prepare an estimate of the requirements of the Association from the Government for 1886.—Carried.

HENRY WADE,
Secretary.

EVENING SESSION.

December 9, 1885.

Same members present, with the addition of Mr. Moore, the President, who now presided.

A letter was read from Mr. T. D. Hodgens, of London, asking for a prize awarded him on a thoroughbred two year old filly at the late show.

The Secretary explained that the judges had made a note opposite this prize, that it was to be withheld on account of insulting and abusive language to the judges.

This judgment was confirmed by the Council by ordering that the prize be not paid.

A long letter was then read from a Mr. G. Boivin, boot and shoe manufacturer, of Montreal, explaining his claim for a gold medal on account of the extreme importance of a peculiar seamless boot.

The Council could not see that he had proved his case about the royalty promised, and consequently only recommended a silver medal.

A committee, consisting of Messrs. Snell, Parker, White, Aylesworth and Wade, were appointed to look over and choose subjects for essays for 1886.

The following report of the Finance Committee was then presented :

To the Lieutenant-Governor in Council of the Province of Ontario :

The Council of the Agriculture and Arts Association, as per statute, hereby submit a detailed estimate of the sums required for the purposes of the Association for the year 1886, praying that this amount be placed in the estimates for their use, as follows :—

Prize farms	$ 250 00
Council expenses	725 00
Veterinary College	125 00
Essays	100 00
Salaries	1,500 00
Exhibition	5,000 00
Postage and printing	600 00
Educational scheme	500 00
Fat Stock Show	700 00
Total	$10,000 00

All of which is respectfully submitted.

(Signed) C. DRURY,
Chairman.

Woodstock, Dec. 9, 1885.

Moved by J. C. Snell, seconded by H. Parker, that the above report be accepted and a copy be sent to the Lieutenant-Governor in Council.—Carried.

THE TWO HERD BOOKS.

MINUTES OF A JOINT COMMITTEE MEETING OF THE THE AGRICULTURE AND ARTS AND THE BRITISH AMERICAN SHORTHORN ASSOCIATIONS, TO TAKE INTO CONSIDERATION THE SUBJECT OF THE AMALGAMATION OF THE TWO HERD BOOKS.

Members present from the Agriculture and Arts Association—John Carnegie, Chas. Drury, J. C. Snell; from the British American Association, John Dryden, Arthur Johnston, Jas. Hunter.

Also present—Thos. Shaw of the *Live Stock Journal*, and H. Wade, Secretary A. & A. Association.

Moved by Mr. Carnegie, seconded by Mr. Johnston:

1. That Mr. Snell be Chairman of the meeting and Mr. Wade Secretary. Carried.

Mr. Snell opened the meeting by explaining the reasons for calling it at the time.

ONE HERD BOOK.

Moved by Mr. Drury, seconded by Mr. Dryden:

2. That it is desirable in the interests of the Shorthorn breeders that there be only one herd book in Canada for the registration of Shorthorns. Carried.

STANDARD.

Moved by Mr. Carnegie, seconded by Mr. Drury:

3. That animals for registration must trace on both sides of sire and dam to registered imported cattle from Great Britain. Carried.

CUSTODY.

Moved by Mr. Dryden, seconded by Mr. Drury:

4. That the sole control of the proposed United Shorthorn Herd Book be placed in the hands of an executive committee of twenty-one members, of which fifteen shall be appointed by the British American Shorthorn Association, and six by the Council of the Agriculture and Arts Association. Carried.

After considerable discussion this was carried, Mr. Carnegie objecting that the proportion was unfair.

NAME OF BOOK.

Moved by Mr. Hunter, seconded by Mr. Carnegie:

5. That the united herd book be called the Canada Shorthorn Herd Book, but that the symbols be the dash on both sides of the figures, as now used by the British American; that the next volume issued (the first of the new series under the union) be styled Volume 13, allowing the three volumes already issued by the British American Association to become the 10th, 11th, and 12th volumes of the new series; and that volume 130 shall contain registrations, as yet unpublished, and that shall be recorded up to the first of January, 1886. Carried.

6. The feeling of the Committee was, that there would be no difficulty in arranging that the publications of both Associations can be made use of in the new series, by renumbering the animals in the three volumes of the British American Association, and publishing the new numbers in the index of the 13th volume, together with the old numbers as a key.

7. The name of "The Canada Short Horn Herd Book" was adopted with the distinct understanding that a complete list of the animals in both books, not coming up to the

adopted standard, be made out and published in the 13th volume, in order that persons now owning these volumes could mark each animal as cancelled that would be published in this list, leaving those that are up to the standard to be used as reference.

(Signed) HENRY WADE,
Secretary Joint Committee.

Toronto, Oct. 29th, 1885.

The above resolutions were submitted to a meeting of the British American Short Horn Association, held on Saturday, Nov. 14th, 1885, when the second, third and fourth resolutions were endorsed. The resolution adopting the name of the Canada Short Horn Herd Book, with the symbols of the British American, was not agreed to, and the Committee were requested to meet the Committee from the Canada Short Horn Association again, and Lieut. A. R. Gordon, of Cooksville, was added to the committee.

The above resolutions were submitted to the regular meeting of the Agriculture and Arts Association at Woodstock, on the 9th of December, and approved of with this additional resolution :

Moved by Mr. Drury, seconded by Mr. White, That the Secretary of this Association be the Secretary and Editor of the new joint herd book, and that the office be the Association's office in Toronto. Carried.

On motion of Mr. McKinnon, seconded by Mr. Drury, Mr. Parker was added to the Herd Book Committee.

At this meeting on the 9th of December, the following resolution, relating to the Canada Short Horn Herd Book, in case no amalgamation takes place, was passed unanimously :—

That on and after the first of January, 1886, no entries be received by the Canada Short Horn Herd Book that do not trace to imported stock from Great Britain on the side of both sire and dam, and that a list of the animals not tracing to importation, in all their ramifications in the first ten volumes, be published in the 10th volume, in order that breeders may mark them out of the volumes in their possession, as their progeny cannot be registered, thus placing the Canada Short Horn Herd Book in the position of the only complete history of short horns in Canada. Carried.

At the second meeting of the Joint Herd Book Committees, at the O'Neil House in Woodstock, on the 10th of December, the following gentlemen were present : From the Agriculture and Arts Association—Henry Parker, Chas. Drury, M.P.P., J. C. Snell and George Moore. From the British American Breeders' Association—John Dryden, M.P.P., Jas. Hunter, and Lieut. A. R. Gordon.

The minutes of the last meeting of the Joint Committees, on Oct. 20th, were read and confirmed until resolution 3 was reached, when the Committee changed it to read, That animals for registration must trace on both side of sire and dam, to recorded imported cattle from Great Britain.

Resolution No. 4, as to custody, was confirmed.

Resolution No. 5 was discussed at great length, and it was finally agreed to commence a new book altogether, publishing the facts of the amalgamation in the preface of the first volume.

It was decided to recommend that the name of the new book be "The Dominion Short Horn Herd Book," but it was left to be fixed finally at the general meeting of the Breeders to be called as soon as notice could be given.

Resolutions 6 and 7 of the first meeting were struck out.

Moved by Mr. Hunter, seconded by Mr. Parker, That the Joint Committee having agreed upon a basis of amalgamation, recommend that Mr. Henry Wade be appointed Editor of the Amalgamated Herd Book, under the direction of the Executive Committee, hereafter to be appointed under authority of the foregoing resolutions, and that the use of rooms in the Agriculture and Arts Association's building, having been offered rent free for officers of the Amalgamated Herd Book, be accepted as offices of the said Herd Book, Carried.

Moved by Mr. Drury, seconded by Lieut. Gordon, That notice of the action of the Herd Book Committee of the Agriculture and Arts Association, and of the Executive Committee of the Breeders' Association, in either accepting or rejecting the above terms of amalgamation, be given by the respective parties to each other so soon as a decision is arrived at. Carried.

The Committee then adjourned.

At a later meeting of the Council of the Agriculture and Arts Association on the 11th December, at Woodstock, the above report of the second meeting of the Joint Committees, was submitted and discussed, after which it was

Moved by Mr. White, seconded by Mr. Aylesworth, That the report of the Joint Committee on the Herd Book be adopted, with the understanding that Mr. Wade be appointed Editor and chief officer of the same, and that the offices be in the building of the Agriculture and Arts Association in Toronto. Carried.

Moved by Mr. Morgan, seconded by Mr. Legge, That in case the amalgamation takes place, the following gentlemen from our Council are appointed to act on the Executive Committee of the new book: Messrs. Drury, Parker, Moore. White, McKinnon and Shipley. Carried.

A letter was read from Mr. John Marshall, secretary of a skating rink used for exhibition purposes, asking to have an account for $25 paid for fixing up the ground and building.

Moved by C. Drury, seconded by D. P. McKinnon, that inasmuch as the General Superintendent reports that he left the building in good order this account be not paid. Carried.

Mr. Drury then explained that the General Superintendent, Mr. A. H. White, had worked for two weeks before the ordinary time of coming to the show in repairing the buildings. He thought he should have more compensation.

Moved by D. P. McKinnon, seconded by Mr. H. Reid, that Mr. White be paid the sum of thirty dollars for extra services before the show. Carried.

Moved by Mr. Legge, seconded by Mr. Reid, that an account for $12.43 be paid for express charges on the Canada Co.'s wheat be paid by the Association. Carried.

Mr. Snell then presented the report of the Committee for preparing subjects for essays for 1886, recommending the following subjects, and that the essays be limited to 25 pages of foolscap :—

First, "The relations between employers and employés in Canada, with special reference to the farm, with a view to improving those relations."

Second, "Grasses and Clovers, their comparative values as food for live stock, their adaptability to different soils and climates, with best methods of cultivation."

(Signed) J. C. SNELL,
Chairman.

Moved by J. B. Aylesworth, seconded by J. Legge, that these two subjects for essays be adopted. Carried.

Moved by Mr. Legge, seconded by Mr. Snell, that the matter of the lease held on the exhibition grounds in the city of London for $4,000, be referred to the committee appointed to assist in the erection of the buildings on the new grounds, and while this Council would prefer a similar lease on the new grounds they have powers to settle this matter and report to the next meeting of Council Said committee is composed of the following members: Messrs. Moore, Shipley, White, and Parker. Carried.

Council adjourned until 10 o'clock Friday.

H. WADE,
Secretary.

The afternoon of Thursday was spent by the Council in attending to and visiting the third Provincial Fat Stock Show now being held at Woodstock; and the Herd Book Committee met the committee from the Breeders' Association in the afternoon and evening.

Friday Morning, December 10th, '85,
O'Neill House, Woodstock.

Same members present. President Moore in the chair.

Mr. Drury presented the report of the Finance Committee requesting that sundry accounts, amounting to four hundred and eighty-two dollars be paid. Mr. Parker seconded the resolution, and it was carried.

Mr. Drury also explained that as Chairman of the Finance Committee he had refused to pay a portion of the London *Advertiser* account, such as locals sent, etc.

The Finance Committee were empowered to defend any such suit.

A deputation consisting of John Dryden, M.P.P., James Hunter, of Alma, and Thomas Shaw, of the *Live Stock Journal*, then waited on the Council, to ask that a deputation be sent to Ottawa, to wait on the Commissioner of Agriculture to advocate the desirability of sending an exhibition of fat cattle to the Intercolonial Exhibition at London.

These three gentleman all spoke in favour of the proposal, Mr. Hunter noting that we might get some of the Australian trade by doing so.

Mr. Parker and Mr. Legge spoke in favour of it, Mr. Wade said he saw Mr. Pringle on Wednesday morning, who said he expected to hear the next morning whether the Government would take any action or not, and that he would wire him, but as he had not heard he thought the Government had concluded not to take them.

Mr. Morgan said that he had seen the Hon. Mr. Carling yesterday, and he said the Government had concluded not to take them.

Mr. Drury thought it would not cost over $200 a head to send them and would be more important than sending cheese.

Mr. Aylesworth suggested that a committee of three be appointed to get up a memorial to the Government.

Moved by H. Parker, seconded by Q. B. Aylesworth, That in the opinion of this Council of the Agricultural and Arts Association, a proper exhibit of the excellent fat stock that is now being so successfully raised in Ontario, should be sent by the Dominion Government to the Colonial Exhibition to be held in London next year; therefore, be it resolved, that this Council memorialize the Government to send such an exhibit, and that the following committee be appointed to prepare said memorial, and take such other steps as they may deem necessary to bring this matter fully before the said Government, namely, Messrs. Drury, Snell, Morgan, Wade and the mover, and that the memorial be presented to the Minister of Agriculture by Messrs. Legge, Morgan, and G. F. Frankland, of Toronto, as soon as prepared.

Copy of Memorial.

To the Hon. John Carling, Minister of Agriculture, Ottawa.

Sir,—In view of the Indian and Colonial Exhibition to be held in London some time during next year, and of the importance of having Canada fully represented at that Exhibition, and having been informed that the Dominion Government had taken steps to secure a creditable representation of fruit and other products, but that at the same time similar steps had not been taken to secure the representation of the live stock interests of Canada, the Council of the Agriculture and Arts Association of Ontario, at a regular meeting held in Woodstock, on December 11th, in connection with the Ontario Provincial Fat Stock Show, decided to memorialize your Government to take the necessary steps to secure an adequate representation of this the most important of Canada's industries. Assuming that the question of expense has weighed with the Government in the course they have taken, we may here state that the deputation bring this memorial on purpose to show that a very creditable exhibit representing the live stock industry may be made at a very small outlay—a sum not to be mentioned, in view of the great benefits that will accrue in the influence which such an exhibit will have in drawing the eyes of British capitalists to Canada as a stock growing country, second to none in the world.

Also a copy of a memorial presented at same time by Guelph Fat Stock Club.

GUELPH, Dec. 16, 1885.

Moved by Mr. James Anderson, seconded by Mr. James Taylor:—The members of the Guelph Fat Stock Club having been credibly informed that the Agriculture and Arts Association of Ontario, supported by the Woodstock Fat Stock Club, have memorialized the Hon. John Carling, Minister of Agriculture, which memorial was further supported by a delegation appointed by the said Agriculture and Arts Association, the purport of which was to urge upon the Dominion Government the advisability of sending an exhibit of fat cattle to represent Canada in the live stock interest at the Indian and Colonial Exhibition to be held in London some time in 1886. In view of the great importance of the live stock interest and the effect such an exhibit could not fail to exercise upon emigration to this country of a desirable class, along with other important benefits, it is hereby resolved, that the club do heartily approve of the action taken by the Agriculture and Arts Association and the Woodstock Fat Stock Club, and, in view of the shortness of the time, express their earnest desire that the Dominion Government take immediate steps to carry out the proposal of the memorialists referred to above, and that a copy of this resolution, signed by the president and secretary, be immediately transmitted to the Minister of Agriculture.

ROBERT A. KEALING,
President.

ADAM A. ARMSTRONG,
Secretary.

Moved by Mr. Drury, seconded by Ira Morgan, That the report of the secretary on his visit to the New Orleans World's Fair, be published in the report of this Association to the Commissioner of Agriculture. Carried.

The meeting then adjourned.

H. WADE,
Secretary.

EXECUTIVE COMMITTEE MEETING OF FAT STOCK SHOW.

WOODSTOCK, Nov. 14, 1885.

Members present: Geo. Moore, H. Parker, H. Wade, Stephen Hall, Joseph Blackburn, E. W. Chambers, John Sutherland, M.P.P. John White, John Craig, and Mayor Green.

President E. W. Chambers in the chair.

The secretary read the minutes of the previous meeting which were confirmed.

The judges for the different departments were appointed.

Arrangements were made for advertising and other business was transacted.

After adjournment the Committee visited the Skating Rink, and found it a very commodious building and in every way fit for the show.

H. WADE,
Secretary Provincial Fat Stock Show.

REPORT OF THE THIRD ANNUAL

ONTARIO PROVINCIAL CHRISTMAS FAT STOCK SHOW,

HELD UNDER THE AUSPICES OF THE

AGRICULTURE AND ARTS ASSOCIATION OF ONTARIO AND THE COUNTY OF OXFORD FAT STOCK CLUB,

IN THE

TOWN OF WOODSTOCK, DECEMBER 9TH, 10TH AND 11TH, 1885.

OFFICERS.

PRESIDENT ..... E. W. CHAMBERS, Woodstock.
TREASURER ..... JOHN CRAIG, Woodstock.
SECRETARY ..... HENRY WADE, Toronto.
GENERAL SUPERINTENDENT ..... STEPHEN HALL, Washington.

COMMITTEE OF MANAGEMENT,

From the Agriculture and Arts Association of Ontario.

GEORGE MOORE ..... WATERLOO.
J. C. SNELL ..... EDMONTON.
J. B. AYLESWORTH ..... NEWBURGH.
STEPHEN WHITE ..... CHATHAM.
HENRY PARKER ..... WOODSTOCK.

From the County of Oxford Fat Stock Club.

E. W. CHAMBERS ..... WOODSTOCK.
STEPHEN HALL ..... WASHINGTON.
VALENTINE FICHT ..... ORIEL.
F. PETE ..... BRIGHT.
K. H. GREEN ..... INNERKIP.
R. SMITH ..... WALMER.
JOSEPH BLACKBURN ..... WOODSTOCK.
J. K. JANES ..... "
JOHN CRAIG ..... "
A. CLARKSON ..... "
W. STRODE ..... NORWICH.
G. A. MURRAY ..... WOODSTOCK.
S. BICKLE ..... "

Judges on Cattle.—Wm. Dodson, London; G. F. Frankland, Toronto; Wm. Nancekival, Woodstock.

CLASS 1.—THOROUGHBRED CATTLE.

SEC. 1.—*Steer, 3 and under 4 years.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
1	1	H. & I. Groff.....	Elmira	Jan. 17, 1882	1270	2275	1.78	Baron	Short Horn.
2	2	Simon Beattie.....	Markham	Mar. 10, 1882	1369	2060	1.50	Snowflake	do

First premium, $25, to steer Baron, exhibited by H. & I. Groff, Elmira.
Second premium, $15, to steer Snowflake, exhibited by Simon Beattie, Markham.

SEC. 2.—*Thoroughbred Steer, 2 and under 3 years.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs., since birth.	Name of Animal.	Breed.
3	1	H. & I. Groff.....	Elmira	Mar. 25, 1883	989	1790	1.80	Elmira Boy.....	Short Horn.
4	2	Simon Beattie	Markham	June 8, 1883	914	1698	1.85	Snowball	do

First premium, $25, to steer Elmira Boy, exhibited by H. & I. Groff, Elmira.
Second premium, $15, to steer Snowball, exhibited by Simon Beattie, Markham.

SEC. 3.—*Thoroughbred Steer, 1 and under 2 years.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs., since birth.	Name of Animal.	Breed.
5	1	H. & I. Groff	Elmira	April 20, 1884	598	1215	2.03	Tralton	Short Horn.
6	2	do	do	June 9, 1884	548	1530	2.79	Elmira Champion.	do
	3	Adam Mohr	Tavistock . ..	April 15, 1884	542	1460	2.69	Barney.....	do

First premium, $20, to steer Elmira Champion, exhibited by H. & I. Groff, Elmira.
Second premium, $12, to steer Barney, exhibited by Adam Mohr, Tavistock.
Third premium, $8, to steer Tralton, exhibited by H. & I. Groff, Elmira.

SEC. 4.—*Thoroughbred Cow 3 years and over.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
7	1	Wm. Murray	Chesterfield .	Feby. 7, 1877	3222	1760	.54	Lally of Ellingham	Short Horn.
8	2	Wm. Donaldson	South Zorra ..	Oct. 22, 1876	3338	1693	.50	Constance	do
9	3	do	do	Jany. 5, 1879	2663	2065	.77	Lily	do
..	4	Adam Mohr	Tavistock	Feby. 15, 1882	1392	2095	1.50	Matilda	do

First premium, $25, to cow Matilda, exhibited by Adam Mohr, Tavistock.
Second premium, $15, to cow Lily, exhibited by Wm. Donaldson, South Zorra.
Third premium, $10, to Lally of Ellingham, exhibited by Wm. Murray, Chesterfield.
Fourth premium, $8, to Constance, exhibited by Wm. Donaldson, South Zorra.

CLASS II.—GRADE OR CROSS, ANY BREED.

SEC. 1.—*Steer, 3 and under 4 years.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
10	1	John Kelly, jr	Shakespeare ..	Mar. 10, 1882	1365	2475	1.81	John Cook	S. H. grade.
11	2	H. & I. Groff	Elmira	April 15, 1882	1333	1930	1.44	King	do
12	3	H. H. Hurd	Hamilton	June 14, 1882	1273	2055	1.60	Hamilton	do

First premium, $25, to steer John Cook, exhibited by John Kelly, jr., Shakespeare.
Second premium, $15, to steer King, exhibited by H. & I. Groff, Elmira.
Third premium, $10, to steer Hamilton, exhibited by H. H. Hurd, Hamilton.

SEC. 2.—*Steer, 2 and under 3 years.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
13	1	Stephen Hall.... ..	Washington ..	May 7, 1883	946	1905	2.01	Dick	S. H. grade.
14	2	do	do	May 24, 1883	929	1870	2.01	Harry	do
15	3	H. & I. Groff	Elmira	Feby. 10, 1883	1046	2230	2.13	Ranger.....	do
	4	Walter West.....	Guelph	Dec. 27, 1882	1077	....	.....	White Prince.....	do

First premium, $25, to steer Ranger, exhibited by H. & I. Groff, Elmira.
Second premium, $15, to steer White Prince, exhibited by Walter West, Guelph.
Third premium, $10, to steer Harry, exhibited by Stephen Hall, Washington.
Fourth premium, $5, to steer Dick, exhibited by Stephen Hall, Washington.

SEC. 3.—*Steer, 1 and under 2 years.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
16	1	Geo. Keith.....	Elora	Dec. 20, 1883	719	1391	1.94	Duke	S. H. grade.
17	2	do	do	Jan. 28, 1884	676	1332	1.97	Prince	do
18	3	H. & I. Groff	Elmira	Dec. 26, 1883	713	1530	2.14	Elmira	do
19	4	do	do	May 15, 1884	573	1350	2.11	Roan Warlaby ...	do
20	5	J. E. Brethour.....	Burford	Jan. 22, 1884	686	1488	2.16	Cherry Bounce....	do

First premium, $20, to steer Duke, exhibited by Geo. Keith, Elora.
Second premium, $12, to steer Prince, exhibited by Geo. Keith, Elora.
Third premium, $8, to steer Roan Warlaby, exhibited by H. & I. Groff, Elmira.
Fourth premium, $4, to steer Cherry Bounce, exhibited by J. E. Brethour.

SEC. 4.—*Cow, 3 years and over.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
21	1	Jas. R. Davis.....	Woodstock ...	April 15, 1882	1329	1595	1.20	Red Rose.....	S. H. grade.
22	2	J. & R. McQueen ...	Salem	April 17, 1880	2061	2420	1.17	Daisy	do
23	3	H. & I. Groff.....	Elmira	Mar. 10, 1880	2099	2085	.99	Louisa	do
24	4	do	do	Jan. 10, 1881	1793	1935	1.12	Dora	do
25	5	M. & W. Schell.....	Woodstock ...	.....	1713	1475	2.06	Empress	do

First premium, $25, to cow Daisy, exhibited by J. & R. McQueen, Salem.
Second premium, $15, to cow Dora, exhibited by H. & I. Groff, Elmira.
Third premium, $10, to cow Louisa, exhibited by H. & I. Groff, Elmira.
Fourth premium, $8, to cow Empress, exhibited by M. & W. Schell, Woodstock.

SEC. 5.—*Grade or Cross, any Breed Heifer, under 3 years.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
26	1	Jas. Allenby.....	Woodstock ...	June 15, 1883	907	1350	1.48	Beauty.	S. H. grade.
27	2	Richard Bickle.....	Walmer	.....	.....	.....	.....	Walmer	do
28	3	H. & I. Groff	Elmira.....	June 10, 1883	912	....	.....	Young Blossom...	do
	4	Jas. Oke.....	Alvinston	Nov. 25, 1883	744	1593	2.14	Daisy	do
	5	Daniel Brown.....	Woodstock ...	Jan. 28, 1884	672	985	1.46	May	do
	6	M. & W. Schell	do	Dec. 6, 1882	1098	1415	..	Beauty.....	do

First premium, $15, to heifer Young Blossom, exhibited by Jas. Oke, Alvinston.
Second premium, $10, to heifer Beauty, exhibited by Jas. Allenby, Woodstock.
Third premium, $7, to heifer Beauty, exhibited by M. & W. Schell, Woodstock.
Fourth premium, $5, to heifer May, exhibited by Daniel Brown, Woodstock.

CLASS III.—SWEEPSTAKES FOR CATTLE.

SEC. 1.—*Best Steer, any age or breed.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
	1	Jno. Kelly, jr	Shakespeare	Mar. 10, 1882	1365	2475	1.81	John Cook	
	2	Geo. Keith	Elora						
	3	J. & R. McQueen	Salem	Mar. 25, 1880	2084	2600	1.24	Red Duke	
	4	Stephen Hall	Washington						
	5	W. Schell	Woodstock			2574		Red Duke	
	6	H. & I. Groff	Elmira					Ranger	
	7	do	do						
	8	Simon Beattie	Markham					Snowflake	Short Horn.
	9	do	do					Snowball	do
	10	Walter West	Guelph					White Prince	

Premium, $40, to steer Ranger, exhibited by H. & I. Groff, Elmira.

SEC. 2.—*Best Female, any age or breed.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
	1	Jas. R. Davis	Woodstock	April 15, 1882	1329			Red Rose	
	2	Wm. Murray	Chesterfield	Feb. 7, 1877	3222			Lally of Ellington	Short Horn.
	3	J. & R. McQueen	Salem	April 17, 1880	2061			Daisy	S. H. grade.
	4	Wm. Donaldson	South Zorra	Jan. 5, 1879	2663			Lily	Shorthorn.
	5	H. & I. Groff	Elmira	Jan. 10, 1881	1793			Dora	S. H. grade.
	6	Jas. Oke	Alvinston	Nov. 25, 1883	744			Daisy	do

Premium, $30, to cow Daisy, exhibited by J. & R. McQueen, Salem.

CLASS IV.—SPECIAL.

SEC. 1.—*Carload of Animals that have not competed in any other class.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
..	1	J. K. Janes	Woodstock						

Premium $30, to J. K. Janes, Woodstock.

CLASS V.—SPECIAL.—BY THE SHORTHORN BREEDERS OF ONTARIO.

SEC. 1.—*Best Steer or Cow, any age.*

Catalogue No.	Entry No.	Name of Exhibitor.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
..	1	Wm. Murray	Chesterfield ..	Feb'y. 7, 1877	3222	....	.....	Lally of Ellington.	Short Horn.
..	2	J. & R. McQueen ...	Salem	Mar. 25, 1880	2084	....	.....	Red Duke.....	do
..	3	H. & I. Groff	Elmira.....	.....	....	....	.....	.....	do
..	4	do	do	.....	....	....	.....	.....	do
..	5	do	do	.....	....	....	.....	.....	do
..	6	Simon Beattie.....	Markham	.....	....	....	.....	Snowflake	do
..	7	do	do	.....	....	....	.....	Snowball	do

Premium Silver Cup, to steer Red Duke, exhibited by J. & R. McQueen, Salem.

BY EMPIRE HORSE AND CATTLE FOOD CO.

SEC. 2.—*Best Fat animal, any age, breed or sex.*

Catalogue No.	Entry No.	Name of Exhibitor.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
..	1	John Kelly, Jr.....	Shakespeare..	Mar. 10, 1882	1365	2475	1.81	John Cook	....
..	2	J. & R. McQueen...	Salem.....	.....	....	....	.....	....	.....
..	3	H. & I. Groff.....	Elmira.....	.....	....	....	.....	.....	.....
..	4	do	do	.....	....	....	.....	.....	.....
..	5	do	do	.....	....	....	.....	.....	.....

Premium, $25, to steer John Cook, exhibited by John Kelly, Jr., Shakespeare.

Judges on Sheep.—Simon Beattie, Markham; W. J. Anderson, Hamilton; H. Chisholm, Mansewood.

CLASS VI.—SHEEP, LONG WOOLLED.

SEC. 1.—*Wether, 2 and under 3 years.*

Catalogue No.	Entry No.	Name of Exhibitor.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since 1885.	Name of Animal.	Breed.
29	1	Geo. Denoon.	Milton	.....	968	239	.24	Roderick	Leicester.
30	2	R. Crozier	Paris.....	.....	949	275	.28	Billy.....	.....
31	3	do	do	.....	949	291	.30	Thomas	.....
32	4	John Rutherford....	Roseville.....	.....	890	290	.32	Curly Jim.....	.....
33	5	do	do	.....	900	....	.....	Sam	.....
34	6	James Glennie.....	Guelph.....	.....	960	254	.26	Hector..... ...	.....

First premium, $12, to wether Thomas, exhibited by R. Crozier, Paris.
Second premium, $8, to wether Sam, exhibited by John Rutherford, Roseville.
Third premium, $4, to wether Billy, exhibited by R. Crozier, Paris.

SEC. 2.—*Wether, 1 and under 2 years.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
35	1	Wm. Oliver	Plattsville		624	225	.36	Duke	
36	2	Richard Bickle	Walmer						
37	3	do	do						
38	4	John Rutherford	Roseville		671	229	.34	Honest Grazier	
39	5	do	do		624	214	.34	Robin Hood	
40	6	Geo. Denoon	Milton		603	188	.31	Baa-baa	
41	7	do	do		607	172	.28	Abraham	

First premium, $12, to wether Honest Grazier, exhibited by J. Rutherford, Roseville.
Second premium, $8, to wether Duke, exhibited by Wm. Oliver, Plattsville.
Third premium, $4, to wether Robin Hood, exhibited by J. Rutherford, Roseville.

SEC. 3.—*Wether, under 1 year.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
42	1	John Kelly, Jr.	Shakespeare		245	177	.72	Tom	
43	2	Geo. Denoon	Milton		238	127	.53	Roly-Poly	Leicester.
44	3	do	do		240	125	.52	Blacksmith	do
45	4	Wm. Walker	Ilderton		252	165	.65	Jack	
46	5	John Rutherford	Roseville		190	144	.75	Willie	
	6	A. McDonald	Chesterfield		242	169	.69	Mephistopheles	

First premium, $10, to wether Jack, exhibited by Wm. Walker, Ilderhan.
Second premium, $7, to wether Mephistophles, exhibited by A. McDonald, Chesterfield.
Third premium, $4, to wether Tom, exhibited by John Kelly, Jr., Shakespeare.

SEC. 4.—*Ewe, 2 and under 3 years.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
47	1	John Kelly, Jr.	Shakespeare		1319	306	.23	Jennie	
48	2	Geo. Denoon	Milton		970	285	.29	Esperanza	Leicester.
49	3	do	do		970	250	.25	Waterwitch	Cotswold.
50	4	do	do		976	245	.25	Convolvus	Part Lincoln and Gloucester.
51	5	Wm. Walker	Ilderton		1340	328	.24	Netty	
52	6	do	do		1340	299	.22	Nancy	
53	7	John Rutherford	Roseville		1310	325	.24	Queen of the Plains	

First premium, $12, to ewe Jennie, exhibited by John Kelly, Jr., Shakespeare.
Second premium, $8, to ewe Queen of the Plains, exhibited by J. Rutherford, Roseville.
Third premium, $4, to ewe Nancy, exhibited by Wm. Walker, Ilderton.

SEC. 5.—*Ewe, 1 and under 2 years.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
54	1	John Kelly, Jr.	Shakespeare		621	210	.33	Fanny	
55	2	do	do		613	230	.37	Nannie	
56	3	Geo. Denoon	Milton		603	232	.38	Venezuela	Cotswold
57	4	do	do		605	225	.36	Undine	do
58	5	Wm. Walker	Ilderton		607	246	.40	Belle	
59	6	Richard Bickle	Walmer						
60	7	do	do						

First premium, $12, to ewe Undine, exhibited by George Denoon, Milton.
Second premium, $8, to ewe Venezuela, exhibited by George Denoon, Milton.
Third premium, $4, to ewe Fanny, exhibited by John Kelly, Jr., Shakespeare.

SEC. 6.—*Ewe under 1 year.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
61	1	John Kelly, Jr	Shakespeare		263	145	.55	Bella	
62	2	do	do		256	170	.66	Kitty	
63	3	do	do		253	141	.55	Jessie	
64	4	Geo. Denoon	Milton		238	133	.55	Topsy	Cotswold
65	5	do	do		241	145	.60	Little Bo-Peep	do
66	6	Wm. Walker	Ilderton		231	135	.58	Frisk	
67	7	Geo. Denoon	Milton		240	132	.55	Judith	Cotswold

First premium, $10, to ewe Kitty, exhibited by J. Kelly, Jr., Shakespeare.
Second premium, $7, to ewe Bella, exhibited by J. Kelly, Jr., Shakespeare.
Third premium, $4, to ewe Little Bo-Peep, exhibited by Geo. Denoon, Milton.

CLASS VII. SHEEP, MIDDLE WOOLLED.

SEC. 1.—*Wether, 2 and under 3 years.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
68	1	Geo. Denoon	Milton		968	218	.22	Ramshackle	Southdown & Leicester.
69	2	do	do		970	212	.21	Toby	do
70	3	G. H. Cook	Ingersoll		958	214	.22	Smutty	
71	4	do	do		958	292	.30	Chubb	
72	5	R. Crozier	Paris		949			Billy	
73	6	do	do		949			Thomas	
74	7	J. Rutherford	Roseville		860	288	.33	Jumbo	
75	8	do	do		810	290	.35	Dick	
76	9	do	do		750	258	.34	Heaslip	
77	10	Jas. Glennie	Guelph		968	244	.25	Horace	
78	11	do	do		968	254	.26	Major	

First premium $12, to wether Heaslip, exhibited by J. Rutherford, Roseville.
Second premium $8, to wether Horace, exhibited by James Glennie, Guelph.
Third premium $4, to wether Jumbo, exhibited by J. Rutherford, Roseville.

SEC. 2.—*Wether, 1 and under 2 years.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
79	1	Wm. Donaldson	South Zorra		619	222	.35	Joe	
80	2	J. Rutherford	Roseville		671	195	.29	Rob Roy	
81	3	do	do		642	240	.37	Black Bill	
82	4	do	do		620	229	.36	Lorne	
83	5	Jas. Glennie	Guelph		603	203	.33	Marquis	

First premium, $12, to wether Black Bill, exhibited by J. Rutherford, Roseville.
Second premium, $8, to wether Rob Roy, exhibited by J. Rutherford, Roseville.
Third premium, $4, to wether Lorne, exhibited by J. Rutherford, Roseville.

SEC. 3.—*Wether under 1 year.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
84	1	Geo. Denoon	Milton		237	127	.53	Mutton	Southdown & Leicester.
85	2	J. Rutherford	Roseville		175	173	.98	George	
86	3	do	do		170	154	.90	Peter	
87	4	do	do		165	167	1.01	Joe	
88	5	E. & A. Stanford	Steyning, Eng.		285	144	.50	Babble	
89	6	do	do		285	135	.48	Babbler	
90	7	Geo. Denoon	Milton		251	128	.53	Lambkin'	
91	8	Alex. McDonald	Chesterfield		255	168	.65	Billy Buck	

First premium, $10, to wether Billy Buck, exhibited by Alex. McDonald, Chesterfield.
Second premium, $7, to wether Joe, exhibited by J. Rutherford, Roseville.
Third premium, $4, to wether Babble, exhibited by E. & A. Stanford, Steyning, Eng.

SEC. 4.—*Ewe, 2 and under 3 years.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
92	1	Wm. Murray	Chesterfield		1629	262	.16	Princess of Columus.	
93	2	Geo. Denoon	Milton		946	189	.19	Madame	Southdown & Leicester.
94	3	G. H. Cook	Ingersoll		958	248	.25	Daisy	
95	4	J. Rutherford	Roseville		1300	268	.20	Sarah	
96	5	do	do		1190	250	.21	Sally	

First premium, $12, to ewe Princess of Columus, exhibited by Wm. Murray, Chesterfield.
Second premium, $8, to ewe Sally, exhibited by J. Rutherford, Roseville.
Third premium, $4, to ewe Sarah, exhibited by J. Rutherford, Roseville.

SEC. 5.—*Ewe, 1 and under 2 years.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
98	1	Geo. Denoon	Milton		612	193	.31	Psyche	Southdown & Leicester.
99	2	do	do		610	167	.27	Varina	
100	3	J. Rutherford	Roseville		640	225	.35	Jeannie	
101	4	do	do		660	220	.33	Kate	
102	5	E. & A. Stanford	Steyning, Eng.		663	205	.30	Beauty	
103	6	do	do		661	190	.28	Barbara	

First premium, $12, to ewe Beauty, exhibited by E. & A. Stanford, Steyning Eng.
Second premium, $8, to ewe Barbara, exhibited by E. & A. Stanford, Steyning, Eng.
Third premium, $4, to ewe Kate, exhibited by J. Rutherford, Roseville.

SEC. 6.—*Ewe, under 1 year.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
104	1	Geo. Denoon.....	Milton	.....	243	129	.53	Christmas	Southdown & Leicester.
105	2	do	do	.....	249	120	.48	Eva Christie.....	do
106	3	J. Rutherford	Roseville	.....	165	131	.78	Bella	.....
107	4	E. & A. Stanford....	Steyning, Eng.	.....	278	109	.39	Betsy	.....
108	5	do	do	.....	279	106	.38	Bella	.....
...	6	J. W. Glendinning..	Woodstock ..	.....	253	....	.....	Agnes	.....
...	7	do ..	do ..	.....	253	....	.....	Jeannie	.....

First premium, $10, to ewe Betsy, exhibited by E. & A. Stanford, Steyning, Eng.
Second premium, $7, to ewe Bella, exhibited by J. Rutherford, Roseville.
Third premium, $4, to ewe Bella, exhibited by E. & A. Stanford, Steyning, Eng.

CLASS VIII.—SWEEPSTAKES FOR SHEEP.

SEC. 1.—*Best wether, any age or breed.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
...	1	John Kelly, Jr.....	Shakespeare..	.....	....	....	.....	.....	.....
...	2	Wm. Oliver	Plattsville....	.....	....	....	.....	.....	.....
...	3	Geo. Denoon.....	Milton	.....	....	....	.....	.....	.....
...	4	R. Crozier	Paris	.....	....	....	.....	.....	.....
...	5	J. Rutherford	Roseville	.....	....	....	.....	.....	.....
...	6	E. & A. Stanford ..	Cheyning, Eng	.....	....	....	.....	.....	.....
...	7	Alex. McDonald	Chesterfield ..	.....	....	....	.....	.....	.....
...	8	Jas. Glennie	Guelph	.....	....	....	.....	.....	.....

Premium, $15, awarded to J. Rutherford, Roseville.

SEC. 2.—*Best Ewe, any age or breed.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in Days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
...	1	John Kelly, Jr	Shakespeare ..	.....	....	....	.....	.....	.....
...	2	do	do ..	.....	....	....	... ..	.....	.....
...	3	do	do ..	.....	....	....	.....	.....	.....
...	4	Wm. Murray	Chesterfield ..	.....	....	....	.....	.....	.....
...	5	Geo. Denoon.....	Milton	.....	....	....	.....	.....	.....
...	8	Wm. Walker	Ilderton	.....	....	....	.....	.....	.....
...	9	J. Rutherford	Roseville	.....	....	....	.....	.....	.....
...	10	E. & A. Stanford ..	Cheyning, Eng	.....	....	....	.....	.....	.....

Premium, $10, awarded to ewe Jenny, exhibited by John Kelly, Jun., Shakespeare.

Judges on Hogs.—R. P. Snell, Edmonton ; Jas. Main, Boyne.

CLASS IX.—HOGS, ANY BREED.

SEC. 1.—*Barrow, 1 and under 2 years.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
109	1	Thos. Lee	Oxford Centre.	.....	546	....	.....	Mike.....	.....
110	2	do	do	.....	546	....	.....	Pat	.....
111	3	Geo. Denoon.....	Milton	.....	525	388	.73	Halton.....	Suffolk.
...	4	J. W. Glendinning..	Woodstock ..	.....	643	472	.73	Jack	.....

First premium, $12, to barrow Mike, exhibited by Thos. Lee, Oxford Centre.
Second premium, $8, to barrow Halton, exhibited by Geo. Denoon, Milton.
Third premium, $4, to barrow Pat, exhibited by Thos. Lee, Oxford Centre.

SEC. 2.—*Barrow, under 1 year.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
112	1	Geo. Denoon.....	Milton	.....	352	325	.92	Grunt	Suffolk.
113	2	do	do	.....	352	342	.97	King of the Sty ..	do
114	3	J. Rutherford	Roseville	....	275	339	1.23	Sandy.....	.....
124	4	J. K. Janes	Woodstock ...	....	187	259	1.38	Johnny Smoker ..	.....

First premium, to barrow King of the Sky, exhibited by Geo. Denoon, Milton.
Second premium to barrow Grunt, exhibited by Geo. Denoon, Milton.
Third premium to barrow Johnny Smoker, exhibited by J. K. Janes, Woodstock.

SEC. 3.—*Sow, 1 and under 2 years.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 6, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
115	1	Joseph Featherston	Credit	.....	.....	.....	.....	Princess	Suffolk.
116	2	do	do	.....	427	.....	.....	Floss	do
...	3	J. W. Glendinning	Woodstock	.....	643	452	.70	Jess	.....
...	4	W. West	Guelph	.....	660	.....	.....	Black Bess	Berkshire.
...	5	J. Rutherford	Roseville	.....	430	465	1.08	Bess	.....

First premium to sow Floss, exhibited by Jos. Featherston, Credit.
Second premium to sow Jess, exhibited by J. W. Glendinning, Woodstock.
Third premium to sow Princess, exhibited by Jos. Featherston, Credit.

SEC. 4.—*Sow under 1 year.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
117	1	Geo. Denoon	Milton	.....	352	320	.90	Biddy Maloney	Suffolk.
118	2	Jos. Featherston	Credit	.....	347	.....	.....	Essex Lily	do
119	3	do	do	.....	352	.....	.....	Cross Breed	York and Suffolk.
...	4	Walter West	Guelph	.....	280	227	.....	White Lily	Suffolk.

First premium, to sow Biddy Maloney, exhibited by Geo. Denoon, Milton.
Second premium, to sow Essex Lily, exhibited by Jos. Featherston, Credit.
Third premium, to sow Cross Breed, exhibited by Jos. Featherston, Credit.

CLASS X.—SWEEPSTAKES FOR HOGS.

SEC. 1.—*Best Hog, any age, breed or sex.*

Catalogue No.	Entry No.	NAME OF EXHIBITOR.	Post Office.	Date of Birth.	Age in days.	Weight Dec. 9, 1885.	Average gain per day in lbs. since birth.	Name of Animal.	Breed.
...	1	Geo. Denoon	Milton	.....	352	342	.97	King of the Sty	Suffolk.
...	2	Thos. Lee	Oxford Centre.	.....	.....	.....	.....	.....	.....
...	3	J. Rutherford	Roseville	.....	.....	.....	.....	.....	.....
...	4	Jos. Featherston	Credit	.....	.....	.....	.....	.....	.....
...	5	Walter West	Guelph	.....	.....	.....	.....	.....	.....

Premium, $15, to barrow King of the Sty, exhibited by Geo. Denoon, Milton.

Judges on Poultry—W. McNeil, London; Wm. H. Doel, Toronto.

CLASS XI.—FAT POULTRY, ALIVE.

SEC. 1—*Best Turkey Cock (old).*

No.	EXHIBITOR.
1	Geo. Denoon, Milton.
2	J. Rutherford, Roseville.

First premium, $1.50, to Geo. Denoon, Milton.
Second " 1.00, to J. Rutherford, Roseville.

SEC. 2.—*Best Turkey Cock (young).*

No.	EXHIBITOR.
1	Geo. Denoon, Milton.

First premium, $1.50, to Geo. Denoon, Milton.

SEC. 3.—*Best Turkey Hen (old).*

No.	EXHIBITOR.
1	Geo. Denoon, Milton.

First premium, $1.50, to Geo Denoon, Milton.

SEC. 4.—*Best Turkey Hen (young).*

No.	EXHIBITOR.
1	Geo. Denoon, Milton.

First premium, $1.50, to Geo. Denoon, Milton.

SEC. 5.—*Best Gander (old).*

No.	EXHIBITOR.
1	Geo. Denoon. Milton.
2	M. & W. Schell, Woodstock.

First premium, $1.50, to Geo. Denoon, Milton.
Second " 1,00, to M. & W. Schell, Woodstock.

SEC. 6.—*Best Gander (young).*

No.	EXHIBITOR.
1	Geo. Denoon, Milton.
2	M. & W. Schell, Woodstock.

First premium, $1.50, to Geo. Denoon, Milton.
Second " 1.00, to M. & W. Schell, Woodstock.

SEC. 7.—*Best Goose (old).*

No.	EXHIBITOR.
1	Geo. Denoon, Milton.
2	M. & W. Schell. Woodstock.

First premium, $1.50, to Geo. Denoon, Milton.
Second " 1.00, to M. & W. Schell, Woodstock.

SEC. 8.—*Best Goose (young).*

No.	EXHIBITOR.
1	Geo. Denoon, Milton.
2	M. & W. Schell, Woodstock.

First premium, $1.50, to Geo. Denoon, Milton.
Second " 1.00, to M. & W. Schell, Woodstock.

SEC. 9.—*Best Duck (old).*

No.	EXHIBITOR.
1	Geo. Denoon, Milton.
2	J. Rutherford, Roseville.

First premium, $1.50, to Geo. Denoon, Milton.
Second " 1.00, to J. Rutherford, Roseville.

SEC. 10.—*Best Drake (young).*

No.	EXHIBITOR.
1	Geo. Denoon, Milton.
2	J. Rutherford, Roseville.

First premium, $1.50, to Geo. Denoon, Milton.
Second " 1.00, to J. Rutherford, Roseville.

SEC. 11.—*Best Duck (old).*

No.	EXHIBITOR.
1	Geo. Denoon, Milton.

First premium, $1.50, to Geo. Denoon, Milton.

SEC. 12.—*Best Duck (young).*

No.	EXHIBITOR.
1	Geo. Denoon, Milton.

First premium, $1.50, to Geo. Denoon, Milton.

SEC. 13.—*Best Cock.*

No.	EXHIBITOR.
1	C. Mullen, Woodstock.
2	Geo. Denoon, Milton.

First premium, $1.50, to Geo. Denoon, Milton.
Second " 1.00, to C. Mullen, Woodstock.

SEC. 14.—*Best Cockrel.*

No.	EXHIBITOR.
1	C. Mullen, Woodstock.
2	Geo. Denoon, Milton.

First Premium, $1.50, to C. Mullen, Woodstock.

SEC 15.—*Best Hen.*

No.	EXHIBITOR.
1	C. Mullen, Woodstock.
2	Geo. Denoon, Milton.

First premium, $1.50, to Geo. Denoon, Milton.
Second " 1.00, to C. Mullen, Woodstock.

SEC. 16.—*Best Pullet.*

No.	EXHIBITOR.
1	C. Mullen, Woodstock.
2	Geo. Denoon, Milton.

First premium, $1.50, to Geo. Denoon, Milton.
Second " 1.00, to C. Mullen, Woodstock.

CLASS XII.—DRESSED POULTRY.

SEC. 1.—*Best Turkey Cock (old).*

No.	EXHIBITOR.
1	J. Woodrow, Norwich.
2	do do

First premium, $1.50, to J. Woodrow, Norwich.
Second " 1.00, do do

SEC. 2.—*Best Turkey Cock (young).*

No.	EXHIBITOR.
1	J. Woodrow, Norwich.
2	do do

First premium, $1.50, to J. Woodrow, Norwich.
Second " 1.00, do do

SEC. 3.—*Best Turkey Hen (old).*

No.	EXHIBITOR.
1	J. Woodrow, Norwich.
2	do do

First premium, $1.50, to J. Woodrow, Norwich.
Second " 1.00, do do

SEC. 4.—*Best Turkey Hen (young.)*

No.	EXHIBITOR.
1	J. Woodrow, Norwich.
2	do do

First premium, $1.50, to J. Woodrow, Norwich.
Second " 1.00, do do

SEC. 5.—*Best Gander (old).*

No.	EXHIBITOR.
1	J. Woodrow, Norwich.
2	do do

First premium, $1.50, to J. Woodrow, Norwich.
Second " 1.00, do do

SEC. 6.—*Best Gander (young).*

No.	EXHIBITOR.
1	J. Woodrow, Norwich.
2	do do

First premium, $1.50, to J. Woodrow, Norwich.

SEC. 7.—*Best Goose (old).*

No.	EXHIBITOR.
1	J. Woodrow, Norwich.
2	do do

First premium, $1.50, to J. Woodrow, Norwich.
Second " 1.00, do do

SEC. 8.—*Best Goose (young).*

No.	EXHIBITOR.
1	J. Woodrow, Norwich.
2	do do

First premium, $1.50, to J. Woodrow, Norwich.

SEC. 9.—*Best Drake (old).*

No.	EXHIBITOR.
1	J. Woodrow, Norwich.
2	do do

First premium, $1.50, to J. Woodrow, Norwich.
Second " 1.00, do do

SEC. 10.—*Best Drake (young).*

No.	EXHIBITOR.
1	J. Woodrow, Norwich.
2	do do

First premium, $1.50, to J. Woodrow, Norwich
Second " 1.00, do do

SEC. 11.—*Best Duck (old).*

No.	EXHIBITOR.
1	J. Woodrow, Norwich.
2	do do.

First premium, $1.50, to J. Woodrow, Norwich.
Second " 1.00, do do

SEC. 12.—*Best Duck (young).*

No.	EXHIBITOR.
1	J. Woodrow, Norwich.
2	do do

First premium, $1.50, to J. Woodrow, Norwich.
Second " 1.00, do do

SEC. 13.—*Best Cock (old).*

No.	EXHIBITOR.
1	J. Woodrow, Norwich,
2	do do

First premium, $1.50, to J. Woodrow, Norwich.
Second " 1.00, do do

SEC. 14.—*Best Cock (young).*

No.	EXHIBITOR.
1	J. Woodrow, Norwich.
2	do do

First premium, $1.50, to J. Woodrow, Norwich.
Second " 1.00, " "

SEC. 15.—*Best Hen (old).*

No.	EXHIBITOR
1	J. Woodrow, Norwich.
2	do do

First premium, $1.50, to J. Woodrow, Norwich.
Second " 1.00, do do

SEC. 16.—*Best Hen (young).*

No.	EXHIBITOR.
1	J. Woodrow, Norwich.
2	do do

First premium, $1.50, to J. Woodrow, Norwich.
Second " 1.00. do do

SEC. 17.—*Best Display of Poultry.*

No.	EXHIBITOR.
1	J. Woodrow, Norwich.

Premium, $5.00, to J. Woodrow, Norwich.

FINANCIAL RESULTS OF THE THIRD ANNUAL PROVINCIAL FAT STOCK SHOW, HELD AT WOODSTOCK IN 1885.

In cattle there were	39	entries, to which was paid in premiums	....	$547 00
" sheep do	85	do	....	301 00
" hogs do	17	do	....	111 00
" poultry do	71	do	...	77 00
				$1,036 00

JOHN CRAIG, Treasurer, in account with the Agriculture and Arts Association *re* Fat Stock Show, held in Woodstock, 9th, 10th and 11th December, 1885.

DR.

To cash, cheque from A. and A. Association	$500 00		
" " Oxford Fat Stock Club	500 00		
" " Gate receipts	145 50		
" " Admission Tickets sold by O.F.S.C.	89 25		
" " Entry Fees	183 00		
" " Empire Cattle Food Co	25 00		
			$1,442 75
To cash balance paid by A. and A. Association and Oxford Fat Stock Club in equal proportion			56 23
			$1498 98

CR.

By cash paid for prizes	$1,014 00		
" " printing and advertising	140 25		
" " judging	50 00		
" " fitting up building	132 90		
" " special prize	25 00		
" " general expenses	136 83		
			$1,498 98

Examined and found correct,

A. W. FRANCIS, *Auditor.*

ONTARIO VETERINARY COLLEGE.
40 and 42 TEMPERANCE STREET.

DEAR SIR, TORONTO, January, 1886.

I beg to submit report of Examinations and of Students of Ontario Veterinary College during the past year. The attendance has been larger than any previous session.

I am, dear sir, yours truly,

HENRY WADE, ESQ., *Sec. Ag. and Arts Ass'n.*

AND. SMITH, V. S. *Principal.*

ONTARIO VETERINARY COLLEGE—SESSION 1884-5.

EXAMINATIONS, MARCH 25TH, 26TH AND 27TH.

EXAMINING BOARD.—Messrs. Coleman, Elliott, Lloyd, O'Neil, Wilson and Cowan.

The following gentlemen passed a final examination :—

Banting, John Jas. D., Cookstown, Ont.
Barnett, E. R., Smith Road, Ohio, U.S.
Berry, Wm. T., Marion, Ohio, U.S.
Bolser, F. A., Newcastle, Ind., U.S.
Burger, Chas., Hornby, Ont.
Butler, Tait S., Sterling, Ont.
Callin, Jas. E., Shakespeare, Ont.
Carpenter, H. E., San Francisco, Cal., U.S.
Chrisman, Chas., Sharon Centre, Ohio, U.S.
Chrisman, Eli, Sharon Centre, Ohio, U.S.
Crawforth, M. C., Whitby, Ont.
Delavergne, H. E., Kirkland, Ill., U.S.
Dreibelbis, P. K., Lenhartsville, Pa., U.S.
Duff, Thos. G., Cookstown, Ont.
Embury, John E., Ingersoll, Ont.
Farnsworth, Geo. H., Chester, Vermont, U.S.
Franks, O. D., Doylestown, Ohio, U.S.
Gable, A. E., Meadville, Penn., U.S.
Gallaher, P. J., Allentown, Penn., U.S.
Gourlie, John A., P.E. Island.
Grant, Robt. B., Dunblane, Ont.
Gros, W. D., Kutztown, Penn., U.S.
Hall, F. G., Southampton, England.
Hammond, R. R., Villa Nova, Ont.
Harbaugh, W. H., Cumberland, Ind., U.S.
Hess, David W., Trenton, Ont.
Huff, Wilson, Napanee, Ont.
Hunter, A. L., Hector, N.Y., U.S.
Ireland, Jos. W., Laskay, Ont.
Johnson, Wm., Summerville, Ont.
Johnston, Wm., Croton, Ont.
Jones, Thos. E., Granville, Ohio, U.S.
Kenny, Wm., Lindsay, Ont.
Lawsen, John, Almonte, Ont.
Lee, Jas. A., Belleville, Ohio, U.S.
Lindsay, J. B., Hockley, Ont.
McDonell, Angus, Metcalfe, Ont.
McGillivray, Geo., Whitby, Ont.
McLean, D. E., Pilot Mound, Man.
McMahon, F. T., Chicago, Ill., U.S.
McTaggart, J. A., Milton, Ont.
McVean, A. G., Woodbridge, Ont.
Matthews, F., Northampton, England.
Medill, Jos. M., Huston, Ont.
Michener, R. L., Waynesville, Ohio, U.S.
Miller, Geo., Rix Mills, Ohio, U.S.
Miller, Joshua, Mooresville, Ont.
Milne, John D., Claremont, Ont.
Milne, Thos. Alex., Claremont, Ont.
Mitchell, Wm. C., Tilsonburg, Ont.
Moody, A.H., Grand Rapids, Mich., U.S.
Moody, Geo. C., Leslie, Mich., U.S.
Munger, W. W., Galesbury, Mich., U.S.
Munn, C. E., Lowell, Mass., U.S.
Natress, Jos. T., Woodbridge, Ont.
Paxton, W. D., Fredericksburgh, Ohio, U.S.
Piatt, H. B., St. Louis, Mo., U.S.
Pierce, Chas. H., Grand Rapids, Mich., U.S.
Queen, S. E., Mechanics Town, Ohio, U.S.
Quin, R. J., Edmonton, Ont.
Scott, Thos. W., Duncreiff, Ont.
Shannon, Wm. R., Rosemont, Ont.
Shimer, W. S., Jr., Shimersville, Penn., U.S.
Standish, Geo., Esquesing, Ont.
Stevens, Wm., St. Mary's, Ont.
Tomlinson, W. S., North Henderson, Ill., U.S.
Waddle, Geo., Port Dover, Ont.
Walmer, A. S., Harrisonburg, Va., U.S.
Williams, L. D., Ponty Pridd, Wales, England.
Wilson, Wm. J., London, Ont.
Wilson, Wm., Ballymoney, Ireland. April 16th.
Sterner, Ed. G., Allentown, Penn., U. S.

PRIMARY EXAMINATIONS.

Anatomy.—Wm. Agnew, Appletee, Ireland; F. F. Hoffman, Brookville, Penn., U. S.; J. R. Sitterly, Scranton, Penn., U. S.; J. B. Whyte, Port Hope, Ont.

PRIZE LIST (SENIORS).

Pathology.—First Prize, silver medal, W. H. Harbaugh; second, prize, T. S. Butler; third prize, J. A. Lee, and C. H. Pierce, equal.

Honours.—F. A. Bolser; C. G. Burger; H. Carpenter; P. K. Dreibelbis; J. E. Embury; G. H. Farnsworth; A. E. Gable; P. J. Gallaher; W. D. Cross; F. G. Hall; R. Hammond; D. W. Hess; A. L. Hunter; J. Ireland; Geo. McGillivray; D. E. McLean; Jos. N. Medill; G. D. Miller; Joshua Miller; H. Piatt; G. Standish; W. Shimer; W. Stevens; W. H. Tomlinson; W. J. Wilson.

Anatomy.—First prize, silver medal, T. S. Butler; second prize, W. H. Harbaugh; third prize, Jos. Medill.

Honors.—W. Agnew; Bolser; Callin; Carpenter; Dreibelbis; Embury; Farnsworth; Hunter; Hammond; Hess; Ireland; Jones; Lee; Joshua Miller; Munn; T. C. Moody; W. Mitchell; McLean; Pierce; Piatt; Paxton; Scott; Shimer; Standish W. J. Wilson.

Entozoa.—First prize, R. Grant and J. Ireland.

Honours.—Hall; Harbaugh; Joshua Miller; McLean; F. Matthews; Medill.

Microscopy.—First prize, W. H. Warbaugh.

Honours.—Gallaher; Ireland; McLean; Paxton; Pierce; Scott.

Physiology.—First prize, silver medal, T. S. Butler; second prize, J. Ireland: third prize, W. H. Harbaugh.

Honours.—Agnew; Bolser; Callin; Duff; Dreibelbis; Farnsworth; Hess; Hunter; Lee; Matthews; Munn; McLean; Joshua Miller; Medill; Scott; Standish; Shimer; Wm. J. Wilson.

Chemistry.—First prize, D. E. McLean; second prize, W. H. Harbaugh.

Honours.—Agnew; Joshua Miller; Medill; Munn; Gallaher.

Materia Medica.—First prize, T. S. Butler, and D. E. McLean, equal; second prize, W. H. Harbaugh.

Honours.—Agnew; Ireland; Pierce.

Best General Examination.—Gold medal, T. S. Butler.

Honours.—Burger; Bolser; Carpenter; Farnsworth; T. E. Jones; Harbaugh; Ireland; Pierce; W. J. Wilson.

PRIZE LIST (JUNIORS).

Pathology.—First Prize, Geo. W. Dickey; second prize, E. H. Bradley; hird prize, Geo. Alexander, and C. L. Smith, equal.

Honours.—G. H. Allen, F. Anderson, M. O. Anderson, H. Bowles, G. S. Cavan, W. Daniels, W. H. Everest, H. Howard, J. F. Jones, W. Joyce, M. Kannan, D. M. Keller, A. King, W. Kirk, T. A. Macaulay, T. C. McCasey, J. M. McFarlane, W. P. McClure, J. M. Ramsay, J. J. Shoemaker, John Scott, E. B. Smith, J. Spencer, E. H. Stanley, R. P. Steddom, R. W. Story, Talbot Williams, J. Williams.

Anatomy.—First prize, silver medal, Geo. W. Dickey; second prize, F. E. Anderson; third prize, J. F. Jones and T. A. Macaulay, equal.

Honours.—Geo. Alexander, M. O. Anderson, Bradley, Carnrite, Cavan, Daniels, Everest, Keller, King, Abraham, McFarlane, McQueen, Mack, Manhardt, Shoemaker Steddom, John Scott, Wallace.

Physiology.—First prize, W. P. McClure; second prize, J. M. McFarlane.

Honours.—Alexander, Bradley, Dickey, R. J. Hall, J. F. Jones, Mack, McCallister, Shoemaker, Spencer, Talbot Williams.

Chemistry.—First prize, W. P. McClure.

Honours.—Hall, J. F. Jones, Steers.

EXAMINATIONS, DEC. 23RD, 1885.

Usual examining board.

The following gentlemen passed a successfnl examination and received Diplomas:—

Mr. Walter Green, Toronto.
Wm. Agnew, Appletee, Ireland.
John Cunnington, Mono Road, Ont.
G. L. Snider, Ancaster, Ont.
Geo. F. Rennicks, Collingwood, Ont.
C. P. Johnson, Owen Sound, Ont.
J. A. McDonell, Cornwall.
A. J. Mitchell, Govanda, N. Y., U. S.
Geo. Dawson, St. Thomas, Ont.
J. B. White, Port Hope, Ont.
F. F. Hoffman, Brookville, Penn., U. S.

Passed with very great credit.—Walter Green.

DETAILED REPORT

OF THE

INSPECTOR OF INSURANCE,

1885.

TO WHICH ARE APPENDED

THE INSURANCE AMENDMENT ACTS OF 1885.

Printed by Order of the Legislative Assembly.

Toronto:
PRINTED BY GRIP PRINTING AND PUBLISHING CO., FRONT STREET.
1886

CONTENTS.

DETAILED REPORT

OF THE

INSPECTOR OF INSURANCE,

FOR THE

YEAR ENDING 31ST DECEMBER, 1884.

The Honourable A. McL. Ross, M.P.P.,
Provincial Treasurer, Toronto.

SIR,—Having previously submitted, in printed form, an Abstract Report of Insurance Companies' Statements for the year ending 31st December, 1884, I have now the honour to submit the Detailed Report as provided by the Statute 42 Vic., chap 25.

This Report includes :—

I. Detailed Statements of Joint Stock Life Insurance Companies ;

II. Detailed Statements and Synoptical Tables of Joint Stock Fire Insurance Companies ;

III. Detailed Statements and Synoptical Tables of Mixed Mutual Fire Insurance Companies ;

IV. Detailed Statements and Synoptical Tables of Strictly Mutual Fire Insurance Companies ;

V. Comparative Summary of Assets and Premium Notes of Mutual Companies of all Classes ;

VI. Fire-Tables for 1884 ; showing

(*a*) Localities, Months of Occurrence, and Total Claims paid ;

(*b*) Localities, Causes, and Number of Losses ; and

VII. Register of Insurance Companies brought up to 1st December, 1885.

I have the honour to be,
Sir,
Your obedient servant,

J. HOWARD HUNTER,
Inspector.

JOINT STOCK LIFE INSURANCE COMPANIES.

YEAR ENDING 31ST DECEMBER, 1884.

JOINT STOCK LIFE INSURANCE COMPANIES.

YEAR ENDING 31st DECEMBER, 1884.

THE LONDON LIFE INSURANCE COMPANY.

HEAD OFFICE, LONDON.

Incorporated March, 1874.

President—Joseph Jeffrey. | *Manager*—J. G. Richter.

Subscribed Capital, $223,000.00.

Amount paid up in cash, $33,650.00.

Deposited with the Treasurer of Ontario, Par value, $60,700; estimated market value, $74,224.50.

Assets.

Amount of loans secured by mortgage				$6,800 00
Shares.		Par value of Paid-up Stock.	Estimated Market Value.	
818	Ontario L. & D. Company	$40,900 00		
32	Huron and Erie L. & S. Company	1,600 00		
16	Do. do. do. do. 20% pd.	160 00		
621	Ontario L. & D. Company, 20 % pd.	6,210 00		
425	Dominion S. & I. Society	21,250 00		
100	Canadian S. & L. Company	5,000 00		
52	Agricultural S. & L. Company	2,600 00		
4	County Bruce Bonds	1,000 00		
		$81,720 00	$99,222 65	$99,222 65
Amount of interest accrued and unpaid 31st December, 1884				3,219 72
"	unpaid notes for first year's premiums only, due during 1885 net		$1,665 52	
"	unpaid notes, do., do., 1884 net		463 80	
"	deferred half and quarter premiums required to complete full year's premiums on policies in force		5,324 39	
"	loans on Company's policies		2,964 00	
"	Re-insurance reserve		113 94	
				10,531 65
Total assets				$119,774 02

Liabilities.

Amount of loans remaining unpaid at 31st December, 1884		$26 00
Amount of money borrowed, with interest		116 89
Re-insurance reserve for policies in force calculated on the basis of the H^m. Mortality Table of the Institute of Actuaries of Great Britain, with interest at 4½ per cent., as per Valuation Book		102,660 72
Advance Premiums		686 82
Due or accrued for salaries	$240 00	
" " Directors' fees	364 00	
" " Commission	73 75	
" " Solicitor's fees	249 50	
" " Periodicals	1 50	
		928 75
Total liabilities		$104,419 18

Income.

Cash Premiums—Life	$22,818 42	
" Accident	208 12	$23,026 54
Interest on deferred premiums	220 96	
On investments	6,475 35	
		6,696 31
Total income		$29,722 85

Expenditure.

Claims paid—Death	$5,299 48	
" Accident	10 00	
" Matured endowment	400 00	
		$5,709 48
Amount paid for policies surrendered		689 59
Re-insurance premiums		50 41

General Expenses:

Salaries	$2,583 90	
Actuaries' fees	23 31	
Medical examiners' fees	857 50	
Commission to agents	3,199 66	
Legal charges	256 05	
Travelling expenses	614 77	
Advertising	25 90	
Printing, stationery and books	225 46	
Rent and taxes	401 80	
Forward	$8,188 35	
Forward		$6,449 48

EXPENDITURE—*Continued.*

Forward		$6,449 48
Forward	$8,188 35	
Postage	172 38	
Statutory assessment and Government fees	106 98	
Newspapers and other periodicals	13 80	
Light and cleaning	17 25	
Telegrams	1 57	
Exchange	39 12	
Guarantee bond	30 00	
Petty expenses	65 37	8,634 82
Total expenditure		$15,084 30

MISCELLANEOUS.

During year ending 31st December, 1884.

Number of Policies issued	330
" " revived	1
" " paid up, issued	12
" " not taken up	48
" " surrendered	16
" " cancelled	*nil.*
" " lapsed	80
" " become claims	5
" " " matured endowment	1
" " in force on the Company's books, 31st December, 1884, as per Actuary's certificate	1,043
Amount of Insurances in force as per said certificate	$995,155 00

List of Stockholders.

Name.	Residence.	Amount Subscribed.	Amount paid up in Cash.
Arnott, H.	London	$2000 00	$300 00
Bullen, W. F.	"	1000 00	150 00
Bowman, W	"	2000 00	300 00
Blinn, H. W	"	1000 00	150 00
Birtwistle, P	"	2000 00	300 00
Brummitt, R.	"	1000 00	150 00
Carey, W.	Hamilton	1000 00	150 00
Emery, A. S	London	11000 00	1650 00
Elliott, J. H	"	6000 00	900 00
Fitzgerald, Miss M. O.	Glenfel, N. W. T.	2000 00	300 00
Fitzgerald, Miss G. B.	" "	1000 00	150 00
Fitzgerald, W. W.	" "	800 00	120 00
Green, T.	London	1000 00	150 00
Goodhue, C	"	8000 00	1200 00
Harris, E. W.	"	21800 00	3270 00
Harris, G. B	"	40000 00	6000 00
Hellmuth, Right Rev. Isaac,	" England	5000 00	750 00
Jeffery, Joseph	"	15000 00	2250 00
Johnston, J. G	"	2000 00	300 00
Milne, J	"	1000 00	150 00
Milne, Mrs. E.	"	200 00	30 00
Mills, J.	"	2000 00	300 00
Munro, C., Estate of	St. Thomas.	3000 00	450 00
Moffatt, Col. J	London	500 00	125 00
Magee, J	"	5000 00	750 00
McClary, J	"	1000 00	150 00
Macfie, D.	"	25000 00	3750 00
Milne, G. H.	Plattsville	1000 00	150 00
O'Callaghan, T. E.	London	1000 00	150 00
Ontario Investment Association	" assignee of R. C. Macfie.	27000 00	4050 00
Powell, A. B.	"	500 00	125 00
Ryerson, Rev. E., Estate of	Toronto	200 00	30 00
Reaves, G.	Montreal	5000 00	750 00
Richter, J. G.	London	5000 00	750 00
Smallman, T. H.	"	4000 00	600 00
Smith, F.	"	2000 00	300 00
Scandrett, J.	"	2000 00	300 00
Taylor, E. A. (in trust)	"	1000 00	150 00
Woodruff, W., M.D	"	5000 00	750 00
Waterman, H.	Buffalo, U. S.	1000 00	150 00
Wright and Durand	London	2000 00	300 00
Webb, W.	St. Thomas	1000 00	250 00
Wright, J.	London	4000 00	600 00
Total		$223,000 00	$33,650 00

JOINT STOCK FIRE INSURANCE COMPANIES.

YEAR ENDING 31st DECEMBER, 1884.

JOINT STOCK FIRE INSURANCE COMPANIES.

YEAR ENDING 31st DECEMBER, 1884.

[HAND-IN-HAND INSURANCE COMPANY, MUTUAL AND STOCK.]

See under "MIXED MUTUAL COMPANIES."

MERCANTILE FIRE INSURANCE COMPANY.

HEAD OFFICE, WATERLOO,

Commenced business 1st November, 1875.

President—I. E. BOWMAN. | *Secretary*—P. H. SIMS.

Authorized Capital, $500,000.

Subscribed Capital, $200,000. Paid up, $20,000.

Deposited with Treasurer of Ontario, $20,100.

Statement for the year ending 31st December, 1884.

ASSETS.

Mortgages.

Location of Property Covered.	Cash Value of Property.	Amount of Mortgages.	
Wellington County	$28,200 00	$12,025 00	
Waterloo "	52,500 00	18,700 00	
	$80,700 00		$30,725 00
Cash value of debentures			8,500 00
Interest due, accrued and unpaid			1,252 43
Cash on hand in head office		$4,367 90	
" deposited at Molson's Bank, Waterloo		17,850 75	
			22,218 65
Agents' balances			2,771 90
Bills Receivable, less than one year overdue			2,944 36
Total assets			$68,412 34

LIABILITIES.

Amount of claims for losses adjusted but not due	$732 00
Unearned premiums, being 50 per cent. of gross premiums	40,887 04
Dividends declared, but not yet due	2,000 00
Total liabilities, except capital stock	$43,619 04
Capital stock paid up in cash	$20,000 00

INCOME.

Gross premiums received in cash	$78,410 55
Received for interest from all sources	2,658 98
" carpenters' risks and transfer fees	621 79
Total income	$81,691 32

EXPENDITURE.

Net amount paid during the year for losses occurring in years prior to 1884	$2,440 00	
Amount paid for losses occurring during the year 1884	38,790 85	
		$41,230 85
Amount paid for reinsurance premiums		4,581 21
Amount paid for dividends		1,200 00
Amount paid for refund and cancelled premiums		5,829 29
Expense Account:		
Commission and brokerage	$11,708 61	
Salaries, fees, and all other charges of officials for the year.	3,689 49	
Travelling expenses and adjusting losses	874 93	
Fuel, light and cleaning	50 49	
Printing and advertising	573 80	
Express charges	51 01	
License fee and statutory assessment	218 56	
Rent	100 00	
Commercial agency	50 00	
Books and stationery	372 42	
Bank exchange	106 55	
Postage and telegraphing	643 31	
Taxes	36 72	
Canadian Fire Underwriters' Association	88 72	
Solicitor's charges	38 71	
Office allowance: Toronto and Kingston	75 00	
Sundries	36 45	
		18,714 77
Total expenditure		$71,556 12

MISCELLANEOUS.

	No. of Policies.	Amount.
		$ c.
Policies in force December 31, 1883	4 989	5,038,401 00
Taken during the year 1884—new and renewed	5,008	5,146,986 00
Total	9,997	10,185,387 00
Deduct expired and cancelled during 1884	4,064	4,274,133 00
In force at Dec. 31st, 1884	5,933	5,911,254 00
Of which was reinsured		322,491 00
Net risks carried by Company Dec. 31st, 1884		5,588,763 00

LIST OF STOCKHOLDERS.

Name.	Residence.	Amount Subscribed.	Amount paid up in cash.
		$ c.	$ c.
Allenby, F. G	Galt	4,000 00	400 00
Bowman, J. E	St. Jacob's	12,000 00	1,200 00
Bowers, Cyrus	Berlin	5,000 00	500 00
Bowman, J. D	"	1,000 00	100 00
Buckborough, D	Waterloo	1,000 00	100 00
Bricker, Jacob	"	2,000 00	200 00
Ballantyne, Thos	Stratford	1,000 00	100 00
Bowlby, D. S., M.D	Berlin	10,000 00	1,000 00
Boye, Ernst	Baden	1,000 00	100 00
Biscoe, Frederick	Guelph	1,000 00	100 00
Bellinger, Theo	Waterloo	500 00	50 00
Bowman, J. S	Arthur	500 00	50 00
Briethaupt, L	Berlin	1,200 00	120 00
Bishop, J. H	Guelph	2,000 00	200 00
Colquhoun, F	Waterloo	3,500 00	350 00
Cameron, Wm	Port Elgin	500 00	50 00
Caw, Wm., M.D	Parkhill	1,000 00	100 00
Doering, Geo	Wellesley	3,100 00	310 00
Day, T. J	Guelph	1,000 00	100 00
Doering, John E	Wellesley	500 00	50 00
Dickson, Wm	Parkhill	500 00	50 00
Erb, E	Preston	1,000 00	100 00
Eccles, Daniel	Watford	500 00	50 00
Farrish, Wm	Rockwood	1,000 00	100 00
Fennell, John	Berlin	500 00	50 00
Fletcher, Ann, Mrs	Rockwood	3,200 00	320 00
Fink, Paul	Waterloo	1,000 00	100 00
Gibbs, John	Parkhill	2,000 00	200 00
Gissing, F. J	Parkdale	1,000 00	100 00
Hughes, J. B	Waterloo	2,000 00	200 00
Hilliard, Thomas	"	1,000 00	100 00
Hendry, Charles	Conestogo	5,000 00	500 00
Hunter, Wm	Guelph	2,000 00	200 00
Hay, W. G	Listowel	1,000 00	100 00
Hough, James	Guelph	1,000 00	100 00
Hogg, David N	Guelph	5,000 00	500 00

LIST OF STOCKHOLDERS—*Continued.*

Name.	Residence.	Amount Subscribed.	Amount paid up in cash.
		$ c.	$ c.
Innes, James	Guelph	2,000 00	200 00
Irwin, John	Strathroy	1,000 00	100 00
Jackson, Henry F. J	Brockville	5,000 00	500 00
Jaffray, R.	Galt	1,000 00	100 00
Killer, Nicholas	Waterloo	1,000 00	100 00
Kaufman, S.	Washington, Ont	5,000 00	500 00
Kumpf, C.	Waterloo	1,000 00	100 00
Kranz, Hugo	Berlin	1,000 00	100 00
Livingston, James	Baden	2,000 00	200 00
Lockie, James	Waterloo	2,500 00	250 00
Lautenschlager, P.	Berlin	2,000 00	200 00
Moore, George	Waterloo	3,000 00	300 00
Miller, Alex	Berlin	1,000 00	100 00
Melvin, Robert	Guelph	5,000 00	500 00
Massie, James	Toronto	2,000 00	200 00
Merner, Fred	New Hamburg	1,000 00	100 00
Morton, W., M.D	Wellesley	500 00	50 00
Martin, Wm. John	Chatham	3,000 00	300 00
Oelschlager, Wm	Berlin	5,000 00	500 00
Peffers, Joseph	Listowel	500 00	50 00
Petrie, A. B	Guelph	3,000 00	300 00
Reiner, John G	Wellesley	2,000 00	200 00
Reynolds, R. T., M.D	Berlin	2,000 00	200 00
Ruppel, John	Elmira	500 00	50 00
Snyder, J. B	St. Jacob's	10,000 00	1,000 00
Snider, E. W. B	"	6,000 00	600 00
Shuh, John	Waterloo	2,000 00	200 00
Snider, John B	"	2,000 00	200 00
Snider, Henry	Bloomingdale	2,000 00	200 00
Snider, Simon	Waterloo	3,000 00	300 00
Sims, P. H.	"	3,000 00	300 00
Snider, Wm	"	2,500 00	250 00
Stewart, Wm	Guelph	1,000 00	100 00
Scott, John A	Stratford	1,000 00	100 00
Staebler, J. M.	Berlin	1,000 00	100 00
Snider, Fred	"	1,000 00	100 00
Stuebing, Wm	Waterloo	500 00	50 00
Sawtell, R. W	Woodstock	1,000 00	100 00
Scott, J. W.	Listowel	1,000 00	100 00
Shields, James	"	1,000 00	100 00
Scoon, John	Guelph	500 00	50 00
Trow, James	Stratford	5,000 00	500 00
Towner, George	Listowel	1,000 00	100 00
Walden, J. W., M.D	Waterloo	3,000 00	300 00
Winger, Peter	Elmira	1,000 00	100 00
Wilkes, Clara M	Brantford	1,000 00	100 00
Wilkes, Alfred J	"	1,000 00	100 00
Wright G. W., M.D	Berlin	1,000 00	100 00
Wright & Durand	London	500 00	50 00
Webb, J. H.	Waterloo	4,000 00	400 00
Young, Wm	"	11,500 00	1,150 00
Zoeger, John	Newton	500 00	50 00
Zinkann, J. N.	Lisbon	500 00	50 00
Total		$200,000 00	$20,000 00

QUEEN CITY FIRE INSURANCE COMPANY.

HEAD OFFICE, TORONTO.

Commenced business 1st July, 1871.

President—W. H. Howland. | *Secretary*—Thomas Walmsley.

Authorized Capital, $100,000.

Subscribed Capital, $100,000. Paid up, $50,000.

Securities deposited with Treasurer of Ontario, $10,000.

Statement for year ending 31st December, 1884.

Assets.

Value of real estate held by Company, being land and building on the west side of Church Street, Toronto, where the head offices of the Company are situated		$61,088 60
Mortgages :—		
Scarboro' Township	$3,000 00	
Toronto City	49,425 42	
Total amount of loans secured by mortgage		52,425 42
Secured loans		2,100 00
Deposited with the Dominion Bank, Toronto		5,700 91
Agents' balances		1,797 97
Interest accrued and unpaid on all loans as above		3,659 11
Accrued rents		2,043 32
Other assets		394 97
Total assets		$129,210 30

Liabilities.

Unpaid losses	$414 37
Unearned premiums, being 50 per cent. of gross premiums	8,686 03
Total liabilities, except capital stock	$9,100 40
Capital stock paid up in cash	$50,000 00

INCOME.

Gross premiums received in cash			$13,657 05
Received for interest and dividends on stocks and all other sources			1,798 20
Rents			4,670 08
Total income			$20,125 33

EXPENDITURE.

Amount paid during the year for losses occurring in years prior to the year 1884		$3 00	
Amount paid for losses occurring during the year 1884		827 02	
			$830 02
" " " re-insurance premiums			1,994 46
Amount of dividends paid during the year			2,500 00
Paid for commission, or brokerage		$1,165 55	
" " salaries, fees, and all other remuneration of officials		3,655 00	
" " rent, including taxes		500 00	
" " vote to President at annual meeting	$1,000 00		
" " statutory assessment and license fee	121 79		
" " books and stationery	85 86		
" " printing	14 19		
" " advertising	197 36		
" " scrutineers' fees annual meeting	10 00		
" " assessment Board of Underwriters	25 00		
" " telephone	16 68		
" " express charges	3 70		
" " insurance on building	150 00		
" " architect's services	50 00	1,674 58	6,995 13
Total expenditure			$12,319 61

MISCELLANEOUS.

FIRE RISKS.	No.	Amount.
Policies in force (gross) at December 31st, 1883	1,396	$2,057,415 98
Taken during the year 1884, new and renewed	1,190	1,562,443 00
Total	2,586	3,619,858 98
Deduct expired and cancelled during 1884	1,113	1,572,616 98
Gross in force at 31st December, 1884	1,473	2,047,242 00
Of which was re-insured		316,700 00
Net risks carried by Company December 31st, 1884		$1,730,542 00

LIST OF STOCKHOLDERS.

Name.	Residence.	Amount subscribed.	Amount paid up in Cash.
		$ c.	$ c.
Austin, James	Toronto	2,000 00	1,000 00
Badenach, William	"	1,000 00	500 00
Close, P. G	"	1,000 00	500 00
Copp, Clark & Co	"	1,000 00	500 00
Downey, J	"	1,000 00	500 00
Elliott, R. W	"	2,500 00	1,250 00
English, C. E	"	12,500 00	6,250 00
Harvey, A	"	500 00	250 00
Hessin, William	"	500 00	250 00
Howland, O. A. (in trust)	"	4,000 00	2,000 00
Howland, W. H	"	10,000 00	5,000 00
Maclennan, James	"	5,000 00	2,500 00
Maclennan, James, Walmsley, Thomas, W. H. Howland, } Trustees	"	5,000 00	2,500 00
Macnab, John	"	3,000 00	1,500 00
McWilliams, W. G	"	500 00	250 00
Roaf, J. R	"	1,500 00	750 00
Roaf, William	"	1,500 00	750 00
Scott & Walmsley	"	25,500 00	12,750 00
Scott, Hugh	"	5,000 00	2,500 00
Scott, James	"	3,000 00	1,500 00
Scott, J. G	"	1,000 00	500 00
Strathy, H. H	Barrie	1,000 00	500 00
Walmsley, William	Toronto	1,000 00	500 00
Walmsley, Thomas	"	10,000 00	5,000 00
Watson, James	"	1,000 00	500 00
Total		100,000 00	50,000 00

RECAPITULATION

OF

ASSETS, LIABILITIES, INCOME AND EXPENDITURE

OF ALL JOINT STOCK FIRE INSURANCE COMPANIES.

JOINT STOCK FIRE COMPANIES.

ASSETS FOR YEAR ENDING 31st DECEMBER, 1884.

Name of Company.	Real Estate.	Bonds, Mortgages, Stocks and other Investments.	Interest Accrued.	Rents due or accrued.	Cash.	Agents' Balances.	Bills Receivable.	Other Assets.	Total.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
*Mercantile		39,225 00	1,252 43		22,218 65	2,771 90	2,944 36		68,412 34
*Queen City	61,088 60	54,525 42	3,659 11	2,043 32	5,700 91	1,797 97		394 97	129,210 30
Total	61,088 60	93,750 42	4,911 54	2,043 32	27,919 56	4,569 87	2,944 36	394 97	197,622 64

*Government deposits as follows:—Mercantile, $20,100; Queen City, $10,000.

LIABILITIES FOR YEAR ENDING 31st DECEMBER, 1884.

Name of Company.	Unpaid Losses.	Unearned Premiums calculated at 50 per cent.	Dividends.	Total Liabilities except Stock.	Paid-up Capital Stock.	Grand Total of Liabilities.	Number of Policies in Force.	Total Amount at Risk.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.		$ c.
Mercantile	732 00	40,887 04	2,000 00	43,619 04	20,000 00	63,619 04	5,933	5,911,254 00
Queen City	414 37	8,686 03		9,100 40	50,000 00	59,100 40	1,473	2,047,242 00
Total	1,146 27	49,573 07	2,000 00	52,719 44	70,000 00	122,719 44	7,406	7,958,496 00

JOINT STOCK FIRE COMPANIES.

INCOME FOR YEAR ENDING 31st DECEMBER, 1884.

Name of Company.	Gross Premiums.	Interest and Dividends.	Rents.	From other sources.	Total Income.
	$ c.	$ c.	$ c.	$ c.	$ c.
Mercantile	78,110 55	2,658 98	.....	621 79	81,691 32
Queen City	13,657 05	1,798 20	4,670 08	.....	20,125 33
Total	92,067 60	4,457 18	4,670 08	621 79	101,816 65

EXPENDITURE FOR YEAR ENDING 31st DECEMBER, 1884.

Name of Company.	Dividends.	Losses.	Re-insurance Premiums.	Rebate and Returned Premiums.	Expenses of Management.				Total Expenditure.
					Commission.	Salaries.	All other Expenses.	Total.	
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Mercantile	1,260 00	41,230 85	4,581 21	5,829 29	11,708 61	3,689 49	3,316 67	18,714 77	71,556 12
Queen City	2,500 00	830 02	1,994 46	.....	1,165 55	3,655 00	2,174 58	6,995 13	12,319 61
Total	3,760 00	42,060 87	6,575 67	5,829 29	12,874 16	7,344 49	5,491 25	25,709 90	83,875 73

MIXED MUTUAL AND CASH SYSTEM COMPANIES.

YEAR ENDING 31ST DECEMBER, 1884.

MIXED MUTUAL AND CASH SYSTEM COMPANIES.

YEAR ENDING 31st DECEMBER, 1884.

GORE DISTRICT MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, GALT.

Commenced business 16th October, 1839.

President—Hon. James Young, M.P.P. *Secretary*—R. S. Strong.

Unassessed premium note capital, $113,743.96.

Securities deposited with Treasurer of Ontario, par value, $7,000; estimated market value, $7,300.

Assets.

Loans secured by mortgages		$25,550 00	
Market value of shares, bonds, debentures and securities other than the foregoing		16,550 00	
Actual cash on hand at head office	$970 97		
Cash on deposit to the Company's credit, not drawn against, in the following chartered banks:			
Merchants' Bank, agency at Galt,	$17,325 64		
Bank of Commerce "	11,561 78		
	28,887 42	29,858 39	
			$71,958 39
Cash in agents' hands acknowledged by them to be due and considered good			1,913 40
Amount unpaid of assessments levied during 1884			182 78
" of assessments levied before 1884, not extended		$1,667 46	
Amount unpaid of premium notes in force, after deducting all payments thereon and assessments levied		113,743 96	
Less residue of premium notes given by the Company for re-insurance		1,678 31	
Net premium notes			112,065 65
Amount of interest accrued			1,312 82
Total assets			$187,433 04

Liabilities.

Amount of losses adjusted	$2,100 00	
" resisted	822 46	
		$2,922 46
Amount required to reinsure all outstanding risks taken on the cash system being fifty per cent. of gross premiums on all cash system policies in force at 31st December, 1884		24,772,62
Total liabilities		$27,695 08

Receipts.

Cash at head office, as per last statement (not extended)	$1,019.60	
Cash received as first payments, being part payment of premium notes	$10,394 39	
" for assessments levied in 1884	23,091 31	
" " " years prior to 1884	2,418 16	
		$35,903 86
" for premiums on cash system		32,724 14
" for interest		1,801 42
" from transfer fees	$68 49	
" for extra premiums	245 12	
		313 61
Total receipts		$70,743 03

Expenditure.

Expenses of Management:		
Amount paid for commission to agents	$7,870 04	
" law costs	11 37	
" fuel and light	45 45	
" investigation and adjustment of claims	13 22	
" statutory assessment or certificate	215 80	
" printing, stationery and advertising	849 56	
" rent and taxes	313 43	
" salaries, directors' and auditors' fees	5,412 64	
" travelling expenses	450 94	
" postage, telegrams and express	569 25	
" expenditure other than foregoing	1,794 56	
Expenses of management (*carried forward*)		$17,546 26

Expenses of management (*brought forward*)			$17,546 26
Miscellaneous Payments:			
Cash paid for losses which occurred during 1884	$3,950 00		
Cash paid for losses which occurred prior to 1884	23,937 08		
		$27,887 08	
" reinsurances		4,412 35	
" rebate, abatements and returned premiums		1,157 49	
			33,456 92
Total expenditure			$51,003 18

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	One year or less.	Three years.	Total.
	$ c.	$ c.	$ c.
Mutual	7,500 00	1,955,264 00	1,962,764 00
Cash	1,241,558 65	3,160,099 25	4,401,657 90
Total	1,249,058 65	5,115,363 25	6,364,421 90
Reinsured.			
Mutual	29,816 66		
Cash	236,830 39		
Total	266,647 05		266,647 05
Net risks carried by Company, Dec. 31st, 1884			6,097,774 85

MOVEMENT IN RISKS.

	Number.	Amount.
Mutual System.		$ c.
Policies in force 31st December, 1883	1,334	1,717,160 47
" new and renewed during 1884	605	801,614 00
Gross number during 1884	1,939	2,518,774 47
Less expired and cancelled in 1884	453	556,010 47
Net risks in force on mutual system, 31st December, 1884	1,486	1,962,764 00
Cash System.		
Policies in force 31st December, 1883	4,774	4,160,495 84
" new and renewed during 1884	1,764	1,732,370 75
Gross number during 1884	6,538	5,892,866 59
Less expired and cancelled in 1884	1,829	1,491,208 69
Net risks in force on cash system, 31st December, 1884	4,709	4,401,657 90

BUSINESS TRANSACTED:

General Fire Insurance.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December 1884.

——	One year risks.	Three year risks.	Total.
	$ c.	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	561 00	160,118 00	160,679 00
Amount of all premium notes, after deducting all payments thereon and assessments levied	411 40	113,332 56	113,743 96
Amount of premium notes received during the year 1883	1,138 00	71,995 00	73,133 00
Reinsurance.			
Amount of premium notes given by the Company for reinsurance	883 46	1,214 50	2,097 96
Less payments thereon	146 11	273 54	419 65
Residue	737 35	940 96	1,678 31

HAND-IN-HAND INSURANCE COMPANY, MUTUAL AND STOCK.

HEAD OFFICE, TORONTO, ONT.

Commenced business 1st July, 1873.

President—W. H. HOWLAND. | *Secretary*—HUGH SCOTT.

By Act, 42 Vic., Cap. 85, Ontario Statutes, 1879, power was granted to this Company to raise Capital Stock and do business on the Cash System.

Authorized Stock Capital	$500,000 00
Subscribed "	100,000 00
Paid up in cash "	20,000 00
Securities deposited with Treasurer of Ontario	10,000 00

LIST OF STOCKHOLDERS.

NAME.	Residence.	Amount Subscribed for.	Amount paid up in Cash.
		$ c.	$ c.
Austin, James	Toronto	5,000 00	1,000 00
Campbell, A. H	"	5,000 00	1,000 00
Coffee, L. & Co	"	5,000 00	1,000 00
Dixon, B. Homer	"	5,000 00	1,000 00
Downey, Jno	"	5,000 00	1,000 00
Elliot, Wm	"	5,000 00	1,000 00
Fisher, D	Bowmanville	5,000 00	1,000 00
Gzowski, Col. C. S	Toronto	5,000 00	1,000 00
Howland, O. A. (in trust)	"	5,000 00	1,000 00
Howland, W. H	"	5,000 00	1,000 00
Macpherson, Sir D. L	"	5,000 00	1,000 00
Maclennan, Jas., Q.C	"	5,000 00	1,000 00
McMaster, Hon. Wm	"	5,000 00	1,000 00
Smith, Prof. Goldwin	"	5,000 00	1,000 00
Smith, Larratt W., D. C. L	"	5,000 00	1,000 00
Smith, Henry A	London	5,000 00	1,000 00
Scott, James	Toronto	5,000 00	1,000 00
Smith, Hon. D. A	Montreal	5,000 00	1,000 00
Scott & Walmsley	Toronto	5,000 00	1,000 00
Thomson, Wm	"	5,000 00	1,000 00
	Total	100,000 00	20,000 00

ASSETS.

Mortgages:		
Property in Toronto	$13,750 00	
Shares, Debentures and other Securities	16,860 00	
Cash on deposit to Company's credit in Ontario Bank	7,085 78	
		$37,695 78
Accrued interest		2,573 45
Cash in agents' hands		1,560 06
Undertakings, unassessed		5,494 54
Total		$47, 2 8

Liabilities.

Amount required to reinsure all outstanding risks taken on cash system, being 50 per cent. of gross premiums on all cash system policies in force at December 31st, 1884		$7,110 32
Agents' balances		1,659 46
Total liabilities		$8,769 78

Income.

Cash received for premiums on cash system		$18,595 59
" as first payments or deposits being part payment of premium notes		4,905 37
" for interest		1,943 82
" balance revenue account, 1883		1,580 92
" premiums, Plate Glass Branch, 3 months		799 22
Total income		$27,824 92

Expenditure.

Cash paid for commission to agents		$4,172 64
" statutory assessment or certificate		139 90
" printing, stationery and advertising		326 40
" salaries, Directors' and Auditors' fees		1,670 00
" investigation and adjustment of claims		109 56
" rent and taxes		500 00
" postages, telegrams and express		32 39
" Goad's plans		175 71
" scrutineers' fees		10 00
Total expenses of management		$7,136 60
Cash paid for losses prior to 1884	$1,262 13	
" " during 1884	14,327 28	
		15,589 41
" re-insurances		1,226 23
" rebate, abatement and returned premiums		2,148 06
" dividends		2,000 00
" commission Plate Glass Branch	$199 78	
" expenses incidental thereto	64 21	
		263 99
Total expenditure		$28,364 29

CURRENCY OF RISKS.

Amount covered by policies in force 31st December, 1884.

System.	One year or less.	Two years.	Three years.	Four years.	Total.
Insurance.	$ c.	$ c.	$ c.	$ c.	$ c.
Mutual	397,365 00	3,650 00	156,749 00	10,500 00	568,264 00
Cash	1,155,819 14	.....	440,458 23	2,500 00	1,598,777 37
Total	1,553,184 14	3,650 00	597,207 23	13,000 00	2,167,041 37
Reinsurance.					
Mutual	22,850 00	.....	1,250 00	.....	24,100 00
Cash	79,048 66	.....	8,846 00	.....	87,894 66
Total	101,898 66	.....	10,096 00	.....	111,994 66
Net risks carried by company, Dec. 31, 1884	1,451,285 48	3,650 00	587,111 23	13,000 00	2,055,046 71

MOVEMENT IN RISKS.

	Number.	Amount.
Mutual System.		$ c.
Policies in force 31st December, 1883	379	660,509 00
" new and renewed during 1884	271	454,887 00
Gross number during 1884	650	1,115,396 00
Less expired and cancelled in 1884	315	547,132 00
Net risks in force on Mutual system 31st December, 1884	335	568,264 00
Cash System.		
Policies in force 31st December, 1883	700	1,338,764 96
" new and renewed during 1884	1,126	1,622,127 55
Gross number during 1884	1,826	2,960,892 51
Less expired and cancelled in 1884	756	1,362,115 14
Net risks in force on Cash system 31st December, 1884	1,070	1,598,777 37

BUSINESS TRANSACTED:

General Fire, Plate Glass, and Inland Marine Insurance.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force December 31st, 1884.

——	One year risks.	Three year risks.	Total.
	$ c.	$ c.	$ c.
Amount of face of all premium notes held by company, and legally liable to assessment	3,854 95	1,639 59	5,494 54
Amount of premium notes received during the year 1884	4,487 75	443 43	4,931 18

THE ONTARIO MUTUAL FIRE INSURANCE COMPANY.

Commenced business 2nd September, 1867.

President—ANDREW MCCORMICK. *Secretary*—P. F. BOYLE.

Unassessed premium note capital, $9,271.50.

Deposited with Treasurer of Ontario, $2,000.

ASSETS.

Cash value of shares, bonds, debentures and securities, with accrued interest.		$2,016 26
Actual cash on hand at head office	$23 92	
Cash on deposit to the Company's credit, not drawn against,		
" in the Bank of London	1,159 30	
" " Dominion Savings Society at London	81 45	
		1,264 67
Cash in Agents' hands, acknowledged by them to be due, and considered good		2,802 57
Amount unpaid of assessments levied during 1884		833 64
" " " in prior years (not extended)	$4,749 04	
Amount of notes, or due bills, more than one year overdue (not extended)	$1,865 38	
Amount of premium notes in force after deducting all payments thereon and assessments levied	$9,271 50	
Less premium notes given for reinsurance	84 88	
		9,186 62
Total assets		$16.103 76

LIABILITIES.

Amount of losses adjusted	$618 00
" " resisted	554 52
" required to reinsure all outstanding risks taken on the cash system, being fifty per cent. of gross premiums on all cash system policies in force at 31st December, 1884	7,338 00
Due Agents	88 96
Total liabilities	$8,599 48

RECEIPTS.

Cash at head office, as per last statement (not extended)	$26 06	
Cash received as first payments, being part payments of premium notes		$1,539 25
" for assessments levied in 1884		3,488 21
" " " years prior to 1884		205 43
" for premiums on cash system		4,617 70
" for interest		122 61
" from fees, and extra risks		75 46
Total receipts		$10,048 66

EXPENDITURE.

Expenses of Management :

Amount paid to agents for commission		$1,419 01
" " general agent		100 00
" for fuel and light		34 40
" statutory assessment, license, etc		127 71
" printing, stationery and advertising		175 63
" rent and taxes		217 23
" salaries, directors' and auditors' fees		2,296 00
" travelling expenses		122 45
" postage, telegrams and express		189 46
" incidental expenses		50 78
Total expenses of management		$4,732 67
Miscellaneous Payments :		
Cash paid for losses which occurred prior to 1884	$3,567 05	
" " " during 1884	2,424 47	
		5,991 52
Cash paid for rebate, abatement and returned premiums		72 24
Total expenses		$10,796 43

CURRENCY OF RISKS.

Amount covered by policies in force 31st December, 1884.

SYSTEM.	One year or less.	Two years.	Three years.	Total.
Insurance.	$ c.	$ c.	$ c.	$ c.
Mutual	531,235 00	413,959 00	416,935 00	1,362,129 00
Cash	544,401 00	458,525 00	513,281 00	1,516,207 00
Total	1,075,636 00	872,484 00	930,216 00	2,878,336 00
Reinsurance.				
Mutual	3,725 00	2,850 00		6,575 00
Cash	3,100 00	4,200 00		7,300 00
Total	6,825 00	7,050 00		13,875 00
Net risks carried by Company, December 31st, 1884				2,864,461 00

MOVEMENT IN RISKS.

——	Number.	Amount.
Mutual System.		$ c.
Policies in force 31st December, 1883	2,009	1,515,785 00
New and renewed during 1884	525	420,535 00
Gross number during 1884	2,534	1,936,320 00
Less expired and cancelled in 1884	772	574,191 00
Net risks in force on Mutual System, 31st December, 1884	1,762	1,362,129 00
Cash System.		
Policies in force 31st December, 1883	2,783	1,493,458 00
New and renewed during 1884	1,005	539,606 00
Gross number during 1884	3,788	2,033,064 00
Less expired and cancelled in 1884	993	516,857 00
Net risks in force on Cash System, 31st December, 1884	2,795	1,516,207 00

BUSINESS TRANSACTED.

General Fire Insurance.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in full force 31st December, 1884.

——	Three year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	22,193 06	22,193 06
Amount of all premium notes, after deducting all payments thereon and assessments levied	9,271 50	9,271 50
Amount of premium notes received during the year 1884	6,448 08	6,448 08
Residue of premium notes given by the Company for reinsurance	84 88	84 88

COUNTY OF PERTH MUTUAL FIRE INSURANCE COMPANY.

Commenced business 1st December, 1863.

President—John Hyde, M.D. | *Secretary*—Chas. Packert.

Deposited with Treasurer of Ontario, $2,000.

Unassessed premium note capital, $28,231.75.

Assets.

Market value of debentures	$13,000 00	
Actual cash on deposit in Mowat's Bank, Stratford	2,440 27	
		$15,440 27
Cash in agents' hands acknowledged by them to be due, and considered good		543 28
Amount unpaid of assessments levied during 1884		1,573 25
" of short date notes, or due bills, less than one year overdue		762 97
" of premium notes in force, after deducting all payments thereon and assessments levied		28,231 75
" of interest accrued		425 00
" of postage stamps		25 00
Total assets		$47,001 52

Liabilities.

Amount required to reinsure all outstanding risks taken on the cash system, being fifty per cent. of gross premiums on all cash system policies in force at 31st December, 1884	$3,749 62
Total liabilities	$3,749 62

Receipts.

Cash at head office, as per last statement (not extended)	$3,331 00	
Cash received as first payments, being part payment of premium notes		$2,501 80
" for assessments levied in 1884		1,871 94
" for assessments levied in years prior to 1884		1,730 20
" for premiums on cash system		2,253 25
" for interest		999 83
" from extra premiums, etc		19 95
Total receipts		$9,376 97

EXPENDITURE.

Expenses of Management:

Amount paid for commission to agents		$1,011 63
"	law costs	7 57
"	fuel and light	15 60
"	investigation and adjustment of claims	97 10
"	statutory assessment and license	135 33
"	printing, stationery and advertising	281 61
"	rent and taxes	150 00
"	salaries, directors' and auditors' fees	1,487 30
"	travelling expenses	18 50
"	postage, telegrams and express	157 55
"	other expenses	39 54
Total expenses of management		$3,401 73

Miscellaneous Payments:

Cash paid for losses which occurred during 1884		6,790 78
"	reinsurances	35 00
"	rebate	15 45
"	office furniture	18 43
"	agents' accounts	6 31
Total expenditure		$10,267 70

CURRENCY OF RISKS

Amount covered by Policies in force 31st December, 1884.

SYSTEM.	Three years.	Total.
	$ c.	$ c.
Mutual	2,382,285 00	2,382,285 00
Cash	906,900 00	906,900 00
Total at risk		3,289,185 00

MOVEMENT IN RISKS.

	Number.	Amount.
Mutual System.		$ c.
Policies in force 31st December, 1883	1,866	2,213,425 00
" new and renewed during 1884	785	941,515 00
Gross number during 1884	2,651	3,154,940 00
Less expired and cancelled in 1884	658	772,655 00
Net risks in force on mutual system 31st December, 1884	1,993	2,382,285 00
Cash System.		
Policies in force 31st December, 1883	1,358	1,031,145 00
" new and renewed during 1884	345	230,745 00
Gross number during 1884	1,703	1,261,890 00
Less expired and cancelled in 1884	482	354,990 00
Net risks in force on cash system 31st December, 1884	1,221	906,900 00

CLASSIFICATION OF RISKS:

Farm and non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

	Three year risks.	Total.
	$ c.	c.
Amount of face of all premium notes held by Company, and legally liable to assessment	37,902 27	37,902 27
Amount of all premium notes, after deducting all payments thereon and assessments levied	28,231 75	28,231 75
Amount of premium notes received during the year 1884	15,384 02	15,384 02

VICTORIA MUTUAL FIRE INSURANCE COMPANY.

HAMILTON BRANCH.

HEAD OFFICE, HAMILTON.

Commenced business November, 1863.

President—Geo. H. Mills. | *Secretary*—W. D. Booker.

Unassessed premium note capital, $29,249.36.

Assets.

Cash on hand at head office	$142 08	
" deposit to Company's credit in Bank of Hamilton	546 60	
		$688 68
Postage stamps		76 31
Amount unpaid of assessments levied during 1884		815 83
" " " in prior years (not extended)	$373 51	
Amount of short date notes or due bills, less than one year overdue		290 13
" " " one year or more overdue (not extended)	$28 78	
Amount of premium notes in force, after deducting all payments thereon and assessments levied		29,249 36
Due by W. W. Branch (not extended)	$6,546 60	
Division Court costs (not extended)	49 80	
Office furniture (not extended)	100 00	
Total assets		$31,120 31

Liabilities.

Deposits for future assessments	$37 50
Agency	452 03
Legal expenses	5 34
Total liabilities	$494 87

RECEIPTS.

Cash at head office, as per last statement (not extended)	$117 22	
Cash as first payments, being part payment of premium notes		$1,416 49
Cash received for assessments levied in 1884		2,045 46
" " " years prior to 1884		2,686 74
Cash received for interest		11 85
" for carpenters' risks		9 13
" Division Court costs		3 01
" from agencies		239 28
" Bills receivable		334 41
Total receipts		$6,746 37

EXPENDITURE.

Expenses of Management:

Amount paid for commission	$885 31
" investigation and adjustment of claims	12 67
" legal expenses	33 00
" printing, stationery and advertising	192 59
" rent, taxes and statutory assessment	266 40
" salaries, directors' and auditors' fees	2,251 33
" postage, telegrams and express	35 02
" fuel and light	30 41
" interest	66 25
" office contingencies	122 23
Total expenses of management	$3,895 21

Miscellaneous Payments:

Cash paid for losses which occurred during 1884	804 47
" office furniture and safe	100 00
" loan	1,286 42
" deposits	12 50
Total expenditure	$6,098 60

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Three years.	Total.
	$ c.	$ c.
Mutual	1,135,398 00	1,135,398 00

MOVEMENT IN RISKS.

Mutual System.

	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	1,062	1,281,895 00
Policies new and renewed during 1884	423	467,432 00
Gross number during 1884	1,485	1,749,327 00
Less expired and cancelled in 1884	553	613,929 00
Net risks on in force on mutual system 31st December, 1884	932	1,135,398 00

BUSINESS TRANSACTED:

General Fire Insurance.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

	Three year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	38,415 88	38,415 88
Amount of all premium notes, after deducting all payments thereon and assessments levied	29,249 36	29,249 36
Amount of premium notes received during the year 1884	16,343 94	16,343 94

VICTORIA MUTUAL FIRE INSURANCE COMPANY.

*GENERAL BRANCH.**

HEAD OFFICE, HAMILTON.

Commenced business November, 1863.

President—GEO. H. MILLS. | *Secretary*—W. D. BOOKER.

Unassessed premium note capital, $1,079 11.

Deposited with Treasurer of Ontario, par value, $4,000; estimated market value $4,275,00.

ASSETS.

Cash on hand at head office	$48 40	
Cash on depost to Company's credit in Bank of Hamilton	319 41	
		$367 81
Cash value of shares, bonds, debentures and securities		4,275 00
Amount unpaid of assessments levied during 1884		161 19
" " " in prior years (not extended)	$3,450 22	
" of short date notes or due bills, one year or more overdue (not extended)	2,348 57	
" of premium notes in force, after deducting all payments thereon and assessments levied		1,079 11
" of Division Court costs (not extended)	$3,217 91	
" due by Water Works Branch (not extended)	$2,364 20	
Total assets		$5,883 11

LIABILITIES.

Amount of losses supposed, or reported	400 00
" losses resisted	550 00
" required to reinsure all outstanding risks taken on the cash system being fifty per cent. of gross premiums on all cash system policies in force at 31st December, 1884	1,358 22
" all other liabilities	391 41
Total liabilities	$2,699 63

* The General Branch has withdrawn from business and reinsured its outstanding risks.

RECEIPTS.

Cash on hand at head office 31st Dec., 1883, not extended	$45.75	
Cash received for due bills		113 02
" from agents		212 44
" for assessments levied in 1884		1,280 10
" " " years prior to 1884		1,146 33
" Division Court costs		89 37
" interest		301 29
" fees		2 99
" from sale of office furniture		115 00
" " other sources		4 80
Total receipts		$3,265 34

EXPENDITURE.

Expenses of Management:

Amount paid for commission to agents		$13 49
" " law costs		183 07
" " Division Court costs		149 37
" " travelling expenses		22 75
" " cash premium returned		2 45
" " interest		488 00
" " printing, stationery and advertising		27 45
" " rent and taxes		52 44
" " statutory assestment and fee		102 31
" " salaries, directors' and auditors' fees		562 84
" " postage, telegrams and express		39 66
" " fuel and light		7 60
" " office contingencies		30 55
Total expenses of management		$1,681 98

Miscellaneous Payments:

Cash paid for losses which occurred prior to 1884	$164 50	
" " " " during 1884	241 33	
		405 83
" sundries		855 47
Total expenditure		$2,943 28

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

SYSTEM.	Three years.	Total.
	$ c.	$ c.
Mutual	204,307 00	204,307 00
Cash	866,627 00	866,627 00
Total		1,070,934 00

MOVEMENT IN RISKS.

	Number.	Amount.
Mutual System.		$ c.
Policies in force 31st December, 1883	624	622,176 00
Gross number during 1884	624	622,176 00
Less expired and cancelled in 1884	405	417,869 00
Net risks in force on mutual system 31st December, 1884	219	204,307 00
Cash System.		
Policies in force 31st December, 1883	2,600	2,066,881 00
Gross number during 1884	2,600	2,066,881 00
Less expired and cancelled in 1884	1,487	1,200,254 00
Net risks in force on cash system 31st December, 1884	1,113	866,627 00

CLASSIFICATION OF RISKS:

All Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

	Three year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	3,185 75	3,185 75
Amount of all premium notes, after deducting all payments thereon and assessments levied	1,079 11	1,079 11

WATERLOO MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, WATERLOO.

Commenced business 7th March, 1863.

President—J. W. Walden, M.D. | *Secretary*—C. M. Taylor.

Unassessed premium note capital, $135,975.71.

Deposited with Government of Ontario, $14,335.00.

Assets.

Cash value of real estate, less incumbrances	$4,000 00	
Cash value of mortgages	14,000 00	
" shares, bonds, debentures and securities	16,049 61	
Cash on deposit to the Company's credit, not drawn against, in the Molson's Bank, Waterloo	$12,178 32	
Cash on hand at head office	732 51	
	12,910 83	
		$46,960 44
Cash in agents' hands, acknowledged by them to be due, and considered good		1,549 66
Amount unpaid of assessments levied during 1884		2,708 78
" of short date notes or due bills, less than one year overdue		4,484 75
" of premium notes in force, after deducting all payments thereon and assessments levied	$135,975 71	
Less residue of premium notes given for re-insurance	1,983 07	
		133,992 64
Amount of interest due and accrued		1,254 00
Total assets		$190,950 27

Liabilities.

Amount of losses resisted	$1,000 00	
Amount of losses reported	1,460 00	
		$2,460 00
Amount required to re-insure all outstanding risk taken on the cash system, being 50 per cent. of gross premiums on all cash system policies in force at 31st December, 1884		36,095 24
Total liabilities		$38,555 24

RECEIPTS.

Cash at head office as per last statement (not extended)	$273 38	
Cash received for matured debentures (not extended)	3,568 55	
Cash received as first payments, being part payment of premium notes		$19,973 02
" for assessments of 1884		19,779 08
" " years prior to 1884		1,353 77
" premiums on cash system		40,480 40
" for interest		2,134 71
Cash receipts from transfer fees		96 68
" extra premiums		441 58
" rent		100 00
Total receipts		$84,359 24

EXPENDITURE.

Expenses of Management:		
Amount paid for commission to agents		$8,168 20
" law costs		163 89
" fuel and light		209 81
" investigation and adjustment of claims		2,713 28
" statutory assessment or certificate		348 77
" printing, stationery and advertising		941 78
" taxes		33 00
" salaries, directors' and auditors' fees		5,106 27
" postage, telegrams and express		728 71
" other expenses		1,737 41
Total expenses of management		$20,151 12
Miscellaneous Payments:		
Cash paid for losses which occurred during 1884	$1,008 90	
" " " prior to 1884	51,780 13	
		52,789 03
" reinsurances		1,356 21
" rebate, abatement and returned premiums		2,218 34
Total expenditure		$76,514 70

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

SYSTEM.	One year or less.	Three years.	Total.
Insurance.	$ c.	$ c.	$ c.
Mutual		3,034,353 83	3,034,353 83
Cash	979,374 66	6,318,670 36	7,298,045 02
Total	979,374 66	9,353,024 19	10,332,398 85
Reinsurance.			
Mutual, reinsured		36,500 00	36,500 00
Cash "	37,300 00	64,225 00	101,525 00
Net risks carried by Company at 31st December, 1884	942,074 66	9,252,299 19	10,194,373 85

MOVEMENT IN RISKS.

——	Number.	Amount.
Mutual System.		$ c.
Policies in force 31st December, 1883	2,125	2,734,072 33
" new and renewed during 1884	961	1,305,238 50
Gross number during 1884	3,086	4,039,310 83
Less expired and cancelled in 1884	837	1,004,957 00
Net risks in force on mutual system 31st December, 1884	2,249	3,034,353 83
Cash System.		
Policies in force 31st December, 1883	8,095	7,239,833 28
" new and renewed during 1884	3,774	3,585,356 83
Gross number during 1884	11,869	10,825,190 11
Less expired and cancelled in 1884	3,385	3,527,145 09
Net risks in force on cash system 31st December, 1884	8,484	7,298,045 02

CLASSIFICATION OF RISKS:

General Fire Insurance.

PREMIUM NOTES OR UNDERTAKINGS.

On Policies in force 31st December, 1884.

——	Three year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	206,387 42	206,387 42
Amount of all premium notes, after deducting all payments thereon and assessments levied	135,975 71	135,975 71
Amount of premium notes received during the year 1884	98,479 83	98,479 83
Residue of premium notes given for reinsurance	1,983 07	1,983 07

RECAPITULATION

OF

ASSETS, LIABILITIES, INCOME AND EXPENDITURE

OF ALL

MIXED MUTUAL AND CASH SYSTEM FIRE INSURANCE COMPANIES.

MIXED MUTUAL AND CASH SYSTEM COMPANIES.*

ASSETS FOR YEAR ENDING 31st DECEMBER, 1884.

NAME OF COMPANY.	Value of Real Estate, less Encumbrances.	Mortgages, Bonds, Debentures, and other Securities.	Interest Accrued.	Cash at Head Office and Bank Balances.	Agents' Balances.	Due on Assessments, 1884.	Short Date Notes or Due Bills.	Unassessed Premium Notes.	All other Assets.	Total Assets.	Subscribed Stock Capital Uncalled.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Gore District	.....	42,100 00	1,312 82	29,858 39	1,913 40	182 78	.....	112,065 65	.....	187,433 04	.....
Hand-in-Hand	.....	30,610 00	2,573 45	7,085 78	1,560 06	.....	.....	5,494 54	.....	47,323 83	80,000 00
Ontario	.....	2,016 26	.....	1,264 67	2,802 57	833 64	.....	9,186 62	.....	16,163 76	.....
Perth County	.....	13,000 00	425 00	2,440 27	543 28	1,573 25	762 97	28,231 75	25 00	47,001 52	.....
Victoria:											
Hamilton Branch	.....	.....	.....	688 68	.....	815 83	290 13	29,249 36	76 31	31,120 31	.....
† General "	.....	4,275 00	.....	367 81	.....	161 19	.....	1,079 11	.....	5,883 11	.....
Waterloo	4,000 00	30,049 61	1,254 00	12,916 83	1,549 66	2,708 78	4,484 75	133,992 64	.....	190,950 27	.....
Total	4,000 00	122,050 87	5,565 27	54,616 43	8,368 97	6,275 47	5,537 85	319,299 67	101 31	525,815 84	.....

* The Government Deposits are as follows:—Gore District, $7,000; Hand-in-Hand, $10,000; Ontario, $2,000; Perth County, $6,000; Victoria, $4,000; Waterloo, $14,335.

† The General Branch has withdrawn from business and reinsured its outstanding risks

MIXED MUTUAL AND CASH SYSTEM COMPANIES.

LIABILITIES FOR YEAR ENDING 31st DECEMBER, 1884.

Name of Company.	Losses unpaid at Dec. 31st, 1884.	Borrowed Money.	Unearned Premiums on Cash System, Risks calculated at 50 per cent. of Gross Premiums.	All other Liabilities.	Total Liabilities.	Number of Policies in force.	Amount at Risk.
	$ c.	$ c.	$ c.	$ c.	$ c.		$ c.
Gore District	2,922 46		24,772 62		27,695 08	6,195	6,364,421 90
Hand-in-Hand			7,110 32	1,659 46	8,769 78	1,405	2,167,041 37
Ontario	618 00	554 52	7,338 00	88 96	8,599 48	4,557	2,878,336 00
Perth County			3,749 62		3,749 62	3,214	3,289,185 00
Victoria:							
General Branch	950 00		1,358 22	391 41	2,699 63	1,332	1,070,934 00
Hamilton "				494 87	494 87	932	1,135,398 00
Waterloo	2,460 00		36,095 24		38,555 24	10,733	10,332,398 85
Total	6,950 46	554 52	80,424 02	2,634 70	90,563 70	28,368	27,237,715 12

MIXED MUTUAL AND CASH SYSTEM COMPANIES.

INCOME FOR YEAR ENDING 31st DECEMBER, 1884.

Name of Company.	First payments on Premium Notes.	Assessments of 1884.	Assessments due before 1884.	Premiums on Cash System.	Interest.	Fees, Licenses and Extra Premiums.	Other Sources.	Total.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Gore District	10,394 39	23,091 31	2,418 16	32,724 14	1,801 42	313 61	.....	70,743 03
Hand-in-Hand	4,905 37	.....	.....	18,595 59	1,943 82	.....	2,380 14	27,824 92
Ontario	1,539 25	3,488 21	205 43	4,617 70	122 61	.....	75 46	10,048 66
Perth County	2,501 80	1,871 94	1,730 20	2,253 25	999 83	19 95	.....	9,376 97
Victoria—Hamilton	1,416 49	2,045 46	2,686 74	.....	11 85	9 13	576 70	6,746 37
Victoria—General	.....	1,280 10	1,146 33	.....	301 29	7 79	529 83	3,265 34
Waterloo	19,973 02	19,779 08	1,353 77	40,480 40	2,134 71	538 26	100 00	84,359 24
Total	40,730 32	51,556 10	9,540 63	98,671 08	7,315 53	888 74	3,662 13	212,364 53

MIXED MUTUAL AND CASH SYSTEM COMPANIES.

EXPENDITURE FOR YEAR ENDING 31st DECEMBER, 1884.

Name of Company.	Repayment of Loans.	Amount paid for Losses.	Commission and Bonus to Agents.	Costs in Law and Equity.	Re-Insurance.	Rebate and Returned Premiums.	Interest.	Statutory Assessment and Fees for Licenses and Certificates.	Salaries and General Expense Account.	Dividends and all other Payments.	Total.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Gore District		27,887 08	7,870 04	11 37	4,412 35	1,157 49		215 80	7,654 49	1,794 56	51,003 18
Hand-in-Hand		15,589 41	4,172 64		1,226 23	2,148 06		139 90	2,648 35	2,439 70	28,364 29
Ontario		5,991 52	1,415 51			72 24		127 71	3,189 45		10,796 43
Perth County		6,790 78	1,011 63	7 57	35 00	15 45		135 33	2,247 20	24 74	10,267 70
Victoria—Hamilton Branch	1,286 42	804 47	885 31	33 00			66 25	56 60	2,854 05	112 50	6,098 60
Victoria—General "		405 83	13 49	332 44		2 45	488 00	102 31	743 29	855 47	2,943 28
Waterloo		52,789 03	8,168 20	163 89	1,356 21	2,218 34		348 77	11,470 26		76,514 70
Total	1,286 42	110,258 12	23,536 82	548 27	7,029 79	5,614 03	554 25	1,126 42	30,807 09	5,226 97	185,988 18

STRICTLY MUTUAL FIRE INSURANCE COMPANIES.

YEAR ENDING 31ST DECEMBER, 1884.

STRICTLY MUTUAL FIRE INSURANCE COMPANIES.

BAY OF QUINTE AGRICULTURAL MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, PICTON.

Commenced business 31st October, 1874.

President—ARCHELAUS SOUTHARD. — *Secretary*—W. L. PALMER.

Unassessed premium note capital, $13,124.74.

ASSETS.

Actual cash on hand at head office		$114 19
Cash in agents' hands acknowledged by them to be due, and considered good		12 96
Amount unpaid of assessments levied in 1883, not extended, ...	$18.83	
Amount of premium notes in force after deducting all payments thereon and assessments levied		13,124 74
Total assets		$13,251 89

LIABILITIES.

Amount due to Auditor	$8 00
" for an account	1 84
Total liabilities	$9 84

RECEIPTS.

Balance of cash on hand as per last statement, (not extended)	$758.06	
Cash received for first payments, being part payment of premium notes ..		$496 17
" assessments levied during in years prior to 1884		116 68
" interest		1 04
" transfer and other fees		5 00
" sundries		3 75
Total receipts		$622 64

EXPENDITURE.

Expenses of Management:

Amount paid for commission to agents	$114 00
" interest	14 00
" salaries, directors' and auditors' fees	425 00
" postage and telegrams	2 48
" statutory assessment	20 00
" rent and taxes	27 50
" printing, stationery and advertising	54 61
" stove and cartage	4 67
Total expenses of management	$662 26
Cash paid for losses which occurred during 1884	13 00
Repayment of loans	250 00
Salaries, rent, etc., of 1883	341 25
Total expenditure	$1,266 51

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

SYSTEM.	Three years.	Four years.	Five years.	Total.
	$ c.	$ c.	$ c.	$ c.
Mutual	581,326 00	650 00	251,470 00	833,446 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Total.
		$ c.
Policies in force 31 Dec. 1883	534	630,491 00
Policies, new and renewed during 1884	227	299,525 00
Gross number during 1884	761	930,016 00
Less expired and cancelled in 1884	94	96,570 00
Net risks in force on mutual system, 31st Dec. 1884	667	833,446 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS.

On Policies in force 31st December, 1884.

	Risks.			Total.
	Three years.	Four years.	Five years.	
	$ c.	$ c.	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	9,550 98	13 00	5,834 24	15,398 22
Amount of all premium notes after deducting all payments thereon and assessments levied	8,169 69	10 65	4,944 40	13,124 74
Amount of premium notes received during year 1884.	4,512 94	8 00	328 75	4,849 69

BERTIE AND WILLOUGHBY FARMERS' MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, RIDGEWAY.

Commenced business 6th February, 1880.

President—WALTER E. ELLSWORTH. | *Secretary*—H. N. HIBBARD.

Unassessed premium note capital, $7,582.44.

ASSETS.

Actual cash on hand at head office	$1 96
Amount of premium notes in force, after deducting all payments thereon and assessments levied	7,582 44
Total assets	$7,584 40

LIABILITIES.—(None).

RECEIPTS.

Cash at head office as per last statement (not extended)	$8 94	
Cash received at taking of applications		$201 00
" as first payments, being part payment of premium notes		89 36
Total receipts		$290 36

EXPENDITURE.

Expenses of Management:

Amount paid to agents for commission	$114 25
" " statutory assessment	15 00
" " printing	6 00
" " salaries, directors' and auditors' fees	142 00
" " incidental expenses	2 00
" " postage, telegrams, express, etc	6 61
" " travelling expenses	11 48
Total expenditure	$297 34

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Three years.	Total.
	$ c.	$ c.
Mutual	501,862 00	501,862 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	422	461,635 00
" new and renewed during 1884	134	142,572 00
Gross number during 1884	556	604,207 00
Less expired and cancelled in 1884	105	102,345 00
Net risks in force 31st December, 1884	451	501,862 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UDERTAKINGS

On Policies in force 31st December, 1884.

——	Three year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	7,898 37	7,898 37
Amount of all premium notes, after deducting all payments thereon and assessments levied	7,582 44	7,582 44
Amount of premium notes received during the year 1884	2,234 16	2,234 16

BLANSHARD MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, WOODHAM.

Commenced business 27th March, 1876.

President—THOS. EVANS. | *Secretary*—WM. JOHNSTON.

Unassessed premium note capital, $15,599.35.

ASSETS.

Actual cash on hand at head office		$470 11
Amount unpaid of assessments levied during 1884		34 00
Amount unpaid of assessments levied (not extended)	$8 70	
Amount of premium notes in force, after deducting all payments thereon and assessments levied		15,599 35
Total assets		$16,103 46

LIABILITIES.

Amount of adjusted losses	$1,030 00
Total liabilities	$1,030 00

RECEIPTS.

Cash at head office, as per last statement (not extended)	$389 73	
" received for assessments levied in 1884		$1,571 03
" " " " 1883		153 58
" " interest		7 90
Total receipts		$1,732 51

EXPENDITURES.

Expenses of Management :

Amount paid for travelling expenses		$8 00
" " statutory assessment		22 36
" " printing		49 55
" " salaries and directors' fees		70 00
" " postage, etc		7 22
" " fuel and light		1 00
Expenses of management		$158 13
Cash paid for losses which occurred during 1884		1,494 00
Total expenditure		$1,652 13

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Five years.	Total.
	$ c.	$ c.
Mutual	739,970 00	739,970 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	513	688,920 00
" new and renewed during 1884	91	113,800 00
Gross number during 1884	604	802,720 00
Less expired and cancelled in 1884	65	62,750 00
Net risks in force on mutual system 31st December, 1884	539	739,970 00

CLASSIFICATION OF RISKS.

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Five years risks.	Total.
	$ c.	$ c.
Amount of all premium notes held by Company, and legally liable to assessment	18,939 55	18,939 55
Amount of all premium notes, after deducting all payments thereon and assessments levied	15,599 35	15,599 35
Amount of premium notes received during the year 1884	2,890 37	2,890 37

NORTH BLENHEIM MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, CHESTERFIELD.

Commenced business 15th August, 1861.

President—JOHN BURNS. | *Secretary*—GEO. MIDDLEMAS.

Unassessed premium note capital, $32,258.14.

ASSETS.

Actual cash on hand at head office		$4 41
Amount of premium notes in force after deducting all payments thereon and assessments levied		32,258 14
Total assets		$32,262 55

LIABILITIES.—(None.)

RECEIPTS.

Cash at head office, as per last statement (not extended)	$83 21	
Cash received for fees, at taking of applications		$30 55
Total receipts		$30 55

EXPENDITURE.

Expenses of Management:		
Amounts paid for printing, stationery and advertising		$17 50
" travelling expenses		23 50
" salaries, directors' and auditors' fees		36 00
" rent and taxes		4 00
" postage, telegrams and express		5 75
" statutory assessment		20 14
" other expenses		2 46
Total expenditure		$109 35

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Five years.	Total.
	$ c.	$ c.
Mutual	666,970 00	666,970 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	307	620,295 00
" new and renewed during 1884	57	124,600 00
Gross number during 1884	364	744,895 00
Less expired and cancelled in 1884	39	77,925 00
Net risks in force on mutual system 31st December 1884	325	666,970 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Five year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	33,348 50	33,348 50
Amount of all premium notes, after deducting all payments thereon and assessments levied	32,258 14	32,258 14
Amount of premium notes received during the year 1884	6,230 00	6,230 00

COUNTY OF BRANT FARMERS' MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, PARIS.

Commenced business 27th May, 1861.

President—JOHN MILLER. | *Secretary*—WM. TURNBULL.

Unassessed premium note capital, $69,345.03.

ASSETS.

Cash on deposit to the Company's credit, not drawn against, in the Bank of British North America	$848 37
Amount unpaid of assessments levied during 1884	723 25
" " " in prior years (not extended) $176.08	
" of premium notes in force, after deducting all payments thereon and assessments levied	69,345 03
Total assets	$70,916 65

LIABILITIES.

Amount of losses adjusted, not yet payable	$677 92
" unpaid loan	1,050 00
Total liabilities	$1,727 92

RECEIPTS.

Cash at head office, as per last statement (not extended) $74.02	
Cash received for assessments levied in 1884	$3,038 00
" " " prior to 1884	1,098 07
Cash borrowed	1,550 00
Cash receipts from cancelled policies	44 18
Total receipts	$5,730 25

EXPENDITURE.

Expenses of Management:

Amount paid for commission	$475 64
" " fuel and light	5 50
" " investigation and adjustment of claims	59 30
" " interest	52 55
" " statutory assessment	79 61
" " printing, stationery and advertising	61 30
" " rent and taxes	50 00
" " salaries, directors' and auditors' fees	528 60
" " postage, telegrams and express	40 28
" " travelling expenses	12 00
" " blank books	3 60
Total expenses of management (*carried forward*)	$1,368 38

Brought forward		$1,368 38
Miscellaneous Payments :		
Cash paid for losses which occurred during 1884	$200 00	
" " " before 1884	2,887 52	
		3,087 52
Repayment of loans		500 00
Total expenditure		$4,955 90

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Five years.	Total.
	$ c.	$ c.
Mutual	2,676,840 00	2,676,840 00

MOVEMENT IN RISKS.

Mutual System.

	No.	Amount.
		$ c.
Policies in force 31st December, 1883	1,998	2,452,471 00
New and renewed during 1884	619	862,270 00
Gross number during 1884	2,617	3,314,741 00
Less expired and cancelled in 1884	523	637,901 00
Net risks in force 31st December, 1884	2,094	2,676,840 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On policies in force 31st December, 1884.

	Five year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company and legally liable to assessments	80,552 64	80,552 64
Amount of all premium notes, after deducting all payments thereon and assessments levied	69,345 03	69,345 03
Amount of premium notes received during the year 1884	25,647 25	25,647 25

CANADIAN MILLERS' MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, HAMILTON.

Commenced business 20th September, 1878.

President—DAVID GOLDIE. | *Secretary*—SENECA JONES.

Unassessed premium note capital, $10,968.33.

ASSETS.

Actual cash on hand at head office	$283 39	
Cash on deposit to the Company's credit, not drawn against, in Bank of Hamilton, at Hamilton	312 79	
		$596 18
Amount unpaid of assessments levied during 1884		171 00
" " short date notes or due bills less than one year overdue		55 50
" of premium notes in force, after deducting all payments thereon and assessments levied		10,968 33
Total assets		$11,791 01

LIABILITIES.—(None.)

RECEIPTS.

Cash at head office and in bank, as per last statement (not extended),	$2,931 34	
" received as first payments, being part payment of premium notes		$1,285 65
" " for assessments levied during 1884		3,050 33
" " " " prior to 1884		66 00
" " for interest		18 96
Carpenters' risks and transfer fees		18 50
Total receipts		4,439 44

EXPENDITURE.

Expenses of Management :

Amount paid for commission		$339 79
" " statutory assessment		4 16
" " printing, stationery and advertising		48 60
" " salaries, directors' and auditors' fees		251 00
" " travelling expenses		28 85
" " postage, telegrams and express		35 62
" " investigation and adjustment of claims		37 22
" " interest		7 40
" " exchange		5 25
Total expenses of management carried out		$757 89

Miscellaneous Payments :

Amount paid for losses which occurred prior to 1884	$1,958 33	
" " " during 1884	4,058 38	
		6,016 71
Total expenditure		$6,774 60

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

SYSTEM.	One year or less.	Three years.	Total.
	$ c.	$ c.	$ c.
Mutual	3,000 00	149,000 00	152,000 00

MOVEMENT IN RISKS.

Mutual System.

	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	75	128,000 00
" new and renewed during 1884	46	74,200 00
Gross number during 1884	121	202,200 00
Less expired and cancelled in 1884	31	50,200 00
Net risks in force 31st December, 1884	90	152,000 00

CLASSIFICATION OF RISKS.

The Company's business is exclusively confined to flouring mills, and their stocks and machinery.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

	Risks.		
	One year.	Three years.	Total.
	$ c.	$ c.	$ c.
Amount of face of all premium notes held by Company and legally liable to assessment	270 00	16,448 40	16,718 40
Amount of all premium notes, after deducting all payments thereon and assessments levied	253 65	10,714 68	10,968 33
Amount of premium notes received during the year 1884	300 00	8,418 20	8,718 20

CARADOC FARMERS' MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, MOUNT BRYDGES.

Commenced business 28th June, 1884.

President—Wm. Young. | *Secretary*—Wm. E. Sawyer.

Unassessed premium note capital, $1,548.36.

Assets.

Amount of premium notes in force, after deducting all payments thereon and assessments levied	$1,548 36
Total assets	$1,548 36

Liabilities.

Amount due Treasurer	$41 74
Total liabilities	$41 74

Receipts.

Cash received for fees at taking of applications	$47 50
" " as first payments, being part payment of premium notes	71 39
" borrowed	91 74
Total receipts	$210 63

Expenditure.

Expenses of Management:

Amount paid for commission to Agents	$47 50
" " travelling expenses	1 25
" " statutory certificate	20 00
" " printing, stationery and advertising	41 31
" " postage, telegrams and express, etc	3 46
" " incidental expenses	47 11
Total expenses of Management	160 63
Re-payment of loan	50 00
Total expenditure	$210 63

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Two years.	Five years.	Total.
	$ c.	$ c.	$ c.
Mutual	600 00	107,330 00	107,930 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies, new during 1884	95	107,930 00
Net risks in force 31st December, 1884	95	107,930 00

PREMIUM NOTES OR UNDERTAKINGS.

——	Two years.	Five years.	Total.
	$ c.	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	9 00	1,610 75	1,619 75
Amount of all premium notes on policies in force December 31st, 1884, after deducting all payments theron, and assessments levied	8 64	1,539 72	1,548 36
Amount of premium notes received during the year 1884	9 00	1,610 75	1,619 75

CULROSS MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, TEESWATER.

Commenced business June 3rd, 1872.

President—THOMAS ALLISON. | *Secretary*—WM. COLVIN.

Unassessed premium note capital, $16,569 62.

ASSETS.

Amount unpaid of assessments levied during 1883 (not extended)..	$7 71	
Amount of premium notes in force, after deducting all payments thereon and assessments levied		$16,569 62
Total assets		$16,569 62

LIABILITIES.

Amount due Treasurer	$7 72
Total liabilities	$7 72

RECEIPTS.

Cash at head office, as per last statement (not extended)	$6 73	
" received from membership fees		$65 00
" " for assessments levied in years prior to 1884		59 55
" borrowed from Treasurer		7 72
Total receipts		$132 27

EXPENDITURE.

Expenses of Management:

Amount paid for statutory assessment or certificate	$13 03
" " rent	2 00
" " salaries, directors' and auditors' fees	81 25
" " printing, stationery and advertising	32 00
" " travelling expenses	75
" " fuel and light	1 50
" " postage and telegrams	2 25
" " other expenses	22
Expenses of management	$133 00
Amount paid for losses which occurred during 1884	6 00
Total expenditure	$139 00

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Three years.	Total.
	$ c.	$ c.
Mutual	435,569 00	435,569 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	327	401,256 00
" new and renewed during 1884	94	129,067 00
Gross number during 1884	421	530,323 00
Less expired and cancelled in 1884	81	94,754 00
Net risks in force on mutual system on 31st December, 1884	340	435,569 00

CLASSIFICATION OF RISKS.

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in Force 31st December, 1884.

——	Three year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	17,147 88	17,147 88
Amount of all premium notes, after deducting all payments thereon and assessments levied	16,569 62	16,569 62
Amount of premium notes received during the year 1884	5,135 88	5,135 88

DOMINION GRANGE MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE OWEN SOUND.

President—J. TRULL. | *Secretary*—RICHARD J. DOYLE.

Unassessed premium note capital, $26,150.72.

GENERAL BRANCH.

Commenced business 1st March, 1881.

ASSETS.

Actual cash on hand at head office	$664 48	
Cash on deposit to the Company's credit, not drawn against, in Merchants' Bank; agency at Owen Sound	1,824 44	
		$2,488 92
Amount unpaid of short date notes or due bills less than one year overdue.		1,237 20
" " " " " one year or more overdue (not extended)	$120 00	
Amount of premium notes in force, after deducting all payments thereon and assessments levied	$26,150 72	
Less premium notes given for reinsurance	74 60	
		26,076 12
Amount of notes for steam threshers' licenses		39 42
Total assets		$29,841 66

LIABILITIES.

Suspense account	0 50
Total liabilities	0 50

RECEIPTS.

Cash at head office, as per last statement (not extended)	$312 05	
Cash received as first payments or deposits, being part payment of premium notes		$1,647 97
Cash received for due bills		2,975 45
Cash received for interest		34 15
Cash receipts from fees, licenses, extra risks and suspense account		141 98
Total receipts		$4,799 55

EXPENDITURE.

Expenses of Management:	
Amount paid to agents for fees, on application	$84 00
" for investigation and adjustment of claims	81 12
" " fuel and light	87 36
" " printing, stationery and advertising	93 00
" " statutory assessment	38 00
" " salaries, directors' and auditors' fees	1,258 80
" " postage, telegrams and express	118 89
" " rent and taxes	21 00
Total expenses of management (*carried forward*)	$1,782 17

Total expenses of management (*brought forward*)		$1,782 17
Miscellaneous Payments:		
Cash paid for losses which occurred during 1883	$20 00	
" " " " 1884	1,747 22	
		1,767 22
" " reinsurances		22 00
" " rebate, abatement and returned premiums		79 32
" " refunds		15 59
Total expenditure		$3,666 30

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	One year or less.	Two years.	Three years.	Total.
	$ c.	$ c	$ c.	$ c.
Mutual	1,700 00	2,500 00	1,346,244 00	1,350,444 00
" reinsured			3,600 00	3,600 00
Net risks actually carried by Company at December 31st, 1884	1,700 00	2,500 00	1,342,644 00	1,346,844 00

CLASSIFICATION OF RISKS:

Non-hazardous.

MOVEMENT IN RISKS.

Mutual System.

	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	1,184	1,153,963 00
Policies, new and renewed during 1884	664	649,873 00
Gross number during 1884	1,848	1,803,836 00
Less expired and cancelled in 1884	486	453,392 00
Net risks in force on mutual system 31st December, 1884	1,362	1,350,444 00

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

	One year risks.	Two year risks.	Three year risks.	Total.
	$ c.	$ c.	$ c.	$ c.
Amount of face of all premium notes held by Company and legally liable to assessment.	52 65	63 00	36,067 74	36,183 49
Amount of all premium notes, after deducting all payments thereon and assessments levied	43 27	50 00	26,057 45	26,150 72
Amount of premium notes received during the year 1884	52 65	9 00	17,371 09	17,432 74
Residue of premium notes given for insurance			74 60	74 60

DOMINION GRANGE MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, OWEN SOUND.

President—JESSE TRULL. | *Secretary*—RICHARD J. DOYLE.

GRANGE BRANCH.

Commenced business March 29th, 1877.

Unassessed premium note capital, $118,267.16.

ASSETS.

Cash value of real estate, less incumbrances		$4,576 66
" mortgages		12,000 00
" shares, bonds, debentures, securities, other than foregoing		1,100 00
Actual cash on hand at head office	$789 74	
Cash on deposit to the Company's credit, not drawn against, in the Molson's Bank agency at Owen Sound	125 09	
		914 83
Amount of short date notes or due bills less than one year overdue		2,731 91
Amount of short date notes or due bills one year or more overdue (not extended)	$144 77	
Amount of premium notes in force after deducting all payments thereon and assessments levied	$118,267 16	
Less residue of premium notes given by Company for reinsurance	139 86	
		118,127 30
Amount of accrued interest		601 00
Notes for carpenters' and other extra risks		95 08
Sundry advances		7 75
Total assets		$140,154 53

LIABILITIES.

Amount of loss resisted	$365 50
" outstanding accounts	440 66
Total liabilities	$806 16

RECEIPTS.

Cash at head office, as per last statement (not extended)	$169 28	
Cash received as first payments or deposits, being part payment of premium notes		$4,691 10
Cash received for interest		638 42
" " due bills		6,181 03
" " licenses, extra risks and fees		269 26
" " miscellaneous		231 25
Total receipts		$12,011 06

EXPENDITURE.

Expenses of Management:		
Amount paid for commission		$260 50
" law costs		43 04
" investigation and adjustment of claims		116 34
" interest and bank discount		19 34
" statutory assessment		184 56
" printing, stationery, advertising and books		676 18
" rent and taxes		39 85
" salaries, directors' and auditors' fees		2,386 91
" travelling expenses and general agency		267 93
" postage, telegrams and express, etc., etc		251 64
" fuel, light and petty expenses		248 48
Total expenses of management		$4,494 77
Miscellaneous Payments:		
Cash paid for losses which occurred during 1884	$44 17	
" " " " prior to 1884	5,262 00	
		5,306 17
" reinsurances		66 73
" rebate, abatement, returned premiums and refund to members		1,459 01
Expenditure other than any of the foregoing		118 16
Total expenditure		$11,444 84

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

SYSTEM.	Two years.	Three years.	Four years.	Total.
	$ c.	$ c.	$ c.	$ c.
Mutual	6,650 00	7,225 00	6,179,397 00	6,193,322 00
" reinsured		1,750 00	16,950 00	18,700 00
Net risks actually carried by Company at 31st December, 1884	6,650 00	5,475 00	6,162,447 00	6,174,622 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	4,399	5,701,465 00
" new and renewed during 1884	1,176	1,499,866 00
Gross number during 1884	5,575	7,201,331 00
Less expired and cancelled in 1884	822	1,008,009 00
Net risks in force on mutual system 31st December, 1884	4,753	6,193,322 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force December 31st, 1884.

——	Two year risks.	Three year risks.	Four year risks.	Total.
	$ c.	$ c.	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	177 03	196 38	163,401 43	163,774 84
Amount of all premium notes, after deducting all payments thereon and assessments levied	141 91	142 92	117,982 33	118,267 16
Amount of premium notes received during the year 1884	62 30	....	39,197 41	39,259 71
Residue of premium notes given for re-insurance	.....	.....	.....	139 86

NORTH AND SOUTH DORCHESTER MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, HARRIETSVILLE.

Commenced business 8th January, 1869.

President—WILLIAM WOODS. | *Secretary*—FRANCIS KUNZ.

Unassessed premium note capital, $8,188.49.

ASSETS.

Cash on deposit to the Company's Credit, not drawn against, in the Agricultural Savings and Loan Company, London	$440 56
Amount unpaid of assessments levied during 1884	73 83
" of premium notes in force, after deducting all payments thereon and assessments levied	8,188 49
Total assets	$8,702 88

LIABILITIES.—(None.)

RECEIPTS.

Cash at head office, as per last statement (not extended)	$2,609 30	
Cash received at taking of application		$343 59
" for assessments levied in 1884		1,253 57
" for interest		126 21
Total receipts		$1,723 37

EXPENDITURE.

Expenses of Management:	
Amount paid for law costs	$4 00
" " statutory assessment or certificate	24 81
" " rent and taxes	2 00
" " salaries, directors' and auditors' fees	156 00
" " postage, telegrams and express	40 30
Total expenses of management	$227 11
Miscellaneous Payments:	
Cash paid for losses which occurred during 1884	3,663 00
" " " rebate	2 00
Total expenditure	$3,892 11

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Five years.	Total.
	$ c.	$ c.
Mutual	818,849 00	818,849 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	580	764,411 00
" new and renewed during 1884	118	176,415 00
Gross number during 1884	698	940,826 00
Less expired or cancelled in 1884	91	121,977 00
Net risks in force on mutual system 31st December, 1884	607	818,849 00

CLASSIFICATION OF RISKS

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Five year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	8,188 49	8,188 49
Amount of all premium notes, after deducting all payments thereon and assessment levied	8,188 49	8,188 49
Amount of premium notes received during the year 1884	3,528 30	3,528 30

DOWNIE MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, ST. PAULS.

Commenced business 21st April, 1884.

President—Jas. Ballantyne. | *Secretary*—Peter Smith.

Unassessed premium note capital, $4,968.07.

Assets.

Amount of premium notes in force, after deducting all payments thereon and assessments levied	$4,968 07
Total assets	$4,968 07

Liabilities.

Amount of borrowed money	$30 00
Total liabilities	$30 00

Receipts.

Cash received for fees at taking of applications	$214 50
" borrowed during 1884	30 00
Total receipts	$244 50

Expenditure.

Expenses of Management:

Amount paid for fuel and light	$9 00
" legal advice	11 00
" certificate fee	20 00
" printing, stationery and advertising	62 57
" salaries, directors' and auditors' fees	128 18
" postage, telegrams and express, etc	5 75
" other expenses	8 00
Total expenditure	$244 50

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Five years.	Total.
	$	$
Mutual	216,880	216,880

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$
Policies taken during 1884	143	216,880
Net risks in force 31st December, 1884	143	216,880

PREMIUM NOTES OR UNDERTAKINGS.

——	Five years.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by the Company, and legally liable to assessment	4,968 07	4,968 07
Amount of all premium notes on policies in force December 31st, 1883, after deducting all payments thereon, and assessments levied	4,968 07	4,968 07
Amount of premium notes received during the year 1884	4,968 07	4,968 07

NORTH DUMFRIES AND SOUTH WATERLOO FARMERS' MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, AYR.

Commenced business 15th May, 1856.

President—JOHN D. MOORE. | *Secretary*—THOS. MARSHALL.

Unassessed premium note capital, $156,866.12.

ASSETS.

Amount unpaid of assessments levied during 1884		$480 00
" of assessments levied before 1884 (not extended)	$349 60	
" of premium notes in force, after deducting all payments thereon and assessments levied		156,866 12
Total assets		$157,346 12

LIABILITIES.

Amount due Treasurer	$589 53
Total liabilities	$589 53

RECEIPTS.

Cash received for assessments levied in 1884	$4,568 56
" received in years prior to 1884	629 50
" advanced by Treasurer	589 53
" money borrowed	1,800 00
Total receipts	$7,587 59

EXPENDITURE.

Expenses of Management:		
Amount paid for interest		$110 50
" " statutory assessment or certificate		111 22
" " printing, stationery and advertising		100 03
" " rent and taxes		67 00
" " salaries, directors' and Auditors' fees		1,028 80
" " postage, telegrams and express		44 42
" " investigation and adjustment of claims		10 40
Total expenses of management		1,472 37
Miscellaneous Payments:		
Cash paid for losses that occurred during 1884	$3,343 96	
" " " " before 1884	16 50	
		3,360 46
" Treasurer, for amount due him 31st Dec., 1883.	954 76	
" for repayment of loan	1,800 00	
		2,754 76
Total expenditure		$7,587 59

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Five years.	Total.
	$ c.	$ c.
Mutual	3,461,738 00	3,461,738 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	1,526	3,426,175 00
Policies new and renewed during 1884	342	755,974 00
Gross number during 1884	1,868	4,182,149 00
Less expired and cancelled in 1884	310	720,411 00
Net risks in force on Mutual system 31st December, 1884	1,558	3,461,738 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Five year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	173,086 90	173,086 90
Amount of all premium notes, after deducting all payments thereon and assessments levied	156,866 12	156,866 12
Amount of premium notes received during the year 1884	37,798 70	37,798 70

DUNWICH FARMERS' MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, WALLACETOWN.

Commenced business September, 1880.

President—JOHN PEARCE. | *Secretary*—JOHN L. PEARCE.

Unassessed premium note capital, $10,158.67.

ASSETS.

Amount unpaid of assessments levied during 1884	$118 99
Amount of unassessed premium note capital	10,158 67
Total	$10,277 66

LIABILITIES.

Amount of loss resisted	$400 00
" due Treasurer	27 77
Total liabilities	$427 77

INCOME.

Cash at head office, as per last statement (not extended)	$53 13	
Amount of cash received for fees and surveys		$95 50
" " assessments levied in 1884		1,071 94
" " " " prior to 1884		2 40
" " from Treasurer		27 77
Total income		$1,197 61

EXPENDITURE.

Expenses of Management:		
Amount paid for fees to agents		$64 00
" interest		9 56
" statutory assessment		16 05
" printing, stationery, advertising and postage		43 42
" salaries, directors' and auditors' fees		155 26
" travelling expenses		8 75
Total expenses of management		$297 04
Cash paid for losses which occurred prior to 1884	$610 00	
" " " during "	343 70	
		953 70
Total expenditure		$1,250 74

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Five years.	Total.
	$ c.	$ c.
Mutual	548,516 00	548,516 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Net risks in force on mutual system 31st December, 1884	536	548,516 00

CLASSIFICATION OF RISKS.

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Five year risks.	Total.
	$ c.	$ c
Amount of face of all premium notes held by Company, and legally liable to assessment	13,772 84	13,772 84
Amount of all premium notes, after deducting all payments thereon and assessments levied	10,158 67	10,158 67
Amount of premium notes received during the year 1884	1,872 76	1,872 76

SOUTH EASTHOPE FARMERS' MUTUAL FIRE INSURANCE COMPANY

HEAD OFFICE, TAVISTOCK.

Commenced business 28th December, 1871.

President—WERNER YOUNGBLUT. | *Secretary*—ROBERT REID.

Unassessed premium note capital, $61,229.22.

ASSETS.

Actual cash on hand at head office	$1,207 61
Amount of assessments levied during 1884, unpaid	124 81
Amount of premium notes in force, after deducting all payments thereon and assesments levied	61,229 22
Total assets	$62,561 64

LIABILITIES.

Amount of loss reported	$800 00
Total liabilities	$800 00

RECEIPTS.

Cash at head office, as at last statement (not extended)	$215 59	
Cash received at taking of applications		$269 50
" for assessments levied in 1884		2,156 56
" " " prior to 1884		58 78
Total receipts		$2,484 84

EXPENDITURE.

Expenses of Management:

Amount paid for salaries, directors' and auditors' fees	$221 80
" rent	3 00
" statutory assessment	38 70
" printing, stationery and advertising	41 70
" postage, telegrams and express	28 62
" assessing and collecting assessment of 1884	25 00
" attending convention	14 00
Expenses of management	$372 82

Miscellaneous Payments:

Cash paid for losses which occurred during 1884	$1,100 00	
" " " 1883	12 00	
		$1,112 00
" seal press		6 00
" other expenses		2 00
Total expenditure		$1,492 82

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Five years.	Total.
	$ c.	$ c.
Mutual	1,313,945 00	1,313,945 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	741	1,192,340 00
" new and renewed during 1884	195	349,660 00
Gross number during 1884	936	1,542,000 00
Less expired and cancelled in 1884	143	228,055 00
Net risks in force on mutual system 31st December, 1884	793	1,313,945 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On policies in force December 31st, 1884.

——	Five year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by the Company, and legally liable to assessment	65,697 25	65,697 25
Amount of all premium notes, after deducting all payments thereon and assessments levied	61,229,22	61,229 22
Amount of premium notes received during the year 1884	17,483,00	17,483 00

ECONOMICAL MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, BERLIN.

Commenced business 28th October, 1871.

President—HUGO KRANZ M.P. | *Secretary*—WM. OELSCHLAGER.

Unassessed premium note capital, $104,836.00.

ASSETS.

Cash on deposit to Company's credit in Canadian Bank of Commerce		$26,526 94
Cash in agents' hands acknowledged by them to be due, and considered good		100 50
Amount unpaid of assessments levied during 1884		2,781 41
" " " in prior years (not extended)	$395 73	
Amount of short date notes, or due bills, less than one year overdue		740 64
" premium notes in force after deducting all payments thereon and assessments levied	$104,836 00	
Less premium notes given for reinsurance	622 22	
		$104,213 78
Amount of interest due and accrued		248 56
Total assets		$134,611 83

LIABILITIES.—(None.)

RECEIPTS.

Cash at head office, as per last statement (not extended)	$16,075 82	
Cash received for membership fees		$838 47
" as first payments, being part payment of premium notes		6,783 15
" for assessments levied in 1884		7,210 86
" for assessments levied in years prior to 1884		4,739 45
" for interest		1,288 89
" for transfer fees		93 51
Total receipts		$20,954 33

EXPENDITURE.

Expenses of Management:	
Amount paid for commission to agents	$1,224 55
" statutory assessment	56 16
" printing, stationery and advertising	325 57
" salaries, directors' and auditors' fees	2,195 80
" postage, telegrams and express	164 51
" fuel and light	25 00
" rent and taxes	72 00
" travelling expenses	263 30
Expenses of management	$4,326 89
Miscellaneous Payments:	
Cash paid for losses which occurred during 1884	5,990 09
" reinsurances	43 50
" rebate, abatement and returned premiums	142 73
Total expenditure	$10,503 21

CURRENCY OF RISKS.

Amount covered by policies in force 31st December, 1884.

SYSTEM.	Three years.	Total.
	$ c.	$ c.
Mutual	2,475,400 00	2,475,400 00
Reinsured	12,650 00	12,650 00
Net risks actually carried by Company	2,462,750 00	2,462,750 00

MOVEMENT IN RISKS.

Mutual System.

	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	1,975	1,729,856 00
" new and renewed during 1884	1,179	1,108,711 00
Gross number during 1884	3,154	2,838,567 00
Less expired and cancelled in 1884	691	363,167 00
Net risks in force on mutual system 31st December, 1884	2,463	2,475,400 00

BUSINESS TRANSACTED:

General Fire Insurance.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Three year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	125,803 00	125,803 00
Amount of all premium notes, after deducting all payments thereon and assessments levied	104,836 00	104,836 00
Amount of premium notes received during the year 1884	70,909 00	70,909 00
Residue of premium notes given for reinsurance	622 22	622 22

ELMA FARMERS' MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, ATTWOOD.

Commenced business 22nd March, 1884.

President—W. SHEARER. | *Secretary*—ROBT. CLELAND.

Unassessed premium note capital, $9,808.65.

ASSETS.

Actual cash on hand at head office	$14 19
Amount of premium notes in force, after deducting all payments thereon and assessments levied	9,808 65
Total assets	$9,822 84

LIABILITIES.

Amount of borrowed money	$110 00
Total liabilities	$110 00

RECEIPTS.

Cash received for fees at taking of application	$97 50
" borrowed money	110 00
" steam thrashing permits	18 00
" sundries	46 35
Total receipts	$271 85

EXPENDITURE.

Expenses of Management:

Amount paid for statutory certificate	$20 00
" printing and stationery	90 86
" salaries	105 00
" postage and telegram	2 99
" agent's fees	32 50
" filing papers in Registry Office	2 31
" rent	4 00
Total expenditure	$257 66

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Five years.	Total.
	$	$
Mutual	196,173	196,173

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$
Policies taken during 1884	130	196,173
Net risks in force on mutual system, 31st December, 1884	130	196,173

CLASSIFICATION OF RISKS.

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Five year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	9,808 65	9,808 65
Amount of all preminm notes, after deducting all payments thereon and assessments levied	9,808 65	9,808 65
Amount of premium notes received during the year 1884	9,808 65	9,808 65

ERAMOSA MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, ROCKWOOD.

Commenced business 9th April, 1861.

President—LAZARUS PARKINSON. | *Secretary*—HUGH BLACK.

Unassessed premium note capital, $11,279.20.

ASSETS

Actual cash in hand at head office	$179 53	
Cash on deposit to the Company's credit, not drawn against, in the Canadian Bank of Commerce, Guelph	2,218 54	
Cash on deposit to the Company's credit, not drawn against, in the Central Bank, Guelph	130 00	
		$2,528 07
" of premium notes in force, after deducting all payments therein and assessments levied		11,279 20
Total assets		$13,807 27

LIABILITIES.—(None.)

RECEIPTS.

Cash on hand as per last statement (not extended)	$2,156 91	
Cash received at first payments, being part payment of premium notes		$119 49
Cash received for assessments levied in 1884		162 06
" " " years prior to 1884		77 36
" for interest		86 27
Total receipts		$445 18

EXPENDITURE.

Expenses of Management:

Amount paid for statutory assessment	$8 41
" " printing	14 50
" " salaries	45 00
" " postage, etc	3 11
" " room for meetings	3 00
Total expenditure	$74 02

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Three years.	Total.
	$ c.	$ c.
Mutual	276,085 00	276,085 00

MOVEMENT OF RISKS.

Mutual System.

——	Number.	Amount.
		$
Policies in force 31st December, 1883	169	257,910
" new and renewed during 1884	49	68,855
Gross number during 1884	218	326,765
Less expired and cancelled in 1884	35	50,680
Net risks in force on mutual system 31st December, 1884	183	276,085

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force, 31st December, 1884.

——	Three year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	12,405 00	12,405 00
Amount of all premium notes, after deducting all payments thereon and assessments levied	11,279 20	11,279 20
Amount of premium notes received during the year 1884	3,272 25	3,272 25

ERIE FARMERS' MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, SELKIRK.

Commenced business 2nd September, 1871.

President—GEO. CULVER. | *Secretary*—J. W. HOLMES.

Unassessed premium note capital, $12,855.69.

ASSETS.

Actual cash on hand at head office		$187 49
Amount unpaid of assessments levied during 1883 (not extended)	$92 50	
" " short date notes, or due bills, less than one year overdue		185 77
" " premium notes in force, after deducting all payments thereon and assessments levied		12,855 69
Total assets		$13,228 95

LIABILITIES.—(None.)

RECEIPTS.

Cash as per last statement (not extended)	$145 66	
Cash at taking of applications		$188 25
Cash received as first payments, being part payment of premium notes at head office		149 12
" for assessments levied in 1883		30 30
" agent on account		9 75
" permits		12 50
Total receipts		$389 92

EXPENDITURE.

Expenses of Management:

Amount paid for commission and fees	$94 12
" " statutory assessment	18 02
" " printing, stationery and advertising	12 50
" " salaries, directors' and auditors' fees	168 00
" " postage, telegrams and express	3 01
" " travelling expenses	3 00
" " refunds	1 15
Total expenses of management	$299 80

Miscellaneous Payments:

Cash paid for losses which occurred during 1874	48 29
Total expenditure	$348 09

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Five years.	Total.
	$ c.	$ c.
Mutual	596,165 00	596,165 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	520	555,035 00
" new and renewed during 1884	148	146,825 00
Gross number during 1884	668	701,860 00
Less expired and cancelled in 1884	105	105,695 00
Net risks in force 31st December, 1884	563	596,165 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Five year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company and legally liable to assessment	13,004 31	13,004 31
Amount of all premium notes, after deducting all payments thereon and assessments levied	12,855 69	12,855 69
Amount of premium notes received during the year 1884	3,755 40	3,755 40

FORMOSA MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, FORMOSA.

Commenced business 22nd May, 1880.

President—ANDREW WAECHTER. | *Secretary*—JULIUS NOLL.

Unassessed premium note capital, $8,960.32.

ASSETS.

Amount of cash on hand at head office		$1,148 71
" " in Agents' hands, acknowledged by them to be due, and considered good		21 84
" of unpaid assessments which were levied during 1884		16 00
" premium notes in force, after deducting all payments thereon and assessments levied		8,960 32
Total assets		$10,146 87

LIABILITIES.—(None.)

RECEIPTS.

Cash at head office, as per last statement (not extended)	$114 07	
Cash received as first payments being part payment of premium notes		$173 14
" for assessments levied in 1884		145 84
" " " " " before 1884		4 32
" " interest		66 62
Cash from sundries		50
Total receipts		$390 42

EXPENDITURE.

Expenses of Management:

Amount paid for printing and stationery	$7 00
" for statutory assessment or certificate	8 65
" salaries	56 85
" postage, telegrams and express	3 86
" investigation of claims	1 00
Total expenses of management	$77 36
Cash paid for losses which occurred during 1884	3 00
" " rebate, abatement and returned premiums	5 16
Total expenditure	$85 52

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Three years.	Total.
	$ c.	$ c.
Mutual...	298,874 00	298,874 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	242	266,362 00
" new and renewed during 1884	133	153,940 00
Gross number during 1884	375	420,302 00
Less expired and cancelled in 1884	117	121,428 00
Net risks in force 31st December, 1884	258	298,874 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES AND UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Three years risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	9,503 00	9,503 00
Amount of all premium notes, after deducting all payments thereon and assessments levied	8,960 32	8,960 32
Amount of premium notes received during the year 1884	4,857 00	4,857 00

GERMANIA FARMERS' MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, NEAR NEUSTADT.

Commenced business 16th March, 1878.

President—JNO. ROEDDING. | *Secretary*—GEO. HOPF.

Unassessed premium note capital, $14,464.29.

ASSETS.

Actual cash on hand at head office		$14 36
Amount unpaid of assessments levied during 1884		109 10
" " before 1884 (not extended)	$7.55	
Amount of premium notes in force after deducting all payments thereon and assessments levied		14,464 29
Amount due on membership fees		2 00
Total assets		$14,589 75

LIABILITIES.

Amount due Manager for salary	$51 50
Total liabilities	$51 50

RECEIPTS.

Cash at head office as per last statement (not extended)	$3.20	
Cash received for membership fees (not being part payment of premium notes)		$28 00
Cash received for assessments levied in 1884		478 80
" " " years prior to 1884		7 00
Cash borrowed		445 00
Cash received for certain fees		8 00
Total receipts		$966 80

EXPENDITURE.

Expenses of Management :

Amount paid for interest	$9 00
" " statutory assessment or certificate	19 78
" " printing, stationery and advertising	8 20
" " rent and taxes	4 60
" " auditors' fees	4 00
" " travelling expenses	5 00
" " postage, telegrams and express	10 06
Expenses of management	$60 64

Miscellaneous Payments :

Cash paid for losses which occurred during 1884	450 00
" " repayment of loans	445 00
Total expenditure	$955 64

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Five years.	Total.
	$ c.	$ c.
Mutual	646,365 00	646,365 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	501	609,315 00
" new and renewed during 1884	151	198,550 00
Gross number during 1884	652	807,865 00
Less expired and cancelled in 1884	137	161,500 00
Net risks in force on mutual system 31st December, 1884	515	646,365 00

CLASSIFICATION OF RISKS.

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS.

On Policies in force 31st December, 1884.

——	Five year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	16,610 50	16,610 50
Amount of all premium notes after deducting all payments thereon and assessments levied	14,464 29	14,464 29
Amount of premium notes received during the year 1884	4,917 75	4,917 75

THE GLOBE MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, BRANTFORD.

Commenced business 5th November, 1873.

President—JOHN STRICKLAND. | *Secretary*—EDWIN SIMS.

Unassessed premium note capital, $11,196.99.

ASSETS.

Actual cash on hand at head office	$202 25	
Cash on deposit to the Company's credit, not drawn against, in Canadian Bank of Commerce agency at Brantford	151 40	
" Royal Loan and Savings' Company, Brantford	1,200 00	
		$1,553 65
Cash in agents' hands, acknowledged by them to be due, and considered good		19 42
Amount of unpaid assessments levied during 1884		483 55
" " " before 1883, not extended	$864 88	
" notes or due bills less than one year overdue		98 93
" premium notes in force, after deducting all payments thereon and assessments levied		11,196 99
" of interest accrued		22 22
Total assets		13,374 76

LIABILITIES.

Amount due directors	$118 00
Total liabilities	$118 00

RECEIPTS.

Cash on hand, as per last statement, not extended	$2,891 23	
Cash received as first payments, being part payment of premium notes		$880 78
" for assessments levied in 1884		1,311 74
" " " years prior to 1884		150 88
" portion of travelling expenses from Waterloo Mutual		15 00
" transfer fees		3 00
" interest		118 12
Total receipts		$2,479 52

EXPENDITURE.

Expenses of Management:		
Amount paid for commission to agents		$448 33
" statutory assessment		23 24
" printing, stationery and advertising		41 25
" salaries, directors' and auditors' fees		529 30
" travelling expenses		63 25
" postage, telegrams and express		38 19
" law costs		5 25
Expenses of management		$1,148 81
Miscellaneous Payments:		
Cash paid for losses which occurred before 1884	$1,400 00	
" " " during 1884	1,224 54	
		2,624 54
" " " rebate		43 75
Total expenditure		$3,817 10

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

SYSTEM.	One year or less.	Three years.	Total.
	$ c.	$ c.	$ c.
Mutual	6,300 00	723,907 00	730,207 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Total.
		$ c.
Policies in force 31st December, 1883	1,088	715,974 00
New and renewed during 1884	360	242,493 00
Gross number during 1884	1,448	958,467 00
Less expired and cancelled in 1884	304	228,260 00
Net risks in force 31st December, 1884	1,144	730,207 00

BUSINESS TRANSACTED.

General Fire Insurance.

PREMIUM NOTES OR UNDERTAKINGS

On policies in force 31st December, 1884.

——	One year risks.	Three year risks.	Total.
	$ c.	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	186 34	16,302 03	16,488 37
Amount of all premium notes, after deducting all payments thereon and amounts levied	99 92	11,097 07	11,196 99
Amount of premium notes received during the year 1884	113 34	5,555 11	5,668 45

THE GRAND RIVER FARMERS' MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, YORK.

Business commenced 15th April, 1875.

President—HENRY E. HARRISON. | *Secretary*—F. A. NELLES.

Unassessed premium note capital, $5,080.28.

ASSETS.

Actual cash on hand at head office	$107 89	
Cash on deposit to the Company's credit, not drawn against, in Montreal Bank Agency, Hamilton	100 00	
Cash on deposit to the Company's credit, not drawn against, in Hamilton Agency, Hamilton	600 00	
		$807 89
Cash in agents' hands, acknowledged by them to be due, and considered good.		7 25
Amount unpaid of assessments levied in 1884		138 74
Amount of premium notes in force after deducting all payments thereon and assessments levied		5,080 28
Amount of unpaid licenses		3 00
Total assets		$6,037 16

LIABILITIES.—(None.)

RECEIPTS.

Cash at head office and in bank, as per last statement (not extended).	$787 49	
Cash received at taking of applications		$56 25
" for assessments levied in 1884		870 48
" for assessments levied in years prior to 1884		15 62
" for sale of licenses		9 00
" for interest		7 35
Total receipts		$958 70

EXPENDITURE.

Expenses of Management:	
Amount paid for statutory assessment	$12 63
" printing and advertising	22 50
" salaries, directors' and auditors' fees	183 80
" travelling expenses	5 50
" postage, telegrams and express	7 37
" incidental expenses	1 50
Total expenses of management	$233 30
Miscellaneous payments:	
Cash paid for losses which occurred during 1883	705 00
Total expenditure	$938 30

CURRENCY OF RISKS.

Amount covered by Policies in force, 31st December, 1884.

System.	Three years.	Five years.	Total.
	$ c.	$ c.	$ c.
Mutual	398,240 00	8,575 00	406,815 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount
		$ c.
Policies in force 31st December, 1883	304	389,075 00
" new and renewed during 1884	84	112,600 00
Gross number during 1884	388	501,675 00
Less expired and cancelled in 1884	82	94,860 00
Net risks in force on mutual system 31st December, 1884	306	406,815 00

CLASSIFICATION OF RISKS.

All Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Three year risks.	Five year risks.	Total.
	$ c.	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	6,065 73	224 37	6,290 10
Amount of all premium notes, after deducting all payments thereon and assessments levied	4,943 10	137 18	5,080 28
Amount of premium notes received during the year 1884	1,711 80	.....	1,711 80

GREY AND BRUCE MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, HANOVER.

Commenced business 6th July, 1878.

President—DAVID MCNICOL. | *Secretary*—JONATHAN O'NEILL.

Unassessed premium note capital, $12,120.39.

ASSETS.

Cash on hand at the head office	$4 37	
" deposit to the Company's credit, not drawn against, in the Central Bank agency at Durham	1,700 00	$1,704 37
Amount unpaid of assessments of 1884		123 91
" prior assessments (not extended)	$30 55	
Amount of premium notes in force after deducting all payments thereon and assessments levied		12,120 39
Total assets		$13,948 67

LIABILITIES.—(None.)

RECEIPTS.

Cash at head office, as per last statement (not extended)	$1,733 65	
" received for assessments levied of 1884		$545 43
" " " " years prior to 1884		29 25
" " interest		108 51
" " advertisements in annual report		16 00
Total receipts		$699 19

EXPENDITURE.

Expenses of Management:	
Amount paid for printing, stationery and advertising	$59 25
" " salaries, directors' and auditors' fees	162 00
" " statutory assessment	20 55
" " postage	19 42
Expenses of management	$261 22
Miscellaneous Payments:	
Cash paid for losses which occurred during 1884	467 25
Total expenditure	$728 4

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	One year.	Two years.	Three years.	Four years.	Five years.	Total.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Mutual	1,200 00	5,010 00	299,423 00	12,980 00	348,166 00	666,779 00

MOVEMENT OF RISKS.

Mutual System.

	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	591	633,090 00
" new and renewed during 1884	144	157,924 00
Gross number during 1884	735	791,014 00
Less expired and cancelled in 1884	116	124,235 00
Net risks in force 31st December, 1884	619	666,779 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

	One year risks.	Two years risks.	Three years risks.	Four years risks.	Five years risks.	Total.
Amount of face of all premium notes held by Company, and legally liable to assessment.	$ c. 7 20	$ c. 60 90	$ c. 4,567 71	$ c. 240 35	$ c. 8,628 48	$ c. 13,504 64
Amount of all premium notes, after deducting all payments thereon and assessments levied	5 00	51 77	4,156 87	167 30	7,739 45	12,120 39
Amount of premium notes received during the year 1884.	5 00	16 00	1,424 77	47 75	1,505 08	2,998 60

GUELPH TOWNSHIP MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, GUELPH TOWNSHIP, LOT 6, CON. 1, DIV. B.

Commenced business 16th February, 1860.

President—JOHN HOBSON. | *Secretary*—WM. WHITELAW.

Unassessed premium note capital, $18,632.87.

ASSETS.

Actual cash on hand at head office	$118 43
Amount of premium notes in force after deducting all payments thereon and assessments levied	18,632 87
Total assets	$18,751 30

LIABILITIES.—(None.)

RECEIPTS.

Cash at head office, as per last statement (not extended)	$340 65	
Cash received as first payments, being part payment of premium notes		$226 67
" for assessments levied in 1883		141 80
" " interest		14 25
Total receipts		$382 72

EXPENDITURE.

Expenses of Management:	
Amount paid for statutory assessment or certificate	$13 29
" printing, stationery and advertising	8 80
" salaries, directors' and auditors' fees	44 00
" postage, telegrams and express	5 00
" travelling expenses	3 50
" commission	23 50
Total expenses of management	$98 09
Miscellaneous Payments:	
Cash paid for losses during 1884	500 00
" rebate, abatement and returned premiums	6 85
Total expenditure	$604 94

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Three years.	Total.
	$ c.	$ c.
Mutual	437,315 00	437,315 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	227	409,515 00
" new and renewed during 1884	96	162,050 00
Gross number and amount during 1884	323	571,565 00
Less expired and cancelled in 1884	80	134,250 00
Net risks in force 31st December, 1884	243	437,315 00

CLASSIFICATION OF RISKS:

Farm and non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On policies in force 31st December, 1884.

——	Three year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	20,147 00	20,147 00
Amount of all premium notes, after deducting all payments thereon and assessments levied	18,632 87	18,632 87
Amount of premium notes received during the year 1884	7,681 00	7,681 00

HAY TOWNSHIP FARMERS' MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, ZURICH.

Commenced business 3rd February, 1875.

President—THOS. YEARLY. | *Secretary*—HENRY EILBER.

Unassessed premium note capital, $37,278.28.

ASSETS.

Cash on hand at head office	$788 66	
" deposit to Company's credit in Molson's Bank at Exeter	800 00	
		$1,588 66
Amount of unpaid assessments levied during 1884		110 50
Amount of premium notes in force, after deducting all payments thereon and assessments levied		37,278 28
Safe (not extended)	$50 00	
Total assets		$38,977 44

LIABILITIES.—(None.)

RECEIPTS.

Cash at head office, as per last statement (not extended)	$171 65	
Cash received as first payments, being part payment of premium notes		$131 20
" for assessments levied in 1884		1,768 01
Total receipts		$1,899 21

EXPENDITURE.

Expenses of Management:

Amount paid for commission	$123 70
" statutory assessment	46 67
" printing, stationery and advertising	25 25
" salaries, directors' and auditors' fees	86 50
" travelling expenses	14 00
" postage, telegrams and express	32 00
" investigation and adjustment of claims	2 00
" other expenses	7 64
Expenses of management	$337 76

Miscellaneous Payments:

Cash paid for losses which occurred during 1884	97 32
" safe and freight	47 12
Total expenditure	$482 20

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Five years.	Total.
	$ c.	$ c.
Mutual System	1,544,972 00	1,544,972 00

MOVEMENT OF RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	1,190	1,437,602 00
" new and renewed during 1884	222	261,835 00
Gross number during 1884	1,412	1,699,437 00
Less expired and cancelled in 1884	165	154,465 00
Net risks in force on mutual system 31st December, 1884	1,247	1,544,972 00

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Five year risks.	Total.
	$ c.	$ c.
Amount of all premium notes, after deducting all payments thereon and assessments levied	37,278 28	37,278 28
Amount of premium notes renewed during the year 1884	7,423 75	7,423 75

HOPEWELL CREEK MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, NEW GERMANY.

Commenced business 3rd March, 1880.

President—EDWARD HALTER. | *Secretary*—JACOB H. LEYES.

Unassessed premium note capital, $40,300.70.

ASSETS.

Actual cash in hand at head office		$202 45
Amount unpaid of assessments levied in 1884		187 81
" " " prior years (not extended)	$103 52	
" of premium notes in force, after deducting all payments thereon and assessments levied	$40,300 70	
Less premium notes given for reinsurance	22 55	
		40,278 15
Total assets		$40,668 41

LIABILITIES.

Amount of unpaid loans	$300 00
" interest accrued thereon	17 50
Total liabilities	$317 50

RECEIPTS.

Cash at head office, as per last statement (not extended)	$117 76	
Cash received as first payments, being part payment of premium notes		$23 80
" for assessments levied in 1884		1,098 00
" " " prior years		108 17
" " money borrowed		750 00
" " sundries		2 60
Total receipts		$1,982 57

EXPENDITURE.

Expenses of Management :	
Amount paid for investigation and adjustment of claims	$9 00
" printing	60 78
" salaries, directors' and auditors' fees	153 00
" statutory assessment	21 62
" travelling expenses	7 00
" postage	27 58
" commission	11 00
" interest	43 12
Expenses of management	$333 10
Miscellaneous Payments :	
Cash paid for losses which occurred during 1884	907 00
" reinsurances	1 80
" repayment of loans	650 00
" refunds	5 98
Total expenditure	$1,897 88

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

SYSTEM.	Five years.	Total.
	$ c.	$ c.
Mutual	773,583 00	773,583 00
Reinsured on mutual system		2,600 00
Net risks actually carried by Company		770,983 00

MOVEMENT IN RISKS.

Mutual System.

	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	672	665,944 00
" new and renewed during 1884	134	174,314 00
Gross number during 1884	806	840,258 00
Less expired and cancelled in 1884	75	66,675 00
Net risks in force on mutual system 31st December, 1884	731	773,583 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Five year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	41,603 91	41,603 91
Amount of all premium notes, after deducting all payments thereon and assessments levied	40,300 70	40,300 70
Amount of premium notes during the year 1884	9,202 75	9,202 75
Residue " " given for reinsurance	22 55	22 55

HOWICK FARMERS' MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, GORRIE.

Commenced business 10th July, 1878.

President—JAMES EDGAR. | *Secretary*—T. F. MILLER.

Unassessed premium note capital, $110,115.71.

ASSETS.

Actual cash on hand at head office		$373 14
Amount unpaid of assessments levied during 1884		283 83
" " " " in prior years (not extended)	$183 93	
" of premium notes in force, after deducting all payments thereon and assessments levied		110,115 71
Total assets		$110,772 68

LIABILITIES.

Amount of adjusted losses	$2,638 00
Total liabilities	$2,638 00

RECEIPTS.

Cash at head office, as per last statement (not extended)	$985 62	
Cash received for assessments levied in 1884		$2,985 17
" " " years prior to 1884		480 55
" interest		29 30
Total receipts		$3,495 02

EXPENDITURE.

Expenses of Management:		
Amount paid to agents for commission		$113 75
" " for investigation and adjustment of claims		42 50
" " statutory assessment		84 89
" " printing, stationery and advertising		102 75
" " rent and taxes		7 50
" " salaries, directors' and auditors' fees		677 80
" " travelling expenses		20 00
" " postage, telegrams and express		49 09
" " other expenses		18 27
Expenses of management		$1,116 55
Miscellaneous Payments:		
Cash paid for losses which occurred prior to 1884	$4 50	
" " " " during 1884	2,938 75	
		2,943 25
" " rebate		47 70
Total expenditure		$4,107 50

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Five years.	Total.
	$ c.	$ c.
Mutual	2,641,861 00	2,641,861 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	2,077	2,615,086 00
" new and renewed during 1884	449	597,515 00
Gross number during 1884	2,526	3,212,601 00
Less expired and cancelled in 1884	463	570,740 00
Net risks in force on mutual system 31st December, 1884	2,063	2,641,861 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Five year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	132,763 05	132,763 05
Amount of all premium notes, after deducting all payments thereon and assessments levied	110,115 71	110,115 71
Amount of premium notes received during the year 1884	30,395 75	30,395 75

THE HURON AND MIDDLESEX MUTUAL FIRE INSURANCE COMPANY

HEAD OFFICE, LONDON.

Commenced business, 17th December, 1878.

President—L. C. LEONARD. | *Secretary*—JOHN STEPHENSON.

Unassessed premium note capital, $35,523.15.

ASSETS.

Actual cash on hand at head office and in bank		$295 12
Cash in agents' hands, acknowledged by them to be due and considered good		782 42
Amount unpaid of assessments levied during 1883 (not extended)..	$447 64	
" " " " in 1884		1,234 28
Amount of short date notes, or due bills, less than one year overdue		1,457 71
" premium notes in force, after deducting all payments thereon and assessments levied	$35,523 15	
" less residue of premium notes given for reinsurance	1,839 80	33,683 35
" due by Standard Fire Insurance Company for reinsurance		855 92
Total assets		$38,308 80

LIABILITIES.

Amount of losses adjusted	$2,227 21
" " unadjusted, estimated	750 00
" bills payable	2,500 00
" solicitor's account	45 76
" prepaid assessments and premiums	24 63
Total liabilities	$5,547 60

RECEIPTS.

Cash at head office, as per last statement (not extended)	$110 57	
Balance of bills receivable (not extended)	1,258 08	
" agents' accounts " "	495 63	
Cash received as first payments, being part payment of premium notes		$11,967 00
" for assessments levied in 1884		5,222 66
Carried forward		$17,189 66

Brought forward	$17,189 66
Cash received for assessments levied in years prior to 1884	435 27
" for interest	36 13
" from transfers and extra premiums	70 23
" survey fees	79 65
" for prepaid assessments	16 50
" " premium	8 13
" borrowed money	2,500 00
Total receipts	$20,335 57

Expenditure.

Expenses of Management:

Amount paid for commission to agents	$1,631 01
" " fuel and light	23 28
" " investigation and adjustment of claims	121 64
" " interest	180 61
" " statutory assesssment	42 11
" " printing, stationery and advertising	337 26
" " rent	164 00
" " salaries, directors' and auditors' fees	3,366 20
" " travelling expenses	786 27
" " postage, telegrams and express	203 91
" " law costs	126 85
" " mercantile agency	50 00
" " incidental expenses	48 38
Expenses of management	$7,081 52

Miscellaneous Payments:

Cash paid for losses which occurred prior to 1884	$2,794 00	
" " " " during 1884	8,348 73	
		$11,142 73
" " reinsurance		595 97
" " returned premiums		450 90
" " miscellaneous expenses		393 48
Total expenditure		$19,664 60

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	One year or less.	Three years.	Total.
	$ c.	$ c.	$ c.
Mutual	82,465 00	1,645,765 00	1,728,230 00
Reinsured	6,500 00	25,575 00	32,075 00
Net risks carried by Company 31st December, 1884	75,965 00	1,620,190 00	1,696,155 00

MOVEMENTS IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	1,990	1,297,074 00
New and renewed during 1884	1,249	935,377 00
Gross number during 1884	3,239	2,232,451 00
Less expired and cancelled in 1884	673	504,221 00
Net risks in force 31st December, 1884	2,566	1,728,230 00

BUSINESS TRANSACTED:

General Fire Insurance.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	One year risks.	Three year risks.	Total.
	$ c.	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	1,666 07	63,507 48	65,173 55
Amount of all premium notes, after deducting all payments thereon and assessments levied	.....	.....	35,523 15
Residue of premium notes given for reinsurance	476 00	1,363 80	1,839 80

THE LAMBTON FARMERS' MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, WATFORD.

Commenced business 5th November, 1875.

President—JOHN DALLAS. | *Secretary*—W. G. WILLOUGHBY.

Unassessed premium note capital, $20,483.59.

ASSETS.

Market value of shares, bonds, debentures and securities		$450 00
Cash on deposit, to Company's credit, in Bank of Commerce, Sarnia		3,028 98
Amount of short date notes, or due bills, less than one year overdue		662 54
" " " " one year or more overdue (not extended)	$12 00	
" premium notes in force, after deducting all payments thereon and assessments levied	$20,483 59	
" less residue of premium notes given for reinsurance	31 50	
		20,452 09
Total assets		$24,593 61

LIABILITIES.

Due to Agents	$2 63
" Secretary	11 23
Total liabilities	$13 86

RECEIPTS.

Cash at head office, as per last statement (not extended)	$2,420 39	
Cash received as first payments, being part payment of premium notes		$4,802 86
" for interest		131 64
" debentures		350 00
" from Treasurer		11 23
Total receipts		$5,295 73

EXPENDITURE.

Expenses of Management:

Amount paid for commission to agents		$376 00
" " statutory assessment		68 01
" " printing, stationery and advertising		75 01
" " salaries, directors' and auditors' fees		385 25
" " postage, telegrams and express		48 67
" " travelling expenses		17 05
" " other expenses		14 90
Total expenses of management		$984 89

Miscellaneous Payments:

Cash paid for losses which occurred during 1883	$20 00	
" " " " " " 1884	3,493 55	
		3,513 55
" " rebate		185 35
" " refund		3 35
Total expenditure		$4,687 14

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

SYSTEM.	Three years.	Total.
	$ c.	$ c.
Mutual	2,289,535 00	2,289,535 00
Reinsured	6,500 00	6,500 00
Net risks carried by Company on 31st December, 1884	2,283,035 00	2,283,035 00

MOVEMENT IN RISKS.

Mutual System.

	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	2,021	2,095,342 00
" new and renewed during 1884	752	839,927 00
Gross number during 1884	2,773	2,935,269 00
Less expired and cancelled in 1884	650	645.734 00
Net risks 31st December, 1884	2,123	2,289,535 00

CLASSIFICATION OF RISKS.

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

	Three year risks.	Total.
	$ c.	$ c.
Amount of all premium notes, after deducting all payments thereon and assessments levied	20,483 59	20,483 59
Amount of premium notes received during the year 1884	12,580 96	12,580 96
Residue of premium notes given for reinsurance	31 50	31 50

LENNOX AND ADDINGTON GRANGE MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, NAPANEE.

Commenced business 17th August, 1876.

President—J. B. AYLESWORTH. | *Secretary*—CHARLES JAMES.

Unassessed premium note capital, $8,783.67.

ASSETS.

Actual cash on hand at head office		$2,194 71
Amount unpaid of assessments levied during 1884		593 62
" " in prior years (not extended)	$276 69	
Amount of premium notes in force, after deducting all payments thereon and assessments levied		8,783 67
Total assets		$11,572 00

LIABILITIES.

Amount of adjusted losses	$300 00
" unpaid loans from banks or other sources	2,050 00
" interest accrued thereon	125 50
Total liabilities	$2,475 50

RECEIPTS.

Cash at head office, as per last statement (not extended)	$329 68	
Cash received for assessments levied in 1884		$2,773 97
" " " years prior to 1884		300 23
" for interest		3 35
Cash borrowed during 1884		250 00
Total receipts		$3,327 55

EXPENDITURE.

Expenses of Management:

Amount paid for commission	$20 00
" statutory assessment	30 09
" printing, stationery and advertising	55 50
" salaries, directors' and auditors' fees	482 64
" postage, telegrams and express	31 50
" travelling expenses, investigation and adjustment of claims	74 85
" interest	25 54
" incidentals	21 98
Expenses of management (*carried forward*)	$742 10

Expenses of management (*brought forward*)		$742 10
Miscellaneous Payments:		
Cash paid for losses which occurred prior to 1884	$380 00	
" " " during 1884	300 00	
		680 00
Refunds		40 42
Total expenditure		$1,462 52

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Three years.	Total.
	$ c.	$ c.
Mutual	785,701 00	785,701 00

MOVEMENT IN RISKS.

Mutual System.

	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	748	927,145 00
" new and renewed during 1884	156	144,281 00
Gross number during 1884	904	1,071,426 00
Less expired and cancelled in 1884	237	285,725 00
Net risks in force on mutual system 31st December, 1884	667	785,701 00

CLASSIFICATION OF RISKS.

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

	Three year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	20,238 68	20,238 68
Amount of all premium notes, after deducting all payments thereon and assessments levied	8,783 67	8,783 67
Amount of premium notes received during the year 1884	2,314 15	2,314 15

LOBO MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, COLDSTREAM.

Commenced business 11th August, 1882.

President—ALEX. GRAY. | *Secretary*—J. T. WOOD.

Unassessed premium note capital, $8,937.75.

ASSETS.

Actual cash on hand at head office		$773 89
Amount unpaid of assessments levied in 1884		43 58
" " " 1883 (not extended)	$5 00	
Amount of premium notes in force, after deducting all payments thereon and assessments levied		8,937 75
Total assets		$9,755 22

LIABILITIES.—(None.)

RECEIPTS.

Cash at Head Office, as per last statement (not extended)	$382 77	
Cash received as first payments, being part payment of premium notes		$151 72
" for assessments levied in 1884		312 22
" " " 1883		8 70
" interest		24 38
" additional risk		84
Total receipts		$497 86

EXPENDITURE.

Expenses of Management:

Amount paid for statutory assessment	$5 79
" printing and stationery	3 85
" salaries	81 00
" postage and telegrams	2 10
" agents' commission	14 00
Total expenditure	$106 74

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	One year.	Three years.	Total.
	$ c.	$ c.	$ c.
Mutual	800 00	250,845 00	251,645 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	137	178,345 00
" taken during 1884, new and renewed	60	74,800 00
Gross numbers and amount during 1884	197	253,145 00
Deduct expired and cancelled in 1884	1	1,500 00
Net risks in force on mutual system, 31st December, 1884	196	$251,645 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	One year risks.	Three year risks.	Total.
	$ c.	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	10 66	10,033 80	10,044 46
Amount of all premium notes, after deducting all payments thereon and assessments levied	9 96	8,928 69	8,937 75
Amount of premium notes received during the year 1884	10 66	2,960 00	2,970 66

LONDON TOWNSHIP MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, ARVA.

Commenced business 27th May, 1882.

President—EDWARD ROBERTS. | *Secretary*—ED. DANN.

Unassessed premium note capital, $12,160.86.

ASSETS.

Cash in Royal Standard Loan Company at 31st December, 1884	$91 70
Amount unpaid of assessments levied during 1884	19 35
Amount of premium notes in force, after deducting all payments thereon and assessments levied	12,160 86
Total assets	$12,271 91

LIABILITIES.—(None.)

RECEIPTS.

Cash on hand at head office (not extended)	$301.91	
" received for assessments levied in 1884		$368 99
" " " during 1883		53 61
" " interest		12 54
" " carpenters' risk, etc		2 75
Total receipts		$437 89

EXPENDITURE.

Expenses of Management:	
Amount paid for commission to agents	$68 50
" statutory assessment	9 99
" printing, stationery and advertising	11 85
" salaries, directors' and auditors' fees	77 40
" postage, telegrams and express	8 36
" interest	12 00
Total expenses of Management	188 10
Cash paid for losses during 1884	310 00
" repayment of loans	150 00
Total expenditure	$648 10

CURRENCY OF RISKS.

Amount covered by policies in force 31st December, 1884.

System.	Two years.	Three years.	Four years.	Five years.	Total.
	$ c.	$ c.	$ c.	$ c.	$ c.
Mutual	1,300 00	117,037 00	5,850 00	349,258 00	473,445 00

MOVEMENT IN RISKS.

Mutual System.

	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	272	307,817 00
" taken during 1884, new and renewed	137	176,182 00
Gross number during 1884	409	483,999 00
Deduct expired and cancelled in 1884	11	10,554 00
Net risks in force 31st December, 1884	398	473,445 00

PREMIUM NOTES OR UNDERTAKINGS.

	Two years.	Three years.	Four years.	Five years.	Total.
	$ c.	$ c.	$ c.	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	15 60	2,121 11	136 80	10,842 02	13,115 53
Amount of all premium notes on policies in force December 31st, 1884, after deducting all payments thereon, and assessments levied					12,160 86
Amount of premium notes received during the year 1884		1,641 95	36 40	2,535 75	4,214 10

McGILLIVRAY MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, WEST McGILLIVRAY.

Commenced business 2nd May, 1877.

President—ANDREW ROBINSON. | *Secretary*—WM. FRASER.

Unassessed premium note capital, $6,868,44.

ASSETS.

Amount of cash at head office	$16 17	
Cash on deposit to Company's credit, not drawn against, in the Bank of Commerce, at Parkhill	350 30	
" loan to municipality	1,566 00	
		$1,932 47
Amount of notes or due bills less than one year overdue		175 00
Amount of premium notes in force, after deducting all payments thereon and assessments levied		6,868 44
Total assets		$8,975 91

LIABILITIES.—(None.)

RECEIPTS.

Cash at head office, as per last statement, (not extended)	$1,765 11	
Cash received for membership fees, not being part payment of premium notes		$353 39
Cash received for interest		87 67
" " assessments levied before 1884		93 90
Total receipts		$534 96

EXPENDITURE.

Expenses of Management:

Amount paid for statutory assessment	$9 65
" printing	15 50
" salary, and auditors' fees	34 00
" commission	35 00
Total expenses of management	94 15

Miscellaneous Payments:

Cash paid for losses which occurred prior to 1884	171 00
" expenditure, other than foregoing	102 45
Total expenditure	$367 60

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Three years.	Total.
	$ c.	$ c.
Mutual	286,185 00	286,185 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force December 31st, 1883	294	297,220 00
" taken during 1884, new and renewed	90	88,065 00
Gross number and amount of risks in force on 31st December, 1884	384	385,285 00
Deduct, expired and cancelled in 1884	96	99,100 00
Net risks in force December 31st, 1884	288	286,185 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On policies in force 31st December, 1884.

——	Three year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessments	6,868 44	6,868 44
Amount of all premium notes, after deducting all payments thereon and assessments levied	6,868 44	6,868 44
Amount of premium notes received during year 1884	2,113 56	2,113 56

McKILLOP MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, LOT 17, CON. 5, McKILLOP.

Commenced business May 20th, 1876.

President—THOS. E. HAYES. | *Secretary*—W. J. SHANNON.

Unassessed premium note capital, $42,560.04.

ASSETS.

Actual cash on hand at head office		$579 36
Amount unpaid of assessments levied during 1884		230 35
" " " in prior years (not extended)	$116.20	
Amount of premium notes in force, after deducting all payments thereon and assessments levied		42,560 04
Total assets		$43,369 75

LIABILITIES.

Amount of losses adjusted		$887 00
" " reported		1,100 00
Total liabilities		$1,987 00

RECEIPTS.

Cash at head office, as per last statement (not extended)	$1,898.65	
Cash received at taking of applications		$110 50
" for assessments levied in 1884		2,611 54
" " " years prior to 1884		165 30
" for interest		16 00
" for fees and threshing permits		94 18
Total receipts		$2,997 52

EXPENDITURE.

Expenses of Management:	
Amount paid for investigation and adjustment of claims	$36 35
" travelling expenses	10 00
" statutory assessment	69 10
" printing, stationery and advertising	38 25
" salaries, directors' and auditors' fees	537 90
" postage, telegrams and express	53 70
" sundries	37 55
Total expenses of management	$782 85
Miscellaneous Payments:	
Cash paid for losses which occurred during 1884	3,533 96
Total expenditure	$4,316 81

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Five years.	Total.
	$ c.	$ c.
Mutual	2,095,713 75	2,095,713 75

MOVEMENT IN RISKS.

Mutual System.

	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	1,713	2,128,694 00
" new and renewed during 1884	259	341,320 00
Gross number during 1884	1,972	2,470,014 00
Less expired and cancelled in 1884	316	374,300 25
Net risks in force on mutual system, 31st December, 1884	1,656	2,095,713 75

CLASSIFICATION OF RISKS.

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force December 31st, 1884.

	Five year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	55,264 07	55,264 07
Amount of all premium notes, after deducting all payments thereon and assessments levied	42,560 04	42,560 04
Amount of premium notes renewed during the year 1884	9,098 54	9,098 54

NICHOL MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, FERGUS.

Commenced business 1st May, 1860.

President—WILLIAM TAYLOR. | *Secretary*—JOHN BEATTIE.

Unassessed premium note capital, $46,703.98.

ASSETS.

Actual cash on hand at head office		$616 40
Amount unpaid of assessments levied during 1884		959 24
" " in prior years (not extended)	$406 32	
" of short date notes or due bills, less than one year overdue		361 96
" " " one year or more overdue (not extended)	$194 19	
Amount of premium notes in force, after deducting all payments thereon and assessments levied		46,703 98
Total assets		$48,641 58

LIABILITIES.

Amount of loss adjusted	$803 00
Total liabilities	$803 00

RECEIPTS.

Cash at head office, as per last statement (not extended)	$724 81	
Cash received for assessments on cancelled policies		$19 01
" as first payments, being part payment of premium notes, at head office		899 84
" for assessments levied in 1884		1,738 95
" " " years prior to 1884		674 91
" for short date notes or due bills		560 28
Cash borrowed		1,000 00
Total receipts		4,892 99

EXPENDITURE.

Expenses of Management:		
Amount paid for interest		$20 60
" investigation and adjustment of claims		34 00
" statutory assessment		63 56
" printing, stationery and advertising		122 15
Carried forward		240 31

Brought forward		$240 31
Amount paid for salaries, directors' and auditors' fees		564 45
" postage, telegrams and express		81 34
" travelling expenses		20 00
Expenses of management		$906 10
Miscellaneous Payments :		
Cash paid for losses which occurred prior to 1884	$22 00	
" " " during 1884	2,269 80	
		2,291 80
" rebate and refund		2 50
Repayment of loans		1,000 00
Total expenditure		$4,200 40

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Three year risks.	Five years.	Total.
	$ c.	$ c.	$ c.
Mutual	1,437,882 00	642,335 00	2,080,217 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	1,570	1,957,947 06
New and renewed during 1884	534	712,835 00
Gross numbers and amount during 1884	2,104	2,670,782 06
Less expired and cancelled in 1884	493	590,565 06
Net risks in force on mutual system 31st December, 1884	1,611	2,080,217 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Three year risks.	Five year risks.	Total.
	$ c.	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	28,794 68	25,279 63	54,074 31
Amount of all premium notes, after deducting all payments thereon and assessments levied	28,791 96	23,912 02	46,703 98
Amount of premium notes received during the year 1884	1,383 55	25,340 13	26,723 68

EAST AND WEST NISSOURI AND WEST ZORRA MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, KINTORE.

Commenced business 25th May, 1878.

President—SAMUEL TOWLE. | *Secretary*—E. J. PEARSON.

Unassessed premium note capital, $62,648.37.

ASSETS.

Actual cash on hand at head office, 31st December, 1884		$107 45
Amount unpaid of assessments levied during 1883 (not extended)	$56.21	
" " " 1884		286 82
Amount of premium notes in force after deducting all payments thereon and assessments levied		62,648 37
Total assets		$63,042 64

LIABILITIES.

Amount of adjusted losses	$2,632 67
Total liabilities	$2,632 67

RECEIPTS.

Cash at head office, as per last statement (not extended)	$214.11	
" received at taking of application for fees		$196 50
" " for assessments levied in 1884		3,497 28
" " " " 1883		1,176 79
" " at head office for certificates to steam threshers		12 00
" borrowed		2,100 00
Total receipts		$6,982 57

EXPENDITURE.

Expenses of Management:		
Amount paid for statutory assessment		$34 92
" printing, stationery and advertising		111 04
" rent		5 00
" salaries, directors' and auditors' fees		113 00
" investigation of claims		22 00
" interest		51 82
" postage, etc.		10 00
" other expenses		18 90
Expenses of management		$366 68
Miscellaneous Payments:		
Cash paid for losses which occurred during 1884	$3,322 55	
" " " before 1884	1,300 00	
		$4,622 55
Repayment of loans		2,100 00
Total expenditure		$7,089 23

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Five years.	Total.
	$ c.	$ c.
Mutual	1,377,771 00	1,377,771 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	694	1,075,566 00
" new and renewed during 1884	287	491,270 00
Gross number during 1884	981	1,566,836 00
Less expired and cancelled in 1884	128	189,065 00
Net risks in force on mutual system 31st December, 1884	853	1,377,771 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Five year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	68,888 55	68,888 55
Amount of all premium notes, after deducting all payments thereon and assessments levied	62,648 37	62,648 37
Amount of premium notes received during the year 1884	24,563 50	24,563 50

NORFOLK COUNTY FARMERS' MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, SIMCOE.

Commenced business 30th January, 1882.

President—OLIVER P. MABEE. | *Secretary*—WM. ROBERTS.

Unassessed premium note capital, $11,081.88.

ASSETS.

Cash on deposit to Company's credit in Federal Bank of Canada, Simcoe...		
" in agents' hands		$939 71
Amount of premium notes in force after deducting all payments thereon and assessments levied		11,081 88
Amount unpaid of assessments levied during 1883, not extended..	$25 48	
" " " " " 1884		207 06
" of cash in agents' hands		8 17
Total assets		$12,236 82

LIABILITIES.

Amount of loss adjusted	$2 00
Bill payable	700 00
Interest accrued	50 17
Amount due for salaries, rent, etc	572 16
Total liabilities	$1,324 33

RECEIPTS.

Cash at head office as per last statement, (not extended)	$625.93	
Cash received as first payments on deposits, being part payment of premium notes		218 58
Cash received for assessments levied in 1884		1,509 06
" " " " 1883		207 03
" " for interest		2 40
" " for transfer and other fees		31 35
Total receipts		$1,968 42

EXPENDITURE.

Expenses of Management:

Amount paid for commission	$83 00
" " law costs	10 00
" " printing, stationery and advertising	60 38
" " interest	56 48
" " rent and taxes	52 00
" " statutory assessment	25 19
" " salaries, directors' and auditors' fees	558 10
" " postage, telegrams and express	27 62
" " investigation of claims	40 70
" " travelling expenses	3 00
" " sundries	10 75
Expenses of management (*carried forward*)	$927 22

Expenses of management (*brought forward*)	$927 22
Miscellaneous expenses :	
Cash paid for losses which occurred during 1884	820 52
" " rebate	6 70
Total expenditure	$1,754 44

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Three years.	Total.
	$ c.	$ c.
Mutual	1,043,361 00	1,043,361 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	832	775,856 00
" new and renewed during 1884	334	282,730 00
Gross number during 1884	1,166	1,058,586 00
Less expired and cancelled in 1884	16	15,225 00
Net risks in force, 31st December, 1884	1,150	1,043,361 00

CLASSIFICATION OF RISKS.

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Three year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes legally liable to assessment	15,737 60	15,737 60
Amount of all premium notes after deducting all payments thereon and assessments levied	11,081 88	11,081 88
Amount of premium notes received during the year 1884	4,364 50	4,364 50

ONEIDA FARMERS' MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, TOWN HALL, ONEIDA.

Commenced business 27th March, 1875.

President—GEO. FLEMING. | *Secretary*—JOHN SENN.

Unassessed premium note capital, $6,265.03.

ASSETS.

Actual cash on hand at head office		$111 72
Amount unpaid of assessments levied during 1883 (not extended)	$14 63	
Amount of premium notes in force, after deducting all payments thereon and assessments levied		6,265 03
Amount due by agents, considered good		12 50
Postage stamps		11 40
Total assets		$6,400 65

LIABILITIES.—(None.)

RECEIPTS.

Cash at head office, as per last statement (not extended)	$38 62	
Cash received at taking of applications		$60 25
" for assessments levied during 1883		121 41
" for steam threshing certificates		10 50
Total receipts		$192 16

EXPENDITURE.

Expenses of Management:

Amount paid for travelling expenses	$5 00
" " fuel and light	4 00
" " statutory assessment or certificate	12 98
" " printing, stationery and postage	3 08
" " salaries, directors' and auditors' fees	94 00
Total expenditure	$119 06

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Three years.	Four years.	Five years.	Total.
	$ c.	$ c.	$ c.	$ c.
Mutual	204,073 00	650 00	213,445 00	418,168 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c
Policies in force 31st December, 1883	318	399,901 00
New and renewed during 1884	78	91,184 00
Gross number during 1884	396	491,085 00
Less expired and cancelled in 1884	59	72,917 00
Net risks in force on mutual system, 31st December, 1884	337	418,168 00

CLASSIFICATION OF RISKS.

Farm and Non-hazardous :

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Three year risks.	Four year risks.	Five year risks.	Total.
	$ c.	$ c.	$ c.	$ c.
Amount of face of all premium notes held by company and legally liable to assessment	3,511 63	13 00	4,852 69	8,377 32
Amount of all premium notes, after deducting all payments thereon and assessments levied	.....	.....	.....	6,265 03
Amunt of premium notes received during the year 1884	1,396 24	.....	.....	1,396 24

OXFORD FARMERS' MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, EMBRO.

Commenced business 2nd June, 1884.

President—ALEX. MCCORQUODALE. | *Secretary*—ROBT. MURRAY.

Unassessed premium note capital, $11,047.50.

ASSETS.

Actual cash on hand at head office	$33 50
Amount of premium notes in force, after deducting all payments thereon and assessments levied	11,047 50
Total assets	$11,081 00

LIABILITIES.

Amount due for salaries and directors' fees	$118 50
Total liabilities	$118 50

RECEIPTS.

Cash received as first payments, being part payment of premium notes	$246 00
Total receipts	$246 00

EXPENDITURE.

Expenses of Management:

Amount paid for printing and stationery	$37 50
" incidental expenses	25 00
Total expenses of management	$62 50
Cash paid for losses which occurred during 1884	150 00
Total expenditure	$212 50

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Two years.	Three years.	Four years.	Five years.	Total.
	$ c.	$ c.	$ c.	$ c.	$ c.
Mutual	1,400 00	1,200 00	2,600 00	280,525 00	285,725 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies taken during 1884 (new)	246	285,725 00
Net risks in force on mutual system 31st December, 1884	246	285,725 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Two year risks.	Three year risks.	Four year risks.	Five year risks.	Total.
	$ c.	$ c.	$ c.	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	28 00	48 00	104 00	11,113 50	11,293 50
Amount of all premium notes, after deducting all payments thereon and assessments levied	26 00	46 00	101 00	10,874 50	11,047 50
Amount of premium notes received during the year 1884	28 00	48 00	104 00	11,113 50	11,293 50

COUNTY OF PEEL FARMERS' MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, BRAMPTON.

Commenced business 24th June, 1876.

President—THOMAS HOLTBY. | *Secretary*—LUTHER CHEYNE.

Unassessed premium note capital, $34,066.20.

ASSETS.

Actual cash on hand at head office		$770 61
Amount unpaid of assessments levied during 1884		1,575 80
" " " in prior years (not extended)	$187.40	
Amount of premium notes in force, after deducting all payments thereon and assessments levied		34,066 20
Total assets		$36,412 61

LIABILITIES.

Amount of adjusted losses	$1,475 00
" salaries and directors' fees	494 00
" rent	20 00
Total liabilities	$1,989 00

RECEIPTS.

Cash at head office, as per last statement (not extended)	$559.90	
" received as first payments, being part payment of premium notes		$798 08
" " for assessments levied in 1884		6,195 60
" " " " years prior to 1884		962 51
" " for engine licenses and carpenters' risks		22 00
" " borrowed money		2,500 00
Total receipts		$10,478 19

EXPENDITURE.

Expenses of Management :

Amount paid for commission to agents	$267 00
" investigation and adjustment of claims	35 10
" interest	100 00
" statutory assessment	71 49
Carried forward	$473 59

Brought forward		$473 59
Amount paid for printing, stationery and advertising		65 50
" " salaries, directors' and auditors' fees		504 00
" " postage, telegrams and express		74 37
" " rent		20 00
" " incidental expenses		10 94
Total expenses of management		$1,148 40
Miscellaneous Payments:		
Cash paid for losses which occurred during 1884	$5,111 50	
" " " prior to 1884	1,500 00	
		6,611 50
" repayment of loans		2,500 00
" returned premiums		7 58
Total expenditure		$10,267 48

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Four years.	Total.
	$ c.	$ c.
Mutual	2,513,867 00	2,513,867 00

MOVEMENT IN RISKS.

Mutual System.

	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	1,664	2,200,688 00
" new and renewed during 1884	534	698,479 00
Gross number during 1884	2,198	2,899,167 00
Less expired and cancelled in 1884	249	385,300 00
Net risks in force on mutual system, 31st December, 1884	1,949	2,513,867 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

	Four year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	53,556 51	53,556 51
Amount of all premium notes, after deducting all payments thereon and assessments levied	34,066 20	34,066 20
Amount of premium notes renewed during the year 1884	14,788 06	14,788 06

PUSLINCH MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, ABERFOYLE.

Commenced business May, 1859.

President—DUNCAN MCFARLANE. | *Secretary*—JAMES SCOTT.

Unassessed premium note capital, $7,179.28.

ASSETS.

Cash on hand at head office	$39 39	
" deposit to Company's credit in Bank of Commerce, Guelph	426 44	
		$465 83
Amount of premium notes in force, after deducting all payments thereon and assessments levied		7,179 28
Total assets		$7,645 11

LIABILITIES.

Amount of adjusted losses	$12 00
Total liabilities	$12 00

RECEIPTS.

Cash at head office, as per last statement (not extended)	$334 16	
Cash received for membership fees, not being part payment of premium notes		$10 00
Cash received as first payments, being part payment of premium notes		142 33
" for interest		15 44
Total receipts		$167 77

EXPENDITURE.

Expenses of Management:

Amount paid for statutory assessment	$11 55
" printing, stationery and advertising	17 50
" auditors' fees	4 00
" postage, telegrams and express	3 05
Total expenditure	$36 10

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Three years.	Total.
	$ c.	$ c.
Mutual	377,440 00	377,440 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force December 31st, 1883	203	346,150 00
" new and renewed during 1884	92	147,110 00
Gross number and amount during 1884	295	493,260 00
Less expired and cancelled in 1884	73	115,820 00
Net risks in force on mutual system December 31st, 1884	222	377,440 00

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Three year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	7,548 80	7,548 80
Amount of all premium notes, after deducting all payments thereon and assessments levied	7,179 28	7,179 28
Amount of premium notes renewed during the year 1884	2,942 20	2,942 20

SALTFLEET AND BINBROOK MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, ELFRIDA.

Commenced business 30th July, 1880.

President—A. D. Lee. | *Secretary*—Jno. C. Harris.

Unassessed premium note capital, $4,910,16.

Assets.

Actual cash on hand at head office	$285 72
Amount of assessments which were levied during 1884	114 37
" unpaid of short date notes, or due bills, less than one year overdue	8 84
" " premium notes in force, after deducting all payments thereon and assessment levied	4,910 16
Total assets	$5,319 09

Liabilities.—(None.)

Receipts.

Cash at head office, as per last statement (not extended)	$109 97	
Cash received for fees or surveys		$58 00
" first payments, being part payment of premium notes		190 00
" assessments which were levied in 1884		394 88
" " " " years prior to 1884		422 55
" due bill		8 84
" refund		2 74
" borrowed money		100 00
Total receipts		$1,177 01

Expenditure.

Expenses of Management:		
Amount paid to agents for fees		$73 53
" for statutory assessment		10 34
" printing, stationery and advertising		33 18
" salaries, directors' and auditors' fees		54 00
" postage, telegrams and express		23 20
" fuel and light		25
" investigation and adjustment of claims		2 25
" interest		4 45
" sundries		8 03
Total expenses of management		$209 23
Miscellaneous Payments:		
Cash paid for losses which occurred prior to 1884	$520 00	
" rebate " during 1884	150 00	
		670 00
" repayment of loans		100 00
" assessments returned		22 03
Total expenditure		$1.001 26

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	One year or less.	Two years.	Three years.	Total.
	$ c.	$ c.	$ c.	$ c.
Mutual	2,040 00	1,970 00	348,840 00	352,850 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	262	318,645 00
New and renewed during 1884	117	134,575 00
Gross number during 1884	379	453,220 00
Less expired and cancelled in 1884	89	100,370 00
Net risks in force 31st December, 1884	290	352,850 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884

——	Risks.			
	One year.	Two years.	Three years.	Total.
	$ c.	$ c.	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	34 85	20 70	6,810 06	6,865 61
Amount of all premium notes, after deducting all payments thereon and assessments levied	31 36	15 56	4,862 24	4,910 16
Amount of premium notes received during the year 1884	34 85	20 70	1,963 45	2,019 00

SAUGEEN MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, MOUNT FOREST.

Commenced business March, 1877.

President—JAMES MURDOCK. | *Secretary*—HENRY L. DRAKE.

Unassessed premium note capital, $24,957.90.

ASSETS.

Cash on deposit in J. A. Halsted & Co.'s Bank, Mount Forest..	$1,208 28	
" " Central Bank, Mount Forest	309 90	
		$1,518 18
Amount unpaid of assessments levied during 1884.....		4,568 01
" " " " in prior years (not extended).	$664 81	
" of premium notes in force, after deducting all payments thereon and assessments levied.....	$24,957 90	
Less premium notes given by Company for reinsurance.....	711 05	
		24,246 85
Total assets		$30,333 04

LIABILITIES.

Amount of adjusted losses	$1,900 00	
" of reported loss.....	1,352 45	
" of resisted loss	207 50	
		$3,459 95
" of unpaid loans and interest.....		3,800 00
" due for sundry accounts		27 50
" " salary		136 46
Total liabilities.....		$7,423 91

RECEIPTS.

Cash at head office, as per last statement (not extended).....	$548 86	
" received as first payments, being part payment of premium notes..		$2,015 78
" " for assessments levied in 1884.....		3,055 51
" " " " prior to 1884		13 05
" " for interest		23 57
Carried forward.....		$5,107 91

Brought forward	$5,107 91
Cash borrowed	3,800 00
" received for reinsurance	733 00
" " refunds	15 38
" " fees and extra premiums	37 20
" " Secretary	136 46
Total receipts	$9,829 95

EXPENDITURE.

Expenses of Management:

Amount paid for commission to agents		1,387 63
" " Division Court costs		7 00
" " interest		192 83
" " statutory assessment or certificate		34 47
" " printing, stationery and advertising		215 23
" " salaries, directors' and auditors' fees		864 06
" " postage, telegrams and express		22 69
" " investigation and adjustment of claims		94 82
" " fuel, light and rent		37 00
Expenses of management		$2,855 73

Miscellaneous Payments:

Cash paid for losses which occurred during 1884	$2,692 55	
" " " prior to 1884	290 00	
		2,982 55
" rebate, abatement and returned premiums		95 53
" reinsurances		234 07
" repayment of loan		2,614 00
" office furniture		78 75
Total expenditure		$8,860 63

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	One year.	Three years.	Total.
	$ c.	$ c.	$ c.
Mutual	33,350 00	1,236,002 00	1,269,356 00
Of which was reinsured			20,796 00
Net risks			1,248,560 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	1,240	1,062,024 00
" new and renewed during 1884	731	679,726 00
Gross number during 1884	1,971	1,741,750 00
Less expired and cancelled in 1884	511	472,394 00
Net risks in force 31st December, 1884	1,460	1,269,356 00

BUSINESS DONE BY COMPANY:

General Fire Insurance.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Total.
	$ c.
Amount of face of all premium notes held by Company, and legally liable to assesssment.	34,495 58
Amount of all premium notes, after deducting all payments thereon and assessments levied	24,957 90
Amount of premium notes received during the year 1884	20,165 54
Residue of premium notes given by the Company for reinsurances	711 05

SIMCOE COUNTY MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, KEENANSVILLE.

Commenced business 21st June, 1878.

President—JAMES D. EGAN. | *Secretary*—THOMAS R. CARMICHAEL.

Unassessed premium note capital, $2,456.08.

ASSETS.

Actual cash on hand at head office		$24 82
Amount unpaid of assessments levied before 1884 (not extended)	$21 45	
" of premium notes in force, after deducting all payments thereon and assessments levied		2,456 08
Total assets		$2,480 90

LIABILITIES.—(None.)

RECEIPTS.

Cash at head office, as per last statement (not extended)	$52 50	
Cash received for membership fees (not being part payment of premium notes)		$6 00
" for assessments levied in years prior to 1884		82 42
Total receipts		$88 42

EXPENDITURE.

Expenses of Management:		
Amount paid for salaries, directors' and auditors' fees		$96 50
" " statutory assessment		5 01
" " printing and stationery		9 67
" " advertising		1 50
" " sundries		3 42
Total expenditure		116 10

CURRENCY OF RISKS.

Total Amount covered by Policies in force 31st December, 1884, $151,712.08.

MOVEMENT IN RISKS.

Mutual System

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	112	154,378 08
New and renewed during 1884	46	60,460 00
Gross number during 1884	158	214,838 08
Less expired and cancelled in 1884	43	63,126 08
Net risks in force 31st December, 1884	115	151,712 08

CLASSIFICATION OF RISKS.

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Total.
	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	2,598 40
Amount of all premium notes, after deducting all payments thereon and assessments levied	2,456 08
Amount of premium notes received during the year 1883	1,042 01

THE SOUTHWOLD FARMERS' MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, SHEDDEN.

Commenced business 9th September, 1878.

President—DONALD TURNER. | *Secretary*—R. N. STAFFORD.

Unassessed premium note capital, $11,259.83.

ASSETS.

Actual cash in hand at head office	$191 74	
Cash on deposit in the Imperial Bank Agency, St. Thomas	500 00	
		$691 74
Amount unpaid of assessments levied during 1884		107 00
Amount of premium notes in force, after deducting all payments thereon and assessments levied		11,259 83
Total assets		$12,058 57

LIABILITIES.—(None.)

RECEIPTS.

Cash at head office, as per last statement (not extended)	$250 35	
Cash received at taking of application		$46 00
" for assessment levied in 1884		1,171 20
" " in years prior to 1884		18
" interest		2 34
" borrowed money		200 00
Total receipts		$1,419 72

EXPENDITURE.

Expenses of Management:

Amount paid for law costs	$5 00
" statutory assessment	19 44
" printing and stationery	40 11
" salaries, secretary's and auditors' fees	191 00
" postage	11 38
" interest	10 15
" incidental expenses	1 25
Total expenses of management	$278 33

Miscellaneous Payments:

Cash paid for losses which occurred during 1883	$300 00	
" " " " " " 1884	200 00	
		500 00
" repayment of loan		200 00
Total expenditure		$978 33

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Five years.	Total
	$ c.	$ c.
Mutual	656,450 00	656,450 00

MOVEMENT IN RISKS.

Mutual System.

	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	479	599,275 00
Policies new and renewed during 1884	92	140,450 00
Gross number during 1884	571	739,725 00
Less expired and cancelled in 1884	79	83,275 00
Net risks in force on mutual system 31st December, 1884	492	656,450 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

	Five year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	13,129 00	13,129 00
Amount of all premium notes, after deducting all payments thereon and assessments levied	11,259 83	11,259 83
Amount of premium notes received during the year 1884	2,809 00	2,809 00

SYDENHAM MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, ANNAN.

Commenced business September, 1869.

President—GIDEON HARKNESS. | *Secretary*—HUGH REID.

Unassessed premium note capital, $32,352 76.

ASSETS.

Cash on hand	$99 71	
" deposit in the Post Office Savings Bank, Owen Sound.	563 17	
" " Molson's Bank, Owen Sound	222 00	
" " Telford & Co.'s Bank	333 00	
		$1,217 88
Cash in agents' hands, acknowledged by them to be due, and considered good		92 03
Amount unpaid of assessments, levied before 1884 (not extended)	$19.05	
Amount of premium notes in force, after deducting all payments thereon and assessments levied		32,352 76
Total assets		$33,662 67

LIABILITIES.—(None.)

RECEIPTS.

Cash at head office, as per last statement (not extended)	$693.30	
Cash received for fees		$222 00
" as first payments, being part payment of premium notes		530 71
" for assessments levied in years prior to 1884		43 79
" for interest		24 16
" for licenses		75 00
Total receipts		$895 66

EXPENDITURE.

Expenses of Management :

Amount paid for law costs	$10 00
" investigation and adjustment of claims	9 00
" statutory assessment or certificate	49 28
" printing, stationery and advertising	36 30
" rent and taxes	8 00
" salaries, directors' and auditors' fees	205 00
" postage, telegrams and express	27 00
Expenses of management	$344 58
Miscellaneous Payments :	
Cash paid for losses which occurred during 1884	10 00
" other expenses	16 50
Total expenditure	$371 08

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

SYSTEM.	One year or less.	Two years.	Three years.	Four years.	Five years.	Total.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Mutual	6,530 00	20,759 00	1,408,450 00	45,836 00	160,553 00	1,641,128 00

MOVEMENT IN RISKS.

Mutual System.

	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	1,362	1,518,244 00
" new and renewed during 1884	444	485,986 00
Gross number during 1884	1,806	2,004,230 00
Less expired and cancelled in 1884	325	363,102 00
Net risks in force 31st December, 1884	1,481	1,641,128 00

CLASSIFICATION OF RISKS :

Farm and Non-hazardous.

PREMIUM NOTES ON UNDERTAKINGS

On Policies in force 31st December, 1884.

	One year risks.	Two year risks.	Three year risks.	Four year risks.	Five year risks.	Total.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	125 60	414 93	29,327 22	962 60	3,321 55	34,151 90
Amount of all premium notes, after deducting all payments thereon and assessments levied	121 77	398 19	27,874 62	942 03	3,016 15	32,352 76
Amount of premium notes received during the year 1884	125 60	87 80	8,828 28	138 77	976 31	10,156 76

TOWNSEND FARMERS' MUTUAL FIRE INSURANCE COMPANY.

Commenced business 10th April, 1879.

HEAD OFFICE, WATERFORD.

President—ISAAC G. WYCKOFF. | *Secretary*—LYMAN N. COLLVER.

Unassessed premium note capital, $12,401.21.

ASSETS.

Actual cash on hand at head office		$56 66
Amount unpaid of assessments levied in years during 1884		57 33
" " " " prior to 1884 (not extended)	$4.45	
Amount of premium notes in force, after deducting all payments thereon and assessments levied		12,401 21
Total assets		$12,515 20

LIABILITIES.—(None.)

RECEIPTS.

Cash at head office, as per last statement (not extended)	$76 19	
Cash received at taking of applications		$106 50
" as first payments, being part payment of premium notes		191 64
" for assessments levied in 1884		1,696 13
" " years prior to 1884		90
" borrowed		150 00
Total receipts		$2,145 17

EXPENDITURE.

Expenses of Management :

Amount paid for statutory assessment		$27 33
" " printing, stationery, advertising and postage		49 70
" " salaries, directors' and auditors' fees		199 55
" " interest		6 00
" " postage		5 05
Total expenses of management		$287 63

Miscellaneous Payments :

Cash paid for losses which occurred during 1883	$200 00	
" " " " " 1884	1,520 00	
		$1,720 00
" " rebate		6 97
" " repayment of loans		150 00
Total expenditure		$2,164 60

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Three years.	Total.
	$ c.	$ c.
Mutual	892,410 00	892,410 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	635	842,070 00
" new and renewed during 1884	213	293,390 00
Gross number during 1884	848	1,135,460 00
Less expired and cancelled in 1884	198	243,050 00
Net risks in force on mutual system 31st December, 1884	650	892,410 00

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Three year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessmen	14,484 73	14,484 73
Amount of all premium notes, after deducting all payments thereon and assessments levied	12,401 21	12,401 21
Amount of premium notes received during the year 1884	4,790 83	4,790 83

THE USBORNE AND HIBBERT MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, FARQUHAR.

Commenced business 28th June, 1876.

President—ROBT. GARDINER. | *Secretary*—N. J. CLARK.

Unassessed premium note capital, $17,983.39.

ASSETS.

Actual cash on hand at head office		$98 96
Amount unpaid of assessments levied before 1884 (not extended)	$10 76	
" of premium notes in force, after deducting all payments thereon and assessments levied		17,983 39
Total assets		$18,082 35

LIABILITIES.—(None.)

RECEIPTS.

Cash at head office, as per last statement (not extended)	$362 56	
" received for assessments levied in 1884		$108 03
" " interest		12 00
Total receipts		$120 03

EXPENDITURE.

Expenses of Management:	
Amount paid for investigation of claims	$4 00
" statutory assessment	29 82
" printing, stationery and advertising	45 75
" rent and taxes	20 00
" salaries, directors' and auditors' fees	213 00
" travelling expenses	5 00
" postage, telegrams and express	6 40
Expenses of management	$323 97
Miscellaneous Payments:	
Cash paid for losses which occurred during 1884	59 66
Total expenditure	$383 63

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Five years.	Total.
	$ c.	$ c.
Mutual	1,105,640 00	1,105,640 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	720	918,490 00
" new and renewed during 1884	233	288,500 00
Gross number during 1884	953	1,206,990 00
Less expired and cancelled in 1884	88	101,350 00
Net risks in force on mutual system 31st December, 1884	865	1,105,640 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Five year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	24,294 79	24,294 79
Amount of all premium notes, after deducting all payments thereon and assessments levied	17,983 39	17,983 39
Amount of premium notes received during the year 1884	6,335 90	6,335 90

WALPOLE FARMERS' MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, JARVIS.

Commenced business 20th July, 1867.

President—CHARLES SIMON. | *Secretary*—JOHN HEASMAN.

Unassessed premium note capital, $23,337.24.

ASSETS.

Actual cash on hand at head office	$630 97
Cash in agents' hands, acknowledged by them to be due, and considered good	97 39
Amount of premium notes in force, after deducting all payments thereon and assessments levied	23,337 24
Total assets	$24,065 60

LIABILITIES.—(None.)

RECEIPTS.

Cash at head office, as per last statement (not extended) ...	$237 81	
Cash received at taking of applications		$261 00
" as first payments, being part payment of premium notes		187 62
" for assessments levied in 1884		1,591 05
" " " years prior to 1884		5 07
for permits for steam threshers, etc., etc		73 60
Total receipts		$2,118 34

EXPENDITURES.

Expenses of Management:

Amount paid to agents for commission	$10 00
" for investigation and adjustment of claims	13 50
" statutory assessment	34 68
" printing, stationery and advertising	59 50
" salaries, directors' and auditors' fees	280 00
" postage, telegrams and express	5 00
" fuel and light	5 00
" incidental expenses	10 75
Total expenses of management	$418 43

Miscellaneous Payments:

Cash paid for losses which occurred during 1884	1,219 75
Total expenditure	$1,638 18

CURRENCY OF RISKS.

Total amount covered by Policies in force 31st December, 1884, $1,182,475.00.

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	750	1,068,390 00
" new and renewed during 1884	190	243,950 00
Gross number during 1884	940	1,312,340 00
Less expired and cancelled in 1884	170	129,875 00
Net risks in force 31st December, 1884	770	1,182,475 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	One year risks.	Two year risks.	Three year risks.	Four year risks.	Five year risks.	Total.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	3 42	86 52	4,048 50	267 02	23,115 04	27,520 50
Amount of all premium notes, after deducting all payments thereon and assessments levied	3 29	72 26	3,414 81	230 58	19,616 30	23,337 24
Amount of premium notes received during the year 1884	3 42	44 66	1,353 71	61 72	3,811 32	5,274 83

NORTH WATERLOO FARMERS' MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, WATERLOO.

Commenced business 1st August, 1874.

President—R. G. GOFTON. | *Manager*—LEVI STAUFFER.

Unassessed premium note capital, $102,208.70.

ASSETS.

Amount unpaid of assessments levied during 1884		$457 17
" " " " in prior years (not extended)	$24 44	
Amount of premium notes in force, after deducting all payments thereon and assessments levied		102,208 70
Total assets		$102,665 87

LIABILITIES.

Money borrowed	$850 00
" from Manager	944 66
Total liabilities	$1.794 66

RECEIPTS.

Cash at head office, per last statement, (not extended)	$102 21	
Cash received for assessments levied in 1884		$3,929 89
" " " years prior to 1884		242 87
Cash borrowed		2,194 66
Total receipts		$6,367 42

EXPENDITURE.

Expenses of Management:		
Amount paid for investigation and adjustment of claims		$27 80
" interest		49 50
" statutory assessment		65 83
" printing, stationery and advertising		86 00
" salaries, directors' and auditors' fees		640 00
" fuel and light		1 00
" postage, telegrams and express		63 50
" law costs		5 00
Expenses of management		$938 63
Miscellaneous Payments:		
Cash paid for losses which occurred during 1884		5,131 00
" loans repaid		400 00
Total expenditure		$6,469 63

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Five years.	Total.
	$ c.	$ c.
Mutual	2,186,883 00	2,186,883 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	1,216	2,027,859 00
" new and renewed during 1884	318	622,969 00
Gross number during 1884	1,534	2,650,828 00
Less expired and cancelled in 1884	282	463,945 00
Net risks in force on mutual system December 31st, 1884	1,252	2,186,883 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Five year risks.	Amount.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	118,995 73	118,995 73
Amount of all premium notes, after deducting all payments thereon and assessments levied	102,208 70	102,208 70
Amount of premium notes renewed during the year 1884	31,714 00	31,714 00

WEST WAWANOSH MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, ST. HELENS.

Commenced business 13th May, 1879.

President—CHAS. GIRVIN. | *Secretary*—ROBT. MURRAY.

Unassessed premium note capital, $50,692.63.

ASSETS.

Actual cash on hand at head office	$222 92
Amount unpaid of assessments levied during 1884	165 59
Amount of premium notes in force, after deducting all payments thereon and assessments levied	50,692 63
Total assets	$51,081 14

LIABILITIES.

Amount of losses adjusted	$531 00
Amount due directors and auditors	95 00
Bills payable	600 00
Printing account	25 00
Total liabilities	$1,251 00

RECEIPTS.

Cash at head office, as per last statement (not extended)	$87.96	
" " at taking of applications		160 00
Cash received as first payments, being part payment of premium notes		253 93
" for assessments levied in 1884		803 83
" from steam-thresher certificates		14 50
" borrowed money		300 00
Total receipts		$1,532 26

EXPENDITURE.

Expenses of Management:	
Amount paid for interest	$22 56
" statutory assessment	35 81
" printing, stationery and advertising	50 00
" salaries, directors' and auditors' fees	351 75
" postage, telegrams and express	37 85
Expenses of management	$497 97
Miscellaneous Payments:	
Cash paid for losses which occurred during 1884	877 45
" other expenses	21 88
Total expenditure	$1,397 30

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Five years.	Total.
	$ c.	$ c.
Mutual	1,328,671 00	1,328,671 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	979	1,102,735 00
New and renewed during 1884	323	423,275 00
Gross number during 1884	1,302	1,526,010 00
Less expired and cancelled in 1884	163	197,339 00
Net risks in force 31st December, 1884	1,139	1,328,671 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Five year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	53,146 84	53,146 84
Amount of all premium notes, after deducting all payments thereon and assessments levied	50,692 63	50,692 63
Amount of premium notes received during the year 1884	16,931 00	16,931 00

THE MUTUAL FIRE INSURANCE COMPANY OF THE COUNTY OF WELLINGTON.

HEAD OFFICE, GUELPH.

Commenced business, September, 1840.

President—FRED. W. STONE. | *Secretary*—CHARLES DAVIDSON.

Unassessed premium note capital, $273,385.17.

ASSETS.

Cash value of real estate, less encumbrances		$400 00
Cash on hand at head office	$1,369 63	
" deposit to Company's credit in Bank of Commerce, Guelph	3,125 30	
		4,494 93
" in agents' hands, acknowledged by them to be due and considered good.		440 77
Amount unpaid of assessments levied during 1884		9,660 03
" " " in prior years (not extended)	$632 10	
" due bills less than one year overdue		136 05
" of premium notes in force, after deducting all payments thereon and assessments levied		273,385 17
" of all other assets		19 81
Total assets		$288,536 76

LIABILITIES.

Amount of unpaid losses	$1,632 00
" outstanding accounts	47 62
Total liabilities	$1,679 62

Receipts.

Cash at head office, as per last statement (not extended).....	$4 92	
" received as first payments, being part payment of premium notes....		$7,237 28
" for assessments levied in 1884.....		5.707 64
" " " years prior to 1884.....		16,165 03
" balance of agents' account.....		102 00
" received from carpenters' risks.....		21 00
" " assessments on cancelled policies.....		272 86
" " transfer fees.....		9 60
Total receipts.....		$29,515 41

Expenditure.

Expenses of Management:

Amount paid for commission to agents.....	$2,204 15
" Division Court costs.....	20 12
" fuel and light.....	50 10
" investigation and adjustment of claims.....	105 88
" interest.....	66 64
" statutory assessment.....	89 40
" printing, stationery, and advertising.....	307 12
" rent and taxes.....	101 62
" salaries, directors' and auditors' fees.....	2,974 60
" travelling expenses.....	100 20
" postage, telegrams and express.....	332 16
" office furniture.....	99 57
Expenses of management.....	$6,451 56

Miscellaneous Payments:

Cash paid for losses which occurred prior to 1884.....	$7,091 67	
" " " during 1884.....	7,624 06	
		14,715 73
" rebate, abatements and returned premiums.....		53 14
" repayment of loans.....		3,804 97
Total expenditure.....		$25,025 40

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Three years.	Total.
	$ c.	$ c.
Mutual.....	2,906,924 00	2,906,924 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	2,307	2,753,844 00
" new and renewed during 1884	892	1,139,770 00
Gross number and amount during 1884	3,199	3,893,614 00
Less expired and cancelled in 1884	845	986,690 00
Net risks in force on mutual system 31st December, 1884	2,354	2,906,924 00

BUSINESS TRANSACTED BY COMPANY:

General Fire Insurance.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Three year risks.	Total receipts.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	303,000 58	303,000 58
Amount of all premium notes, after deducting all payments thereon and amounts levied	273,385 17	273,385 17
Amount of premium notes received during the year 1884	118,939 95	118,939 95

THE WESTMINSTER MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, LOT 14, CON. 4, WESTMINSTER.

Commenced business 11th December, 1857.

President—RICHARD G. ROSE. | *Secretary*—HENRY ANDERSON.

Unassessed premium note capital, $18,221.76.

ASSETS.

Cash on hand at head office	$7 06	
Cash on deposit to the Company's credit, not drawn against, in		
Huron and Erie Savings Bank	1,115 61	
London Loan and Savings Company, London	4,567 50	
		$5,690 17
Amount of premium notes in force, after deducting all payments thereon and assessments levied		18,221 76
Total assets		$23,911 93

LIABILITIES.—(None.)

RECEIPTS.

Cash at head office, as per last statement (not extended)	$4,950.70	
Cash received for assessments levied in 1884		$1,948 73
" " interest		276 89
" " membership fees		220 50
Total receipts		$2,446 12

EXPENDITURE.

Expenses of Management:		
Amount paid for investigation and adjustment of claims		$36 00
" " statutory assessment or certificate		35 71
" " printing, stationery and advertising		12 50
" " salaries, directors' and auditors' fees		368 00
" " postage		29
Expenses of management		$452 50
Miscellaneous Payments:		
Cash paid for losses which occurred during 1884	$1,130 29	
" " " prior to 1884	120 66	
		1,250 95
" rebate		3 20
Total expenditure		$1,706 65

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Five years.	Total.
	$ c.	$ c.
Mutual	1,138,860 00	1,138,860 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$
Policies in force 31st December, 1883	825	1,099,290 00
New and renewed during 1884	212	293,675 00
Gross number during 1884	1037	1,392,965 00
Less expired and cancelled in 1884	219	254,105 00
Net risks in force 31st December, 1884	818	1,138,860 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Five years.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	22,777 20	22,777 20
Amount of all premium notes, after deducting all payments thereon and assessments levied	18,221 76	18,221 76
Amount of premium notes received during the year 1884	5,873 50	5,873 50

TOWNSHIP OF EAST WILLIAMS MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE, NAIRN.

Commenced business 8th August, 1875.

President—NEIL MCTAGGART. | *Secretary*—WM. MCCALLUM.

Unassessed premium note capital, $4,853.36.

ASSETS.

Cash on hand	$104 15
Cash in agents' hands, acknowledged by them to be due and considered good.	22 80
Amount unpaid of assessments levied during 1884	77 48
" " " in prior years (not extended). $75 40	
" of premium notes in force, after deducting all payments thereon and assessments levied	4,853 36
Total assets	$5,057 79

LIABILITIES.—(None.)

RECEIPTS.

Cash received as first payments on premium notes	$273 01
" " on assessments levied during 1884	272 85
" " " " prior to 1884	21 90
Total receipts	$567 76

EXPENDITURE.

Expenses of Management:

Amount paid for interest	$7 90
" statutory assessment	9 32
" printing, stationery and advertising	12 20
" salaries, directors' and auditors' fees	108 00
" fuel and light	2 00
" postage	2 38
Expenses of management	$141 80

Miscellaneous Payments:

Cash paid for losses which occurred during 1884	240 00
" loan repaid	81 81
Total expenditure	$463 61

CURRENCY OF RISKS.

Amount covered by Policies in force 31st December, 1884.

System.	Three years.	Total.
	$ c.	$ c.
Mutual	292,870 00	292,870 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Net risks in force on mutual system 31st December, 1884	248	292,870 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Three year risks.	Total.
	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	5,862 20	5,862 20
Amount of all premium notes, after deducting all payments thereon and assessments levied	4,853 36	4,853 36
Amount of premium notes renewed during the year 1884	2,646 30	2,446 30

THE YARMOUTH MUTUAL FIRE INSURANCE COMPANY.

HEAD OFFICE YARMOUTH CENTRE.

Commenced business 17th October, 1881.

President—JOHN A. SQUANCE. | *Secretary*—W. E. LEONARD.

Unassessed premium note capital, $6,249.23.

ASSETS.

Actual cash on hand at head office	$37 41	
Cash on deposit to the Company's credit, not drawn against, in Southern Loan and Savings Company, St. Thomas	1,200 00	
		$1,237 41
Amount of assessments unpaid, levied during 1884		85 71
Amount of premium notes in force, after deducting all payments thereon and assessments levied		6,249 23
Total assets		$7,572 35

LIABILITIES.

Amount of adjusted losses	$1,000 00
Total liabilities	$1,000 00

RECEIPTS.

Cash at head office, as per last statement (not extended)	$7 67	
Cash received as first payments, being part payment of premium notes		$600 76
" for assessments levied in 1884		896 85
" from transfer fees, etc		21 00
" for interest		15 01
Total receipts		1,533 62

EXPENDITURE.

Expenses of Management:

Amount paid for statutory assessment or certificate	$10 74
" " printing, stationery and advertising	10 88
" " postage, telegrams and express	6 13
" " salaries, directors' and auditors' fees	186 00
" " law costs	5 00
" " investigation of claims	6 00
Total expenses of management carried out	224 75

Miscellaneous:

Cash paid for losses which occurred during 1884	457 33
" " rebate, etc	5 10
Total expenditure	687 18

CURRENCY OF RISKS.

Amount covered by policies in force 31st December, 1884.

System.	Two years or less	Three years.	Total.
	$ c.	$ c.	$ c.
Mutual	5,100 00	410,947 00	416,047 00

MOVEMENT IN RISKS.

Mutual System.

——	Number.	Amount.
		$ c.
Policies in force 31st December, 1883	259	330,994 00
" new and renewed during 1884	173	251,952 00
Gross number during 1884	432	582,946 00
Less expired and cancelled in 1884	128	166,899 00
Net risks in force 31st December, 1884	304	416,047 00

CLASSIFICATION OF RISKS:

Farm and Non-hazardous.

PREMIUM NOTES OR UNDERTAKINGS

On Policies in force 31st December, 1884.

——	Two year risks, or under.	Three year risks.	Total.
	$ c.	$ c.	$ c.
Amount of face of all premium notes held by Company, and legally liable to assessment	32 75	8,032 33	8,065 08
Amount of all premium notes, after deducting all payments thereon and assessments levied	28 40	6,220 83	6,249 23
Amount of premium notes received during the year 1884	53 00	4,742 30	4,795 30

RECAPITULATION

OF

ASSETS, LIABILITIES, INCOME AND EXPENDITURE

OF ALL

STRICTLY MUTUAL FIRE INSURANCE COMPANIES.

PURELY MUTUAL COMPANIES.

ASSETS FOR THE YEAR ENDING 31ST DECEMBER, 1884.

Name of Company.	Real Estate, Cash Value.	Mortgages, Bonds, Debentures and other Securities.	Cash.	Agents' Balances.	Assessments unpaid of 1884.	Due Bills less than one year Overdue.	Unassessed Premium Note Capital.	Accrued Interest.	All other Assets.	Total Assets.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Bay of Quinte			114 19	12 96			13,124 74			13,251 89
Bertie and Willoughby			1 96				7,582 44			7,584 40
Blanshard			470 11		34 00		15,599 35			16,103 46
Blenheim			4 41				32,258 14			32,262 55
Brant, County			848 37		723 25		69,345 03			70,916 65
Canadian Millers'			596 18		171 00	55 50	10,968 33			11,791 01
Caradoc							1,548 36			1,548 36
Culross							16,569 62			16,569 62
Dominion Grange, General Branch			2,488 92			1,237 20	26,076 12		39 42	29,841 66
" " Grange Branch	4,576 66	13,100 00	914 83			2,731 91	118,127 30	601 00	102 83	140,154 53
Dorchester, North and South			440 56		73 83		8,188 49			8,702 88
Downie							4,968 07			4,968 07
Dumfries, North, and Waterloo, South					480 00		156,866 12			157,346 12
Dunwich					118 99		10,158 67			10,277 66
Easthope, South			1,207 61		124 81		61,229 22			62,561 64
Economical			26,526 94	100 50	2,781 41	740 64	104,213 78	248 56		134,611 83
Elma			14 19				9,808 65			9,822 84
Eramosa			2,528 07				11,279 20			13,807 27
Erie			187 49			185 77	12,855 69			13,228 95
Formosa			1,148 71	21 84	16 00		8,960 32			10,146 87
Germania			14 36		109 10		14,464 29		2 00	14,589 75

Globe			1,553 65	19 42	483 55	98 93	11,196 99		22 22	13,374 76
Grand River			807 89	7 25	138 74		5,080 28		3 00	6,037 16
Grey and Bruce			1,704 37		123 91		12,120 39			13,948 67
Guelph Township			118 43				18,632 87			18,751 30
Hay Township			1,588 66		110 50		37,278 28			38,977 44
Hopewell Creek			202 45		187 81		40,278 15			40,668 41
Howick			373 14		283 83		110,115 71			110,772 68
Huron and Middlesex			295 12	782 42	1,234 28	1,457 71	33,683 35		855 92	38,308 80
Lambton		450 00	3,028 98			662 54	20,452 09			24,593 61
Lennox and Addington			2,194 71		593 62		8,783 67			11,572 00
Lobo			773 89		43 58		8,937 75			9,755 22
London Township			91 70		19 35		12,160 86			12,271 91
McGillivray			1,932 47			175 00	6,868 44			8,975 91
McKillop			579 36		230 35		42,560 04			43,369 75
Nichol			616 40		959 24	361 96	46,703 98			48,641 58
Nissouri, East and West, and Zorra, West			107 45		286 82		62,648 37			63,042 64
Norfolk			939 71	8 17	207 06		11,081 88			12,236 82
Oneida			111 72	12 50			6,265 03		11 40	6,400 65
Oxford			33 50				11,047 50			11,081 00
Peel County			770 61		1,575 80		34,066 20			36,412 61
Puslinch			465 83				7,179 28			7,645 11
Saltfleet and Binbrook			285 72		114 37	8 84	4,910 16			5,319 09
Saugeen			1,518 18		4,568 01		24,246 85			30,333 04
Simcoe County			24 82				2,456 08			2,480 90
Southwold			691 74		107 00		11,259 83			12,058 57
Sydenham			1,217 88	92 03			32,352 76			33,662 67
Townsend			56 66		57 33		12,401 21			12,515 20
Usborne and Hibbert			98 96				17,983 39			18,082 35
Walpole			630 97	97 39			23,337 24			24,065 60
Waterloo, North					457 17		102,208 70			102,665 87
Wawanosh, West			222 92		165 59		50,692 63			51,081 14
Wellington	400 00		4,494 93	440 77	9,660 03	136 05	273,385 17		19 81	288,536 76
Westminster Township			5,690 17				18,221 76			23,911 93
Williams, East			104 15	22 80	77 48		4,853 36			5,057 79
Yarmouth			1,237 41		85 71		6,249 23			7,572 35
Totals	4,976 66	13,550 00	72,071 45	1,618 05	26,403 52	7,852 05	1,845,891 41	849 56	1,056 60	1,974 269 30

PURELY MUTUAL COMPANIES.

LIABILITIES FOR THE YEAR ENDING 31st DECEMBER, 1884.

Name of Company.	Losses. Adjusted.	Losses. Resisted.	Losses. Reported but not Adjusted.	Borrowed Money.	Salaries and Directors' Fees.	Small Accounts.	Total Liabilities.	Number of Policies in force.	Amount at Risk.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.		$ c.
Bay of Quinte					8 00	1 84	9 84	667	833,446 00
Bertie and Willoughby							*nil.*	451	501,862 00
Blanshard	1,030 00						1,030 00	539	739,970 00
Blenheim							*nil.*	325	666,970 00
Brant County	677 92			1,050 00			1,727 92	2,094	2,676,840 00
Canadian Millers'							*nil.*	90	152,000 00
Caradoc				41 74			41 74	95	107,930 00
Culross				7 72			7 72	340	435,569 00
Dominion Grange, General Branch						50	50	1,362	1,350,444 00
do Grange do		365 50				440 66	806 16	4,753	6,193,322 00
Dorchester, North, and South							*nil.*	607	818,849 00
Downie				30 00			30 00	143	216,880 00
Dumfries, North, and Waterloo, South				589 53			589 53	1,558	3,461,738 00
Dunwich		400 00		27 77			427 77	536	548,516 00
Easthope, South			800 00				800 00	793	1,313,945 00
Economical							*nil.*	2,463	2,475,400 00
Elma				110 00			110 00	130	196,173 00
Eramosa							*nil.*	183	276,085 00
Erie							*nil.*	563	596,165 00
Formosa							*nil.*	258	298,874 00

Germania				51 50			51 50	515	646,365 00
Globe					118 00		118 00	1,144	730,207 00
Grand River							nil.	306	406,815 00
Grey and Bruce							nil.	619	666,779 00
Guelph, Township							nil.	243	437,315 00
Hay Township							nil.	1,247	1,544,972 00
Hopewell Creek				300 00		17 50	317 50	731	773,583 00
Howick	2,638 00						2,638 00	2,063	2,641,861 00
Huron and Middlesex	2,227 21		750 00	2,500 00		70 39	5,547 60	2,566	1,728,230 00
Lambton					11 23	2 63	13 86	2,123	2,289,535 00
Lennox and Addington	300 00			2,050 00	125 50		2,475 50	667	785,701 00
Lobo							nil.	196	251,645 00
London Township							nil.	398	473,445 00
McGillivray							nil.	288	286,185 00
McKillop	887 00		1,100 00				1,987 00	1,656	2,095,713 75
Nichol	803 00						803 00	1,611	2,080,217 00
Nissouri, East and West, and Zorra, West	2,632 67						2,632 67	853	1,377,771 00
Norfolk	2 00			700 00	572 16	50 17	1,324 33	1,150	1,043,361 00
Oneida							nil.	337	418,168 00
Oxford					118 50		118 50	246	285,725 00
Peel County	1,475 00				494 00	20 00	1,989 00	1,949	2,513,867 00
Puslinch	12 00						12 00	222	377,440 00
Saltfleet and Binbrook							nil.	290	352,850 00
Saugeen	1,900 00	207 50	1,352 45	3,800 00	136 46	27 50	7,423 91	1,460	1,269,356 00
Simcoe, County							nil.	115	151,712 08
Southwold							nil.	492	656,450 00
Sydenham							nil.	1,481	1,641,128 00
Townsend							nil.	650	892,410 00
Usborne and Hibbert							nil.	865	1,105,640 00
Walpole							nil.	770	1,182,475 00
Waterloo, North				1,794 66			1,794 66	1,252	2,186,883 00
Wawanosh, West	531 00			600 00	95 00	25 00	1,251 00	1,139	1,328,671 00
Wellington	1,632 00					47 62	1,679 62	2,354	2,906,924 00
Westminster							nil.	818	1,138,860 00
Williams, East							nil.	248	292,870 00
Yarmouth	1,000 00						1,000 00	304	416,047 00
Total	17,747 80	973 00	4,002 45	13,652 92	1,678 85	703 81	38,758 83	51,318	63,238,154 83

PURELY MUTUAL COMPANIES.

INCOME FOR THE YEAR ENDING 31st DECEMBER, 1884.

Name of Company.	First Payment on Premium Notes.	Assessment for 1884.	Arrears of Prior Assessments.	Fees or Surveys.	Licenses, extra Risks and Transfers.	Interest.	Repayment of Money Loaned. Due Bills.	Borrowed Money.	Other Sources.	Total.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Bay of Quinte	496 17	116 68			5 00	1 04			3 75	622 64
Bertie and Willoughby	89 36			201 00						290 36
Blanshard		1,571 03	153 58			7 90				1,732 51
Blenheim, North				30 55						30 55
Brant County		3,038 00	1,098 07					1,550 00	44 18	5,730 25
Canadian Millers'	1,285 65	3,050 33	66 00		18 50	18 96				4,439 44
Caradoc	71 39			47 50				91 74		210 63
Culross			59 55	65 00				7 72		132 27
Dominion Grange, General Branch	1,647 97				141 98	34 15	2,975 45			4,799 55
" Grange Branch	4,691 10				269 26	638 42	6,181 03		231 25	12,011 06
Dorchester, North and South		1,253 57		343 59		126 21				1,723 37
Downie				214 50				30 00		244 50
Dumfries, North, and Waterloo, South		4,568 56	629 50					2,389 53		7,587 59
Dunwich		1,071 94	2 40	95 50				27 77		1,197 61
Easthope, South		2,156 56	58 78	269 50						2,484 84
Economical	6,783 15	7,210 86	4,739 45	838 47	93 51	1,288 89				20,954 33
Elma				97 50	18 00			110 00	46 35	271 85
Eramosa	119 49	162 06	77 36			86 27				445 18
Erie	149 12		30 30	188 25	12 50				9 75	389 92
Formosa	173 14	145 84	4 32			66 62			50	390 42
Germania		478 80	7 00	28 00				445 00	8 00	966 80

Globe	880 78	1,311 74	150 88		3 00	118 12			15 00	2,479 52
Grand River		870 48	15 62	56 25	9 00	7 35				958 70
Grey and Bruce		545 43	29 25			108 51			16 00	699 19
Guelph Township	226 67		141 80			14 25				382 72
Hay Township	131 20	1,768 01								1,899 21
Hopewell Creek	23 80	1,098 00	108 17					750 00	2 60	1,982 57
Howick		2,985 17	480 55			29 30				3,495 02
Huron and Middlesex	11,967 00	5,222 66	435 27	79 65	70 23	36 13		2,500 00	24 63	20,335 57
Lambton	4,802 86					131 64	350 00	11 23		5,295 73
Lennox and Addington		2,773 97	300 23			3 35		250 00		3,327 55
Lobo Township	151 72	312 22	8 70		84	24 38				497 86
London Township		368 99	53 61		2 75	12 54				437 89
McGillivray			93 90	353 39		87 67				534 96
McKillop		2,611 54	165 30	110 50	94 18	16 00				2,997 52
Nichol	899 84	1,738 95	674 91				560 28	1,000 00	19 01	4,892 99
Nissouri, East and West, and Zorra, West		3,497 28	1,176 79	196 50	12 00			2,100 00		6,982 57
Norfolk	218 58	1,509 06	207 03		31 35	2 40				1,968 42
Oneida			121 41	60 25	10 50					192 16
Oxford	246 00									246 00
Peel County	798 08	6,195 60	962 51		22 00			2,500 00		10,478 19
Puslinch	142 33			10 00		15 44				167 77
Saltfleet and Binbrook	190 00	394 88	422 55	58 00			8 84	100 00	2 74	1,177 01
Saugeen	2,015 78	3,055 51	13 05		37 20	23 57		3,936 46	748 38	9,829 95
Simcoe County			82 42	6 00						88 42
Southwold		1,171 20	18	46 00		2 34		200 00		1,419 72
Sydenham	530 71	43 79		222 00	75 00	24 16				895 66
Townsend	191 64	1,696 13	90	106 50				150 00		2,145 17
Usborne and Hibbert		108 03				12 00				120 03
Walpole	187 62	1,591 05	5 07	261 00	73 60					2,118 34
Waterloo, North		3,929 89	242 87					2,194 66		6,367 42
Wawanosh, West	253 93	803 83		160 00	14 50			300 00		1,532 26
Wellington	7,237 28	5,707 64	16,165 03		30 60				374 86	29,515 41
Westminster		1,948 73		220 50		276 89				2,446 12
Williams, East	273 01	272 85	21 90							567 76
Yarmouth	600 76	896 85			21 00	15 01				1,533 62
Totals	44,476 13	79,253 71	29,006 21	4,365 90	1,066 50	3,229 51	10,075 60	20,644 11	1,547 00	196,664 67

PURELY MUTUAL COMPANIES.

EXPENDITURE FOR THE YEAR ENDING 31st DECEMBER, 1884.

Name of Company.	Losses.	Repayment of Borrowed Money.	Reinsurance.	Refunds. Rebatements and Returned Premiums.	General Expense Account.	Agents' Commission and Fees.	Interest.	Law Costs.	Statutory Assessment or Certificate.	All other Expenses.	Total.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Bay of Quinte	13 00	250 00	.....	.....	514 26	114 00	14 00	.....	20 00	341 25	1,266 51
Bertie and Willoughby	.....	.....	.....	.....	168 09	114 25	.....	.....	15 00	.....	297 34
Blanshard	1,494 00	.....	.....	.....	135 77	.....	.....	.....	22 36	.....	1,652 13
Blenheim, North	.....	.....	.....	.....	89 21	.....	.....	.....	20 14	.....	109 35
Brant County	3,087 52	500 00	.....	.....	760 58	475 64	52 55	.....	79 61	.....	4,955 90
Canadian Millers'	6,016 71	.....	.....	.....	406 54	339 79	7 40	.....	4 16	.....	6,774 60
Caradoc	.....	50 00	.....	.....	93 13	47 50	.....	.....	20 00	.....	210 63
Culross	6 00	.....	.....	.....	119 97	.....	.....	.....	13 03	.....	139 00
Dominion Grange, General Branch	1,767 22	.....	22 00	94 91	1,660 17	84 00	.....	.....	38 00	.....	3,666 30
" Grange Branch	5,306 17	.....	66 73	1,459 01	3,987 33	260 50	19 34	43 04	184 56	118 16	11,444 84
Dorchester, North and South	3,663 00	.....	.....	2 00	198 30	.....	.....	4 00	24 81	.....	3,892 11
Downie	.....	.....	.....	.....	213 50	.....	.....	11 00	20 00	.....	244 50
Dumfries, North, and Waterloo, South	3,360 46	2,754 76	.....	.....	1,250 65	.....	110 50	.....	111 22	.....	7,587 59
Dunwich	953 70	.....	.....	.....	207 43	64 00	9 56	.....	16 05	.....	1,250 74
Easthope, South	1,112 00	.....	.....	.....	342 12	.....	.....	.....	38 70	.....	1,492 82
Economical	5,990 09	.....	43 50	142 73	3,046 18	1,224 55	.....	.....	56 16	.....	10,503 21
Elma	.....	.....	.....	.....	205 16	32 50	.....	.....	20 00	.....	257 66
Eramosa	.....	.....	.....	.....	65 61	.....	.....	.....	8 41	.....	74 02
Erie	48 29	.....	.....	.....	187 66	94 12	.....	.....	18 02	.....	348 09
Formosa	3 00	.....	.....	5 16	68 71	.....	.....	.....	8 65	.....	85 52
Germania	450 00	445 00	.....	.....	31 86	.....	9 00	.....	19 78	.....	955 64
Globe	2,624 54	.....	.....	43 75	671 99	448 33	.....	5 25	23 24	.....	3,817 10

Grand River	705 00				220 67				12 63		938 30
Grey and Bruce	467 25				240 67				20 55		728 47
Guelph Township	500 00			6 85	61 30	23 50			13 29		604 94
Hay Township	97 32				167 39	123 70			46 67	47 12	482 20
Hopewell Creek	907 00	650 00	1 80	5 98	257 36	11 00	43 12		21 62		1,897 88
Howick	2,943 25			47 70	917 91	113 75			84 89		4,107 50
Huron and Middlesex	11,142 73		595 97	450 90	5,100 94	1,631 01	180 61	126 85	42 11	393 48	19,664 60
Lambton	3,513 55			188 70	540 88	376 00			68 01		4,687 14
Lennox and Addington	680 00			40 42	666 47	20 00	25 54		30 09		1,462 52
Lobo					86 95	14 00			5 79		106 74
London Township	310 00	150 00			97 61	68 50	12 00		9 99		648 10
McGillivray	171 00				49 50	35 00			9 65	102 45	367 60
McKillop	3,533 96				713 75				69 10		4,316 81
Nichol	2,291 80	1,000 00		2 50	821 94		20 60		63 56		4,200 40
Nissouri, East and West, and Zorra, W.	4,622 55	2,100 60			279 94		51 82		34 92		7,089 23
Norfolk	820 52			6 70	752 55	83 00	56 48	10 00	25 19		1,754 44
Oneida					106 08				12 98		119 06
Oxford	150 00				42 50				20 00		212 50
Peel County	6,611 50	2,500 00		7 58	709 91	267 00	100 00		71 49		10,267 48
Puslinch					24 55				11 55		36 10
Saltfleet and Binbrook	670 00	100 00		22 03	120 91	73 53	4 45		10 34		1,001 26
Saugeen	2,982 55	2,614 00	234 07	95 53	1,233 80	1,387 63	192 83	7 00	34 47	78 75	8,860 63
Simcoe County					111 09				5 01		116 10
Southwold	500 00	200 00			243 74		10 15	5 00	19 44		978 33
Sydenham	10 00				285 30			10 00	49 28	16 50	371 08
Townsend	1,720 00	150 00		6 97	254 30		6 00		27 33		2,164 60
Usborne and Hibbert	59 66				294 15				29 82		383 63
Walpole	1,219 75				373 75	10 00			34 68		1,638 18
Waterloo, North	5,131 00	400 00			818 30		49 50	5 00	65 83		6,469 63
Wawanosh, West	877 45				439 60		22 56		35 81	21 88	1,397 30
Wellington	14,715 73	3,804 97		53 14	4,071 25	2,204 15	66 64	20 12	89 40		25,025 40
Westminster Township	1,250 95			3 20	416 79				35 71		1,706 65
Williams, East	240 00	81 81			124 58		7 90		9 32		463 61
Yarmouth	457 33			5 10	209 01			5 00	10 74		687 18
Total	105,197 55	17,750 54	964 07	2,690 86	35,279 66	9,740 95	1,072 55	252 26	1,913 16	1,119 59	175,981 19

MUTUAL COMPANIES OF ALL CLASSES.

COMPARATIVE SUMMARY OF ASSETS AND PREMIUM NOTES FOR YEAR ENDING 31st DECEMBER, 1884.

Name of Company.	Gross Amount of Risk on Mutual Plan.	Premium Notes unassessed amount.	Surplus of General Assets over Liabilities.	New business taken during year 1884.	Premium Notes taken during year 1884.	Rate per cent. of said Premium Notes to new business.	Terms of Insurance in years.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Bay of Quinte	833,446 00	13,124 74	13,242 05	299,525 00	4,849 69	1 61	3 to 5
Bertie and Willoughby	501,862 00	7,582 44	7,584 40	142,572 00	2,234 16	1 56	3
Blanshard	739,970 00	15,599 35	15,073 46	113,800 00	2,890 37	2 53	5
Blenheim, North	666,970 00	32,258 14	32,262 55	124,600 00	6,230 00	5 00	5
Brant County	2,676,840 00	69,345 03	69,188 73	862,270 00	25,647 25	2 97	5
Canadian Millers'	152,000 00	10,968 33	11,791 01	74,200 00	8,718 20	11 80	1 to 3
Caradoc	107,930 00	1,548 36	1,506 62	107,930 00	1,619 75	1 50	2 to 5
Culross	435,569 00	16,569 62	16,561 90	129,067 00	5,135 88	4 00	3
Dominion Grange, General Branch	1,350,444 00	26,150 72	29,841 16	649,873 00	17,432 74	2 68	1 to 3
" Grange do	6,193,322 00	118,267 16	139,348 37	1,499,866 00	39,259 71	2 64	2 to 4
Dorchester, North and South	818,849 00	8,188 49	8,702 88	176,415 00	3,528 30	2 00	5
Downie	216,880 00	4,968 07	4,938 07	216,880 00	4,968 07	2 30	5
Dumfries, North, and Waterloo, South	3,461,738 00	156,866 12	156,756 59	755,974 00	37,798 70	5 00	5
Dunwich	548,516 00	10,158 67	9,849 89	73,951 00	1,872 76	2 50	5
Easthope, South	1,313,945 00	61,229 22	61,761 64	349,660 00	17,483 00	5 00	5
Economical	2,475,400 00	104,836 00	134,611 83	1,108,711 00	70,909 00	6 40	3
Elma	196,173 00	9,808 65	9,712 84	196,173 00	9,808 65	5 00	5
Eramosa	276,085 00	11,279 20	13,807 27	68,855 00	3,272 25	4 75	3
Erie	596,165 00	12,855 69	13,228 95	146,825 00	3,755 40	2 56	5
Formosa	298,874 00	8,960 32	10,146 87	153,940 00	4,857 00	3 15	3
Germania	646,365 00	14,464 29	14,538 25	198,550 00	4,917 75	2 43	5
Globe	730,207 00	11,196 99	13,256 76	242,493 00	5,668 45	2 34	3
Gore District	1,962,764 00	113,743 96	159,737 96	801,614 00	73,133 00	9 12	1 to 3
Grand River	406,815 00	5,080 28	6,037 16	112,600 00	1,711 80	1 51	3 to 5
Grey and Bruce	666,779 00	12,120 39	13,948 67	157,924 00	2,998 60	1 90	1 to 5
Guelph Township	437,315 00	18,632 87	18,751 30	162,050 00	7,681 00	4 74	3

Hand in Hand	568,264 00	5,494 54	38,554 05	454,887 00	4,931 18	1 08	1 to 4
Hay Township	1,544,972 00	37,278 28	38,977 44	261,835 00	7,423 75	2 83	5
Hopewell Creek	773,583 00	40,300 70	40,350 91	174,314 00	9,202 75	5 29	5
Howick	2,641,861 00	110,115 71	108,134 68	597,515 00	30,395 75	5 09	5
Huron and Middlesex	1,728,230 00	35,523 15	32,761 20	935,377 00	.....	.....	1 to 3
Lambton	2,289,535 00	20,483 59	24,579 75	839,927 00	12,580 96	1 50	1 to 3
Lennox and Addington Grange	785,701 00	8,783 67	9,096 50	144,281 00	2,314 15	1 60	3
Lobo Township	251,645 00	8,937 75	9,755 22	74,800 00	2,970 66	3 96	3
London Township	473,445 00	12,160 86	12,271 91	176,182 00	4,214 10	2 39	2 to 5
McGillivray	286,185 00	6,868 44	8,975 91	88,065 00	2,113 56	2 40	3
McKillop	2,095,713 75	42,560 04	41,382 75	341,320 00	9,098 54	2 67	5
Nichol	2,080,217 00	46,703 98	47,838 58	712,835 00	26,723 68	3 75	3 to 5
Nissouri, East and West, and Zorra, West	1,377,771 00	62,648 37	60,409 97	491,270 00	24,563 50	5 00	5
Norfolk	1,043,361 00	11,081 88	10,912 49	282,730 00	4,364 50	1 54	3
Oneida	418,168 00	6,265 03	6,400 65	91,184 00	1,396 24	1 53	3 to 5
Ontario	1,362,129 00	9,271 50	7,504 28	420,535 00	6,448 08	1 54	1 to 3
Oxford	285,725 00	11,047 50	10,962 50	285,725 00	11,293 50	3 95	2 to 5
Peel County	2,513,867 00	34,066 20	34,423 61	698,479 00	14,788 06	2 12	4
Perth County	2,382,285 00	28,231 75	43,251 90	941,515 00	15,384 02	1 63	3
Puslinch	377,440 00	7,179 28	7,633 11	147,110 00	2,942 20	2 00	3
Saltfleet & Binbrook	352,850 00	4,910 16	5,319 09	134,575 00	2,019 03	1 50	1 to 3
Sangeen	1,269,356 00	24,957 90	22,909 13	679,726 00	20,165 54	2 96	1 to 3
Simcoe County	151,712 08	2,456 08	2,480 90	60,460 00	1,042 01	1 72	3
Southwold	656,450 00	11,259 83	12,058 57	140,450 00	2,809 00	2 00	5
Sydenham	1,641,128 00	32,352 76	33,662 67	485,986 00	10,156 76	2 09	1 to 5
Townsend	892,410 00	12,401 21	12,515 20	293,390 00	4,790 83	1 63	3
Usborne and Hibbert	1,105,640 00	17,983 39	18,082 35	288,500 00	6,335 99	2 20	5
Victoria, Hamilton Branch	1,135,398 00	29,249 36	30,625 44	467,432 00	16,343 94	3 50	3
" General do	204,307 00	1,079 11	3,183 48	.....	.....	.....	3
Walpole	1,182,475 00	23,337 24	24,065 60	243,950 00	5,274 83	2 16	1 to 5
Waterloo	3,034,353 83	135,975 71	152,395 03	1,305,238 50	98,479 83	7 55	1 to 3
Waterloo, North	2,186,883 00	102,208 70	100,871 21	622,969 00	31,714 00	5 09	5
Wawanosh, West	1,328,671 00	50,692 63	49,830 14	423,275 00	16,931 00	4 00	5
Wellington	2,906,924 00	273,385 17	286,857 14	1,139,770 00	118,939 95	10 43	3
Westminster Township	1,138,860 00	18,221 76	23,911 93	293,675 00	5,873 50	2 00	5
Williams, East	292,870 00	4,853 36	5,057 79	132,315 00	2,446 30	2 00	3
Yarmouth	416,047 00	6,249 23	6,572 35	251,952 00	4,795 30	1 90	1 to 3
	73,887,655 66	2,172,378 92	2,370,762 00	24,049,867 50	909,648 35		

VI.—FIRE-LOSSES PAID

During year ending December 31st 1884 shewing (a) Localities, Months of Occurrence, and Causes of Fires, also (b) Amount of Losses sustained in each locality.

Note.—One Company's statement of details was received too late for insertion.

Locality	Amount of Losses ($)
Allumette	40 00
Albion	1,000 00
Arthur	72 00
Amaranth	8 00
Ancaster	8 00
Atwood	300 00
Aberarder	540 40
Ailsa Craig	44 50
Aldboro'	219 70
Avon	100 00
Arkona	2,775 80
Aylmer	781 10
Ashfield	600 00
Aurora	178 62
Amherstburg	10 00
Brantford	[illegible] 75
Bluevale	[illegible] 00
Boston	500 00
Brant	6 25
Bentinck	65 00
Bosanquet	250 00
Brooke	107 75
Brighton	1,300 00
Bruce	78 00
Blenheim	1,102 42
Beverley	979 85
Burford	561 18
Belmont	130 00
Bamberry	400 00
Berlin	4 50
Brussels	1,800 00
Bridgen	30 00
Bayfield	31 25
Bothwell	20 00
Barrie	11 00
Belleville	622 00
Baillieboro'	104 00
Baltimore	1,633 34
Clinton	93 00
Cartwright	4 50
Chatham	1,320 74
Carrick	623 75
Clifford	715 33
Centralia	104 00
Charlotteville	701 00
Chinguacousy	1,750 00
Cavan	8 00
Collingwood	615 00
Cannington	1,108 55
Culross	6 00
Clandeboye	700 00
Conestogo	180 00
Cayuga, North	76 67
Cayuga, South	4 00
Colborne, Township	377 45
Camden	300 00
Campbellford	14 00
Cookstown	175 00
Craigsville	150 00
Centreville	30 00
Cottam	1,000 00
Clarendon	1,016 00
Delhi	7 00
Drumbo	29 30
Dereham	20 00
Dunnville	1,037 50
Derby	10 00
Dunwich	1,110 00
Downie	1,223 00
Dumfries, North	1,802 95
Dumfries, South	77 00
Devizes	500 00
Dutton	15 00
Duart	260 00
Dundas	64 35
Elora	15 50
Elmwood	3,080 00
Easthope, North	300 00
Easthope, South	1,600 00
Ellice	380 00
Esquesing	810 17
Eganville	400 00
Elmira	158 77
Edmondville	401 00
Eden Grove	1,730 00
Etobicoke	81 00
Evelyn	740 00
Egremont	800 00
Fenelon Falls	7 00
Forest	255 00
Fergus	60 00
Freeport	850 00
Fullarton	1,000 00
Formosa	3 00
Frankfort	100 00
Galt	8,270 31
Glamis	11 51
Guelph, Township	500 00
Guelph	6,341 69
Goderich	10 00
Grey	67 00
Gore of Toronto	800 00
Granton	105 00
Georgetown	80 37
Garafraxa	2,048 16
Griersville	132 80
Grimsby	620 00
Holstein	1,699 64
Hanover	168 61
Hamburg (New)	2,613 00
Hawkesville	2 50
Hamilton	1,812 69
Hibbert	59 33
Harriston	3,402 75
Hay	4 00
Howick	836 76
Hullett	2,033 96
Houghton	350 00
Hillier	3 00
Harrietsville	3 00
Hepworth	10 00
Hawtry	200 00
Innisfil	258 67
Iroquois	14 00
Ingersoll	24 12
Janetville	500 00
Johnston's Mills	337 50
Kerwood	303 00
Keppel	43 00
Kingston	62 78
Kinglake	22 24

VI.—FIRE-LOSSES PAID.—*Continued*

Locality	Not stated	Total Number of Fires	Amount of Losses ($)
Lion's Head		2	20 00
London	6	18	3,271 82
Lucknow	1	1	1,900 00
Little Britain		1	5 00
Logan		1	10 00
Lucan	1	2	426 00
Listowel	1	1	00 00
Luther, East	1	1	12 00
Lindsay		1	41 65
Melland	1	1	100 00
Mornington	1	4	2,406 00
Milverton	1	3	169 65
Mount Forest	[illegible]	10	2,006 21
Mount Brydges	1	1	10 00
Mitchell	1	2	540 00
Maple Lodge		1	200 00
Merlin		1	60 00
Morris	1	3	523 00
Moore	1	1	5 00
Middleton, Township		1	900 00
Mersea		1	15 00
Marysboro', South		1	10 00
Marchmont	1	1	711 71
Mooreville		1	10 00
Maryborough		1	15 00
Mohawk		1	1,850 00
Malerley		1	56 00
Markham	1	1	4 00
Moulton Station		1	9 25
McGillivray		1	171 00
McKillop	1	1	600 00
Normanl	1	1	625 00
Norwich	1	1	60 00
Newbury		[illegible]	45 00
Napier		1	5 00
Nissouri, West		[illegible]	2,180 00
Nissouri, East		1	160 00
Normanby	1	2	450 00
Northfield		1	4 00
Nilestown		1	100 00
Nichol	1	1	221 80
Napanee	1	1	300 00
Omemee	1	1	1,800 00
Oxford, North	1	4	2,290 00
Oxford, East		2	146 34
Onondaga		1	9 33
Orangeville		1	13 50
Owen Sound	2	2	71 56
Otterville	1	1	110 00
Priceville	4	4	1,137 00
Port Perry	7	7	8,186 00
Port Elgin	1	3	1,383 75
Preston		2	2,200 00
Paris	1	4	540 90
Plympton	2	3	2,150 00
Percy		1	1,060 00
Paisley		3	6,745 22
Putnam		1	30 00
Puslinch	1	1	64 50
Port Edward	1	1	350 00
Princeton	1	1	100 00
Parkhill		1	650 00
Pickering, Township	1	1	1,000 00
Peel		1	12 00
Petrolea	1	3	1,450 00
Rochester		1	19 00
Ratho	1	1	3 00
Rainham		2	7 62
Rednersville		1	345 26
Riversdale	1	1	28 00
Ridgetown	1	1	60 00
Rosemore		1	157 50
Seneca		1	706 00
Strathroy	3	4	1,006 30
Simcoe, North		1	12 00
Seaforth	2	2	725 00
Springfield	1	1	700 00
Saintfield	1	1	30 00
Sheen		1	4 00
Stratford	[illegible]	10	2,529 01
St Mary's	1	2	42 37
Stephen		3	83 32
Stanley		1	10 00
Scugog		1	30 00
St Vincent		1	2 50
Scotland	1	1	57 93
Southwold	1	1	300 00
Sykestown	1	1	5 00
Schomberg	1	1	1,035 83
Sharbot Lake		1	2,100 00
Sandwich	1	1	525 00
Sterling		1	4 00
Sherbourne	2	2	10 85
Saltfleet		1	150 00
Toronto	23	40	11,156 56
Tara		1	5 00
Thornbury	1	1	1,483 70
Townsend	2	8	2,150 00
Teeswater	1	1	146 10
Tuscarora		1	360 00
Turnberry	1	1	132 00
Trafalgar	1	3	1,012 00
Thedford	2	4	2,061 83
Thorold		1	3 00
Thamesford		1	75 00
Uxbridge	1	6	2,504 20
Usborne		3	6 33
Vienna	2	5	3,315 00
Verona		1	31 00
Windsor	1	1	51 60
Woodhouse	1	3	12 00
Waterford	3	5	1,433 00
Walpole		7	1,219 75
Wyevale	1	1	44 58
Windham	1	3	236 02
Waterloo	2	6	2,205 71
Walsingham	1	2	23 00
Wendigo	1	1	72 00
Watford	2	2	515 00
Williams, East	1	1	241 00
Walkerton	1	1	67 60
Westminster	2	15	1,200 90
Wardsville	1	1	400 00
Wingham		1	800 00
Woodstock	1	1	246 00
Warwick		3	31 00
Wallace	1	3	463 00
Waterloo, Township	2	3	307 00
Wawanosh, East		4	1,295 00
Yarmouth	1	1	457 33
Zorra, West		3	1,250 00
Not stated	1	19	3,971 13
Total	255	622	201,341 90

Totals by date of occurrence and by cause of fires:

Column	Total
January	45
February	45
March	42
April	47
May	43
June	60
July	68
August	49
September	67
October	41
November	44
December	43
Not stated	25
Total Number of Fires	622
Ashes	1
Bake oven	2
Boiler furnace	7
Bonfire	1
Bush fire	6
Chimney defective	52
Chimney sparks	31
Coal from grate	4
Dry kiln	1
Explosion lamp	26
Explosion range	2
Gas	9
Incendiarism	29
Incendiarism suspected	14
Lantern, stable	2
Lightning	106
Locomotive	1
Matches	15
Picker	5
Spontaneous combustion	5
Stoves, pipes, flues	38
Threshing machines	2
Tobacco smoking	6
Tramps	3
Not stated	255
Total Number of Fires	622
Amount of Losses	201,341 90

REGISTER

OF

INSURANCE COMPANIES,

AT 1ST DECEMBER, 1885.

Pages.	Name of Company.	System.	Head Office.	President.	Post Office.	Secretary.	Post Office.
54	Bay of Quinte Agricultural	Mutual	Picton	Arch. Southard	Picton	J. R. Brown	Picton.
57	Bertie and Willoughby Farmers'	Mutual	Ridgeway	W. E. Elsworth	Ridgeway	H. N. Hibbard	Ridgeway.
59	Blanshard	Mutual	Woodham	Thos. Evans	St. Marys	Wm. Johnston	Woodham.
61	Blenheim, North	Mutual	Chesterfield	John Burns	Ratho	Geo. Middlemas	Chesterfield.
63	Brant County Farmers'	Mutual	Paris	John Miller	Glenmorris	Wm. Turnbull	Paris.
....	Bruce, West, Farmers'*	Mutual	Kincardine	Robt. Baird	Kincardine	E. Thornhill	Kincardine.
65	Canadian Millers'	Mutual	Hamilton	D. Goldie	Ayr	Seneca Jones	Hamilton.
68	Caradoc Farmers'	Mutual	Mount Brydges	W. Young	Mount Brydges	Wm. E. Sawyer	Mount Brydges.
70	Culross	Mutual	Teeswater	Thos. Allison	Teeswater	Wm. Colvin	Teeswater.
72	Dominion Grange	Mutual	Owen Sound	Jesse Trull	Oshawa	R. J. Doyle	Owen Sound.
77	Dorchester, North and South	Mutual	Harrietsville	Wm. Woods	Crumlin	Francis Kunz	Harrietsville.
79	Downie	Mutual	St. Paul's	Sam. Rankin	Fairview	Peter Smith	Sebringville.
81	Dumfries, North, and Waterloo, South	Mutual	Ayr	Thos. McKay	Rockwood	Wm. Deans	Ayr.
83	Dunwich Farmers'	Mutual	Wallacetown	John D. Graham	Dutton	John L. Pearce	Wallacetown.
85	Easthope, South, Farmers'	Mutual	Tavistock	Werner Youngblut	Tavistock	Robert Reid	Tavistock.
87	Economical	Mutual	Berlin	Hugo Kranz	Berlin	W. Oelschlager	Berlin.
90	Elma Farmers'	Mutual	Attwood	Wm. Shearer	Listowel	Robert Cleland	Listowel.
92	Eramosa	Mutual	Rockwood	Lazarus Parkinson	Eramosa	Hugh Black	Rockwood.
94	Erie Farmers'	Mutual	Selkirk	Geo. Culver	Rainham Centre	J. W. Holmes	Selkirk.
96	Formosa	Mutual	Formosa	Andrew Waechter	Formosa	Julius Noll	Formosa.
98	Germania Farmers	Mutual	Lot 4, Con. 8, Normanby	John Roedding	Alsfeldt	Geo. Hopf	Moltke.
100	Globe	Mutual	Brantford	John Strickland	Brantford	Edwin Sims	Brantford.
24	Gore District	Mutual and Cash	Galt	Hon. Jas. Young	Galt	R. S. Strong	Galt.
103	Grand River	Mutual	York	David Lindsay	Caledonia	F. A. Nelles	York.
105	Grey and Bruce	Mutual	Hanover	David McNicol	Lamlash	Jonathan O'Neil	Hanover.
107	Guelph Township	Mutual	Guelph	John Hobson	Mosborough	Wm. Whitelaw	Guelph.
28	Hand-in-Hand	Mutual and Stock	Toronto	W. H. Howland	Toronto	Hugh Scott	Toronto.
109	Hay Township Farmers'	Mutual	Zurich	J. B. Geiger	Zurich	Henry Eilber	Crediton.
111	Hopewell Creek	Mutual	New Germany	Edward Halter	New Germany	Anton Frank	New Germany.
114	Howick Farmers'	Mutual	Gorrie	James Edgar	Gorrie	Thos. F. Miller	Wroxeter.
116	Huron and Middlesex	Mutual	London	L. C. Leonard	London	John Stephenson	London.
119	Lambton Farmers'	Mutual	Watford	Geo. Dewar	Kertch	W. G. Willoughby	Walnut.

121	Lennox and Addington Grange	Mutual	Napanee	Jno. B. Aylsworth	Newburgh	C. James	Napanee.
123	Lobo Township	Mutual	Coldstream	Alex. Gray	Coldstream	J. T. Wood	London.
125	London Township Farmers'	Mutual	Arva	Edward Roberts	Bryanston	E. Dann	Bryanston.
5	London Life Insurance	Stock	London	Joseph Jeffery	London	J.G.Richter, Man'r	London
127	McGillivray	Mutual	Lot 15, Con. 14, W. McGillvr'y	Andrew Robinson.	W. McGillivray	W. Fraser	W. McGillivray.
129	McKillop	Mutual	Lot 17, Con. 5, McKillop	Thos. E. Hays	Seaforth	W. J. Shannon	Seaforth.
11	Mercantile	Stock*	Waterloo	J. E. Bowman	St. Jacobs	P. H. Sims	Waterloo.
....	Millers' and Manufacturers'*	Stock and Mutual	Toronto	W. H. Howland	Toronto	Hugh Scott	Toronto.
131	Nichol	Mutual	Nichol	Wm. Taylor	Fergus	John Beattie	Fergus.
133	Nissouri, East and West, and Zorra, West	Mutual	Kintore	Geo. A. Munroe	Embro	E. J. Pearson	Kintore.
135	Norfolk Farmers	Mutual	Simcoe	Robt. Y. Mabee	Tilsonburg	W. Roberts	Simcoe.
137	Oneida Farmers'	Mutual	Town Hall, Oneida	Geo. Fleming	Clanbrassil	John Senn	York.
32	Ontario	Mutual and Cash	London	A. McCormick	London	P. F. Doyle	London.
139	Oxford Farmers'	Mutual	Embro	A. McCorquodale.	Nissouri	Robert Murray	Embro.
141	Peel County Farmers'	Mutual	Brampton	Thos. Holtby	Brampton	L. Cheyne	Brampton.
35	Perth County	Mutual and Cash	Stratford	John Hyde, M.D.	Stratford	Chas. Packert	Stratford.
143	Puslinch	Mutual	Aberfoyle	D. McFarlane	Aberfoyle	Jas. Scott	Aberfoyle.
15	Queen City	Stock	Toronto	W. A. Howland	Toronto	T. Walmsley	Toronto.
145	Saltfleet and Binbrook	Mutual	Elfrida	A. D. Lee	Stony Creek	J. C. Harris	Tapleytown.
147	Saugeen	Mutual	Mount Forest	James Murdoch	Yeovil	H. L. Drake	Mt. Forest.
150	Simcoe County	Mutual	Keenansville	James D. Egan	Keenansville	T. R. Carmichael	Tottenham.
152	Southwold Farmers'	Mutual	Sheddon	Donald Turner	West Magdala	R. N. Stafford	Sheddon.
154	Sydenham	Mutual	Annan	Gideon Harkness.	Annan	Hugh Reid	Annan.
156	Townsend Farmers'	Mutual	Waterford	Oscar McMichael.	Waterford	L. N. Collver	Waterford.
158	Usborne and Hibbert	Mutual	Farquhar	Robert Gardiner	Farquhar	N. J. Clarke	Exeter.
38	Victoria	Mutual and Cash	Hamilton	Geo. H. Mills	Hamilton	W. D. Booker	Hamilton.
160	Walpole Farmers'	Mutual	Jarvis	Chas. Simon	Garnet	John Heasman	Jarvis.
44	Waterloo	Mutual and Cash	Waterloo	Chas. Hendrie	Conestogo	C. M. Taylor	Waterloo.
162	Waterloo, North, Farmers'	Mutual	Waterloo	John Hayes	Linwood	L. Stauffer	Waterloo.
164	Wawanosh, West	Mutual	St. Helens	Charles Girvin	Nile	Robert Murray	St. Helens.
166	Wellington	Mutual	Guelph	F. W. Stone	Guelph	Chas. Davidson	Guelph.
169	Westminster Township	Mutual	Lot 14, Con. 4, Westminster.	R. G. Rose	Glanworth	Henry Anderson	Wilton Grove.
171	Williams, East	Mutual	Nairn	N. McTaggert	Nairn	Wm. McCallum	Nairn.
173	Yarmouth	Mutual	Lot 13, Con. 8, Yarmouth	John A. Squance.	St. Thomas	W. E. Leonard	St. Thomas.

* Newly organized.

INSURANCE AMENDMENT ACTS OF 1885.

48 Vic., chap. 28, an Act to secure to Wives and Children the Benefit of Life Insurance;

48 Vic., chap. 35, an Act to amend the Act respecting Mutual Fire Insurance Companies;

48 Vic., chap. 36, an Act to regulate the Election of Directors of Mutual Fire Insurance Companies.

INSURANCE AMENDMENT ACTS OF 1885.

48 VICTORIA, CHAPTER 28.

An Act to amend the Act to secure to Wives and Children the benefit of Life Insurance.

HER MAJESTY, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows:—

47 V., c. 20, s. 7, amended. Surrender or assignment of policy.

1. Section 7 of the Act passed in the forty-seventh year of Her Majesty's reign, chaptered 20, and intituled *An Act to secure to Wives and Children the benefit of Life Insurance*, is hereby amended by adding thereto the following proviso, and such section shall be read as if such proviso had formed a part of such section from the time of the passing thereof:

"Provided always that any such policy may be surrendered or assigned,

"(*a*) Where the policy is for the benefit of children only, and the children surviving are all of the full age of twenty-one years, if the person insured and all such surviving children agree to so surrender or assign; or

"(*b*) Where the policy is for the benefit of both a wife and children, and the surviving children are all of the full age of twenty-one years, if the person insured, and his then wife (if any) and all such surviving children agree to so surrender or assign; or

"(*c*) Where the policy is for the benefit of a wife only, or of a wife and children, and there are no children living, if the person insured and his then wife agree to so surrender or assign."

Who deemed person entitled to benefit of policy for purpose of 47 V., c. 20, s. 23.

2. Where the declaration endorsed upon or attached to any policy of insurance to which the said Act applies, whether such declaration has heretofore been or shall hereafter be made, provides that the policy shall be for the benefit of a person, and in the event of the death of such person for the benefit of another person, such first mentioned person shall, if living, be, for the purposes of section 23 of the said Act, deemed the person entitled to be benefited under such policy.

47 V., c. 20, s. 15, amended.

3. Section 15 of the said Act is hereby amended by adding the following thereto, as sub-sections 2 and 3:

(2) If the company does not, within four months from the time the claim is admitted, either pay the same to some person competent to receive the money under this Act, or pay the same into the High Court, the said Court may upon application made by some one competent to receive the said money, or by some other person, on behalf of the infant, order the insurance money, or any part thereof, to be paid to any trustee, executor or guardian competent to receive the same, or to be paid into Court to be dealt with as the Court may direct, and any such payment shall be a good discharge to the company.

(3) The Court may order the costs of the application, and any costs incidental to establishing the authority of the party applying for the order, to

be paid out of such moneys, or by the company, or otherwise, as may seem just, and the Court may also order the costs of, and incidental to, obtaining out of Court moneys voluntarily paid in by a company, to be paid out of such moneys.

Application of 47 V., c. 20, ss. 12, 15 & 19.

4. The provisions of sections 12, 15 and 19 of the said Act shall extend, and are hereby declared to have been intended to extend, and apply to cases where the insured died before the passing of the said Act, as well as to cases arising subsequent thereto, and the amendments of the said sections made by this Act shall likewise apply to all such cases.

47 V., c. 20, ss. 8 and 9, amended.

5. Sections 8 and 9 of the said Act are hereby amended by the insertion of the word "three" immediately after the figure 2 in the first line of each of such sections.

Application of 47 V., c. 20.

6. The provisions of the said Act are hereby declared to extend to contracts of insurance mentioned in the first section thereof, where any declaration endorsed thereon or attached thereto, though made before the passing of the Act would, if made after the passing thereof, have been or be within the operation and provisions of the said Act.

CHAPTER 35.

An Act to amend the Act respecting Mutual Fire Insurance Companies.

HER MAJESTY, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows:—

R. S. O. c. 161, s. 71, amended.

Suits on premium notes in Division Courts, where brought.

1. Section 71 of *The Act respecting Mutual Fire Insurance Companies*, chapter 161 of the Revised Statutes, is hereby amended by adding thereto the words following: "Provided always, that the provisions of this section shall not apply to nor include any such premium note or undertaking made or entered into after the first day of July, 1885, nor any sum assessed thereon, unless within the body of such note or undertaking or across the face thereof, there was at the time of the making or entering into the same, printed in conspicuous type, and in ink of a color different from any other in or on such note, the words following: 'any action which may be brought or commenced in a Division Court in respect or on account of this note or undertaking, or any sum to be assessed thereon, may be brought and commenced against the maker hereof in the Division Court for the division wherein the head office or any agency of the Company is situate.'"

CHAPTER 36.

An Act to regulate the Election of Directors of Mutual Fire Insurance Companies.

HER MAJESTY, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows:

Number of directors to be determined by resolution.

1. (1) In all Mutual Fire Insurance Companies the Board of Directors shall, on, from and after the next ensuing election thereof, consist of six, nine, twelve or fifteen Directors, as shall be determined by resolution passed at the next ensuing annual meeting or at a special general meeting of the company called for the purpose of such determination and election.

(2) The number of Directors constituting such Board may thereafter from time to time be increased or decreased, and if so decided by and at any special general meeting of the company called for the purpose, or at any such annual meeting, if notice in writing of the intention to move for that purpose at such annual meeting be given to the Secretary of the company at least one month before the holding of such meeting; but such increased or decreased number of Directors shall in any such case be either six, nine, twelve or fifteen, as aforesaid.

Copy of resolution and list of directors to be filed.

2. A copy of the resolution specified in section 1, together with a list of the Directors elected thereunder, both documents being duly certified under the hands of the Chairman and Secretary of the annual meeting or special general meeting aforesaid, shall be filed in the office of the Inspector of Insurance, and also in the Registry Office nearest to the head office of the company.

Retirement of directors in rotation.

3. Of the Directors elected as hereinbefore provided one-third shall retire annually in rotation, and at the first meeting of the said Directors, or as soon thereafter as possible, it shall be determined by lot which of them shall hold office for one, two or three years respectively, and such determination shall be entered of record as part of the minutes of said first meeting.

Annual election to fill vacancies.

4. At each annual meeting of the company thereafter, one-third of the total number of Directors shall be elected for a period of three years, to fill the places of the retiring members, who shall be eligible for re-election.

Filling vacancies occuring prior to annual meeting

5. Vacancies occuring in the Board of Directors may be filled as prescribed in section 20 of chapter 161 of the Revised Statutes of Ontario, but Directors so elected shall only hold office until the next annual meeting, when the said vacancies shall be filled for the portion of the term still unexpired.

Right of applicants to vote.

6. No applicant for insurance shall be competent to vote or otherwise take part in the company's proceedings until his application has been accepted by the Board of Directors.