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APPENDIX, No. 7,

TO THE

SIXTEENTH VOLUME.

APPENDIX TO THE SIXTEENTH VOLUME

OF THE

JOURNALS

OF THE

LEGISLATIVE ASSEMBLY

OF THE

PROVINCE OF CANADA.

From the 25th February to 16th August, 1858, both days inclusive.

IN THE TWENTY-FIRST AND TWENTY-SECOND YEARS OF THE REIGN OF OUR SOVEREIGN LADY

QUEEN VICTORIA.

Being the 1st Session of the 6th Provincial Parliament of Canada.

—
SESSION, 1858.
—

Printed by Order of the Legislative Assembly.

Vol. 16.

R E T U R N

To an Address from the Legislative Assembly, of the 15th ultimo, for
Financial Statement relative to the Seigniorial Tenure Affair.

By Command.

T. J. J. LORANGER,

Secretary.

SECRETARY'S OFFICE,

Toronto, 20th April, 1858.

(No. —.)

RECEIVER GENERAL'S DEPARTMENT,

Toronto, March —, 1858.

Sir,—I have the honor to enclose herewith, two Statements or Lists of payments made to Seigniors for Interest on *Lods et Ventes* by the Seigniorial Commissioners at Montreal and at Quebec, up to the 1st ultimo, as required by an Address of the Legislative Assembly, of date 15th instant, which is also enclosed.

I have the honor to be, Sir,
Your obedient Servant,

C. E. ANDERSON,

Deputy Receiver General.

Honorable T. J. J. LORANGER,
Provincial Secretary,
Toronto.

(No. 582.)

AUDITOR'S OFFICE,

Toronto, April 1st, 1858.

Sir,—I have the honor to enclose a Statement of all sums placed to the credit of the Seigniorial Fund, and of the sums paid out of the same, to February 1st, 1858; also, a Statement, in detail, of all expenses on account of the redemption of Seigniorial Rights to the same date, in accordance with an Address of the Legislative Assembly.

I have the honor to be,

Yours, &c., &c.,

JOHN LANGTON,
Auditor.

The Honorable T. J. J. LORANGER,
Provincial Secretary.

(No. 99.)

RECEIVER GENERAL'S DEPARTMENT,

Toronto, 16th April, 1858.

Sir,—In addition to Statements furnished with letter of this Department of 24th ultimo, I have the honor to give you, as under, a Statement of the cash Receipts and gross Revenue, from various sources, applicable to the relief of *Censitaires*, under the 17th and 18th section 18 Vic., cap. 3, during the year ended 31st December, 1857:—

	£	s.	d.
Quintage belonging to the Crown.....Currency	88	0	0
Revenue of Seignior of Lauzon do	4500	19	11
Auction Duties and Licences, in Lower Canada do	4150	4	4
Net Shop Licences in do do	1422	19	3
Net Tavern do do do	2044	15	9
Total Currency.....£	12206	19	3

The net receipts for the Seignior of Lauzon were £1,728 1s. 5d., during the above period.

I have the honor to be, Sir,

Your obedient Servant,

C. E. ANDERSON,
Deputy Receiver General.

Honorable T. J. J. LORANGER,
Provincial Secretary,
Toronto.

STATEMENT of PAYMENTS made to SEIGNIORS by the SEIGNIORIAL COMMISSIONERS at QUEBEC, for interest on *Lods et Ventés*, accrued in their respective Seigniories, under the authority of the Seigniorial Act of 1854, and subsequent amendments thereto.

DATE.	SEIGNIOR.	SEIGNIORY.	Amount.		
			£	s.	d.
August 14, 1856..	Léger Jamière, <i>et al</i>	St. Michel	132	1	7
do do, do ..	N. C. Faucher	Vincennes	33	13	10½
do do, do ..	A. J. Duchesnay	Gaudarville	104	11	10½
do do, do ..	do	Fossambault	51	1	10
do do, do ..	Seminary of Quebec	Isle au Coudres	35	19	9
do do, do ..	do do	Côte de Beaupré	652	11	8
do do, do ..	do do	Sault au Matelot	730	11	5
do do, do ..	do do	Coulouge	393	13	0
do do, do ..	C. M. T. de la Maudière, <i>et al</i> ..	St. Valier	195	19	2
do 15, do ..	Charles Robertson	Villemay (Lauzon)	15	6	10
do 16, do ..	P. A. de Gaspé, <i>et al</i>	St. Jean Port Joli	244	3	9
do do, do ..	do do	Rhéaume ou Isle à la Peau ..	77	7	0
do do, do ..	L'Œuvre et Fabrique, Quebec ..	Cap aux Diamants	220	18	4
do do, do ..	Notre Dame de Quebec	Notre Dame de Quebec	394	16	5
do 18, do ..	T. G. Launière	St. Michel (Augmentation) ..	111	19	9½
do do, do ..	Heirs, Chenet	Vincelotte	82	9	4
do do, do ..	do	Gagné M. Gamache	9	14	10
do 19, do ..	Ladies, General Hospital	Berthier (Béllechasse)	134	6	10
do do, do ..	do do	D'Orsainville	18	16	10
do do, do ..	do do	Récollets	148	15	10½
do do, do ..	Ladies of Hotel Dieu	St. Ignace	193	5	1
do do, do ..	Poor of the do	De Maure	89	10	8
do do, do ..	O. E. Casgrain	Isle St. Jean	49	12	3
do do, do ..	do	Islet Bonsecours	95	0	3
do do, do ..	Remi N. Couillard	Islet St. Jean	4	14	9
do do, do ..	Heirs, Antoine Parent	St. François	23	2	6
do do, do ..	do do	Ste. Ursule	11	2	3
do do, do ..	Léon Noël, <i>et al</i>	Maranda	25	7	0
do do, do ..	do do	Bonsecours	79	4	4
do do, do ..	do do	Tilly	68	2	3
do do, do ..	do do	LeGardeur Belles Plaines ..	83	7	7
do do, do ..	Victor Garripy	Lachevrotière	53	16	1
do do, do ..	Ursulins, Quebec	Ursulins Quebec	235	3	6
do do, do ..	do	Franc Allen (Lauzon)	12	1	6½
do do, do ..	do	Ste. Croix	206	19	4
do 20, do ..	G. G. Launière	Livandière	216	5	5½
do 21, do ..	T. P. Casgrain	LaBoutellière	216	8	4
do 22, do ..	Eucher Couillard	Rivière du Sud	68	0	3½
do do, do ..	do	Fournier	29	3	9
do do, do ..	do	Islet Bonsecours	0	15	11
do do, do ..	Charles Bertrand	Isle Verte	136	5	7½
do do, do ..	W. D. Campbell	Bic	74	13	5
do do, do ..	Peter Langlois	Bourg Louis	45	15	3½
do 23, do ..	Ursulins, Quebec	Ste. Anne (Lauzon)	16	18	5
do do, do ..	Alexander Paulin	Isle d'Orleans	50	3	11
do 25, do ..	L. P. H. Turgeon	Beaumont	136	0	9
do 26, do ..	Pauvres, Hotel Dieu	DeMaure (Supplément)	56	3	7
do do, do ..	J. B. Rioux	Trois Pistoles	50	11	10

STATEMENT OF PAYMENTS made to SEIGNIORS by the SEIGNIORIAL COMMISSIONERS
at QUEBEC, &c.—(Continued.)

DATE.		SEIGNIOR.	SEIGNIORY.	Amount.		
				£	s.	d.
August	26, 1856.	Frs. Tétu.....	Rivière du Sud	19	0	7
do	27, do	J. B. & L. C. Dupuis.....	do do	18	2	10
do	do, do	Aug. Bernier	LaFirnair	12	15	11
do	do, do	William Pozer.....	Aubert Gallion	19	1	8
do	do, do	do	St. Etienne.....	116	9	8
do	do, do	J. T. Taschereau.....	Joliette	220	3	9½
do	do, do	do	St. Joseph	19	5	11
do	do, do	do	St. Michel (Augmentation)...	15	2	6
do	28, do	Dame, V. R., St. Ours.....	St. Jean Deschailions	84	6	11
do	do, do	L. R. & L. A. C. DeLery	Beauvois	15	0	3½
do	29, do	O. C. Casgrain, <i>et al.</i>	Islet Bonsecours	16	11	10½
do	do, do	Andrew Stuart	Beauchamp	88	16	2
do	30, do	J. & L. Nichol	Rivière du Sud.....	10	14	5
do	do, do	Heirs, Taché.....	Kacouna	487	10	11½
do	do, do	do	Granville.....	0	11	9½
do	do, do	André Lemelin	Argentenay.....	33	6	2
September	1, do	Dame G. B. Hall	Beauport	141	3	0
do	do, do	Ol. Perrault.....	St. Joseph	25	10	3½
do	do, do	do	Ste. Marié, N.E.	67	14	1
do	do, do	do	do, S.O.	27	17	2
do	do, do	Alexander Fraser, <i>et al.</i>	St. Joseph, N.E.	13	5	2½
do	do, do	Heirs, Drapeau	Pachot	21	14	9
do	do, do	do	Ste. Claire	2	2	9
do	do, do	do	Lessard or Lamollair.....	39	1	9½
do	do, do	do	Lepage and Thivierge.....	196	18	6½
do	do, do	do	Nicolas Riout	105	11	9
do	do, do	do	Rimouski and St. Barnabé	120	15	10
do	do, do	do	Isle d'Orleans.....	148	5	11
do	do, do	do	Gouffre	53	14	10
do	do, do	Elizie Dionne	St. Denis (Parish St. Anne)...	105	1	10
do	do, do	do	St. Anne la Pocatière	281	2	1
do	do, do	Amable Dionne	St. Roch des Aulnais.....	308	7	7
do	2, do	Charles Morice.....	Grand Pré or Montplaisir	56	14	0
do	do, do	Louis Blais	Part of Lépinay, Rivière du Sud	4	5	10
do	do, do	M. C. Riverin	hevalerie, Isle d'Orleans.....	8	5	4½
do	do, do	Jean LePage	art of Rimouski	3	14	3
do	do, do	Charles LePage	do do	1	11	6
do	3, do	Heirs, LaGeorgendière, <i>et al.</i>	Part of St. Joseph, S.O.	80	13	5
do	do, do	Heirs, P. E. Taschereau.....	do of St. Marie, S.O.	52	10	8
do	do, do	do	do of Joliette	77	17	11
do	do, do	Heirs, Taschereau	do of St. Marie, N.E.	72	19	8
do	do, do	do	do of St. Joseph, N.E.	20	19	7
do	do, do	Heirs, G. L. Taschereau.....	do of St. Marie, S.O.	33	19	4
do	do, do	do	do do, N.E.	16	14	0
do	do, do	L. N. Gauvreau	do of DeVilleray.....	92	1	5½
do	do, do	James Motz	Dumesnil	2	4	8
do	do, do	Jacques Fournier	Part of Rivière du Sud.....	12	12	5
do	4, do	Eloi Rioux.....	do Trois Pistoles.....	26	15	8
do	5, do	John Nairne	Murray Bay	323	0	2
do	6, do	Godfroy Blais	L'Épinay.....	7	11	9

STATEMENT of PAYMENTS made to SEIGNIORS by the SEIGNIORIAL COMMISSIONERS at QUEBEC, &c.—(Continued.)

DATE.	SEIGNIOR.	SEIGNIORY.	Amount.		
			£	s.	d.
September 6, 1856.	Godfroy Blais	Rivière du Sud	29	13	11½
do 9, do ..	Heirs, Dame L. J. Taschereau	Ste. Marie (Linière).....	62	5	3
do do, do ..	do, do	Ste. Marie (Taschereau)....	6	4	11
do do, do ..	Angèle Caron	Part of L'Islet, St. Jean	13	5	10
do do, do ..	M. P. DeSales LaTerrière..	Eboulemens	76	2	9
do 10, do ..	F. Gourdeau, <i>et al</i>	Beaulieu	12	15	8
do 12, do ..	John Panet, <i>et al</i>	Bourg Louis, S O.....	25	4	4
do 16, do ..	J. G. Seton	Part of Isle Verte	6	3	11
do 18, do ..	Ad. Gagnon	do of L'Islet St. Jean.....	1	9	1
do do, do ..	do	do of Islet Bonsecours	3	19	10
do do, do ..	J. B. Morin	Lépinay	4	3	10½
do do, do ..	J. N. Martin	Islet Bonsecours	23	10	5½
do 23, do ..	J. H. Blanchet, <i>et al</i>	St. Denis.....	103	9	6
do 25, do ..	A. Ferguson, <i>et al</i>	Métis	19	0	6
do do, do ..	J. E. Couillard Despris, <i>et al</i>	Part of Islet St. Jean	32	0	2
do do, do ..	D. Fraser	Matain	31	6	1½
do do, do ..	A. E. Côté	Part of St Barnabé	0	14	1
do do, do ..	P. Gagné, <i>dît</i> Bellearrance..	do of Rimouski.....	0	17	2
do do, do ..	M. Macpherson, <i>et al</i>	Isle aux Grues	11	15	8
do do, do ..	G. Desbarats	Part of Joliette	3	4	0
October 1, do ..	J. M. Bélanger	Part of Isle Bonsecours	2	5	2
do 7, do ..	Charles Larne, <i>et al</i>	Neuville	212	0	4
do do, do ..	Peter Burnett.....	Gronelines	100	9	5
do 15, do ..	Heirs, Patton	Part of Rivière du Sud	125	8	10
do do, do ..	do	do of L'Épinay.....	8	11	0½
do 23, do ..	J. M. Couillard	do of Islet St. Jean	5	12	0
do 27, do ..	E. Pouliot	do of Rimouski.....	1	2	0
do 31, do ..	Frs. Pelletier, <i>et al</i>	do of Trois Pistoles	2	10	3
do do, do ..	L. Bertrand.....	do do	5	12	8
do do, do ..	J. B. Côté.....	do of L'Isle Verte	2	15	1
November 5, do ..	P. Rioux, <i>et al</i>	do of Trois Pistoles	20	1	5
do 10, do ..	A. Bochet, <i>et al</i>	do of Lachevrotière	20	13	2½
do do, do ..	L. Boucher	do of Trois Pistoles	1	13	9
do do, do ..	Dame Veuve Bélanger, <i>et al</i>	Islet Bonsecours	0	7	9
do 11, do ..	Heirs, J. B. Rioux, <i>et al</i>	Part of Trois Pistoles.....	7	0	8
do do, do ..	Pierre Rioux	do do	12	16	6
do do, do ..	Heirs, J. T. Campbell	Islet du Portage	105	16	5
do 19, do ..	J. Caron	Part of Islet St. Jean.....	0	9	1
December 30, do ..	Dr. J. de Lotbinière Joly ..	Lotbinière	176	15	11
January 8, 1857.	J. T. Taschereau	Part of Joliette	101	9	6½
do do, do ..	do	do of St. Joseph, N. E.....	8	17	10½
do do, do ..	do	do of St. Michel (Augmen- tation)	6	19	5
do do, do ..	Seminaire de Quebec	Isle aux Coudres	16	11	8½
do do, do ..	do	La Côte de Beaupré.....	300	15	0
do do, do ..	do	Sault au Matelot.....	336	13	9½
do do, do ..	do	Coulonges	181	8	4
do do, do ..	Heirs, Dr. J. L. Taschereau.	Ste. Marie (Taschereau)	2	17	7
do do, do ..	do do	do (Linière).....	28	13	0
do do, do ..	J. B. Rioux.....	Part of Trois Pistoles.....	28	6	4

STATEMENT OF PAYMENTS made to SEIGNIORS by the SEIGNIORIAL COMMISSIONERS
at QUEBEC, &c.—(Continued.)

DATE.	SEIGNIOR.	SEIGNIORY.	Amount.		
			£	s.	d.
January 8, 1857..	Dr. de Lotbinière Joly.....	Lotbinière.....	81	9	7
do do do	Honorable de S. LaTerrière.	Eboulemens.....	35	11	9½
do do 9, do	Nazaire Tetu.....	Part of Trois Pistoles.....	1	5	0
do do do	do do	do do	2	14	3
do do do	Sir C. J. Stuart, <i>et al.</i>	Deschambault.....	33	5	1
do do do	do do	do	72	3	1
do do do	Heirs, de Lanaudière.....	St Vallier.....	90	6	2
do do do	P. A. de Gaspé.....	St. Jean, Port Joly.....	112	10	8½
do do do	do	Réaume Isle à la Peau.....	35	12	11½
do do 12, do	Dames Drapeau.....	Part of Rimouski.....	55	13	4½
do do do	do do	do of Isle d' Orleans.....	68	6	10½
do do do	do do	Nicolas Rioux.....	48	13	2½
do do do	do do	Lepage and Thivierge.....	90	15	1½
do do do	do do	Pachot.....	10	0	4½
do do do	do do	Ste. Claire.....	0	19	8½
do do do	do do	Gouffre.....	24	15	4½
do do do	do do	Lessard and Lamollair.....	18	0	3½
do do do	Peter Langlois.....	Bourg Louis, N. E.....	21	1	10½
do do 13, do	G. G. Launière, <i>et al.</i>	Livandière.....	99	13	5½
do do do	Nuns' General Hospital.....	Récollets.....	68	11	5½
do do do	do do	D'Orsainville.....	8	13	8
do do do	do do	Berthier de Bellechasse.....	61	18	3
do do do	Hotel Dieu, Quebec.....	St. Ignare.....	89	1	2½
do do do	Victor Garrépy.....	Part of Lachevrotière, Sud.....	24	15	11
do do do	Heirs, Noel, <i>et al.</i>	Tilly.....	31	7	10
do do do	do do	Maranda.....	11	13	8
do do do	do do	Bonsecours.....	36	10	2
do do do	do do	Le Gardeur Belles Plaines.....	38	8	6½
do do 14, do	Ursulines de Québec.....	Fief Ursulins, Quebec.....	108	7	6
do do do	do do	Franc Allen (Lauzon).....	5	11	3½
do do do	do do	St. Croix.....	95	7	8
do do do	do do	Ste. Anne (Lauzon).....	7	15	11½
do do do	N. C. Faucher.....	Vincennes.....	15	10	6½
do do do	Poor, Hotel Dieu.....	DeMaure.....	67	3	1
do do do	Euclier Couillard.....	Part of Rivière du Sud.....	31	6	11
do do do	do do	Fournier.....	13	9	0½
do do do	do do	Part of Islet Bonsecours.....	0	7	4
do do 19, do	Arthur Ross.....	St. Giles de Beurivage.....	197	5	7½
do do do	O. E. Casgrain.....	Part of L'Islet Bonsecours.....	43	15	9
do do do	do do	do of L'Islet St Jean.....	22	17	3½
do do do	Heirs, P. E. Tascheran.....	do of Joliette.....	35	18	0
do do do	do do	do of Ste. Marie, N.E.....	33	12	8½
do do do	do do do	do do do, S.O.....	24	4	2½
do do do	do do do	do do Joseph, N.O.....	9	13	2
do do do	do do do	do do Marie, N.E.....	31	4	0½
do do do	do do do	do do do, S.O.....	12	16	9½
do do do	do do do	do do Joseph, N.E.....	11	15	2½
do do do	do do do	do do Marie, S.O.....	15	13	1
do do do	do do do	do do do, N.E.....	7	13	11½
do do do	Heirs, Lagorgendière, <i>et al.</i>	do do Joseph, S.O.....	37	3	6½

STATEMENT OF PAYMENTS made to SEIGNIORS by the SEIGNIORIAL COMMISSIONERS at QUEBEC, &c.—(Continued.)

DATE.	SEIGNIOR.	SEIGNIORY.	Amount.		
			£	s.	d.
January 19, 1857..	Heirs, Dr. M. L. Lindsay ..	Part of St. Joseph, N.E.	6	2	2 $\frac{1}{2}$
do 20, do ..	do, J. S. Campbell.....	L'Islet du Portage	48	15	4 $\frac{1}{2}$
do do, do ..	Wm. Campbell	Bic	34	8	3
do 22, do ..	Heirs, Taché	Kamouraska	224	13	9 $\frac{1}{2}$
do do, do ..	do, do	Granville	0	5	5 $\frac{1}{2}$
do do, do ..	J. A. & A. E. Panet	Bourg Louis, S.O.	11	12	5
do do, do ..	Elizér Dionne	Ste. Denis, part Ste. Anne ..	48	8	8
do do, do ..	do	Ste. Anne la Pocatière	129	11	0
do do, do ..	Heirs, Chenest	Vincelotte	38	0	1 $\frac{1}{2}$
do 23, do ..	do, do	Gamache au Gagné	4	9	9 $\frac{1}{2}$
do do, do ..	Aug. Bernier	La Frenaye.....	5	17	11 $\frac{1}{2}$
do 26, do ..	W. & E. Fraser	Rivière du Loup.....	70	4	3
do do, do ..	do	Terrebois au Verbois.....	184	19	0
do do, do ..	do	Le Parc	245	15	3
do do, do ..	do	Rivière du Loup.....	32	7	2
do do, do ..	do	Terrebois au Verbois.....	85	4	9
do do, do ..	do	Le Parc	113	5	2 $\frac{1}{2}$
do 27, do ..	Amable Dionne	St. Roch des Aulnais.....	142	2	4 $\frac{1}{2}$
do do, do ..	Heirs, William Patton	L'Epinay	1	12	9
do do, do ..	Heirs, William Patton	Rivière du Sud	57	16	2 $\frac{1}{2}$
do 28, do ..	Léger Launière, <i>et al.</i>	St. Michel	60	17	5
do 29, do ..	G. W. Allsopp, <i>et al.</i>	Jacques Cartier	17	12	0
do do, do ..	do	D'Auteuil	23	3	1
do do, do ..	do	Jacques Cartier	8	2	3
do do, do ..	do	D'Auteuil	10	13	5
do do, do ..	Charles Larue, <i>et al.</i>	Neuville	87	14	2 $\frac{1}{2}$
do 30, do ..	Mrs. G. B. Hall	Beaufort.....	65	1	0
do do, do ..	Rev Charles Morice	Grandpré.....	26	2	7 $\frac{1}{2}$
do 31, do ..	P. T. Casgrain	La Boutellérie.....	99	14	9
February 2, do ..	Charles Bertrand	Part of L'Isle Verte	62	16	1 $\frac{1}{2}$
do 4, do ..	P. G. Launière, <i>et al.</i>	Augmentation of St. Michel..	51	12	2 $\frac{1}{2}$
do do, do ..	Godfroy Blais.....	Part of Rivière du Sud.....	13	13	8 $\frac{1}{2}$
do do, do ..	do	do of L'Epinay	3	9	11 $\frac{1}{2}$
do do, do ..	Frs. Tétu	do of Rivière du Sud.....	8	15	5
do 6, do ..	C. & A. de Léry.....	Rigaud and Vaudreuil	116	14	1 $\frac{1}{2}$
do do, do ..	do	Part of Aubin de L'Isle	31	8	9 $\frac{1}{2}$
do do, do ..	do	Rigaud Vaudreuil	53	15	8 $\frac{1}{2}$
do do, do ..	do	Part of Aubin de L'Isle	14	9	9 $\frac{1}{2}$
do 7, do ..	R. Noel Couillard	do of L'Islet St. Jean	2	3	8
do 11, do ..	J. Couillard Després, <i>et al.</i> ..	do do do	14	15	0 $\frac{1}{2}$
do do, do ..	J. N. Martin	do of L'Islet Bonsecours	10	16	9 $\frac{1}{2}$
do do, do ..	Dame Veuve Bélanger, <i>et al.</i> ..	do do do	2	18	10 $\frac{1}{2}$
do do, do ..	J. M. Couillard, <i>et al.</i>	do of L'Islet St. Jean.....	2	11	7 $\frac{1}{2}$
do do, do ..	Dame A. Caron	do do do	6	2	6 $\frac{1}{2}$
do do, do ..	J. M. Bélanger	do of L'Islet Bonsecours	1	0	10
do 12, do ..	O. E. Casgrain, <i>et al.</i>	Fief Fortin.....	7	12	11 $\frac{1}{2}$
do 17, do ..	L. N. Gauvreau	Part of Villeray.....	42	8	7 $\frac{1}{2}$
do 20, do ..	A. Bochet, <i>et al.</i>	do of Lachevrotière	9	10	5 $\frac{1}{2}$
do 26, do ..	Jacques Fournier	Rivière du Sud	5	16	4
do do, do ..	Heirs, Parant	Ste. Ursule.....	5	2	5

STATEMENT of PAYMENTS made to SEIGNIORS by the SEIGNIORIAL COMMISSIONERS at QUEBEC, &c.—(Continued.)

DATE.	SEIGNIOR.	SEIGNIORY.	Amount.		
			£	s.	d.
February 28, 1857..	Heirs, Parant	St. François	10	13	2
do do, do ..	Amelie Duchesnay	Part of St. Marie, S. O.	17	1	4
do do, do ..	do do	do do	7	17	3½
do do, do ..	John Nairn	Murray Bay	148	17	3
do do, do ..	Arthur Ross	Beaurivage	90	18	4½
March 5, do ..	André Lemelin	Argentenaye, (Isle d'Orleans). ..	15	7	0
do 6, do ..	L. R. & C. A. DeLéry	Beauvais	6	18	4½
do do, do ..	Mrs. Wid. St. Ours	St. Jean Deschailions	38	17	5½
do 11, do ..	A. & D. Ferguson	Peiras or Metis	8	15	5
April 7, do ..	A. Côté	Part of Rimouski	3	1	1
do do, do ..	do do	do do	1	8	2
do 8, do ..	LaFabrique, N. D. Quebec ..	Cap aux Diamants	101	16	3
do do, do ..	do do	Notre Dame de Quebec	181	19	1
do 9, do ..	J. G. Seton, <i>et uxor</i>	Part of L'Isle Verte	2	17	1
May 4, do ..	Louis Bertrand	do of Trois Pistoles	2	11	11
June 3, do ..	F. Rioux, & J. B. Rioux ..	do of do do	4	9	7
do do, do ..	do do	do of do do	2	1	3½
do 13, do ..	D. Fraser	Matane	14	8	6½
July 1, do ..	P. A. DeGaspé, <i>et al</i>	St. Jean Port Joli	112	10	8½
do do, do ..	do do	Réaume au Isle à la Peau	35	12	11½
do do, do ..	Séminaire de Québec	Sault au Matelot	336	13	9½
do do, do ..	Heirs, de la Naudière	St. Valier	90	6	2
do do, do ..	R. N. Couillard	Part of L'Islet St. Jean	2	3	8
do do, do ..	Séminaire de Québec	L'Isle aux Coudres	16	11	8½
do do, do ..	do do	Cote de Beupré	800	15	0
do do, do ..	do do	Coulonges	181	8	4
do do, do ..	Heirs, Parant	St. François	10	13	2
do do, do ..	do do	Ste. Ursule	5	2	5
do do, do ..	Heirs, P. Rioux	Trois Pistoles	9	5	0
do do, do ..	do do	do do	9	5	0
do do, do ..	O. E. Casgrain	L'Islet Bonsecours	43	15	9
do do, do ..	do do	L'Islet St. Jean	22	17	3½
do do, do ..	A. & D. Ferguson	Peiras or Metis	8	15	5
do do, do ..	D. Fraser	Matane	14	8	6½
do do, do ..	Julie Blanchet, <i>et al</i>	St. Denis de la Boutellèrie ..	47	13	9
do do, do ..	N. C. Faucher	Vincennes	15	10	6½
do do, do ..	Julie Blanchet, <i>et al</i>	St. Denis de la Boutellèrie ..	47	13	9
do do, do ..	Alexander Lindsay, <i>et al</i> ..	Part St. Joseph, N. E	6	2	2½
do do, do ..	Ol. Perrault	do do, do	11	15	2½
do do, do ..	do do	do Ste. Marie, do	31	4	0½
do do, do ..	do do	do do, S. O.	12	16	9½
do do, do ..	W. D. Campbell	Bic	34	8	3
do do, do ..	Heirs, J. Campbell	L'Islet du Portage	48	15	4½
do 2, do ..	Widow G. B. Hall	Beauport	65	1	0
do do, do ..	Reverend C. Morice	Grand Pré	26	2	7½
do do, do ..	Rep. William Patton	Part of L'Epinay	1	12	9
do do, do ..	do do	do of Rivière du Sud	57	17	2½
do do, do ..	E. Couillard	do of do do	31	6	11
do do, do ..	do do	Fournier	18	9	0½
do 3, do ..	Pauvres, Hotel Dieu	DeMaure	67	8	1

STATEMENT OF PAYMENTS made to SEIGNIORS by the SEIGNIORIAL COMMISSIONERS
at QUEBEC, &c.—(Continued.)

DATE.	SEIGNIOR.	SEIGNIORY.	Amount.		
			£	s.	d.
July 3, 1857.	Hôpital Général, Quebec...	Berthier de Bellechasse.....	61	18	3
do do, do	Hôtel Dieu, Quebec	St. Ignace	89	1	2½
do do, do	Hôpital Général, Quebec...	Récollets.....	68	11	5½
do do, do	do do	D'Orsainville	8	13	8
do do, do	J. O. Beaubien, <i>et al.</i>	Vincelotte.....	38	0	1½
do do, do	do do	Gamache ou Gagné.....	4	9	9½
do do, do	Charlotte Riverin	La Chevalerie, (Isle d'Orleans).	8	15	9
do do, do	do do	do do	8	15	9
do 4, do	Charles & E. Larne, <i>et al.</i> ..	Neuville	97	14	2½
do do, do	L. Noel, <i>et al.</i>	Bonsecours.....	36	10	2
do do, do	do do	Maranda	11	13	8
do do, do	do do	Tilly	81	7	10
do do, do	do do	Le Gardeur Belles Plaines ..	38	8	6½
do do, do	Andrew Stuart	Beauchamp.....	40	18	7
do do, do	do do	do	40	18	7
do do, do	do do	do	9	3	5
do do, do	do do	do	4	4	6
do do, do	do do	do	4	4	6
do do, do	Fabrique N.D., Québec.....	Cap aux Diamants.....	101	16	3
do do, do	do do	Notre Dame Quebec	181	19	1
do do, do	Victor Gariépy	Lachevrotière	24	15	11
do do, do	Charles Bertrand	Part of L'Isle Verte.....	62	16	1½
do do, do	J. T. Taschereau	Joliet.....	101	9	6½
do do, do	do do	Part of St. Joseph, N.E.....	8	17	10½
do do, do	do do	Augmentation of St. Michel..	6	19	5
do 6, do	Ursulines de Québec	Ste. Croix.....	95	7	8
do do, do	do do	Lauzon	7	15	11½
do do, do	do do	Ursulines	108	7	6
do do, do	do do	Franc Aleu (Lauzon).....	5	11	3½
do 7, do	Peter Langlois	Bourg Louis N.E.....	21	1	10½
do do, do	Frs. Rioux	Part of Trois Pistoles	1	9	1
do do, do	do do	do do	0	13	5
do do, do	do do	do do	0	13	5
do 8, do	T. G. Launière, <i>et al.</i>	Augmentation St. Michel	51	12	2½
do do, do	G. G. Launière, <i>et al.</i>	Livandière	99	13	5½
do 9, do	Dames Drapeau	Part of Isle d'Orléans	68	6	10½
do do, do	do do	Rimouski	55	13	4½
do do, do	do do	Nicolas Rioux	48	13	2½
do do, do	do do	Lepage and Thivierge	90	15	1½
do do, do	do do	Lessard ou Lancollaie	18	0	8½
do do, do	do do	Pachot	10	0	4½
do do, do	do do	Ste. Claire	0	19	8½
do do, do	do do	Gouffre	24	15	4½
do do, do	A. Lemelin	Argentenaye.....	15	7	0
do do, do	Heirs, P. E. Taschereau.....	Part of Ste. Marie S. O.	24	4	2½
do do, do	do do	do do N. E.....	88	12	6½
do do, do	do do	do Joliet.....	85	18	0
do do, do	do do	do of St. Joseph, N.E.....	9	13	4½
do do, do	do de la Gorgendière, <i>et al.</i>	do do S. O.....	87	3	6½
do do, do	do G. L. Taschereau.....	do of Ste. Marie, S. O.....	15	13	1

STATEMENT OF PAYMENTS made to SEIGNIORS by the SEIGNIORIAL COMMISSIONERS
at QUEBEC, &c.—(Continued.)

DATE.		SEIGNIOR.	SEIGNIORY.	Amount.		
				£	s.	d.
July	9, 1857.	Feirs, G. L. Taschereau	Part of Ste. Marie, N. E.	7	13	11½
do	11, do	J. V. Taché, <i>et al.</i>	Granville	0	5	5½
do	do, do	do do	Kamouraska	22½	13	9½
do	do, do	A. Poulin	Part of L'Isle d'Orléans	23	2	8
do	do, do	do	do do	23	2	8
do	13, do	Amable Dionne	St. Roch des Aulnais	142	2	4½
do	do, do	Heirs, J. Taschereau	Ste. Marie (Linière)	28	13	0
do	do, do	do do	do (Taschereau)	2	17	7
do	14, do	John Nairne	Murray Bay	148	17	3
do	do, do	L. Beaucher	Trois Pistoles	0	15	6½
do	do, do	do	do	0	15	6½
do	do, do	W. and E. Fraser	Rivière du Loup	32	7	2
do	do, do	do	Terrebois au Verbois	85	4	9
do	do, do	do	Le Parc	113	5	2½
do	do, do	Dame J de Lotbinière	Lotbinière	81	9	7
do	do, do	Nazaire Larne	DeVilleray	5	18	9
do	do, do	do	do	2	14	9
do	do, do	do	do	2	14	9
do	15, do	J. T. Taschereau	Joliette	8	17	0
do	do, do	do	do	4	1	7
do	do, do	do	do	4	1	7
do	16, do	J. B. and L. Couillard	Part of Rivière du Sud	8	7	2½
do	do, do	do do	do do	8	7	2½
do	do, do	J. C. Couillard, <i>et al.</i>	Part of L'Islet St. Jean	14	15	0½
do	do, do	J. N. Martin	do of L'Islet Bonsecours	10	16	9½
do	do, do	J. M. Couillard	do of L'Islet St. Jean	2	11	7½
do	do, do	Dame A Caron	do do do	6	2	6½
do	do, do	J. M. Bélanger	do of L'Islet Bonsecours	1	0	10
do	do, do	Mrs. Widow Bélanger	do do do	2	18	10½
do	do, do	L. N. Gauvreau	Villeray	42	8	7½
do	do, do	E. Dionne	St. Denis, Ste. Anne La Poc	48	8	8
do	do, do	do	do do	129	11	0
do	17, do	Charles Robertson	Villemay	7	1	4½
do	do, do	do	do	7	1	4½
do	20, do	L. R. & C. C. DéLery	Beauvais	6	18	4½
do	do, do	Madame Veuve St. Ours	St. Jean Deschailions	38	17	5½
do	21, do	Léger Launière, <i>et al.</i>	St Michel	60	17	5
do	do, do	J. A. & E. A. Panet	Bourg Louis (part S.O.)	11	12	5½
do	do, do	O. E. Casgrain, <i>et al.</i>	Fief Fortin, Islet, Bonsecours	7	12	11½
do	22, do	Captain J. B. Rioux	Trois Pist les	23	6	4
do	28, do	Peter Burnet	Grondines	46	6	1
do	do, do	do	do	46	6	1
do	do, do	A. Gagnon	L'Islet St. Jean	0	13	5
do	do, do	do	do	0	13	5
do	do, do	do	L'Islet Bonsecours	1	16	9½
do	do, do	do	do	1	16	9½
do	do, do	Aug. Bernier	La Frenaye	5	17	11½
do	29, do	James Motz	Dumesnil ou du Mener	1	0	7
do	do, do	do	do	1	0	7
August	1, do	Ed. Pouliot	Rimouski	0	10	2

STATEMENT OF PAYMENTS made to SEIGNIORS by the SEIGNIORIAL COMMISSIONERS
at QUEBEC, &c.—(Continued.)

DATE.	SEIGNIOR.	SEIGNIORY.	Amount.		
			£	s.	d.
August 1, 1857	Ed Pouliot	Rimonski	0	10	2
do 4, do	C. & A DeLéry	Ste Barbe La Famine	14	9	9½
do do, do	do	Rigaud Vandreuil	53	15	8½
do do, do	P. T. Casgrain	La Bontellèrie	99	14	9
do 5, do	Ant. J. Duchesnay	Fossambault	23	10	11
do do, do	do	do	23	10	11
do do, do	do	Gaudarville	48	4	0½
do do, do	do	do	48	4	0½
do 10, do	Arthur Ross	St. Giles de Beauvillage	90	18	4½
do 19, do	L. P. H. Tungcon	Beaumont	85	14	9
do do, do	do	do	85	14	9
do 22, do	P. T. Casgrain	La Bontellèrie	17	16	6
do do, do	do	do	8	4	5
do do, do	do	do	8	4	5
do do, do	S. G. & R. M. Hart	Gaspé	27	18	0
do 26, do	J. B. Morin	L'Épinay	3	17	4½
do 27, do	Frs. Gourleau	Beaulieu (Isle d'Orleans)	11	15	9
do 31, do	J. B. Côté	Part of L'Isle Verte	2	10	10
September 1, do	Jos Caron	do Islet St Jean	0	8	4½
do 2, do	Godfroy Blais	do of L'Épinay	3	9	11½
do do, do	do	do of Rivière du Sud	13	13	8½
do 8, do	A. Bochet, et al	Lachevrotière	1	10	5
do do, do	S. J. Hart, et al	Gaspé	1	17	2
do do, do	do	do	1	17	2
do do, do	Hon. de S. LaTerrière	Whoulemens	3	1	9½
do 12, do	G. A. Allsopp, et al	D'Anteuil	1	13	5
do do, do	do	Jacques Cartier	1	2	3
do 26, do	William Pozer	Aubert Gallion	17	13	8
do do, do	do	St. Etienne	53	13	8
do do, do	do	do	53	13	8
October 16, do	François Tétu	La Rivière du Sud	8	15	5
do 20, do	S. Judah & R. Hart	Belair	4	11	1½
do do, do	do	do	4	11	1½
do do, do	do	do	9	17	1½
do 24, do	P. Rioux	Trois Pistoles	5	18	3
do do, do	do	do	5	18	3
November 4, do	M. M. McPherson	Isles aux Grues	5	8	7½
do do, do	do	do	5	8	7½
do 10, do	Heirs, J. B. Rioux	Trois Pistoles	7	9	8
do do, do	J. G. Seton	Isle Verte	2	17	1½
do do, do	J. Lepage	Rimonski	3	8	6
do do, do	C. Lepage	do	1	9	1
do 11, do	Sir C. J. Stuart	Deschambault	23	5	1
do 17, do	Louis Blais	L'Épinay & Rivière du Sud	3	19	1
Total Currency			£ 23387	7	5
Equal to			\$ 93549		47
Carried over			\$ 93549		47

STATEMENT of PAYMENTS made to SEIGNIORS by the SEIGNIORIAL COMMISSIONERS at QUEBEC, &c.—(Continued.)

DATE.		SEIGNIOR.	SEIGNIORY.	Amount.	
				\$	cts.
			<i>Brought over</i>	93549	47
January	4, 1858..	Heirs, Noel	Le Gardeur, Belles Plaines	153	71
do	do, do ..	do	Tilly	125	57
do	do, do ..	do	Maranda	46	73
do	do, do ..	do	Bonsecours	146	08
do	5, do ..	G. G. Launière, <i>et al.</i>	Livaudière	398	68
do	do, do ..	do, do	St. Michel	206	45
do	16, do ..	Léger Launière, <i>et al.</i>	do	243	48
do	do, do ..	Seminary of Quebec	Coulonges	725	67
do	do, do ..	do do	Sault au Matelot	1846	79
do	do, do ..	do do	Côte de Beaupré	1203	00
do	do, do ..	do do	Isle aux Coudre	66	34
do	do, do ..	P. A. de Gaspé	St. Jean Port Joli	450	14
do	do, do ..	do	Isle à la Peau	142	59
do	do, do ..	Heirs, de la Naudière	St. Vallier	361	23
do	do, do ..	Victor Gariépy	Part of Lachevrotière	99	18
do	do, do ..	O. E. Casgrain	Islet Bonsecours	175	15
do	do, do ..	do	Islet St. Jean	91	46
do	do, do ..	A. Bochet, <i>et al.</i>	Lachevrotière	38	08
do	do, do ..	Captain J. B. Rioux	Trois Pistoles	93	27
do	do, do ..	Dames Drapeau	Islet d'Orleans	273	87
do	do, do ..	do	Nicolas Rioux	194	64
do	do, do ..	do	Rimouski	222	68
do	do, do ..	do	Lessard au Lamollaie	72	06
do	do, do ..	do	LePage au Thioierge	363	02
do	do, do ..	do	St. Clair	3	94
do	do, do ..	do	Pachot	40	07
do	do, do ..	do	Gouffre	99	08
do	do, do ..	N. Larue	DeVilleray	10	95
do	do, do ..	L. P. H. Turgeon	Beaumont	342	95
do	do, do ..	J. T. Taschereau	Joliette	405	91
do	do, do ..	do	St Joseph N.E.	35	57
do	do, do ..	do	Augn. St Michel	27	88
do	18, do ..	Amable Dionne	St. Roch des Aulnais	568	47
do	do, do ..	Hotel Dieu, Quebec	St. Ignace	356	24
do	do, do ..	Hopital Général, do	Récollets	274	29
do	do, do ..	do, do	D'Orsainville	34	73
do	do, do ..	Pauvres, Hotel Dieu, do	DeMaure	268	62
do	do, do ..	Hopital Général, do	Berthier, Bellechasse	247	65
do	do, do ..	Arthur Ross	St. Giles, Beurivage	363	68
do	do, do ..	N. C. Faucher	Vincennes	62	11
do	do, do ..	Frs. Tetu	Rivière du Sud	35	08
do	do, do ..	Ursulines, Quebec	Ursulines	433	50
do	do, do ..	do, do	Fef Ursulines, (Lauzon)	22	26
do	do, do ..	do, do	do St. Anne, do	81	19
do	do, do ..	do, do	Ste. Croix	381	53
do	20, do ..	P. T. Casgrain	LaBoutellérie	421	83
do	do, do ..	Heirs, Lindsay	St. Joseph N.E.	24	44
do	do, do ..	Heirs, Taschereau, <i>et al.</i>	Ste. Marie (Linière)	114	60
do	do, do ..	do, do, do	Ste. Marie (Taschereau)	11	52
do	21, do ..	Elizér Dionne	Ste. Anne La Pocatière	518	20

STATEMENT of PAYMENTS made to SEIGNIORS by the SEIGNIORIAL COMMISSIONERS at QUEBEC, &c.—(Continued.)

DATE.	SEIGNIOR.	SEIGNIORY.	Amount.	
			\$	cts.
January 21, 1858..	Elizér Dionne	St. Denis, Paroisse Ste. Anne.	198	73
do 22, do ..	Charles Morice	Grand Pré au Montplaisier....	104	53
do do, do ..	Dr. G. B. Hall.....	Beauport	260	20
do do, do ..	W. D. Campbell.....	Bic	137	65
do 23, do ..	Heirs, S. Campbell.....	L'Islet du Portage.....	195	08
do do, do ..	Peter Langlois.....	Bourg Louis	84	37
do do, do ..	Dame J. de Lotbinière	Lotbinière	325	92
do do, do ..	Heirs, Chenest	Vincelotte & Gamache ou Gagné.	169	98
do 25, do ..	Heirs, Taché	Kamouraska	898	76
do do, do ..	do	Grandville	1	09
do 26, do ..	Heirs, P. E. Taschereau.....	Joliette.....	143	60
do do, do ..	do	St. Joseph, N.E	88	67
do do, do ..	do	Ste. Marie, do	134	54
do do, do ..	Heirs, de la Gorgendière, <i>et al</i>	St. Joseph, S.O	143	71
do do, do ..	do P. E. Taschereau.....	Ste. Marie, do	96	84
do 27, do ..	Ol. Perrault.....	St. Joseph, N.E	47	04
do do, do ..	do	Ste. Marie, do	124	81
do do, do ..	do	do S.O.	51	36
do 28, do ..	Eucher Couillard	L'Islet Bonsecours	1	47
do do, do ..	do	Fournier	53	81
do do, do ..	do	L'Islet Bonsecours	1	47
do do, do ..	do	Rivière du Sud	125	38
do do, do ..	Fabrique de Quebec	Cap aux Diamants	407	25
do do, do ..	do	Notre Dame de Quebec	727	82
do 29, do ..	Frs. Gourdeau, <i>et al</i>	Beaulieu Lagrosardière.....	23	57
do do, do ..	Heirs, Parant	St. François.....	42	63
do do, do ..	do, do	Ste. Ursule	20	48
do do, do ..	Charles Bertrand	Isle Verte	251	23
do 30, do ..	André Lemelin	Argentenaye	61	40
do do, do ..	Alexander Paulin	Isle d'Orléans	92	53
do do, do ..	Eloi Rioux	Trois Pistoles	49	33
do do, do ..	do	do	49	33
do do, do ..	do	do	49	33
Total.....\$			111088	96

A true Copy of the Original Lists of Record in this Department.

C. E. ANDERSON,

Deputy Receiver General.

RECEIVER GENERAL'S DEPARTMENT,

Toronto, 24th March, 1858.

STATEMENT of PAYMENTS made to SEIGNIORS by the SEIGNIORIAL COMMISSIONERS at MONTREAL, for Interest due them on *Lods et Ventés*, accrued in their respective Seigniories, under authority of the Seigniorial Act of 1854, and subsequent amendments thereto.

DATE.	SEIGNIOR.	SEIGNIORY.	Amount.		
			£	s.	d.
July 25, 1856.	E. S. DeRotterdamund	Part of Rougemont	79	2	5
do 26, do	S. C. Monk	Delorme	349	12	1
do do	Mrs. E. M. Vienne	Part of Fief Martel	21	10	7
do do	Charles Vienne	do do do	6	4	8
do do	General Hospital (Montreal Grey Nuns)	Chateauguay	567	10	8
do 28, do	Mrs. Widow L. M. Viger	L'Assomption, Fief Bayeul	904	10	8
do do	do	Repentigny	75	19	0
do 29, do	Mrs. Roe	Part of DeLéry	216	19	4
do do	L. A. Dessaulles	Dessaules propre	712	15	3
do do	C. E. Pelle	Godfroy	60	19	8
do do	do	Raquettaillade	43	7	4
do do	H O. Andrews	Fief Jenison	11	6	8
do 30, do	Honorable E. Ellice	Beauharnois	1257	8	7
do do	Mrs Laframboise	Rosalie	342	17	11
do do	Samuel Gerrard	Lanaudière, Fief Marianne	37	13	1
do do	Mrs. A. Lamothe	Part of Ramsay	10	12	5
do do	do	do of d'Aillebout	9	9	7
do do	E. M. Hart	Fief Boucher	4	7	2
do do	Mrs. M. J. Hart	Courval	56	5	1
do do	Mrs. O. Chenvert	Part of Fief Niverville	69	11	6
do do	P. L. Panet	Part of DeRamsay	23	10	0
do do	do	do of d'Aillebout	21	12	8
do do	Honorable L. J. Papineau	Petite Nation	191	4	2
do do	Mrs. Selby	Lasalle	686	11	4
do do	Mrs. deMontenach	Belcèl	327	12	1
do do	The Misses Robertson	Part of DeLéry	433	18	8
do do	David Kinnear	do of deHertel, Marsollette	17	10	3
do do	Honorable J. R. Rolland	Monnoir	758	13	2
August 1, do	A. E. Kierkowski	St. François le Neuf	233	14	7
do do	Gaspard de La Naudière	Part of Lavaltrie	171	7	2
do do	Heirs, Allard	Foucault	128	1	2
do do	Mrs. de St Ours	St. Ours	555	7	6
do do	T. E. Campbell	Rouville	204	15	0
do do	Charles de Boucherville	Part of Verchères	105	15	8
do 2, do	R. C. Weilbrenner	Art. Fief of Boucherville	13	0	6
do do	do	Part of do	69	4	3
do do	Honorable John Pangman	Lachenaie	705	13	3
do 4, do	François Boucher	Camfel	72	2	0
do do	do	Part of Maskinongé	18	11	11
do do	Thomas B. deBoucherville	Part of Verchères	37	0	10
do do	do	do of Boucherville	46	10	9
do do	Théodore Hart	do of Bécancour	43	12	11
do do	Honorable D. B. Viger	Isle Bizard	114	0	10
do do	Donald Ross	St. George's	236	18	11
do do	Louis Lacoste	Part of Boucherville	47	19	0
do 5, do	Joséph Charron	Part of Fief Tremblay	8	4	6
do do	C. A. Cuthbert, et al	Berthier	434	2	6

STATEMENT of PAYMENTS made to SEIGNIORS by the SEIGNIORIAL COMMISSIONERS
at MONTREAL, &c.—(Continued.)

DATE.	SEIGNIOR.	SEIGNIORY.	Amount.		
			£	s.	d.
August 5, 1856..	Honorable G.R.S. deBeaujeu.	Soulanges	791	16	5
do do, do ..	do	Nouvelle Longueuil	528	14	2
do 6, do ..	James Tunstal, <i>et al</i>	Lacolle	214	13	1
do 7, do ..	Mrs. Christie	Bleury	380	10	6
do do, do ..	Mrs. Bayley	Noyan	406	17	3
do do, do ..	Mrs. Cleather	Sabrevois	482	4	11
do do, do ..	E. C. Cuthbert	Dusablé	97	2	6
do do, do ..	do	Maskinongé	208	13	11
do do, do ..	Mrs Lévesque	Daillebout	39	18	11
do do, do ..	Mrs. Berczy	Part of Daillebout	25	16	5
do do, do ..	Mrs. Joliette	do of LaValtrie	108	13	7
do 8, do ..	Norbert Henault	Chicot, Isle du Pads	65	11	3
do do, do ..	Aimé Massue	St. Michel, La Trinité	92	13	10
do do, do ..	do	Part of Fief Martel	48	5	0
do do, do ..	do	Guilantière, part of Varennes	74	14	6
do do, do ..	J. S. C. Wurtele	Deguir	245	0	1
do do, do ..	do	Bourgmarie East	55	9	9
do 12, do ..	Mrs. Abbott	Part of DeRamsay	26	18	11
do do, do ..	Heirs, D. B. Papineau	Fief of Plaisance	4	10	4
do do, do ..	O. F. Bruneau	Montarville	148	2	7
do do, do ..	S. B. Hart	Part of Bécancour	25	14	3
do 13, do ..	G. H. Monk	Blainville	320	9	1
do do, do ..	Mrs. Masson	Terrebonne	382	3	9
do do, do ..	Charles Dorion	Isle Bouchard	21	14	4
do 14, do ..	Mrs. Lordel	Part of Lavaltrie	71	12	11
do do, do ..	Mrs. Bender	Chambly, West	120	9	4
do do, do ..	P. E. Mailhot	Part of Boucherville	26	16	4
do 15, do ..	Mrs. Chaput	Part of Lavaltrie	62	11	8
do do, do ..	Mrs. Bingham	Rigaud	404	1	4
do do, do ..	F. Lussier	Varennes	89	16	0
do 16, do ..	Aimé Massue	Bonsecours	211	13	1
do do, do ..	do	St. Charles	169	18	6
do do, do ..	do	Bourgmarie, West	116	19	2
do do, do ..	do	Bourchemin, West	94	0	9
do do, do ..	John Fraser	Contreccœur	303	8	0
do do, do ..	do	Cournoyer	132	3	11
do do, do ..	B. A. C. Gagy	Grandpré, Dumontier, Grosbois, W.	369	2	0
do do, do ..	do	Part of Grosbois, East	74	18	3
do 18, do ..	J. J. Grant	Longueuil Barony	1137	3	2
do do, do ..	T. A. Young, <i>et al</i>	St. Pierre les Becquets	120	12	2
do 20, do ..	Jos. Daoust	Part of Isle Perrot	50	12	7
do 21, do ..	F. X. Biron	Pierreville	17	16	11
do 22, do ..	Norbert Ducheny	Part of Maskinongé	53	16	11
do 25, do ..	L. B. C. and C. A. C. DeLery	Gentilly	214	14	2
do do, do ..	do do do ..	Part of Verchères	34	10	9
do do, do ..	do do do ..	St. Blain	21	11	2
do do, do ..	do do do ..	Part of Boucherville	17	6	8
do 26, do ..	Ursuline Nuns, Three Rivers	Rivière du Loup	255	4	10

STATEMENT of PAYMENTS made to SEIGNIORS by the SEIGNIORIAL COMMISSIONERS
at MONTREAL, &c.—(Continued.)

DATE.	SEIGNIOR.	SEIGNIORY.	Amount.		
			£	s.	d.
August 27, 1856..	Ecclesiastical Seminary, Quebec	Isle Jésus	1819	0	9
do 29, do ..	Mrs. M. A. C. Marler	Part of Nicolet	15	14	8
do do, do ..	C. A. M. Globensky	Part of Mille Isle	174	17	0
do do, do ..	do do	do do	178	1	11
September 2, do ..	T. B. de Grosbois	Part of Boucherville	37	19	6
do do, do ..	J. B. Petit Lalumière	do do	14	1	9
do do, do ..	do do	Part of Tremblay	15	11	8
do do, do ..	J. B. de la Broquière	do of Boucherville	27	5	5
do do, do ..	do do	do of Tremblay	34	6	0
do do, do ..	do do	do of Varennes	3	12	4
do 4, do ..	Mrs. E. D. Laviolette	do of Mille Isle	178	1	11
do do, do ..	do do	do do	174	17	0
do do, do ..	Honorable Ross Cuthbert	Lanoraie	482	5	11
do 5, do ..	Mrs. Filmer, Munro and Woodruff	Champlain	67	1	8
do do, do ..	Honorable L. T. Drummond	Rougemont	263	13	10
do 10, do ..	J. M. Mathew	Fief St. Claire	2	6	1
do 11, do ..	R. E. H. Johnston	Fief Robert	69	10	11
do 15, do ..	Ant. St. Louis	Part of Grosbois	37	9	2
do 19, do ..	John Yule	do of Chambly East	143	3	3
do do, do ..	Heirs, William Yule	do do do	210	14	0
do do, do ..	do do	do do West	38	11	4
do 20, do ..	James Armstrong	Fief Hope	25	18	2
do 26, do ..	Honorable James Leslie	Bourchemin and DeRamsay	99	7	6
do 27, do ..	J. L. de Bellefeuille	Part of Rivière du Chêne	87	5	7
do do, do ..	do do	do of Mille Isles	61	2	0
do do, do ..	do do	do of Cournoyer, District of Three Rivers	45	2	4
do 29, do ..	Mrs. Widow Cressé	do of Nicolet	32	18	6
do do, do ..	do do	do of Baie du Fèvre	182	12	0
do do, do ..	A. B. Hart	Vieux Pont	28	15	3
do do, do ..	do do	Ste. Marguerite	4	15	6
October 13, do ..	J. B. Durand, dit Chartier	Part of Fiefs Hertel & Marsolette	11	17	10
do 15, do ..	G. C. Hale, et al.	Ste. Anne de la Parade	68	7	9
do do, do ..	L. R. Laféche, et al.	Fief de Ste. Marie	49	19	10
do do, do ..	J. Charest	Fief Dorvilliers	10	11	0
do 16, do ..	Hon. R. U. Harwood	Vaudreuil	364	3	10
do 21, do ..	C. Mailhot, et al.	Pointe du Lac	76	3	9
January 5, 1857..	J. S. C. Wurtele	Deguir & Bourgmarie East	138	9	8
do do, do ..	Heirs, do et al.	St. Frs. du Lac & Lanaudière	191	17	6
do do, do ..	Honorable L. T. Drummond	Part of Rougemont	121	15	1
do 9, do ..	Ursuline Nuns	Rivière du Loup	117	12	7
do do, do ..	J. B. Durand, dit Chartier	Part of Hertel & Marsolette	5	9	7
do do, do ..	Mrs. Laframboise	Rosalie	158	0	6
do do, do ..	Frs. Boucher	Campfel	33	10	3
do do, do ..	do do	Part of Maskinongé	8	11	5
do do, do ..	Honorable J. R. Rolland	Monnoir	349	12	8
do 10, do ..	Mrs. Selby	LaSalle	324	17	7

STATEMENT of PAYMENTS made to SEIGNIORS by the SEIGNIORIAL COMMISSIONERS
at MONTREAL, &c.—(Continued.)

DATE.	SEIGNIOR.	SEIGNIORY.	Amount.		
			£	s.	d.
January 10, 1857..	Honorable J. Pangman	Lachenaie	325	4	3
do do, do ..	Mrs. Robertson	Part of DeLéry	199	19	8
do do, do ..	Honorable L. J. Papineau ..	Petite Nation	88	2	5
do 12, do ..	Mrs. DeMontenach	Belœil	150	19	7
do do, do ..	R. H. E. Johnston	Part of Robert	32	1	0
do do, do ..	T. R. B. V. deBoucherville ..	Part of Boucherville	21	8	11
do do, do ..	do	Part of Verchères	17	1	5
do do, do ..	T. B. deGrosbois	Part of Boucherville	17	10	0
do do, do ..	J. B. Petit Laluminère	Part of Tremblay	7	3	7
do do, do ..	do	Part of Boucherville	6	9	10
do do, do ..	J. B. de la Broguerie	Part of Tremblay	15	16	2
do do, do ..	do	Part of Boucherville	12	11	4
do do, do ..	do	Isles de Varennes	1	13	4
do do, do ..	Louis Lacoste	Part of Boucherville	22	1	11
do do, do ..	Joseph Charron	Part of Tremblay	1	9	8
do do, do ..	Mary E. Roe	Part of DeLéry	99	19	9
do do, do ..	S. C. Monk	Delorme	161	2	4
do do, do ..	H. O. Andrews	Fief Jenison	5	4	5
do do, do ..	A. E. Kierkowski	St François le Neuf	107	14	4
do do, do ..	Mrs. de Rottermund	Part of Rougemont	36	9	3
October 30, 1856..	Heirs, C. C. Johnson	Argenteuil	310	4	7
November 7, do ..	Miss Leproust	Part of Cournoyer	7	10	5
do 12, do ..	Heirs, Lafamme	Part of Isle Perrot	60	8	9
do do, do ..	Joseph Daoust	Fief Bussy & La Framboise ..	27	5	9
January 14, 1857..	John Fraser	Contrecoeur	139	16	5
do do, do ..	do	Cournoyer	60	18	6
do 16, do ..	Honorable D. Mondelet	Mondelet	356	5	0
do 21, do ..	Mrs. A. Lamothe	Part of D'Aillebout	4	7	4
do do, do ..	do	Part of DeRamsay	4	17	11
do do, do ..	P. L. Panet	Part of D'Aillebout	9	19	5
do do, do ..	do	Part of DeRamsay	10	16	11
do do, do ..	Honorable L. A. Dessauls ..	Dessaules	328	11	6
do do, do ..	Heirs, de l'onnancourt	La Vallière	231	7	4
do do, do ..	Seminary of Quebec	Isle Jésus	607	17	9
do do, do ..	Honorable D. B. Viger	Isle Bizard	52	11	2
do do, do ..	Grey Nunnery	Chateauguay	261	11	0
do do, do ..	do	F. Radison	3	19	2
do do, do ..	Mrs. Globensky	Mille Isles, Augmentation ..	82	1	6
do do, do ..	do	do, 1st Concession	8	11	7
do do, do ..	Mrs. C. E. Belle	Part of Godfroy	2	0	10
do do, do ..	do	Part of Roquetaillade	1	12	0
do do, do ..	John Yule	Part of Chambly East	65	19	6
do do, do ..	Heirs, William Yule	do do	17	15	6
do do, do ..	do	do do West	97	2	0
do do, do ..	T. E. Campbell	Rouville	98	18	0
do do, do ..	Mrs. de St. Ours	St. Ours	255	18	11
do do, do ..	Mrs. Bender	Part of Chambly West	55	10	4
do 22, do ..	Joseph Daoust	Part of Isle Perrot	28	6	8
do do, do ..	do	Part of F. Brussy and Lafra- boise	12	11	6

STATEMENT of PAYMENTS made to SEIGNIORS by the SEIGNIORIAL COMMISSIONERS at MONTREAL, &c.—(Continued.)

DATE.	SEIGNIOR.	SEIGNIORY.	Amount.		
			£	s.	d.
January 22, 1857..	Heirs, Young, <i>et al.</i>	Levrard	55	11	8
do do, do ..	James Armstrong	Fief Hope	11	18	9
do do, do ..	P. E. Mailhot.....	Part of Boucherville.....	12	7	2
do do, do ..	G. H. Monk	Blainville	160	12	9
do do, do ..	E. M. Hart	Fief Boucher	2	0	2
do 26, do ..	E. O. Cuthbert	Half Berthier.....	100	0	8
do do, do ..	E. C. Cuthbert	Dusablé	44	15	8
do do, do ..	do	Part of Maskinongé	93	17	6
do do, do ..	Honorable Ross Cuthbert ..	Lanoraie	222	5	5
do 27, do ..	C. A. Cuthbert	Half Berthier.....	100	0	8
do do, do ..	Mrs. Chenevert	Part of Niverville	32	1	3
do 28, do ..	Mrs. A. M. Christie	Bleury	175	7	4
do do, do ..	Mrs. N. C. Burton	Nayon	187	10	1
do do, do ..	Mrs C. A. Cleather	Sabrevois	222	4	11
do do, do ..	Baron Grant	Longueuil	524	1	5
do 29, do ..	Mrs. Désilets	Part Godfroy	25	0	10
do do, do ..	do	Part Roquetaillade.....	12	12	0
do do, do ..	Mrs. Vienne	Part of Fief Martel	9	18	5
do do, do ..	Charles Vienne	do	2	17	5
do do, do ..	Honorable R. U. Harwood ..	Vaudreuil	167	16	10
do do, do ..	R. C. Weilbrenner.....	Arrien F. Boucherville	6	0	1
do do, do ..	do	Part of Boucherville.....	81	17	11
do 30, do ..	Honorable J. Leslie	Bourchemin and DeRamsay ..	45	17	4
do 31, do ..	H. & G. F. Deschambault ..	St. Denis	200	19	6
do 9, do ..	Messrs. Filner, Munro & Co.	Champlain	30	18	4
do 31, do ..	Theodore Hart	Part of Bécancour	20	2	3
do do, do ..	S. B. Hart	do	11	17	0
February 3, do ..	C. DeBoucherville	Part of Verchères	48	15	0
do do, do ..	Mrs. Widow Viger.....	L'Assomption.....	416	17	3
do do, do ..	Mrs. Laviolette	Repentigny	35	0	3
do do, do ..	Mrs. Laviolette	Mille Isles (Augmentation) ..	82	1	6
do do, do ..	do	do (1st Concession).....	80	11	7
do do, do ..	Mrs. Masson	Terrebonne	176	2	8
do 5, do ..	Heirs, C. C. Johnson.....	Argenteuil	142	19	5
do do, do ..	Mrs. Lévesque	Part of D'Aillebout.....	18	8	2
do 6, do ..	Mrs. Berczy	do	11	18	0
do 7, do ..	Mrs. Despuis	Part of Baie du Fébvre.....	22	18	7
do do, do ..	L. R. C. & C. A. C. DeLéry ..	Gentilly	98	19	9
do do, do ..	do	St. Blain	9	19	1
do do, do ..	Aimé Massue	St. Michel, &c	49	10	1
do do, do ..	do	Part Fief Martel.....	22	4	9
do 11, do ..	James Tunstall, <i>et al.</i>	Lacolle	243	8	3
do 13, do ..	J. L. deBellefeuille.....	Part of Mille Isles.....	28	3	2
do do, do ..	do	do of Rivière du Chêne.....	40	4	5
do do, do ..	do	do of Cournoyer	20	16	3
do do, do ..	Miss Leproust.....	do do	3	9	4
do do, do ..	Heirs, deBellefeuille	do Mille Isles.....	89	5	2
do do, do ..	do	do of Rivière du Chêne.....	127	9	11
do 18, do ..	Mrs. Chaput	do of Lavaltrie	28	16	10
do 19, do ..	Mrs. M. J. Hart	Courval	25	18	7

STATEMENT of PAYMENTS made to SEIGNIORS by the SEIGNIORIAL COMMISSIONERS
at MONTREAL, &c.—(Continued.)

DATE.	SEIGNIOR.	SEIGNIORY.	Amount.		
			£	s.	d.
February 20, 1857..	N. Ducheny	Part of Maskinongé	24	16	3
do 21, do ..	G deLanaudière.....	do of Lavaltrie	78	19	5
do do, do ..	N. Henault	Chicot and Isle du Pads	30	4	3
do 27, do ..	Léon Ferland, <i>et al.</i>	Isles St. Pierre	1	1	0
do do, do ..	Mrs. A. B. Hart	Vieux Pont.....	13	4	10
do do, do ..	do	Ste. Marguerite	2	4	0
March 3, do ..	Mrs. Widow Joliette	Part of Lavaltrie	50	1	8
do do, do ..	Mrs. Bingham	Rigaud	186	4	4
do 4, do ..	Dr. Charles Dorion.....	Isles Bouchard	10	0	2
do do, do ..	Dr. O. T. Bruneau.....	Montarville.....	68	5	4
do 5, do ..	Donald Ross	St. Georges	132	4	10
do do, do ..	Heirs, Lafflamme.....	Part of Isle Perrot.....	27	17	1
do do, do ..	do Honorable D. B. Pa- pineau	Fief Plaisance.....	2	1	8
do 6, do ..	George C. Dessaulles	Yamaska.....	666	8	7
do 12, do ..	Heirs, Allard.....	Foucault	59	0	4
do 13, do ..	Mrs. Lœdel	Part of Lavaltrie	33	0	5
do do, do ..	Aimé Massue	Bonsecours.....	97	10	10
do do, do ..	do	Bourchemin Ouest.....	43	6	9
do do, do ..	do	Bourgmarie Ouest.....	53	18	0
do do, do ..	do	St. Charles	78	6	3
do do, do ..	Jos. Fleury and Jos. Dupuys	Part of Maskinongé	2	6	2
do 23, do ..	Mrs. Abbott	do De Ramsay	12	8	4
April 3, do ..	B. C. A. Gagy	Grandpré, Grosbois, W., and Dumontier	170	2	1
do do, do ..	do	Part of Grosbois, East.....	34	10	6
do 25, do ..	Felix Lussier	Varennnes	41	7	8
do do, do ..	Joseph Ainsse.....	Isle St. Thérèse	30	6	6
May 2, do ..	D. Kinnear	Part Hertel and Marsollette.....	17	10	3
do 4, do ..	Mrs. Cressé.....	do Nicolet	15	3	5
do do, do ..	do	do Baie du Fèbre.....	61	0	10
do 23, do ..	D. S. Ramsay.....	do of De Ramsay	621	12	10
do 28, do ..	H. and A. Trigge.....	do of Nicolet	316	4	5
do 30, do ..	Jos. Lemire.....	do of Baie Du Fèbre.....	4	12	2
do do, do ..	Mrs. Marler.....	do of Nicolet	7	5	1
June 6, do ..	N. S. de Carufel.....	do of Maskinongé.....	10	0	8
do do, do ..	Pierre Dupuis.....	do	1	9	8
do 27, do ..	Mrs. G. Futvoye.....	do of Baie Du Fèbre.....	1	7	9
July 1, do ..	Mrs. S. C. Monk.....	Delorme	161	2	4
do do, do ..	Mrs. DeRotterdamund.....	Part of Rougemont.....	36	9	3
do do, do ..	Thodore Hart	do of Bécancour	20	2	3
do do, do ..	S. B. Hart.....	do do	11	7	0
do do, do ..	Frs. Boucher.....	Carufel	33	6	6
do do, do ..	do	Maskinongé, East	8	11	5
do do, do ..	T. E. Campbell.....	Rouville	98	18	0
do do, do ..	Mrs. De St. Ours	St. Ours	255	18	11
do 3, do ..	Mrs M. J. Hart	Courval	25	18	7
do do, do ..	E. M. Hart	Fief Boucher	2	0	2
do do, do ..	Mrs. Marler.....	Part of Nicolet.....	7	5	0
do do, do ..	Jos. Lemier.....	do of Baie Du Fèbre.....	1	9	1

STATEMENT of PAYMENTS made to SEIGNIORS by the SEIGNIORIAL COMMISSIONERS
at MONTREAL, &c.—(Continued.)

DATE.	SEIGNIOR.	SEIGNIORY.	Amount.		
			£	s.	d.
July 2, 1857.	Seminary of Quebec.....	Isle Jésus.....	607	17	9
do do	Honorable J. Leslie	DeRamsay and Bourchemin..	45	17	4
do do	Honorable L. A. Dessaulles.	Dessaulles	328	11	6
do do	J. S. C. Wurtele	Bourgmarie, East	25	11	5
do do	do	Deguir	112	18	3
do do	Honorable R. U. Harwood..	Vaudreuil	167	16	10
do do	Mrs. A. M. Christie	Bicury	175	7	4
do do	Mrs. M. C. Burton	Noyan	187	10	1
do do	Mrs. C. E. Cleather	Sabrevois	222	4	11
do do	Donald Ross	St. George's	132	4	10
do do	G. C. Dessaulles	Yamaska	210	9	0
do do	P. L. Panet	Part of D'Aillebout	9	19	5
do do	Mrs. A. Lamothe	do do	4	7	4
do do	P. L. Panet	do of DeRamsay	10	16	11
do do	Mrs. Abbott	do do	12	8	4
do do	Mrs. A. Lamothe	do do	4	17	11
do do	A. E. Kierkowski	St. François le Neuf	107	4	4
do do	G. H. Monk	Plainville	151	15	6
do do	T. R. B. V. deBoucherville.	Part of Boucherville	21	8	11
do do	do do	do of Verchères.....	17	1	5
do 3, do	Mrs Laframboise	Rosalie	158	0	6
do do	Mrs Chenevert	Part of Niverville.....	32	1	3
do do	P. E. Mailhot	do of Boucherville.....	12	7	2
do do	N. Hénault	Chicault and Isle du Pads..	30	4	3
do do	Mrs. de Montenach	Belœil	150	19	7
do 4, do	James Armstrong	Fief Hope	11	18	9
do do	Mrs. C. E. Belle	Godfroy	17	10	5
do do	Mrs. C. E. Belle	Roquetaillade	10	17	3
do do	Honorable J. R. Rolland .. .	Vonnoir	349	12	3
do do	Honorable J. Pangman	Lachenaie	325	4	3
do do	Louis Lacoste	Part of Boucherville.....	22	1	11
do do	T. B. deGrosbois	do	17	10	0
do do	J. B. de la Broquerie	do	12	11	4
do do	J. B. P. Lalumière	do	6	9	10
do do	J. B. de la Broquerie.....	Isle de Varennes	1	13	4
do do	do	Tremblay	15	16	2
do do	J. B. P. Lalumière	do	7	3	7
do do	Joseph Charron	do	1	9	8
do 6, do	L. R. C. & C. A. C. DeLéry.	Gentilly	98	19	9
do do	do	St. Blain	9	19	1
do do	do	Part of Boucherville.....	15	19	6
do do	do	do of Verchères.....	31	16	8
do do	Mrs. Bingham	Rigaud	186	4	4
do do	T. Hoyle	Lacolle	144	11	0
do do	M & A. Robertson	Part of DeLéry	199	19	8
do do	E. O. Cuthbert	do of Berthier	100	0	9
do do	Honorable P. deBoucherville	do of Boucherville	209	10	1
do do	Mrs. Roe	do of DeLéry	99	19	9
do do	H. O. Andrews	Fief Jenison	5	4	5

STATEMENT of PAYMENTS made to SEIGNIORS by the SEIGNIORIAL COMMISSIONERS at MONTREAL, &c.—(Continued.)

DATE.		SEIGNIOR.	SEIGNIORY.	Amount.		
				£	s.	d.
July	7, 1857..	C. A. Cuthbert	Berthier	100	0	9
do	do, do ..	Mrs. E. Vienne	Fief Martel (part)	9	18	5
do	do, do ..	Charles Vienne	do	2	17	5
do	do, do ..	Honorable L. J. Papineau..	Petite Nation.....	88	2	5
do	do, do ..	Mrs. Selby	Lasalle	316	8	2
do	do, do ..	R. C. Weibrenner.....	Boucherville	31	17	11
do	do, do ..	do	Fief do	6	0	1
do	do, do ..	Heirs, William Yule	Part of Chambly	97	2	0
do	do, do ..	John Yule	do	65	19	6
do	do, do ..	Heirs, William Yule	do	17	15	6
do	do, do ..	John Fraser.....	Contrecoeur	65	7	2
do	do, do ..	do	do	108	19	7
do	10, do ..	Honorable L. T. Drummond.	Part of Rougemont	121	15	1
do	do, do ..	F. Biron	Pierreville	16	9	0
do	do, do ..	John Pickel.....	St. Normand	141	17	10
do	11, do ..	Honorable R. Cuthbert	Lanoraie	222	5	5
do	do, do ..	Heirs, de la Naudière.....	St. Pierre les Becquets	55	11	8
do	do, do ..	Honorable D. B. Viger ..	Isle Bizard	52	11	2
do	13, do ..	Mrs. Widow Viger.....	L'Assomption.....	416	17	3
do	do, do ..	do	Repentigny.....	35	0	3
do	do, do ..	E. O. Cuthbert	Part of Maskinongé	93	17	6
do	do, do ..	E. O. Cuthbert	Dusablé	44	15	3
do	14, do ..	J. L. de Bellefeuille	Part of Mille Isles	28	3	2
do	do, do ..	Heirs, do	Rivière du Chêne	40	4	5
do	do, do ..	do do	Part of Mille Isles.....	28	3	2
do	do, do ..	J. L. de Bellefeuille	do	40	4	5
do	do, do ..	do	Cournoyer	20	16	3
do	do, do ..	Miss LeProust.....	do	3	9	4
do	do, do ..	William Woodruffal.....	Champlain	30	18	4
do	do, do ..	J. B. Chartier.....	Part of Hertel and Maisolette.	5	9	7
do	do, do ..	G de la Naudière	Fief Tarière	78	19	5
do	do, do ..	Mrs. M. Cartier	Part of Baie du Févre	7	4	8
do	do, do ..	O. T. Bruneau	Montarville.....	68	5	4
do	do, do ..	R. H. E. Johnston	Fief Robert	32	1	0
do	15, do ..	Heirs, C. C. Johnston.....	Argenteuil	142	19	5
do	do, do ..	Heirs, Boisvert	Ste. Marie	46	1	7
do	do, do ..	Heirs, Honorable J. Hale	Ste. Anne de la Pérade.....	63	0	3
do	do, do ..	Heirs, P. Charest	Dorvilliers	9	14	6
do	16, do ..	C. B. de Boucherville.....	Part of Verchères	48	15	0
do	do, do ..	Charles Dorion	Isles Bouchard	10	0	2
do	do, do ..	Ursuline Nuns	Rivière du Loup	117	12	7
do	17, do ..	Heirs, Allard	Foucault	59	0	4
do	do, do ..	B. C. A. Gugy	Dumontier Grosbois Ouest ..	170	2	1
do	do, do ..	do	do Grosbois Est	34	10	6
do	20, do ..	H. W. & A. Trigge.....	Part of Nicolet	99	17	2
do	21, do ..	Mrs. Joliette	Part of Lavaltrie	50	1	8
do	do, do ..	Heirs, Bender	Chambly West	55	10	4
do	do, do ..	Abenakis Indiens	Pierreville & St. François	75	16	9
do	do, do ..	Dame A. B. Hart	Vieux Pont	2	4	0
do	22, do ..	Mrs. Chaput	Lavaltrie.....	28	16	10

STATEMENT of PAYMENTS made to SEIGNIORS by the SEIGNIORIAL COMMISSIONERS
at MONTREAL, &c.—(Continued.)

DATE.		SEIGNIOR.	SEIGNIORY.	Amount.		
				£	s.	d.
July	22, 1857.	Dame A. B. Hart	Ste. Marguerite	13	4	10
do	23, do	C. A. M. Globenski	Augmentation Mille Isles	82	1	6
do	24, do	L. G. de Tonnancourt	Lavaltrie	72	18	9
do	do, do	Mrs. Lévesque	Part of Daillebout	18	8	2
do	25, do	L. H. Massue	Part of Fief Martel	22	4	9
do	do, do	do	St. Michel, Trinité, &c	49	10	1
do	27, do	C. A. M. Globenski	Part of Mille Isles	80	11	7
do	29, do	Mrs. E. D. Laviolette	Augmentation do	82	1	6
do	do, do	do	1st Concession do	80	11	7
do	do, do	Mrs. Widow Cressé	Part of Nicolet	15	3	5
do	31, do	J. B. Charland, <i>et al</i>	Part of Grosbois Est.	34	10	6
August	1, do	Mrs. Cressé	Baie du Febvre	61	0	10
do	3, do	C. Mailhiot	Pointe du Lac	70	4	6
do	4, do	H. Deschambault	St. Denis	130	9	9
do	do, do	F. Lussier	Part of Varennes	41	7	8
do	12, do	Heirs Laflamme	Part of Isle Perrot	27	17	2
do	14, do	William Berzy	Part of Daillebout	11	18	0
do	do, do	Heirs, Wurtele	St. François & Lssaudière	60	10	7
do	15, do	Mrs. Widow Masson	Terrebonne	176	2	8
do	21, do	Heirs, D. B. Papineau	Fief Plaisance	2	1	8
do	23, do	Mrs. P. C. Leodel	Part of Lavaltrie	33	0	5
do	31, do	Honorable D. Mondelet	Mondelet.	112	10	0
September	3, do	Mrs. Duchesny	Part of Maskinongé	6	4	1
do	5, do	Mrs. de Rotterdam	Part of Rougemont	142	18	2
do	5, do	Baron Grant	Longueuil	524	1	5
do	7, do	Joseph Ainsse	Isle St. Thérèse	9	11	6
do	11, do	G. A. Massue	Bonsecours	97	10	10
do	do, do	do	Bourchemin West.	43	6	9
do	do, do	do	Bourgmarie do	53	18	0
do	do, do	do	St. Charles	78	6	3
do	17, do	Mrs. Badeaux	Hertel & Lanctot	4	1	11
do	do, do	do	Part of Niverville	11	3	10
October	5, do	Heirs, P. B. Dumoulin	Labatie	7	19	11
do	do, do	do, do	Hautboe	29	13	6
do	do, do	Honorable E. Ellice	Beauharnois	1158	19	10
do	6, do	Lottinville & Dugré	Hertel & Lanctot	7	4	7
do	do, do	J. M. Mathiew	Fief Ste. Claire	2	2	6
do	8, do	Corporation of Three Rivers.	Commune of Three Rivers	199	12	1
do	23, do	G. G. Forsythe	Part of DeRamsay	251	2	2
do	24, do	H. G. Forsythe	do	118	13	4
July	10, do	Honorable S. DeBeaujeu	Nouvelle Longueuil	487	6	5
do	do, do	do	Soulanges	729	16	9
do	11, do	Grey Nuns	Chateauguay	261	11	1
do	do, do	do	Fief Radison	1	5	0
do	13, do	Joseph Daoust	Part of Isle Perrot	12	11	6
do	do, do	do	Fief in Isle Perrot	23	6	8
November	17, do	Mrs. Désilets.	Part of Godfroy	17	10	5
do	do, do	do	do of Roquetaillade	10	17	3
do	23, do	Isidore Dupré	do of Hertel & Lanctot.	10	8	4
do	do, do	Ursuline Nuns	do do do	6	5	0

STATEMENT of PAYMENTS made to SEIGNIORS by the SEIGNIORIAL COMMISSIONERS at MONTREAL, &c.—(Continued.)

DATE.	SEIGNIOR.	SEIGNIORY.	Amount.		
			£	s.	d.
November 28, 1857..	Thomas Burns	Part of Hertel and Marsollette.	40	12	2
December 4, do ..	Honorable C. S. DeBleury .	do of Boucherville.....	33	15	0
		Total Currency£	52225	12	0
			\$		cts.
		Equal to	208902		40
January 4, 1858 ..	S. C. Monk	Delorme.....	644		46
do do, do ..	do	Part of L'Assomption.....	208		43
do do, do ..	Mrs. de Rottermond.....	do of Rougemont.....	288		05
do do, 5, do ..	T. E. Campbell.....	Rouville	375		60
do do, do ..	Seminary of Quebec.....	Isle Jésus	2431		55
do do, do ..	Mrs. Selby.....	LaSalle	1279		02
do do, do ..	Honorable S. deBeaujeu.....	Nouvelle Longueuil	974		64
do do, do ..	Mrs. de St. Ours.....	St. Ours.....	1023		79
do do, do ..	Honorable S. deBeaujeu.....	Soulanges	1459		67
do do, do ..	Frs. Boucher.....	Carufel	183		39
do do, do ..	do	Part of Maskinongé	34		27
do do, do ..	Mrs. Chenevert.....	do of Niverville.....	128		31
do do, do ..	Mrs. St. Ours	do of L'Assomption.....	416		86
do do, 7, do ..	E. O. Cuthbert	do of Berthier	400		14
do do, do ..	C. A. Cuthbert	do do	400		14
do do, do ..	Grey Nunnery	Chateaugay	1046		20
do do, do ..	John Fraser	Contreccœur	487		57
do do, do ..	do	Cournoyer	289		95
do do, do ..	M. and A. Robertson.....	Part of DeLéry	792		43
do do, do ..	Ed. Roe	do do	396		30
do do, do ..	Honorable L. A. Dessales.....	Dessales.....	1814		30
do do, do ..	James Armstrong.....	Hope	47		75
do do, do ..	T. Hoyle	Lacolle	578		78
do do, do ..	Honorable J. R. Rolland	Monnoir	1898		54
do do, do ..	Grey Nunnery	Radison	5		00
do do, do ..	Mrs. Laframboise	Rosalie	632		11
do do, do ..	A. E. Kierkowski.....	St. François le Neuf.....	430		86
do do, do ..	F. Lussier	Part of Varennes	165		56
do do, do ..	G. C. Dessales	Yamaska	841		81
do do, do ..	D. Kinnear	Hertel and Marsollette.....	26		75
do do, do ..	H. W. and A. Trigge.....	Part of Nicolet	399		44
do do, do ..	A. E. Kierkowski.....	do of L'Assomption	104		22
do do, 8, do ..	Mrs. de Montenach.....	Beceil	603		91
do do, do ..	G. H. Monk	Blainville	604		65
do do, do ..	H. O. Andrews.....	Jenison	20		89
do do, do ..	E. M. Vienne.....	Part of Martel.....	39		69
do do, do ..	C. Vienne	Martel	11		49
do do, do ..	J. L. deBellefeuille	Part of Mille Isles.....	112		63
do do, do ..	Heirs, do	do do	112		68
do do, do ..	Honorable L. J. Papineau.....	Petite Nation.....	352		48
do do, do ..	J. L. deBellefeuille.....	Part of Rivière du Chêne.....	160		89
do do, do ..	Heirs, do	do do do	160		89
do do, do ..	Honorable L. T. Drummond	do of Rougemont.....	487		02

STATEMENT of PAYMENTS made to SEIGNIORS by the SEIGNIORIAL COMMISSIONERS
at MONTREAL, &c.—(Continued.)

DATE.	SEIGNIOR.	SEIGNIORY.	Amount.	
			\$	cts.
January 8, 1858.	J. L. deBellefeuille.....	Part of Cournoyer.....	88	25
do do do	Miss LeProust.....	do	13	88
do do do	F. Johnson	Robert	128	21
do 9, do	Mrs. Bingham.....	Rigaud	744	87
do do do	D. Ross	St. George	528	96
do do do	Honorable R. U. Harwood..	Vaudreuil	671	36
do do do	T. Hart	Part of Bécancour.....	80	46
do do do	S. B. Hart	do	47	40
do do do	J. S. C. Wurtele.....	Bourgmarie, East	102	28
do do do	do	Deguir	451	65
do do do	Mrs. C. E. Belle	Part of Godfroy.....	70	14
do do do	do	do of Roquetaillade	44	05
do do do	William Workman.....	do of L'Assomption.....	104	22
do 11, do	G. G. Forsythe..	DeRamsay and Bourchemin ..	241	06
do do do	H. G. Forsythe.....	do do do	113	92
do do do	G. de la Naudière.....	Part of Lavaltrie	315	89
do do do	Mrs. Laviolette	do of Mille Isles.....	328	31
do do do	do	do	322	82
do 12, do	Honorable J. Leslie	DeRamsay and Bourchemin ..	183	46
do do do	Mrs. Widow Viger.....	Part of L'Assomption.....	883	72
do do do	Mrs. Joliette	do of Lavaltrie	200	34
do do do	Mrs. Widow Viger.....	Repentigny	142	78
do do do	Heirs, de Tonnancourt ..	Part of Labadie	22	33
do do do	do	LaVallière	291	75
do 13, do	Honorable J. Pangman.....	Lachenaie	1800	85
do do do	Mrs. Chaput	Part of Lavaltrie.....	115	36
do do do	C. A. M. Globensky	do of Mille Isles	328	31
do do do	do	do	322	32
do 14, do	Louis Lacoste.....	Part of Boucherville	117	61
do do do	E. B. de Grosbois	do	70	06
do do do	J. B. de la Broquerie.....	do	50	38
do do do	J. B. P. Lalumière.....	do	25	95
do do do	G. F. Deschambault	do	14	34
do do do	N. Henault	Chicot and Isle du Pads.....	120	86
do do do	Honorable D. B. Viger	Isle Bizard	187	28
do do do	J. B. de la Broquerie.....	Isle de Varennes.....	6	65
do do do	do	Part of Tremblay	63	23
do do do	J. B. P. Lalumière.....	do	28	74
do do do	Joseph Charron	do	5	95
do do do	Mrs. Cressé	Part of du Fébvre	244	17
do do do	Joseph Lemire	do	5	82
do do do	E. M. Hart	Boucher	9	82
do do do	Mrs. J. M. Hart.....	Courval	108	74
do do do	B. C. A. Gugy	Dumontier	257	75
do do do	do	Grandpré	210	87
do do do	do	Grosbois Ouest	170	58
do do do	do	Part of Est	147	74
do do do	Mrs. Cressé.....	do of Nicolet	68	27
do do do	Mrs. Marler.....	do	29	62
do do do	F. Biron	Part of Pierreville	32	90

STATEMENT of PAYMENTS made to SEIGNIORS by the SEIGNIORIAL COMMISSIONERS
at MONTREAL, &c.—(Continued.)

DATE.	SEIGNIOR.	SEIGNIORY.	Amount.	
			\$	cts.
January 15, 1858.	Joseph Daoust.....	Part of Isle Perrot.....	98	38
do do do	do	do	50	80
do 18, do	Honorable Ross Cuthbert..	Lanoraie.....	889	08
do do do	Ursuline Nuns.....	Part of Hertel and Linctot..	6	02
do do do	N. Duchesny.....	Part of Maskinongé.....	151	61
do 19, do	A. Massue.....	Guillandière.....	22	81
do do do	Mrs. Loedel.....	Part of Lavaltrie.....	182	14
do do do	A. Massue.....	do of Martel.....	88	95
do do do	H. Deschambault.....	do of St. Denis.....	260	90
do do do	G. F. Deschambault.....	do	260	90
do do do	A. Massue.....	St. Michel and Trinité.....	174	01
do do do	do	Varennes.....	6	79
do 20, do	A. P. Christie.....	Bleury.....	808	28
do do do	Mrs. Lamothe.....	D'Aillebout.....	17	47
do do do	P. L. Panet.....	do	39	88
do do do	Mrs. Abbott.....	DeRamsay.....	49	67
do do do	P. L. Panet.....	do	43	39
do do do	Mrs. Lamothe.....	do	19	58
do do do	C. A. Cleather.....	Sabrevois.....	1028	39
do 21, do	A. B. Cherrier.....	Part Chambly West.....	222	07
do 23, do	Heirs, T.R.V. de Boucherville	do of Boucherville.....	102	36
do do do	P. E. Mailhiot.....	do do	125	15
do do do	O. T. Bruneau.....	Montarville.....	273	06
do do do	P. E. Mailhiot.....	Part of Varennes.....	13	31
do do do	Heirs, de Boucherville.....	do of Verchères.....	61	15
do do do	Heirs, Wertele & Legendre.	Lussaudière and St. François..	242	11
do do do	Mrs. Widow A. B. Hart....	Ste. Marguerite.....	606	45
do 25, do	Honorable C S. de Bleury.	Part of Boucherville.....	32	50
do do do	Heirs, Papineau.....	Plaisance.....	8	32
do do do	Ursuline Nuns.....	Rivière du Loup.....	470	52
do 26, do	M. C. Burton.....	Nayan.....	810	92
do do do	Corporation of Three Rivers.	Commune des Trois Rivières..	192	24
do 27, do	R. C. Weilbrenner.....	Part of Boucherville.....	97	67
do do do	do	do	14	22
do 28, do	Heirs, J. F. Allard.....	Foucault.....	258	95
do do do	Honorable D. Mondelet.....	Mondelet.....	450	00
do 29, do	Heirs, William Yule.....	Part of Chambly, West.....	388	41
do do do	John Yule.....	do do East.....	268	91
do do do	Heirs, William Yule.....	do do do.....	71	10
do 30, do	Abénagui Indians.....	St. François du Lac, &c.....	72	82
Total.....\$			249736	55

A true Copy of the Original Lists of Record in this Office.

C. E. ANDERSON,
*Deputy Receiver General.*RECEIVER GENERAL'S DEPARTMENT,
Toronto, 24th March, 1858.

STATEMENT of the AMOUNTS at the CREDIT of the SEIGNIORIAL FUND, and of the Amounts paid out of the same—1st February, 1858.

June 1, 1855..	To paid George Futvoye, for preliminary Expenses	\$ 1000	00	cts.	June 1, 1855..	By special sources of Revenue capitalized, (<i>Vide</i> App. 1856, No. 49).	\$ 834444	40	cts.
January 31, 1856..	Sundry Payments, (App. 1856, No. 49). Balance	26106 1485552	10 21		do do do	Amount appropriated by Legislature.. Amount of Commutation Fund, under 10 & 11 Vic. cap. 111.....	600000 16737	00 95	
		\$ 1512658	31		January 31, 1856..	Total Capital	\$ 1451182	35	
December 31, 1856..	To Sundry Expenses (<i>Vide</i> App. 1857, No. 36)	203616	60		do do do	Collections on account of Commutation Fund	3631	16	
	Balance	1360817	45		do do do	Balance of Interest Account	57844	80	
		\$ 1564434	05		February 1, 1856..	By Balance from last year	1485552	21	
December 31, 1857..	To sundry Expenses, (<i>Vide</i> Public Accounts, 1857)	169205	92		December 31, do ..	Collections on account of Commutation Fund	1927	12	
do do do	Balance	1268905	69		do do do	Balance of Interest Account	77554	72	
		\$ 1488111	61		January 1, 1857..	By balance from last year	1360817	45	
January 31, 1858..	To Warrant to Commission	8000	00		December 31, do ..	Collections on account Commutation Fund	1470	48	
	Balance	1267234	43		do do do	Balance of Interest Account	75823	68	
		\$ 1275234	43		January 1, 1858..	By balance available.....	1268905	69	
					do do do	Balance of Interest Account	6328	74	
					February 1, 1858..	By Balance available	\$ 1275234	43	

STATEMENT in detail of all EXPENSES on account of the REDEMPTION of SEIGNIORIAL RIGHTS, to 31st January, 1858.

George Futvoye, preliminary Expenses of carrying out Seigniorial Act	\$ 1000	00	cts.
Judges of Seigniorial Court	16422	90	
	\$ 16422	90	
Carried over	\$ 16422	90	

December 31, 1857..	To sundry Expenses, (<i>Vide</i> Public Accounts, 1857)	\$ 169205	92	cts.	January 1, 1857..	By balance from last year	\$ 1360817	45	cts.
do do do	Balance	1268905	69		December 31, do ..	Collections on account Commutation Fund	1470	48	
		\$ 1488111	61		do do do	Balance of Interest Account	75823	68	
January 31, 1858..	To Warrant to Commission	8000	00		January 1, 1858..	By balance available.....	1268905	69	
	Balance	1267234	43		do do do	Balance of Interest Account	6328	74	
		\$ 1275234	43		February 1, 1858..	By Balance available	\$ 1275234	43	

STATEMENT in detail of all EXPENSES on account of the REDEMPTION of SEIGNIORIAL RIGHTS, &c.—
(Continued.)

	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
<i>Brought over</i>										
Judges of Court of Appeals			16422	90	1000	00	20990	90	50285	98
J. A. Beaudry, Clerk of Special Court			480	00						
Disbursements on account of Court of Appeals			809	43						
E. G. Penny, reporter			1503	00	2292	43	11636	65		
Printing Seigniorial Reports			4166	00						
T. J. Lovanger, Professional Services			4200	00						
F. R. Angers, do			1900	00						
J. B. Turcotte, do			2600	00						
E. Bernard, do			1500	00						
L. T. Drummond, do					14366	00				
Simon Lelièvre, Commissioner, Salary	10398	00								
do do Travelling	950	00								
Jean Chabot, do Salary	4050	00	11348	00						
do do Travelling	344	00								
J. B. Turcotte, do Salary	4730	00	4994	00						
do do Travelling	546	22	5270	22	21618	22				
C. Delagrave, Secretary										
P. L. Morin, Surveyor, Salary	4475	00	2402	69						
do do Travelling	318	50								
Surveyor's Office, Salary and Travelling			4793	50						
Clerks and Messengers			8230	40						
Copying plans and documents			4776	00						
Printing and stationery			720	20						
			1166	73						

Miscellaneous Office expenses			3621	50	20711	09	52591	38		
Publishing notices			980	43						
Preparing Schedules			9281	64	10262	07				
Henry Judah, Commissioner, Salary	10920	00								
do do Travelling	2120	00	18040	00						
Nobert Dumas, do Salary	9380	00	10455	00						
do do Travelling	1075	00								
L. Archambault, do Salary	1200	00	1820	00	24815	00				
do do Travelling	120	00								
A. J. Boucher Secretary			2750	00						
T. J. V. Regnaud, Surveyor			2550	00						
Clerks and Messengers			2021	05						
Copying plans and documents			1784	30						
Printing and stationery			1917	35						
Office rents			1200	00						
Miscellaneous Office expenses			3376	00	15508	70				
Publishing notices			1147	24						
Preparing Schedules			16022	56	17169	80	57598	50		
La Banque du Peuple, for Payment of Seigniors					181288	70				
City Bank, do					120160	15				
Bank of Upper Canada, do					18022	95	204421	80		
Commissioners, Quebec, Balance on hand, January 1st			1456	28						
do do Unaccounted for			8000	00	9456	28				
					9456	28	424882	66		

Carried over

STATEMENT in detail of all EXPENSES on account of the REDEMPTION of SEIGNIORIAL RIGHTS, &c.—
(Continued.)

	\$	cts.	\$	cts.	\$	cts.	\$	cts.
<i>Brought over</i>								
Commissioners, Montreal, Balance on hand, January 1st			9456	28	424882	66		
			1816	50	11272	78		
Total expenses					436155	44		
Less—Expenses of Seigniorial Court charged to Consolidated Fund			20990	90				
do Printing Reports, paid out of Contingencies of House of Assembly			7235	92	28226	82		
Total Expenses charged to Seigniorial Fund					407928	62		

N.B.—The Amount herein stated to have been paid to Banks for payments to Seigniors, does not correspond with the statement of the payments themselves, as the Bank did not apply until March to be re-imbursed for a large number of charges of the Commissioners paid prior to February 1st, and included in that statement.

JOHN LANGTON,
Auditor.

AUDIT OFFICE,
Toronto, 1st April, 1858.

RETURN

TO AN ADDRESS from the Legislative Assembly, to His Excellency the Governor General, dated the 15th ultimo: praying His Excellency to cause to be laid before the House, "A Statement, in detail, of the manner in which the "Annual Stipends and Allowances to the Churches of England, Rome, Scotland, and certain other Religious "Denominations, out of the Clergy Reserves' Fund, as "commuted under the authority of 18th Vict., cap. 102, "have been invested or appropriated, in accordance with "clause 3 of said Act."

By command,

T. J. J. LORANGER,

Secretary.

Secretary's Office,

Toronto, 21st April, 1858.

TORONTO, 29th March, 1858.

SIR,—I have the honor to acknowledge the receipt of your communication of the 26th instant, and, in reply, beg leave to state, for the information of His Excellency the Governor General, that, in arranging the commutation for those Clergymen of the Church of England, who commuted for the annual stipends, of which they were in receipt from the Clergy Reserve Fund, I acted under power of attorney, from the Clergy, individually, and not as the agent of the Church of England, as a religious body or denomination; and although I submit that I am therefore under no obligation, under the provisions of the statute 18 Vict., cap. 2, sec. 3, to furnish any account of the manner in which the amounts so commuted were invested or appropriated by me, I nevertheless, transmit the subjoined statement, in compliance with His Excellency's command.

Your obedient servant,

J. HILLYARD CAMERON.

The Honorable the Provincial Secretary.

RETURN of the amount received and invested on behalf of the several clergymen of the United Church of England and Ireland, who commuted the annual stipends received by them from the Clergy Reserve Fund:

Total amount received, Currency.....	£275881	5 2
Total amount invested, Sterling, Government of Canada,		
5 per cents	£117950	
Do. do., 6 per cents	104300	
	£222250	0 0

J. HILLYARD CAMERON,

BANK OF UPPER CANADA,

TORONTO, 20th April, 1858.

SIR,—I have the honor to acknowledge your letter of the 26th ultimo, and, in reply thereto, I beg leave to inform you that as acting agent for the Roman Catholic Bishops of Toronto and Kingston, I have received, in cash, from the Receiver General of the Province, fourteen thousand, eight hundred and seventeen pounds, ten shillings and eleven pence, and in Provincial Debentures, the further sum of six thousand, nine hundred and thirty pounds; amounting in all to twenty-one thousand, seven hundred and forty-seven pounds, ten shillings and eleven pence; which has been appropriated as per statement herewith.

I have the honor to be, Sir,

Your obedient servant,

THOS. G. RIDOUT,

Cashier.

The Honorable T. J. J. Loranger,
Secretary, &c., &c., &c.

Recapitulation :

Warrant No. 5331, for.....	£10466	7	6
“ No. 614, for.....	627	19	7
“ No. 9282, for.....	3536	7	6
“ No. 9203, for.....	176	16	4
Total amount received in cash.....	£14817	10	11

The following Provincial Debentures were also received and transferred to Bishop Charbonel on the 7th November, 1856, *viz.* :

No. 3407 @ 3422 each £250	£4000		
No. 3423 @ 3451 “ £100	2900		
No. 3452, for.....	30		
	£6930	0	0
Total	£21747	10	11

Of the above debentures, there have been transferred—

To the Bishop of London	£1400	0	0
“ “ Hamilton.....	1700	0	0
“ “ Bytown.....	2300	0	0
	£5300	0	0

THOS. G. RIDOUT,

Cashier.

Bank of Upper Canada,
Toronto, 20th April, 1858.

Catholic Fund, Bishop Phelan in account with the Bank of Upper Canada.

DR.

CR.

1856.		£	s.	d.	1856.		£	s.	d.
Jany. 7..	To Bishop Charbonel, for the Diocese of Toronto.	4611	17	10	Jany. 7..	By Warrant 5331.....	10466	7	6
	" Bishop Charbonel, for the Ottawa Diocese...	2294	0	0	" 18..	" Do, 614, for Interest.	627	19	7
	" Bishop Phelan, for the Kingston Diocese.....	3560	9	8	Nov. 7... "	" Warrant 9282.....	3536	7	6
' 18..	" Bishop Charbonel, for the Diocese of Toronto.	278	2	11		" Do. 9208.....	176	16	4
	" Bishop Charbonel, for the Ottawa Diocese...	137	12	9					
	" Bishop Phelan, for the Kingston Diocese.....	212	8	11					
Nov. 7...	" Do. do.....	3713	8	10					
		£14817	10	11			£14817	10	11

THOS. G. RIDOUT,
Cashier.

Bank of Upper Canada,
Toronto, 20th April, 1858.

TORONTO, 12th April, 1858.

SIR,—In reply to your communication of March 26th, I have the honor to report that the principal part of the amount paid to the Wesleyan Missionary Society in commutation for the grant made to them to assist in extending their Missions to the Indian Tribes of Canada, is invested on Mortgage Security. The salaries of the Missionaries are paid out of the current Funds of the Society.

I have the honor to remain,

Your most obedient servant,

ENOCH WOOD,
Genl. Supt. Wesleyan Missions,
Canada Conference.

The Honorable T. J. J. Loranger,
Secretary, &c.

MONTREAL, 2nd April, 1858.

SIR,—I have the honor to acknowledge the receipt of your letter dated 26th ult., in conformity with which I now annex a statement in detail, of the manner in which the commuted Stipends and allowances to the Ministers of the Church of Scotland in Canada have been invested and appropriated.

I have the honor to be, Sir,

Your most obedient servant,

HUGH ALLAN,
Secretary.

The Honble. T. J. J. Loranger,
Provincial Secretary,
Toronto, C. W.

STATEMENT of the amount received from Government in Commutation of the Stipends and allowances of the Ministers of the Presbyterian Church of Canada in connection with the Church of Scotland, with the investment and appropriation of the same.

	£	s.	d.	£	s.	d.
Received Sterling debentures, £91,400 sterling, at 14½ per cent premium				127327	16	4
LESS.						
Lost on Sale of Debentures	1574	11	9			
Taken from principal towards paying allowances to Ministers while Debentures were in course of Sale	8631	7	6			
				<hr/>	<hr/>	<hr/>
				10205	19	3
				<hr/>	<hr/>	<hr/>
Sum actually invested				117121	17	1
INVESTMENTS MADE.						
£31000 Stock in Bank of Montreal cost	36036	10	0			
45000 " in Commercial Bank "	49711	10	4			
11800 " in City Bank "	13030	0	4			
21000 Debentures City of Montreal "	18343	16	5			
				<hr/>	<hr/>	<hr/>
				117121	17	1

The whole amount of interest accruing from these investments, is paid semi-annually to the Ministers of the Church.

HUGH ALLAN,
Secretary.

Montreal, 2nd April, 1858.

(Translation.)

ARCHIEPISCOPAL PALACE,
Quebec, 12th April, 1858.

SIR,—I had the honor to receive your letter of 26th March last, requesting a Statement in detail of the mode in which the portion of the Clergy Reserve Fund received by the Catholic Church in Lower Canada, under the Act 18 Victoria, cap. 2, has been expended.

On this subject I have to invite your attention to the fact that the Catholic Church in Lower Canada has never received any portion of the Clergy Reserve Fund, did not claim any share thereof, when the above Act was passed, and not having received her share, cannot have expended it.

It follows as a natural result that the Church has no statement to make to the Legislature, relative to the Clergy Reserves Fund.

I have the honor to be, Sir,

Your very obedient servant,
(Signed,) C. F. CAZEAU,

Vic. Gen.

Honorable T. J. J. Loranger,
Provincial Secretary,
&c., &c., &c.

ANNUAL REPORT

OF

PIERRE FORTIN, ESQUIRE, MAGISTRATE,

IN COMMAND OF THE EXPEDITION FOR THE

PROTECTION OF THE FISHERIES

IN THE GULF OF THE ST. LAWRENCE,

DURING THE SEASON OF 1857.

Printed by Order of the Legislative Assembly.



TORONTO:

JOHN LOVELL, PRINTER, CORNER OF YONGE AND MELINDA STREETS.

1858.

R E T U R N

TO AN ADDRESS of the Legislative Assembly, dated 19th instant, for a copy of the Report of Pierre Fortin, Esquire, Stipendiary Magistrate, in command of the schooner "La Canadienne," during the summer of 1857.

(By order,)

T. J. J. LORANGER,

Secretary.

Office of the Provincial Secretary,
Toronto, 21st April, 1858.

A N N U A L R E P O R T .

Notwithstanding my most strenuous efforts to proceed to the Gulf of St. Lawrence with the Government schooner "La Canadienne," immediately on the opening of the navigation, in obedience to the instructions which I had received, I was unable to leave Quebec before 7th May.

In the first place, unfavorable weather had prevented the contractor, Mr. Davy, from executing the needful repairs ordered by the Government as early as I wished, and afterwards, when I was prepared to sail, adverse winds detained me in the roadstead at Quebec. However, thanks to the good sailing of "La Canadienne," and her excellent qualities as a sea-boat, I succeeded in reaching the Magdalen Islands on the 14th, having put in at Malbaie (below) and Percé.

I thus arrived at the Magdalen Islands one week earlier than last year.

At Malbaie I met Mr. Lavergne, Mayor, and two Councillors of the Municipality of Fox River, who requested me to proceed immediately to Fox River, where some disturbances had taken place arising out of municipal matters. Especially, they required my assistance and that of the constabulary force under my command, on the 1st of June, being the day of the meeting of the municipal Council, for the protection of the Councillors, who were threatened with ill-usage if they sat and passed by-laws.

I had the honor to transmit to the Government in June last, Mr. Lavergne's letter, in which he and others made a requisition for my services at Fox River, with reference to the disturbances at that place.

I told Mr. Lavergne that he might rely on my readiness to proceed as soon as possible to the place where my presence was required, and that in any case I would be at Fox River on the 1st of June.

On arriving at the Bay of Plaisance (Magdalen Islands), I communicated with Mr. John J. Fox, the Collector of the Port of Amherst, to whom, as on former occasions, I tendered my assistance and that of the hands under my orders, with the use of a boat when required.

As soon as the weather was favorable, I unshipped a large boat with a shifting iron keel, which I had had built at Quebec, for the service of the Custom House at the Magdalen Islands. This craft, the want of which had been long felt in this remote place, will enable Mr. Fox, or his assistants, to move at any time during the season of navigation, from Amherst Harbor to House Harbor, to proceed to any point in the islands, or even to make a tour of them if necessary.

I was informed that there had not been a single wreck in the waters of the Magdalen Islands since my departure last year.

The winter had not been as severe as usual, and at no time had there been so small an amount of suffering among the fishermen.

This circumstance must, no doubt, be imputed partly to the fact that the different fisheries on the coast of the Magdalen Islands had been successful in 1856, but it must also be due to the fact that the fishermen applying themselves more than formerly to agriculture, have by this means rendered their situation less precarious than it was, when solely depending on their occupation as fishermen. Last year, the crops of wheat, barley, oats, and vegetables were so good that many of the people had, in these articles, ample means of subsistence for the winter.

When I arrived at Amherst in the Spring, the fishermen had not bought from the storekeepers fifty barrels of flour. At the same date, in former times, hundreds of barrels had been purchased by them. It is, in my opinion, a fact worth mentioning, that at Amherst Island there were ground, in a mill, built chiefly through the efforts and influence of the Rev. Mr. Bouchault, the missionary there, more than 5,000 minots of different kinds of grain, harvested in 1856, besides what was ground on the other islands in hand mills. The changes brought about in this part of Canada may be better appreciated when I state that on my first voyage to the Magdalen islands in 1852, a few hundred bushels of grain only were harvested, and that even this the inhabitants had to carry to Prince Edward's Island to be ground, 20 leagues off.

The schooners which had left House Harbor and Amherst Harbor for the seal fishery on the ice, had returned a short time before with tolerably good cargoes. They had not lost a single individual of their crews, nor had any of their vessels suffered the least damage in that dangerous pursuit. The success of the fishery had slightly exceeded that of 1856. In that season twenty-one schooners captured 4,923 seals, while in 1857 nineteen schooners brought back the spoils of nearly 6,000.

The reason why no more than nineteen schooners were engaged in the seal fishery in the present year, while in 1856 there were twenty-one, is that nine of the vessels which visited the ice-floes last year, afterwards perished at Green Island, on the coast of Labrador, in a voyage to the cod-fishery, as mentioned in my report of last year, and that notwithstanding all the efforts made by the fishermen they could not be replaced with new ones in a single season. There are, however, several schooners on the stocks at Grindstone Island, and elsewhere, and I believe that the fleet to be sent to the seal fishery next year will be more numerous than ever.

I must not omit to state that, on 24th March, large ice fields, driven by the N. and N. W., wind, had grounded on the coast over against l'Etang du Nord, the

western point of Amherst Island and the Basin, and that about 4,000 seals, nearly all young, were killed there in four or five days. But this successful hunt had not passed without an accident, and the consequent loss of two men belonging to l'Etang du Nord, who had ventured too far on the ice-field, and been unable to return before the land wind carried the ice out to sea, and thus cut off all communication with the land.

The herring-fishery had commenced about a week at House Harbor and Amherst Harbor. On the 13th, one draught of the seine in Ryan Creek, Grindstone Island, had brought in about 300 barrels of herring of good quality. There were at Amherst Harbor, nearly a hundred schooners engaged in this fishery in the Bay of Plaisance, with nets and seines. On the 12th a large quantity of herring had been taken in Shea Creek, and on the 15th a haul was made with two seines, the result of which was not less than 400 barrels of fish each.

From the commencement of the fishing, the herring had swarmed in the Bay of Plaisance, to a degree never exceeded in the recollection of the fishermen. The beach was in many places covered with the spawn of the female fish, and the water to a distance of several arpents from the shore was whitened by the melt of the males.

The most experienced fishermen at Amherst Harbor gave me the following account of the course taken by the shoals frequenting the waters of the Magdalen Islands: They first enter the Bay of Plaisance, which by its great width and capacious entrance seems to have been made expressly to intercept the numerous shoals of fish which, impelled by the strongest of all animal interests, that of reproducing their kind, leave the depths of the ocean for the Gulf of St. Lawrence in search of a place suitable for the deposit and hatching of their spawn. They next move towards House Harbor, and then towards the Grand Entry. Lastly, they make the tour of the island, and show themselves successively at le Moulin, L'Anse à la Cabane, and L'Etang du Nord. Schooners which have arrived too late in Amherst Harbour for the fishery in the Bay of Plaisance have frequently proceeded to the Grand Entry, and succeeded in taking, in a few days, full cargoes of excellent herrings.

On the 16th, I received the following letter, in answer to the offer which I had made to the Mayor of the Municipality, of my services to assist him in enforcing the by-laws passed by the Council.

“ OFFICE MUNICIPAL COUNCIL,

“ Magdalen Islands, 16th May, 1857.

“ SIR,—The Municipal Council of the Magdalen Islands, with much satisfaction, welcomes your return to these Islands, at a period so much earlier in the season than usual, and accepts with thanks your offer to place at its disposal the force under your command, to assist in carrying out the laws for the regulation of the Fisheries, and affording us that protection so much required at this time, with a fleet numbering upwards of 100 sail of fishing vessels in our harbors, and whose crews amount to as many as 600 men of all characters.

“ I am, sir,

“ Your most obedient servant,

“ (Signed)

JOHN J. FOX,

“ Mayor.

“ Pierre Fortin, Esquire, J. P.,

“ Commanding ‘ La Canadienne,’

“ Pleasant Bay, Magdalen Islands.”

My duties, from my arrival at the Magdalen Islands till my departure for the Bay of Chaleurs, on the 21st, consisted in visiting Amherst Harbor every day, in proceeding to the different fishing grounds, where the seines were drawn, and in watching over the observance of the by-laws, and the maintenance of public order.

On the 16th I placed my long-boat at Mr. Fox's orders, and he sent it, with Mr. McCormick, the custom-house officer on the station, to visit all the vessels in the port of Amherst Harbor. They all had regular papers except two, which were in port, and just ready to sail. The captains of these proceeded to the Custom House, when notified to do so.

On the same day ten schooners sailed with full cargoes of herring. In the afternoon Captain McKinnon, of the steamer Reindeer, of Babington, hauled his seine near Les Demoiselles, and took herring enough to fill 1000 barrels. The seine used on this occasion was 110 fathoms in length, by $8\frac{1}{2}$ in depth. The wings were 60 fathoms each.

The same captain informed me that he had, a few days previously, enclosed in the same seine more than 2000 barrels of herring, of which more than 500 barrels had been landed; that afterwards a gale having sprung up from seaward, he had been compelled to take up his seine on account of the heavy sea which came tumbling in, and threatened to tear it in pieces on the rocks. On the following day, the sea being calm, the fishermen hauled up at the spot where the seine had been drawn, at the depth of a fathom, between 200 and 300 barrels of herring, which had been killed by the extreme pressure of the wings of the seine, and had remained at the bottom.

These instances will serve to shew in what abundance the herring frequents the Magdalen Islands, and the immense extent to which the fishery might be carried on, if a greater number of Canadians engaged in the pursuit. It is true, the herring, taken at the season mentioned, is not in the finest condition, and is even lean; but it is in good order for smoking; and that is the kind of cured herring which keeps best in hot climates.

It has frequently been asserted that the herring fishery ought not to be carried on at the Magdalen Islands in the spring, because at that season the fish resort thither to accomplish the important function of reproducing their kind, by spawning on those parts of the coast which have shallow water and are sheltered from the seaward, and because, being disturbed in the performance of this duty, they will ultimately abandon the coasts of those Islands, and our fishermen will be deprived of a great source of wealth. But the persons who maintain this theory are no doubt ignorant of the fact that the shoals of herring appear on the coast of the Magdalen Islands, only in the spawning season, and that if the opportunity of catching them be neglected at that period no other will be found throughout the season. In short, Providence has decreed that these fish should multiply in such astonishing numbers [more than 7,000,000 of eggs having been counted in a single female herring] that it is almost impossible to effect any perceptible diminution of them at the Magdalen Islands, even if 50,000 to 100,000 barrels were taken yearly; provided, however, that the entrance of the bay of Plaisance be not obstructed with nets, a pernicious practice which formerly prevailed, but which I have prevented since my visits to the Magdalen Islands, during the spring fishery, commenced.

On the 20th, the captain of a schooner at anchor in Amherst Harbour, came on board to make a complaint against the master of the schooner, Mary Jane, of Digby, who, in quitting the bay, passed unnecessarily over one of his nets and tore it so as to render it useless.

I despatched the second officer of "La Canadienne" on board the "Mary Jane," which was under sail, to desire the Captain, Benjamin Winchester, to anchor and come on board. This he immediately did, and agreed to pay the value of the net which he had torn, without further proceeding being necessary.

As the herring fishery in the Bay of Plaisance was nearly over, and only a small number of fishing vessels remained in Amherst Harbour, I resolved to proceed to the Bay of Chaleurs to repair the damage suffered by "La Canadienne" on the morning of the 12th May, between the Magdalen Islands and the Island of Cape Breton, during a heavy gale from the North-west; as, if the work of repairing her were quickly despatched, I might hope to return to the Magdalen Islands in time for the mackerel fishery, after my visit on 1st June to Fox River.

Accordingly I gave orders to sail the next day.

On the 21st, the anchor was apeak at 4 a. m., and after a run with light winds from the E. and S. E. we came to an anchor on the 22nd, at 7 p. m., at New Carlisle, the County Town of Bonaventure.

I immediately communicated with the public officers and the principal inhabitants of the place, and proceeded to Paspébiac, distant from New Carlisle only four miles, to make arrangements with the agent of the house of Robins & Co., for the necessary repairs to "La Canadienne."

On the 23rd, "La Canadienne" was moored at Paspébiac, and Mr. Lebrun, the master-builder belonging to the house of Robins & Co., came on board to examine the bowsprit, which he found to be partly sprung a few feet from the knight-heads, and accordingly condemned. He took steps to replace it with a heavier stick, and also to put in another jib-boom, in place of that carried away by the same sea which had damaged the bowsprit.

I next visited the fishing establishments of Paspébiac, and set off for Carleton to tender my services to Mr. J. N. Verge, Crown timber agent for that part of Canada, in case the persons who had cut timber on the Government lands should refuse to conform to the requirements of the law relating to lumbering operations.

On the 24th, I arrived at Carleton, and saw Mr. Verge, who informed me that he had to settle accounts with several persons who had carried on lumbering on the public lands adjacent to the Rivers Restigouche and Nouvelle, but that he did not anticipate any difficulty in collecting the duties, as such persons, hearing of my arrival, would know how easily Mr. Verge could, in case of need, call in my assistance, to seize the timber on which the duty had not been paid.

I also met the principal inhabitants of the place, and heard with pleasure that the fishery just concluded in the Bay of Traguidigache had been generally good, and that all was quiet on the coast.

In the afternoon we weighed anchor, and arrived at Paspébiac in the evening of the 25th.

In the morning of the 26th, the carpenters commenced their work of putting in a new bowsprit. Mr. Lebrun also had a new jib-boom made, while the chief mate prepared the necessary ropes for the rigging of the two spars.

The work was pushed on, with the hope that I might reach Fox River with the schooner on the 1st June. I found occupation in visiting the different fishing establishments in the place, and in seeing the fishermen, in order to obtain all important information relative to the fisheries.

As I have stated in my former reports, the most important houses in the fish trade, those of Robin and Co., and of LeBoutillier and Brothers, are at Paspébiac.

The house of Robin and Co., have also a fishing establishment at Grand River, and another at the creek S.W. from Percé, besides others on the coasts of New Brunswick and the island of Cape Breton.

The house of LeBoutillier and Brothers own an establishment on the island of Bonaventure, opposite Percé, and others at Wood Island and Forteau, in the Straits of Belleisle. The last named is not in Canada. The business done by these two houses is considerable, amounting probably to \$200,000; that of Le Boutillier and Brothers to \$150,000. The men in their employ are numbered by

hundreds. Each establishment is composed of half a score large buildings, timber built, and in good order, serving to store goods, cordage, fishing tackle, provisions and cured fish, the last mentioned article awaiting shipment to a foreign market.

Nothing can exceed the order, cleanliness, and economy prevailing in these establishments. The different clerks employed in the fish trade, are accordingly required to serve an apprenticeship of several years. Every chief agent has had charge for a long time of some small establishment, in which he must have given proofs of activity and capacity; and all the chief clerks must, in a subordinate office, have acquired a correct judgment of the value of goods and of the quality of fish. They must likewise be skilled in all the several processes used in preparing the cod-fish for market.

The masters of vessels are both fishermen and captains of traders on their voyages. In the summer, while their ships are awaiting their cargoes, they command squads of the men on shore, who are engaged in preparing the fish. These remarks on the trading houses of Paspebiac are generally applicable to all the fishing establishments on the coast of Canada. The latter are however, except those of Mr. John LeBoutillier, on a much smaller scale.

I stated in my last year's report the direction in which the fish cured at Paspebiac is exported. It is therefore unnecessary to enlarge on that subject at present, but at the close of this report I shall append a statement of the quantity of fish exported from Paspebiac and from the whole coast of the bay of Chaleurs as compared with what was exported last year.

On 28th May, Mr. LeBrun, the master-carpenter, informed me that he could not complete the repairs of "La Canadienne" in time to enable me to proceed in her to Fox River by 1st June.

I then resolved to set out for that place in my boat with six of my best seamen, hoping for favorable weather and a fair wind, so as to be able to arrive on or before 1st June; but we had scarcely embarked when it began to rain. On the following days, strong contrary winds retarded our progress. However, thanks to the good will and strong arms of my six oarsmen, I arrived at Gaspé Basin on 31st May in the evening, having made 95 miles, nearly all along a dangerous coast.

The next day, I crossed the bay and landed at Penouille, from whence having laid up my boat in safety, I set out with my men and reached l'Anse aux Griffons on the St. Lawrence in three hours, travelling over the new road made by Mr. John LeBoutillier for the government.

Had it not been for this road, which is most useful, as opening a communication between the settlements below, from *le Grand Etang* to *Cap des Rosiers* and Gaspé Basin, the only good harbour on all the south shore, and also the central point, at which are the custom house and very important trading establishments, I should have been obliged to double Gaspé Cape at sea, which would have lengthened my journey by thirty miles. Even to do that, I must have had a calm or a land-wind, as, with the Cape on my lee, I never could have doubled the Cape, on account of the heavy surf there. From l'Anse aux Griffons, I proceeded in a whale boat to Fox River, where I arrived on 1st June at 5 p.m.

I announced my arrival to the mayor of the municipality. Mr. Lavergne and the council met, and held their meeting during half an hour without the least interruption or hostile demonstration against any of the councillors.

Mr. Lavergne next made a requisition on me for armed assistance to execute a warrant issued against one Franceur, on whom one had been previously served without effect, the defendant having, with the aid of some other persons, openly resisted the bailiff, and even ill-treated him.

I sent one of my sailors armed, with the constable of the place, who had charge to execute the warrant, and now Mr. Francœur did not offer to make the least resistance, and was brought before the mayor. The trial proceeded, and the defendant was condemned to pay a fine of five pounds, or in default of payment to fifteen days' imprisonment.

There were thirty persons present in the justice-room, but the good order of the court was not interrupted for one instant. That same evening Mr. Francœur paid the Clerk of the Court the fine.

I had afterwards the pleasure of meeting several of the principal inhabitants of the place, who informed me that they were very glad of the result of my visit to Fox River, and that they hoped it would have the effect of preventing the recurrence of such disorders as that which had taken place.

In taking leave of Mr. Lavergne, and the other notables of the place, I told them that I should make them several visits, during the season, with "La Canadienne," and that in case of any disturbance occurring at Fox River or the neighbouring villages, they had only to give me notice, and I would proceed at once to the place where my presence might be required.

The next day I went to Gaspé Basin, which place I left on the 3rd. I put in at la Grande Grève, at Point St. Pierre, at Percé, and at all the intermediate stations, and arrived at Paspébiac in the evening of the 5th.

I found the repairs on board well advanced, and was told that I might hope to set sail on the next day. Thus, while the schooner was, of necessity, detained in port, I travelled 120 miles along the coast, and accomplished a mission which, from its results, may be called important.

The disorderly and agitated state of the Village of Fox River, previous to my visit, and the want of an armed force for their protection, are shewn by the letter which M. Lavergne and the other councillors addressed to me. I am fortunate in being able to show, that my presence in the place was the means of restoring order and tranquillity for the remainder of the season, and that in my subsequent visits the authorities had nothing to complain of.

It may be thought that I exaggerate the effect of my visit to Fox River a little; but persons who have had opportunities of seeing riots in country places, know the impression which the presence of a few disciplined men produce on a crowd, when they are resolute and acting under authority. Moreover, the parties who might have been disposed to offer resistance to the law were well aware that I might come back in a few days with "La Canadienne," and that their resistance would not be possible.

During this journey I visited, as I observed above, all the fishing stations on the coast from Paspébiac to Fox River: Port Daniel, Pabos, Grand River, L'Anse du Cap, L'Anse au Beau Fils, Percé, Point St. Pierre, Gaspé Basin and L'Anse aux Griffons.

I saw the proprietors of the principal fishing establishments, and a great many of the fishermen on that coast of the Gulf.

The cod-fishing which was just commencing, promised generally to be successful.

At Point St. Pierre, the boats had taken from eight or ten quintals of fish daily. Bait was plentiful.

In several of the villages, the fishermen were preparing to start for the north shore cod-fishery, at Natashquan, Magpie Bay, Shelldrake, the Seven Islands, and other places of minor importance, where the cod is more plentiful than on the south shore.

But if the fish is more easily taken in those waters, the fishermen are, on the other hand, obliged to incur greater expense in their outfit, in order to carry on

their fishing operations, than when they practise their calling on the coast before their own doors. Still, when they have the means of procuring a suitable outfit it is certainly more advantageous for a certain number to go to the north shore, as it is comparatively but little frequented.

On the 7th we left the roadstead of Paspebiac, and on the morning of the 9th came to anchor in the Bay of Plaisance, opposite to Amherst Island.

The mackerel fishery had commenced, in the Bay of Plaisance, on 1st June, a week earlier than usual; but the fish had not yet appeared in great numbers.

Twenty-five schooners were in Amherst Harbour, twenty of which were engaged in the mackerel fishery. The number of vessels so engaged last year was about sixty. This was a considerable falling off, but the fishery had been so unproductive, in 1856, that most of the masters of vessels, which usually resorted to the Magdalen Islands, had preferred going at once to the coast of Labrador, to engage in the cod-fishery, rather than attempting the mackerel fishery in the Bay of Plaisance. I tendered my services to the members of the municipality, to enforce the by-laws of the fishery. These were in general well enough observed, with the exception of that which prohibited the laying of nets in certain parts of the bay, and that because the By-law was not very clear in that particular.

On 16th June, almost all the foreign fishermen had taken up their nets; our own were preparing to do the same, for the fish did not appear in the bay in large quantities. As my presence was not so much required at Amherst, I proceeded to visit Grosse Isle, Isle Bryon, and Grosse Isle aux Oiseaux.

Grosse Isle, the northern point of which forms the north cape of the Magdalen group, is inhabited by people of English origin, engaged in agriculture, and occasionally in fishing. South of this island, is the Grand Entry, forming a thoroughly sheltered harbor, capable of containing from one hundred to two hundred vessels drawing no more than ten feet water. Unfortunately it is difficult of access; and its distance from Amherst Island, and the Island at House Harbor, where the principal business of the Island is transacted, prevents it from being much frequented.

Opposite the Grand Entry, on the south, and near to North Cape in Grosse Isle, there is excellent ground for cod-fishing. Bryon Island, which is four miles long and one wide, is at present inhabited by only three families. The soil is good, and easy to cultivate, but the shores are difficult to land on.

There is not, in its whole circumference, a creek or bay sheltered from all winds. Fishing schooners do, however, anchor there frequently in summer, in four or five fathoms water, taking care to get under the lee of the Island.

The banks around Isle Bryon are an excellent fishing ground for cod. On visiting the Island, I found fifteen schooners belonging to Arichat and Cheticoup engaged in the cod fishery. The fish is usually abundant there, but the fishermen told me that this year the fishery was less productive than in former years, on account of the scarcity of bait.

On landing at Isle Bryon, having been informed by Mr. White that some fishermen, whose vessels lay near the Island, had robbed him of some pieces of iron and other articles, I took with me a person named Paul Chenel, who was able to identify the stolen articles, and went on board every schooner in sight; but, notwithstanding the most careful search, could discover nothing to make known the thief or thieves. We heard, however, that a schooner, which had been engaged in fishing near Isle Bryon, had sailed for Cheticoup two days before with only half a cargo, and that the Captain was strongly suspected of having committed the thefts complained of.

As my course lay near the Bird Islands, I availed myself of the opportunity to visit, with Admiral Coffin and his son, the largest of them, on which I believe the Government intend to build a light-house. There is no landing, except on the south side, where it can be approached in a dead calm. It is about 140 feet in

height, 233 paces in length, and 150 in breadth. It is very difficult to ascend, and still more difficult to descend, on account of its steepness.

It is very certain that a light-house on this island would be of the greatest use to ships frequenting the Gulf of St. Lawrence, particularly to those coming in on the voyage to Quebec, on the coast of Gaspé, or in the Bay of Chaleurs. Near the light-house there should also be a gun of heavy calibre, to be fired in foggy weather every half hour, to warn ships of the dangerous neighbourhood. The light-house to be built on Great Bird Island needs not, in Admiral Coffin's opinion, be carried higher than 25 feet.

On the 20th, I returned to Amherst harbor, where I heard that in my absence the captain of a schooner from the Gut of Canso had committed an assault and battery on the person of Mr. Alexander Connor; that a warrant had been issued, but that the defendant could not be brought into court to answer the charge. Mr. A. Painchaud, who had received Mr. Connor's complaint, informed me that the constable charged with the execution of the warrant not having been able to secure a sufficient force, had not ventured to effect the arrest of the defendant, as he apprehended resistance. That the accused party, having heard of my arrival at Amherst harbor, had gone off in the night to Entry Island. I immediately took the warrant and gave orders to make sail. We coasted round Entry Island, but there was no vessel. We saw a schooner to leeward of us bearing south, which the pilot said he took to be the vessel of the captain we were in pursuit of. We set all sail, but unluckily found, after a chase of several hours, that it was a fishing vessel belonging to the Magdalen Islands. Finding that it was useless to go further, I gave orders to return to Amherst harbor, where we arrived on the following day, the 21st.

On the 22nd, having visited the harbor, and seen that all was in good order, I gave orders to make sail for the coast of Labrador. At 11 a. m. the anchor was apeak, and we left the bay of Plaisance with a fair breeze from the S.W. On the 23rd and 24th the wind shifted to the S., and on the 25th, in the evening, having run down the western coast of Newfoundland, the mountains of which were still covered with snow, we came to an anchor in l'Anse aux Blancs Sablons.

On the 26th we shifted our berth to the upper part of the bay, and I proceeded to visit the fishing establishments there.

Mr. Martin Parent had planted his sealing nets very early in the spring, as the Straits of Belleisle were free from ice at an unusual period. He had already caught 200 seals, the blubber of which yields a fine oil, and their skin sells for from \$4 to \$8.

The cod had appeared in scanty numbers near the coast a month before my arrival (unusually early), but the capelan and louçon, two small kinds of fish preyed on by the cod, and used by the fishermen for baiting their lines, were very scarce. The fishermen could procure them only in small quantities, and that only by undertaking long coasting voyages, frequently without success. Accordingly they had been able to visit the fishing grounds only four or five times, from the commencement of the season.

At the establishment of Messrs. Le Boutillier and Brothers, on l'Isle à Bois, no more than 250 quintals of cod had been taken; at Mr. De Guitteville's only 300; and at Mr. Le Brocq's, 150. But the season had not yet come when the codfish resorts in large quantities to the shores of the Straits of Belleisle.

There were as yet only nine vessels at l'Anse aux Blancs Sablons.

I was told that the preceding winter had been very mild on the coast of Labrador; and that none of those heavy snow-storms had occurred, which compel the people of those inclement climates to keep within doors during several successive days.

The Straits of Belleisle had been so little obstructed with the ice, that vessels might have passed through at the beginning of March. This was very different

from the year before, when the navigation of the Straits was not free before the middle of June.

According to information which I obtained from the oldest inhabitants of the place, the Straits of Belleisle are never accessible during the winter season to the ordinary vessels used in commerce.

Vessels from Newfoundland, fitted out expressly for the seal-fishing, are alone able to penetrate during the month of March, to capture these animals on the floating ice.

It is generally not until the month of June, that European vessels are able to pass without an accident. But from the month of June till the month of December, inclusive, the passage is open. A few pieces of ice, either floating or are fixed, sometimes met with, but they are of inconsiderable size and may be easily avoided by taking care.

And if, besides the light-houses already erected and those which it is proposed by the Government to erect on the coast of Newfoundland, guns of large calibre were placed on Green Island and on some other equally dangerous points on the coast, to be fired every quarter of an hour or every half hour, during the thick fogs which are so frequent in these latitudes, from their invariably accompanying the south-east, south, and sometimes the south-west winds, ships passing through these straits would have nothing to fear.

I would insist on having cannon used near the light-houses, because, when the weather is foggy, the lights of the latter cannot be seen, even at the distance of a few acres. It is only when the atmosphere is free from mist, that their light can be seen in such a manner as to be of service to the navigator.

On the 27th June, we anchored in Bradore Harbor.

The seal-fishery had begun there at the same time as at L'Anse aux Blancs Sablons.

Mr. Randall Jones, in his expeditions, had already captured 450 of these animals, of which 97 were taken in a single day.

On the day of my arrival there were 20 schooners in Bradore Harbor, and others were arriving every day.

On the 4th of July, when I made a general visit to Bradore Bay, there were—

- 5 Fishing schooners from the Magdalen Islands.
- 10 do do from Prince Edward's Island.
- 11 do do from Nova Scotia.
- 6 do do from the United States.
- 1 Brigantine from Nova Scotia.
- 1 do from the United States.

Cod had appeared in Bradore Bay about the same time as on the coast opposite L'Anse aux Blancs Sablons, and the capelan was very scarce.

The crews of the vessels anchored in the Bay generally took the cod with a line; some, however, used nets, two or three of which were really codfish seines, and the others mackerel or herring seines.

The inhabitants residing there permanently complained of these latter being used; for they say that these seines with small meshes cause a useless destruction of fish, since a great quantity of the cod taken in them is too small to be cured, and is consequently lost; whilst with the true codfish seines, which have meshes proportioned to the size of the fish to be taken, the cod which is fit for the market is alone taken, the small escaping through the large meshes in the bunt of the net.

I would therefore suggest that a clause should be added to the fishery Act, to regulate the taking of fish in nets on the Canadian coast.

I passed the time which I spent in Bradore Bay, that is ten days, in visiting the fishing grounds of that place, and I made it my duty to afford to the per-

sons permanently engaged in the seal fishery there, the protection which they have long called for.

I prevented foreigners, and even our own fishermen, from disturbing them in their operations, and from unnecessarily going with their vessels to the entrance or into the middle of their fishing grounds, and frightening away the flocks of seals which were on their way to the interior of the nets laid for them.

Mr. Jones' sons were enabled to carry on their employment without any molestation, and, when I left Bradore, they told me they were satisfied that the presence of "La Canadienne" in Bradore Bay had enabled them to capture over 200 seals more than they would have done, if foreign fishermen had been permitted to disturb them as in previous years.

The same may be said of other proprietors of seal-fishing grounds on the coast of Labrador, who have also recognised the efficacy of the service to which "La Canadienne" is devoted.

Whilst the sloop was anchored in Bradore Bay, I one day took advantage of the fine weather to make an excursion into the interior of the country. I landed at the head of the Bay, and directed my steps towards the largest of the three mountains, called the Paps of Labrador, situated about ten miles from the coast.

It was with great difficulty that I got even so far as that.

The country is completely cut up by ravines, small lakes, brooks and marshes, which make the route extremely difficult, if not quite impassable in summer.

It is only during the winter that the inhabitants of the coast are able to go into the interior, which they do on snow-shoes or in sleighs, to which are harnessed five or six powerful dogs, known as Esquimaux dogs, to hunt cariboo and ptarmigan, which are usually found there in great numbers.

The part of Labrador which I saw is quite unfit for agriculture, and I am assured that the rest of the country is similar to the parts which I visited.

It is nothing but a succession of ranges of living rock and sandy plains covered with a little of different kinds of moss and lichens. In the bottom of the ravines alone can we find any vegetable soil, and there in so thin a layer, that the stunted pines and dwarf white birch can hardly take root in it.

Near the rivers we find fir, white birch, and a few tamarack trees of a certain size, but everywhere else there is nothing but the living rock covered with moss. There is neither tree nor shrub. I know of no place which has so desolate an appearance.

On the 5th July, the wind being favorable, I gave orders to start for the western part of the coast of Labrador.

A thick fog prevented me from visiting Salmon Bay, and the harbour of Good Hope, where I was told there were a dozen vessels engaged in fishing for cod.

On the 7th, I landed in the Bay of Kegashka, where seven families of fishermen have settled, and on the 8th I visited the harbour of little Natashquan, where there were twenty-four sloops at anchor, of which nine were from the coast of Gaspé and the Magdalen Islands.

A fortnight previous to my arrival, there had been as many as thirty-five fishing smacks at Natashquan.

The cod had begun to appear in these grounds about 1st June. It was abundant. The vessels had already on board each from 230 to 450 quintals of cod. An American vessel of 110 tons had 660 quintals on board.

The fishing was excellent; not so good as the preceding year, but better than ordinary.

There are at present thirteen families permanently settled on the coast near the harbour. They are engaged in the cod, and also in the seal fishery, which has been very profitable to many of them this year.

Mr. Hypolite Vignault, one of the inhabitants residing at Natashquan, left the harbour on the 22nd April, in his sloop of about 50 tons burden, with a crew of seven men; and the same day, within sight of Natashquan point, he captured 120 seals. On the following days he succeeded in penetrating to the centre of the field ice, and took 480 more. He returned to port at the end of a week, the produce of his fishing being worth five or six hundred pounds.

At the same time a brigantine of 120 tons, which came from St. John, Newfoundland, through the Straits of Belleisle, obtained, only a few miles from Mr. Vignault, but in a more favorable place, nearly three thousand of these animals. This vessel was better equipped than the Canadian one, and carried a crew of thirty men.

A voyage so protracted and full of danger as that made by this vessel from Newfoundland shows well what a spirit of enterprise animates the traders and outfitters of that island, especially those of St. John, from which port they send out every year nearly 300 vessels to fish for seals in the Atlantic, the Straits of Belleisle, and in the Gulf of St. Lawrence as far as our coast.

It is greatly to be wished that our outfitters would take into consideration the working of this source of riches, which, it is true, fails sometimes, but more frequently yields enormous profits, as I showed in my report of last year. Our vessels on the coast of Gaspé, which lie idle during the winter, would be very fit for these expeditions. It would however be necessary to guard the outside with plates of iron at the water line, to prevent their being cut through by the ice. I hope these remarks will have the effect of drawing the attention of our shipowners to the profits they might realise, if following the example of the outfitters of Newfoundland they devoted themselves in a proper manner to seal-hunting on the floating ice in the Gulf of St. Lawrence.

Before leaving Natashquan, I took care to ascertain that the fishery laws were observed, especially that part which forbids the throwing of the offal of fish and other filth into the water near the fishing grounds.

I was told that some time previous, several fishermen had been guilty of disregarding this clause of the Fishery Act, which is intended to preserve the fishing grounds; but being warned that I should shortly arrive they had ceased from this practice, so injurious to the fisheries.

But none of these fishermen were there, for had they been, I should have instituted proceedings against them.

On the 9th, in the morning, I arrived at the port of Mingan, where I remained until the 13th.

The crew were engaged in taking in a supply of water and wood.

There were at Mingan nearly 100 families of Indians of the Montagnais tribe, who had encamped near the trading post of the Hudson's Bay Company. They were occupied at the time in attending the religious exercises of a mission composed of the Reverend Jesuit Fathers M. Arnault and M. Babel, and intended subsequently to prepare themselves to set out for the interior to hunt and fish.

These Indians had not been fortunate in their hunting last year. Very few of them, I was told, brought back furs enough to repay the advances made to them by the Hudson Bay Company.

But it was not only the Mingan Indians who had suffered from the scarcity of animals yielding furs on the coast of Labrador; those of Natashquan had done no better, and all the inhabitants residing on the north shore of the Gulf of St. Lawrence, from the Seven Islands to L'Anse aux Blancs Sablons who are engaged in hunting the fur-bearing animals, had not realised a fifth part of the profits of the previous year. Foxes especially, of which a great number had been taken in the winter of 1855-56, had been extremely scarce.

On the 13th I visited the River St. John.

The salmon fishery was over at the mouth of the river. There remained but one person fishing at the foot of the rapids.

The fish had not been abundant.

The salmon had begun to ascend the River St. John about the 1st of June.

The following is the number and position of the fishing grounds on the River St. John.

On the Eastern Bank.

1st Fishing Ground.—Situating about four acres from the eastern point of the mouth of the river, and belonging to the Hudson's Bay Company.

2nd Fishing Ground.—Situating about four acres higher than the preceding, and belonging to James McLeod.

3rd Fishing Ground.—Situating four miles higher, and belonging to John Ross.

4th Fishing Ground.—Situating nine miles from the mouth of the river, and belonging to the Hudson's Bay Company.

5th Fishing Ground.—Situating at the foot of the rapids, eighteen miles beyond the preceding, and also belonging to the Hudson's Bay Company.

On the Western Bank.

1st Fishing Ground.—Situating at the western point of the mouth of the river, and occupied by Girard Brothers, of Malbaie.

2nd Fishing Ground.—Situating some acres from the preceding, and belonging to the Hudson's Bay Company.

3rd Fishing Ground.—Situating six acres from the western point, and belonging to the Hudson's Bay Company.

I was unable to obtain the exact amount produced by all these fisheries. However, according to Mr. James McLeod, who had fished there himself, not more than 100 barrels of salmon are taken, both in the grounds worked by the Hudson's Bay Company and in the others.

Up to that time no one had violated any clause of the Fishery Act, relative to the protection of salmon.

Before leaving the River St. John, I gave one of the fishermen there a copy of the Fishery Act, and recommended them to observe it strictly, as on that depends the preservation of salmon and many other descriptions of equally important fish, in our rivers and upon our coasts.

That night I went on board an American schooner fishing on a shoal outside Magpie Bay, and showed the captain the Fishery Act. I pointed out to him the clause forbidding, under a heavy penalty, the throwing of offal into the fishing grounds.

Thereupon he told me that it was unnecessary to forbid him to do that, for having fished for several years on the banks of Newfoundland, and being well aware of the pernicious effect resulting from the habit of befouling the fishing grounds, he was accustomed to keep the cod offal on his deck until he could go and deposit it at a distance from the fishing banks, in a place where it could do no injury.

Indeed, I saw in a box made for the purpose, on his deck, the offal and heads of cod fish, evidently the product of several days' fishing.

It is greatly to be wished that all fishermen understood, as well as the one of whom I have just spoken, the importance of conforming to a law, intended for the preservation of a source of wealth yielding the means of subsistence to millions of families; for notwithstanding all my efforts, and those of

several magistrates and owners of fishing-grounds, there are to be found, even among our own fishermen, unscrupulous men who find opportunities of breaking the law without being discovered.

I then gave orders to steer for the south shore of the St. Lawrence, and on the 15th, landed at Grand Etang, where Mr. Lesperance gave me the following information concerning the fisheries carried on at that part of the coast of Gaspé.

The cod had appeared at the usual season, that is to say, about the middle of May.

The capelan, the bait most attractive to the cod, had not yet approached the coast in great abundance with the exception of one day. The fishermen had up to that time used herring to bait their lines, but they could not obtain these latter fish in sufficient quantity.

The fishing smack which had succeeded best had taken 70 quintals of cod, the others 25 to 50 each.

Mr. Lesperance this year employed 18 vessels, and 40 men.

Last year he exported, on his own account, to the markets of Spain and Italy, more than 3000 quintals of dried cod, which sold extremely well.

All was quiet on the coast.

No foreign fishing vessels had yet made their appearance.

On the 16th, I visited the settlements of Great Fox River and L'Anse aux Griffons. The cod at these two places was in fair quantity but the bait was very scarce.

Public order had not been disturbed at Fox River, since my last visit on the 1st June.

On the morning of the 17th, we anchored in Gaspé basin.

At this anchorage, there were only five vessels, of which two were European brigantines, laden with salt, merchandise, and fishing tackle, and three schooners belonging to Gaspé outfitters.

Mr. Belleau, Collector of Customs of the Port of Gaspé, to whom I offered my services, in case he should require assistance in the execution of his duty, either to transport him to any part of the coast where his presence might be required, or to aid his coast guard in seizing articles fraudulently introduced into the country, informed me that the fishing was about the ordinary average in the bay of Gaspé. The fish was tolerably plentiful, but the bait was very scarce.

No foreign vessels had yet appeared in the port of Gaspé.

I weighed anchor on the morning of the 20th, and in the afternoon landed at Point St. Pierre. There, as at all other points along the coast which I had just visited, the produce of the cod fishery was not very great, on account of the difficulty of procuring bait. But the season was not yet very far advanced, and there were hopes that it would improve as it advanced.

Messrs. Collas and Fauvel, both proprietors of fishing establishments, told me that all was in perfect order at Point St. Pierre, and also at Malbaie.

In the evening I went to Percé.

At Percé, and especially at the Island of Bonaventure, the fishing was a little more favorable than at any of the stations which I have visited since leaving the northern shore; but it was far from yielding the same favorable results as last year, when at the same date, the vessels had taken a-third more fish. This was owing, as everywhere else, to the scarcity of bait.

At Beaufrils Cove and Cape Cove, the fishing had not been more productive.

However, I was told that, for some days past, the vessels which had gone to the bank had had some good fishing.

Mackerel had begun to appear outside of Bonaventure Island.

Foreign vessels had begun to arrive.

On the 21st, at 5 p. m., we took our departure. At 7 p. m. we landed at Grande Rivière.

The same remarks which I made concerning the cod fishery at Parc , in the Bay of Gasp  and elsewhere, are applicable to this part of the coast, where the bait is likewise very scarce.

The Rev. Mr. Desjardins, Cur  of the parish of Grande Rivier , told me that as Chairman of the School Commissioners of that District, he thought he should have need of my assistance to carry out the law, as many persons had shown an intention to resist it.

I made answer to Mr. Desjardins at once, that I should be ready to go to Grande Rivier , whenever my presence might be required.

I returned on board at 9 p. m.

The wind, which was east, increased during the night, until it blew a perfect gale. The sea was too high for me to think of landing at Paspebiac. I gave orders for continuing our course further within the Bay of Chaleurs, and on the next day, the 22nd, we anchored in the Roadstead at Carleton.

I had the pleasure of meeting the principal inhabitants of this place. I satisfied myself that my presence for a longer time was unnecessary, and then left for the River Ristigouche.

At 2 p. m., I landed at the Mission.

There Mr. Fraser, the Collector of Customs at New Carlisle, and Mr. Busted, Justice of the Peace, were expecting my arrival. They requested me to go with sufficient force to the Court House at Cross Point, to give assistance to the local magistrates, who were assembled there, to decide two cases which caused much excitement among the inhabitants of that part of the County of Bonaventure.

Nearly sixty persons were present at the deliberations of the Court; and there was great apprehension of serious disturbance, if judgment was given against the individual sued. The latter and several of his friends, I was told, declared that they would not submit to the decision of the Court, should it be unfavorable to them.

Under these circumstances I considered it my duty to assure the sitting magistrates of my active co-operation; and I placed at their disposal all the constabulary force under my command.

I informed the crowd that I should remain in the Ristigouche River, until the cases in question were decided upon, and the judgment of the Court had been carried out according to law.

The Magistrates continued sitting until night, when, not having come to any decision, the Court was adjourned until the next day.

On the 23rd the Court sat a part of the day, and in the afternoon judgment was rendered in favor of the prosecutor, Mr. Fraser, who had acted in these cases in his official capacity, as Inspector of the public revenue.

According to Mr. Fraser and several magistrates at Cross Point, my arrival at the Mission had been most opportune, for without the presence of "La Canadienne" in the neighborhood of the place where the Court was sitting, there would probably have been some disturbance, and attempts would have been made by intimidating the Justices of the Peace, to prevent them giving judgment as they did.

Several most respectable inhabitants of New Brunswick, amongst whom were a member of parliament and a Justice of the Peace, whom I had the pleasure of receiving on board, expressed their satisfaction at the happy results which had followed my visit among them. For if disturbances had occurred at Cross Point or at any other place on the bank of the river, they would not have failed to spread to the population of the other shore, which is only separated from that of Canada by a few acres.

The salmon fishery in the river Ristigouche had been over for a week.

On the Canadian, as well as the New Brunswick side, it had not been very productive. At many of the fishery stations but one-seventh of the yield of last year had been taken, and in others one-fifth.

In another part of this Report I shall give a statement of the stations for salmon fishing on the Canadian bank of the Ristigouche river, with the amount of fish taken this year.

On the 26th, the wind, which had hitherto continued east and had consequently prevented us from descending the river (for at this point the river is too narrow to permit of tacking), turned to the west, and the anchor was weighed in the afternoon.

Opposite Battery Point we encountered three ships at anchor, loading with pine plank from the saw mill built last year on the Canadian bank by Messrs. Travers and Company.

On the morning of the 27th I landed at Carleton, where I saw the Crown Timber agent, who told me that the persons upon whom he had claims for cutting wood on the Crown Lands had paid, and that he was therefore not in need of my services.

As the wind continued favorable for leaving the Bay, I went on board at 8 a.m., and reached New Carlisle at 5 p.m.

I saw the public officers of this place, and satisfied myself that all was quiet.

On the 28th I visited Paspébiac, when I was told that there, as everywhere on the coast of Gaspé, the cod-fishing had not been very good, on account of the scarcity of bait.

There were in the road seven ships, belonging to two commercial houses, C. Robin & Co. and LeBoutillier and Brother.

I was informed that on the 22nd, eighteen United States schooners, engaged in the cod fishery on the Miseau bank, had come for shelter to the Paspébiac road, during the storm which raged in the night of the 21st and 22nd. They had on board several fishermen from the shores of New Brunswick whom they had picked up from their boats, already half filled with water and ready to sink.

The captains of the vessels reported that this storm had been one of the most violent ever experienced in those latitudes. The sea ran so high near the coast that a great number of vessels, returning from the banks, had been swamped in attempting to make the land. It was calculated that nearly sixty fishermen of Caraquette, Shippagan, Trocadie, and Pocomouche had perished.

On our coast, several vessels had been lost, but we had to deplore the loss of but one fisherman.

Towards night we weighed anchor and shaped our course for Percé, where we arrived next day at 6 a.m. There the storm had done no damage.

The cod fishing had not much improved. The wind continuing to blow from the west, we left for the Magdalen Islands. South of Bonaventure Island, we fell in with two American schooners; they were engaged with some success in mackerel fishing; and to the south of Amherst Island, we met fifteen other schooners belonging to the same nation, similarly engaged, but with little success.

We anchored in the bay of Plaisance during the night of the 30th.

There were only five schooners in the harbor of Amherst.

The cod fishing at the Basin and at *l'Etang du Nord* was most successful. The fishermen belonging to the island had commenced taking mackerel with the line in the bay of Plaisance; some of them took as many as three hundred per day.

On 1st August, I received the following letter from Mr. Fox, the collector at the port of Amherst:

"Custom House, Amherst, 1st August, 1857.

"Sir,—I have received information that an American vessel has unlawfully landed goods on this coast and that she is at present at the *Etang du Nord*, I request that you will assist me with "La Canadienne" and the force under your command in seizing the said vessel and bringing the offender to justice, as the state of the weather just now would not admit of going there in a boat.

I have the honor to be, Sir, Yours, &c.,

P. Fortin, Esquire,
Gov. Sch. "La Canadienne."

JOHN J. FOX.

I immediately placed "La Canadienne" and my men at Mr. Fox's disposal. We weighed anchor and made sail for the Etang du Nord, having on board the Custom House officer of the port, Mr. McCormick, in place of Mr. Fox, who was detained at his office by press of business. At 4 p.m. we anchored in the Etang du Nord.

I at once put Mr. McCormick on board the United States schooner suspected of smuggling, and I received the register and other papers of the vessel, in order to hand them to Mr. Fox in compliance with that gentleman's request.

Mr. McCormick took charge of the vessel in order to take her to Amherst; the master, whose name is Kelly, had landed goods, but he stated that in doing so he was ignorant of the laws of the country, and that he was perfectly willing to submit to them in all things.

In rounding the western point, we fell in with nineteen schooners at anchor under Amherst Island: nine belonging to the United States, the rest to Nova Scotia. Off the Etang du Nord we counted forty-one others, more than one half Americans; the remainder were from the Gut of Canso and Cape Breton.

Two-thirds of the vessels were engaged in the mackerel fishery, and the remainder in the cod fishery, which was not very good on the banks outside.

The mackerel fishery had not been carried on with much success by the majority of the vessels engaged in it. As a general rule, it was not so good as last year. The foreign fishermen had done nothing of which the inhabitants of this part of the coast of the Magdalen Islands could complain.

On the morning of the 3rd of August, I entered Amherst harbour and delivered the papers belonging to Kelly's vessel to Mr. Fox, who was highly pleased with the manner in which Mr. McCormick's instructions had been carried out.

On the 4th I, visited House Harbor, which I found nearly deserted, all the vessels belonging to the port being engaged in the mackerel fishery on the Labrador coast.

The fishermen belonging to the Grindstone and Allright Islands carry on the mackerel fishery in the Bay of Plaisance, near House Harbor, with some success. The fish are, however, small, and can be sold only as No. 2.

On the 5th August, finding on enquiry that Kelly the trader, had gone to Amherst and submitted to the collector's orders, I ordered sail to be made. We passed to the eastward of the Magdalen Islands.

Between Allright and Entry Islands we fell in with a fleet of forty American schooners engaged in the mackerel fishery. The fish did not appear to be very abundant. North of Grosse Isle we met 20 more vessels of the same nation, and equipped for the same fishery.

Several of those vessels were exceedingly beautiful, being built on entirely new models with the best possible material, and seemed to be very fast sailers. Some of them were nearly one hundred tons burden, and carried from fifteen to eighteen men.

The expenses connected with fitting out vessels for the mackerel fishery and maintaining them are very great, and great activity and perseverance are required on the part of the crew, in order to render the expedition profitable to the owners.

In the afternoon of the 7th, we anchored in the roadway of Percé. We had head winds during the passage.

The fishing on this coast had begun to improve; the boats brought in from three to six quintals of codfish each evening.

There were no foreign vessels in the roadstead nor in the vicinity.

On the 8th, I sailed in order to visit the fishing stations on the south shore of the St. Lawrence. In the afternoon of the same day, I landed at l'Anse aux Griffons on Fox River.

A gale from the northwest obliged us to come to an anchor at l'Anse aux Griffons on the morning of the 9th. We sailed on the following day.

On the 11th, I visited the establishment at Grand Etang; and on the 11th I proceeded to Grande Vallée, at which place there are some highly important fishing establishments, of which I here give a list with the number of boats employed by each:—

1.	Fishing station of Germain Dionne.....	6 boats.
2.	“ “ Messie Fournier.....	2 “
3.	“ “ François Joncas.....	8 “
4.	“ “ Thomas Couture.....	3 “
5.	“ “ Joseph Fournier.....	3 “
6.	“ “ Fabien Bonneau.....	2 “
7.	“ “ Charles Clavet.....	4 “
8.	“ “ Widow Etienne Fournier.....	2 “
9.	“ “ J. B. Caron.....	1 “
10.	“ “ Pierre Mainville.....	1 “

32 “

Besides the above, there are two boats belonging to resident families.

I was informed that the Grande Vallée boats bring in from 100 to 160 quintals of codfish every year besides herring, mackerel, and a few barrels of halibut.

The resident inhabitants, numbering about forty persons, are to some extent engaged in agriculture.

The soil at Grande Vallée is not very rich, but can easily be improved, as large quantities of sea weed, which makes an excellent manure, can be had.

L'Anse de la Grande Vallée, where the fishing establishments are, is about three-fourths of a mile in width, and is situated in the seigniorship of the same name, which belongs to Colonel McCumming, of England.

The Grande Vallée fishermen sell their dry cod-fish to the Gaspé merchants, by whom it is sent to the European markets. The green fish is sent to Quebec and Montreal.

On the same day I proceeded to the Magdalen River which falls into the St. Lawrence, about 10 miles above Grande Vallée.

There are fourteen families settled on the banks of this river, who own four fishing establishments and twelve boats.

Magdalen River is said to be a good fishing station. There is almost always an abundance of fish. However, there have been a few complaints this year about the scarcity of cod-fish.

Herring and mackerel are found on this part of the coast.

The Americans were in the habit of going there in large numbers a few years ago, to fish for mackerel with seines and with the line; but for the last two years they must have found better fishing elsewhere, as they have not appeared on the Magdalen coast.

Only one American vessel, the “Gazelle,” Captain Baker, went there this year. I visited her in order to see that she had no goods on board.

There are some excellent lands on the banks of the Magdalen river, and the inhabitants carry on farming with some success. They carry their grain to be ground at Mont Louis, situated six leagues higher up, where there is a good mill.

On the 13th, I reached Mont Louis Bay; it is about two miles wide and one deep. A river flows in at the foot of this magnificent bay, and at high tide there are ten feet of water on the sand bar at its entrance. Above the bar, even at low water, the river is deep enough to float a vessel drawing twelve feet of water.

There are twenty-four families at Mont Louis; they support themselves nearly

altogether by fishing and farming, but there are only three families devoted exclusively to the latter.

In this place there are seven cod-fishing establishments, and I here give the names of the proprietors together with the number of boats and men employed in each.

Proprietors.	Number of boats.	Number of fishermen employed.
1. Jos. Th. Fournier.....	5	14
2. Jacques Gadbout.....	2	6
3. Louis Laflamme.....	2	6
4. Michel Laflamme, père.....	2	6
5. Michel Laflamme, fils.....	3	10
6. Michel Poitras.....	2	6
7. Charles Lemieux.....	1	3
	19	51

In addition to the above, there are six more boats belonging to farmers, who go fishing after sowing time.

These boats take each on an average 120 quintals of cod fish.

About 30 barrels of trout are taken annually in the *rivière de l'Anse pleureuse*, a few miles east of Mont Louis, and in the Mont Louis river about ten barrels more.

The trout taken at Mont Louis are large; they measured from 8 to 15 inches in length, and weigh from two to six pounds.

I had the pleasure of meeting the missionary priest belonging to Ste. Anne des Monts, and I am indebted to him for a great deal of very valuable and interesting information in relation to the establishments at Mont Louis.

From what he states I would infer that there is sufficient good land along the banks of the Mont Louis river, and within a short distance of the sea, to produce food for one hundred families.

The sea weed which is to be found in abundance along the coast, would furnish excellent manure.

The land is nearly as rich on the hills, and on the sides of the mountains, as it is in the plains below.

Timber of all kinds is abundant along the upper part of the river. Maple, ash, tamarack, elm, pine, and many other kinds of wood are to be found there, and can be brought down the river to the sea without difficulty.

Mont Louis valley is about five miles in width, and is sheltered by high mountains from the cold north and north-west winds, so that the climate is milder than that of the north shore of the St. Lawrence in the vicinity of Quebec. One of the inhabitants of the valley, a person named Lapointe, who devotes more of his time to farming than any of the others, told me that he frequently does his ploughing in April, when the country about Quebec is still covered with snow.

The crops which I saw were nearly ripe and apparently in excellent condition.

Mont Louis bay was one of the first fishing stations established by the French on the St. Lawrence. The establishments which they founded must have been very extensive, as the ruins of several buildings, showing the extensive scale on which their works were carried on, are still to be seen.

Among other evidences of this fact, are the ruins of a brick aqueduct, which was evidently constructed for the purpose of supplying the fishing establishments with pure spring water from a mountain in the vicinity.

The French fishing establishments at Mont Louis were completely destroyed a few years before the country was ceded to Great Britain, by an expedition detached from the fleet which was proceeding to the attack on Quebec; the vessels

engaged in the expedition were under the command of Captain Cook, the same who afterwards attained celebrity as a great navigator.

Mont Louis was then abandoned, and remained so until new establishments were commenced there, within the last thirty years.

The present population of Mont Louis is composed of persons from the parishes below Quebec.

I remained in Mont Louis bay nearly the whole day.

On the morning of the 15th, we anchored in the roadstead of Ste. Anne des Monts.

I visited Mr. John Le Boutillier's establishment and was informed by his agent, Capt. Dugas, that from 1,500 to 2,000 quintals of dry cod fish are annually prepared by him for the Mediterranean markets.

At the upper end of the roadstead is the entrance to the Ste. Anne des Monts River, in which schooners of 40 or 50 tons can find shelter in all winds.

The inhabitants of Ste. Anne des Monts came originally from the parishes below Quebec; they are scattered along the coast to a distance of four miles on both sides of the river. They number about 200 families, and support themselves by cultivating the land and fishing. They go fishing as soon as the sowing season is over and carry on the fishing until harvest time. After harvest they take the fish called the fall or *arrière saison* codfish, which is sent to Quebec.

The river Ste. Anne, a stream of considerable length, was formerly well stocked with fish; but for some years back the quantity has greatly diminished; the annual take of salmon at present, is not more than 20 or 30 barrels. This great falling off can only be attributed to the injurious practice on the part of some of the inhabitants of going 20 and even 30 miles up the river to kill the salmon in the deep creeks in spawning time.

I have every reason to hope that the Act which has been passed this year for the protection of the fisheries, will be the means of preventing the unlawful destruction of this noble fish, both in the river just mentioned and in the *Cap de Chatte* river, which is near the former; particularly as I have been informed by M. Rousseau and several other respectable parties, among the rest Messrs. Sasseville and Dugas, that the people of their localities are determined to make every effort to carry out the law.

There had been no infraction of the law as yet, this year. But it was thought that a number of persons were preparing to go up the river in order to engage in salmon fishing, in defiance of the prohibition. I told the magistrate of the place that if he required any assistance from me in carrying out the law for the protection of the fisheries, I should proceed to Ste. Anne at once to help him.

I must state in conclusion that Ste. Anne des Monts is a flourishing settlement and is rapidly increasing in wealth and population. It will in a few years compare favourably with any of the central parishes of Canada.

The inhabitants of Ste. Anne des Monts have themselves made a good road to *Cap de Chatte*, and as soon as means of communication are opened between the latter place and the Matane establishments, Ste. Anne des Monts will be within four days' journey of Quebec, summer and winter.

At noon I returned on board, and we weighed anchor. We steered for the bay of Seven Islands. The wind was fair and blowing hard and not too much sea. We made thirteen knots an hour during the first four hours, and we should have reached the anchorage at the bay of Seven Islands at half-past four o'clock, if the wind had not moderated. Notwithstanding the lull, we came to anchor off the Hudson's Bay Company's establishment at 6 p.m.

The steamer Victoria, having on board the honorable the Chief Commissioner of Public Works, with Mr. Page, and the master and several officers of the Trinity house at Quebec, also anchored in the bay at about 8 p.m.

The Commissioner of Public Works and the engineer were visiting the different light-houses on the river and gulf of St. Lawrence, and that of Belleisle.

On the 16th, I visited the point on the east side of the bay, formerly the site of extensive fishing establishments belonging to the French, which were abandoned at the time of the conquest.

Between the point and the island we saw an American schooner engaged in fishing for mackerel. There were also five other schooners (four American and one from Nova Scotia) which had been in the bay of Seven Islands for some weeks, engaged in the same fishery. They all used the seine.

The mackerel were somewhat plentiful. From 100 to 150 barrels had in several instances been taken in one draught of the seine.

Mr. Clarence Hamilton, who owns a fishing establishment in the bay, had during the previous week taken 150 barrels of very fine mackerel with a seine which was by far too short. The fish were so plentiful on that occasion, that Mr. Hamilton could have taken from four to five hundred barrels with a seine one hundred and twenty fathoms in length and deep in proportion. Unfortunately opportunities of the kind are of rare occurrence, and I have been told by masters of vessels engaged in the mackerel fishing, that they had cruised for weeks and even for months, without making one successful haul of the seine.

Since last year there have been six cod-fishing establishments commenced at the Seven Islands. The principal one belongs to Mr. Hamilton, who employs four-teen boats and thirty-six men.

The cod fishery had not been successful since the spring, at the bay of Seven Islands, notwithstanding the favourable reports with regard to that place, which had led the fishermen to expect good success there. In place of going into the bay and approaching the shore as usual, in pursuit of the herring and capelan, the fish had remained on the banks outside, and the fishermen were obliged to go out there to carry on the fishing.

It was, however, expected that the fall fishing would be good.

On the 17th and 18th, I was occupied in arranging a difficulty which had arisen between Mr. Comeau, the agent in charge of the Hudson's Bay Company's trading post, and Mr. Clarence Hamilton.

Mr. Comeau complained that Mr. Hamilton had encroached on the land belonging to the Company in building his fishing establishment; on the other hand, Mr. Hamilton urged that he had done nothing but what was authorized by the Fishery Act in taking possession of the land, as he required it for the purpose of carrying on his fishing operations, and as the Hudson's Bay Company did not occupy it, and never had occupied it, though they had partly fenced it in.

Under such circumstances I thought it better to advise both parties to arrange the matter in an amicable manner, by dividing the disputed land equally between them. I felt the more inclined to advise this course, from being convinced that the portion of ground and of the beach which each party would receive, would amply suffice for the requirements of their respective establishments.

My proposal was accepted. I measured the land myself, stakes were planted, and both parties declared themselves perfectly satisfied.

I was also occupied at the same time, in the matter of a complaint lodged by Mr. Stuart, the Hudson's Bay Company's sub-agent at Seven Islands, against Alexandre Arsenault and Jean B. Duchesne, charging them with having maliciously killed a horse belonging to the Company.

I took Mr. Stuart's deposition and issued warrants to have the accused arrested and brought before me. But although my men instituted a very active search, they only caught Duchesne.

I examined the prisoner, who was accused of having killed, or assisted to kill

the horse in question. I took the evidence of a Montagnais Indian named Pierre Petarhoo, who was the only witness as to the fact; and, the accusation not being sustained, I gave Duchesne his liberty.

On the 18th, my men made another attempt to find Alexandre Arsenault: they searched the woods in the vicinity of the fishing establishments thoroughly, but without success. I afterwards learned that he had fled to Moisie river, and thence to the coast of Gaspé.

Having nothing further to do at Seven Islands, I gave orders to make sail, and at 4 p. m. I landed at Moisie River.

The Moisie River is one of the largest rivers on the north shore, it is at least a mile in width at the mouth, and becomes still wider as you ascend. The entrance is obstructed by shifting sand banks, but vessels drawing nine feet can cross the bar and find shelter inside in any wind. It is said to take its source from the ridges midway between the Hudson's Bay Coast and the Gulf of St. Lawrence.

It pours an immense body of water into the sea. The bed of the river is formed of sand.

The Moisie River is one of the best rivers for fishing, among all those on the north coast. Although the present year has been a bad year for salmon fishing on the north shore as well as on the south, yet there have been barrels of fish taken by the different parties who had laid their nets.

I give below the names of the proprietors of stationary fisheries on the Moisie River, in operation during the present year.

On the East Side.

- 1st Fishery, Messrs. Tetu and Chisholm.
- 2nd " Mr. Davison.
- 3rd " Mr. Charles Mercier.

On the West Side.

The Hudson's Bay Company have all the fisheries.

The crews of several vessels which happened to be in the river during the whole time when the salmon were going up, laid their nets at different points along the stream, but did not meet with great success.

In the River Moisie, fishing begins about the beginning of June, and ends with the month of July.

On the 1st August, which is the time appointed by law for closing the fisheries, the nets had all been removed from the river.

On the Moisie River, the practice of killing the salmon in the creeks and other places where they go to spawn, does not seem to prevail.

The Hudson's Bay Company had disposed of a salmon to an American house belonging to Portland and, by order of the parties purchasing, it was cut up while yet fresh, into pieces weighing about one or two pounds each, which were made up in tin boxes and carefully soldered.

I sailed in the evening for the eastern part of the coast, and landed on the 19th at Shelldrake River.

The number of fishing establishments at Shelldrake was the same as last year, but there were not so many fishermen employed. The fish had not been so plentiful as it was in 1856.

I was informed that, during the high tides last fall, the strong winds which prevailed from the south-west had repeatedly forced the water over the sand bar on which the houses, scaffoldings and salting benches, belonging to the fishermen, are situated, and that a large amount of damage was thereby sustained.

I was informed by Mr. Philippe Touzel, one of the fishermen residing at Shelldrake, that wishing to establish a fishing station on Thunder River, he had gone there a few weeks before, for the purpose of taking possession of an unoccupied part of

the beach, and that after he had begun preparing the ground for the erection of the necessary buildings, three persons named respectively Ennis, William Grath, and Briant, approached him uttering threats, and stating that they would not allow him to set up an establishment in that place.

He also told me that the same parties had repeatedly attacked a man, whom he had left there to carry on the work, necessary for the erection of his establishment, so that he was obliged to leave the place and return to Shelldrake.

Mr. Touzel asked to be protected in holding possession of the vacant spot which he had selected, and that the parties who had, without provocation, ill-treated his servant, should be punished.

Taking Mr. Touzel and his servant Beaudoin on board, I sailed for Thunder River. On arriving, I proceeded to the place where I expected to find Ennis, McGrath and Briant. I went to their establishments, but the men were not to be found. I was informed that, having been made aware of my approach, they had absconded, and concealed themselves in the neighbouring woods. I then visited the spot which Touzel had taken possession of, and found that it was vacant, and that there was nothing to indicate that it had ever been occupied.

I then told Touzel that as a British subject, he had a right to take possession of ground sufficient for carrying on his fishing operations, and to hold the same as his property, subject to the condition of not allowing it to remain unoccupied during twelve consecutive months.

I also told him, if he were again molested, to write to me at Percé, and that on receiving his complaint I should return to Thunder River as soon as possible.

I then visited seven schooners, which were at anchor in the river. Four of them were from the Gaspé coast, the others were: the schooner "Lady," 57 tons, Philibert Bergeron, master, from the Parish des Eboulements, with a crew of six men, and carrying three fishing-boats; the "Primrose," from Malbaie, (above), Hubert Pilote, master, five men and two boats; and the "Primrose," also from Malbaie, (above) Xavier Boily, master, carrying five men and two boats.

These vessels were all successfully engaged in the cod-fishery.

The master of one of the Gaspé vessels had a few days before, taken 180 barrels of mackerel at a single haul of the seine, at the mouth of the river. This was the only instance in which the fish had appeared in such large numbers near the coast.

The masters of the vessels from Malbaie (above) and the Eboulements, told me that this was their first trial of cod-fishing in the Gulf. They said that they were satisfied with the result.

I urged them strongly to return next year, but to come better prepared, and provided with a larger number of men and boats. I told them that they would be well repaid for their efforts, provided they carried on their fishing operations with judgment, and above all, with perseverance.

It is to be hoped that the example given by the schooners from Malbaie and the Eboulements, will be followed by many others from the Parishes, both on the north and south sides of the rivers; and that our Quebec ship-owners will at last understand the importance of the vast resources which Canada possesses in the Lower St. Lawrence and in the Gulf, hitherto developed by foreigners, who find them a source of great profit.

I give below a list of the establishments on Thunder River:

		Boats.
No. 1.	John Howell's establishment	4
" 2.	Stephen Wells "	2
" 3.	James Cummings' "	2

On the East side.

On the West side.

" 4. Lawrence Kennedy's establishment.....	3
" 5. John Le Rhé "	2

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There are forty men employed in these establishments, which have been only three years in existence.

I entered Magpie bay at half-past three o'clock, and there visited several fishing stations belonging to fishermen from Bonaventure. Cod fishing had been more successful in this place than at any part of the North shore which I had lately visited. Here also I was obliged to settle a dispute which had arisen, regarding the possession of a fishing ground.

At Rambler's Cove, which is situated half a mile to the west of Magpie Bay, the fishermen had taken large quantities of fish.

In the evening we sailed for the Coast of Gaspé.

On the 20th, in the afternoon, I landed at l'Anse aux Griffons.

On the 21st, I visited the establishments at *Cap des Rosiers*, and on the following day I proceeded to Gaspé basin, where I remained till the 24th.

I visited as usual the vessels in port. All was quiet.

I received from Mr. John Eden the weights and measures which are used as the Government standard, in order to take them to the Magdalen Islands, where the storekeepers' weights and measures had never been tested and stamped by a public officer. I then set sail, after taking on board Mr. Matthew Ryan, the inspector of customs for Lower Canada, who went to the Magdalen Islands for the purpose of inspecting the port of Amherst.

On the 25th we touched at Percé, and on the 26th we anchored in the bay of Plaisance.

The fisheries were very successful at the Magdalen Islands.

Mackerel was abundant in the Bay of Plaisance, and cod was sufficiently plentiful on the banks in the vicinity of the Etang du Nord, of the Anse à la Cabane, and of the Basin, to give the fishermen a good daily return for their labour.

The only vessels in Amherst harbour were four schooners and the mail boat. Some American vessels fitted out for the mackerel fishery, were still fishing near the Magdalen Islands with some success. But the general complaint was that the fish were neither as large nor as fat as they were last year at the same period. Several full cargoes of dry cod had already been shipped to Halifax, the prices paid there being exceedingly high. Captain Painchaud, amongst others, had sent one cargo, consisting of five hundred quintals.

The news received from all points was favourable.

Fish of all kinds were plentiful, and the fishermen had fine weather for carrying on their operations.

At the Etang du Nord the boats frequently brought in from eight to ten drafts of cod. (A draft of codfish weighs two hundred and fifty pounds.)

The inhabitants had no cause of complaint against the foreign fishermen.

On the 29th at noon we left Amherst. In rounding the eastern point of the Magdalen Islands, we fell in with forty schooners, nearly all from the United States, at anchor, under shelter of Grosse Isle. They were unable on that day to carry on the mackerel fishery, the wind being too high.

On the 30th, we touched at Caraquette in order to land Mr. Ryan, who intended returning to Canada by way of New Brunswick, and on the following day we came to an anchor in the roadstead of Paspébiac, after having been during a part of the day aground on a small sand bank, the vessel escaping without any damage whatever.

In the fishing establishments at Paspébiac great activity prevailed in the preparation of cod for exportation ; a great deal of it was intended for the Brazil market.

The cod sent to Brazil requires to be made up in packages called on the coast tubs. Each tub contains 128 lbs. of well dried fish. The packing is done by means of an iron screw worked by three men, the fish being thus pressed in the tub and forced into the smallest possible space. In this state it will keep for a very long time even in the warmest climates, and may be conveniently carried into the interior of the countries for which it is intended.

The house of Robin & Co., had already during the present season shipped a cargo of fish prepared in this manner to Brazil, and I was told that they realized a handsome profit.

I visited New Carlisle, at which place the court was then sitting.

On the 4th September, I proceeded to Bonaventure.

The barque " Nazarene " belonging the American House of Miriam & Co., who carry on business at this place, was in the roadstead, loading fish of all kinds and shingles for New York. There was also in the roadstead an American schooner of 175 tons loaded with shingles and fish from the same house ; she was only awaiting a fair wind to set sail.

I had the pleasure of meeting Mr. Allain, the parish priest of Bonaventure, and Mr. McCracken a justice of the peace.

I was informed by them that there had been only a few barrels of salmon taken in the river Bonaventure.

There had been no nets placed at the mouth of the river. The Indians had been fishing with their negogs, but I did not hear that they had taken any salmon after the first of August.

On this part of the coast of the Bay of Chaleurs, which, it is true, foreign fishermen are not much in the habit of frequenting, the most perfect tranquillity prevailed.

On the 5th, I visited Carleton and Dalhousie.

On the 6th, at 3 o'clock A. M., I gave orders to leave Carleton, the wind blowing strong from the North West, and at noon I landed at Grande Rivière where I met the agent for the house of Robin, and Mr. Carburg, one of the magistrates of the place.

At Grande Rivière and nearly everywhere along the coast of Gaspé, the cod-fishery had not been good during the month of July ; but from the first of August and particularly from the fifteenth, our fishermen had had very good success.

Three boats employed in fishing for Mr. Carburg, had brought him in as the proceeds of the day's fishing on the 1st, 2nd, 3rd and 4th September, 110 drafts of the finest cod.

The bait used by our fishermen was the squid.

This singularly shaped little fish is exceedingly gelatinous and is greedily devoured by the cod ; it was very plentiful near our coast and there was no difficulty in taking it.

At 4 P. M. we weighed anchor, and at 6 P. M. we arrived at Percé.

At 7 in the morning, I visited the establishments at Percé, and at 11 A. M. I gave orders to set sail for the Labrador Coast. We had a strong wind from the south-west, for us a fair one.

At midnight we doubled the eastern point of the Island of Anticosti, and on the 9th at 3 P. M. we came to anchor in the Anse aux Blancs Sablons.

I visited all the establishments in this place and obtained the following information.

About one hundred and fifty schooners, most of them from Nova Scotia, and the remainder from the Magdalen Islands, the United States and Prince Edward's

Island, had carried on the cod-fishery near the coast, and on the banks in the vicinity of the cove, with some success.

The fishing had commenced on the 20th of June, and ended on or about the 1st of August.

During the whole of that time there had been no lack of capelan and lance (*lançon*), which are the usual bait.

The herring had appeared on the coast at the beginning of August; this was earlier than usual.

This fish always approaches the coast in greater numbers at the time of the high tides than at other times.

On the 7th of September, herring were still plentiful in the Anse aux Blancs Sablons, and several hauls of the seine were made on that day.

Nearly two hundred schooners, of which number a great part had been engaged in the codfishery, had carried on the herring fishery in this Cove.

It was estimated that at least sixty were employed in the herring fishery between Salmon Bay and *la baie Rouge*.

Large quantities of this fine fish had been taken. Nearly all the vessels went away full loaded.

The schooners from the Magdalen Islands in particular had been very successful.

I was informed by Mr. Labbé, the agent for the house of Le Boutillier and Brothers, that in the night of the 29th July last, the French Corvette "La Sérieuse" having on board the commandant of the French station at Newfoundland, struck on a dangerous reef in the little harbour within the Anse aux Blancs Sablons.

Fortunately on the following day, at high tide, after great exertions on the part of the crew, the vessel was floated off and brought to the anchorage in the Anse. She had lost her rudder but was enabled to refit and proceed to Halifax.

Before quitting the Anse aux Blancs Sablons for the last time this year, I obtained from all of the proprietors and fishermen belonging to the place, a report of the condition of the different establishments, shewing the number of men and boats employed, together with the quantity of fish prepared at each of them; I annex the documents to this report.

I obtained similar returns from all the other fishing stations on the coast.

The information which I give may be relied upon as exact, as it was obtained from the proprietors themselves or from their friends.

On the afternoon of the 10th, I proceeded to Bradore Bay, at which place I remained until the 14th.

The cod and herring fisheries commenced in Bradore bay, at the same time as in the Anse aux Blancs Sablons.

The shoals of herring did not resort as usual to the upper end of Bradore Bay on account, I was told, of there having been too many seines at the entrance to the bay, ready to intercept them on their first appearance.

I was assured that there were at times fifteen seines between the Anse des Dames and the Bradore Islands, that is to say in front of the bay.

Notwithstanding this fact, nearly all the fishermen had taken full cargoes of fish. They took the herring in the offing, instead of taking them at the upper end of the bay.

There is of course, no law to prevent British subjects from taking the herring wherever the fish can be found.

Besides it is impossible to say whether the fish would have resorted to the upper end of the bay in large numbers, even though there had been no seines at the entrance.

I make these remarks, because several of the inhabitants residing on the bay wished me to prevent the fishermen from fishing with the seine in the offing.

There were twelve schooners in Bradore Basin engaged in preparing the herring; a few weeks before, there were in the same place more than fifty fishing vessels belonging to Nova Scotia, the Magdalen Islands, and the United States, the greater number of which had had the good fortune to take good cargoes.

Every time that I visited the establishments on this part of the coast, I had the pleasure of being informed, that the foreign fishermen had committed no depredations whatever on the coast, and that our fishermen had in no way been molested.

There had been no attempts on the part of any person to injure the sedentary salmon or seal fisheries, or to take possession of fishing stations which were already occupied.

These good results must certainly be attributed to the presence of "La Canadienne" in the waters of the Gulf, for before that vessel visited the Labrador Coast, our fishermen had continual cause of complaint against the foreign and even the English fishermen, as witness the numerous petitions on the subject presented to the Government.

On the morning of the 14th, with a light breeze from the east, we sailed from Bradore Bay.

During the day we were becalmed on Belles Amours bank. The crew took a large number of excellent cod with the line.

On the 15th I landed at *Tête à la Baleine* and obtained from Mr. Michael Kenty, who is engaged in the seal and cod-fishery, information concerning the fisheries carried on on this part of the Labrador coast, together with a statement shewing the number of fishing establishments, the number of men employed, and the quantity of fish taken by each of them.

At 11 A. M. a strong wind sprung up in the offing, and I was obliged in consequence to return on board. A fog then set in, and we lay-to until the following day, when the wind became more favourable.

In the afternoon, we were able to distinguish Cape Whittle, and towards evening, we set sail for the Gulf, with a very strong north-west breeze.

On the 17th, at 8 A. M. we were within about 10 miles of the Bird Islands, and on the following day at 5 A. M. we came to an anchor opposite Amherst harbour.

Since my last visit to the Magdalen Islands, there had been a great deal of bad weather, and the fishermen had been able to reach the fishing grounds only at rare intervals.

The fishing vessels belonging to Amherst and House harbour had returned from the Labrador cruise. They all had good cargoes of cod and herring. The crews were busy preparing the fish for market. Our fishermen had been successful in the mackerel-fishery in the bay.

I was told that the American fishermen had not been so successful in their fishing operations off the coast of the Magdalen Islands, and that a great many of their vessels had gone away with half a cargo.

I visited House Harbour; saw the public officers and principal inhabitants of the place; and, having satisfied myself that my presence was no longer required at the Magdalen Islands, I gave orders to set sail on the 21st.

Near Corps Mort we sighted some ten American schooners engaged in the mackerel fishery on banks to which those fish resort in large numbers. Judging from their frequent changes of position, the vessels did not appear to be very successful.

Between the Magdalen Islands and Miscou Island we fell in with six more American schooners engaged in the same fishery. These vessels appeared to be taking large quantities of fish.

On the 22nd at midnight we passed the Miscou Island light, and on the 23rd, we came to an anchor in the roadstead of Carleton.

I am indebted to Mr. Verge for the following details concerning the fisheries carried on off the coast of the Bay of Chaleurs, between Bonaventure and the River Ristigouche.

The Salmon fishery was almost a complete failure during the present year, in the River Ristigouche and on the coast of the Bay of Chaleurs.

The quantity of fish taken this year did not amount to the one-seventh part of the quantity taken during an average season.

The fishing on the coast of New Brunswick had been no better, and I was told that there had been little or no fish taken this season in the Miramichi River, which is usually so well stocked.

The principal salmon fishing stations on the Canadian coast in the River Ristigouche are as follows :

Fishing Stations.	Belonging to	Produce.
Bourdon Point.. .. .	Robert Busted	15 b'rls of salmon.
Crosse Point.. .. .	John Fraser	30 " "
Battery Point	Alexander Busted	15 " "
Lagarde Point	John Dunkin	12 " "
Fleurant Point		
And three miles lower down.	Edmond Stewart. .. .	90 " "
	Total.....	162 " "

Principal salmon-fishing stations on the Canadian coast in the Bay of Chaleurs :

Fishing Stations.	Belonging to	Produce.
Point Magoucha	Dr. C. M. Le Billois.. .. .	30 b'rls of salmon.
Carleton Bay, 1st.. .. .	Frederick Arsenault	10 " "
" " 2nd	H. Landry	18 " "
" " 3rd.. .. .	Jean Gauvreau.	10 " "

The three last stations are situated about two miles from each other.

Carleton Point 1st	Romain Landry.. .. .	10 b'rls of salmon.
" " 2nd	Jos N. Verge	15 " "

On the coast in the Parish of Maria :

1st Station	Fabien Allan	6 b'rls of salmon.
2nd "	Peter Thibaudeau	20 " "
3rd "	John Vaughan	25 " "
	Total.....	144 " "

The above statement shows the average yield of the salmon-fishery during five years, viz : from 1852 until 1856.

HERRING FISHERY.

The herring fishery on the coast of the Bay of Chaleurs between Magoucha Point and Carleton, had not been very successful.

At Maria and New Richmond the fishing had been very good.

There is also an autumn herring fishery on this part of the Gaspé coast, but for some years back the produce of this fishery has been very small.

There were during the present year, 10,000 barrels of herring exported from the different stations which I have just mentioned; of this quantity, 7,000 barrels were sent to the United States.

The quantity of cod taken in the Bays of Carleton and New Richmond is small.

Agriculture continues sensibly to progress on the shores of the Bay of Chaleurs and of the River Ristigouche.

The present year's harvest was very fine.

The inhabitants were all pleased to learn that the Government intend to cause a road to be opened on the Metapédiac River, in order to open communication between the settlements on the River Ristigouche and those on the St. Lawrence.

Parties who had visited that part of the County of Bonaventure, told me that on the banks of the River Metapédiac, there is a large extent of level country, covered with timber of the first quality, and very well adapted for cultivation.

I have no doubt that when once this road shall have been completed, a few years will see agricultural settlements established throughout its whole length, so as to form a link between the parishes below Quebec and those in the District of Gaspé.

This new road by way of the River Metapédiac is much required, as the existing road between the River Ristigouche and the St. Lawrence, known as the Kempt Road, was made through a mountainous country in which there are no settlers, and in which it is therefore impossible to keep roads in repair. During the autumn and part of the winter, it is almost impossible to travel over it except on foot. The soil on this road is in general poor or difficult to cultivate, and there can be but little reason to hope that it will be settled.

On the 25th, I went to visit the mission on the Ristigouche River.

I had the pleasure of meeting Mr. J. Fraser, the missionary of the Indian village, and several of the respectable inhabitants, who assured me that tranquillity and order prevailed everywhere on that part of the coast.

On the 27th, I returned to Carleton and on the same day went to New Richmond. There I had the pleasure of meeting Dr. Thornton and Mr. Montgomery.

With the latter gentleman I visited both the Rivers Cascapédiac, and obtained the following information:

The Great Cascapédiac River, which runs into the bay of the same name, is about a quarter of a mile in width at its mouth, and is of very great length. Canoes and even flat bottomed boats can ascend it to a distance of 120 miles from the sea.

This river was formerly well stocked with fish, and until within the last few years it produced from 150 to 200 barrels of salmon yearly. In 1856 it produced 50 barrels and in 1857 a little less than that number.

The salmon taken in the Great Cascapédiac River are the largest taken on our coasts. They are frequently found to weigh 45 or 50 pounds. The average weight is about 22 pounds. The river is also well stocked with trout of fine quality, weighing from 1 to 8 pounds.

Several of the settlers on the banks of the river are given to the destructive practice of going, in the month of September, to the place (sometimes 40 or 50 miles from the mouth of the river) where the fish remain to spawn, there to take them with the net or with spears.

This practice of destroying the fish at the moment when they are about to accomplish the important act of reproduction, accounts for the great falling off in the quantity of salmon in the Cascapédiac River, and in all the other Canadian rivers resorted to by that fish.

The Indians are also in the habit of going up the river in the autumn in their bark canoes, and destroying large number of salmon by torchlight with their *vigogs*..

I was told that they did not go up this year, as the quantity of fish in the river was too small to give a prospect of success.

I am of opinion that as soon as the Fishery Act shall have been distributed among the magistrates and other persons interested in the preservation of the salmon, it will be easy to prevent, in great part, the destruction of this valuable fish, especially if the Government shall authorise the magistrate in command of the Government Schooner to station one or two of his men at the places where infractions of the law are most likely to occur, in order that the guilty parties may be taken in the act, and punished as an example to others.

The lesser Cascapédiac river, which enters the bay of the same name one mile to the east of the Great Cascapédiac, contains no salmon, but is full of trout.

There are no large fishing establishments on Cascapédiac Bay, nor on that of New Richmond, the inhabitants are altogether taken up with the cultivation of the soil, which is very rich.

The agricultural settlements extend up the Great Cascapédiac to a distance of fifteen miles from its mouth; but the absence of roads has hitherto prevented the people from settling in the interior, where the land is level, rich, and covered with the very best of timber.

Those who venture to take up lots at a distance from the high road, find it extremely difficult and often impossible, to bring their spare produce to a market.

For many years back there has been a large lumber business carried on at New Richmond. The square timber and deals go to England, the pine boards to Newfoundland and the shingles to Halifax.

There were formerly a large number of vessels built every year at New Richmond, most of them at the late Mr. Cuthbert's establishment. This branch of industry has been in great part abandoned, owing to the scarcity of timber in the vicinity, and especially to the low prices prevailing at Liverpool and other English ports to which the vessels were sent to be sold.

However there are about five or six schooners built there every year for the fisheries and the coasting trade.

New Richmond will certainly become a place of importance within a few years, provided roads be opened by Government, so as to enable settlers to reach the interior of the country, where the lands are much richer than those in the vicinity of the coast.

In addition to a large tract of level country, capable of supporting a numerous population, either from the produce of the forest or the cultivation of the soil, New Richmond has also the advantage of a good harbour, in which vessels of the largest burden can find safe shelter at any time and in any wind.

The population of New Richmond is chiefly composed of Scotch settlers, who are said to be good farmers.

On the 29th, I proceeded to New Carlisle, and thence to Paspébiac, where I found seven vessels loading dry cod, for Brazil, Spain and Italy, and a number of schooners preparing to start for Quebec with salt fish.

On the 30th, I visited the establishments at Port Daniel.

Mr. McPherson, the custom-house officer of the port, gave me the following information concerning the fisheries carried on on that part of the coast.

There are about 100 boats owned in the township of Port Daniel, which includes l'Anse aux Gascons, l'Anse à la Barbe, Port Daniel and Point Loup-Marin. These boats are from eighteen to twenty feet in length, and carry two men each.

Nearly 2,000 barrels of herring were taken this year at Port Daniel, the first instance of so large a quantity being caught. The capelan did not make its appearance on the coast, and the cod fishery was rather less successful than ordinary. About a hundred and fifty schooners belonging to the United States, had at different times during the season gone into Port Daniel. Mr. McPherson and the inhabitants of the coast had no complaints to make of the crews of those vessels.

The rivers which fall into Port Daniel had yielded about 60 barrels of salmon.

In the afternoon, I landed at Grand River, and the following day, 1st October, anchored at Percé. They lamented the bad weather they had had on that part of the coast, which had often prevented the boats from proceeding to the fishing-grounds.

That afternoon I proceeded to l'Anse du Cap, where lay the brigantine "Belinda," loading with cod for Spain. The cod fishery had been good at l'Anse du Cap and on the neighboring coast.

I returned to Percé in the evening.

On the next day, I visited the establishments at Point St. Pierre, and proceeded to Gaspé Basin in the course of the night. In the port were three brigantines and several schooners.

The brig "Ste. Anne," belonging to Mr. John Le Boutillier, was ready to sail for Civita-Vecchia with a cargo of 3,000 quintals of dry cod of the first quality.

The mackerel fishery carried on as usual in the bay of Gaspé by the inhabitants, had been tolerably successful. The cod fishery off Douglas Town had not been productive, but, to make amends, the fishermen of the place, who had gone to the north shore of the gulf had had great success.

Mr. Shaw's saw-mill had been in operation till the end of March, and the lumber turned out, which must contribute much to the prosperity of Gaspé Basin, had furnished cargoes to seven ships bound for different English ports.

On the 4th October, in the evening, Captain Vibert, of the brig "Ste. Anne," applied for my assistance to effect the arrest of a man of his crew, who had deserted with a boat belonging to his vessel. I immediately despatched the master in my boat, and he succeeded, after a fatiguing chase, in bringing the runaway on board.

On the 5th, we left Gaspé Basin, and shaped our course down the River St. Lawrence.

I visited the Peninsula and l'Anse aux Griffons.

On the 6th I put in at Fox River. On the 8th I landed at Grand Etang; and on the 10th in the afternoon, notwithstanding a strong gale, we made the River Magdalen.

At Grand Etang, I visited and examined with much attention the distilling apparatus in Mr. L'Espérance's manufactory of cod liver oil for medical purposes, and I must express my admiration of the minute attention to cleanliness with which every part of the process is conducted. I do not hesitate to recommend the oil produced there as the best which can be made.

The American schooner which had been fishing for mackerel off the Magdalen, had filled only 50 barrels.

I settled a dispute which had arisen between two of the inhabitants of the place; and on the 12th, we weighed anchor to return to Percé.

The autumn cod fishery had had generally but moderate success on all the coast from L'Anse aux Griffons to the River Magdalen. This arose from no deficiency of the cod: the fish was abundant on all the fishing grounds, but from the scarcity of the bait, of which the supply was insufficient throughout the season. There was abundance of herring near the shores, but so small that it could not be taken with the ordinary net. I have seen fishermen come from L'Anse aux Griffons to the Bay of Gaspé in search of shell fish to bait their lines, not being able to procure any fish which might be used as a bait for cod. This was the case at point St. Pierre, where I stopped on the 12th. At Malbaie, a small fish called a shrub was used as bait, being found in great numbers in the River du Barachois, at the head of the bay. The smelt also abounds in that river.

On the same day, I arrived at Percé.

On the 13th, I visited the fishing establishments at the Island of Bonaventure, the chief of which belongs to the house of LeBoutillier and Brothers. They had one seventh less fish than last year. The island has 14 resident inhabitants, who employ forty fishing boats, but during the season there have been as many as one hundred, the neighbouring fishing grounds being accounted good. All was peaceable and quiet on the coast, and there were but few foreign vessels.

On the 14th, at 6 A.M., we sailed for the Magdalen Islands. The wind was at first fair, but on the next and following days, it came round in our teeth, and we did not reach Amherst Harbor, after much tacking, till the evening of the 16th. As this was the last visit which I was to make to the Magdalen Islands in the season, I made a point of seeing, not only the public officers and the principal inhabitants of Amherst Island, but also those of Grindstone and Allright Islands, and obtained from them the following information:—

There had been two wrecks on the coast of the Magdalen Islands: one of a schooner, which had been abandoned by her crew near Coffin Island; the other of an English brig, which had struck near the eastern point of the Island. No life was lost in either, and a large part of the sails and cordage was saved from both.

The several fisheries carried on at the islands had all been successful. Of the seal fishing, I have already spoken at the commencement of the present Report. The cod fishery had been very good everywhere, and the fish were fine in quality. The boats resorting to the fishing grounds still come back, late as it is in the season, almost always well loaded.

Mr. Alexis Painchaud, the proprietor of two fishing establishments, and well known in the country for his enterprising character and success in the fish trade, had despatched six cargoes of dry cod to Halifax, and several others of green cod, herring, and mackerel, to Quebec and Montreal.

Mr. Johnson, a merchant at House Harbor, shipped to Halifax several thousand gallons of seal oil and a large quantity of dry cod, herring, and mackerel.

An American house, established at Amherst Harbor three years ago, have made purchases of several thousand quintals of large cod for the markets of the United States.

The fishing schooners belonging to the Magdalen Islands had sailed, shortly before, with full cargoes of various kinds of fish, some for Halifax, others for Quebec and Montreal.

I feel assured that if fish maintains the prices of the last and preceding autumns, our fishermen will make larger profits than their calling has ever before yielded them. It is to be feared, however, that the large supplies arriving simultaneously at market, may have the effect of lowering the price, for some time at least, and that our people will suffer accordingly, as they are obliged to make sales of their produce without delay, in order to return home before the close of the navigation.

The produce of the season to vessels belonging to House Harbor, was, for 12 schooners, 4,800 quintals of cod; for 15 schooners, 3,060 barrels of Labrador herring; and the people residing on the shore of the bay took about 800 barrels of mackerel.

I was unable, for want of time, to procure a similar statement from the fishermen of the whole coast, but the custom house returns will show the quantity of each kind exported; and those returns would be further increased by the consumption of the population of the islands, in number about 5,000 persons, which will probably add 2,000 quintals of cod, and 5,000 barrels of herring to the account.

The population of the Magdalen Islands are in the enjoyment of a degree of prosperity which they never attained before in many years. The only drawback is the agitation produced among them by the changes which Admiral Coffin, the proprietor of the islands, contemplates making in the mode of tenure. But for this, they would be perfectly happy. Agriculture, which had till lately been quite neglected, has begun to be of important service to the people. The harvest this year was most abundant. All kinds of grain yielded well and ripened perfectly, and the potato was particularly prosperous and abundant. A schooner left the islands for the United States, with a cargo of grain and potatoes, the first example of such an incident in exportation.

In 1852, the whole produce of the islands in grain and vegetables would not have sufficed to feed a tenth of the population. Facts like these need no comment.

For two years past I have made efforts, aided by several energetic inhabitants of Amherst Island, and the islands of House Harbor, to establish an Agricultural Society in the Magdalen Islands, but without success. Next year, I hope for better things. The chief object of such a society ought to be the procuring of good seed grain, and animals of improved breeds.

The inhabitants have had no complaint to make of the foreign fishermen, who come to fish in the bay and on the coast, to the number of several thousands; except a single case of assault and battery, mentioned already in this report, peace and good order prevailed universally. Our own fishermen pursued their avocations without fear of interruption or molestation.

On the 20th, having received on board the Government weights and measures for the purpose of conveying them to Mr. John Fraser of New Carlisle, the inspector of the Revenue for the County of Bonaventure, I gave orders to make sail for Paspébiac. The anchor was weighed at 3, P. M. We had a favorable breeze from the S. E., and passed the east point of the islands; but, while still only 25 miles from Isle Bryon, it fell calm, and so continued through the night.

On the 21st and 22nd the wind was N. W., that is, right in our teeth, but we kept our course. On the 23rd we saw land off Shippagan, and in the morning of the 24th came to anchor in the roadstead of Paspébiac. There were still seven vessels there taking in cargoes of dry and green cod. Twenty had sailed with fish for Brazil, Spain, and Italy. The importance of the trade carried on by the commercial houses on the coast of Gaspé, and particularly at Paspébiac will be conceived by a perusal of the following letter addressed to me by Mr. Alfred Carcaux, representing the house of LeBoutillier & Brothers:

PASPEBIAC, 24th October, 1857.

P. Fortin, Esq.,

Captain, Schooner "La Canadienne."

Sir.—As it is important that you should, in your position, have full information respecting the amount of business transacted in this section of the country, I regret that it is not in my power to furnish you with more ample information concerning that carried on by the house represented by me in Canada.

I furnish you, however, with a statement which will I trust, assist you in drawing up a report of this part of the country, and shewing it to be more important than it is thought to be.

I may be permitted to suggest the necessity of erecting a small lighthouse on the point of Sandy Beach at Paspébiac, which you must have had difficulty in weathering, when you came into the harbor, in the night. Vessels going to the Bay can get in with safety. Fishing boats will be greatly benefited by it.

The fishery has this year exceeded 20,000 quintals of fish.

Our cargoes this year have been as follows :

	Fish.	Oil.	Herring.	Green Fish.
For Brazil.....	5000 tubs.			
For the Mediterranean.....	12000 quintals.			
For England and Jersey.....	750 quintals.	80 tons.	1200 bls.	300
For Quebec.....	1000 quintals.			
	18750	80	12000	300

For Jersey, 60 tons of birch, 200 tons of pine, 400 of juniper, 50 juniper knees. We have this year employed 8 square rigged craft and 8 schooners ; and in our establishment 450 fishermen and curers.

The house of Robins carries on a still more considerable business, exporting in 1857 more than 30,000 quintals of cod, besides oil, and other fish.

The latter house also carries on ship-building, and now has on the stocks at Paspébiac, a brig of 280 tons, 112 feet keel, 23½ feet beam and 13½ feet depth of hold, and a schooner of 116 tons, 78½ feet keel, 18½ feet beam, and 8 feet depth of hold.

These two vessels are built with timber from the Bay of Chaleurs, under the skilful direction of Mr. Le Brun, and are in every respect genuine masterpieces of naval architecture.

I owe my warmest thanks to M. Briord, the general agent of the house of Robin & Co., at Paspébiac for his obliging attention and readiness in placing his workmen at my disposal, when the repairs of "La Canadienne" were required.

On the 25th, having settled all my business at Paspébiac and New Carlisle, I prepared to set sail for Percé and Quebec, but the wind having got up kept us in the roadstead eight days.

On the 28th, it blew a heavy gale from the North East, and on the 29th, there were on the roads, 29 vessels, one half of which, destined for Quebec, had been obliged to lie by.

Several others which had arrived in the night, had not been able to get in on account of the darkness. At such times it is, that the light at the point would be of great service, by shewing the point of the spit, which runs far out, and is dangerous.

It is proper to remark, that on all the coast of Gaspé in the Gulf, there are only two places in which vessels can take safe refuge in a gale of wind from the east ; Gaspé Basin and the roadstead at Paspébiac. The former is easily accessible in the darkest nights, by aid of the sounding-line ; but it is not so with the anchorage at Paspébiac, where the coasts have no distinguishing feature, and even the lead cannot be trusted.

A wooden lighthouse, similar to those on the River St. Lawrence, between Quebec and Montreal, twenty feet high and shewing a red light to distinguish it from the lights in the houses and on the vessels, would be amply sufficient for the point at Paspébiac, and would be of the greatest service to our mariners and fishermen.

Colored lights ought also to be placed at various dangerous points on the coast, where our fishermen, obliged to land at night, are frequently in great peril. These might give notice of the rocks, banks and reefs, which here line the coast. Particularly I would invite the attention of the government to that point, where the establishment of the house of Robin is situated. Here, or at the entrance of the River, a light is much needed by the fishermen driven homewards by stress of weather from the banks, to guide them to the mouth of the Grand River, which affords the only safe shelter on that part of the coast.

The buildings for these lights might be very inexpensive, seeing that the material for constructing them is found on the spot.

On 1st November there was a change of wind, and we weighed anchor, making for Percé, where we arrived on the 2nd at 9 A. M. Here I visited the principal fishing establishments, and found every thing quiet and orderly. The fall-fishery had not been productive, the frequent gales from the offing having prevented the boats from proceeding to the fishing grounds.

On the 3rd I visited Point St. Pierre, where a vessel had been wrecked, the "Lady of the Lake" of Aberdeen, Captain George Urquhart, from Fleetwood to Quebec, in ballast. She had gone ashore during the night of 29th October, during a heavy gale from the East. The crew were saved with great difficulty.

During the same gale, three schooners at anchor in Malbaie went ashore, but can be get off.

On the 4th, in the morning, we anchored in Gaspé Basin, where we found a bark, three brigs and six schooners, loading with dry and green cod for Quebec and foreign markets. All was orderly as on the neighboring coast.

Mr. John LeBoutillier informed me that the whalers of the Basin and neighborhood who had been to the fishery with the same number of vessels as last year in the Gulf and the Straits of Bellisle, had had as good success as in any former year, and their profits were greater because oil brought a very high price.

In the afternoon, I gave orders to make sail for Quebec, intending to touch at several points of Anticosti. The fisheries were nearly all concluded, the season was far advanced, and the vessels going to Quebec were mostly on their way.

On the 5th, I landed at the South West point of Anticosti, where there is a lighthouse. Mr. Pope, the keeper, informed me that the only wrecks which had occurred in the season to his knowledge were those of a bark near Ellis Bay, and of a Canadian schooner off the River Jupiter. The property on board was saved in both cases.

Mr. Corbett, the lessee of the island of Anticosti, informed me that the salmon fishery had failed almost completely, in all the rivers of the island. In one of them where he formerly took 30 barrels of salmon, he had, in the season then closed, taken no more than three. He was unable to account for this great falling off in so important an article, but referred it to some general cause which has diminished the numbers of the fish on all the shores of the Gulf of St. Lawrence.

I visited the light-house, which was in excellent order; and at 3 o'clock P. M., embarked for Quebec.

On the 6th, heavy snow fell, drifted by a strong gale from the S. E.

On the 7th, we passed the light-house at Pointe des Monts at 1 in the afternoon; and on the 8th, having taken a pilot at 9 o'clock A. M., off the Pilgrims, came to anchor at 5 o'clock P. M. in the harbor of Quebec.

(Signed,) P. FORTIN,

Magistrate commanding the Government Schooner "La Canadienne."

THE NORTH SHORE OF THE RIVER AND GULF OF ST. LAWRENCE.

The entire north shore of the River and Gulf of St. Lawrence belongs to Canada, as also a part of the coast of Labrador adjoining the strait of Belle Isle.

This length of coast, extending not less than _____ miles, is divided into three parts, viz. :—

The King's Posts, lying between the Seigniory of Portneuf and Cape Cormorant, a distance of _____

The Seigniory of Terra Firma of Mingan, commencing at Cape Cormorant and extending to the River Goynish or Agwanus.

And the coast properly called the Labrador Coast, including all the distance from the River Goynish to the frontier line of Canada in the Straits of Belle Isle at l'Anse aux Blancs Sablons.

The King's Posts have been leased to the Hudson's Bay Company for many years. The Company had formerly an exclusive right of hunting and fishing; they now enjoy only the right which is common to Her Majesty's subjects. Since the passing of the law which permits every British subject to take possession of any portion of a beach which is unoccupied, a great number of fishermen from the Bay of Chaleurs and the coast of Gaspé have made establishments, at various points about the King's Posts and in the Seigniory of Mingan, for the purpose of profiting by the immense natural wealth of the adjacent sea, wealth which had till then remained untouched, almost unknown, the Hudson's Bay Company caring for nothing but the salmon fishery, and the trade with the Indians.

Thus, while a part of the coast stretching from the Seigniory of Mingan to the Canadian frontier, was already comparatively well settled, the shores of the King's Posts and of the seigniory contained but a few settlements, all of which belonged to the Company.

This latter part of the coast, nevertheless, presented as many advantages for all kinds of fisheries as the former.

But the law was no sooner passed than many fishermen hastened thither, and founded permanent fishing settlements.

At the present time, the experience of four years has convinced our fishermen that in no part of the gulf is there a spot where fish of all kinds are to be found in greater quantity, than on this part of the coast north of the River and Gulf St. Lawrence, stretching from Pointe des Monts to Natastiquan inclusive; and the time is not far distant when we shall see here fishing settlements of as great importance, and conducted on the same footing, as those on the shores of Gaspé.

In my report last year, I gave information concerning one or two of the most important fishing stations in this part of the gulf, not having had time to visit them all.

This year I have visited a greater number, and I have obtained the most exact information concerning the places I have not been able to reach.

I shall therefore affix to my report a statement showing the situation of the fishing settlements on the coast of the King's Posts, their number, inhabitants, &c.

I will add a similar statement for the settlements situated in the Seigniory of Mingan, and that part of Labrador which belongs to Canada.

THE RIVER GODBOUT.

The River Godbout, which falls into the St. Lawrence about 220 miles from Quebec, is in the possession of the Hudson Bay Company, who have a post there for trading and salmon fishing.

I was told that last year several Gaspé fishermen came to try the salmon fishing here, along the coast near the mouth of the river, but without much success.

To the east of the river, we find a large sandy cove, where small vessels find anchorage and shelter in gales from the west.

For an extent of several miles along the banks of this river, especially on the eastern side, there is a great deal of wood, chiefly tamarack, pine and white birch.

There is no land well fitted for agriculture in the neighbourhood of the River Godbout.

During the autumn, cod abounds in the place, and vessels from Quebec and the neighbourhood, which may have been to Labrador for the purpose of fishing, might here complete their cargo.

Mackerel is also sometimes found here in great quantity.

This year, the captain of an American schooner took at a single haul of the net, near the cove, mackerel enough to fill four hundred barrels.

Several Canadian schooners also have fished for cod and mackerel near the River Godbout with tolerable success.

The salmon fishery in the river yields about forty barrels.

RIVER TRINITY.

The River Trinity falls into the River St. Lawrence at Trinity Bay, 6 miles to the eastward of Pointe au Mont, and 233 miles from Quebec.

It is not navigable, any more than the River Godbout.

The Hudson's Bay Company have not any trading post there, but the chief of the Godbout post sends fishermen there, who take about 30 barrels of salmon.

Besides, the owner of a settlement situated on Trinity Point, lays his nets along the coast, near the mouth of the river, and takes about 20 barrels of salmon every year.

I was told that this river was much more frequented by fish than formerly.

Trinity Bay affords good shelter to vessels of all sizes from the west wind; and vessels ascending the river frequently run thither for safety.

Outside the Bay, there are very good fishing grounds for cod, where the little Canadian schooners often obtain good cargoes of autumn cod.

THE CAWEE ISLANDS.

The Cawee Islands are situated near the coast between Trinity Bay and that of the Seven Islands, and afford to vessels excellent anchorage and shelter from all winds.

This circumstance, as well as the number of fish caught in the neighbourhood, induces our fishermen to go and settle there.

For some years since, more than a hundred fishermen from the Bay of Chaleurs, with 40 fishing boats have made, on the Cawee Islands and the adjoining coast, fishing settlements where more than 5,000 quintals of cod have been prepared.

I was told that a dozen families, engaged in salmon, trout, and cod-fishing, and in hunting animals yielding peltry in winter, had settled on the banks of the Pentecost and St. Margaret Rivers, as well as in many other places advantageous for fishing.

THE BAY OF SEVEN ISLANDS.

The Bay of Seven Islands, one of the finest in America, is two miles and three quarters in width by three miles deep.

Six Islands between which are several channels accessible by vessels of the largest tonnage, protect it from the storms which prevail outside.

The whole English Navy might anchor there in perfect security.

At the extremity of the Bay, the Hudson's Bay Company have a trading post, where one hundred Indian families of the Montagnais tribe congregate every spring.

Last year several fishing settlements were made on the coast of the Bay; of these the most important is that of Mr. Clarence Hamilton of New Carlisle.

Mr. Hamilton gives employment to thirty men and twelve boats.

The other establishments employ about twenty men and eight vessels.

All these boats together take about 2500 quintals of cod, some of which is sent to foreign markets, and the remainder to Quebec.

There have been taken besides by our fishermen in the Bay, more than two hundred barrels of mackerel.

Several fishermen intend next year to settle on one of the islands at the entrance of the Bay; they will there be nearer to the fishing banks, where the cod is usually found in summer.

Herring usually enter the Bay in the spring, and approach the shore to spawn.

Sardines of a fine quality are also found.

In the months of July, August and September, we find mackerel in tolerably large shoals in the vicinity of the Bay and even in the Bay itself, and United States schooners are always to be seen taking these fish with seines.

For some reason which cannot be satisfactorily explained, the mackerel does not generally speaking, bite well on the north shore, while on the south shore, at the Magdalen Islands and on the coast of Prince Edward's Island and of New Brunswick, they are nearly always caught with a hook and line.

At a distance of about twelve miles from the Bay of Seven Islands we find the River Moisie, of which I have already spoken in my report, and ten miles further there is another river of no very great size, where Mr. Chisholm, a former employé of the Hudson's Bay Company, has settled with his family. He passes his time in salmon and trout fishing, and in hunting animals yielding furs.

From the latter river to Shallop River, there is no fishing settlement, the different kinds of fish frequenting the gulf not approaching this part of the coast, as there are no banks with bottoms fit for spawning.

The distance from Moisie River to Shallop River is about thirty-six miles.

Fishing settlements belonging to Messrs. Philip Vibert, Savage, and Segras, and to Philip Mabee and Brothers, from the coast of Gaspé, were made in 1856 on the Shallop River, and on a cove situated a few miles to the eastward of it; and twelve fishing boats manned by thirty hands took 1800 quintals of cod and 200 barrels of other fish.

SHELDRAKE OR SANDBILL RIVER.

Sheldrake River is the part of the coast of Mingan Seigniory, where the fishermen have settled in the greatest number on account of the great quantity of different kinds of fish to be found on the banks situated opposite at but a short distance from the shore, and especially on account of the ease with which they can erect their scaffolding at the edge of the basin formed by the river, where their vessels are well sheltered, and are always afloat.

The following is a list of the settlements at Shelldrake which I have already given in my last year's Report.

This year the same settlements remain, but there are not quite so many vessels.

1	Establishment	belonging to	Alfred Mounsell.
2	do	do	to John Lebrun.
3	do	do	to John Ross.
4	do	do	to Philip Touzel.
5	do	do	to Jet Elias Callas.
6	do	do	to René Devouche.
7	do	do	to Philip LeGresley.

Thirty fishing boats belonging to these settlements, in which nearly 100 men were employed, took about 4,590 quintals of cod, and some hundreds of barrels of mackerel.

THUNDER RIVER.

About five miles East of the preceding river, we come to Thunder River, where we find the following establishments :

On the Eastern bank.

1.	Establishment	belonging to	John Howell.
2.	do	do	to Stephen Wells.
2.	do	do	to James Cumming.

On the Western bank.

1.	Establishment	belonging to	Lawrence Kennedy.
2.	do	do	to John Toucel.

The number of men employed at these fishing establishments is 40, with 13 fishing boats ; we may estimate the quantity of cod taken at 2,000 quintals and of mackerel at 100 barrels.

MAGPIE BAY

George Ennis, who employs 18 men and 5 boats, and William Malony, who gives employment to 6 men and 2 fishing boats, have settled in a Cove situated in the West part of Magpie Bay, called Magpie Hill Cove.

These two establishments produce 1,000 quintals of cod.

About the centre of Magpie Bay we find a Cove pretty well sheltered from the winds where the following fishing establishments are situated :

1.	Establishment,	John Duguay,	12 men,	4 boats,	600 quintals of cod.
2.	do	John Ferlat,	16 men,	4 boats,	800 do do.
3.	do	John Hart,	9 men,	3 boats,	460 do do.
4.	do	Pascal Gloger,	18 men,	4 boats,	800 do do.
5.	do	Louis Roussy,	4 men,	1 boat,	150 do do.
			59	16	2810

At the mouth of Magpie River, Mr John Ross has settled, who employs 20 men and 6 boats. The produce of his fishery is about 1,000 quintals of cod.

Mr. Jean Girard fishes for salmon in Magpie River, where he caught 35 barrels of these fish.

Eight miles East from Magpie Bay is the St. John River, which I have already mentioned in my Report; and 15 miles further still, are Mingan Harbour and Mingan River, which latter falls into the Gulf of St. Lawrence, opposite the Eastern entrance of the Harbour.

The Hudson's Bay Company, who hold the Seigniorship of Mingan have a trading post at the Harbour, where they transact a considerable amount of business. From 80 to 100 families of Montagnais Indians go there every spring to sell to the Company the peltries produced by their hunting.

In exchange they receive arms, gunpowder, goods, provisions, etc.

During the summer the Indians are engaged in seal fishing on the neighbouring coast, on the Mingan Islands and on the Island of Anticosti, and it is not until the month of September that they are supplied from the Company's storehouses with all that they require, and set out for the interior of the country.

Mingan harbour, as I have already said, is one of the best on the coast, and it has this advantage, that it is accessible both in an east and in a west wind.

Vessels fishing on the bar of the St. John always come hither for shelter during storms.

At about 18 miles from Mingan harbour, is Esquimaux harbour, where two families of fishermen from the Magdalen Island went to settle last year for the cod and seal fishery and to hunt animals yielding furs in winter. And if the place turns out well, other families intend to go and join the first, and form a considerable settlement.

Between Esquimaux Harbour and Natashquan (a distance of 67 miles) we find several inconsiderable rivers, but tolerably well stocked with fish, where several families, who live by fishing and hunting, have settled. These are: the Whatsheshov River, where two families have settled; the Napitippi River, and the Goynish or Agwonus River, on which there are two families, one to each river.

NATASHQUAN.

Natashquan is one of the most important places on the North coast of the Gulf of St. Lawrence, on account of the river of the same name which abounds with salmon of the finest kind, and its fishing banks, where in the months of May, June, and July, the fishermen hardly ever fail to find a large quantity of cod.

With all these advantages is combined a harbour easy of access and very safe for fishing boats. Accordingly the place is much frequented. It is here that the schooners, going to fish on the north shore for cod, commence their operations. In the month of June it is by no means rare to see in Natashquan harbour fifty schooners, the crews of which amounting to nearly five hundred men, go only a few miles from the shore to collect a plentiful harvest, which fully recompenses them for the rough labour to which they submit, and for the dangers to which they are often exposed.

As the fish make their appearance at Natashquan sooner than on the other parts of the northern coast, it is of great advantage to go there. For if the fishing is not productive at that place, there will still be time to go elsewhere, either westward, or to the coast in the Straits of Belleisle, where there are also good fishing grounds, and where the fish appear later than at Natashquan.

I would advise the captains of fishing schooners, either from Quebec or from the lower ports, to go at once to Natashquan about the middle of May, and to try the fishing there, till the end of June. If the fish is then wanting, they should immediately go to Salmon Bay, to Bradore, or to White Sand Cove, where cod is nearly always found in abundance in the months of July and August.

If these places are no' satisfactory, there is still time to go to Pieds Noirs, and to the Modest Islands, where there are excellent fishing grounds.

As soon as cod-fishing was over, the herring-fishery might be proceeded with, those fish appearing in these latitudes, about the middle of August.

It frequently happens at Natashquan that the cod appear about the middle of June, and remain there during the whole season. In that case, the fishing boats might take their entire cargoes from thence.

These advantages for fishing, presented by Natashquan, have induced several families from the Magdalen Islands to go and settle there. Last year they numbered eight families, this year there are fourteen, making in all a population of one hundred and twenty persons.

The 16 fishing boats used by them have taken about 1,700 quintals of cod besides some barrels of mackerel.

I have already mentioned in my report how successful Mr. H. Vignault had been in his seal-fishing last spring.

If the fishery at Natashquan continues as productive as it has hitherto been, I have no doubt that there will be formed there very considerable fishing establishments, around which will collect as numerous a population of fishermen as there are on the coast of Gaspé.

I know that the Messrs De la Porelle, formerly agents for the Messrs Robin, intend to go and open an establishment there next year on a large scale.

REGASCA BAY.

Regasca Bay, which is easy of access and can afford a safe anchorage during the summer to vessels of all sizes, is situated 15 miles to the east of Natashquan.

Outside of this Bay is the continuation of the Natashquan fishing banks, where the fishermen often go in the autumn to take a very large and fat fish.

Eight families making altogether a population of 27 persons, have settled at Regasca Bay. They have each a fishing boat and live entirely by the cod-fishery, which this year yielded them only about 400 quintals, on account of the scarcity of fish in the vicinity of the Bay.

MUSQUANO RIVER.

The Musquano River falls into the Gulf of St. Lawrence, $4\frac{1}{2}$ miles east of Regasca Bay.

It is occupied by the Hudson's Bay Company's fishermen, who obtain 30 barrels of salmon from it every year.

This is an inconsiderable river, and affords shelter to none but small craft.

ALOMONOSHEBO RIVER.

The Alomonoshebo or Roman River falls into the Gulf of St. Lawrence about 18 miles east of the preceding.

It is equally inconsiderable, and is occupied by the Hudson's Bay Company. The annual product of this river hardly exceeds fifteen barrels of salmon.

COACOACHO RIVER.

The Coacoacho River empties itself a few miles to the westward of Cape Whittle in Coacoacho Bay, the only point on this part of the coast where vessels of heavy tonnage can find a secure shelter.

The salmon fishery in this river is worked by Mr. Augustin Boulanger, who has lived there for several years.

The Hudson Bay Company formerly had a trading post there.

The annual product of the fishery is about 30 barrels of salmon.

MATCHIATICK ISLANDS.

Three families engaged in the salmon and seal fishery have settled on the Matchiatick Islands.

Their income may be estimated at 150 seals and 10 barrels of fish.

They devote themselves to the hunting of the fur-bearing animals during the winter.

ETOMOMU RIVER.

The Etomomu River, the current of which is very rapid, falls into the Gulf of St. Lawrence 4 miles north east of Wapitigun Island.

It is occupied as a fishing station for salmon by Mr. Michel Blais.

No other person fishes in the river or in the neighborhood.

The annual product of the fishery is about 40 barrels of salmon.

Mr. Blais trades with the Indians, and is also engaged in the fur trade.

WATAGHEISTIC SOUND.

Two families, composed of eleven persons, have settled in this bay; they are engaged in the seal fishery, and in hunting animals yielding furs, the produce of which may be estimated at £300.

NETAGAMU RIVER.

The salmon does not run up the Netagamu River on account of the Nantem falls, which are 50 feet high, and are found a mile from its mouth.

One family, who have settled there, are engaged in the seal-fishing, and in hunting animals yielding furs.

Annual produce about £100.

LITTLE MECCATINA ISLAND.

On this island are settled five families, comprising in all twenty-six persons, engaged in the cod and seal-fishery and in hunting animals yielding furs.

The seal fishing-stations of Pointe au Pot and of Esquimaux Harbour formerly yielded a considerable produce; now, hardly enough is sold to pay the working expenses.

It may well be believed that the herds of seals do not frequent this part of the coast as they formerly did.

The fisheries of the island may produce annually the value of £400, including the peltry obtained in winter.

Two fishermen from Little Meccatina work a seal-fishery at Goelon Island. Product—30 seals.

WHALESHEAD ISLANDS.

On the western island, there is a permanent seal-fishery worked by Mr. Michel Kenty, who is also engaged in the cod and herring-fishery.

Produce—45 seals.
do 150 quintals of cod.
do 100 barrels of herring.

On the eastern island, there is a permanent seal-fishery belonging to Mr. Samuel Robinson of La Tabatière, and worked by Mr. Charles Bilodeau.

The annual produce of this place is from 200 to 300 seals.

This year, only 27 of these animals have been taken.

Population of the Whaleshead Islands—20 inhabitants.

SHEEP BAY RIVER.

This river, which is of considerable size, falls into Sheep Bay, and is occupied by Mr. Benjamin Reed for the sake of the salmon-fishery, which produces 30 barrels of salmon.

Population—10.

On the eastern shore of Sheep Bay, three families, have settled, consisting of 20 persons. They are engaged in the salmon, seal, and cod-fishery.

Produce—80 seals.
do 40 barrels of salmon.

In Schooner Bay and Red Bay, opposite Great Meccatina Island, there are five families established, numbering altogether 28 persons.

They are engaged in the seal and cod fisheries at Fish Harbour.

GREAT MECCATINA ISLAND.

Mr. François Levesque occupies a permanent seal fishery on this island which yields him every year from 250 to 350 of these animals. Population—6.

FISH HARBOUR [LA TABATIERE.]

The most important permanent seal fishery on all the coast is at Fish Harbour.

It belongs to Mr. Samuel Robinson and yields him annually from 500 to 1,500 seals.

Last autumn this fishery yielded only 60 seals, on account of the great cold which impeded the laying of the nets in a suitable manner. Mr. Robinson has always twenty men in his employment.

The fishing tackle, which consists of a great number of nets made of very strong twine known as seal-twine, of cordage, anchors, small craft, etc., etc., is worth from £1,000 to £1,500.

SALT LAKE.

Mr. Joseph Gallichon is the owner of a permanent seal fishery at Salt Lake, which yields him annually 150 of these animals.

KIKAPOE.

There is a permanent seal fishery belonging to James McKennon on one of the islands outside of Kikapoe, from which he obtains usually from 150 to 200 seals.

Last year, owing to the great cold, Mr. McKennon took only 40 of these animals.

KIKAPOE WHALESHEAD.

At this place there is a permanent seal fishery belonging to Mr. Jean Legouvé.
 Annual produce..... 200 seals.
 Last year's produce..... 14 “

ST. AUGUSTINE.

The brothers Andrew and Matthew Kennedy have permanent seal and salmon fisheries on the St. Augustine Islands, which usually yield them an annual return of 150 seals and 70 barrels of salmon.

This year they have collected only 40 seals and 10 barrels of salmon. Population, 20.

PORTAGE COVE, (NEAR CHICATACA.)

At Portage Cove, Mr. Philippe LeBrock owns a permanent seal fishery which usually yields him from 250 to 350 seals annually.

This fishery produced only 60 seals last year.

ROCKY BAY.

Mr. John Belvin is engaged in the salmon fishery at the head of Stony Bay. Produce, 25 barrels of salmon.

LEGROND HARBOUR.

Mr. Thomas Maurice has settled at Legrond Harbour and is engaged in the cod fishery.

He employs one boat.

Produce 100 quintals of cod.

DOG ISLAND.

Mr. Thomas Rule, who is established on Dog Island, is engaged in the seal and cod fishery.

Produce ; 60 seals and 90 quintals of cod.

OLD FORT ISLANDS.

Mr. Samuel Robin carries on the cod fishery at Old Fort Island, where he employs two vessels and four men.

Produce, 220 quintals of cod.

BURNT ISLANDS.

Mr. Leger Levesque, who has settled one of the Burnt Islands, is engaged in seal and cod fishing.

He employs two vessels and five men.

Produce ; 100 seals and 200 quintals of cod.

BATEAU HARBOUR.

William Parker is engaged in the cod fishery at Bateau Harbour.

Produce ; 100 quintals of cod.

ST. PAUL RIVER.

The St. Paul River, also called Esquimaux River, and Quitzaqui by the Indians, falls into the Gulf of St. Lawrence 640 miles from Quebec, and 25 miles on S. W. of Bradore Bay.

According to the Indians who go up it in bark canoes, its course is more than 300 miles, but for vessels it is only navigable as far as the first rapids, which are only six miles from its mouth.

The St. Paul River is in the seigniory of the same name, which was conceded to Amador Godefroix, Esquire, of St. Paul, on the 20th March, 1706, and comprises five leagues frontage on each bank of the river by ten deep.

This seigniory was sold by the Sheriff of Québec in 1807 to the Labrador Company.

Subsequently Messrs. Nathaniel and Philip Lloyd became the proprietors of it.

Mr. Philip Chevalier bought the salmon fishery post from these last, and gave it to his grandson Louis Chevalier, who is at present settled at the first rapids, and is engaged in the salmon fishery.

I was informed that the Messrs. Lloyd had taken as many as 1,400 barrels of salmon in one year, in the St. Paul River.

The present proprietor only takes about 80 barrels.

It is true that in the Lloyds' time, there were no settlements on the islands opposite the mouth of the river, while at present, four fishermen spread their nets in the channels between these islands.

HARBOUR OF GOOD HOPE.

The Harbour of Good Hope is one of the best on this part of the coast. It is accessible to ships of the heaviest tonnage.

Mr. John Godard has settled on Stick Point Island, and is engaged in salmon fishing, of which fish he takes from 10 to 20 barrels annually.

Mr. James Buckle is engaged in seal and cod-fishing on Godard's Island. Produce, 110 seals and 200 quintals of Cod.

Mr. Buckle employs 4 men and 2 fishing boats.

SALMON BAY.

On the Islands of Salmon Bay, there are five fishing settlements, of which the proprietors are:—Messrs. Louis Chevalier, William Kates, Darius Choaker, Joseph Taylor, and John Haywood.

Seven fishing boats and 18 men are employed at these fishing establishments.

They yield about 1,000 quintals of cod, and 20 barrels of salmon. Population—35.

FIVE LEAGUES.

Mr. John Griffin has settled at Five Leagues Cove. He is engaged in seal and cod fishing. He employs six men and three fishing boats. Produce 115 seals and 220 quintals cod.

MIDDLE BAY.

Peter Hatwood is engaged in cod fishing at Middle Bay, and takes 100 quintals of cod.

BELLES AMOURS.

At Belles Amours there is a good harbour for schooners. Mr. John Buckle who is established there, is engaged in seal and cod fishing. He employs two fishing boats and four men. Produce, 120 seals and 100 quintals cod.

BRADORE BAY AND ANSE AUX BLANCS SABLONS.

Canada extends on the Straits of Belleisle as far as Anse aux Blancs Sablons, at the head of which is the river which marks the line of separation between the part of Labrador belonging to Canada and that part which is under the jurisdiction of Newfoundland.

Pointe Amour, to the east of Forteau Bay, where the Canadian Government have constructed a first class lighthouse, is fifteen miles further; and Belleisle, where another lighthouse has been erected to point out to European vessels the entrance of the strait, is about 75 miles east of Anse aux Blancs Sablons, 14 miles from Quipon Island, and 12 miles from the coast of Labrador.

The navigation of this part of the strait is easy enough, so long as the weather allows the coast to be seen; but it becomes very dangerous on account of the currents, when the heavy fogs prevail, which are brought up by the south and south east winds, and sometimes last for weeks together.

Then it is that steam whistles or cannon placed near each lighthouse, and caused to be heard every quarter of an hour, or every half hour, would be a great help both to steam and sailing vessels which may have preferred this route to the southern one, and to the schooners which frequent the coast of Labrador to fish and to trade.

Anse aux Blancs Sablons is situated in $51^{\circ} 25'$ north latitude, and in $57^{\circ} 10'$ longitude west of Greenwich. It is about a mile in depth by a mile and three quarters wide.

Wood Island, on which are situated three considerable cod fishing establishments, and Green Island, at present uninhabited, out near which there are excellent fishing grounds, shelter it from the south east wind, while the mainland protects it from those from the east, north and north east winds.

The depth of water throughout the whole cove, ranges from 4 to 12 fathoms.

The anchorage is not of the best; however, hundreds of schooners might remain there in safety during the summer months, when the west winds are not high or of long duration. But in autumn it is dangerous to remain there, and vessels are often thrown on the shore by the great storms of wind from seaward.

At about a mile and a half from the head of the bay, is the little harbor of Gulch Cove, where two or three vessels, by mooring to the rocks, might pass the summer, and even the autumn in perfect safety.

Near the eastern part of Green Island, there is a fine sandy cove, where the fishing schooners sometimes anchor to be near the banks of cod, but the bottom is very bad. It was at this spot that twenty-nine fishing schooners were cast on shore in the month of July last, during a terrific storm from the east.

Long Point, outside of which run very dangerous reefs more than a mile in length, separates Anse aux Blancs Sablons from Ladies' Bay, where are two important permanent seal fisheries.

Parrot Island, which is at the entrance of the last named cove, is of no importance, as there is no sheltered spot where a fishing station might be made.

Advancing further, we enter the vast Bay of Bradore or Bras d'Or, so called, doubtless, on account of the great riches that the first navigators who visited it the Spaniards and French found there, in the shape of immense numbers of seals, whale, cod-banks, etc., etc.

It is about five miles deep by four wide, and contains a number of islands and islets, many of which are inhabited, and which form the basin of Bradore, where fifty schooners may find a very safe harbor, and Bradore Harbor, which affords shelter from all winds to vessels of the heaviest tonnage.

The seal fisheries long since established on Bradore Bay are very productive, especially that belonging to Mr. Randall Jones, which sometimes yields him more than 2,000 seals.

There are also cod fishing settlements here, but they are not on so large a scale as those of Anse aux Blancs Sablons.

On all the shores of the Gulf of St. Lawrence or of Newfoundland, there is no station so well stocked with fish as the one I have just described. For this reason fishermen from all the British Provinces and from the United States go thither in crowds; and nearly twenty vessels from the island of Jersey cross the ocean every year to engage in the cod fishery, which yields them great profits.

Anse aux Blancs Sablons and Bradore Bay were the first fishing grounds frequented by Europeans on the coast of Labrador.

When Jacques Cartier made his first voyage to the Gulf of St. Lawrence, the Basque fishermen were already in the habit of visiting these latitudes every year for the sake of the cod-fishery.

Before the cession of the territories of Hudson's Bay and Newfoundland to England by France, the French carried on an important fishery here.

At a later period, the inhabitants of the English Colonies in America came hither more especially to fish for the spermaceti whale, which at that time was found here in great abundance.

Fishermen from Jersey also formed fishing settlements which are still the most important in the place.

The following is a statement of the fishing establishments at Bradore Bay and Anse aux Blancs Sablons, showing their situation, occupants, revenue, &c., &c.

BRADORE BASIN.

On the largest of the islands forming Bradore Basin are established three families, consisting of 20 persons, who are engaged in the cod and herring fishery.

Produce 300 quintals of cod.

“ 150 barrels of herrings.

BRADORE BAY.

Mr. Louis Jones has a permanent seal-fishery at the head of Bradore Bay which yields him annually from 200 to 300 seals.

At Jones' point is situated the permanent fishery of Mr. Randall Jones, which is one of the most productive on the coast, and yields annually from 600 to 800 seals.

Mr. Jones is also engaged with his sons in the herring and cod-fishery.

Produce 200 quintals of cod.

“ 300 barrels of herrings.

Population—30 inhabitants.

ANSE DES DUNES.

Mr. Louis Labadie is owner of a seal fishing station here, which yields from 250 to 300 seals annually, besides which he takes 60 quintals of cod.

At Pointe à la Barque two of his sons are engaged at a sealing station which yields them from 50 to 80 seals every spring. The population is 18.

 LONG POINT.

Mr. Philip Le Brocq is owner of an excellent seal fishery station at Long Point, which yields him annually from 300 to 500 seals. Four families are settled a little higher up, and are engaged in fishing for salmon, seal, and cod. The population is 24. The produce of their fishing was 160 seals, 400 quintals of cod, 10 barrels of salmon, and 200 barrels of herring.

 PETIT HAVRE.

1. Cod fishing station belonging to Messrs Voutier and Lefebvre, employing 15 vessels and 45 men.

Produce of the fishery : 2200 quintals cod.

20 barrels oil.

200 barrels herring.

They are also owners of two vessels which carry their cod fish to Europe.

2. Cod fishing station belonging to captain Syvret employs nine boats and men.

Produce of the fishery 1400 quintals of cod.

“ “ 11 barrels of oil.

“ “ 100 barrels of herring.

Captain Syvret conveys his fish to Europe in his own vessel.

3. Captain Nicholson's fishery station.

He employs nine men and four fishing boats.

Produce of the fishery 400 quintals of cod.

“ “ 210 barrels of herring.

Captain Nicholson owns a schooner of 70 tons in which he sends his fish to New Brunswick.

 L'ANSE AUX BLANCS SABLONS.

POINT AU POT.

Mr. Martin Parent is owner at this place of a stationary seal fishery, which yields him, annually, from 160 to 300 seals, besides 25 barrels of herring.

Mr. Thomas Lavallée is owner of a cod fishing station, which yields 250 quintals of cod and 100 barrels of herring.

 FOND DE L'ANSE.

Mr. Phillip LeBrocq is owner of a cod fishery here in which he employs fourteen fishing boats and forty-five men.

The average yield is 1750 quintals of cod, 4 tons of oil and 350 barrels of herring.

Mr. LeBrocq owns a barque of 200 tons burthen in which he sends his fish to the European Market.

 WOOD ISLAND.

Messrs. Le Boutillier and Brothers own a flourishing fishing establishment here, which gives occupation to seventy men and nineteen boats.

Yield of the fishery 2400 quintals of cod.

“ “ 24 barrels of oil.

“ “ 250 barrels of herring.

South of Wood Island is a stationary seal fishery belonging to Messrs. Le Boutillier which brings them in from 150 to 200 seals annually.

Total population of the north coast from Godbout River to Anse aux Blancs Sablons, 1225.

The number of fishing vessels belonging to the inhabitants of the north-coast is 300.

Quantity of fish, &c., caught by the inhabitants of the north-coast :

Cod,	33,060 quintals at	\$3 per quintal	.....	\$99,180
Herring,	2,235 barrels at	\$4 per barrel	.....	8,940
Mackerel	700 " at	\$10 " "	.....	7,000
Salmon,	1,200 " at	\$18 " "	.....	21,600
Trout,	200 " at	\$10 " "	.....	2,000
Cod fish oil,	300 " at	\$30 " "	.....	9,000
Seals,	5,730 each worth	\$6	.....	34,380
Peltry	.....	.....	.....	4,000

\$186,100

I do not include in this statement the value of the furs which the Hudson's Bay Company purchase from the Indians of the different trading posts on that coast.

Those furs, consisting of Otter, Mink and Fox skins, are worth several thousand pounds.

STATEMENT showing the situation of the fishing stations on the South Shore of the River St. Lawrence, the number of Vessels employed, and the quantity and value of the fish taken, furnished by Mr. Michel Lespérance, owner of the fishing station at Grand Etang.

MONT LOUIS BAY.

Produce of 20 boats :

3000 quintals of cod,	worth	.....	\$9,000
20 barrels of mackerel	"	.....	240
100 " of herring	"	.....	300
50 " of halibut	"	.....	200
80 " of cod fish oil,	worth	.....	2,112

\$11,852

MAGDALEN RIVER.

Produce of 10 boats :

1500 quintals of cod,	worth	.....	\$4,500
20 barrels of mackerel	"	.....	240
50 " of herring	"	.....	150
100 " of halibut	"	.....	400
25 " of salmon	"	.....	400
25 " of trout	"	.....	250
40 " of cod fish oil,	worth	.....	1,056

\$6,996

GRANDE VALLÉE.

Produce of 32 boats :

4800 quintals of cod,	worth	\$14,400
200 barrels of herring	"	600
80 " of mackerel	"	960
100 " of halibut	"	400
25 " of trout	"	250
128 " of cod fish oil,	worth	3,379.20
		<hr/>
		\$19,989.20

CHLORYDORMA.

Produce of 16 boats :

2400 quintals of cod,	worth	\$7,200
20 barrels of mackerel	"	240
80 " of herring	"	240
30 " of halibut	"	120
64 " of cod fish oil,	worth	1,689.60
		<hr/>
		\$9,489.60

POINTE SÈCHE.

Produce of 12 boats :

1800 quintals of cod,	worth	\$5400
20 barrels of mackerel,	worth	240
60 do of herring,	do	180
30 do of halibut,	do	120
48 do of cod fish oil,	do	1267 20
		<hr/>
		\$7207 20

GRAND ETANG.

Produce of 22 boats :

3300 quintals of cod,	worth	\$9900
40 barrels of mackerel,	worth	480
100 do of herring,	do	300
25 do of halibut,	do	100
25 do of trout,	do	250
76 do of cod fish oil,	do	2006 40
24 do of cod liver oil,	worth	1584
		<hr/>
		\$14620 40

ANSE A VALEAU.

Produce of six boats :

1350 quintals of cod,	worth	\$4050
20 barrels of mackerel,	worth	240
50 do of herring,	do	150
20 do of halibut,	do	80
36 do of cod oil,	do	950 40
		<hr/>
		\$5470 40

PETIT CAP.

Produce of six boats :

900 quintals of cod, worth.....	\$2700
15 barrels of mackerel, worth.....	180
20 do of herring, do	60
30 do of halibut, do	120
24 do of cod oil, do	633 60
	<hr/>
	\$3963 60

LITTLE FOX RIVER.

Produce of ten boats :

1500 quintals of cod, worth.....	\$4500
40 barrels of mackerel, worth.....	480
86 do of herring, do	108
20 do of halibut, do	80
40 do of cod oil, do	1056
	<hr/>
	\$6224

GREAT FOX RIVER.

Produce of fifty boats :

7500 quintals of cod, worth.....	\$22500
70 casks of mackerel, worth.....	840
200 do of herring, do	600
40 do of halibut, do	160
200 do of cod oil, do	5280
	<hr/>
	\$29380

L'ANSE AUX GRIFFONS.

Produce of thirty boats :

4,500 quintals of cod, worth.....	\$13,500
70 do of mackerel, worth	840
100 do of herring, do	300
25 do of halibut, do	100
120 do of cod oil, do	3,168
	<hr/>
	\$17,908

ANSE A LA LOUISE.

Produce of ten boats :

1,500 quintals of cod, worth	\$4,500
30 barrels of mackerel, worth	360
20 do of herring, do	60
10 do of halibut, do	40
40 do of cod oil, do	1,056
	<hr/>
	\$6,016

CAP DES ROSIERS.

Produce of fifteen boats :

2,250 quintals of cod, worth	\$6,750
50 barrels of mackerel, worth	600
30 do of herring, do	90
15 do of halibut, do	69
60 do of cod oil, do	1,584
	<u>\$9,984</u>

Total number of fishing boats	242
Total quantity of codfish quintals	37,300
do herring barrels	1,046
do mackerel do	495
do salmon do	25
do halibut do	495
do codfish oil do	700
do trout do	75
Total value	\$148,830,40

I think it right to remark that I entertain the same opinion as Mr. L'Espérance and others who have visited the lower part of the River St. Lawrence : That if roads were opened between the different settlements, so as to enable the inhabitants to penetrate and settle in the interior of the country, we should shortly see the south shore of the river well settled, and the produce of the fisheries more than doubled.

TABLE shewing the value of the exports and imports, and amount of revenue at the three Canadian Ports in the Gulf of St. Lawrence.

Ports.	Year.	Exportation.	Importation.	Revenue.
GASPE.....	1855	\$153092	\$59608	\$4540
	1856	176712	63836	4504
	1857	188208	82432	7236
NEW CARLISLE	1855	\$139032	\$114320	\$8704
	1856	145884	118232	10112
	1857	181416	117876	9480
AMHERST.....	1855	\$61288	\$29600	\$1492
	1856	82952	84212	1368
	1857	140432	35236	1720

TABLE shewing the total value of exports at the Three Ports of Gaspé, New Carlisle and Amherst, for the years 1855, 1856 and 1857.

1855.	1856.	1857.
\$353412	\$405528	\$514056

FOR THE YEAR 1856.

TABLE shewing the quantity of fish exported from the Ports of Gaspé, New Carlisle and Amherst. (Magdalen Islands.)

DRIED FISH.						
Ports.	Quintals.	Value.	Exported to Great Britain.	To the N. American Colonies.	To the United States.	To Foreign Countries.
Gaspé.....	52643	\$143160	\$10032	\$12036	\$3648	\$109440
New Carlisle.....	47434	92576	6100	694	2504	83276
Amherst.....	13614	28480	.....	27680	800	.....
\$	113691	264216	16132	40410	6952	192716

FOR THE YEAR 1856.

TABLE shewing the quantity of fish exported from the ports of Gaspé, New Carlisle and Amherst. (Magdalen Islands.)—Continued.

FISH IN BARRELS.—(Saumuré.)						
Ports.	Barrels.	Value.	Exported to Great Britain.	To the N. American Colonies.	To the United States.	To Foreign Countries.
Gaspé.....	560	\$ 4508	\$787	\$1289	\$ 2432	.....
New Carlisle.....	4684	12623	629	2421	10573	.....
Amherst.....	18190	42906	.....	34700	8206	.....
\$	23344	61037	1316	38410	21211	.....

FRESH FISH.

Port.	Value.	To the British North American Colonies.
New Carlisle.....	\$2433	2433

FISH OIL.

Ports.	Gallons.	Value.	Exported to Great Britain.	To the British North American Colonies.	To the United States.	To Foreign Countries.
Gaspé.....	5638	\$5100	.....	\$7786	\$5051	.....
New Carlisle.....	10901	6673	5886	.....	769	.....
Amherst.....	17242	7994	.....	.....	.....	.....
\$	33781	19767	5886	7786	5820	.....

To Pierre Fortin, Esquire, one of Her Majesty's Justices of the Peace for the district of Gaspé, and Commander of the Provincial Schooner "La Canadienne."

The humble petition of the undersigned, members of the Municipal Council of the township of Fox, and others,

HUMBLY REPRESENTS,

That a party of fanatics excited and authorised, as they declare, by John de St. Croix, Esquire, one of Her Majesty's Justices of the Peace, have threatened, and continue to threaten the said councillors, that in the event of their assembling to deliberate on public business, they will turn them out and beat them without mercy.

That fearing for their lives they are prevented from meeting for the discharge of their municipal duties.

That under such circumstances, the undersigned members of the said council, deemed it incumbent on them to depute their mayor to the chief town of the county, to solicit from the authorities aid and an armed force to enable them to hold their sessions without let or hindrance, but that their application was unsuccessful; and they were informed that the position of affairs at the said chief town was the same as their own, for want of a public force.

That your petitioners further beg to state that one of their officers was recently ill-treated, beaten, and kicked, by various persons inhabitants of Fox River, while in the discharge of his duties, and entrusted with assessment accounts.

That the said officer on applying to a magistrate, obtained a warrant for the apprehension of one of the delinquents, but the warrant could neither be served, nor the delinquent arrested and brought to justice; 30 or 40 men having assembled at his house, armed with guns, sticks, pikes, and other dangerous weapons, and with frightful yells, prevented his arrest.

That your petitioners are not only exposed to the grievous and continual insults of riotous persons, but are also in time of need, denied the protection of the tribunals, appointed guardians of the public peace, whose functions appear to have been in abeyance in this county for many years, through the neglect of the persons appointed to administer and enforce the laws.

That your petitioners, the said councillors, have been unable to assemble as a body, prior to the departure of their chairman, fearing they would be murdered.

That they have witnessed with much gratification and pleasure the arrival of "La Canadienne," the mere appearance of which has hitherto caused the law to be respected in every quarter she has visited, and they beg to solicit the assistance of an armed force, and your presence in your capacity of magistrate in order that the disturbers of the public peace may be brought to justice, and suitable means be adopted to ensure respect to the laws.

Fox River.

(Signed,)

G. Lavergne, Mayor,
 F. L. Parant, Councillor,
 Jacques Bond, "
 Isaac Bond, "
 Ed. English, "
 Gilbert Samuel, "
 N. Bernier, S. T. E.
 Chs. Parant, Merchant,
 D. Cloutier, Merchant's Clerk.

Witness,

JOHN CREGG, Sect. Treas.,
 C. M. T. F.

CORPORATION OF THE COUNTY OF BONAVENTURE.

At a general quarterly meeting of the municipal council of the County of Bonaventure, held in Her Majesty's Court House at New Carlisle in the said County, on Wednesday, 9th day of September, 1857, agreeably to the provisions of the Lower Canada Municipal and Road Act of 1857, at which meeting there were present,—

His Worship J. R. Hamilton, Chairman.

Messrs. McPherson,

McGee,

Ladge,

Fellar,

Landry, and

Cavanagh, mayors of different Townships in the said municipality, and forming a quorum of the said council, the following resolutions were unanimously adopted ;

Resolved, That this council feel themselves called upon to express their satisfaction, and that of the inhabitants, at having a government vessel to protect the fisheries on this coast, and on the north shore ; and this council has pleasure in perceiving that the government kept the dearest interest of this county in view in making choice, to put the fishery laws in force, of Pierre Fortin, Esquire, who possesses all the necessary qualifications for so important a post, and who to this day has performed his duty in a manner most satisfactory to the inhabitants of this coast, where fisheries abound.

Resolved, That His Worship the Chairman do transmit a copy of the preceding resolutions to Mr. Fortin.

Adopted unanimously.

(Signed,)

J. R. HAMILTON,

Chairman.

Office of the County Council,
New-York 9 sept. 1857.

L. S.

Witness J. G. LeBEL,
Secretary of County Council,
Bonaventure.

EXTRACT from a letter from John G. Fox, Esquire, collector of customs at the Magdalen Islands, addressed to P. Fortin, and dated 20th November, 1857.

I believe you are already acquainted with the number of vessels engaged in the seal fishery, and the quantity they take. Therefore, it is unnecessary for me to repeat it here. I will confine myself to telling you that the number exported (from the Province) is about 6,200. I may say that about 10,000 seal are taken at sea and on the ice along the shore.

The quantity of dried cod exported was about 12,000 quintals. Salt fish, herring and mackerel, 59,600 barrels ; fish oil 11,200 gallons.

You must not lose sight of the fact that this estimate does not include fish sent coastwise to Quebec and Montreal. The value of the fish, oil, and skins will reach \$160,000.

About 6,000 barrels of salt fish have been exported to the United States.

The number of arrivals up to the present date is 154—of departures 180—exclusive of coasting vessels.

(Signed,)

J. FOX,

Collector of Customs.

Port Amherst, Magdalen Islands.

FORMATION OF ARTIFICIAL OYSTER-BEDS ON THE CANADIAN COAST, IN THE LOWER ST. LAWRENCE, AND IN THE GULF.

We have no oyster-beds on our coast.

We are indebted to Caraquette, Bouctouche, and several other places on the coast of New Brunswick and of Prince Edward's Island for our supply of Gulf oysters, and to New York for our New York Bay oysters.

Oyster beds yield great profits to those who work them. From the earliest ages this fishery has been carried on, and where they did not exist naturally, they have been artificially introduced.

It is said that a Roman, named Sergius Orator, was the inventor of artificial oyster-beds, and Licinius Crassus was engaged in the cultivation of oyster-beds, not only for his own use, but for the sake of the great profits they yielded.

The English oysters are celebrated at the present time for their excellent flavour, as they were in the time of the Romans; and as the natural beds were not sufficient to supply the great cities, it became necessary to make artificial beds, which have succeeded very well nearly everywhere.

Near Colchester, artificial oyster beds are formed in the following manner. The spawn adhering to stones, wood, and oyster shells is removed, and thrown into creeks and streams of salt water, where the young are hatched, and in two or three years attain their full size.

Or, small oysters, the size of a sixpence, are caught and deposited in beds in a place accessible by the sea, where they are allowed to remain undisturbed until they reach maturity.

The cheapest and most simple method is that followed at New York Bay, where there have been formed, during several years past, considerable beds of oysters, the produce of which is sent to all parts of America; it is to collect the oysters a short time before they begin to spawn, and to transport them to the place where the artificial bed is to be formed.

It is necessary, as much as possible, to select a bottom similar to that from which the oysters have been removed, and to be careful that the place fixed upon shall be sheltered from the violence of external storms, so that the deposits so made may not be moved by the waves and cast on shore.

In the lower St. Lawrence and on our shores in the Gulf, we have numerous estuaries and openings of rivers where the water is salt, and a great many bays, creeks and places, offering every possible advantage for the formation of artificial oyster beds.

The sea which washes the Canadian coast contains in its bosom a great variety of the finest kinds of fish.

They are cod, of which there are several species,—mackerel, herring, halibut, &c., &c.

In our rivers, we have the king of fish, the salmon, and the trout.

The coast abounds in lobsters.

But we have no oysters.

I propose, then, to form artificial beds of oysters in favourable spots on our coast, as near to Quebec as possible, where our fishermen might go to provide themselves, without being under the necessity of going to the shores of other British Provinces, and at a cheaper rate than at present.

The following is the plan that I propose :—

To authorize the magistrate commanding "La Canadienne" to go and buy at Caraquette or elsewhere, fifty, one hundred or more barrels of oysters, before they begin to spawn, to take them on board the vessel and to go and deposit them at any place which he shall think most favorable.

And this might be done without disturbing in the least degree the performance of the service in which the government schooner is at present engaged.

For when it becomes necessary for the vessel to go to the Bay des Chaleurs, it is easy to stop at Caraquette, which is only about 20 miles from Paspébiac, and to take on board the necessary quantity of oysters to be transported to the Lower St. Lawrence or elsewhere without discontinuing its service of protecting the fisheries.

The sum of six hundred dollars would be more than sufficient to make the first experiments.

The chances of success are very good : for why should we not succeed in making artificial oyster beds, as they do in New York Bay, on the South East coast of the United States, in England, and every where else.

The oysters, as I have already said, are three years in attaining their full size. It is probable that they do not spawn before that age.

But from the time of their attaining maturity they propagate to a prodigious extent.

However if they should be disturbed, and if they were to be taken before the beds were well stocked, it is probable that they would be destroyed before the fishermen had obtained any very great profits from them ; for which reason I think it would be necessary to pass a law, forbidding every one under a very heavy penalty, to fish for oysters or to disturb them in any way, or to do any thing which might injure the increase of the beds, during three years or more, until the oysters were numerous enough in the beds to permit their removal without fear of seeing them diminish.

I hope the government will take this project into their serious consideration, and that I shall be authorised to make the experiment which I suggest.

If I succeed, I shall have added a source of wealth to those we already possess on the coasts of the River and Gulf of St. Lawrence ; if my attempts are unproductive, at least they will not have cost the public chest much.

P. FORTIN.

PLAN FOR A SCHOOL OF NAVIGATION ON BOARD " LA CANADIENNE. "

There are in Canada very few sea-going captains who are fit to take charge of a vessel bound for Europe, the East Indies, Australia, or even the West India islands.

According to the information I have been able to procure, there are not in the whole district of Quebec, more than eight or ten sea captains able to navigate a vessel to the ports of the United Kingdom, the United States, and the West Indies so that Quebec ship builders are almost always compelled to send at a great expense for English mariners to take their vessels to Liverpool and to other ports to be sold.

The captains of Canadian vessels are, with very few exceptions merely coasting pilots.

When they wish to make a voyage beyond St. John's, Newfoundland, Halifax, or St. John's, New Brunswick, they are compelled to engage qualified mariners at foreign ports, to navigate their vessels.

It is my opinion, that the want of instructed mariners in Canada is the principal cause why the Canadian navigation of Canadian vessels is confined to voyages between Montreal and Quebec, to a few ports of the lower provinces, to the United States and the West Indies.

The transportation of the produce of the Canadian fisheries in the Gulf of St. Lawrence, to the European and South American markets is carried on almost entirely by vessels belonging to shippers in the Island of Jersey.

The produce of the West Indies consumed in Canada, is brought to us during the summer, principally in vessels from Nova Scotia; and, during the winter it is taken in United States vessels to Portland and other ports, whence it is brought to us by rail, whilst we often have a number of schooners and brigantines, which lie idle for whole months, because the marines who command them cannot navigate their vessels beyond the ports of the British Provinces already mentioned, for want of the necessary knowledge of the science of navigation.

If we had in Canada a number of well taught sea captains capable of undertaking all sorts of sea voyages, why, since we build vessels cheaper than anywhere else, and since hundreds of young men from this country, who are induced by their natural taste to become sailors, go and engage themselves, for want of employment here, on board United States vessels fishing in the Gulf of St. Lawrence or which make voyages on the lakes or along the shores of the United States,—why should we not send vessels into all parts of the world, to the whale fishery, or to take to market a portion of the produce of our forests, but especially of our fisheries, the value of which exceeds the sum of six hundred thousand dollars, and which forms the lading of nearly a hundred vessels, and bring back from the West Indies in our own vessels the produce which we require in exchange for our salted and dried fish, our salted provisions, our wood, etc., etc.?

But how shall we give our sailors the necessary instruction in the science of navigation?

By establishing on board some vessel a school of navigation, where the theory and practice of the mariner's art will be taught at the same time.

And the Government Schooner "La Canadienne," the dimensions of which are about the same as those of a war schooner, which generally carries from 40 to 50 hands, might serve as a school vessel, until the number of pupils had increased so as to render it necessary to employ a larger vessel.

To perform the service of protecting the fisheries and the public revenue in the Gulf of St. Lawrence it is necessary to have on board "La Canadienne," a crew including the officers, of twenty-five men.

Well then, let us have on board a master capable of teaching the theory and practice of navigation, and a boatswain to show all the manœuvres and work necessary to be performed on ship board, and we may make up this crew in great measure of young men, who have become pupils on board the schooner.

And as these pupils would not be entitled for their services on board, to so high a rate of remuneration as is usually given to sailors a diminution of expense would follow, which to a certain extent, would counterbalance the increased expenditure, necessary to put this school on a good footing.

I need not add that Government has already in its possession all the necessary nautical instruments.

The pupils should engage to serve for at least one season, under penalty of losing all right to their wages.

We might also, in order to induce the pupils to follow the whole course of instruction, which would last at least three years, keep back a portion of the wages; and this might be returned to them on their obtaining their diploma of sea-captain, in the shape of a prize or bonus, consisting of nautical instruments, marine charts, books of navigation, etc., etc.

The magistrate commanding the Government Schooner, whose duties in the Gulf always leave him some hours to spare every day, might translate into English or French the lessons in navigation, and might also teach the pupils the necessary amount of arithmetic, trigonometry, astronomy, geography, etc., etc.

I think I may venture to say that if a School of Navigation were to be established, in which the young men of this country might, while earning enough

to support themselves during the course of study, learn the theory and practice of the science of navigation, a great number of our most active young men would present themselves for admission, who having once become sea-captains, might take our ships to all ports where good profits may be made, or become ship owners themselves, and might on their own account carry the produce of our forests and our fisheries to foreign markets.

P. FORTIN.

Extract from the Log kept on Board the Government Schooner "La Canadienne," during the season of 1857.

May 7. Left Quebec.

- " 11. Anchored at Malbaie and at Percé. Left Percé.
- " 14. Anchored at House Harbor, and at Amherst Harbour.
- " 21. Left for the Bay of Chaleurs.
- " 22. Arrived at Paspébiac.
- " 23. Left Paspébiac.
- " 24. Anchored in Carleton Road. Left Carleton.
- " 25. Anchored at Paspébiac.
- " 28. Left Paspébiac in a shallop
- " 29. At Port Daniel.
- " 30. At Cape Cove and at Percé.
- " 31. At Gaspé Basin.

June 1. At Griffin's Cove and at Fox River.

- " 2. At Griffin's Cove and at Gaspé Basin.
- " 3. At Grande Grève.
- " 4. At Point St. Peters and at Percé.
- " 5. Left Percé in the morning and arrived at Paspébiac at night.
- " 7. Left Paspébiac.
- " 9. Arrived at the Magdalen Islands.
- " 14. Left for House Harbor.
- " 15. Anchored at Amherst Harbour.
- " 17. Landed at Grosse Isle.
- " 18. Visited Bryon Island.
- " 19. Landed at Grosse Isle aux Oiseaux.
- " 20. Anchored at Amherst Harbour.
- " 21. Off Magdalen Islands.
- " 22. Left Amherst Harbour for Labrador.
- " 23. Off Magdalen Point and Islands.
- " 24. Anchored at Anse aux Blancs Sablons.
- " 27. Anchored at Bradore Bay.
- " 28, 29, 30. In Bradore Bay.

July, 1, 2, 3, 4. In Bradore Bay.

- " 5. Left Bradore Bay.
- " 7. Anchored at Kegasca.
- " 8. Landed at Natashquan.
- " 9. Anchored at Mingan.
- " 13. Left Mingan for St. John River.

-
- July, 15. Landed at Grand Etang.
 " 16. Visited Fox River and Griffin's Cove.
 " 17. Anchored in Gaspé Bay.
 " 20. Left Gaspé Bay, landed at Point St. Peters, and anchored at Percé.
 " 21. Left Percé.
 " 22. Anchored in Carleton Road in the morning and at the Mission at 4 p. m.
 " 26. Left the Mission.
 " 27. Anchored in Carleton Road in the morning and at Paspébiac at night.
 " 28. Left Paspébiac.
 " 28. Anchored at Percé ; left for the Magdalen Islands.
 " 30. Anchored in Plaisance Bay.

-
- Aug. 1. Left for the Etang du Nord.
 " 2. Left Etang du Nord and landed at the Basin.
 " 4. At Amherst Harbour, left for House Harbor.
 " 5. Left the Magdalen Islands, passed by the East point.
 " 7. Anchored in Percé Harbour.
 " 8. Left for the Lower St. Lawrence, landed at Griffin's Cove and at Fox River.
 " 9. At anchor in Griffin's Cove on account of bad weather.
 " 10. Left Griffin's Cove, landed at Grand Etang.
 " 11. Visited the establishments at Grande Vallée and Magdalen River.
 " 13. Landed at Mont Louis.
 " 15. Anchored at 7 h. 30 m. a. m., in the Harbour of Ste. Anne des Monts, left at noon and anchored at 7 p. m., at the Bay of Seven Islands.
 " 18. Left the Bay of Seven Islands, landed at Moisie River.
 " 19. Visited the fishing establishments at Sheldrake River, Thunder River and Magpie Bay.
 " 20. Landed at Griffin's Cove.
 " 21. Landed at Cape Rosier.
 " 22. Arrived at Gaspé Basin.
 " 24. Left Gaspé Basin.
 " 25. Anchored at Percé at 6 a. m., left at 11 a. m., for the Magdalen Islands.
 " 26. Anchored in Plaisance Bay at 10 a. m.
 " 29. Left the Magdalen Islands.
 " 31. Anchored in Paspébiac Harbour in the morning.

-
- Sept. 1. Visited New Carlisle.
 " 3. Left Paspébiac, anchored at New Carlisle.
 " 4. Left New Carlisle, anchored at Bonaventure and arrived at Carleton at night.
 " 5. Landed at Carleton and visited Dalhousie.
 " 6. Left Carleton at 2 h. 30 m. a. m., anchored in the Grande Rivière at noon, and at Percé at 6 p. m.
 " 7. Left Percé at 11 a. m., for Labrador, doubled the East point of the Island of Anticosti at midnight.
 " 9. Anchored at 3 h. p. m. in l'Anse aux Blancs Sablons.
 " 11. Anchored in Bradore Bay.

- Sept. 14. Left Bradore Bay.
 " 15. Landed at the Whale's Head Island.
 " 17. Passed near the Bird Islands.
 " 18. Anchored at Amherst Harbor, visited House Harbour.
 " 20. Anchored in Amherst Harbour.
 " 21. Left the Magdalen Islands.
 " 23. Anchored at 8 a. m. in Carleton Roads.
 " 25. Left Carleton, anchored at Pointe Lacarde.
 " 26. Visited Cross Point and the mission, weighed anchor in the afternoon and in the evening put into Dalhousie.
 " 27. Left Dalhousie and anchored at Carleton at 3. a. m. left Carleton and anchored at Paspébiac.
 " 29. Left New Richmond, anchored at Paspébiac at 9. a. m; visited New Carlisle.
 " 30. Left Paspébiac at 5 a. m., anchored at Port Daniel at 9. a. m; visited the establishments at Grande Rivière at 5. p. m.

- Oct. 1. Anchored in the roadstead at Percé at 7. a. m; visited Cape Cove in the afternoon, returned to Percé in the evening.
 " 2. Left Percé at 11 a. m. visited Point St. Pierre; anchored in Gaspé Basin at night.
 " 5. Left Gaspé Basin.
 " 6. Visited Griffin's Cove and Fox River.
 " 8. Landed at Grand Etang and visited the fishery establishments at Chlorydorma.
 " 10. Anchored at 4. p. m. at River Magdalen.
 " 11. Obligated to weigh anchor by stress of weather.
 " 12. Landed at Point St. Pierre, visited the establishments at Malbaie and anchored at Percé in the afternoon.
 " 13. Visited the fishery establishments at Bonaventure Island.
 " 14. Left Percé for the Magdalen Islands.
 " 16. Anchored in the afternoon in Amherst Harbour.
 " 19. Visited the fishery establishments at House Harbour.
 " 20. Left Amherst Harbour, passed the East Point of the Magdalen Islands.
 " 24. Anchored at 8. a. m. in Paspébiac Roads.
 Detained here by heavy gales from the east till 1st November,
 Visited the fishery establishments.

- Nov. 1. Left Paspébiac in the afternoon.
 " 2. Anchored at Percé in the morning; left in the afternoon.
 " 3. Landed at Point St. Pierre.
 " 4. Anchored in Gaspé Basin, left in the afternoon at 3. p. m., doubled Cape Gaspé.
 " 5. Landed in the morning at the light house on the south west point of the Island of Anticosti, steered for Quebec in the afternoon.
 " 7. Passed abreast of the light house at Pointe des Monts at 1. p. m.
 " 8. Anchored in the roadstead at Quebec at 5. p. m.

(Signed,)

P. FORTIN.

TORONTO:

PRINTED BY JOHN LOVELL, YONGE STREET.

GEOLOGICAL SURVEY

OF

CANADA.

REPORT OF PROGRESS

FOR THE YEAR 1857.

Printed by Order of the Legislative Assembly.



TORONTO:
PRINTED BY JOHN LOVELL, YONGE STREET,
1858.

GEOLOGICAL SURVEY OF CANADA.

MONTREAL, 31st *March*, 1858.

SIR,

I have the honor to request that you will do me the favor to present to His Excellency the Governor General the accompanying Report of the progress made in the Geological Survey of the Province during the year 1857.

I have the honor to be,

Sir,

Your most obedient servant,

W. E. LOGAN.

To the Hon. T. J. J. Loranger,
Provincial Secretary,
Toronto.

TO HIS EXCELLENCY

SIR EDMUND WALKER HEAD, BART,

ONE OF HER MAJESTY'S MOST HONORABLE PRIVY COUNCIL,

Governor-General of British North America,

AND

CAPTAIN-GENERAL AND GOVERNOR-IN-CHIEF

IN AND OVER

THE PROVINCES OF CANADA, NOVA SCOTIA, NEW BRUNSWICK, AND THE ISLAND OF PRINCE
EDWARD,

AND VICE-ADMIRAL OF THE SAME.

MONTREAL, 31st March, 1858.

MAY IT PLEASE YOUR EXCELLENCY :

I have the honor to present to Your Excellency a statement of the progress made in the Geological Survey of the Province during the past year; and in doing so, to place before you the Reports of those gentlemen who have aided me in the investigation committed to my charge. The Reports are those of Mr. Murray, Mr. Richardson, Mr. Bell, Mr. Billings, Professor James Hall of Albany, Mr. Hunt, and Lieut. E. D. Ashe of Quebec.

The labors of Mr. Murray comprised in the first place a topographical measurement and geological examination of the coast and the immediately adjacent islands at the mouths of the French River, the object of the work being to complete his surveys of the various branches of that river by shewing their relation to that part of Georgian Bay into which they fall. When the delineation of this portion of Mr. Murray's work was received in Montreal the plans of his various previous surveys of the river were in the hands of the lithographer to be engraved, as part of the Report last presented to the Legislature, and ordered to be printed under my direction. With the view of obviating the expense of an additional map to accompany the present Report, the delineation was introduced in its appropriate place on the plans then in progress, and it appears as part of the Report for 1856, while the geographical and geological descriptions constitute a portion of what is now submitted to Your Excellency.

Another duty assigned to Mr. Murray was the investigation of the physical structure of the copper-bearing rocks of Lake Huron. The economical importance of these rocks authorises a more detailed examination than there has yet been any opportunity of devoting to them. The discovery of the copper-lodes by which they are characterised is of course, the main object to be held in view; but to search for these by mere empirical examination, without any fixed rule, would be an endless work. The metalliferous lodes of any formation are found for the most part in cracks or dislocations which have disturbed the formation, and which have given an opportunity for the secretion of the ore. One set of positions in which such disturbances may be expected is the axes of anticlinal and synclinal folds; whence it becomes of importance to know where these folds exist. The best way of determining this is to ascertain the geographical distribution of the constituent parts of the formation, and the figure they exhibit when represented on a map. But in a stratified formation like the Huronian, the beds having a general conformity one to another, if the distribution of one bed be ascertained it will give an extensive knowledge of that of the remainder; it therefore becomes of great use to select one well-marked band of the formation and to follow it out. In about the middle of the Huronian series there is a conspicuous band of limestone from 150 to 250 feet thick, which is so completely contrasted with the rest of the formation in aspect and mineral character that it was considered the best to select for examination, as a test of physical structure, and Mr. Murray was instructed to trace it out.

The position selected by Mr. Murray from which to commence his examination was Echo Lake. The original map which accompanied this part of Mr. Murray's work is protracted by Mr. Johnson on the scale of one mile to one inch. But for the purposes of this Report it has been reduced to a smaller scale, and there has been added to it the position previously ascertained of the same band of limestone on the Thessalon River and on the coast immediately west of the Bruce mine, as well as its position on the Bruce mine location, in which last place it was pointed out to Mr. Murray by Mr. Borron, the superintendent of the mine. The relation of the different parts of the band, so far, will thus be understood in a general way, though it will still be necessary to ascertain the details of the intermediate parts, in order properly to connect the work around Echo Lake with that on the Thessalon River.

The want of conformity heretofore pointed out, between the Upper and Lower Silurian rocks of the Gaspé peninsula, prevents the out-crop of the one group from being any guide to the distribution of the other. At the same time both series of rocks are very much corrugated. From the neighborhood of the Chaudière to the Rivers Chatte and St. Ann, the axes of the folds appear to run nearly north-east, but they then change to east, and subsequently to south-east; and an irregularity occurs in the out-crop of the superior rocks, which, in attempting to construct a geological map of the peninsula, it was found impossible to represent with any approach to truth without a special examination of the interior between the St. Ann River and Gaspé Bay. Mr. Richardson was in consequence instructed to ascend the River Magdalen, and on reaching the out-crop of the Upper Silurian series, to follow it out to the right and the left. He has done so to the eastward, so as to join his work with what was done in Gaspé Bay by myself in 1843. But the season was so far spent by the time he returned to the Magdalen, that it would have been hazardous to attempt to join his work with that of Mr. Murray and myself to the westward. For this another opportunity must be chosen.

Mr. Richardson subsequently ascended the Saguenay for the purpose of making a *reconnaissance* of Lake St. John, preliminary to whatever future examination might be prosecuted in that neighborhood; and I have to draw Your Excellency's attention to the very favorable report he furnishes of the climate and agricultural capabilities of the valley of that lake, and the apparently great extent of land there capable of prosperous settlement.

Mr. Richardson's Report is accompanied with a plan of the Magdalen River on the scale of one mile to one inch, that which has usually been adopted for all our measured surveys, as well as one on a smaller scale, shewing the distribution of the rocks traced out in the Gaspé district, and another giving that of the Lower Silurian strata met with on Lake St. John. The plans are the work of Mr. Scott Barlow, who accompanied Mr. Richardson on his explorations.

Mr. Richardson was accompanied also by Mr. R. Bell, who in addition to aiding in the general work of the exploration, was instructed to make a collection of the recent marine, fresh-water and land shells he might meet with, as well as such other objects of natural history as could be obtained and transported without interfering with the main objects of the investigation. Mr. Bell has furnished a Report enumerating the species and localities of his collection, which will be of utility in aiding us to a knowledge of the geographical distribution of such organic forms. In transmitting this to Your Excellency I have to express my obligations to Mr. Lea of Philadelphia, one of the highest authorities in this department of natural history, for the aid he has kindly given in naming the land and fresh-water species of the collection, three of which he regards as new.

In addition to his labors in the arrangements of the Museum, the attention of Mr. Billings has been devoted to various points connected with the distribution of the Lower Silurian limestones on the Bonne-chère, the Upper Silurian limestone of Galt, and the Devonian rocks of the western peninsula of Upper Canada. His Report on these, together with his descriptions of various new species of organic remains, is now transmitted to Your Excellency.

Several new species of the genus *Graptolithus*, with others of *Dictyonema*, discovered by Mr. Richardson in the vicinity of Quebec in 1854 and 1855, were then placèd for examination and description in the hands of Professor James Hall of Albany, whose works on the palæontology of North American rocks are too well known to require mention. These organic remains he kindly undertook to have figured and engraved, as a contribution to the palæontology of Canada; and his Report on the progress made in the work, with his descriptions of the fossils, constitutes one of the documents connected with the present communication.

The Report of Mr. Hunt comprises researches on the nature and mode of formation of magnesian limestones, farther investigations of some traps, serpentines and mineral waters, and some observations upon the value of the artificial guano manufactured from the fish-offal and bituminous shales of the Lower St. Lawrence.

My own time has been largely employed in the arrangements of the Museum. The cases designed to hold the collection of the Survey were not completed until after my return in 1856 from the Paris Exhibition; and my intention was that my assistants, when they should have completed the study and comparison of the facts and materials of each summer's exploration, should devote their remaining time to the classification and distribution of the specimens of the collection, until this task should be accomplished. But the American Association for the Advancement of Science having accepted a joint invitation

from the Mayor and Corporation and the Natural History Society of Montreal, to hold their annual meeting for 1857 in this city, it became in some degree imperative upon the officers of the Survey at once to place the Provincial collection illustrative of Canadian Geology in a condition to be fully appreciated by such men of science, devoted to this branch of investigation, as might be present at the meeting. To do this required the whole of Mr. Billings' time, and very nearly the whole of my own, until the meeting of the Association which took place on the 15th of August.

Among the eminent men of science present at the meeting of the Association, I was glad to welcome my distinguished friend Mr. A. Ramsay, deputed to represent for the occasion the Geological Society of London. Under Sir Roderick Murchison as chief, he directs the Geological Survey of Great Britain, and is at the same time one of the Professors of the Government School of Mines; and I felt persuaded that it would greatly conduce to the benefit of Canadian geology, and serve to extend the interest already existing in it in the United Kingdom, if Professor Ramsay could be induced to accompany me, after the business of the Association should be concluded, on a geological tour through a part of the Province. An arrangement to this end was made, and Professor Hall volunteering to be our guide through the classic geological ground of New York, which I had never previously visited, I deemed it advisable to take advantage of so favorable an opportunity for increasing my own experience, and for making me acquainted with some of the Devonian rocks of that State which appear to be wanting in the Canadian series.

The requirements of the meeting of the American Association, and the few weeks spent in the tour to which I have alluded, brought round the month of October before I could enter upon any personal explorations. These were devoted to a farther investigation of the crystalline limestones of the Laurentian series of rocks, in which something has been added to our knowledge of their geographical distribution; but as no facts have been ascertained to illustrate their sequence beyond what were presented in the Report of 1856, and as a continued prosecution of the investigation is intended during the ensuing season, it appears to me desirable to reserve a farther description until I am furnished with a larger number of new facts.

While the arrangements effected in the Museum have so much trenched upon the time usually devoted to field work, they have placed the Survey in a position to more readily compare and understand the value of the materials from time to time collected, to decide at once upon what may be considered duplicates, and to commence a distribution of them among the educational institutions of the country. This was one of the objects originally contemplated in the institution of the Survey, and a first instalment of specimens has been sent to University College, Toronto, and Laval University, Quebec.

In the last Report it was stated that in carrying into effect that portion of the duties assigned to me which regarded the determination of the longitudes and latitudes of important places in the Province, I had had recourse to the use of the telegraphic wire for the longitudes, and had availed myself of the services of Lieut. E. D. Ashe of the Quebec Observatory. I have now the honor of transmitting to Your Excellency Lieut. Ashe's Report, with an abstract of the work done up to the present time. By this it will be observed that the longitudes determined are those of Quebec, Montreal, Ottawa, Kingston, Toronto, Collingwood, Windsor and Chicago. Quebec was made the point of departure in Canada, and the longitude of Quebec has through the kind assistance of Professor Bond, been compared with that of Cambridge Observatory near

Boston, which is considered the position on the continent of America whose relation has been most accurately determined with Greenwich.

The determination of these various positions has enabled me to give a general truth to the topographical map of Canada, on which I am to delineate its geology. This map is now nearly completed, and would long ere this have been in the hands of the engraver, had not about half the time of the draughtsman who is compiling it been unavoidably occupied in preparing the tracings for the lithographer, and correcting the proofs of the twenty-two sheets of plans which have just been printed for the Legislature in connection with the last Report of Progress.

I have the honor to be

Your Excellency's most obedient servant,

W. E. LOGAN.

REPORT,

FOR THE YEAR 1857,

OF

ALEX. MURRAY, Esq., ASSISTANT PROVINCIAL GEOLOGIST

ADDRESSED TO

SIR WILLIAM E. LOGAN, F.R.S.,

DIRECTOR OF THE GEOLOGICAL SURVEY OF CANADA.

MONTREAL, 1857.

SIR,

In the spring of the present year you were pleased to direct me to make a topographical measurement of the coast of Georgian Bay, where the several mouths of the French River discharge themselves, in order to connect the surveys previously made of the various branches of that river.

For this purpose, after having provided myself with two canoes, an assistant, and a party of Indians at She-bah-ah-nah-ning, I repaired to Pointe des Grondines, where our labors commenced about the middle of June. Being favored with very fine weather for carrying on our operations, little time was lost in

accomplishing the work, and I had the honor of forwarding to you in July a plan of the same, with all particulars recorded on it. This work, I have understood from you, was received in time to be incorporated in the map of my previous explorations then in course of being lithographed, on the face of which it has already been published.

In accordance with your farther instructions, I then proceeded with my party to Bruce Mines, and subsequently to Echo Lake, near the western extremity of Lake Huron, where you suggested I should commence to work out the physical structure of the copper-bearing or Huronian rocks of the region, by following up the remarkable band of limestone which is there well developed about the middle of the formation. In connection with this work a survey was made of Echo Lake and River the north part of Great Lake George, the connecting stream of St. Mary between Great and Little Lakes George, Little Lake George and a part of Garden River. From various points of this survey cross-bearings were constantly taken upon all the most conspicuous features in the interior. By these we were enabled to fix the position of such points with tolerable accuracy, and they afterwards rendered us good service as checks upon the perambulated measurements made during our inland excursions.

Through the aid of my assistant, Mr. John Johnston, who acted chiefly as draughtsman on the occasion, a plan of this portion of our work was completed on the usual scale of one inch to one mile. It represents all the main topographical features of the country examined, with its geology where it could be satisfactorily ascertained, and is accompanied by a vertical section. These have already been placed in your hands, and I would beg to call your attention to the very creditable manner in which Mr. Johnston's work is executed.

Finally, I made a short excursion from Bruce Mines for the purpose of ascertaining with accuracy the position of the out-crop of a band of limestone reported to me by Mr. Borron, the superintendent of the mine there, as having been observed a short distance from the works and within the location, and no doubt identical with that mentioned above. The connection of this work with the previous, cannot with certainty be shewn until some further intermediate examinations have been made, which I hope to accomplish in the course of the ensuing season's operations.

COAST AT THE MOUTHS OF THE FRENCH RIVER.

Geographical Characteristics.

The waters of the French River are discharged into Georgian Bay through several channels between Pointe des Grondines on the west and the inlet called by Bayfield the Key, which is situated at the north-east angle of Lake Huron. The distance between these two positions is a little under eighteen miles, and they are nearly due east and west of one another. The outlets of the river may be divided into three sets, the western, the middle and the eastern. Each set is composed of several discharging branches, every one of which before reaching the surface of Lake Huron is precipitated over a fall or rapid. The country is by this complicated reticulation cut up for many miles between the main body of the river and Lake Huron, into a great group of islands.

The western outlets have two main channels, the old travelled channel and the Mauvaise Rivière. The old travelled channel enters Lake Huron by three branches of discharge, which are situated about six miles from Pointe des Grondines in a bearing a little north of east. The middle of these branches has

for many years been the principal ingress and egress for the Hudson Bay Company's canoes to and from their posts on the Ottawa, Lake Nipissing, and other parts of the interior. It is the one most easily approached from without, as well as most easily navigated.

The Mauvaise Rivière is situated about seven and a-half miles from Pointe des Grondines, and it also empties into Lake Huron by three branches, all within a short distance of one another, and each having a fall of about four feet, before joining the still water of Georgian Bay.

The middle outlets or Large River channel fall into the bay through three openings. The most western is about three and a-half miles east from the Mauvaise Rivière; the other two, which are small and within a-quarter of a mile of each other, are about a mile and a-half farther east, or about thirteen miles from the Pointe des Grondines.

The eastern outlets consist of two openings which empty into a long narrow bay lying directly north of the Hudson Bay Company's old post at the mouth of the Key inlet.

All these channels and outlets flow through a barren and desolate waste. The greater part of it is either perfectly bare rock, or a surface made little better than such by a scanty covering at intervals of small stunted trees and bushes, chiefly belonging to varieties of the fir tribe. The country is for the most part low, but extremely rugged, offering bold and precipitous but not very lofty cliffs on the coast, while the surface is arranged in sharp and broken ridges of rock, parallel to one another, for the most part in a north-east bearing, and conforming to the bays and outlets.

Innumerable islands, islets, knobs and reefs of rock lie off this part of the coast, rendering an approach to it dangerous and difficult at all points, but most especially off the entrance to the middle outlets or Large River channel. Between this and the cluster of islands called the Bustards, situated from two to three miles to the southward, nothing can be safely navigated larger than a canoe or a boat of the smallest draught of water. The old travelled channel or eastern set of outlets is undoubtedly the most accessible part for any craft, but there are many reefs and sunken rocks between it and the Pointe des Grondines, over which the swell of the lake may be distinctly heard to break for many miles around.

As an agricultural country a large portion of the region immediately south of the chief part of the French River appears to be valueless, and the pine-timber, where it attains a size worthy of notice at all, is too much scattered, and besides usually too small to be of any commercial importance. The principal if not the only recommendation which the coast at present possesses is as a fishing station. In this respect it is equal to any other part of the lake. It is amply supplied with white-fish and trout, as well as bass, pike and pickerel, all of which are now taken in large quantities by the Indians and half-breed fishermen from Weh-que-mi-kong and She-bah-ah-nah-ning; and were the trade skilfully and systematically pursued by an establishment possessed of capital, it would not fail to be a source of considerable profit.

Distribution of the Rocks.

The rocks of this part of the coast and of the islands adjacent to it are all of the Laurentian age. They consist of red and grey hornblendic and micaceous gneiss, becoming frequently very schistose, of quartzite, and intrusive masses of syenite and greenstone, intersected by veins of white quartz and cut by dykes

of granite. The general strike of the stratification varies from a few degrees east of north to about north-east, the inclination being usually south-eastward at high angles. The strata are arranged in a series of parallel ridges, which alternate with low narrow valleys or with numerous channels or indentations of the coast. They are usually more or less contorted, and undulations of considerable magnitude may occasionally be observed in some parts. An example of such an undulation exists between the middle and eastward outlets, and it suggests the probability that there are frequent repetitions of the same strata.

A great mass of syenite, of coarse grain for the most part, sometimes reddish, but chiefly grey in color, spreads over the country between the western and middle outlets. The gneiss at the Mauvaise Rivière dips towards the syenite as if passing beneath it, while that near the middle outlets, where seen in contact with the syenite, dips from it about S. E. $<80^{\circ}$.* The surface of the syenite is very low and flat, and almost destitute of vegetation; that of the gneiss presents abrupt broken ridges, more or less covered with a small growth of ever-greens and deciduous bushes. At the entrance to the bay receiving the discharge of the middle outlets, the gneiss is intersected by dykes of greenstone, and both are cut by granite veins.

Portions of the gneiss are garnetiferous, especially among the hornblendic schists and quartzose bands. These portions were observed chiefly near the extremes of the part surveyed, that is, near Pointe des Grondines on the one hand, and in the bays that intervene between the middle and eastern outlets on the other.

Quartz veins are of frequent occurrence throughout the whole region; many of them are of large size, but in no case were they observed to contain any mineral indications worthy of especial notice, nor have any rumours through the Indians or others reached me of the presence of metalliferous lodes nearer than Lake Nipissing.

The character of the rocks here is not usually very well adapted for building purposes, except of the most ordinary description. The hard beds are usually thin, and they alternate with crumbling schistose layers, which are frequently contorted or broken. From such strata it would scarcely be possible to procure any available materials, but when the harder beds are of tolerable thickness and the strata somewhat regular, they might be made available, especially when they happen, as they sometimes do, to be cut by parallel joints in directions at right angles to one another. This is the case in the south part of the bay receiving the discharge of the middle outlets.

Portions of the syenite would no doubt dress into handsome rectangular blocks, and make a durable and elegant material, but the working of it would be attended with considerable difficulty, for the rock is tough and hard to cut or blast, and it does not appear to possess any regular joints either horizontal or vertical, though it would probably split in any direction required by the application of plugs and feathers.

It is probable that should stone be wanted for facing any public work in this region the nearest and best supply will be found among the Niagara limestones of the Grand Manitoulin Island. From them too would be obtained the lime required for the purpose of mortar.

* The bearings given in this Report are magnetic, the variation being about $4^{\circ} 15'$ W. at the mouths of the French River, and about $0^{\circ} 30'$ W. in the neighborhood of Echo Lake.

ECHO LAKE AND THE SURROUNDING COUNTRY.

Geographical Characteristics.

Echo Lake is beautifully situated among lofty hills and bold precipitous rocks, a little over three miles north-east from the head of Great Lake George, with which it is connected by a sluggish stream flowing for the greater part through marsh' or low flat land. The length of the lake is about four miles from head to foot, in a line running north east and south-west. Its breadth is contracted by two opposite points of limestone near the middle, to a distance of somewhat under a mile, while it opens above and below into expanding bays. The widest part of the upper expansion is about two miles, and that of the lower rather less than a mile and a-half.

The main stream, supplying the lake with water, comes in at the north-east angle of the upper expansion through a marsh. Above the marsh the stream becomes rapid, and its upward course bears nearly due east for about three miles. It then bends round to the south-eastward. The valley continues in this direction for several miles, but finally turns to the westward and north-westward, and opens into a prairie with a small lake which constitutes the head of the stream.

The two Lakes George and the connecting stream between them are bounded by Sugar Island on the one side and the Canadian mainland on the other. The distance from the mouth of Echo River at the head of Great Lake George, to Root River at the head of Little Lake George, is seven miles and a-half in a straight line bearing west-north-west. The banks on either side of the stream on this line are low and flat, and frequently marshy; but at a short distance back, on the north side, the surface becomes broken and mountainous, rising in abrupt rocky precipices or bold rugged hills, and affording frequent scenes of great and picturesque beauty.

On the south in Sugar Island the land rises gradually to a considerable elevation, and presents a gently undulating surface, contrasting strongly with the wild and rugged character of the mountainous region on the north.

At the foot of Little Lake George, Garden River falls in on the left bank. Its course near the outlet is exceedingly tortuous, but the valley has a general upward bearing of about N. N. E. as far as we ascended it, which in a straight line, did not exceed three miles. I was informed by the Indians that the stream was accessible for canoes for many miles farther up, but that it became very rapid and difficult to navigate above the highest part we reached.

To the east of Echo Lake, and northward of the limestone point on the east side, there is a tract of fine land, heavily timbered with maple, elm and birch, interspersed at intervals with groves of hemlock and a few pines, with cedars in the hollows and swamps. The surface of this part rises gradually to the south-eastward for upwards of two miles, and is beautifully watered by numerous little brooks falling into the lake. This tract extends northward to the valley of Echo River, and is bounded to the eastward by a small brook which falls into the river where its upward bearing turns to the south-east, which is about two miles and a-half from Echo Lake.

To the east of this tract, and to the south of it and of the lower expansion of Echo Lake, the country is rugged and broken. It is marked by a succession of precipitous hills and narrow valleys, which run nearly due east in the south part, but take a south-easterly course as they advance. Among these ranges the waters of a considerable area flow westerly into the lower part of Echo

River or Lake George. One of the streams flowing into the former has a nearly due east upward bearing for about three miles, where it is the outlet of a beautiful lake about four miles long, in a south-easterly bearing, divided into two nearly equal parts about a mile wide each where broadest, connected by a gut not exceeding a couple of chains in breadth.

On the north-east side of the upper part of Echo River bold precipitous cliffs rise up to heights of 500 feet; as they approach the north shore of Echo Lake they strike westward and run inland beyond the lake in the same direction, in conformity with the parallel ridges on the south already mentioned.

Westward of Echo Lake, and between it and the valley of Garden River, the country is very much broken by rocky ridges, but there are intervals of beautiful hard-wood land in the hollows and lower parts between them. Through each of these valleys there usually flows a pretty brook of clear water, taking its rise from one or other of the picturesque little lakes which lie on each side of the water-shed. Between Garden River and Root River, at a distance of from one to two miles from the north shore of St. Mary River and Little Lake George, a similarly rugged description of country prevails, with intervals of hard-wood land, lying at a high elevation, and at such parts the principal trees being hard maple, it is much frequented by the Indians for the manufacture of sugar.

The plains that skirt the main river and the shores of the Lakes George on the north side are possessed of a light sandy soil yielding red pine of good size, with a profuse growth of wild fruit trees and bushes; but there is also a great extent of marsh-land, where wild grass or reeds constitute the chief part of the vegetation.

Character and Distribution of the Rocks.

Huronian Series.—The rock formations examined in the region around Echo Lake are altogether of the Huronian age, with the exception of the flat parts skirting the shores of Great and Little Lakes George and St. Mary River. These, with Sugar Island, although nowhere exhibiting a good exposure of the rock in place, very probably belong to the lower members of the unconformable Silurian strata. To follow out the structure of the altered and contorted Huronian series, a band of limestone belonging to it was selected as the best developed feature, and the one most readily recognisable from its peculiarities of mineral character, as well as its association with a remarkable conglomerate both above and below.

The two points at the narrow part of Echo Lake are composed of this limestone, and the band was followed with little interruption to the westward, from the point on the west side of the lake, until it was found to sink below the plain in the valley of Root River. At the point on the west side of Echo Lake the dip is southerly, and freed from minor contortions it shows an average inclination of about twenty-five degrees; but the strike almost immediately inland turns off about northwest, and the limestone forms the face of the high cliffs west of the bay on the north side of the point. The band then trends about west by north for nearly three miles, after which it sweeps round and runs in a south-easterly direction for about two miles, giving evidence of a synclinal form in the stratification. It then folds over an anticlinal axis, making a sharp turn to the west, running in that direction with a southerly dip. Following the band on the south side of the anticlinal, it keeps a general course nearly parallel with the valley of the main river, and it is seen largely developed on the high land on each side of Garden River. Again it appears on the high

land about a mile and a-half back from the head of Little Lake George, near the valley of Root River, beyond which in the same direction, we have the flat country underlaid by the Silurian strata.

This calcareous portion of the Huronian formation averages about 200 feet in thickness. It presents alternate layers of pale blue or whitish limestone, and greenish calcareous and silicious slate usually in thin strata. The calcareous-silicious slate weathers out in high relief, and gives a striped or ribbonlike aspect to the mass when exposed. About the middle of the band there is a calcareous breccia, generally in a massive bed, holding angular fragments of greenstone trap and dark blue or blackish impalpable grained slate.

Both above and below the limestone the rock is a slate conglomerate, the base of which is usually of a greenish color, frequently having the aspect of an igneous rock; but it contains numerous rounded pebbles of various kinds, the chief part of which are syenite, quartz, gneiss and jasper. In some cases the conglomerate is very coarse, the pebbles or boulders as they may be called, forming the greater part of the mass. In other cases the rock is a fine compact slate, enclosing rounded masses of various sizes and characters, which are scattered through the slate at wide distances from one another.

Following the limestone band east from Echo Lake, it strikes about E. S. E., and is lost beneath the heavily timbered land in a little more than half-a-mile from the point. It forms in this distance two rather sharp-ridged hills, with a northerly escarpment to each, and they are flanked to the east by a cedar swamp. Beyond this the band was nowhere found in place for five miles; but it appears by the distribution of the upper and lower conglomerates, which were traceable for the greater part of six miles, and by occasional loose limestone blocks between them, that it runs in prairies and marshy valleys where the rock is altogether concealed. The general strike of the conglomerates is south-easterly, parallel with the ridges which have been already described; and in the position to which this would carry the calcareous band, blocks of limestone were met with a little over half-a-mile south-west from the exit of the small lake at the head of Echo River, from which position it is probable that it holds the same course until it strikes Thessalon and Otter-tail Lakes on the Thessalon River, where it is already known to be exposed.

The rocks beneath the lower slate conglomerate are greenish silicious slate and pale greenish quartzite, which on Echo Lake are displayed in high precipitous cliffs on the north side. These are underlaid by greenstone, and below the greenstone is a highly altered green chloritic slate, which is exposed in nearly vertical strata forming high precipices at the extreme head of the lake.

Above the upper slate conglomerate there was observed at several places a thinly laminated dark blue or blackish slate of very fine texture, interstratified with thin beds of dark grey quartzite. These were overlaid by whitish or pale grey quartzite, in some parts immediately succeeded by a mass of greenstone, and in others gradually passing upwards into a quartzose conglomerate with blood-red jasper pebbles.

Great masses of trap appear to be irregularly interposed among the strata. They are of nearly uniform character, being for the greater part coarse grained greenstone of a dark green color. Numerous greenstone dykes intersect the formation, which seem almost invariably to be fine grained or compact. About two miles north of Root River a deep flesh-red granite dyke of a porphyritic character occurs. It is interposed between the lower chloritic slates and an overlying mass of greenstone, which runs nearly parallel with the strike of the stratification.

A line drawn in a north-east and south-west direction near the centre of the area examined, as represented on the map, would cross the measures at about a right angle, and they would probably be found to be as follows in ascending order :

	<i>Feet.</i>
1. Green altered slates of a chloritic character,	1000
2. Greenstone,	400
3. Greenish silicious slates, interstratified with pale greenish quartzite,	1200
4. Slate conglomerate,	1000
5. Limestone,	250
6. Slate conglomerate,	800
7. Dark blue or blackish fine grained slates, with dark grey quartzite,	500
8. Whitish or whitish-grey quartzite, passing into quartzose conglomerate with blood-red jasper pebbles,	1000
9. Greenstone,	700
	6850

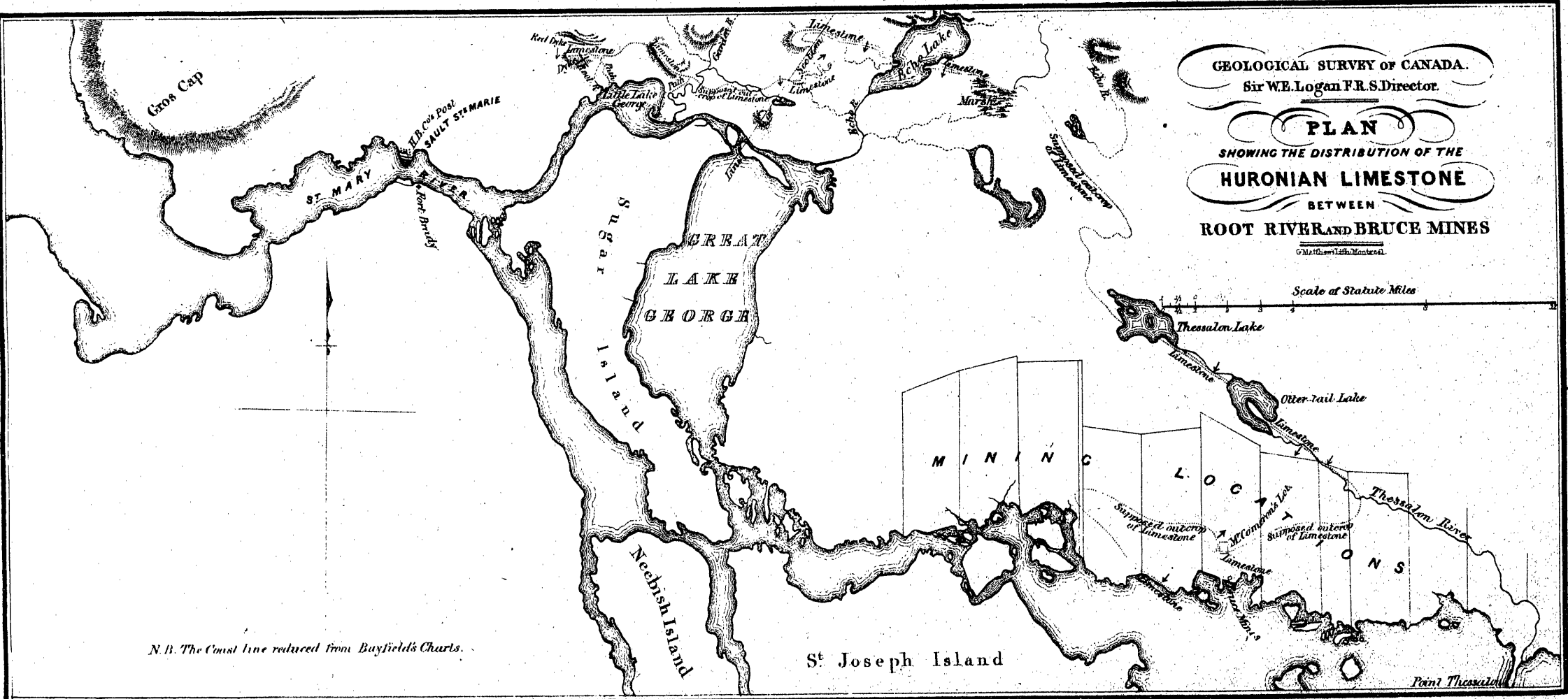
Copper pyrites is very generally disseminated through the masses of greenstone wherever they were examined, and it occasionally appears in quartz veins in sufficient abundance to constitute metalliferous lodes. The most favorable indications known of this description in the area are on the south side of Echo Lake, and in the hills north of the mouth of Root River, both of which localities have been taken up for the purposes of mining, but have not hitherto been worked to advantage.

Specular iron ore was also frequently observed both in the trap and in the sedimentary portion of the formation, occasionally arranged in thin continuous layers between the strata for considerable distances, and at other times in small isolated masses irregularly distributed through the rock. The latter condition was especially observed in the quartzose conglomerates with blood-red jaspers, where indeed the iron ore appeared to constitute a characteristic mineral.

Portions of the band of limestone are available in an economic point of view for burning into quick-lime, but it is not in general well adapted for building stones. Mr. Palmer of Sugar Island informed me that he had procured a few loads of the stone for the purpose of testing its capabilities, and found it to produce an excellent material for mortar, although rather difficult to burn, and mostly of a dark color.

Lower Silurian Rocks.—On the north end of Sugar Island, and the flat land contiguous to it north of Little and Great Lakes George, no exposures of rock were found, with the exception of certain strata in the valley of Garden River. Here a shale or indurated clay occasionally crops out at the lower part of the bank of that tributary, and is of a reddish color, sometimes mottled with green spots or marked with green stripes. A red color similar to that of the shale is pretty generally imparted to the clay and soil of all the flat land in the country around, and slabs and fragments of red or variegated red and green sandstone are imbedded in the clay and distributed largely over the surface.

A rock similar to the fragments of sandstone is found extensively displayed in place at Sault St. Mary, and there cannot be much doubt that the red shale of Garden River belongs to the same set of strata, and that these strata run under the Lower Silurian limestones which occur farther south on St. Joseph Island. In so far as the Canadian portion of these limestones is concerned, I am not aware that any of the fossils which have been brought from them are characteristic of deposits older than the Chazy limestone; and the total absence of fossils from the red sandstones makes it difficult to determine exactly their equivalent in that part of the Lower Silurian series which is inferior to the Chazy.



GEOLOGICAL SURVEY OF CANADA.
 Sir W.E. Logan F.R.S. Director.

PLAN
 SHOWING THE DISTRIBUTION OF THE
HURONIAN LIMESTONE
 BETWEEN
ROOT RIVER AND BRUCE MINES

G. M. Smith 1878 Montreal.

Scale of Statute Miles

N.B. The Coast line reduced from Bayfield's Charts.

St. Joseph Island

Point Thessalon

Drift.—The whole of Sugar Island and the flat land at the foot of the Huronian hills, including the lower part of the valleys which run up among them, is covered with deposits of clay, sand and gravel, with numerous boulders derived chiefly from the copper-bearing rocks to the north.

The banks of Garden River, which are from forty to sixty feet high, are composed of red and drab clays holding calcareous concretionary nodules, and surmounted by a stratum averaging about six feet in thickness of coarse sand of a reddish-yellow color. The flat land on the north side of River St. Mary and its two lakes, as well as the margin of Sugar Island, is largely composed of sand and gravel presenting the ruins of the red sandstone formation, mixed up with those of greenstone, quartzite, and various shales of the Huronian series. The boulders are in general derived from the latter formation, and among them are conspicuously displayed, particularly to the south of the point more especially examined, immense blocks of red jasper conglomerate; but at one part near the out-crop of the Huronian limestone at Root River there are numerous large rounded masses of gneiss and mica slate, resembling in all respects such as are derived from the Laurentian rocks. A large mass indeed was observed, which had the appearance of being in place. This is situated in a ravine, north of the limestone, between the lower slate conglomerate and a band of greenstone trap overlying the green silico-chloritic shales; it forms a low escarpment, much covered and concealed with bushes, and consists of red and grey micaeous gneiss, in alternating bands, with a dip N E. 35°.

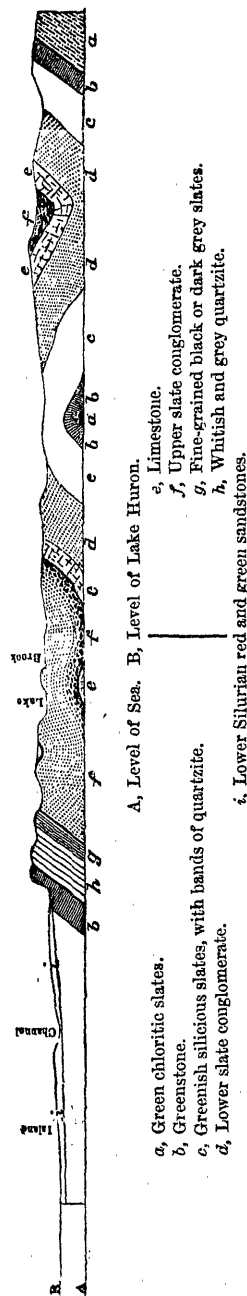
The rocks in the neighborhood of Echo Lake present many smooth rounded surfaces, shewing ice grooves and scratches. The direction of those that came under my observation varied from S. 55° W. to S. 70° W.

The accompanying wood-cut represents a vertical section of the rocks on the line drawn on the map a little to the west of Echo Lake.

The scale of the section is one mile to one inch, both horizontally and vertically.

Huronian Limestone near the Bruce Mine.

The information derived from Mr. Borron regarding the out-crop of the band of Huronian limestone on the Bruce mine location, was found to be essentially correct. The limestone occurs in small broken ridges about half-a-mile or a little more north from the lake shore, and a short distance east from the boundary between that location and the next to the westward, in the occupation of the Wellington Mining Company. Its general aspect and mineral character are identical in most respects with those displayed by it elsewhere. It is much disturbed and intersected by dykes of greenstone trap, the general bearing of the principal of which is about N. 72° W. and S. 72° E.



The position of the limestone here and at the most southern point of the next location westward, where its presence is stated in your Report on the North Shore of Lake Huron in 1848, indicates the structure you then appear to have suspected as the true one for this part of the coast. These exposures of the opposite are on the calcareous bandsides of an anticlinal axis, and between the newly discovered out-crop and the developments of the band on Thessalon and Otter-tail Lakes, north of the location, there is a synclinal form, on the axis of which the band will turn somewhere southward of the lowest exposures which we observed together on the Thessalon River.

I have the honor to be,

Sir,

Your most obedient servant,

ALEX. MURRAY

REPORT,

FOR THE YEAR 1857,

OF

MR. JAMES RICHARDSON, EXPLORER,

ADDRESSED TO

SIR WILLIAM E. LOGAN, F.R.S.,

DIRECTOR OF THE GEOLOGICAL SURVEY OF CANADA.

MONTREAL, 31st December, 1857.

SIR,

In the month of May last you were pleased to direct me to make a geological examination of a part of the Peninsula of Gaspé. I was instructed to commence with a survey of the Magdalen River, and from it to trace the out-crops of such important groups of rock as might be met with to the eastward as far as Gaspé Bay.

Leaving Montreal on the 26th of May, I arrived at Quebec the next day with my party. Here a week elapsed before a proper conveyance could be procured, and two more weeks were occupied by our passage down the St. Lawrence.

Having arrived at the mouth of the Magdalen, a few days were spent in making arrangements for the survey of the river. We commenced by measuring a part of the coast below its mouth, and in determining our distances both here and subsequently on the river, we made use of the micrometer telescope, while our bearings were ascertained by prismatic compass.

In these operations I was aided by Mr. Scott Barlow, who being at one end of the sights while I was at the other, was enabled to check the bearings; and having with us a repeating circle and reflecting horizon, I was farther indebted to Mr. Barlow for a general check on the measurements, by his frequently ascertaining the latitude by observations of the sun. Mr. Robert Bell, another of our party, in addition to a persevering attention to the general objects of the survey, devoted a part of his time to the collection of recent objects of natural history, his observations on which will be communicated to you by himself.

Our ascent of the river commenced on the 20th of June, and the highest point on it to which our micrometer measurements reached, being the farthest navigable for our canoes, was attained on the 20th of July, the distance being over sixty-two miles. A farther distance of a few miles was examined on foot, but running short of provisions, we were obliged to return to the mouth of the river. For several days previous to our return we subsisted principally on porcupines, which we found in some abundance along the river.

After allowing the men a few days rest we again ascended the river twenty miles, and then leaving our canoes, made a traverse southward, nearly at right angles to the stratification, to York River, which empties into the south-west arm of Gaspé Bay. From this we proceeded eastward, nearly with the stratification, until we struck the Dartmouth River, intersecting it near its discharge into the north-west arm of the bay. When about half-way, Mr. Barlow separated from us to run a line of section oblique to the measures, striking the Magdalen where we had left it, and to take our canoes back to the mouth.

Another traverse was made from Griffon Cove on the St. Lawrence to Peninsula Cove in Gaspé Bay; and proceeding thence up the Dartmouth River to the west line of South Sydenham township, an additional transverse line was measured from this position to Grand Etang on the St. Lawrence.

The whole distance, with the exception of the sixty-two miles on the Magdalen, was travelled on foot, and all our perambulations, comprehending over a hundred miles, were measured by counting our paces, positions being checked as occasion occurred by bearings on previously determined prominent objects.

On leaving Magdalen my intention was to return by the York River to the point where we struck it on our first traverse, and then to cross over to our starting point; but the want of sufficient water in this stream for its navigation in canoes, forced me reluctantly to abandon the attempt, and purchasing a boat at Grand Etang we ascended the St. Lawrence to the mouth of the Magdalen.

There being scarcely sufficient time again to ascend the Magdalen with a view of tracing the out-crops by a pedestrian excursion to the westward, and so join our work with that of Mr. Murray on the St. Ann in 1845, and your own on the Chatte in 1844, I was tempted by the facility of navigation to make an excursion up the Saguenay to Chicoutimi, and thence to Lake St. John. The examination here made can only be considered preliminary to such future explorations as you may institute upon the various important streams that flow

into this lake, and the distribution of the rock masses on its borders will require the exploration of some of these rivers to be made intelligible.

Leaving Lake St. John, Mr. Bell and our canoe-men returned by steamboat from Chicoutimi down the Saguenay to Tadousac, and thence to Quebec, while Mr. Barlow and myself made our way on foot by the road to Bay St. Paul; thence we proceeded to Quebec, and there joining the remainder of the party, two days after they had arrived, we reached Montreal in the beginning of November.

Description of the Magdalen River.

The Magdalen River falls into the St. Lawrence on the south side, in latitude $49^{\circ} 15' 32''$ N. and longitude $65^{\circ} 18' 36''$ W. nearly. Its mouth is about sixty miles above Cape Rosier, and about seventy below Cape Chatte. The entrance to it from the sea is on the west side of a not very deep bay, from which the right or east bank of the river is separated for about a mile by a narrow strip of fine gravel, but little elevated above the highest tides, while the left bank consists of an escarpment of stratified clay, about ninety feet in height, containing marine shells of the drift period. This escarpment continues out about a-quarter of a mile beyond the mouth of the river, and, resting on black bituminous shale, forms Cape Magdalen. It extends up the coast for between two and three miles, and the clay of which it is composed spreading for about a mile or a mile and a-half inland, presents a gently undulating surface, well fitted for cultivation. Some patches of grain upon it, consisting of wheat, rye and barley, appeared to promise a fair average yield, and others of potatoes and turnips seemed to be in a thriving condition, though the style of husbandry was but indifferent.

From the mouth of the river to the highest part reached by us, the distance in a straight line about S. W. is but thirty-one miles and a-half, while following the sinuosities of the stream it is sixty miles, and the distance actually measured by micrometer is 62 miles 2 chains 65 links.

The first stretch of the valley from the mouth of the river to Porcupine Bluff, (so called from our having killed the first porcupine upon its top,) is about eleven miles, but the channel of the stream measures very nearly fourteen, the general upward bearing being S. 25° E.* In this a serious impediment is met with in the ascent of the river about five miles from its mouth. It consists of two vertical cascades of twelve and sixty-two feet respectively, with a torrent above and between, occurring in a narrow precipitous gorge, with banks so steep as to be impassable, and rising to the height of 800 or 900 feet on each side of the stream. Over the summit of this height, on the eastern side, it became necessary for us to effect a portage, and the difficulties in transporting our canoes across were so great that seven days were consumed in the task, though the distance was not much over a mile. Not only had we to cut a clear road through very thickly growing though not large spruce trees, but after the road was opened we were obliged to use ropes, and to hold on by the trees in ascending and descending the hill, as well as to excavate foot-holes with a shovel to avoid slipping.

In flowing through this gorge the stream makes a turn out of the general bearing of about half-a-mile to the westward, its course presenting rudely three

* The bearings given in this Report are in relation to true north. The variation in the area of the Gaspé exploration is about $26^{\circ} 0'$ W., and in the valley of Lake St. John about $18^{\circ} 30'$ W.

sides of a parallelogram, below which the valley continues narrow to the flat land at the mouth, while the hills rise irregularly on either bank to heights not much inferior to that of the portage. Above the portage the valley is less deep and somewhat wider, the land presenting a more gradual fall from the hills, the sides of which appear to be but thinly covered with soil, while coarse gravel composes such flats as are met with at the foot. The timber on the flats consists of balsam-fir, white birch and cedar, with now and then ash and elm, but the last two are by no means abundant, while the mountain sides, all the way up from the sea, present balsam-fir, spruce, white birch and pine, the last being in some abundance about the portage.

For the next four and a-half miles above Porcupine Bluff the general upward bearing of the valley is a little west of south, in which the stream measures rather over six miles and a-quarter, to the junction of a tributary falling in on the right bank; to this from its temperature, in the absence of any known name, we gave that of Cold Water Brook. This tributary was the first of any importance met with; it comes from the south through a valley which is a continuation of that of the Magdalen up to this point, and just before joining the Magdalen, it flows between two prominent mountains, for which their shape suggested the appellation of East and West Terrace Mountains. On their north sides, particularly that of the west mountain, and towards the top, several perpendicular escarpments of from fifty to a hundred feet each, rise at irregular distances behind one another, and sweeping round into the valley of the Cold Water branch they slope to the south and converge, gradually becoming less marked, until they disappear altogether. By a rough measurement the summit of the eastern mountain was computed to be 1375 feet above the river, or 1957 feet above the sea. The summit of the other, about a mile to the westward, was not ascertained by measurement, but it is probably about 200 feet higher.

The soil and timber above Porcupine Bluff differ but little from those below, with the exception of an increasing abundance of white pine. It appears to me probable that between the portage and the Terrace Mountains about one-sixth of the wood seen on the slopes was of this species; most of it is large enough for saw-logs, and some may be of a size fit for squared timber. How far back from the river it may extend I am not prepared to say; but even what was in view would in my opinion, be worthy the attention of lumberers. The only difficulty in getting it out would be the falls and rapids near the portage, but these might probably be improved, while they would afford unlimited water-power for mills. From the foot of the falls sawn timber might be sent with safety to the mouth, where there is a good harbour, and deep water for two vessels, while over the bar at the entrance, there is a depth of seventeen feet at the ebb of tide.

From the Terrace Mountains the upward course turns nearly west and continues so for very nearly five miles, presenting a succession of rapids, with a swift current the whole way. On the south side, West Terrace Mountain is continued for half the distance, but after the first mile it loses in elevation. On the north, for the same distance, the hills come close upon the river, presenting a height of about 500 feet. In the remainder of the distance the hills on both sides are more detached and less elevated.

The next stretch of the valley runs N. 25° W., and in this bearing, which continues for six miles, it presents a parallelism with that part between Porcupine Bluff and the mouth. The hills on each side are farther apart than those lower down, and not so bold, the highest summits not exceeding 500 feet over

the river. Just at the turn at the upper end of this part of the valley a tributary falls in on the left side; at its immediate junction it is twelve feet wide, and its downward course south; but as it appears probable that it issues from a small lake, the position of which was described to me by one of the inhabitants at the mouth of the Magdalen, the general downward course of the depression in which it runs, may be about south-west. In this case it would be a continuation of the next and longest stretch of the valley of the main stream, and would apparently correspond with the depression on the south side of the portage mountain.

The next and longest stretch of the Magdalen valley has an upward bearing of about S. 55° W., and in this bearing a straight line of nearly twenty-four miles brings us to the end of our micrometer measurements. In this part of the valley the only marked divergence from the bearing given is about six miles up, where the general course is nearly west for about two miles. The lower end of this divergence is marked by a tributary fifteen feet wide, which flows in on the right, and another half-a-mile above it, and twenty-four feet wide, falls in on the left, while the right side two miles still farther up presents an additional branch. This is twenty-eight feet wide, and its transparency suggested the name of Clear Water Brook. The only other branch of any importance in the twenty-four miles also falls in on the right, about three miles below the termination of our micrometer measurements; at its mouth it was thirty feet wide.

The hills along each side of this stretch of the valley, although not so high over the bed of the river as those lower down, are more regular in their outline. They run in ridges parallel to one another. Those nearest the river, which are at no great distance, appear to be between 200 and 300 feet high, and those visible farther back gain upon them but slightly in elevation. These ridges appear to agree in their direction with the general course of the river, with the exception of one on the right side, the escarpment of which is seen three miles east of the Clear Water, and just south of the bend mentioned, at the junction of the lowest tributary. Facing the north, this escarpment rises rapidly to a height of probably 700 feet, and the surface then sloping more gently in a contrary direction, gives the aspect of an isolated hill. The escarpment resembles the north side of East Terrace Mountain, and bearing exactly for the position of that mountain, it is probably of the same formation.

From the Terrace Mountains upwards the timber of the valley is smaller than lower down. It consists of spruce, balsam-fir, white birch and cedar. Only a few trees of white pine were observed. The soil is thin both on the hills and on the flats. On the latter it is supported generally on coarse gravel, in which pebbles of reddish syenite abound. These pebbles were small at the lowest point at which they were observed, but appeared gradually to increase in size as we ascended, and towards the end of our measurements the river found its way with a rapid current among large rounded masses of this rock. The masses much resemble some of the syenites of the Laurentian formation, and may have been transported from the north side of the St. Lawrence.

About a mile and a-quarter above the termination of our measurements a large tributary joins the main stream on the left. The valley in which it flows is not deep, and can be traced by the eye in its upward course, which is N. 25° W., for between nine and ten miles. For a mile above its junction, with an average breadth of forty feet, it presents a rapid and broken stream, and probably runs with a swift current the whole distance. Beyond this, according to the description given me by a hunter well acquainted with this part of the country, its upward course turns west of south, and in about four miles reaches

the base of a mountain which rises considerably above the table-land through which it flows; it is in several small lakes or ponds on the summit of this mountain, about two miles farther, that the tributary has its source.

About a hundred paces farther up the main stream than the mouth of the north branch a tributary enters on the opposite side, shewing a breadth of about ten feet. It runs in a depression which appears to be a continuation of the previous one, its upward bearing being S. 10° E. The main stream from the end of our measurement to the junction has a breadth of from sixty to eighty feet, and its upward bearing is S. 70° W. or nearly at right angles to the two branches. This upward bearing it maintains until it reaches the base of the same mountain that gives origin to the north branch, the distance being about five miles. From this, as described to me by the hunter already mentioned, it bends round the southern base of this mountain, making an arc to which the last mentioned bearing of the main stream, if produced, would form a chord of five miles more, with a distance of about a mile and a-half from the curve about half-way. From the western extremity of the chord the upward course is about north for three miles, when by a sharp bend it becomes east for about four more, the main valley splitting up into several subordinate depressions, each of which sends a contribution from one or more small lakes at its source. These lakes are scattered among the tops of the same mountain in which originates the north branch, and the more southern of them are not far from its source, while the more eastern are not over one or two miles from the east end of the curve made by the main stream round the mountain's base.

This mountain rises boldly above the general level of the country around, its summits attaining a higher elevation by probably 1000 or 1500 feet. Approaching it, the size of the forest trees appear to diminish considerably, and occasional open spaces produce only short wiry grass. The sides of the mountain seem almost devoid of trees, and the top destitute of all vegetation whatever. Large areas below the summit appeared to be covered with huge detached masses of grey-colored rock, and some parts were marked with stripes of red, while on the 20th of July along the whole length of the upper surface, as seen from the mouths of the north and south branches of the river, patches of snow were abundant. In a bearing parallel with the depression or valley of these branches the measure of the mountain is about ten miles. According to Mr. Murray, the St. Ann River flows in a wide valley between Mount Albert of his exploration of 1845 and this mountain, which would therefore from a favorable point of view, appear to be a great isolated hill, and it evidently constitutes the abrupt eastern termination of the Shick-Shock range of mountains, which from the Matan, where Mr. Murray places its western limit, would thus have a length of about sixty-five miles.

While we ascended the Magdalen an endeavor was made to determine the rise of the valley. The river is so rapid in the whole of its length that we met with scarcely any reaches of smooth water to aid us in carrying forward ascertained levels from one part to another; and as we had no mountain barometer, it would have been necessary, in order to attain any reliable result, to use a spirit-level the whole of the way. We did not consider it prudent to expend upon the task the time this would have required. I contented myself therefore with measuring by means of the spirit-level of my clinometer the rise of only the more precipitous parts, and estimated others by the comparative aspect of the current, and the greater or less resistance offered to the progress of our canoes. With the exception of two short intervals, in which the canoe-men could use their paddles, they were compelled to resort to their poles the whole

distance, or jumping out into the water to drag or push the canoes along with their hands. On such occasions we were often obliged to land and scramble along the bank for considerable distances, and it was then I could sometimes ascertain the rise of parts by the clinometer. The result is given for what it is worth, without any great confidence in its accuracy, except as a very rude approximation to the truth.

Levels of the Magdalen River.

	<i>Distance.</i> M. Ch. L.	<i>Rise.</i> Feet.	<i>Total</i> <i>Distance.</i> M. Ch. L.	<i>Height above</i> <i>the Sea.</i> Feet.
Rise from the mouth up the river to high-water mark,.....	1-59-48	00.0	1-59-48	00.0
— from high-water mark to the foot of the first rapid, estimated at 9 feet per mile,.	1-57-55	15.4		
— from the foot of the first rapid to the foot of the Mountain Portage, including a measured rise of 14.5 feet in 28 chains, estimated at 20 feet per mile,.....	1-20-74	25.0	4-57-77	40.4
— from the foot to the head of the Mountain Portage, viz. :—				
Rapids, including two vertical falls of 3 feet each,.....(measured) 19.5	0-25-12			
Cascade,.....(measured) 12.0				
Torrent between the Cascades, (measured) 131.6	1-02-81			
Cascade,..... " 62.0				
Torrent to the head of Mountain Portage,.....(measured) 82.5	0-21-76	307.6	6-27-46	348.0
Rise in continuous rapids above the head of the Mountain Portage (measured).....	0-55-93	43.5		
— from the head of the previous rapids to a cascade, broken water all the way, estimated at 20 feet per mile,.....	0-51-14	12.7		
— in a cascade,.....(measured) 4.0				
— from the head of the cascade to Porcupine Bluff, swift current all the way, estimated at 12 feet per mile,.....	6-22-30	75.3	13-76-83	483.5
— from Porcupine Bluff to Terrace Mountain Rapids at Cold Water Brook, a swift current all the way, the last half being broken water, estimated at 15 feet per mile,.....	6-49-22	99.2	20-46-05	582.7
— in part of Terrace Mountain Rapids, (measured) 3.21.41	3-21-41	283.5		
— in continuation of Terrace Mountain Rapids, terminating 20 chains above a small brook joining on the right, estimated at 45 feet per mile,.....	2-36-48	110.5	26-23-94	976.7
— from the head of Terrace Mountain Rapids to the foot of Flat Rapids, a strong current with comparatively smooth water the whole way, estimated at 5 feet per mile,.....	0-46-05	2.9		
— in part of Flat Rapids,.....(measured) 0-74-87	0-74-87	65.0		
— in continuation of Flat Rapids to a tributary joining on the left side, at the Great Elbow, estimated at 30 feet per mile,.....	3-20-67	97.7	31-05-53	1142.3
— from the head of Flat Rapids to the foot of Red Rapids, a violent current all the way, often breaking into rapids, estimated at 15 feet per mile,.....	5-33-69	81.3		
— in Red Rapids, estimated at 25 feet per mile, 0-73-64	0-73-64	23.0		
Rise from the head of Red Rapids to a tributary joining on the right, a violent current all the way, often breaking into rapids, estimated at 15 feet per mile,.....	3-59-50	56.1	41-12-36	1302.7

	<i>Distance.</i> M. Ch. L.	<i>Rise.</i> Feet.	<i>Total</i> <i>Distance.</i> M. Ch. L.	<i>Height above</i> <i>the Sea.</i> Feet.
Rise in rapids to a tributary joining on the left, (measured)	0-66-95	28-0	41-79-31	1330-7
— from the head of the last rapids to the foot of Clear Water Rapids, a violent current with much broken water prevailing all the way, estimated at 15 feet per mile,.....	3-68-07	57-7		
— in Clear Water Rapids to Clear Water Brook, estimated at 70 feet per mile,.....	0-36-02	31-5	46-23-40	1419-9
— from the head of Clear Water Rapids to the foot of Long Rapids, a violent current all the way, with much occasionally broken water, estimated at 15 feet per mile,.....	10-02-10	150-3		
— in Long Rapids to the end of micrometer measurements, estimated at 70 feet per mile,	5-37-84	383-0		
— from the end of micrometer measurements to the junction of North and South Branches, rapids similar to the last prevailing all the way, estimated at 70 feet per mile,.....	1-20-00	87-5	63-03-34	2040-7

This would give for the valley a rise of about thirty-two feet in a mile; but if from the result be deducted the Mountain Portage cascades and rapids, and the measured part of the Terrace Mountain Rapids, both of which are perfect torrents, the rate of rise would be reduced to about twenty-five feet in a mile. On the St. Ann, though Mr. Murray met with no vertical falls, he ascertained by barometrical measurement that the rise in the part which he measured, was about twenty feet in a mile, and from the description he gives me of its navigation I am induced to suppose that his difficulties of ascent were by no means equal to ours, even when those of the Mountain Portage and Terrace Mountain Rapids are excluded. The rise given to the Magdalen therefore does not appear extravagant.

Taking the height of the valley at the north and south branches to be 2000 feet, and that of the mountain between the Magdalen and the St. Ann to be 1500 more, its summit would be 3500 feet above the level of the sea. Mr. Murray's barometrical measurement of Mount Albert made its summit 3778 feet above the sea; and as he states that when standing on Mount Albert, the mountain to the east of St. Ann River bounded his view in that direction, it would follow that its height must have been at least equal to his own elevation, which would correspond nearly with the conclusion arrived at by myself.

District between Magdalen River and Gaspé Bay.

The distance from the mouth of Cold Water Brook to York River where we struck it on our traverse, is nearly eleven miles in a straight line, bearing S. 25° E. We followed the valley of the Cold Water, which bends more to the west, but our greatest distance from the straight line was not over a mile and a-half. It occurred when we had proceeded up the brook about three miles and a-half, where a tributary ten feet wide joins it on the right, with an upward bearing south of east. From this the bearing of the Cold Water valley again gradually approaches the straight line, and about a mile and a-quarter farther up another tributary joins on the same side as the former, and runs nearly parallel with it. A third falls in about three-quarters of a mile farther, on the opposite side; and the source of the main brook is met with about three miles and a-half above it. The source consists of a great multitude of copious springs which issue over an area of from thirty to forty acres, and collecting together form at once a considerable stream.

These springs were on the highest ground of our traverse, and were estimated to be about 800 feet above the Magdalen at the junction, which would be nearly 1400 feet above the sea. Immediately beyond them the descent to the York River commenced, the distance to the river being about two miles and a-half, to which there was a fall of probably 800 feet.

In the valley of the Cold Water as in that of the Magdalen there is evidence of a thin soil. The timber up to the first brook is spruce, balsam-fir and cedar, and there are large areas both on the mountain sides and in the lower parts of the valley, where the trees appear from the slightness of their hold in the ground, to have fallen over into a confused net-work of prostrate timber, through which a subsequent dense growth has sprung, producing a tangled mass very difficult to penetrate. The trees above the first brook are of the same kind as those below, but they are small, generally from two to three inches in diameter. The woods are open however, and afford good walking, and there is evidence of a previous growth having been destroyed by fire. Although pine was rarely met with standing, the charred and prostrate remains of good-sized trees, were by no means scarce.

From the position where we struck the York River to the settlements on the north-west arm of Gaspé Bay, the distance in a straight line about east, is thirty miles, but the line we travelled was about five miles more. The position at which Mr. Barlow separated from us, which we called the Ponds, was about eleven miles forward on this line, and his traverse to the Magdalen, in which he kept a straight line N. 63° W., was seventeen miles and a-half.

In the first part of our eastern traverse we kept along the left bank of the York River for about three miles. The width of the stream was from a chain and a-half to two chains; its current was rather swift, and its surface shewed broken water in several places. Its banks were often abrupt, presenting bare precipices of calcareous rock varying in height from fifty to 200 feet. In the three miles that we walked along its left bank we crossed three considerable tributaries with a general north-westerly upward bearing; they joined the main stream through rocky precipitous gorges of from 200 to 300 feet deep. Below the last one, the river gains rapidly to the southward, in its downward course, being turned in that direction by an elevation of from 300 to 500 feet, in which considerable vertical breaks of rock are brought to view.

This elevation forms a ridge which divides the York River from one we met with at the distance of four miles from the last of the tributaries mentioned. We supposed it to be the upper part of the Dartmouth River. It was twenty-four feet wide where we crossed it, and it flowed north. In its upward bearing it appeared soon to turn eastward, and farther in that direction it probably occupies the next valley north from the York River, and runs parallel with that river for some distance, but in a contrary direction. About two miles and a-half exactly north from our point of intersection, Mr. Barlow crossed it on his return traverse. It was there still flowing north, but it probably turns to the east not far below, to gain the position where I subsequently left it at the north-west corner of South Sydenham township, and the point where our eastward traverse previously came out upon it, two miles farther down.

Proceeding on our eastern traverse, only two other streams of any importance were met with, and they were both tributaries of the Dartmouth. One of them occurred about nine miles from our first intersection of the main stream. It had a breadth of twenty-four feet, and flowing northward, it must join the Dartmouth some short distance above the west line of South Sydenham. The other was met with three and a-half miles farther east. It goes among the settlers

on Gaspé Bay by the name of Lady-steps Brook. Where we crossed it its breadth was twenty feet, and its flow was from the south-west, in which direction its source is probably near that of the main stream. On our course it occupied a deep gorge, with a considerable mountain on the west and a still more important one on the east. The latter may have a height over the bed of the stream of probably 1200 or 1300 feet, and we gave it the name of Mount Serpentine, from the fact of our having discovered on it a band of serpentine, which we traced for a distance of nearly a mile and a-half. The stream turns eastward along the northern base of this hill, and joins the main river about three miles below our crossing.

Between York River and this brook the inequalities of the surface did not appear to be many. One occurred three miles east of our first intersection of the Dartmouth. Here an escarpment of from fifty to a hundred feet of shaly limestone, facing the south-west, capped an elevation of from 300 to 400 feet, passing over which we descended as much in about a mile and a-half to the Ponds already mentioned as the position where Mr. Barlow commenced his return traverse. The rills on each side of this ridge flowed southward to the Dartmouth. The next four and a-half miles, to the north-flowing brook already mentioned, are indented with no more than a gorge or two of from eighty to a hundred feet deep, but in a mile beyond the brook we ascended 700 feet and kept at that height for a mile and three-quarters, and then descended from 800 to 900 feet in a-quarter of a mile farther. This descent is within three-quarters of a mile of Lady-steps Brook, and thus constitutes the flank of the mountain already mentioned as existing west of it.

East of Mount Serpentine our way to the settlements of Gaspé Bay was marked to the right by a bold range of heights rising 1500 feet or more above the sea, cut by occasional transverse gorges, while on the left we had the valley of the Dartmouth at no great distance.

On our eastern traverse the timber met with consisted chiefly of balsam-fir, tamarack and cedar. On the first part of the line it appeared to be small, but it increased in size when we came to within fifteen miles of Gaspé Bay. In damp bottoms cedars were occasionally met with measuring ten feet in circumference. Pine was not observed until we were within eight miles of the settled part. The most marketable portion of it seemed to have been cut down by the lumberers several years ago, and what now remains appears to be of but little importance.

Ascending the Dartmouth River from its mouth, the first nine miles, up to Lady-steps Brook, run nearly on the strike of the rocks, and though the stream is rapid and broken, it is navigable for canoes. For two miles above this it runs across the measures coming from the north, and the lowest half-mile of the distance is characterised by several vertical falls, varying from two to ten feet in height. Beyond these two miles a zig-zag upward course for four miles more is sometimes with and sometimes across the stratification, and reaches to the west line of South Sydenham township. This was as far as we continuously ascended the stream, but its course beyond has already been indicated.

A little above the South Sydenham line the river is joined by a tributary coming from the north across the stratification. It is eighteen feet wide at its mouth, which constituted the starting point for our traverse to Grand Etang. Several tributary brooks and rills, running in deep dells oblique to the stratification, flow into this one on each side, and crossing these in succession, the inequalities of the surface appear more marked on this traverse than on the east

one further south, but there did not appear any important difference in the soil or timber.

The traverse from Griffon Cove to Peninsula Cove was made on the new road in the course of construction by the Government. In this part there is generally a better soil and larger timber than I met with in any other locality visited. Considerable areas support a heavy growth of yellow birch and maple, with varieties of ash and elm, promising in this instance at least, fertility to the agriculturist.

DISTRIBUTION OF THE ROCK FORMATIONS.

The rocks met with in the district of which the geographical features have just been given, are similar to those which in previous Reports have been described by yourself and Mr. Murray, as prevailing both to the east and the west of the area subjected to my examination. I shall give their characteristics as they appeared to me, in the order of their supposed ascending sequence, as established by yourself, not only from the results of those explorations, but in regard to part of the series, as modified by your subsequent examination of the vicinity of Quebec, and the facts ascertained last year on the Island of Anticosti. The Gaspé district is so disturbed that without reference to previous investigations, it would have been impossible for me to have arrived at correct conclusions in respect to superposition, more particularly with regard to the members of those subordinate groups which constitute the two lower divisions of its rocks.

By the arrangement in the museum of the Survey, of the specimens previously obtained on the north side of the Gaspé peninsula, I am made aware that the great groups to which the rocks of my last season's exploration on the south side of the St. Lawrence belong are—

1. Lower Silurian.
2. Middle Silurian.
3. Upper Silurian.
4. Devonian.

In previous Reports the fourth division was termed the Gaspé sandstones, the third the Gaspé limestones and shales. The second and first were separated into a series entitled conglomerate limestones, pillar sandstones and graptolitic shales, and was described under seven subordinate groups, some of which it was supposed might be repetitions of one another, the true sequence not having been determined. The Quebec and Anticosti examinations lead to the conclusion that the ascending sequence of the Lower and Middle Silurian rocks of Gaspé under the titles above mentioned is—

- | | | |
|-----------------------------|---|------------------|
| A, Graptolitic shales. | } | Lower Silurian. |
| B, Conglomerate limestones. | | |
| C, Pillar sandstones. | | Middle Silurian. |

In the geology of New York A and B are members of the Hudson River group, A having been occasionally called the Lorraine shales, and B, Eaton's sparry limestone; C is supposed to be equivalent to the Oneida conglomerate. In the geology of Canada A has been locally termed the Richelieu shales, B the Quebec or Point Lévy conglomerate limestones, and C the Sillery sandstones.

With this explanation I shall proceed to describe the distribution of the rock formations in the area between the Magdalen River and Gaspé Bay.

Section between Griffon Cove and Peninsula Cove.

Commencing with the most eastern traverse, that between Griffon Cove and Peninsula Cove, you have yourself already stated that the coast exhibits a great exposure of hard black brittle shale holding graptolites, the thickness of which may be about 1000 feet. These shales belong to the group A, in the first or lowest great division.

Two miles south-westward of the cove, about an-eighth of a mile is covered with large angular fragments of a greenish sandstone, some of which presented the aspect of a fine conglomerate with quartz pebbles as large as peas. All the fragments tried were more or less slightly calcareous. None of the rock was seen in place, but the abundance and angularity of the fragments convinced me that it could not be far removed, and the position of the fragments may be assumed as that of the rock. These sandstones resemble those of Sillery and would thus belong to group C, or the second great division. Between their position and that of the coast exposure there would be ample room for group B.

Half-a-mile or more beyond this, loose fragments of black slate and a grey slightly calcareous sandstone covered the bed of a brook in great abundance, and occurred not far from a post marked "Lots 3 and 4," being no doubt the corner post common to those lots in the township of Gaspé, but in what range I was not able to ascertain. These fragments resembled some of the strata of Point Lévy, and are therefore supposed to belong to group B.

Beyond this brook a mile and a-quarter, the position being about five miles from Griffon Cove, large masses of a conglomerate rock cover the surface for a short distance. They were traced in undiminished abundance for 200 paces to the westward, and not quite so far to the east, leaving no doubt they were close upon the position of the rock *in situ*, and indicated its strike, which would be about S. 40° E. and N. 40° W. The loose masses shewed the rock to be an aggregate of quartz pebbles of about an inch in diameter, most of which are white, with others of grey compact limestone, of yellowish-white feldspar and of green shale. The matrix was greenish and strongly calcareous, and the color of the weathered surfaces reddish-white. This conglomerate is coarser than any part I have seen of group C, but the pebbles and color of the fragments appear to me to be more closely allied to the strata of this group than to those of B.

A-quarter of a mile still further on, we come to the base of the third great division, or the Gaspé limestones and shales. The first exposure on the Griffon Cove road occurs in a brook called by the inhabitants Ruisseau de la Grande Carrière, where about forty-five feet of grey limestone are seen. The greater part of the beds is composed of very pure limestone, which would be an excellent material for burning into lime; but these pure beds are interstratified with others of an arenaceous character, which on exposure to the weather decompose into a porous earth to the depth of half-an-inch. These strata are overlaid by beds which by the action of atmospheric water, lose their lime on the exterior, and give a light porous chalks white residue. Nodules and patches of chert occur in these beds, which also weather white with a slight tinge of yellow. These forty-five feet of strata contain moderately well preserved fossils, among which were *Atrypa reticularis*, *Strophomena depressa*, *Favosites Gothlandica*, and encrinural stems. The dip of the beds in the Ruisseau de la Grande Carrière is S. 54° W. >20°, and a mile and a-quarter forward across the measures, in another

brook a few beds of iron-grey limestone shew a dip of S. 4° W. $<22^{\circ}$. It is probable that these exposures with the interval between them comprehend the whole thickness of the Gaspé limestones, for the more southern one strikes the foot of a hill presenting a flank which runs to Little Gaspé Cove, where as you have stated, the junction of this and the succeeding formation can be seen. An average of the dips mentioned would give a thickness to this calcareous group of 2100 feet, which very well corresponds with that stated in your Report, as the thickness farther east.

From the foot of the limestone hill to the margin of Gaspé Bay below Peninsula Cove the distance is about a mile and a-half. In this the only exposure of rock seen occurred at ninety-six chains forward. It consisted of greenish-grey sandstones, without fossils, shewing a dip S. 29° W. $<39^{\circ}$, and judging from the rocks which strike out upon the coast farther down the bay, there is little doubt the whole distance from the hill is underlaid by strata of the same character. This would give a thickness of about 4000 feet, which is the thickness you assign to this portion of the Gaspé sandstones in your Report, stating that it constitutes one side of a synclinal form, and is repeated with a contrary dip on the other side of the bay.

Section from Grand Etang to the Valley of the Dartmouth.

Between high and low water-mark on the coast and up the stream issuing from the lake or great pond which gives name to the place, a wide exposure exists, as you have yourself stated, of black bitumino-argillaceous shales interstratified with grey calcareous sandstones, and thin grey yellow-weathering limestones, marked with graptolites in the shales, on some of the limestones, and the surfaces of the more arenaceous layers. The breadth displayed by these strata approaches half-a-mile, and their dip is very uniform in a direction S. 20° W. ; but the slope varies from thirty degrees on the south side to seventy degrees on the north, and between the two there is supposed to exist an anticlinal axis, similar to several examples displayed in the neighbouring cliffs. On the north side of the axis the thickness of the strata is computed to be about 1400 feet, and they are supposed to belong to the group A of the first or lowest division. These beds are not so black nor so bituminous as those at Griffon Cove, and though they are supposed to belong to the same group, and may in fact represent them, they are presumed to be partially beneath them.

Upwards of two miles southward from these beds the next exposure met with occurs. It consists of greenish-grey slightly calcareous sandstone, weathering brownish. In parts it approaches the character of a fine conglomerate, with translucent quartz grains in some abundance, and small flat pieces of black shale, with occasional flakes of silvery mica. The beds are from twelve to fifteen inches thick, and are divided by cleavage joints into natural rectangular prisms of various lengths. The stone would dress easily, and is of sufficient toughness to retain its edges and corners; it would constitute a good material for building purposes. The width of the exposure was thirty paces, and the strata were vertical, with a strike S. 89° W. The aspect of the rock somewhat resembles the sandstones of the group C; but evidence derived from exposures farther south, to be mentioned presently, induced me to suppose that its place was in the group B.

Beyond these sandstones no exposures were met with for a mile and a-quarter. There then occurred black and iron-grey shales, alternating irregularly with black and green shales, both interstratified with greenish-grey yellowish-

weathering limestone beds from an inch to an inch and a-half thick. Beds of this character crop out at intervals for another mile and a-quarter, the dip of the most southern exposure being S. 10° W. $<51^{\circ}$. Comparing these beds with your description of some of the shales associated with the conglomerate limestones between the St. Ann and Chatte Rivers, they also are supposed to belong to group B.

Immediately succeeding these, and prevailing for a mile and a-half, are greenish-grey sandstones interstratified with red shales, of which shales there appears to be an important band at the base on the north side. There were exposures of these rocks both in the brook which ran near the line of traverse and in the neighbouring heights, and their resemblance to the Sillery sandstones leaves no doubt in my mind that they belong to group C. The dip of the northern portion was S. 10° W. $<51^{\circ}$, and of the southern S. 6° W. $<64^{\circ}$. The latter is probably an overturn, for from the evidence farther on, the form of the deposit must be that of a trough. The distance from the most southern exposure of these strata to the Dartmouth, near the western line of South Sydenham township, is about a mile, and it is not improbable that the formation may extend to the vicinity of the river.

Farther south than the south-west corner of South Sydenham, but somewhat to the east, there occurs an exposure of rock in the bed of the Dartmouth. It consists of a somewhat coarse grained sandstone, one bed of which was twelve feet thick, and composed of an aggregation of laminæ of not more than one-eighth of an inch each; these when separated, shew on the surfaces a thin film of a nacreous aspect, which might be taken for talc. These beds are associated with greyish nacreo-silicious slates, and thin calcareous layers, and with them present nearly throughout a set of minute wrinkles. They are also traversed in various directions by strings and small veins, some consisting of white quartz and others of calc-spar. Similar rocks occur two miles farther down the river, and are so contorted that it is difficult to follow the relation of one part to another.

About half-a-mile further down the stream, the channel of it is strewed in abundance with great fragments of conglomerate, the pebbles of which consist of light grey compact limestone, varying in diameter from one to three inches, aggregated so closely as to afford but little room for the matrix, which is itself sufficiently calcareous to be called a limestone, though of an arenaceous character. On the exterior the fragments weather to a yellowish-brown, and in their whole aspect they very much resemble the conglomerate limestones of Point Lévy. The abundance of the fragments leaves little doubt that though the rock from which they were derived was not seen in place, it could not be far removed. A little lower on the river there is an exposure of greenish-grey calcareous sandstone so strongly resembling in every particular that mentioned as occurring nearer the coast, that specimens from the two localities cannot be distinguished from one another, and the near proximity of the conglomerate limestones in the present instance induces the supposition that these sandstones in both cases belong to group B.

The position of the last mentioned exposure is about a mile and a-half above the junction of Lady-steps Brook with the Dartmouth, and it is immediately followed by a considerable development of the Gaspé limestones. The two formations are not seen in contact, and it appears probable that a fault of some importance may run between them, as the beds in the lowest display of the limestones are much disturbed, while the whole volume of the formation appears to be suddenly thrown forward to the south more than two miles by an upthrow

on the west side. A mile and three-quarters of the distance, (being the breadth of the space between the eastward traverse and the upward examination of the Dartmouth,) were not travelled over, and I cannot therefore state with certainty the character of the rocks that may be exposed in them. It is probable however, that they continue to belong to group B; for on the north side of Lady-steps Brook rises Mount Serpentine, the rock giving the name to which is supposed here as in the Eastern Townships to appertain to this group. This serpentine is situated about half-a-mile on the south side of the brook, and about 800 feet above its channel. It occurs in a band which was traced for upwards of a mile running S. 82° E.; but from the precipitous fall of the cliff in which it was exposed it was difficult to ascertain its exact breadth. As near as it could be made out at three places it was estimated at between thirty and forty paces. The rock is a blackish-green interiorly, weathering brownish-red on the exterior and like the Silurian serpentines of the Eastern Townships it has been found by the analysis of Mr. Hunt to contain both chromium and nickel. In contact with the serpentine on the south side dark green chlorite slate occurs, and appears to occupy the breadth of perhaps half-a-mile, rising to the summit of the hill, which may be 500 feet over the serpentine. The strike is given above, but it was not possible to determine on which side the slope occurred. The opposite side of the hill was not examined, but it is probable another half-mile would intervene before reaching the Gaspé limestones.

The following is an ascending section of the Gaspé limestones as they are seen on the Dartmouth on the east side of the fault:—

	<i>Feet.</i>
Grey limestone of a uniform compact texture in beds of from one to six inches thick, which are much disturbed, the beds for short distances standing in various attitudes, both as regards strike and inclination; an allowance of one-half the apparent volume is made for the irregularities,	83
Measures concealed,	465
Grey limestone of compact and uniform texture, in regular beds of from one to six inches thick; dip S. 9° W. > 20°,	81
Measures concealed,	223
Grey arenaceous limestone with a few obscure fossils; nodules and small patches of chert prevail in the lower part, while the upper beds are of a uniform grey compact limestone as before,	429
Grey compact limestone in beds of from one to six inches thick, in thin close laminae. The rock weathers to a chalk-white porous mass without lime, for an inch on the surface,	137
Measures not well examined in consequence of the steep and difficult character of the side of the gorge through which the river passes,	503
Grey hard calcareous beds with very fine lines of lamination; the rock weathers white and yellow,	121
	2042

The following is a section in ascending series of the Gaspé sandstones, seen in contact with the limestones:—

	<i>Feet.</i>
Iron-grey fine grained argillo-calcareous sandstones with small scales of silvery mica in the planes of bedding, and carbonized remains of plants in abundance. Interstratified with the sandstones are occasional beds of grey limestone from a-quarter of an inch to an inch thick, weathering yellowish-brown, and containing encrinal columns, obscure corals and bivalve shells,	95
Greenish-grey sandstones, in beds of from one to six inches thick, with ripple-mark on some of the surfaces, as well as comminuted remains of plants in abundance. A few thin beds of grey limestone are interstratified, but no fossils were observed in them,	552
Greenish-grey sandstone, with comminuted remains of plants, interstratified with iron-grey and greenish shale, and a few hard grey calcareous beds. The dip is S. 4° W. > 41°. The position of this exposure is on the left bank of Lady-steps Brook, at its entrance into the Dartmouth,	357
	1004

Section of the Magdalen River.

As already stated, Cape Magdalen about a-quarter of a mile north of the mouth of the river on the west side, is composed of drift clay with marine shells such as at present inhabit the gulf, resting on black shales. This clay occupies the left bank for about a mile and a-quarter above the mouth. The black shales beneath are interstratified with grey calcareous sandstones, and they are visible from the cape to the mouth of the river, dipping S. 3° E. < from 32° to 60° , the high angle which is at the cape being probably an overturn dip. On the river, for a mile and a-quarter up, no strata are visible, but on the coast about a mile to the eastward there are great exposures, the strike of which would bring the strata into the upper three-quarters of a mile. These are composed of black shales interstratified with thin hard grey calcareous sandstones, and grey limestones more or less arenaceous, sometimes the shales and sometimes the harder beds predominating. They present towards the base two coarse grained calcareous sandstone beds about ninety feet apart and about fifty feet thick each, holding fossils. Among these could be recognised *Leptæna sericea* and *Orthis testudinaria*, both of them however slightly distorted by molecular movements in the rock; an *Orthoceras* accompanied them. The general dip of these measures is about S. 3° E. < from 25° to 30° , and the thickness upwards of 1000 feet. These beds are probably in part a repetition of those at the cape, though it is not easy to point out the exact position of any fold connecting the two.

Measures more or less of the same general character, with the exception of the strong coarse grained fossiliferous sandstones, prevail for the distance of five miles more up the valley, comprehending the rocks of the Mountain Portage and of the rapids for a mile and a-quarter above, and it is supposed probable that they are carried forward thus far by repetitions resulting from undulations, the evidences of which however it is not easy to detect. The first exposure occurs immediately beyond the position assigned to the shales already described. The dip is S. 4° E. < 52° , and this inclination is so much steeper than that of the previous dip, that it may be taken for an overturn. The next exposure is three-quarters of a mile farther up, and the succeeding one another three-quarters of a mile beyond, where the dip is S. 4° W. < 54° . Three-quarters of a mile still farther a small synclinal and anticlinal are visible, keeping the strata at the surface for some distance. Within half-a-mile farther, at the foot of the portage and at the foot of the twelve-feet cascade a short distance above, the average dip is S. 6° E. < 63° , and there are displayed grey argillaceous-calcareous slates with thin beds of a compact yellow-weathering black dolomite, which shews itself also in nodules or patches of from three to four feet in thickness, with an obscure separation from the enclosing rock. Some of the nodules measuring from six to fifteen inches in diameter are of a grey color. Thin beds of this yellow-weathering black dolomite mark the strata to the head of the portage, and the measures seem to be arranged in the form of a trough. The strike varies a few degrees now and then, but the dip with a southerly direction first shews an inclination of < 59° , then < 36° . It then becomes northerly, with an inclination of < 85° , which it maintains to the sixty-two-feet fall, but at the head of the portage it is reduced to < 5° . Here there is a distinct difference between the bedding and the cleavage, and the layers of dolomite are included in grey strongly calcareous slates, weathering white, striped with black bands which give a dark brown streak, though they emit no bituminous odour when rubbed or freshly fractured.

In the additional mile above the portage the strata in the lower exposures are very much corrugated, and in those at the upper end the dip is S. 1° E. $<43^{\circ}$. These beds are black and dark grey shales, interstratified with hard grey calcareous sandstones, and bear so strong a resemblance to those near the mouth of the river as to justify the supposition that they are a repetition of them.

It would thus appear probable that the strata in the lowest five or six miles of the river stand in the form of a number of troughs, with in general overturn dips on the south side, and a depth gradually increasing to the Mountain Portage, which presents the main synclinal axis, and shews the highest set of strata at the surface. The compact yellow-weathering black dolomites are a very marked feature of these strata, and they appear in every respect to have so exact a resemblance to dolomites brought by yourself from the Grande Coupe, six miles below Grand Etang, as to leave no doubt of the equivalence of the strata. At the Grande Coupe graptolites occur in the shales associated with the dolomites, and it is not to be doubted that they belong to the group A.

In a stretch of over five miles up the valley of the Magdalen, above the rocks described, there are no exposures on the river. It is supposed however that in this part the strata of the Mountain Portage must be repeated at the surface, and finally sink beneath it, as the first display of strata beyond appears to belong to group B. This display occurs in Porcupine Bluff, which is a prominent object about 300 paces removed from the right bank of the river, and about 300 feet high. The escarpment which forms the north side of this bluff is a hard and fine-grained sandstone or quartzite, for the most part slightly calcareous, and varying in color from yellowish-white to dull reddish-white and light reddish-brown. It is generally studded with abundance of thin small scales of black shale, and partially spotted with iron-stains probably from the decomposition of grains of iron pyrites; some parts of it weather to a brownish hue. Small veins traverse the rock in various directions, filled with vitreous quartz, and sometimes a film of calcareous matter invests the sides of the veins. Some of the veins and cracks are filled with iron ochre. The whole thickness exposed is between sixty and seventy feet, with few observed divisions into beds. Those divisions which did occur, as well as the indications derived from differences of color and of fineness in the grain of the rock, give the dip S. 8° E. $<$ from 12° to 15° .

North of the escarpment red shale covers the surface in abundance for 150 yards, while 200 paces to the south of it the sides and bed of a brook running with the stratification support great angular masses of conglomerate limestone. Some of these masses are equal to cubes of from ten to fifteen feet, and under a thin covering of moss and vegetable soil they are closely packed together with an occasional mass of amygdaloidal trap.

On the opposite side of the river, about a mile from Porcupine Bluff in the bearing S. 82° W., which is the exact strike, there occurs another sharp pointed ridge about 200 or 250 feet in height, on which the same description of sandstones occurs.

The next exposure met with occurs in a similarly shaped hill, which we called Thunder Bluff. It is about two miles farther up the valley than Porcupine Bluff, or about a mile and a-half across the measures from the run of the last sandstones. It stands about a-quarter of a mile from the left bank of the river, opposite to a deep bend into which it points, as if there were some relation between the base of the hill and the sweep of the stream. The hill quickly rises 300 feet over the river, but gains additional height in the run of the ridge to the westward. The rock of which it is composed is as far as observed, a light grey white-weathering arenaceous limestone, in beds varying in thickness

from a-quarter of an inch to ten inches, interstratified with two beds of conglomerate limestone of one foot each and about three feet apart. The grit of the arenaceous limestone consists of grains of dark translucent quartz as large as pins' heads, very regularly disseminated through it. Some of the beds are very finely laminated, and divisional planes are sometimes marked by a film of yellowish-black matter, probably argillaceous, of an unctuous character. The conglomerate consists of flattened pebbles of compact grey or black limestone, most of which appear to be coated with the same unctuous black argillaceous matter as before, in rather thicker films. The matrix is a calcareous sandstone of a yellowish or reddish-white, approaching in appearance to some of the sandstones of Porcupine Bluff. The breadth of rock exposed is sixty paces, and the dip S. 16° E. <from 80° to 90°, giving a total thickness of about 150 feet. Some fragments of encrinal columns were observed on the rock but too obscure to be identified. This rock is probably a modified or proximate repetition of that of Porcupine Bluff, on the south side of a trough with a precipitous dip, and both of them belong to group B.

Between Thunder Bluff and the Terrace Mountains, a distance of about two miles and a-quarter, no rock in place was observed, and in the Terrace Mountains we come to the Gaspé limestones. But before proceeding farther in the direct line of section, it may be as well to describe some of the rocks exposed on the higher parts of the Magdalen, which for a considerable part of its course displays strata belonging to group B, with the strike of which it there appears nearly to coincide.

That part of the river which runs between Cold Water Brook and the head of Terrace Mountain Rapids shews nothing but Gaspé limestones, in the strike of which it runs; but about a mile and a-half northward of these rocks in the lower part of the Flat Rapids, large masses of grey arenaceous limestone and limestone conglomerate are met with in abundance. They strongly resemble the rocks of Thunder Bluff, and being precisely in the westward strike of the Thunder Bluff beds, there cannot be much doubt that they mark the position of its continuation. In less than a mile across the measures above this there are two exposures of rock, both consisting of blackish-blue unctuous shale, interstratified with light grey calcareous sandstones of one or two inches thick, in which are abundantly disseminated dark translucent grains of quartz. These exposures are but half-a-mile from one another, the lower one though somewhat irregular dips northward <from 50° to 90°, and the upper S. 1° E. <from 80° to 90°. The beds of these exposures may be equivalent to one another on the opposite sides of a trough overlying the conglomerate limestones, which should therefore re-emerge from beneath the unctuous shales to the north. If the strata of Porcupine Bluff were continued westward in the strike they present, they would intersect the Flat Rapids in the position where the conglomerates might be expected, but unfortunately no exposures occur to enable us to confirm the supposition.

Above the last exposure there are none for upwards of three miles northward to the Great Elbow, and for about an equal distance south-westward above that bend to the Red Rapids. The Red Rapids afford the following beds in ascending order:

	<i>Ft. in.</i>
Measures concealed, but supposed to be red and green shale,	12 0
Red shale,	39 0
Red and green shale, the red predominating towards the base, but the green towards the top. There is a cleavage independent of the bedding, the strike of the cleavage being N. 69° E. and S. 69° W.,	25 0

	<i>Ft. in.</i>
Red and green shale,	4 0
Grey calcareous shale finely laminated; some of the divisional planes have a fine unctuous coating of mottled blackish-grey and greenish-grey, and the shales are interstratified with reddish-grey strongly calcareous sandstones of one or two inches thick, subdivided into laminae separated by glossy blackish unctuous pellicles of clay. These calcareous sandstones weather reddish-brown, and all the beds are traversed by numerous small veins of calc-spar,	8 0
Grey calcareous shale as before interstratified with slight reddish-grey calcareous sandstones and arenaceous limestones of from three to four inches thick, divided by unctuous pellicles,	5 0
Light reddish-grey arenaceous limestone, weathering reddish-brown, subdivided as before by thin pellicles of glossy black unctuous clay,	1 8
	94 8

The exposure is on the left bank of the river, and shews the lower part of the beds dipping S. 25° E. <36°; and as the strata accumulate on one another ascending the stream, the strike gradually bends round the western end of a trough about 100 yards up, until the upper layers dip N. 25° W. <36. The stratigraphical place of the beds is supposed to be beneath the conglomerate limestones as indicated by the occurrence of the red shale on the north side of Porcupine Bluff.

An exposure which occurs a mile and a-half above this is either in immediate relation to it or may possibly be some modification of it. The dip at the place is S. 31° E. <from 73° to 90°, and the beds in ascending order are as follows:—

	<i>Ft. in.</i>
Red shales interstratified with beds of greenish hard compact calcareous sandstone of from one to two inches thick, constituting half the amount,	63 0
Measures concealed,	112 0
Red shales interstratified with greenish hard compact calcareous sandstones of one or two inches, constituting one-third of the mass,	22 0
Greenish hard and compact calcareous sandstones, interstratified with sandstones of the same color and hardness but without lime; the beds being from one to two inches thick,	34 0
	231 0

Two miles farther up, and about two and a-half miles below Cold Water Brook there is an exposure in which greenish hard compact calcareous sandstones similar to those mentioned above, but weathering somewhat brown, are inclosed in greenish instead of red shale. The beds are vertical, but the strike, which is N. 59° E., would bring them very near to the red shales farther down. Similar rocks however about a mile farther up shew a change in the strike, which becomes N. 61° W., the dip being N. 29° E. <66°. The course of the valley changes with the strike, and the return of the valley to the previous bearing a little below Cold Water Brook, may probably be taken to indicate a restoration of the previous strike. Accordingly three miles and a-half above Cold Water Brook, where the next exposure of rock occurs, we find the strike to be S. 64° W., very nearly what it was before. Here the strata are vertical, and consist of yellowish-drab calcareo-argillaceous shale, unctuous to the touch, interstratified with yellowish-grey shaly limestones of from one to two inches thick. Small nodules of a similar limestone are thinly disseminated in the shale. About fifty yards down the stream from these beds, and on the north-west side of their strike, probably below them in stratigraphical place, there occurs a bed of conglomerate limestone. It is twenty-four feet wide, and its pebbles consist of compact limestone with a smooth conchoidal fracture, shewing various shades of grey, and

in some of the pebbles two or more shades run in narrow alternating bands. The matrix is also calcareous, with only a small amount of sand; so that the whole rock would burn to very good lime.

These rocks running directly up the valley are exposed in two additional places in the distance of a mile and a-half; they are vertical in one of the localities, and in the other inclined south-easterly at an angle of 61° .

A mile and a-half further on occur grey shales interstratified with greenish hard calcareous sandstones of from one to two inches thick, similar to beds lower down, and beyond them about half-a-mile there is a recurrence of red and green shale dipping S. 56° E. $<32^{\circ}$, with another exposure of conglomerate three quarters of a mile beyond. This conglomerate is identical in appearance and character with that last mentioned, but over half a-mile forward another bed of conglomerate is met with, whose thickness does not exceed a foot and a-half. The pebbles and matrix however, are similar to those of the previous bed, of which it may be a modification. It is associated with grey calcareous sandstones of from three to twelve inches thick. They are studded with abundance of dark translucent grains of quartz of the size of pins' heads, and form bands in a blackish-grey unctuous shale, in which also are interstratified beds of grey limestone of about an inch thick, that have the peculiarity of a fibrous structure, the fibres being at right angles to the plane of the beds, like those of satin-spar. With the exception of the fibrous limestones the strata much resemble those towards the foot of Flat Rapids.

Between the last conglomerate band and the previous one there may be an anticlinal axis; for while the attitude of the beds at the previous one is vertical, with a strike S. 31° W. and N. 31° E., the dip of the last is S. 26° E. $<$ from 20° to 30° , and there may be a synclinal between these beds and those of the next exposure three-quarters of a mile higher, where the rocks are exactly the same as the last, but with a dip (probably overturned) S. 66° E. $<$ from 60° to 90° .

Red and green shales again make their appearance a mile and a-half farther up, dipping S. 26° E. $<48^{\circ}$, and half-a-mile beyond conglomerate limestone is seen associated with black unctuous shales dipping N. 49° W. $<$ from 50° to 90° . Not far above this exposure the course of the valley turns rather more to the westward, apparently diverging a little from the strike; but following the strike for about two miles to the south-west we again come upon an exposure of conglomerate limestone, associated with which on the north-west side, there occurs a reddish-grey quartzite, strongly resembling that of Porcupine Bluff. This exposure is about a mile across the measures to the south-east of the Magdalen at the termination of our micrometer measurements. Near the end of these measurements another band of conglomerate accompanied by dark-grey shales presents itself on the river dipping N. 41° W. $<85^{\circ}$, and it is repeated about half-a-mile lower down, and about 250 paces north-west of the strike of the last, with a dip S. 31° E. $<85^{\circ}$, shewing the existence of a synclinal axis between the two. Shales of a character similar to that of the beds associated with these conglomerates, continued to present themselves in the remaining mile and a-half to the junction of the north and south branches, but the conglomerates themselves were not observed, though it was indicated by the strike that they could not be far removed.

It is plain from these details that as stated before, the upper part of the Magdalen runs upon group B. and if the direction of the group were maintained in its south-westerly bearing it would apparently attain a position on the south of the Shick-Shock range of mountains. In your Report and that of Mr. Murray

we ascertain that the same group exists on the north side of the range, and if as has been supposed, the range is composed of group C, it would follow that it presents a synclinal form.

Returning to the direct line of section at the mouth of Cold Water Brook, the whole volume of the Gaspé limestones is presented to us in the Terrace Mountains. The dip of the strata in these mountains appears to be very regular and uniform all the way across the measures, being from S. 5° E. to S. 14° E. < from 38° to 35°. The formation occupies a breadth of twenty-four chains, and the surface where the uppermost beds crop out is 1375 feet in geographical height above the base. In going over the mountain the exposures met with were at considerable intervals. In the section obtained therefore, there are many portions concealed, but the sequence of such beds as presented themselves for examination is here given in ascending order :—

	Feet.
Measures concealed,	30
Brownish-grey shaly limestone interstratified at intervals of from six inches to two feet, with harder limestone of the same color in beds of from two to three inches, in some of which nodules and patches of brownish-grey chert occur, with thicknesses varying from a-quarter of an inch to an inch and a-half. The chief part of the mass weathers yellowish-white, but some of the beds reddish-brown. No fossils were observed,	100
Measures concealed,	125
Brownish-grey shaly limestone, interstratified with more compact beds as before; no fossils were seen,	6
Measures concealed,	375
Brownish-grey shaly limestone with harder beds as before; no fossils were seen,	20
Measures concealed,	355
Brownish-grey shaly limestone with harder beds as before; no fossils were observed,	24
Measures concealed,	597
Brownish-grey calcareous shale interstratified with brownish-grey limestone, in beds of from one to three inches, weathering brown and yellowish-brown; no fossils were observed,	15
Measures concealed,	593
Brownish-grey calcareous shale weathering brown in beds, of from two to three inches, interstratified with occasional harder layers of silicious limestone of the same color, and like the shale weathering brown; no fossils were observed,	45
	2255

No fossils were observed in any of the exposed beds, though they were most carefully sought for. Only one loose fragment of limestone was met with holding organic remains. It occurred at the foot of the mountain, near the base of the formation, but the remains in it resemble those which have been brought from the top of the Gaspé limestones, near Ship-head in Gaspé Bay. Among the species were *Strophomena depressa*, *Chonetes* ——— ? and *Platyostoma* ——— ?

The crest of the hill and the summit of the formation as given above coincide, and the Gaspé sandstones are supposed to come in on the line of section some short distance forward on the gradual descent which occurs in the geographical surface. The junction of the two formations however was not seen, and the first exposure indicating a change was met with in a spot, whose place on the line would be a mile and a-half from the limestones. It occurs to the west of the line on the right bank of Cold Water Brook, nearly a mile and three-quarters from its mouth. The rock is a greenish-gray sandstone having very generally disseminated through it small scales of silvery mica. The beds are from two to six inches thick, and much studded with comminuted and carbonized remains of plants, as well as with brachiopodous shells. These shells were generally filled with iron ochre, and it was difficult to procure them sufficiently well preserved to be properly identified. The

number of species did not however appear to exceed two or three, and the most abundant is identical with a small *Meganteris* (*M. elongata* ?) from the sandstones of Gaspé Bay, as well as those of Brehaut Bay, on the coast between Douglastown and Percé. The dip of these fossiliferous beds was S. 14° W. $<55^{\circ}$.

About a mile and three-quarters southward of this, similar greenish-gray sandstones, but without fossils, occur on the lowest tributary of Cold Water Brook, but here the dip is N. 1° W. $<14^{\circ}$. Between this tributary and the next one about a mile and a-half farther south, a hill is interposed, rising to the height of about 800 feet over the main brook. On it the sandstones are very generally seen up to the summit, which occurs about a-quarter of a mile from the second tributary. At the summit the dip is N. 18° E. $<39^{\circ}$, and the descent over the escarpment down to the tributary is very abrupt. No rock in place was observed either in the escarpment or in the tributary, but numerous large flat fragments of calcareo-arenaceous shale, abundantly marked with the carbonized remains of plants, were mingled with fragments of a harder and more compact material, sufficiently calcareous to be entitled to the appellation of a very arenaceous limestone, and these were accompanied with some fragments of chert. I am in consequence inclined to give the tributary as the southward limit of the sandstones, which between the tributary and the Terrace Mountains would thus lie in the form of a trough, measuring on the line of section about four miles and a-half across. This, agreeably to the dips observed on the opposite sides of the synclinal axis, would give for the sandstones a thickness of about 6000 feet.

Crossing the measures southward towards York River, the first exposure of the limestones met with on the south side of the trough was a little over a mile and a-half forward. It occurred about half-a-mile down an escarpment descending from the summit of a gradual rise which attains a height of 700 feet, and it consisted of about thirty feet of dark brownish-grey limestone, weathering partly white and partly brown, with patches and nodules of chert. The dip was N. 9° E. $<$ from 15° to 20° . No fossils were observed in the beds.

The distance from this position to York River is rather over four miles. Until reaching the river no exposures of rock were met with. Such as were seen on the river were calcareous. At the end of the traverse the strata consisted of dark grey compact calcareous shale, showing fine lines of stratification, but breaking up into flat fragments of from one to six inches thick, which like some of the rocks of East Terrace Mountain, weather white. The dip of the strata was S. 1° E. $<43^{\circ}$. Here no fossils were observed, but a few were met with two miles down the stream, not much out of the strike of these beds, where a height of 400 feet above the river was capped by 100 feet of calcareous shales of a somewhat softer character, weathering brown and white. Half a day's search produced a few fragments of *Brachiopoda* and two small species of *Orthoceras*, one of which strongly resembles an unnamed species from the limestone cliffs of Ship Head or Cape Gaspé. The dip here is S. 16° E. $<45^{\circ}$.

The dip of these calcareous rocks and that of the last exposures in the valley of Cold Water Brook being in opposite directions, it is plain that an anticlinal runs between them. It is not possible for me however to point out the precise position of its axis. Perhaps it may occur at the springs at the source of the brook, which may issue from some crack or dislocation on the crown of the arch. But taking the thickness of the limestone formation as ascertained in the Terrace Mountains, and the dips observed on the York River and the upper part of the Cold Water valley, it appears extremely probable that be-

tween the Gaspé limestones on each side of the anticlinal there would be ample room for some part of the Lower Silurian division.

The strata constituting the base of East and West Terrace Mountains visibly coincide with the general course of the Magdalen River for two miles above the mouth of Cold Water Brook, and there is no doubt from the fragments in the bed of the stream and the form of the south bank, that they do so as far as the head of Terrace Mountain Rapids. These fragments were absent from the river until they were once more met with in the east and west reach below Clear Water Brook. Here however they reposed on the rocks of group B, but the hill which rose boldly up to the height of 700 feet not far from the south side, and so strongly resembled East Terrace Mountain in form, pretty well indicated their source. In it we have no doubt a continuation of the Gaspé limestones, which have thus a nearly east and west bearing for about eleven miles. Above Clear Water Brook the hills on the south side did not show any of the terraced character, and it is probable that the valley of that brook may limit the extension of the Cold Water Brook trough in so far as the continuous westward run of the Gaspé limestones is concerned.

On our eastward traverse the first rocks met with after leaving the valley of York River, were observed when we crossed the Dartmouth. They consisted of twelve or fourteen feet of gray calcareous shale, interstratified with hard and somewhat arenaceous beds weathering brown and holding chert in patches and nodules. The shales resembled those capping the 400 feet hill on the York River, but they contained no observed fossils. The dip of the strata was N. 15° E. <38°, and they therefore belong to the limestones of the south side of the Cold Water Brook trough, and are probably not far from their base.

The next exhibition occurred about a mile and a-half before reaching the Ponds. Here an escarpment of sixty feet, surmounting a precipitous rise of 450 feet, presents itself, composed of brownish-gray calcareous shale in beds varying in thickness from a-quarter of an inch to two inches, in which nodules and patches of chert occur. The rock crumbles in the atmosphere into small fragments weathering white and brown, and much of it becomes exteriorly a porous earthy mass from the loss of its carbonate of lime, particularly in the upper part of the exposure. No fossils were observed in the strata. Their dip was N. 64° E. <43°.

Descending more gradually from this to the Ponds, the surface in the neighborhood both around and in the bottom of the ponds, which are not deep, is strewn with huge angular blocks of limestone, a great many of them measuring as much as six feet square and two feet thick, and some of them exhibiting obscure indications of fossils.

To the eastward of the Ponds a long distance intervened without any exposures of rock *in situ*, and we were obliged to place some dependence, in judging of the distribution, on the fragments observed on the surface, in water-courses and among the roots of overturned trees. For nearly a mile from the Ponds fragments of limestone predominated over all others; then for three miles and a-half fragments of greenish-gray sandstone with carbonized comminuted plants excluded all others until reaching the twenty-four-foot brook flowing north to the Dartmouth. Crossing this brook, the fragments of sandstone became mingled with others of limestone, and beyond it for two miles and three-quarters the fragments consisted of limestones and calcareous shale.

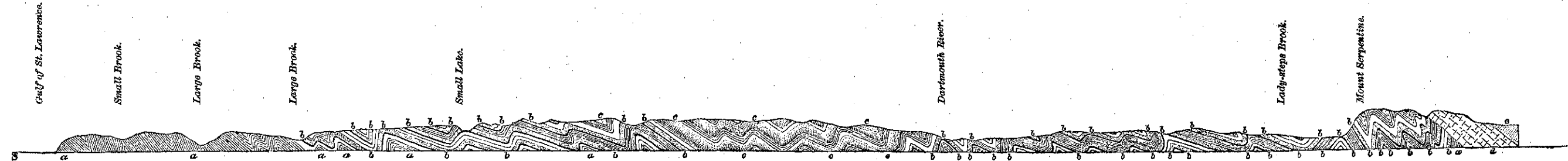
This brought us to a great exposure on a small tributary of Lady-steps brook, where 300 feet of limestone are seen dipping N. 35° W. <54°. Having

REFERENCE :

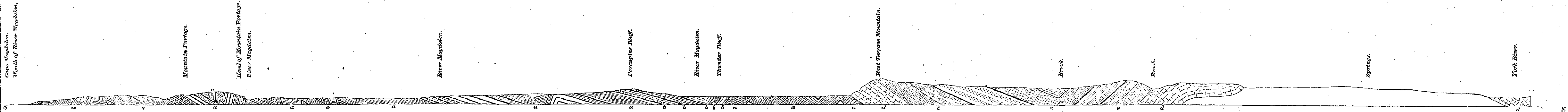
- a Shale.
- b Conglomerate Limestone.
- c Silly Sandstone.
- d Gaspé Limestone.
- e Gaspé Sandstone.
- S Level of the Sea.

G R E A T P O N D S E C T I O N .

Vertical and Horizontal Scale: One mile to one inch.



M A G D A L E N R I V E R S E C T I O N .



as indicated by the distribution of the fragments above given, crossed the sandstone, this exposure most probably belongs to the limestones of the east end of the Cold Water Brook trough. The north-west dip appears to indicate a turn in the calcareous belt carrying it round the flank of Mount Serpentine to the southern side, there to be interrupted by the fault described in following up the section from Grand Etang.

In his traverse from the Ponds Mr. Barlow in the first mile observed fragments of limestone only, while for three-quarters of a mile beyond fragments of sandstone prevailed; but in a farther distance of four miles and a-quarter, about the middle of which he crossed the Dartmouth, the loose masses were of limestone and calcareous shale. Beyond this they again changed to sandstone, and continued so for about three miles. The ground then became rather wet and the wood tangled, and but few upturned trees occurred to expose the rocks; but in five miles he reached a crest corresponding to that of the East Terrace Mountain, beyond which limestone was common for the rest of the distance.

It appears pretty certain from what has been said that the Cold Water Brook trough is a continuation of the synclinal of Gaspé Bay, the axis of which, from a point opposite to Ship Head or Cape Gaspé, would run about north-west for six miles, then N. 60° W. for about twenty-five miles to Lady-steps Brook, and N. 80° W. for about thirty-seven miles to the valley of Clear Water Brook.

The axis of the anticlinal to the south of this has been described by yourself as striking in upon the coast of Gaspé Bay, near Cape Haldimand, and thence running across the entrance of Gaspé Basin and passing near the English church. Thence it would run nearly parallel with the bearing already given to the synclinal axis and probably strike near the source of the Dartmouth River, passing thence to the springs at the source of Cold Water Brook, and from them westward for upwards of twelve miles.

From what has been said it will be evident from combining the facts of the present exploration with those of your Report of 1845, that the Gaspé limestone, commencing at Ship Head or Cape Gaspé, will run along the north side of the Gaspé trough as far as Clear Water Brook, and then return along the south side of it to some point on the anticlinal axis about south of the Ponds, whence it will again run westward on the York River, beyond which its course would require farther investigation.

The sandstone within the trough east of the dislocation near Mount Serpentine, would probably be separated from that westward of it; and this, with Mr. Barlow's traverse, appears to prove that it would thus be divided into two outlying areas by the valley of the Dartmouth River.

The accompanying wood-cuts represent the supposed arrangement of the strata in the Grand Etang and Magdalen sections, the horizontal and vertical scale being one mile to one inch.

ECONOMIC MATERIALS.

The materials fit for economic application met with on the present exploration were but few. They consisted of clay fit for brick-making, serpentine, limestone, and hydraulic cement.

Common-brick Clay.—Clay fit for the manufacture of red bricks exists in abundance in the Post-tertiary deposit which has been mentioned as occupying a considerable area at the mouth of the Magdalen, as well as in several of the

bays in the St. Lawrence, both above and below the Magdalen, but such clays were nowhere seen in the interior.

Serpentine.—It is probable that some of the rock of Mount Serpentine would answer for the purposes of ornamental architecture. All of the rock however that came under my observation was too much cracked and flawed to yield any large sized blocks. It is therefore rather from the analogy which this rock bears to the serpentines of the Eastern Townships, where very beautiful blocks have been obtained, that the Gaspé locality may be expected to yield, upon farther examination, an available material.

Limestone.—The Gaspé limestones will no doubt yield abundance of material fit for burning into lime. They seem however to afford a greater number of beds capable of such an application on the coast in the vicinity of Cape Gaspé than in the area that came under my observation. This may be owing to the greater number of fossils that appear to mark the limestones of Cape Gaspé, of which those more westward seem to be almost destitute. Some of the conglomerate limestones of group B would yield good material for the purpose, as well as many of the beds interstratified in the shales of group A.

Hydraulic Cement.—The black yellow-weathering dolomites of the Mountain Portage on the Magdalen, similar to those obtained by yourself from the Grande Coupe six miles below the Grand Etang River, afford a material which gives a very strong hydraulic cement, setting in a few minutes under water to a very hard and tenacious mass of a yellowish color. The range of the formation containing these bands being from Gaspé to Quebec and beyond, makes it probable that a considerable quantity of this stone may be obtained from various localities along the south shore of the St. Lawrence. The stone differs from that at Quebec, from which Captain now Major-General Baddeley, R.E., first prepared a cement, now manufactured by Mr. P. Gauvreau; this contains no magnesia, while the Gaspé stone is a dolomite.

Fish Offal.—Although not coming under the category of mineral substances, any one who visits any part of the Gaspé coast where a fishing establishment exists, cannot fail to notice the great quantity of offal that remains after dressing the fish, and to understand the advantage to which it might be turned as a manure.

The only fishing establishment that came under my observation was that of Messrs. F. & M. Lesperance at Grand Etang. These gentlemen employ about twenty-two boats and sixty men during the fishing season, and obtain annually 3,300 quintals of dried codfish, which is all sent to Europe. Salmon, mackerel and herring, in addition to codfish, form important items in their trade, and cod-liver oil is manufactured by them to a considerable extent.

In connection with the fishing, about 100 acres of land are under cultivation, being worked by the men when not engaged in fishing. The greatest cleanliness prevails throughout the establishment, and all the refuse around the fishing stages is each day carted away to the fields as manure. The ammonia and phosphate of lime which it contains render it a powerful fertiliser.

Although the country along the south shore looks somewhat mountainous, and the breadth of flat land capable of cultivation appears to be but small, there are not wanting instances of considerable success in the combined operations of farming and fishing. As one instance, I may mention Mr. Isaac Green who settled in May 1856 at the mouth of the River Martin, some distance below Cape St. Ann. In that year he made from 400 trees 300 lbs. of maple sugar, and cleared land for the following quantities of grain sown:—

GEOLOGICAL SURVEY OF CANADA.

Sir W^m. E. Logan F.R.S. Director.

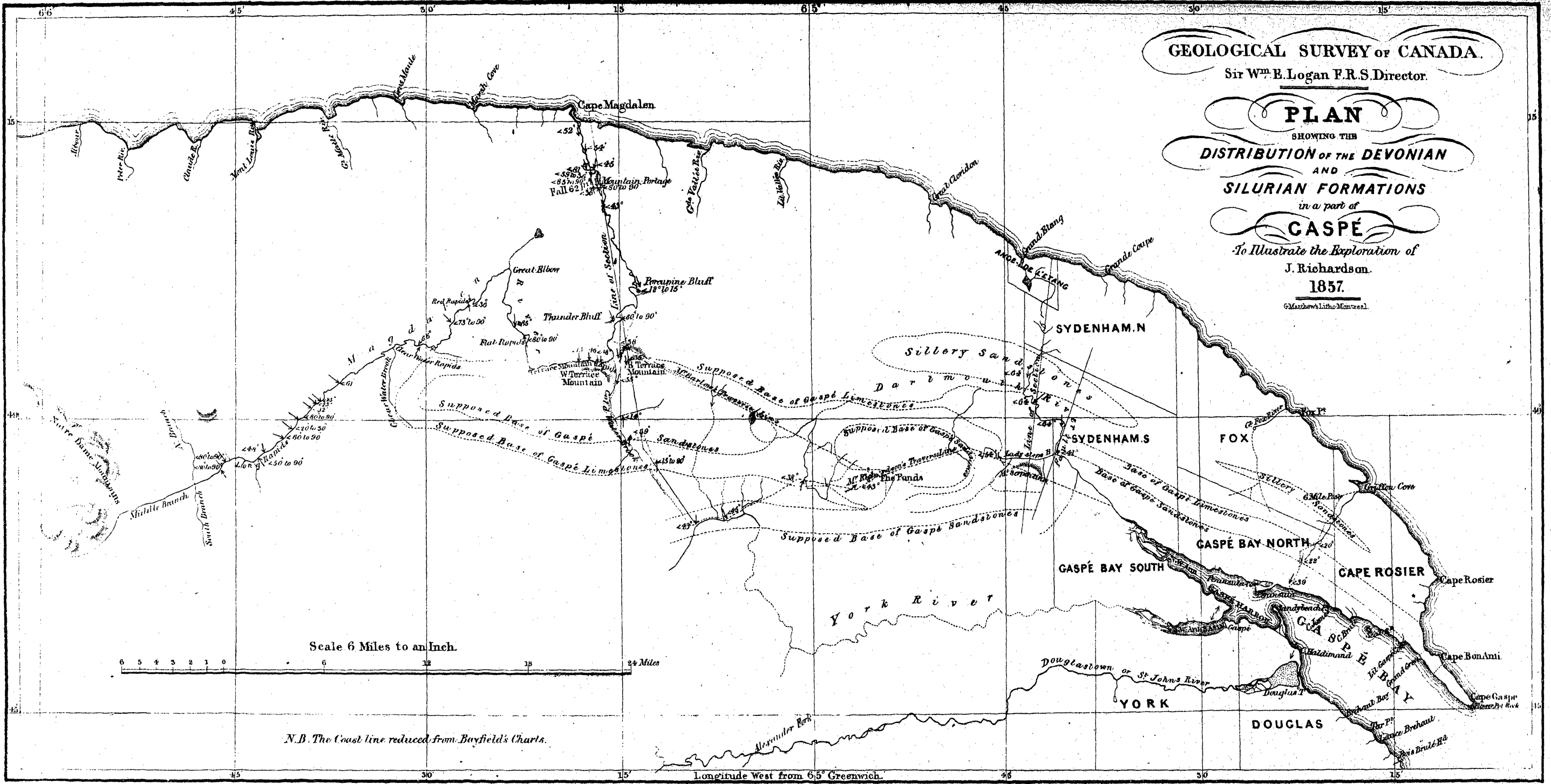
PLAN
SHOWING THE
DISTRIBUTION OF THE DEVONIAN
AND

SILURIAN FORMATIONS

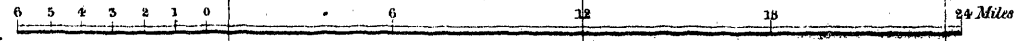
in a part of
GASPÉ

To Illustrate the Exploration of
J. Richardson.
1857.

G. Matthews Litho. Montreal.



Scale 6 Miles to an Inch.



N.B. The Coast line reduced from Bayfield's Charts.

Longitude West from 65° Greenwich.

3½ bushels barley sown June 16, returned 70 bushels, cut Sept. 8.
 16 " potatoes planted, returned 300 bushels.
 1 gallon onions sown, returned 1 barrel.

In addition to this his two sons, lads of fourteen and sixteen years of age, caught codfish between July and the autumn to the value of £45. In the year 1857 he sowed and planted—

8½ bushels barley,	returning	150 bushels.
1 " oats,	"	20 "
1 " wheat,	"	20 "
1 " pease,	"	15 "
20½ " potatoes,	"	300 "
2 gallons onions,	"	6 "

His sons, from the 15th June to the 1st August, caught and cured 45 cwt. of codfish, and other fish to the value of £15.

EXPLORATION OF LAKE ST. JOHN.

We arrived at the mouth of the Saguenay on the 23rd of September, and sailed up the river to the village of Chicoutimi, which we reached on the 28th, having been somewhat delayed by head winds; here we had some difficulty in obtaining canoes. Of the two we had taken with us to Gaspé one had been abandoned on the south side of the St. Lawrence, being too much worn to be of any farther use, and the other we lost in ascending the river, having been obliged to cut it adrift in a gale of wind.

To Mr. W. E. Price of Chicoutimi I was indebted for the use of one for which he would accept no recompense, and I was farther obliged to him for much information, and for the interest he evinced in the objects of our exploration. I was likewise indebted to Mr. G. Duberger, Crown Land Agent, for his kindly supplying Mr. Scott Barlow with materials for the construction of a map of the country around Lake St. John, and to his son Mr. E. Duberger, P. L. S., for much useful information; as well as to the Rev. J. B. Gagnon, who pointed out to us the routes by which we could travel most expeditiously.

Leaving Chicoutimi on the 30th September, our equipment was sent by land to the foot of Lake Kenogami, a distance of fifteen miles. Here a second canoe was hired, by which I was enabled to visit several points on the lake, while the provisions and other materials proceeded forward in a barge. Crossing by the Bon Portage from the head of Lake Kenogami to Lake Kenogamishish, we proceeded to the foot of it and then down the River Aulnais, and from its mouth down the Belle River to Lake St. John. Lake St. John was examined along the coast and around its islands, and we ascended three of its tributary rivers for different distances, the Belle River as already mentioned, the Quiat-chouan for one mile and the Peribonka for twelve miles.

We regained the mouth of the Belle River on the 20th of October, and returning to Chicoutimi, after sending the chief portion of our party by Tadousac as already stated, Mr. Barlow and myself proceeded on foot to Bay St. Paul, and reached Quebec two days after the others.

Geographical Description of the Country.

From the mouth of the Saguenay to Cap à l'Ouest on the right bank, a distance of fifty miles, we passed up so rapidly that I had only time to remark that on each side precipitous cliffs rise to heights of from 300 to 1100 feet, shewing

a succession of almost bare rocks of the Laurentian age, apparently gneiss. It is only at the mouth of some of the tributary streams that a foot-hold can be obtained for agricultural purposes. Such was observed at the junction of the River Marguerite on the left bank, about thirteen miles from the St Lawrence, at that of the Little Saguenay eighteen miles up on the right bank, and at the St. John on the same side, a little over twenty-four miles up. In all other parts where the surface was not actually denuded of vegetation, it sometimes gave support to an abundant growth of blue-berry bushes, or some few small spruce and pine trees of different kinds.

Above Cap à l'Ouest farm-houses begin to appear, at considerable intervals at first, but approaching Chicoutimi on the one hand and the head of Ha-Ha or Grand Bay on the other they become numerous. Advancing from Cap à l'Ouest the country becomes deeply covered with Post-tertiary clays, through the horizontal surface of which the Laurentian rocks protrude like islands, with occasional cliffs of the same facing the bays and the rivers. These clays form an excellent soil, but in some parts, more particularly in the neighbourhood of Lake St. John, to which the clays extend, they are covered over with from one to three feet of sand and gravel. The area thus covered is considerable, and it is but little resorted to for farming. Over a large part of this however, the defects of the light sandy soil might be easily obviated. With a small amount of labor the clay might be brought up from beneath the sand and gravel and spread over the surface, where mixing with the lighter material it would form an easier worked soil, equally fertile with that composed entirely of clay. The beneficial effects of such a mixture are shewn by natural examples in some parts of the area on gentle slopes which have been formed by denudation, where the sand gradually thinning becomes well mingled with the clay for some breadth near the junction, or on flat surfaces where the denudation has left the sand so thinly spread over the clay as to permit the action of the plough to effect the mixture. At the same time that such a soil possesses a great and durable fertility, it requires less labor and care in its management than the stiff clay.

The clay deposit between Chicoutimi and the head of Grand Bay has in some places a thickness of 600 feet, and where this exists land-slips are of common occurrence. They give to the surface a broken and rugged aspect, yet it is not uncommon to find whole farms situated on the remains of such *éboulements*, while others standing on the still unmoved ground might from analogy be supposed to be in positions somewhat insecure. The greatest display of these land-slips is to be seen up the Ha-Ha River and the River St. Alphonse, both of which empty into Grand Bay, and on the road between Chicoutimi and the bay. But the conditions which produce these slips extend to Lake St. John, and may be expected beyond, as the clays were observed on the banks of Lake Kenogami, at Bon Portage and on Belle River, where in many places they have a thickness of a hundred feet. It is here that large areas, as already mentioned, are overlaid with sand. On Lake St. John the clays were seen to the east of the Metabetchouan, at the Hudson Bay Company's post, and to the north-west of the River Ouatichouan, as far as Blue Point, where a very thriving settlement is established on them. To the west and north of Blue Point and around by the north margin of the lake to the outlet, the shores are low and sandy. The sand is greyish-white, and appears to be derived from the destruction of Laurentian rocks.

The greatest length of Lake St. John is about twenty-six miles, extending in a bearing N. 20° W. from about the mouth of the Metabetchouan River to that of the Peribonka, and its greatest breadth about twenty miles from the

mouth of the Ouatichouanish to the Great Discharge. The principal rivers that flow into the lake are as follows. First the Belle River, which joins it on the south side about six miles above the Little Discharge. Its average breadth just above the position where it is influenced by the waters of the lake is about one chain. Next is the River Metabetchouan, which is probably as large again as the Belle, and is about eight miles above it. A little more than the same distance farther is the Ouatichouan, equal in size to the last, and six miles beyond it a somewhat smaller stream, the Ouatichouanish. About the same distance farther we come to the most eastern part of the lake, and here enters the River Chamouchouan, and a couple of miles to the north the Mistassini. These two rivers are each of them over half-a-mile wide at their mouths, and when the waters of the lake are at their highest, which is fourteen or fifteen feet over their lowest level, the two rivers join for some way inland. At low water the shore between them, as well as above and below them presents a margin of dry sand of from one to two miles wide, forming a delta through which the rivers cut various channels. This description of coast extends all the way to the mouth of the Peribonka, which is the next stream, a distance of twelve miles, where the breadth of sand is upward of two miles, gradually tapering to nothing along the north-east shore. Inside of this extensive margin of dry naked sand there is a considerable breadth of low sandy country supplying a growth of meadow hay, with strips of small trees and brush-wood, giving farther evidence of the great amount of arenaceous material that is brought down by the rivers from the Laurentian rocks of the interior, the accumulation of which has so far filled up the whole lake as to give origin to its Indian name of *Pia-koua-kanny*, said to signify the broad shallow lake.

For the first twelve miles of its upward course the Peribonka is from a-quarter to a-half mile wide, and it presents several low sandy islands, as well as low sandy banks. But at this distance from its mouth it at once contracts to a breadth of not much over one chain, and maintains it for a-mile up. Through this sluice, bounded on each side by dark violet-blue labradorite rock, the whole volume of the river rushes with immense violence, producing a rapid current for some way down in the middle of the wider water below. Above this the river again widens out and still water prevails for a farther distance up. It then once more contracts and again rushes between its rocky margins with the same violence as before. This alternation of still and rapid water holds for some distance up the river, and the country on each side is said to correspond with the changes, giving a swampy surface opposite the still water, while a ridge of rock runs across the rapid part, very probably indicating the strike of the Laurentian rocks through the vicinity.

On these ridges large quantities of pine timber are said to exist, and they have I believe, already furnished a large proportion of its supply to the lumbering establishment of Messrs. W. Price & Son. The timber over the country described consists generally of spruce, balsam-fir, yellow and white birch and maple on the clay, with elm and ash in low places. On the higher and more sandy parts white pine prevails.

The valley of St. John Lake may very properly be considered as commencing at the mouth of Ha-Ha Bay. This constitutes the eastern extremity of the general depression or comparatively level surface of which the area occupied by the lake is probably the lowest flat; and from this point the boundaries of the depression separate from one another, that on the north side of the Saguenay running about N. 20° W. for about thirty miles, and then changing its bearing to about N. 75° W., and in that direction running for about sixty

miles. The boundary on the south side of the Saguenay separates a little from the south side of Ha-Ha Bay, in its progress running nearly S. W. It then gradually turns to about west of north, and gaining the south side of Lake Kenogami, runs along its whole length as well as Lake Vert beyond. It continues nearly in the same direction, and crosses the Metabetchouan about a mile from its mouth, coming very near the lake in a bay west of it. It crosses the Ouiatchouan at the fall about a mile from the lake and then turns about N. 55° W. Running in this direction it crosses the Ouiatchouanish about six miles up, and from Blue Point it is traceable by the eye running in the same course for twenty miles more, in which it keeps to the south of the Chamouchouan. Between the north and south boundaries where they can be no farther traced by the eye, there is a separation of about fifty miles for the breadth of the valley, the length of which up to a line running across at the upper end of the lake is about seventy-five miles, the general bearing of the valley being N. 70° W. How much farther it may extend in the same direction I am unable to say. Thirty miles added to the distance above mentioned would give an area of 5000 square miles. But as viewed from Lake St. John the northern boundary appears to terminate, and the valley may perhaps spread out to the eastward. Indeed one of the Indians who was with me asserted that it did so, stretching along in that direction to the Seven Islands on the St. Lawrence, while in the opposite one it extended to Lake Temiscamang. But it is uncertain what dependence can be placed on his information. I may state however, that his account is in some degree corroborated by what I was given to understand last year when at the Mingan Islands. Mr. Henderson of the Hudson Bay Company's post informed me that large loose masses of limestone, which from his description I inferred were Silurian, are met with far in the interior from the Seven Islands, in a direction that appears to bend towards Lake St. John, and I am inclined to think that where these blocks were seen, some of the Silurian strata will be found *in situ*, as is the case on Lake St. John. Where flat deposits of these rocks extend the country is almost certain to be capable of cultivation.

The northern ridge is much more elevated than the southern, and it is apparently destitute of soil on the summits, which are probably not under 2000 feet above the lake. The hills on the south were not supposed to be much over 700 or 800 feet above the lake. Their tops were generally rounded, and the growth of timber upon them, which was all composed of evergreens, seemed to confirm the report of the inhabitants, that these hills were pretty well covered with soil. The range however, gains in height towards Ha-Ha Bay, and all the wood is there of a stunted growth.

The cultivateable land of the valley of St. John most probably occupies a very large proportion of its area, and as in the settled parts of it good crops seem to be the general result, it appears to me very probable that the valley will hereafter support a very considerable population. There appears to be no doubt in the minds of the settlers that they are able to grow all the kinds of grain produced in the neighbourhood of Montreal, and in equal abundance; and the unexplained superiority of climate in the valley over places more to the south renders the investigation of this part of the province a subject of considerable interest.

Mr. Blair, who superintends the works of Messrs. W. Price & Son, at Grand Bay, has kindly furnished me with the returns from the farm of the firm for the past eleven years. He informed me that the results for ten of these years

had already been published in the *Toronto Globe*. I shall therefore only give the return for the season which had just past when I left Chicoutimi.

Statement of Produce raised on the Farm of Messrs. W. Price & Son, Grand Bay, under the management of Mr. Blair.

Produce.	Bushels Sown.	Yield per Bushel.	Bushels per Arpent.	Sown or Planted.	Cut.
Wheat	33	15	20	5 May to 20 May.	15 Aug. to 20 Aug.
Wheat & Rye	44	16	24	9 " to 18 "	15 " to 20 "
Barley	11	20	30	25 April to 18 "	30 July to 13 "
Oats and Rye	154	12	25	9 May to 18 "	19 Aug. to 3 Sept.
Oats	238	12	30	25 April to 8 "	20 " to 9 "
Pease	40	10	18	1 May to 8 "	31 " to 22 "
Potatoes	100	20	275-300	7 " to 27 "	6 " to 15 Oct.

Hay, total yield, 25,200 bundles; average yield per arpent, 200 bundles; cut 27th July to 19th August.

Indian Corn, a small quantity in the garden, good sized; picked green for use 15th August, and thoroughly ripe 15th September.

REMARKS.

Wheat.—A part sown on new ground was stunted by dry weather in the end of June and beginning of July.

Oats and Rye.—Being sown on new ground, they suffered from dry weather in the end of June and beginning of July.

Oats.—Being sown on new ground, they suffered from dry weather in the end of June and beginning of July.

Pease.—Other grain pressing to be cut, a scarcity of hands caused a late harvest and consequent loss by shelling.

Potatoes.—Dry and free from disease.

Hay.—Early rain and then frost in the spring destroyed the roots in some places, which produced nothing.

The cattle that are kept on the farm are a cross between the Canadian and short-horn. The principal object held in view is the raising of stock for beef and for hauling timber. In the winter straw is used liberally among the horses to induce the cattle to feed upon it more fully. Sawdust from the mill of the establishment, is used in the stable in summer to soak up the liquid manure.

DISTRIBUTION OF THE ROCK FORMATIONS.

The formations which present themselves in the area above described are in ascending order,

1. Laurentian.
2. Lower Silurian.
3. Post-tertiary or Drift.

Laurentian Series.

Between the St. Lawrence and the mouth of Ha-Ha Bay all the rocks examined consisted of gneiss. About three miles farther down the St. Lawrence than Tadousac, at a point just below Rivière à Baude, the rock is distinctly banded, and in great part composed of deep flesh-red orthoclase feldspar, which runs in layers of greater or less thickness, separated from one another by small but continuous patches of greenish hornblende, grains of quartz being sparingly disseminated. The strata dip S. 35° E. <51°, and they are cut by a per-

pendicular vein of calc-spar, which is twelve feet wide and runs N. 20° E. The calc-spar occurs in large cleavable masses and is nearly pure, there being disseminated through it only a few small crystals of copper pyrites.

On the north or left side of the Saguenay, about seven miles below the mouth of the River Marguerite, a mottled rock is met with composed of reddish-white orthoclase feldspar and small quantities of white quartz, with spots and streaks of greenish granular hornblende in some abundance, and a little brown mica. Lines indicating stratification are visible, but they are indistinct and irregular, and it was not easy to determine the general dip. At Cape Diamond, which is the highest cliff on the same side of the river, about seven miles farther up, the gneiss consists of pale yellowish or flesh red orthoclase striped with black hornblende in dotted lines, and mixed with a sparing amount of white quartz, the whole showing a dip about S. 20° W. <45°.

Not far from the extremity of the point which separates Ha-Ha Bay from the higher part of the river, the rock consists of alternations of red and grey gneiss, the former exactly resembling the beds seen near Rivière à Baude, and the latter only differing from it in color from the paler tinge of the feldspar, and the greater abundance of black hornblende. Some of the thin bands are composed almost entirely of black hornblende, with fine grains of feldspar and quartz and brown mica weathering yellowish-white; others consist largely of white translucent quartz and reddish-white orthoclase, and the whole are interstratified with occasional layers of fine grained lime-feldspar, with cleavable pyroxene. The beds are vertical and run nearly north and south. At the head of Ha-Ha Bay, at the commencement of the road to Chicoutimi, a considerable exposure occurs consisting of several varieties of rock, which run parallel with one another. At the south side of the exposure there are about 300 yards in breadth of a coarsely granular orthoclase rock, composed of pale flesh-red feldspar, with small quantities of quartz, considerable quantities of black granular hornblende and a little brown mica. The mass does not show any very distinct marks of stratification, except that it runs parallel with about twenty or thirty yards of a porphyroid feldspathic rock, the base consisting of greyish-yellow lime-feldspar with violet-colored feldspar (labradorite) imbedded in it. The individuals of the latter are large, and the rock holds crystalline masses of dark olive-green cleavable pyroxene with small portions of magnetic iron ore, and occasional patches of black mica. This mass is followed by an equal thickness of rock composed of black granular hornblende, with small quantities of striated triclinic white feldspar, the hornblende greatly predominating. Beyond this dark band succeed about 400 yards of fine grained flesh-red orthoclase rock in which are unequally mixed white translucent quartz and a sparing quantity of brown mica. In these successive masses taken separately it is not easy to discover any arrangement of lines indicating stratification, but their parallelism to one another, and the fact that they conform to the stratification which is seen elsewhere in the vicinity, induces me to suppose that they constitute a part of it, and are not intrusive. The masses appear to be vertical, and their bearing is about S. 30° W. and N. 30° E.

About a mile east of Chicoutimi the rock which presents itself is a dull pale brownish-yellow lime-feldspar with a waxy lustre, sometimes fine grained and slightly calcareous, and sometimes made up of moderately sized cleavable masses, with occasionally a little brown mica, and in one part a small quantity of white quartz. The rock generally contains cleavable green pyroxene in considerable masses, with magnetic iron ore, and occasionally small crystals of a black mineral as yet undetermined, but supposed to be orthite. At Chicou-

timi, above the mouth of the Kenogami, the rock is a reddish gneiss resembling that at the mouth of Ha-Ha Bay.

The fall which occurs at the Rocky Portage, near the foot of Kenogami Lake, descends over a porphyroid mass composed of flesh-red orthoclase feldspar, holding a small amount of white quartz with black granular hornblende and brown mica. It resembles the most southern mass at the commencement of the road from Ha-Ha Bay to Chicoutimi, with the exception of its porphyroid aspect, and it has some indistinct indications of stratification, across which there was a breadth exposed of about 400 yards.

Proceeding along Lake Kenogami, which is a narrow strip of water with a length of fifteen miles, it seems the whole way to separate the orthoclase rocks which compose the range of gneiss rising on the south, from the lime-feldspar rocks on the north. Between three and four miles up the lake, on the north side near the Au-Sable exit, the rock is a fine grained mixture of black hornblende and triclinic feldspar, exactly resembling the black band on the road from Ha-Ha Bay. Upwards of four miles farther on we have a greenish-white granular lime-feldspar, holding patches of granular pyroxene, and the rock is porphyroid from the presence of masses of a light blue feldspar. Two miles beyond this the rock is a bluish-grey coarsely crystalline lime-feldspar, with small quantities of golden-yellow and brown mica, while about a mile from the head of the lake it consists of a pale dull yellowish-brown lime-feldspar with a waxy lustre, holding cleavable masses of dark green pyroxene, altogether resembling the rock a mile east of Chicoutimi.

On the Bon Portage, which leads from the head of Lake Kenogami to Lake Kenogamishish, a rock which is a variety of the last described, is seen in juxtaposition with one composed of orthoclase feldspar, a small quantity of quartz and brown mica, while a little farther on the road a fine grained light violet lime-feldspar occurs with patches of fine grained pyroxene.

At the Crooked Falls on the Aulnais, just below Lake Kenogamishish, the rock appears to be composed of fine grained flesh-red orthoclase and brown mica, without perceptible quartz or any indications of stratification. It is a material resorted to for mill-stones in the vicinity.

Continuing to skitt along the south range of hills bounding the valley of Lake St. John, we find as we proceed westward from Lake Kenogami, that they still give the south limit of the lime-feldspar rocks. One mile west of the Metabetchouan River the hill presents a fine grained micaceous gneiss, composed of deep flesh-red orthoclase with quartz and brown mica, the dip being southward at a high angle. Between this rock and the lime-feldspar there runs a band of sometimes fine and sometimes coarse grained flesh-red orthoclase and quartz, forming a pegmatite, of which the feldspar has the aspect of that which so often in the Laurentian series presents the arrangements peculiar to graphic granite. This is about two feet wide, and north of it the rock is of a porphyroid character, composed of greyish-white lime-feldspar, with tinges of red and green, the latter due to granular pyroxene, which forms patches with scales of mica, and it holds imbedded cleavable masses of lavender-blue feldspar (labradorite), shewing very beautiful striæ. In some narrow bands the pyroxene predominates, and is then accompanied with magnetic iron ore.

At the falls of the Quiatchouan a similar succession occurs. The hill is composed of micaceous gneiss, to the north of which runs a band of coarse grained pegmatite, with lime-feldspar rock beyond; but in this case the last rock consists of white lime-feldspar, brown mica, and black hornblende, the latter greatly

predominating. In this direction the examination of the older rocks was not continued farther. The lake shore here began to recede from them, and there was not time for their investigation; but little doubt is entertained that the same relation between the orthoclase gneiss and the lime-feldspar rocks will follow the south range as far as the eye was able to trace it from Lake St. John.

Several exposures of rock belonging to the Laurentian series were examined between the junction of the River Aulnais and the lowest rapid of the Peribonka. They lie in a line nearly straight, the bearing of which is about N. 18° W., and they are all of lime-feldspar. The first of these exposures is at a fall on the Belle River, about four miles up from its mouth, where the rock consists of a light violet-red fine grained lime-feldspar, with patches of fine grained pyroxene, and becomes porphyroid in parts from the presence of magnificent cleavable masses of violet-blue lime-feldspar (labradorite), which are strongly striated. The breadth of this exposure is about fifty yards, and its strike appears to conform to the gneiss in the south range of hills. A mile below this the rock consists of black granular hornblende with a sparing quantity of white lime-feldspar, very similar to some bands already described, and half-way between it and the mouth there protrudes from the clay a mass of about a yard wide, composed altogether of dark-green cleavable pyroxene with curved surfaces, associated with small quantities of magnetic iron ore.

At the mouth of the river a surface of rock seen under the water of Lake St. John appeared to be dark violet lime-feldspar, identical with an exposure to be mentioned at the lowest rapid of the Peribonka. A similar rock was observed about two miles below the mouth of the Belle River, again on the outside of the island above the Little Discharge, a fourth time on the largest island between the Little and the Great Discharge, and a fifth time on the shore about two miles above the Great Discharge, where it was accompanied with renselaerite. All these exposures from the mouth of Belle River are so like one another that it is probable they belong to one band, which is continued to the Peribonka Rapid already mentioned. At this rapid the rock is exposed for a mile in a direction slightly oblique to the supposed strike and for 200 yards at right angles to the strike on the right or west side of the stream, while it rises in a precipice thirty feet in height on the opposite side. It presents a uniform black exterior, and in fresh fractures its color is a deep violet-blue, which characterizes large cleavable forms having strongly striated surfaces. Though no part of it that came under my observation displayed opalescence, the rock is a splendid instance of nearly pure labradorite, the only mineral disseminated through it being a pyroxene in very small quantity. On the right bank of the stream it is cut by a vertical band of a pale green mineral with a waxy lustre, unctuous to the touch, which appears to be renselaerite. It was traced for about fifty yards, and was taken to indicate the strike of the stratification, which would very nearly correspond with the bearing of all the exposures of the rock from the mouth of Belle River.

The impression produced upon me by the geographical and geological facts ascertained is that both the north and south ranges of hills bounding the valley of St. John Lake are composed of the same orthoclase gneiss which occurs between the St. Lawrence and Ha-Ha Bay, and that the lower ground is in general underlaid by the lime-feldspars, with the exception of those parts covered by the Lower Silurian series; but to prove this satisfactorily will require a much greater amount of investigation.

On our walk from the head of Ha-Ha Bay to Bay St. Paul our opportunities of examination were not very good, as we found on entering among the hills that the ground for the chief part of the way was covered with about eight inches of snow. For the first forty-five miles of the road all the exposures of rock observed were orthoclase gneiss, resembling those on the lower part of the Saguenay. The highest and boldest hills appeared to be those about the head of Ha-Ha Lake, where the outlines and the rocks resembled those of Cape Diamond on the Saguenay. The first indication of change was met with about six miles north of the church of St. Urbain, not very far from the road which branches off to Murray Bay. We here met with lime-feldspar rock weathering opaque white, consisting of white lime-feldspar spotted with pale pink, and holding in sparing quantity very minute grains of pyroxene. We ascertained also that the rock which stands in the apparent south-west strike of the great mass of ilmenite you have described as existing some distance below the church, on the land of Mr. Fortin, is composed of lime-feldspar of a pale yellowish-brown passing into greenish, and that a similar lime-feldspar occurs in patches imbedded in the ilmenite. It is probable that a large part of the rocks of this vicinity may have lime-feldspar as their chief constituent, and be as you have supposed in your Report of 1856, a continuation of the lime-feldspar rock of Chateau Richer.

Before leaving the subject of the Laurentian series I may state that several bands of garnet-rock, composed almost entirely of raspberry-red garnets with white reticulating quartz, the bands separated from one another by micaceous schists, were met with on the north-east side of Bay St. Paul, close upon the margin of the St. Lawrence. The whole occupied a breadth of about sixty feet, of which the garnet-rock constituted about one-third. The strike of the stratification was about east and west.

Lower Silurian Series.

The first and most eastern exposure of this series seen on Lake St. John, occurs on a flat island about half-a-mile to the west of the Little Discharge. The beds shew but little dip, and that not always in the same direction. They consist of yellowish-grey granular limestone, and have thicknesses of from two to eight inches. They are well stored with fossils, among which occur *Stromatocerium rugosum*, abundant and large, *Streptoplasma corniculum*, *S. profunda*, *Palaeophyllum rugosum*, *Stictopora acuta*, *Orthis testudinaria* *O. lynx*, *O. elliptica*, *Leptæna sericea*, *Strophomena alternata*, *Rhynchonella (Atrypa) increbescens*, *R. recurvirostra*, *Murchisonia gracilis*, *M. bellicincta*, *Pleurotomaria umbilicata*, *P. supracingulata*, *Ormoceras tenuifilum?* *Orthoceras ottawaense?*

The next observed locality of fossiliferous rocks on the coast is above fourteen miles south-westward from the previous one, its position being about two miles west of the mouth of the Metabetchouan River. Here the Silurian limestone was seen resting on the Laurentian rocks, both the orthoclase gneiss and the lime-feldspar running under it. The following is the ascending section of the limestone :—

Brown compact bituminous limestone, in beds of from three to nine inches thick; the rock presents fossils which are replaced by silica, and except when they are weathered out, but few good specimens could be procured. Among them were met with *Stromatocerium rugosum*, *Streptoplasma corniculum*, *S. profunda*, *Receptaculites Neptuni*, *Leptæna sericea*, *Strophomena alternata*, *Rhynchonella recurvirostra*, *Murchisonia gracilis*, *M. ventricosa*, *Pleurotomaria bellicincta*, *Ormoceras tenuifilum?* *Calymene senaria*,

ft. in.

8 0

	Ft. in.
Blackish-brown bitumino-calcareous shale, becoming occasionally a limestone; the only fossil observed in it was a species of <i>Tellinomya</i> ?	0 9
Brown bituminous somewhat granular limestone, in beds of from six inches to three feet. The fossils in it were much the same as those at the base,	13 3
	22 0

About a-quarter of a mile farther west, beds of the same character as the preceding were observed, filling up hollows in the surface of the Laurentian series, and the beds slightly conforming to these hollows produced irregularities in the dip, which however upon the whole pointed towards the lake or N. E. and E.

A little over a mile farther along the shore the following section occurs in ascending order. The dip at the spot is N. 1° E. <40°, but it moderates in a very short distance:—

	Ft. in.
Grey limestone in beds of from one to two inches thick interstratified with greenish-grey shale; fossils are present in the limestone, but they are very obscure,	17 0
Grey limestone in beds of from one to two inches thick interstratified with greenish-grey shale, the latter less abundant than before,	14 0
Yellowish-grey nodular limestone, in beds of from two to three inches thick, holding fossils, among which are <i>Streptoplasma profunda</i> , <i>Stictopora acuta</i> , <i>Orthis testudinaria</i> , <i>pectinella</i> , <i>Leptæna sericea</i> , <i>Strophomena alternata</i> , <i>Encrinurus vigilans</i> ,	19 0
Yellowish-grey granular limestone with beds thicker and more even than the previous, with similar fossils but obscure,	10 0
Yellowish-grey granular limestone, similar to the last; the fossils are obscure; at the top fragments of encrinal columns are abundant,	22 0
	82 0

In three places, this being one, these beds are followed by black bituminous shales resembling those of the Utica slate formation, and as the fossils of the limestones beneath them are such as characterize the Trenton group down to the base of the Bird's Eye and Black River limestones, there can be no doubt that the same members of the Lower Silurian series exist on Lake St. John.

A-quarter of a mile farther on, forty-two feet of the limestone are exposed on the margin of the lake where the dip is S. 85° E. <50°, and still farther on a thickness of seventy feet is seen. In both these instances the limestones are followed by the black shales. From the last mentioned exposure the limestones run inland, and strike round to the mouth of the Ouiatchouan, leaving the whole of Point Traverse, composed of the black shales.

On the Ouiatchouan the base of the limestone is found about three-quarters of a mile up from the mouth, resting on the Laurentian rocks, and the formation occupies the breadth of half-a-mile, leaving the remaining quarter of a mile for the black shales. Three feet at the base of the limestones are composed of yellowish-grey beds with tolerably well defined fossils replaced by silica, and weathered out on the surface; among them are *Monticulipora dendrosa* (*Chætetes lycoperdon*), *Streptoplasma profunda*, *Halysites catenulatus*, (never before found so low on this continent), *Orthis lynx*, *Murchisonia gracilis*, *M. bellicincta*, *Pleurotomaria umbilicata*, *Scalites minor*. The remaining thickness up to the contact with the black shales is probably about fifty feet. The dip of the strata is from N. 25° E. to N. 70° E. <from 8° to 10°; but the descent of the geographical surface is such that the accumulation of strata is not beyond the volume stated. The general character of these strata is that of a grey sometimes nodular limestone, in beds of from two inches to one foot in thickness, with part-

ings of bituminous shale. The beds are moderately well supplied with fossils, among which are *Monticulipora dendrosa*, *Streptoplasma profunda*, *Leptaena sericea*, *Strophomena alternata*, *Rhynconella increbescens*, *Orthis tricenaria*, *Pleurotomaria umbilicata*, *Murchisonia bellicincta*, *Bellerophon bilobatus*, *Oncoceras constrictum*, *Isotelus gigas*, *Acidaspis Horani*. Between the limestones and the black shales on the Ouiatchouan there appears to be a fault running S. 45° E., which brings down the shales against the limestones, but the down-throw is not supposed to be a great one.

Beyond the Ouiatchouan no rocks are seen on the lake shore until we reach Flat Point, a distance of about five miles; but from this point to Blue Point, nearly six miles farther, exposures of the limestone occur very frequently the whole way, and in the latter part of the distance, from a point about half-a-mile north of the Ouiatchouanish, their contact with the black shales is occasionally well displayed. In the whole of this distance the dip is towards the lake, and the strike conforms in some degree to the turns of the coast, the general bearing being about N. But at Blue Point it turns at a right angle to the westward, and the line of contact gradually departs from the shore.

The following section of the limestones occurs at Blue Point in ascending order.

	Ft.
Yellowish-grey bituminous compact limestone in beds of from two to three inches thick; the rock holds many fossils which are replaced by silica; few of them can be obtained by fracturing the rock, but they are dissolved out on the surfaces of the beds into high relief by the action of the water, and very good specimens are thus obtained. Among them are <i>Phytopsis cellulolum</i> , <i>Stromatocentrum rugosum</i> , <i>Streptoplasma profunda</i> , <i>Receptaculites Neptuni</i> , <i>Columnaria alveolata</i> , and <i>Halysites catenulatus</i> ; the last coral occurred loose, but having been found in place in the section on the Ouiatchouan, I do not doubt that the species belongs to the Blue Point section also. In addition to these corals there occurred <i>Atrypa hemiplicata</i> , <i>Rhynconella increbescens</i> , <i>Orthis testudinaria</i> , <i>O. tricenaria</i> , <i>Tellinomya</i> —? <i>Murchisoniagracilis</i> , <i>M. bellicincta</i> , <i>Pleurotomaria umbilicata</i> , <i>P. lenticularis</i> , <i>Subulites elongatus</i> , <i>Bellerophon undatus</i> , <i>Ormoceras tenuifilum</i>	42
Grey bituminous limestone in beds of from three to nine inches, with obscure fossils.	26
Yellowish-grey bituminous and somewhat granular limestone in beds of from three inches to one foot; among the fossils were <i>Orthis lynx</i> , <i>O. testudinaria</i> , <i>O. tricenaria</i> , <i>Strophomena deltoidea</i> , <i>S. alternata</i> , <i>Leptaena sericea</i> , <i>Atrypa hemiplicata</i> , <i>Murchisonia bellicincta</i> , <i>Pleurotomaria umbilicata</i> , <i>Ambonychia</i> —? <i>Phacops callicephalus</i> , <i>Encrinurus vigilans</i> , <i>Isotelus gigas</i>	32

100

The country being flat to the westward in the strike of the limestone from Blue Point, it is probable the formation may extend much farther in that direction. I was informed of its existence about six miles up the Ouiatchouanish, but the locality was not visited.

Large loose fragments of similar limestone were met with at the head of Ha-Ha Bay, near the village of Bagotville, but none of it was seen in place there.

The distribution of the black bituminous shales has been given in describing that of the limestones beneath them. On the east side of the Ouiatchouan a visible thickness of about thirty feet skirts the coast for a-quarter of a mile with a dip N. 36° E. <from 3° to 4°. The dip at Point Traverse with the same slope becomes rather more easterly, being there N. E., and the formation is continued out to Large Island about a mile north of the point, where Mr. Barlow ascertained that the strata were flat. The greatest thickness was observed at Blue Point. The lowest beds as they strike inland here dip N. 3° W. <26°, but before reaching the extremity of the point the dip becomes twenty degrees more westward, and between the two spots an accumulation of strata equal to a hundred feet is displayed.

In every observed exposure these shales are black and strongly bituminous, and they lie in beds of from a-sixteenth to an-eighth of an inch thick. The change from the lime-stones below them is sudden, there being no interstratification of calcareous layers at the base. From a-quarter to half-an-inch at the bottom was filled with fragments of encrinal columns, which being white gave to the layer a dotted grey aspect and supplied it with calcareous matter. Graptolites abound in the beds. Among them is *Graptolithus mucronatus*, and there are probably some new species. *Dictyonema* occurs, and among the fossils are *Orbicula filosa*, *O. lamellosa*, *Lingula* ———? several new species of *Orthoceras* and *Triarthrus Beckii*.

On Snake Island, about a mile and a-half westward of Large Island, there occurs an argillaceous yellow-weathering limestone, of which a small exposure was seen in place. The island, which is about a mile long and a furlong wide, is covered with fragments of the same kind, and Mr. Bell and Mr. Barlow obtained from those around the island a considerable collection of good fossils, some of the forms among which appear to indicate that the island must be underlaid with rocks of the Hudson River group. Among the fossils are *Streptoplasma corniculum*, *Stictopora acuta*, *Halysites catenulatus*, *Beatricea undulata*, so common in Anticosti, *Orthis occidentalis*, *O. lynx*, as large as in Anticosti, *O. testudinaria*, *Atrypa Healdi*, *Rhynconella increbescens*, *Ambonychia radiata*.

Drift.

Along the whole distance from the entrance of Ha-Ha Bay to the farthest westerly point attained on Lake St. John on the south and west shores, clays, sand and gravel are met with in many parts; but in so far as my own knowledge of them extends their distribution and thickness have already been given in the geographical description.

Marine testacea were found in clay on Belle River about half-a-mile below the lower falls, where a few individuals of *Saxicava rugosa* were brought to view by a land-slip in the bank of the river. The exact height of the position above the sea I am not able to give, but it is probably somewhere between 200 and 300 feet. Another locality presenting them was on the River Oua-bouchagama or St. Alphonse about four miles above its entrance into the upper part of Ha-Ha Bay. Here fragments of *Saxicava rugosa* were observed, and the computed height of the spot above the sea was about 150 feet. The same species in abundance, with *Natica clausa*, *Littorina palliata*, and *Balanus crenatus*, was observed by Mr. Bell in a bed of sand of six inches thick overlaid with clay. The position is about a-quarter of a mile below the Catholic church at Chicoutimi village, and the height of it above high water-mark is only a few feet.

No ice grooves were observed on the surface of any of the exposures of rock examined, most of which were too much injured by the effects of weather to have retained them if they ever existed; many of the rocks however have that general rounded form which is supposed to result from the wearing action of ice.

ECONOMIC MATERIALS.

As on the south side of the St. Lawrence, the substances met with around Lake St. John capable of economic application were but few. They consisted

of bog iron ore, mill-stones, garnet-rock, rensseleerite, labradorite, building stones, limestone, common-brick clay, and mineral waters.

Bog Iron Ore.—This ore was observed in small quantities on the east side of the Ha-Ha River, about one mile from Ha-Ha Bay on the road leading from it to Bay St. Paul. It occurred in small masses of a-quarter or half-an-inch in diameter lying somewhat detached from one another. Though they were not sufficiently numerous to be of any value, they may indicate deposits of more importance in the vicinity.

I was informed by Mr. J. Kane, Crown Land Agent at Ha-Ha Bay, that a small quantity of the ore was found in digging a ditch on a lot belonging to Mr. Joseph Tremblay in the second range of Bagot, beyond River St. Alphonse.

Mill-stones.—The feldspathic rock at the fall on the River Aulnais yields a material which has been applied to the manufacture of mill-stones. The rock is destitute of any indication of stratification, but it appears to split readily into rectangular blocks, by the application of wedges. It is made up of feldspar with mica equally distributed through it and without any observed quartz. It must therefore be the unequal hardness of the two minerals, rather than the great resisting power of the feldspar, which renders the stone effective. I was informed by Mr. Felix Langlois that he had used the stone in his mill at the fall for grinding wheat, and that it answered the purpose remarkably well.

Garnet-rock.—In your report of progress for the year 1852, you have noticed the application of garnet rock as a polishing material when reduced to a powder, the garnet, in consequence of its hardness, which is superior to that of quartz, being sometimes used in that form as a substitute for emery. In some parts of the bands of garnet-rock met with in Bay St. Paul the garnets are so closely aggregated that much of the mass might be made available for the purpose indicated.

Rensseleerite.—The refractory nature of this mineral, which often occurs in considerable rock masses, and its applicability to various ornamental purposes, renders the occurrence of it worthy of notice. The thickness of the band observed at the rapids of the Peribonka is not sufficient to be made available; but the presence of the mineral in association with the labradorite rocks gives a reasonable expectation that it may be found in larger abundance in some parts of the district in which these rocks appear so largely to prevail.

Labradorite.—Although none of the exquisitely beautiful opalescent varieties of the rock were observed, there is yet every probability that they will hereafter be discovered in the valley of St. John Lake; but the porphyroid and violet-blue descriptions met with would give materials capable of application to purposes of decoration. The uniform color of the mass exposed at the Peribonka rapids, and the great solid blocks that could be obtained there induced me to think that at some future time it might be turned to good account.

Building Stones.—Most of the lime-feldspar rocks met with would split into fine solid rectangular blocks for building purposes, and though of course harder than limestone, they would not be very difficult to dress. The exposure which has been mentioned near Chicoutimi would be available for building stones. It occurs behind the house of Mr. G. Duberger, where natural rectangular blocks shew the tendency of the rock to yield useful forms of any required size from one to five feet cubé. The color as has been stated is here of a yellowish-grey or brown passing into greenish.

About a mile west of the mouth of the Metabetchouan the Silurian limestone would give a good easily worked stone in blocks of almost any required size, and this will probably be resorted to for architectural purposes long before

the lime feldspars, in consequence of its greater cheapness, particularly as the same locality would afford lime for mortar.

Limestone.—Not only near the mouth of the Metabetchouan, but at almost every spot where the fossiliferous limestones were met with on Lake St. John, stone fit for burning into lime could be obtained. At the head of Ha-Ha Bay near Bagotville, the inhabitants have for several years resorted for their lime to the large loose blocks of the same fossiliferous rocks, which have been mentioned as existing there. But when these are exhausted, unless the rock should be discovered in place in the vicinity they will probably have recourse to the strata of Lake St. John.

The twelve-foot vein of calc-spar which occurs below Tadousac would afford a present supply of lime to the inhabitants of the neighbourhood, who not suspecting the properties of this rock, have hitherto been under the necessity of sending to a great distance for their supply of lime or of doing without it altogether. The latter alternative appears to have been the one generally adopted, as the buildings shewed no signs of the use of mortar in their construction. I took the opportunity of informing several of the inhabitants of the position and the economic value of the calc-spar, and although all of those to whom I gave the information appeared to be aware of the existence of the vein, none of them seemed to have entertained any idea that it would yield them a material of which they stood so much in need. Some of them I have no doubt will speedily make the information available.

Common-brick Clay.—It will be unnecessary to point out any particular spot as containing clays fit for brick-making, as the whole district from Ha-Ha Bay to the most westerly point of Lake St. John on the east and south sides abounds with it, and scarcely any place, excluding the sandy deltas of the large rivers, could be named, within a short distance of which the clay could not be rendered available for all the bricks that will ever be required.

Mineral Springs.—I am not able from personal observation to point out the exact locality of any mineral spring, but I was informed that there is one not far from Chicoutimi, and another near the head of Ha-Ha Bay. If these springs, when they are examined, should prove to be possessed of any medicinal virtues, they would be of some importance to positions which are annually becoming more and more resorted to by the tourist for his pleasure and the invalid for his health.

I have the honor to be,

Sir,

Your most obedient servant,

J. RICHARDSON.

GEOLOGICAL SURVEY OF CANADA.

Sir W. F. Logan ERS. Director.

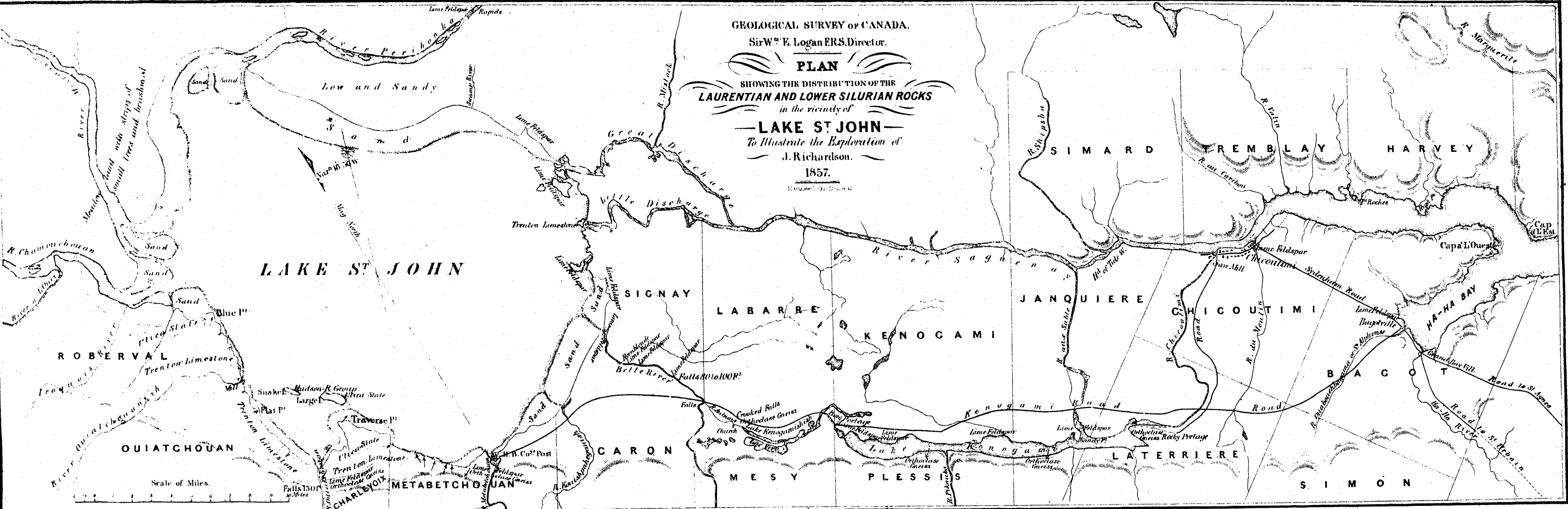
PLAN
SHOWING THE DISTRIBUTION OF THE
LAURENTIAN AND LOWER SILURIAN ROCKS
in the vicinity of

LAKE ST JOHN

To illustrate the Exploration of
J. Richardson.

1857.

By James C. Ball



LAKE ST JOHN

SIGNAY

LABARRE

KENOGAMI

JANQUIERE

CHICOUTIMI

BACOT

QUIATCHOUAN

CARON

MESY

PLESSIS

LATERRIERE

SIMON

Scale of Miles.

Falls 130 ft

Falls 100 ft

Falls 100 ft

Falls 100 ft

Falls 100 ft

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N.B. The Coast line taken from Bayfield's Chart.

GEOLOGICAL SURVEY OF CANADA

Sir W^m E. Logan F. R. S. Director.

TOPOGRAPHICAL PLAN

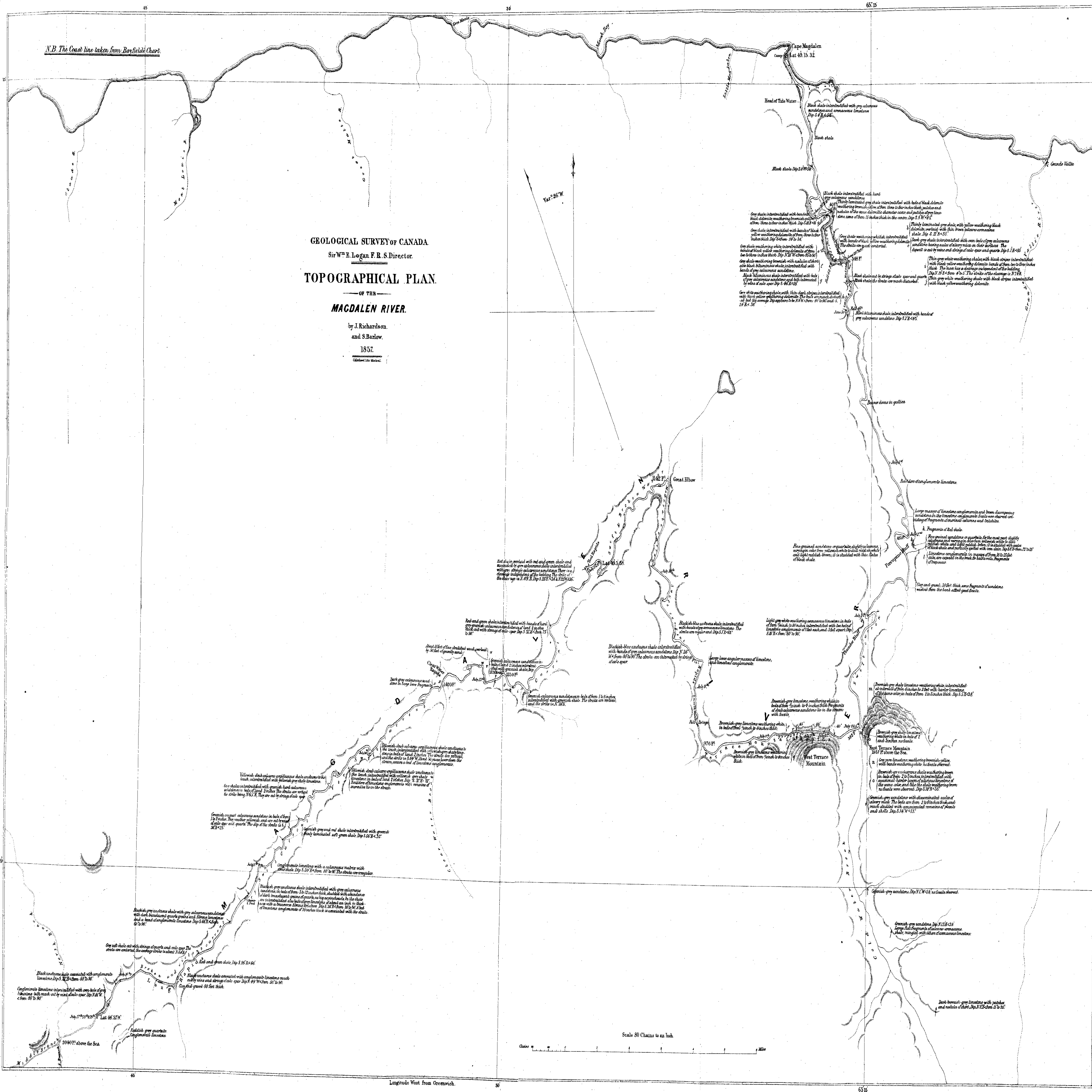
OF THE

MAGDALEN RIVER.

by J. Richardson
and S. Barlow.

1857.

Washed in the water.



Var. 28° W

Scale 80 Chains to an Inch

Longitude West from Greenwich.

REPORT

FOR THE YEAR 1857,

OF

MR. ROBERT BELL,

ASSISTANT ATTACHED TO THE EXPLORING PARTY OF MR. RICHARDSON,

ADDRESSED TO

SIR W. E. LOGAN, F.R.S.,

DIRECTOR OF THE GEOLOGICAL SURVEY OF CANADA.

MONTREAL, 1st March, 1858.

SIR,

During last summer and autumn, while accompanying the exploring party under Mr. J. Richardson, with which you were pleased to send me, I collected agreeably to your instructions, specimens of all the recent shells I could obtain. Not having had an opportunity to make the necessary preparations for collecting specimens in other branches of natural history, my attention was confined almost exclusively to the mollusca as being the most easily preserved.

On the 3rd of June we embarked on board of a schooner at Quebec, intending to proceed without delay to the Magdalen River; but those in charge of the schooner finding it necessary to stop and take in ballast at Bay St. Paul on the north-east bank of the St. Lawrence, between fifty and sixty miles below Quebec, an opportunity was afforded me of collecting what shells were to be found there.

On the shoals at the mouth of the River Gouffre there occurred a number of *Sanguinolaria fusca* (Conrad). Most of the shells are thinner and less eroded, but many of them larger than any of this species afterwards found lower down the St. Lawrence. The bay is a pretty deep indentation on the left bank of the St. Lawrence, and it is well sheltered by Isle aux Coudres which lies in front of it, as well as by the high land in the interior. The shells were obtained with the animal in them in shallow ponds when the tide was out, at the end of long tracks they had made on the bottom, consisting of a soft arenaceous mud in which I sank over the ankle in walking through it. The shells varied in size from $5\frac{1}{2}$ lines in length, $1\frac{3}{4}$ lines in width, and $4\frac{1}{4}$ lines deep, to 1 inch $2\frac{1}{2}$ lines long, $3\frac{1}{2}$ lines wide, and $11\frac{1}{2}$ lines deep. One individual larger than others was obtained empty, but the valves united by the ligament; it measures 1 inch $6\frac{1}{2}$ lines in length by 4 lines in width, and 1 inch $2\frac{1}{2}$ lines in depth; the posterior side of it appears to be more produced than usual. The water of Bay St. Paul, although much too salt to be potable, must be largely diluted with the fresh water coming down the St. Lawrence, and down the Gouffre. On the bank of the Gouffre one specimen of *Unio complanatus* was procured, which although wanting the animal had the valves still firmly united by the ligament.

After leaving this place we were detained some days by head winds at the Brandy Pots, an island so called I was informed from the occurrence on its surface of many small pools of the color of brandy. The island is situated near the lower extremity of Hare Island, on the south side. It is about forty acres in

extent, and is well clothed with grass and a few stunted trees. Hare Island is well wooded with spruce, balsam-fir and white birch, and much ground hemlock grows among the trees. Several opportunities were offered me of going ashore to collect shells. The banded and yellow varieties of *Helix hortensis* (Lam.) were found in great abundance, both on the Brandy Pots and on Hare Island. In one instance eighteen individuals, partly of the yellow and partly of the banded variety, were met with adhering to a single isolated tuft of tall grass causing the leaves to hang down as if laden with fruit. On (Hare Island a number of dead specimens of *Succinea obliqua* Say) were obtained.

The salt-water shells found alive consist of *Mytilus edulis* (Linn.), occurring rather abundantly on the Brandy Pots; *Sanguinolaria fusca* (Conrad) thrown up on some parts of the shore in heaps composed partly of living and partly of dead shells; *Mya arenaria*, of which only a few specimens were observed; *Littorina tenebrosa* (Gould), *L. palliata* (Gould), *L. rudis* (Mont.), were very abundant on the banks of both islands. Besides these a number of dead shells were obtained consisting of *Buccinum undatum* (Linn.), *Lottia testudinialis* (Muller sp.), and one each of *Fusus tornatus* (Gould), *Astarte sulcata* (Fleming), with a specimen of *Pectinaria Belgica*. *Buccinum undatum* and *Mya arenaria* were met with at all heights on the Brandy Pots Island from the edge of the water to the summit, the height of which might be about sixty feet over high-water mark, many of them lying on the green moss and other plants. They had the strength, enamel and color of living shells, and had probably been carried up by crows or gulls. The remains of the animal were in some of these dead shells, and the people of the island informed me that they frequently obtained the species alive between high and low water-mark.

On first landing on Hare Island we saw a number of the common Canadian hare from which it takes its name. They quickly escaped into the interior of the island on seeing us, but our Indians, returning next day, succeeded in shooting one of them. While walking through the woods of Hare Island I observed numbers of *Helix hortensis* on the trunks of trees and on the leaves of wild grasses. The species is one well known to be imported from Europe, and the number of vessels from Europe which take advantage of the safe anchorage of the place readily accounts for their presence.

Great numbers of the black guillemot, *Urea grylli* (Linn.), exist around the Brandy Pots Island. At the time of our visit they were just beginning to hatch. The crevices and holes in the cliff on the north side of the island afforded them excellent places on which to lay their eggs, and we found numbers of their nests. There were invariably two eggs in each nest, and we occasionally caught the bird sitting on them. The birds were at the time in their jet-black summer plumage, with a white spot on the wing coverts. We consumed all we could procure, both of the birds, which were very fat, and of the eggs, and found them of excellent flavor. The head and feet of one individual and some of the eggs were preserved as specimens.

We left the Brandy Pots Island on the 12th of June, with a fair wind, which continued until we reached the Magdalen on the 14th. The Magdalen River is about 230 miles farther down than Hare Island, being about 330 miles from Quebec and sixty miles above Cape Rosier. It is one of the largest rivers on the south-east side of the St. Lawrence flowing into salt water, and affords a pretty good harbor, though not a roomy one. It is considered a good fishing-station, although it is not much used as such, except by a few Americans, who annually visit it for some months in the summer. Out in the middle of the bay, which is just below the mouth of the river, we saw codfish taken in three or four

fathoms of water, as fast as they could be drawn in, and they are even caught in considerable numbers with lines and nets from the shore. One fine evening, while watching the fishermen hauling in codfish with their seines, I was astonished to observe a whole shoal of the fish, chased probably by some enemy outside, swim with such rapidity towards the shore that a large number of them grounded in the shallow water, and three or four of the foremost were thrown out about their own length on the sandy beach. Being taken by surprise, my attempts to secure some of them were not successful. They quickly struggled back into their element, and after floundering about and creating with their grounded companions a great turmoil in the shallow water, they all disappeared. When the fish approach so near the shore many of them are occasionally speared from the beach by the fishermen.

The bait used at this time for taking the cod is the capeling (*Mallotus villosus*, Cuvier). The fishermen set nets to catch the capeling in the mouth of the Magdalen, where the water is salt, and seine nets are used for the purpose when the fish come in shoals near the shore. These shoals are occasionally so dense that, the fish on the outside preventing those on the inside from escaping, a fisherman may go in among them without a possibility of their getting away, and take them out with a bucket or any other vessel, as you have informed me your Indians did in 1845 with a frying-pan, and in this way obtain bushels of them in a very short time. On such occasions many of them are sometimes thrown on the beach by the waves, and they occasionally appeared to me to leap ashore, dying before they could struggle back. I observed hundreds of them lying dead along the margin of the water, and I can readily believe what I have heard, that in some parts they are occasionally found lying in heaps which would contain several bushels, mingled with shells, seaweed, and the remains of land plants. One heap observed by yourself in 1845 you have informed me measured thirty paces along the margin, while it was a foot deep in the middle and several feet wide, tapering away at each end.

While preparations were making to ascend the river, I had an opportunity of collecting shells in the vicinity of the harbour. Of those inhabiting salt water a few large living specimens of *Buccinum undatum* were found, among many dead ones, at Cape Magdalen, the largest of which measured 3 inches 6 lines in length. *Mytilus edulis* was observed filling up inequalities in the rock where water remained when the tide was out. At either end of the bay there was an accumulation of their dead shells at high-water mark, extending in each case about a-quarter of a mile along the shore on a rough rocky bottom, in some parts of which the shells were heaped up to a depth of two feet with a breadth of five feet. *Mesodesma arctata* (Conrad sp.) was found cast ashore alive in considerable numbers on the sandy beach on the west side of the bay. Of *Natica heros* (Say) only one living specimen was observed, but dead shells were abundant, mixed up with the accumulations of *Mytilus*. I also found in the same place a few dead specimens of a shell which I take to be *Natica triseriata* (Say). *Balanus crenatus* was found in great abundance on the rocks at low water-mark, but never far up the shore between tides. *Lottia testudinialis* was rather scarce, but a few living specimens were met with in the same localities as *Balanus crenatus*. *Littorina tenebrosa*, *L. palliata*, and *L. rudis* were very abundant on the rocks at the extremities of the bay.

The species of land shells met with were not numerous. The most abundant was *Helix hortensis*, of which both varieties occurred, the banded variety being in the greater number. They were generally found on cedar, balsam-fir or poplar trees, and often at considerable heights from the ground, sometimes

as high as fifteen feet. *H. alternata* (Say) gave me but one living specimen; its greatest diameter was $5\frac{3}{4}$ lines, but several dead shells were met with at the mouth of the river, one of them measuring $8\frac{3}{4}$ lines. I afterwards procured a living specimen of about the same measure three miles inland. *H. striatella* (Ant.) was very abundant on damp ground and among decayed leaves on the bank on the west side of the bay. *H. labyrinthica* (Say), *H. egea* (Say), and *H. lucida* (Drap.) were met with in the same locality in company with *H. striatella*. Along the same bank *H. lucida* occurred in rotten wood and among dead leaves. *H. pulchella* was another species of the same locality, as also *H. harpa*, of each of which I found only one specimen. *Succinea obliqua* (Say) was abundant on moist ground along the steep clay bank facing the east side of Cape Magdalen; and in the same locality, where the ground was more moist, *S. vermeta* (Say) occurred in great numbers. *Vettrina pellucida* (Drap.) was found among decayed leaves along the same bank on the west side of the bay, where the chief part of the *Helices* occurred.

We commenced our ascent of the Magdalen on the 20th of June, and at the end of four weeks we had reached the highest point to which canoes could be navigated. At this place the river, though shallow, was sixty feet broad, and still contained a considerable body of water. The only shell found in the river in the whole distance was *Limnea umbrosa* (Say). The shells were generally found adhering to stones in sheltered places. After passing the Mountain Portage five miles from the mouth of the river, they were obtained in quiet pools always occurring on the right bank of the river. The river is subject to great freshets at the melting of the snows in the spring, and we could perceive, by the injury done to the bark on the stems and branches of the trees by ice or floating wood, that these freshets sometimes raise the water ten feet above the level at which we saw it. These floods extend through the woods on each side of the summer banks of the stream and often produce changes in the channel. It is estimated by Mr. Richardson that in the sixty-two miles which we ascended there is a rise of about 2000 feet. The river, in addition to the falls, is rapid in all its parts, and the absence of shells is probably owing to these constant and periodical disquieting circumstances.

Land shells were met with in many places in the woods along the river, the species being *Helix hortensis*, *H. striatella*, *H. lucida*, *Succinea obliqua*, and *S. vermeta*. The *Helix hortensis* was a large specimen of the banded variety; it was obtained on the 29th of June about 450 feet above the sea and five miles up the river, and had a number of eggs at the aperture of the shell.

The Canada porcupine (*Hystrix dorsata*, Linn.) was very abundant along the river; in going up we killed several. A young one which I obtained on the 9th of July was entirely jet-black, with the exception of the lower portion of a few quills on the hinder part of the back. It was heavier than a large house cat, and could run tolerably fast. The movement of the old ones does not appear to exceed in speed that of a man's ordinary walk. The old ones were generally brownish-black, with white quills tipped with black; but one was killed of a decided reddish-brown. Having run short of provisions before returning, porcupine flesh constituted our principal article of food. We always found it tender, and it appeared to me to resemble veal in taste. A day seldom passed without our procuring one of them, and one day we killed three of very large size, and saw a fourth, which escaped among the brushwood. One of these when we went to attack it appeared to wait for us, keeping its tail turned towards us, no doubt for defence, and merely turning its head to look at us. One of our Indians maintained that the animal had the power of darting

its quills, and many believe this to be the case. The quills no doubt are but slightly held in the skin of the animal, particularly in the tail, and when any object is struck by it, the barbed nature of the quill causes it to stick in the object more readily than in the skin of the animal. But of twenty that we killed not one of them darted any of its quills. We always despatched those we obtained with our hammers or with sticks, and it appeared to be rather singular that all of them but one were females. The skin of the animal is thin and tender, and I am not aware that it can be turned to any very useful purpose, but I believe that the Indians, in addition to availing themselves of the quills for embroidering birch-bark and other ornamental work, occasionally make a species of belt of the skin.

I observed a great number of flat green worms crawling about on the exterior of the intestines of one specimen while the body was being disembowelled; the worms were rather broader at one end than the other, and ribbed or striated across. They very much resembled a worm occasionally found in the animal of the *Unio*, and the largest of them was about three quarters of an inch long. In another specimen long white worms not much thicker than threads were found folded up and tangled between the skin and the flesh. Some of these, when extended, measured about eight inches. The fat of the Canada porcupine exactly resembles bear's-grease, and we were informed that the Indians frequently sell quantities of it as such.

Besides porcupines we met with the common Canada hare (*Lepus borealis*), the red squirrel (*Sciurus Hudsonius*), the chipmunk (*Temnias lysteri*), and the flying squirrel (*Pteromys volucella*). The numerous marks of the beaver and otter indicated that these were very abundant along the river. We frequently saw trees upwards of a foot and a-half in diameter which had been cut down by the former. We also observed tracks of the bear and the caribou, and learned that two families of Indians, who had passed a winter near the high mountains at the head of the river, had killed forty of the latter during that season.

The birds we saw most frequently were the Canada grouse (*Tetrao Canadensis*, Linn.), the king-fisher (*Alcedo alcyon*, Linn.), as well as large owls, hawks, mergansers, wild ducks, small plover, and several other birds of which I could not ascertain the species. We frequently observed in the precipitous banks of the river holes leading to the nests of the king-fisher. On the 16th of July one of the holes within about six miles of the highest part to which we took the canoes was opened. It was situated about ten feet above the level of the water, and penetrated a layer of sand in a bank of gravel. The bird flew out of the hole as we approached it, and at the depth of about four or five feet we found about six eggs lying on a nest of feathers. The number of the eggs is not quite certain, as we broke some of them in the attempt to get them out. They appeared to be quite fresh; they were pure white in color and nearly globular in form, being scarcely so large as those of the common tame pigeon.

Snakes and frogs were rather scarce, and trout were the only kind of fish we obtained in the river above the high fall of the Mountain Portage; but below this fall salmon are very plentiful in most seasons. The fishermen say that they deposit their spawn in the pool at the foot of the high fall, and that the young salmon winter there.

The wood along the Magdalen consists of white spruce, pine, cedar, balsam, white birch and poplar; and in smaller quantities, mountain ash, (which we saw in blossom on the 1st July), hard maple, yellow birch, tamarack and black ash.

When we got back to the mouth of the river the fishermen were engaged in catching mackerel, halibut, codfish and salmon. I procured a number of

fresh shells of *Pecten islandicus* (Chemn.) which they had taken from the stomachs of the halibut. Some of the shells have *Spirorbis nautiloides*? adhering to them. I also obtained a number of razor shells (*Solen ensis*, Linn.), and odd valves of *Mactra ovalis*, with star-fish, most of them six-rayed, not satisfactorily identified, but resembling *Asterias rubens* and *A. neglectus*, as well as sea urchins (*Echinus granularis*?) and a number of *Scutella* resembling *S. parma*. There were great flocks of crows (*Corvus Americanus*) at the mouth of the river, but we did not see one inland.

After making the necessary arrangements, we commenced a second ascent of the river on the 2nd of August, and proceeding about twenty miles, we left our canoes, striking into the woods on foot in a course somewhat east of south. Guided by the geology of the district we subsequently turned nearly east towards Gaspé Bay, which we reached on the 16th of August, after a portion of the party had separated from us to return to the Magdalen.

On the way we killed a number of Canada grouse every day, but other game was rather scarce. The grouse were always very tame, and we generally killed them in a way that would surprise most people. When we came upon a covey we gave it a sudden start, which made the birds fly up into the surrounding trees. A rod was then cut, to the end of which was fastened a noose. This was held up close in front of the nearest bird, which generally darted its head into the noose; but if it did not do so then the noose was gently passed over the head, and by a sudden jerk the bird was brought to the ground. In this way we went from one bird to another, and usually secured all we saw that were within reach. Sometimes they are killed with stones, and it is wonderful to see how pertinaciously a bird will sit, however near the stone may whiz past it, until it receives such a blow as will knock it over. Even when struck, if not severely injured, it will occasionally remain sitting.

We killed also several porcupines, all females with the exception of one. The Indians were always very careful in preserving the under part of the tail, which they consider an excellent brush. I preserved a quantity of the quills of one individual, the largest of which measures four and a-half inches. Small snakes were very numerous in rocky places.

In the valley of Cold Water Brook through which the first part of our walk conducted us, we met with no shells. The water of the brook, which is very rapid, appeared to be low in temperature, and it was probably deficient in lime, the rocks from which it receives a large part of its supply being sandstone. On the York River I obtained a *Limnea* resembling the *L. umbrosa* of the Magdalen, but which Dr. Lea of Philadelphia who has most kindly examined twenty-six of the land and fresh water species obtained on our exploration, is inclined to regard as new. *Succinea vermata* was obtained in the woods at the same place.

On the 10th of August we came to two ponds or small lakes, more than half-way between the place where we left the York River and Gaspé Basin. In the mud at the bottom of one of them *Planorbis parvus* (Say) was found, and a *Limnea* which Dr. Lea considers a new species nearest to *L. groenlandica* (Beck), but differing from it in being more attenuated; of American species it is nearest to *L. Philadelphica* (Lea). In the same place and along the margin of the pond a *Cyclas* occurred in abundance, but the shells have been too much broken to permit the species to be determined.

On the Dartmouth River a few milés above its entrance into Gaspé Bay, *Limnea catascopium*, (Say) and *Physa heterostropha* (Say) were collected. Between Gaspé Bay and Griffon Cove on the St. Lawrence, *Helix hortensis* of the banded variety was met with on the Ruisseau de la Grande Carrière about

three miles from the bay. The only shell obtained in Gaspé Bay was *Mya arenaria*; but I afterwards obtained a valve of *Pecten magellanicus*, (Lam.) from a fisherman who had shortly before found it there, and judging from the large number of this species brought by yourself in 1844 from Cape Gaspé, they must be very abundant in that neighbourhood.

The woods between the Magdalen River and Gaspé Bay are of the same description, and the species of trees are about in the same proportion to one another, as on that river, with the exception of pine, of which we saw very little. Between Griffon Cove and Gaspé Bay some hard maple occurs.

After remaining a week at Gaspé Bay we ascended the Dartmouth about fourteen miles, and then crossed through the woods to the Grand Etang, which is the most extensive fishing station of those we visited on the coast. Here Mr. Richardson purchased a boat of about five tons burden in which we coasted up to the Magdalen, but as we landed but once on the way and that in the night, I had no opportunity of adding to our collection of shells.

We arrived at the mouth of the Magdalen on the 30th August, and found that the rest of the party had reached it in safety two weeks before. Putting all our provisions and luggage on board the boat, we left the river with the first fair wind, and coasted along the south-east shore about 210 miles, until reaching Apple Island, some ten or eleven miles below Cacouna; we then crossed over to the Saguenay. The various places we visited on the voyage were in the succession in which they came, Grôls Maule, Mont Louis, Peter River, Martin River, Ruisseau Vallée, River Chatte, River Capuchin Matan, Grand Métis, Rimouski, near Trois Pistoles, Basque Island, Apple Island, Bergeronne and Tadousac.

Littorina tenebrosa, *L. palliata*, *L. rudis* and *Mytilus edulis*, were found in every one of these places where rocks and pools existed between high and low water-mark. *Balanus crenatus* was observed as high as Cape St. Ann. *Purpura lapillus* (Lam.) and the young of *Buccinum undatum* from 5 lines to 1 inch 6 lines in length were found in great abundance between Ruisseau Vallée and River St. Ann. The fishermen gather them in bucket-fulls, and use them as bait after the capeling have disappeared. Of *Glycymeris seliqua* (Lam.) I found two specimens containing the animal at the mouth of Peter River, among the offal of cod-fish where the fishermen had just been cleaning them, and it is probable that they came from the stomach of one of the fish. On the sand-bar, at the mouth of Peter River, I met with one shell of *Unio complanatus*, one of *Pecten magellanicus*, and three of *P. islandicus*, which were of a red color. Good specimens of *Solenopsis*, the loose shells of *Mactra ovalis* and living crabs, *Plathycarminus irrogatus* (Say) were thrown up on the shore in considerable numbers. The largest valve of *M. ovalis* measures 5 inches 3 lines in length, and though none of the species were found containing the animal there were three which seemed rather fresh and had the valves united by the ligament.

On the shore at Rimouski I met with one specimen of *Scalaria groenlandica* (Gould), and one of *Fusus borealis* (Dekay), and being detained here some days by a head wind, I had an opportunity of collecting fresh-water shells in the neighborhood. Of *Alasmadonta arctuata* (Barnes) I found a number of good specimens in the river about half-a-mile above the falls. *Physa heterostropha* was very abundant in the ditches on each side of the road between the wharf and church. *P. aurea* (Lea) was found in the Rimouski above the falls, and in a brook joining it about half-a-mile above the bridge; in this brook *Limnea apacina* (Lea) and *L. catascopium* (Say) were very abundant. In a spring above the saw-mill

I found a specimen of young *L. modicella*, and in another spring near, two specimens of *Physa ancillaria* (Say).

On our visit to Basque and Apple Islands just before crossing the St. Lawrence the water was very calm, and as we sailed round parts of these islands we saw incalculable numbers of sea urchins *Echinus granularis?* adhering to the stones at the bottom where the water was not very deep. *Tellina groenlandica* was in immense numbers on the shores of both islands. After crossing the St. Lawrence, while walking on the beach below Tadousac, I observed vast numbers of *Mya arenaria*, burrowed in the sand, the largest obtained measured 2 inches 11 lines in length. *Tellina groenlandica* and the three species of *Littorina* so often mentioned before were also abundant, and the latter were observed to extend fifteen miles up the Saguenay. Below Tadousac I obtained an empty shell of *Mesodesma arctata*, and one valve of *Cardium islandicum*. A worn valve of a *Unio*, perhaps a new species, was met with on the beach, but whether derived from some of the small streams near or brought by the ice down the St. Lawrence or the Saguenay it is impossible to say.

We were informed by several fishermen that the herrings come up as far as the Brandy Pots Island, the halibut as far as Green Island, and the codfish to Grand Métis.

We reached Chicoutimi, sixty-five miles up the Saguenay, on the 27th of September, and proceeded thence to Lake St. John, thirty-five miles more, by Lakes Kenogami and Kenogamishish. At Chicoutimi one large living specimen of *Helix alternata* was obtained, and at Lake Kenogami two of *Planorbis trivolvis* (Say). The shells which were collected on Lake St. John were several varieties of *Unio complanatus*, *Margaritana margaritifera* (Schum.), *Anodonta subcylindracea* (Lea), *Helix striatella*, *Physa elliptica* (Lea), and *Limnea modicella*.

The fish found in the lake, when we were there in October, were young salmon, pike (some of them being large), trout, white-fish and chub, and we were informed that tommycods were also seen in the lake at certain seasons. In navigating the lake we saw large flocks of black ducks, probably *Fuligula Americana*. They appeared to fly with difficulty, probably from excessive fatness.

The timber found growing round Lake St. John was of the following kinds: white birch, balsam, pine, spruce, cedar, elm, poplar, ash, yellow birch, basswood, and a little hard maple. Acorns were found on the shore, shewing that oak must exist somewhere in the neighborhood.

Although Lake Saint John is two degrees of latitude immediately north of Quebec, indian corn, wheat, and all other kinds of grain grow and ripen well in the settlements of the valley. Garden vegetables, including pumpkins, squashes, cucumbers and potatoes, seem to thrive as well as they do at Montreal. The land around the lake, with the exception of a sandy strip on the north side, is excellent, and is now in great part surveyed. There is a good Government road almost completed from Chicoutimi to the lake, so that great inducements are offered to settlers to emigrate thither. To find so fine a climate and such an extensive area capable of prosperous settlement so far north, and having such easy access to the sea, was to me an unexpected circumstance.

I have the honor to be,

Sir,

Your most obedient servant,

ROBERT BELL.

REPORT

OF

JAMES HALL, Esq.,

ADDRESSED TO

SIR WILLIAM E. LOGAN, F.R.S.,

DIRECTOR OF THE GEOLOGICAL SURVEY OF CANADA.

ALBANY, 1st March, 1858.

SIR,

In reply to your enquiry regarding the Graptolites and other allied genera, confided to me for description on behalf of the Geological Survey of Canada, partly in 1854, and partly at a subsequent time, I have the honor to inform you that six plates of the Graptolites have been engraved, and are now only waiting to be lettered, and that drawings for ten more plates are in the engraver's hands.

The description of twenty-four species accompanies the present communication, and the plates will follow as fast as they are completed.

In April 1855, I communicated to you a note upon these remarkable Graptolites, discovered in the progress of the Geological Survey during the previous year. This discovery gave for the first time a knowledge of the true forms and mode of growth of these fossils, of which fragments and detached branches have for so many years been described as complete forms. Neither up to that time, nor so far as I am aware to the present, has any evidence of the existence of perfect forms such as these been given to the public.

Two of the species were described in the note transmitted to you in 1855, and I have preceded the description of the remainder by a repetition of that note.

I have the honor to be,

Sir,

Your most obedient servant,

JAMES HALL.

DESCRIPTIONS

OF

CANADIAN GRAPTOLITES.

NOTE upon the Genus GRAPTOLITHUS, and descriptions of some remarkable new forms from the shales of the Hudson River group, discovered in the investigations of the Geological Survey of Canada, under the direction of Sir W. E. Logan, F.R.S. By James Hall.

[Communicated in April, 1855.]

The discovery of some remarkable forms of this genus during the progress of the Canada Geological Survey, has given an opportunity of extending our knowledge of these interesting fossil remains. Hitherto our observations on the Graptolites have been directed to simple linear stipes, or to ramose forms, which except in branching, or rarely, in having foliate forms, differ little from the linear stipes. In a few species, as *G. tenuis* (Hall), and one or two other American species, there is an indication of more complicated structure; but up to the present time this has remained of doubtful significance. The question whether these animals in their living state were free or attached, is one which has been discussed without result; and it would seem to be only in very recent times that naturalists have abandoned altogether the opinion that these bodies belonged to the *Cephalopoda*.

In the year 1847 I published a short paper on the Graptolites from the rocks of the Hudson River group in New York. To the number there given, two species have since been added from the shales of the Clinton group. Other species, yet unpublished, have been obtained from the Hudson River group; and since the period of my publication in 1847, large accessions have been made to our knowledge of this family of fossils, and to the number of species then known. The most important publications upon this subject are, *Les Graptolites de Bohême*, par J. Barrande, 1850; *Synopsis of the Classification of British Rocks, and Descriptions of British Palaeozoic Fossils*, by Rev. A. Sedgwick and Frederick McCoy, 1851; *Grauwacken Formation in Sachsen, etc.*, by H. B. Geinitz, 1852.

The radix-like appendages, known in some of our American as well as in some European species, have been regarded as evidence that the animal in its living state was fixed; while Mr. J. Barrande, admitting the force of these facts, asserts his belief that other species were free. It does not however appear probable that in a family of fossils so closely allied as are all the proper *Graptolitideæ*, any such great diversity in mode of growth would exist.

It will appear evident from what follows, that heretofore we have been compelled to content ourselves, for the most part, with describing fragments of a fossil body, without knowing the original form or condition of the animal when living. Under such circumstances, it is not surprising that various opinions have been entertained, depending in a great measure upon the state of preservation of the fossils examined. The diminution in the dimensions, or

perhaps we should rather say in the development, of the cellules or serrations of the axis towards the base, has given rise to the opinion advanced by Barrande, that the extension of the axis by growth was in that direction, and that these smaller cells were really in a state of increase and development. In opposition to this argument, we could before have advanced the evidence furnished by *G. bicornis*, *G. ramosus*, *G. sextans*, *G. furcatus*, *G. tenuis*, and others, which show that the stipes could not have increased in that direction. It is true that none of the species figured by Barrande indicate insuperable objections to this view; though in the figures of *G. serra* (Brong.), as given by Geinitz, the improbability of such a mode of growth is clearly shown.

It is not a little remarkable that with such additions to the number of species as have been made by Barrande, McCoy, and Geinitz, so few ramose forms have been discovered; and none, so far as the writer is aware, approaching in the perfection of this character to the American species.

Maintaining as we do the above view of the subject, which is borne out by well-preserved specimens of several species, we cannot admit the proposed separation of the Graptolites into the genera *Monograpsus*, *Diplograpsus*, and *Cladograpsus*, for the reason that one and the same species, as shown in single individuals, may be *monoprionidean* or *diprionidean*, or both; and we shall see still farther objections to this division, as we progress, in the utter impossibility of distinguishing these characteristics under certain circumstances. We do not yet perceive sufficient reason to separate the branching forms from those supposed to be not branched, for it is not always possible to decide which have or have not been ramose, among the fragments found. Moreover, there are such various modes of branching, that such forms as *G. ramosus* present but little analogy with such as *G. gracilis*.

Mr. Geinitz introduces among the *Graptolitiæ* the genus *Nereograpsus*, to include *Nereites*, *Myriunites*, *Nemertites*, and *Nemapodia*. Admitting the first three of these to be organic remains, which the writer has elsewhere expressed his reasons for doubting, they are not related in structure, substance, or mode of occurrence, to the Graptolites, at least so far as regards American species; and the *Nemapodia* is not a fossil body, nor the imprint of one, but simply the *recent track* of a slug over the surface of the slates. The genus *Rastrites* of Barrande has not yet been recognized among American *Graptolitiæ*. These forms are by Geinitz united to his genus *Cladograpsus*, the propriety of which we are unable to decide.

The genus *Gladiolites* (*Retiolites* of Barrande, 1850, *Graptophyllia* of Hall, 1849) occurs among American forms of the *Graptolitiæ* in a single species in the Clinton group of New York. A form analogous, with the reticulated margins and straight midrib, has been obtained from the shales of the Hudson River group in Canada, suggesting an inquiry as to whether the separation of this genus on account of the reticulated structure alone, can be sustained. In the mean time we may add that the Canada collection sustains the opinion already expressed, that the *Dictyonema* will form a genus of the family *Graptolitiæ*. The same collection has brought to light other specimens of a character so unlike anything heretofore described, that another very distinct genus will thereby be added to this family. The Canadian specimens show that the Graptolites are far from always being simple or merely branching flattened stems.

The following diagnosis will express more accurately the character of the genus *Graptolithus*, as ascertained from an examination of perfect specimens in this collection.

Genus GRAPTOLITHUS, (Linn.)

Description.—Corallum or bryozoum fixed, (free?) compound or simple, the parts bi-laterally arranged, consisting of simple stipes or of few or many simple or variously bifurcating branches, radiating more or less regularly from a centre, and in the compound forms united towards their base in a continuous thin corneous membrane or disk formed by an expansion of the substance of the branches, and which in the living state may have been in some degree gelatinous. Branches with a single or double series of cellules or serratures, communicating with a common longitudinal canal, affixed by a slender radix or pedicle from the centre of the exterior side.

The fragments, either simple or variously branched, hitherto described as species of *Graptolithus*, are for the most part to be regarded as detached portions from the entire frond.

In the living state we may suppose those with the corneous disks, and numerously branched fronds to have been concavo-convex (the upper being the concave side), or to have had the power to assume this form at will. In many specimens there is no evidence of a radix or point of attachment, and they have very much the appearance of bodies which may have floated free in the ocean.

GRAPTOLITHUS LOGANI.

PLATE I. Fig. 1-6. PLATE II. Fig. 1-4.

Description.—Frond composed of numerous branches nearly equally disposed on two sides of a central connecting stipe, and each again subdividing nearly equally, after which they bifurcate, always near the base, with greater or less regularity; connecting membrane thin, composed of the same substance, and continuous with the branches, extending from the centre to some distance beyond the bifurcations; the branches after the third bifurcation become marked on the inner side by a row of cellules, and along the centre by an abruptly impressed line which follows the divarication of the branches; cellules minute, not prominent towards the base of the branches, being compressed vertically, and appearing like a double series with a central depressed line, becoming developed as they recede from the base. The branches beyond the disk are turned on one side and laterally flattened, and present a single series of cellules or serrations, which are moderately deep, with the serratures acute at their extremities; from twenty-four to twenty-eight in an inch. The substance of the branches upon the exterior surface near the centre, is marked by a depressed longitudinal line, which follows the ramifications, and gradually dies out as the branches become finally simple, when the surface on the same side is smooth or somewhat obliquely striated. The disk is smooth exteriorly, and from the centre is a small radicle from which the two sets of branches diverge.

This species, though in a general manner bi-lateral and presenting four principal branches, is nevertheless from the irregular division of these, usually unequal upon the two sides; and we find on examination of those figured that they are as ten and ten, nine and eleven, eight and nine, ten and eleven, seven and ten, twelve and twelve, eight and eight, eight and ten, while the half which is figured on Plate II has eleven rays.

PLATE I. Fig. 1. An individual showing the exterior surface; the central portions entire, with the impression of the connecting corneous membrane, some portions of which remain still attached to the arms. The extent and out-

line of the membrane are very distinctly preserved. Some of the arms are broken off at the termination of this membrane or disk, while others extend to some distance beyond its limits; all however are imperfect.

The appearance of serratures is due to exfoliation, which shows the impression of the inner side upon the stone.

Fig. 2. Exterior view of another individual, in which some portions of the membrane still remain, the branches being all broken off just beyond the last bifurcation.

Fig. 3. The inner side showing the commencement of the cells, which appear in some places to be in a double series. The connecting membrane of the branches is removed in this specimen.

Fig. 4. Enlarged view of the exterior surface of the central portion of an individual.

Fig. 5. Enlarged view of the inner surface, exhibiting the appearance of a double series of cells, separated by a depressed line in the substance of the branch. In some instances these appear to be absolutely separate, while in others they are connected, showing that there is but a single series, and the apparent separation is due to the depression along the centre.

Fig. 6. An enlarged view of a fragment of a branch, showing serratures on one side, with a corresponding row of obscure, elevated ridges, which may perhaps be due to the foldings of the branch.

PLATE II. Fig. 1. An individual preserving the connecting membrane almost entire, showing the sinuous outline.

Fig. 2. A specimen exhibiting the half of an individual, in which the disk is unequally extended between the rays. The margins are apparently entire between all of these, and from whatever cause or injury this inequality may be due, it existed in the animal while living.

Fig. 3. A fragment of slate preserving portions of three individuals. The connecting membrane had been removed by maceration before they were imbedded in the stony matter, but the branches are preserved to the length of more than seven inches. It does not appear that the portions preserved present the entire skeleton; on the other hand, it is almost certain from the condition of the specimens, that the branches were originally much longer. It will be observed that the branches do not all show the serrated margin at equal distances from the centre, but this is due to the accidental position assumed by the branches as they were imbedded; some present the exterior surface for a considerable distance, and gradually turning, become flattened laterally.

Fig. 4. The exterior of the base of a specimen, showing the small node or radicle which proceeds from the centre of the vinculum or connecting stipe.

The preceding illustrations are of a single species in different degrees of preservation. The manner of branching, although subject to slight modifications, is still always reliable for the purposes of distinguishing the species.

Locality and Formation.—These specimens were obtained at Point Lévy, opposite to Quebec, in a band of bituminous shale, separating beds of grey limestone. These strata belong to the Lower Silurian series, and are of that part of the Hudson River Group which is sometimes designated as Eaton's sparry limestone, being near the summit of the group; they form also the rocks of Quebec.

Collectors.—J. Richardson, Sir W. E. Logan, and James Hall.

GRAPTOLITHUS ABNORMIS.

PLATE III. Fig. 1.

Description.—This species, of which only imperfect specimens have been seen, presents four principal branches diverging from the centre, two from each extremity of the vinculum, and each one of these bifurcating and branching unequally, and at unequal distances from the centre.

The forms above described do not by any means exhaust the variety presented in this collection. With a single exception however, all the specimens which offer any new light in regard to the habit of the Graptolites, indicate that the mode of growth was in the manner described, in branches radiating from a centre, or in tufts joining in a central connecting substance.

The specimens from the Canadian locality afford further evidence in confirmation of what we have elsewhere observed, that with few exceptions, the species have a limited geographical range. This locality has already, after very cursory examination, afforded eight new species of Graptolites, with one or two species which appear to be identical with those previously found in the State of New York. A comparison of specimens from more southern localities with those of New York, shows a large proportion of new species; and it now appears probable that the number of American species of *Graptolithus* previously known (about twenty,) will soon be increased by an equal number of new ones.

Locality and Formation.—Point Lévy; Hudson River Group.

Collectors.—J. Richardson, Sir W. E. Logan, and James Hall.

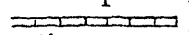
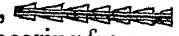
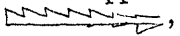
Since the date of the above communication, great numbers of Graptolites have been added to the Canada collection; and with an increased number of species, our knowledge of the structure of these animals has been very much extended. Had we at that time possessed all the materials which we now have, the subject might perhaps have been treated in a more natural order by presenting in the first place the more simple forms; but since the first two plates of the species were then engraved, I follow this note with the descriptions of others of the same character, which have been prepared since that time.

GRAPTOLITHUS FLEXILIS.

PLATE III. Fig. 2-6.

Description.—Multibrachiate, bi-lateral; branches slender, flexile, bifurcating at irregular intervals; bifurcations of contiguous branches often opposite, repeated four times within one and a-half inches of the centre, having from thirty-two to forty or more branchlets at the extremities. Substance of branches thin, extremely compressed; non-celluliferous side smooth or faintly striated; celluliferous side with slight transverse indentations when compressed vertically, and with serratures when compressed laterally; serratures not deep, acute at the extremities, variable in prominence according to the position of the branch; about twenty-four in an inch. Branches often compressed in the direction of the cell to such a degree as to give an apparent double serrature, or serrature on each side of the axis. In this condition the edges of the cells are at right angles to the axis, very shallow, and not pointed.

When the celluliferous side, compressed in the direction of the cell, is uppermost on the surface of the shale, a line may be traced across the branch joining the edge of the serratures, thus showing that the two apparent serratures are but the single one, so compressed that its extremities project beyond the margin.

We have thus all gradations: the smooth surface of the branch with minute striations upon the outer side; the inner side when not compressed, with serratures showing as indented lines across the surface, ; the double serration, produced by more pressure in the same direction, ; and again, as the branch is turned around, these serratures disappearing from one side, and becoming more prominent upon the other , finally showing their full breadth as the ray is compressed in its transverse or lateral direction.

This condition, which has not been understood with regard to many species, is the principal cause of the diminution and sometimes final disappearance of cells towards the base of a branch. When both sides are serrated, a less degree of compression, which might very naturally result towards the base, would cause the serratures to be less prominent, as is seen in many of the figures in Barande's *Graptolites de Bohême*; in the New York Palæontology, etc. It is still true that the serratures are always less developed towards the base of the frond.

The serratures of this species differ essentially from those of any other in the Canadian collection, and from any in the New York collections or others that have come under my observation.

Fig. 2. A part of an individual showing the central connecting stipe or vinculum from the radicle, two of the main branches on one side and one on the other, with some of the branches disconnected by the breaking of the slate in which the fossil is imbedded. The celluliferous margins of the branches towards the base are imbedded in the slate, and it is only as they recede from the centre that the serratures become gradually visible, until finally some of them are exhibited of their full width as the branchlets become turned fully upon one side and laterally compressed.

Fig. 3. A fragment of slate preserving parts of three individuals, all presenting the non-celluliferous side upwards, some of the outer branchlets being turned so as to show the serratures.

Fig. 4. Enlarged view of a part of one of the branches and its branchlets, showing in some parts shallow serratures upon both sides of the branch from compression, as before explained. These sometimes appear almost equally upon the two sides, and in other parts are barely visible on one side; while one of the branchlets is so turned as to show near its extremity the full depth of the serratures.

Fig. 5. View of a portion still farther magnified, showing the branchlets where the serratures are vertically compressed.

Fig. 6. Enlarged view of a fragment which is compressed laterally.

Locality and Formation.—Point Lévy; Hudson River Group.

Collectors.—J. Richardson and E. Billings.

GRAPTOLITHUS RIGIDUS.

PLATE IV. Fig. 1-3.

Description.—Multibrachiate, bi-lateral; branches slender, cylindroid exteriorly, rigid, maintaining their width to the third bifurcation, and beyond this very gradually diminishing; bifurcations five in the space of one and a-half inches;

internodes unequal, shorter near the base, and increasing towards the extremities; serratures undetermined.

In some specimens the branches are broader and flattened near the base, and the connecting bar or vinculum is broad and strong, with a small central node, the base of the radicle. Some portions of the corneous membrane or disk are preserved in a single specimen.

The subdivisions of each branch are from fifteen to twenty, or perhaps more numerous when entire; giving from sixty to eighty or more branchlets at the extremities of the frond.

A distinguishing feature of the species is its rigid and divergent bifurcation, and the almost uniform size of the branchlets.

All the specimens of this species examined are in a coarse arenaceous shale, and present the exterior or non-celluliferous side only. A single specimen has the extremities of the branches partially turned on one side, and gives some obscure indication of serratures. Individuals are extremely numerous in certain layers, and are spread out in profusion upon the surfaces of the slate, the bifurcating and interlocking branchlets presenting a net-work in which it is extremely difficult to trace the ramifications of each individual. This character is partially represented in fig. 1, pl. 4, in which the parts of the individuals, other than the principal one, are represented in a more subdued tone than they really exhibit in the specimen, where all are equally prominent.

Fig. 1. A portion of the surface of a slab of slate, in which a single individual is preserved nearly entire, with parts of several others shown in the figure.

Fig. 2. A portion of a branch of a larger individual showing the branchlets from above the second bifurcation.

Fig. 3. A fragment of slate showing the extremities of some branchlets partially turned on one side, and having obscure serrations.

Locality and Formation.—Point Lévy; Hudson River Group.

Collectors.—J. Richardson and E. Billings.

GRAPTOLITHUS OCTOBRACHIATUS.

PLATE V. Fig. 1-6, and PLATE VI. Fig. 1-3.

Description.—Frond composed of eight simple undivided branches, arranged bi-laterally, and proceeding from the two extremities of a short strong vinculum, which is subdivided, and each part again divided near the base, giving origin at each extremity to four equal rays or branchlets. Branchlets strong, linear, not sensibly diminishing in size as they recede from the centre, subangular, flattened upon the outer side, with a depressed line along the centre; obliquely striated; serratures short and strong, twenty in an inch, varying in depth according to the position of the branch; in one or two instances showing a deeper indentation.

This species presents the essential characteristic of eight simple arms or branchlets, which appear to have been subquadrangular in its living state, and when compressed laterally are scarcely broader, excepting the serratures, than when vertically compressed.

The branches are formed by the division of the vinculum at each extremity, first into two parts, making four; each of these is again subdivided almost immediately, and often so close as to present an appearance as if the four branchlets on each side originated from the same point. A careful examination however will show a little intervening space, and in one individual in its young state this feature is very characteristic.

The disk is a thick carbonaceous film, much stronger and coarser than in any of the preceding species, and corresponding in this respect to the stronger branches. It is moreover variable in form and extent in different specimens, and does not always appear to be in proportion to the size of the branches.

All the specimens yet examined present the exterior surface, so that the celluliferous face of the arms has not been seen. An impression of a short fragment of that surface of one of the branchlets shows strong, deep indentations. The vigorous aspect of this species contrasts with all others in this collection. In one specimen, where the frond is imperfect, one of the arms extends to a distance of more than eight and a half inches from the centre, while two others are more than six inches each, and these are all broken at their extremities.

In its long linear branches, this species resembles the *G. sagittarius* (Hall, Pal. N. Y., vol. I., pl. 74, fig. 1, perhaps not the European species of that name), but the branches are stronger and the serrations coarser; it is moreover associated with a group of species, all or nearly all of which are quite distinct from those of New York with which the *G. sagittarius* occurs.

Plate V. Fig. 1. A part of an individual of this species showing the exterior side with the disk partially preserved, with parts of the eight branchlets, which are seen to be gradually turned to one side as they recede from the centre, and are compressed laterally, showing the serratures.

Fig. 2. A fragment preserving a part of the disk very perfect and much extended. The exterior only of the branches is shown upon the stone.

Fig. 3. Enlarged view of a portion of the exterior of a branch, showing the obliquely striated surface.

Fig. 4. A similar fragment of a branch which is turned to one side far enough to show an undulating margin caused by the serratures.

Fig. 5. A fragment exposing the serratures partially.

Fig. 6. A fragment showing the serratures as seen when the branch is compressed laterally.

Plate VI. Fig. 1. An individual retaining a part of the disk, and the outline and impression of the remainder, with the eight branches, some of which are broken off near the centre and others variously bent and folded, while two of them retain a length of more than six inches, and one a length of eight and a half inches.

Fig. 2. A smaller individual retaining the branches in part, and showing the lateral and exterior surfaces, with an irregular disk.

Fig. 3. A small specimen preserving the base of the branches with the disk removed. This one shows more clearly than any other specimen the bifurcation of the branches beyond the vinculum.

Locality and Formation.—Point Lévy; Hudson River Group.

Collectors.—J. Richardson, and E. Billings.

GRAPTOLITHUS OCTONARIUS.

Description.—Frond composed of four principal branches, two diverging from each extremity of the short vinculum; each branch equally subdivided near the base, giving eight branchlets which continue simple to their extremities; branchlets gradually expanding from the base; serratures slightly inclined and truncated above almost rectangulantly to the direction of the outer margins and oblique to the rachis, giving a slightly obtuse extremity; about twenty-four in the space of an inch; substance of the branchlets thick; divisions between the cells marked by a strongly depressed line which extends from the base of the serrature

downwards as far as the second serrature below, ending near the back or lower side of the branch.

The branchlets of this species resemble those of *G. bryonoides*, and the distance of the serratures is almost the same, while in some well preserved specimens the obliquity of these parts is greater. There is also some difference in the form of the branchlets. In separate branches the characters are too nearly alike to offer the means of discrimination, unless they are in a very perfect state of preservation.

From *G. octobrachiatus* it differs conspicuously in the form of its branchlets, and in the comparative number and form of the serratures.

Locality and Formation.—Point Lévy; Hudson River Group.

Collectors.—J. Richardson, E. Billings.

GRAPTOLITHUS QUADRIBRACHIATUS.

PLATE VII. Fig. 1-5.

Description.—Fronde composed of four simple undivided branches arranged bi-laterally, or two from each extremity of the vinculum; branches slender, linear, obliquely striated, usually somewhat incurved, serrated upon the inner side; serratures a little recurved, and mucronate at the tip; about twenty-four in an inch, indented to about one-third the width of the branch when completely flattened. Disk thick, strong, often extending along the branches and giving them a somewhat alate appearance; point of attachment of radicle obscure.

Almost all the specimens of this species are obscure, and all are fragmentary; in a few specimens only the serratures are exhibited with some degree of perfection. The branches are preserved in some specimens to an extent of two inches.

Figs. 1 and 2. Fragments of this species from which the disk has been entirely removed, but preserving the vinculum and bases of the branches, which show the serrations partially.

Fig. 3. An individual in which two of the branches are well preserved, showing the serratures.

Fig. 4. An enlarged view of a portion of a branch showing the form of the serratures.

Fig. 5. A fragment preserving the disk, which has the branches broken off just beyond its margin.

Locality and formation.—Point Lévy; Hudson River Group.

Collectors.—J. Richardson, E. Billings, Sir W. E. Logan, James Hall.

GRAPTOLITHUS CRUCIFER.

Description.—Fronde composed of four simple strong branches united by a small thickened disk; branches broad, connected by a short vinculum; serratures nearly vertical to the direction of the branch and sloping at an almost equal angle on each side, acute at the extremity and apparently mucronate or setiferous; about twenty-four in an inch.

This species exhibits the general character of *G. quadribrachiatus*, but the branches are much stronger, and about twice the width. The serratures are scarcely oblique to the rachis, and are very clearly mucronate at the tips, while some of them present the appearance of long setæ. The imperfect preservation of the specimen examined renders it impossible to determine accurately the nature of these appendages.

In the specimen here described one of the branches is preserved to the extent of two and a-half inches, with a width of three-sixteenths of an inch to the extremity of the points of the serratures, exclusive of the setæ, the branch to the base of the teeth being five-sixths of the whole width.

Locality and Formation.—Point Lévy; Hudson River Group.

Collectors.—J. Richardson, E. Billings.

GRAPTOLITHUS BRYONOIDES.

Description.—Fronde composed of four short simple branches, united at the base by a vinculum, and terminating below in a minute radicle; branches short, comparatively broad, obliquely and strongly striated from the base of the serratures to the outer edge of branch; serratures moderately oblique, the outer and inner margins making very nearly a right angle; mucronate at the tip; from twenty-four to twenty-eight in an inch.

Of several specimens in the collection none of the branches exceed an inch in length, while they are almost one-eighth of an inch in width from the tip of the solid part of the serratures to the outer edge. They are all strongly striated from the base of the serratures to the outer margin, the striæ sometimes a little curved. The serratures are usually slightly oblique, or with the longer sloping side directed towards the base of the branch, and the shorter side advanced a little beyond a right angle to the rachis. In one specimen, where the branches are less than five-eighths of an inch in length, the serratures seem to be equally or nearly equally sloping on the two sides from the tip to the base.

The vinculum is obscure; and from the mode of imbedding, in many specimens this part might be inferred to be absent.

Locality and Formation.—Point Lévy; Hudson River Group.

Collectors—J. Richardson, E. Billings, Sir W. E. Logan, James Hall.

GRAPTOLITHUS HEADI.

Description.—Fronde robust, four-branched; disk large, sub-quadrangular, moderately extended along the branches; branches strong, much elongated, sub-angular exteriorly; serratures small, acute, from twenty-two to twenty-four in an inch; fine distinctly marked striæ extend from the base of the serratures nearly across the branch.

The specimen described presents the disk, which in its diameter across the centre between the branches is nearly one inch and an eighth, or nine-sixteenths of an inch on each side of the centre; while from the centre to its extent along the branches it varies from about three-fourths of an inch in one branch to an inch in another. The substance of the disk is strong and somewhat rugose, either from its original character or from the accidents accompanying its imbedding in the rock. The specimen exhibits the inner or serrated side, and the branches are turned so as to be compressed laterally at a distance of two inches or more from the centre; one of the branches presents a length of nearly seven inches from the centre. This species is named after its discoverer, Mr. John Head.

Locality and Formation.—Point Lévy; Hudson River Group.

Collectors.—Mr. John Head, and Sir W. E. Logan.

GRAPTOLITHUS ALATUS.

Description.—Fronde composed of four branches; disk much extended along the sides of the branches, giving them an extremely alate character; branches

strong, angular on the lower side; upper or serrated side unknown. Some indentations on the exterior side of the branches, which may indicate the place of serratures on the opposite side are about one twenty-fourth of an inch distant.

The only specimen of this species yet recognized is a part of the disk with three of the branches, two of which present the corneous expansion apparently entire, extending about two inches from the centre along the branches, while its margin in the indentation between the branches is not more than three-eighths of an inch from the centre. This species is much more robust than *G. quadribrachiatus* or *G. bryonoides*, and the form of the disk when preserved will always be a distinguishing feature.

Locality and Formation.—Point Lévy; Hudson River Group.

Collectors.—Mr. John Head, and Sir W. E. Logan.

GRAPTOLITHUS FRUTICOSUS.

Description.—Branches bifurcating from a long slender filiform radicle, and each division again bifurcating at a short distance above the first; branches and branchlets short, narrow linear; serratures apparently commencing in the lower axil, where there are one or two between the first and second bifurcations. Serratures somewhat obtuse at the tip; lower side longer, upper margin nearly at right angles to the rachis; about sixteen serratures in the space of an inch. Substance of the branches thin, fragile.

In one specimen the position of the serratures is such as to present elongate acute apices in one of the branches.

This species has the general habit of *G. nitidus* and *G. bryonoides*, but is very distinct in its long, slender radicle, narrow fragile branches, and distant, obtuse serratures. Two individuals only have been obtained, but the form and habit are so precisely alike, and so distinctive in both of these, as to mark it a very well characterised species.

Locality and Formation.—Island of Orleans; Hudson River Group.

Collectors.—J. Richardson, E. Billings.

GRAPTOLITHUS INDENTUS.

Description.—Fronde consisting of two simple branches, diverging at the base from a slender radicle, and continuing above in a nearly parallel direction; branches narrow, slender; serratures very oblique, somewhat obtuse, truncated above almost rectangularly to the line of the rachis; about twenty-four in the space of an inch; a depressed line reaching from the serrature to near the base or outer margin of the branch where it terminates in a small node; surface of branches striate.

This species resembles the *G. nitidus* in form, except that it is less divergent, the divergence from the base being at an angle of about thirty-six degrees for half an inch or more, after which the two branches continue nearly parallel. Though it is probable that this character may vary in some degree, it seems nevertheless to mark the species, and in numerous individuals of *G. nitidus* I have seen none with parallel or converging branches. The serratures in the two species differ in some degree in form, and the proportional distances, thirty-two and twenty-four, form a very characteristic distinction. A single fragment of a branch measures six inches, but the full extent when perfect is not known.

Locality and Formation.—Point Lévy; Hudson River Group.

Collectors.—Sir W. E. Logan, James Hall.

GRAPTOLITHUS NITIDUS.

Description.—Frond composed of two simple branches, diverging from a small radicle; branches narrower towards the base, gradually expanding towards the extremities, which in perfect specimens appear to be rounded, and the last serrations a little shortened; serratures small, shorter at the base and becoming gradually developed as they recede from this point; acute at the extremities, almost vertical to the line of the rachis, and making an angle of about sixty degrees, the two sides being almost equal in length; about thirty-two in the space of an inch. A well-defined groove or depressed line extends from the base of the serrature obliquely towards the base of the branch, and at its termination the surface of the branch is marked by a minute but distinct round tubercle.

This beautiful little species differs very distinctly from any others of this genus, in the thickened substance of its branches, the closely arranged serratures, and the minute tubercles at the base of the grooves or striæ. The specimens usually preserve considerable substance, and are far less flattened than most of the other species, owing either to their original character or to the nature of the surrounding matrix. The impressions of the oblique lines or striæ are often well preserved in imprints of the fossil left in the slate.

The impressions of *G. bryonoides* resemble those of this species; but the branches are broader, and the striæ are less rigid and less distinctly impressed, while the absence of tubercles, and the coarser serratures, when visible, at once serve to distinguish the species.

In mode of growth and general aspect this species resembles the *G. serratulus* (Pal. N. Y., vol. 1, p. 274, pl. 74, fig. 5, a, b,) of the Hudson River shales; but in the latter the serratures are coarser and more oblique, the lower side being much the longer. The branches of that species are also more distinctly linear, while in this they become gradually wider from the base, and are very distinctly striate and tuberculate in well-preserved specimens.

The preceding description applies to the specimens of this species where the branches diverge abruptly, or nearly at a right angle, from the radicle.

Locality and Formation.—Point Lévy; Hudson River Group.

Collectors.—J. Richardson, E. Billings.

GRAPTOLITHUS BIFIDUS.

Description.—Two-branched; branches very gradually and uniformly diverging from the base to the extremities; surfaces obliquely striated; serratures moderately oblique; extremities often nearly vertical to the rachis, and submucronate (?); from thirty-eight to forty in the space of an inch; radicle short.

This species resembles in general features the *G. nitidus*, and might be mistaken for that species with the branches approximated by pressure. In several individuals examined the serratures are much closer, being from six to eight more in the space of an inch, while the general form is constant. The outer margins of the branches are curved for a short distance from the radicle, and thence proceed in a uniform divergent line. The entire branch is very narrow at the base, but becomes gradually wider, the full width being attained at about half an inch from the bifurcation, while a few of the serratures towards the outer extremity, not having attained their full development, leave the branches narrower in that part. The same feature is observed in *G. nitidus* and others of this general character, and probably may be observed in all species where the extremities of the branches are entire.

Locality and Formation.—Point Lévy; Hudson River Group.

Collectors.—J. Richardson, E. Billings.

GRAPTOLITHUS PATULUS.

Description.—Frond composed of two simple widely diverging branches from a small radicle; branches long-linear, having a width from the base of the serratures to the back of the branch of from one-sixteenth to one-twelfth of an inch; serratures oblique, with vertical mucronate points, which from base to apex are more than half as wide as the branch. A well defined line or ridge extends downwards from the apex of the denticle two-thirds across the branch.

Fragments of this species are numerous upon some slabs of greenish or blackish-green slate where no other species occurs. The fragments are sometimes five or six inches in length, offering in different individuals little variation in width. Sometimes the branches are compressed vertically, and present the smooth linear base or exterior, which is less in width than when compressed laterally.

The lateral faces of the branches exhibit considerable variety of surface, dependant on the degree of compression, or in some instances, the replacement or filling of the interior by iron pyrites. In such cases, or when the branch is not flattened, the surface is deeply striated or wrinkled obliquely. In some of the extremely compressed individuals the surface has an appearance of vesicular structure; but this is probably due to influences attending the mineralization of the fossil, or the filling up of the original canal, and not to the structure of the substance itself.

Locality and Formation.—Point Lévy; Hudson River Group.

Collectors.—J. Richardson, E. Billings.

GRAPTOLITHUS EXTENSUS.

Description.—Frond probably two-branched; branches long-linear, varying in width in different individuals from one twelfth to one-tenth of an inch exclusive of the serratures, and from one-tenth to one-eighth of an inch including the serratures. Serratures oblique, with the extremities slender and nearly erect, mucronate at the tip; about twenty in the space of an inch; base of branch scarcely narrowed, showing a few smaller serratures; surface strongly striated, the striæ being preserved in those specimens which are extremely compressed.

The branches of this species bear a very close resemblance to those of *G. octobrachiatus*, but an individual in which the base is preserved shows in its peculiar curving and smaller serratures a feature which belongs only to the two-branched forms. The serratures also appear to be more slender, and are slightly closer in their arrangement; branches of the same size in the two, presenting respectively eighteen and twenty serratures.

This species in separate branches of from three to six or eight inches in length, is abundant on some slabs of decomposing grayish-brown shale, associated with *G. byronoides*, *G. nitidus*, and others.

Locality and Formation.—Point Lévy; Hudson River Group.

Collectors.—J. Richardson, E. Billings, Sir W. E. Logan, James Hall.

GRAPTOLITHUS DENTICULATUS.

Description.—Frond apparently consisting of two broad branches, (the base and junction of which are obscure in the specimen;) margins defined by a rigid line, beyond which on the inner side, are serratures having the form and charac-

ter of small denticulations inserted upon the margin of the branch and vertical to its direction, broad at base, abruptly tapering above, and ending in mucronate points; about sixteen in the space of an inch.

This very peculiar species is readily recognised by the denticulations, which have the character of small sharp teeth fixed upon the margin of the branch. These denticles are more widely separated than those of any other species observed, as well as different in character.

Locality and Formation.—Point Lévy; Hudson River Group.

Collectors.—Sir W. E. Logan, James Hall.

GRAPTOLITHUS PRISTINIFORMIS.

Description.—Stipe simple, with serratures on both sides; serratures closely arranged, very oblique, acute, mucronate; thirty-two in the space of an inch.

This species approaches to *G. pristis* (Pal. N.Y., vol I., p. 265, pl. 72, fig. 1), but the serratures are more ascending, and the extremities more distinctly mucronate. The specimens observed however, are imperfect fragments, which are very closely compressed, being barely a film upon the surface of the shale, and the determination is somewhat unsatisfactory.

Locality and Formation.—Point Lévy; Hudson River Group.

Collector.—J. Richardson.

GRAPTOLITHUS ENSIFORMIS.

(*Genus RETIOLITES?* Barrande.)

Description.—Stipe simple, sub-ensiform or elongate-spatulate, usually broader in the middle and narrower towards the extremities; a central rib, with strongly marked obliquely ascending striæ which reach the margins; serratures obscure, apparently corresponding to the striæ; margin usually well defined.

Several specimens of this form occur on a single slab of slate, associated with *G. tentaculatus* and *G. quadribrachiatus*. The oblique striæ apparently indicate the direction of the serratures, and in one specimen there is an appearance of obtuse indentations upon the margin; but it is scarcely possible at the present time to define satisfactorily the character of these serratures. In form and general character this species differs from all the others sufficiently to be readily distinguished.

Locality and Formation.—Point Lévy; Hudson River Group.

Collectors.—J. Richardson, Sir W. E. Logan, James Hall.

GRAPTOLITHUS TENTACULATUS.

(*Genus RETIOLITES,* Barrande.)

Description.—Stipe simple, linear, elongate-lanceolate or sometimes elongate-elliptical when entire; midrib double, extending much beyond the apex of the frond; exterior margins when entire, reticulate and armed with mucronate points, (and with mucronate points alone, or smooth, when imperfect,) with an extended setiform tentacle-like process from each side of the basal extremity; substance of the centre reticulate or cellular?

This species presents much variety of appearance dependant upon the condition of preservation. In specimens most nearly entire, the double midrib often extends beyond the apex nearly as far as the length of the frond; the

margins present a series of oval or sub-hexagonal reticulations, every second one (and sometimes each one,) of which is armed by a minute mucronate spinule. When these outer cells or reticulations are broken away, the transverse walls between them often remain, and the specimens then present an undulating margin, with a short mucronate extension, which is the original wall between the marginal reticulations, and which is continuous with the striæ or fibres which traverse the frond from the midrib to the margins. On each side of the basal extremity the long setiform fibres extend obliquely forward to the distance of half an inch, and between these are two short terminal ones, like the processes on the sides of the frond.

In many specimens the whole exterior reticulate portion is removed, leaving the frond with straight or nearly straight parallel sides, the long extended midrib above, and the two setiform processes from the lower extremity; while in some specimens these parts also are removed. The serratures cannot well be determined in any of the numerous individuals examined, but they doubtless correspond to the vein-like markings of the centre, and the reticulate marginal extension.

Some specimens indicate that the central portion may be finely reticulate, which character, with that of the exterior, would be regarded as sufficient to warrant us in referring it to the genus *Retiolites*.

Locality and Formation.—Point Lévy; Hudson River Group.

Collectors.—J. Richardson, Sir W. E. Logan, James Hall.

PHYLLOGRAPTUS.

Among the various forms in this Canadian collection of *Graptolitidæ* there are several which approach in general form to *G. ovatus* of Barrande, and *G. folium* of Hisinger. They present however some differences of character, varying from broad-oval with the extremities nearly equal, to elongate oval or ovate, the apex usually the narrower, but in a few instances the base is narrower than the apex. These forms are sometimes extremely numerous in the shales, and present on a cursory examination a general similarity to the leaves of large species of *Neuropteris* in the shales of the coal measures.

Instead of the narrow filiform mid-rib represented in the figures and descriptions of the authors mentioned, these specimens present a broad linear mid-rib continued from the apex to the base, and extended beyond the base in a slender filiform radicle, usually of no great extent, but in some instances nearly half an inch in length. The mid-rib is rarely smooth, varying in width, with its margins not often strictly defined. In examining a great number of individuals of one species, I have discovered that this mid-rib is serrated; and though for the most part the serratures are obscure, they nevertheless present all the characteristics which they exhibit in graptolites of other forms, in which the branches have been compressed vertically to the direction of the serratures.

In this view, the lateral leaf-like portions appear to be appendages to the central serrated portion; but these are nevertheless denticulate on their margins, and the intermediate spaces are well-defined, as if admitting of no communication by serratures or cellular openings with the centre.

In another species the central axis or mid-rib is strong and broad, often prominent and distinctly serrate, the edges of the interspaces being all broken off as if the extremities had been left in the slate cleaved from the surface. At the same time the lateral portions are so well preserved as to show distinct cellules upon each side. We have therefore three ranges of cells visible, the

central axis projecting at right angles to the two lateral parts. This remarkable feature leads to the inference that this graptolite was composed of four semi-elliptical parts joined at their straight sides, and projecting rectangularly to each other, presenting on each of the four margins a series of serratures, which penetrating towards the centre, were all united in a common canal, and all sustained upon a simple radicle.

In another more elongate form, the specimens examined are extremely compressed, and I have not been able to detect serratures in the axis, which however is sufficiently wide to admit of this feature.

For these remarkable forms, whether consisting of bilateral or quadrilateral foliate expansions, or with two or four series of cellules, I propose the name of *PHYLLOGRAPTUS*, from their leaf-like appearance when compressed in the slaty strata.

It is easy to perceive how bodies formed as these are may present different appearances, dependant upon the line of separation of the parts by the slaty laminae. When separated longitudinally through the centre, the cells of the parts laterally compressed would be seen with the mid-rib not strictly defined; and the bases of the cells of that part vertically compressed, scarcely or not at all visible. When a small portion of the base of that part which is vertically compressed is preserved, the bases of the cells remain and mark the axis. When instead of being imbedded so that two parallel sides are compressed laterally and the other vertically, the whole frond lies in an oblique position, the two adjacent rectangular parts are spread open and flattened upon the surface of the slate, the specimen then appears as if the cells were conjoined at their bases, or as if separated by a filiform mid-rib. An individual compressed in this manner and then separated through the middle, will present the bases of the two adjacent divisions with the cells lying obliquely to the plane of the slaty laminae. These and other varieties of appearance are due to the position in which the fossil was imbedded, and the direction of the cleavage or lamination of the slate.

PHYLLOGRAPTUS. (New Genus.)

Description.—Frond consisting of simple, foliate expansions, celluliferous or serrated upon the two opposite sides; margins with a mucronate extension from each cellule; or of similar foliate forms united rectangularly by their longitudinal axes, and furnished on their outer margins with similar cellules or serratures, the whole supported on a slender radicle.

These bodies which usually appear upon the stone in the form of simple leaf-like expansions, may possibly have been attached in groups to some other support; but the form of some of them, and the character of the projecting radicle at the base, indicates that we have the entire frond. These forms furnish perhaps the best illustration of all the *Graptolitiidae*, of the lesser development of the cells at the base, and their gradual expansion above, until they reach the middle or upper part of the frond. Many of them diminish from the centre upwards, and rarely the cells are more developed above the centre, reversing the usual form, and leaving the narrower part at the base.

PHYLLOGRAPTUS TYPUS.

PLATE VIII. FIG. 1-11.

Description.—Frond elliptical, elongate-ovate or lanceolate, broad-oval or

obovate; margins ornamented by mucronate points; serratures closely arranged, about twenty-four, rarely twenty-two and sometimes twenty-six in an inch, usually obscure at the margins; axis or mid-rib broad, often crenulate or serrate; radicle usually short; frond robust.

This species assumes considerable variety of form; and from the examination of a few specimens of the extremes of the series one might be disposed to regard them as distinct species. After examining several hundred individuals however, I have not been able to find reliable characters in the form, or subordinate parts, to establish specific differences. The individuals figured represent the principal varieties noticed, though a greater number of forms might have been given. I have not thus far observed forms intermediate between the short broad ones and the more elongate oval ones; but it is probable that larger collections will furnish such. The number of serratures in entire fronds varies in different individuals from twenty-five or twenty-eight to fifty on each side, depending on the size and form of the specimen. The smallest examined have about twenty-five on each side.

The specimens of this species examined are all so much compressed that the rectangular arrangement of the parts of the frond, as seen in *P. ilicifolius*, cannot be shown, the only evidence of this character being the serratures along the central axis, which are transverse to those of the two sides.

Figures 1, 2, 3, 4. Examples of the ordinary forms of this species. Fig. 1 shows a smooth axis; while figures 2, 3 and 4 show indistinct serratures along the mid-rib.

Figures 5, 6, 7. Specimens which are more elliptical than the ordinary forms; the mid-rib or axis is well defined, but preserves no evidence of serratures.

Fig. 8. A broad oval form, showing serratures along the axis.

Fig. 9. An obovate form, showing serratures along the axis.

Fig. 10. A very large and elongate frond, showing more than fifty serratures on each side; the central axis shows no serratures.

Fig. 11. A fragment of slate preserving twelve individuals of small size, upon the surface.

Locality and Formation.—Point Lévy; Hudson River Group.

Collector.—J. Richardson.

PHYLLOGRAPTUS ILICIFOLIUS.

Description.—Frond apparently broadly oval or ovate, with the margin ornamented by mucronate points; mid-rib or axis broad, serrated; the extension of the serratures broken off in the separated laminæ of shale; radicle short. Serratures from thirty to thirty-two in the space of an inch, varying slightly with the proportionate length of the frond.

The form in reality however is that of two broadly oval or ovate leaves or fronds, joined rectangularly at their centres or by the longitudinal axis, and in a transverse section presenting a regular cruciform figure. The expansions of the two sides, which are laterally compressed, show distinct serratures or cells with projecting mucronate extensions. Those which are vertically compressed have their outer portions broken off in the separated laminæ of slate, and present the bases of the cells, which, having sometimes been filled and distended with mineral matter before imbedding, are very conspicuous. In a few instances the cells of the lateral portions are filled in the same manner, presenting the character of curving, conical tubes, with the broader extremity outwards.

The condition of preservation in several species examined is such as to render unavoidable any other conclusion as to their mode of growth than the one I have given above, however anomalous it may seem. This species differs from *P. typus* in its thicker substance, proportionally shorter and broader form, and more closely arranged serratures.

Locality and Formation.—Point Lévy; Hudson River Group.

Collector.—J. Richardson.

PHYLLOGRAPTUS ANGUSTIFOLIUS.

Description.—Fronde elongate-elliptical or elongate-lanceolate, closely serrated; serratures furnished with mucronate extensions, about twenty-four in the space of an inch; mid-rib broad, smooth; radicle scarcely preserved.

This species is readily distinguished from either of the preceding by its narrow and elongate form. The individuals examined are very numerous, but being for the most part upon slaty laminæ, which are extremely compressed, they preserve scarcely any substance; a mere outline with a more brilliant surface being almost the only remaining character by which they are recognized.

The individuals of this species are, in several specimens, equally abundant with those of *Phyllograptus typus* represented in pl. 8, fig. 11. The mucronate extensions upon the margins of this species are not so abrupt as in *P. typus* and *P. ilicifolius*, the substance of the cell-margin being more extended along the mucronation. The number of serratures upon each side of the frond varies according to the size of the individual, being ordinarily from eleven or twelve to twenty four, while in a single individual of nearly two inches in length there are forty-three or forty-four on each side. The mid-rib in this species though broad, like those of the preceding species, is not conspicuously serrate in any of the specimens examined. This feature however may have been obliterated by pressure.

Locality and Formation.—Point Lévy; Hudson River Group

Collector.—J. Richardson.

PHYLLOGRAPTUS SEMILIS.

Description.—Fronde broad-oval; margins ornamented by slender, submucronate serratures, which are closely arranged, being in the proportion of thirty-two to an inch, usually from thirteen to sixteen upon each side; axis disjoined; radicle unknown.

This species exhibits much variety of aspect. The more perfect forms are broadly oval, the diameters being about as six to seven. The central portion is open and free from any organic substance, as if there had originally been a cavity in the place of the longitudinal axis. In other specimens the parts are separated at one extremity, and appear like three or four branches closely joined at the other extremity, giving it the aspect of a four-branched frond. On examining numerous specimens they appear to have been originally arranged like the species of this genus already described, with perhaps this difference, that the margins of the axial portion were not closely united, or were quite disjoined along the centre. From the equal extremities of the frond, and the almost rectangular serratures, conjoined with the very obscure condition of the specimens, it has not been possible to determine whether the separation of the parts at the extremities has taken place at the base or the summit.

This species occurs associated with *G. Logani* and *G. quadribrachiatus*.

Locality and Formation.—Point Lévy; Hudson River group.

Collectors.—Sir W. E. Logan and James Hall.

Besides the forms described in the preceding pages, there are several others belonging to the genus *Graptolithus*, of which I have not specimens in sufficient perfection to furnish a proper description; and there are others which, possessing some abnormal characters, I hesitate to describe as distinct species, until I shall have an opportunity of seeing more specimens. One of these, having the general character of *G. octobrachiatus*, has but seven branchlets, three from one extremity of the vinculum and four from the other, bifurcating as in the species named above. The branches, however, are more slender than in *G. octobrachiatus*, and it may prove to be a distinct species.

Another form having the general habit of *G. Logani* has but nine branchlets, four from one and five from the other side of the vinculum. The exterior side only is visible, and the branches being broken off a short distance from the vinculum, no opportunity is offered of examining the serratures. It seems quite probable that this may prove a distinct species.

A single fragment of a ramose form, with two branches like *G. ramosus*, of New York, has been observed, but I have not thought it desirable to give its characters at present.

Among other forms of the *Graptolitidææ*, there are at least three species of *Dictyonema*, which are of common occurrence, associated with the Graptolites of Point Lévy.

The genus *Dictyonema* was described in the Palæontology of New York, vol. 2, p. 174, from an examination of the broad flabelliform or sub-circular expansions of corneous reticulated fronds common in the shales of the Niagara group. These forms were described as having "the appearance and texture of Graptolites, to which they were doubtless closely allied." Further examinations have demonstrated the truth of this remark in the discovery of serratures, like those of *Graptolithus*, on the inner side of the branchlets of both *D. retiformis* and *D. gracilis*. The celluliferous side adhering more closely to the stone than the opposite, as in *Retepora* and *Fenestella*, is much more rarely seen than the other. The mode of growth, though probably flabelliform in some species, is clearly funnel shaped in *D. retiformis*, the serratures being upon the inner side as in *Fenestella*.

The generic characters heretofore given may therefore be extended as follows.

DICTYONEMA.

Generic characters.—Frond consisting of flabelliform or funnel-shaped expansions, (circular from compression) composed of slender radiating branches, which frequently bifurcate as they recede from the base; branches and subdivisions united laterally by fine transverse dissepiments; exterior of branches strongly striated and often deeply indented; inner surface celluliferous or serrate, as in *Graptolithus*.*

The general aspect of the species of this genus is like that of *Fenestella*, both in the form of the fronds and the bifurcation of the branches. Some

* A paper by J. W. Salter, Esq., Palæontologist of the Geological Survey of Great Britain, read before the American Association, for the advancement of Science, at the Montreal Meeting, 1857, describes a new genus of the Graptolite family under the name of *Graptopora*. Although having had no opportunity of examining this paper, it appears to me that the forms described are true *Dictyonema*.

of the species have heretofore been referred to that genus, and others to *Gor-gonia*. They may be known from either of these genera by the striated and serrated corneous skeleton, and absence of round cellules, which latter character, with a calcareous frond, marks the *Fenestella*.

Since the essential characters of *Dictyonema*, with figures of two species, have been given long ago, and their similarity to Graptolites pointed out, I am disposed to retain the name, and to describe the Canadian species under that designation.

There are still two other types in this collection which seem to merit generic distinction. One of these consists of imperfect branching fronds, the smaller branchlets of which are often rigidly divergent from the main branch at an angle of about thirty-six degrees. In others the branchlets diverge in a similar manner, but are less rigid. Exterior of branches smooth, interior surface celluliferous. There are two or three forms of this type which I propose to designate as DENDROGRAPTUS.

Another form consists of fronds which are strong stipes near the base, and become numerous and irregularly branched, ending in a great number of filiform branchlets, one side of which is serrated. The general aspect is that of a shrub or tree in miniature. For these forms I would propose the generic name of THAMNOGRAPTUS.

There is also a single species approaching in character to that published in the Report of the Fourth Geological District of New York as *Filicites*? The lateral branchlets are much longer, more lax and slender, being in this respect more nearly like *Filicites gracilis* of Shumard, (Geol. Report of Missouri, part p. 2, 208, pl. a. fig. 11) but the branchlets in the Canadian species are longer and more slender. They have all the same general plumose character, and from the well preserved corneous structure in the Canadian specimens, I regard them as belonging to the Graptolitiæ, although the celluliferous or serrated margins have not been seen. For these forms of Canada, New York and Missouri, should they prove generically identical, I propose the name of PLUMALINA, making the *Filicites*? cited above, the type of the genus with the name of *Plumatina plumaria*, while the western species will receive the name of *P. gracilis*.

The disk-like forms which are described in the Palæontology of New York, vol. 1, p. 277, under the name of *Discophyllum*, are probably the disks of a species of *Graptolithus* with numerous branches. One specimen preserves a thick corneous substance, which is the exterior surface, while the other preserves the mould of the opposite side, the radiating impressions of which are crenulated. There are no evidences of branches extending beyond the margin of the disk.

We have now so many well-established forms in the family *Graptolitiæ*, that we have the means of comparison with other allied families among palæozoic fossils.

Although numerous species in this collection are shown to be of compound structure, or to consist of fronds composed of two or more branches, and many of them originating in, or proceeding from a disk of thickened corneous substance, yet it is not improbable that there are among true Graptolites simple stipes or stems, as all the species have been usually heretofore regarded. I am disposed to believe that those Graptolites where the stipe is serrated on the two sides (*Diplograpsus*) may have been simple from the base, and that the branching forms having both sides, or one side only of the branches serrated, may possibly also have been simple, or bearing no more than a single stipe from the radicle. The bifurcate appearance at the base of *G. bicornis* however,

offers some objections to this view, and these too may have been compound, like those which have only one side serrated.

The numerous compound forms shown in this collection, and the great variety of combination in the mode of branching, induces the belief that all those with a single series of serratures have been originally composed of two, four, or more branches, either diverging from a radicle or connected by a vinculum from which the radicle has extended.

The *Phyllograptus*, although apparently an anomalous form, is not more so with our present knowledge of the Graptolites than *G. Logani* or *G. octobrachiatus* would have been considered a few years since.

It is not among the least interesting facts, that we should find the *Graptolitidæ* simulating in their mode of growth so many of the Palæozoic *Bryozoa*. We have *Fenestella* represented in *Dictyonema*, the ramose forms of *Retepora* in *Dendrograptus*; *Glauconome* and *Ichthyorachis* in *Plumalina*; while the spirally ascending forms figured by Barrande appear to simulate in their mode of growth the spiral forms of *Fenestella* or *Archimedes*.

The forms of Graptolites now known are so numerous as to deserve especial considerations in their relations to other groups or families of fossil or living forms. They have been referred to the *Radiata* and to the *Bryozoa*. They were all originally composed of a thin corneous film which enclosed the bodies of the animals inhabiting the cells, and formed the general canal or source of communication along the axis. The substance of the Graptolites was then unlike that of the *Radiata* of the same geological age; the sub-divisions are in twos, or some multiple of two, except in a few instances which appear to be abnormal developments; and when the sub-divisions are irregular there is far less similarity with *Radiata*.

From all Palæozoic *Bryozoa* the Graptolites differ essentially in the form and arrangements of the cellules, and the nature of the substance and structure of the skeleton; and simulate only the general forms of Bryozoan genera.

JAMES HALL.

REPORT

FOR THE YEAR 1857,

OF

E. BILLINGS, ESQ., PALÆONTOLOGIST,

ADDRESSED TO

SIR W. E. LOGAN, F.R.S.,

DIRECTOR OF THE GEOLOGICAL SURVEY OF CANADA.

MONTREAL, 1st *March*, 1858.

SIR,

During the time which elapsed between the date of my last report and the 1st of last September, I was principally employed in the arrangement of the Museum, a work which had then become sufficiently advanced to permit of my taking the field for the remainder of the season. Under your instructions therefore, I ascended the Ottawa and Bonne-chere rivers, for the purpose of collecting specimens and investigating some points bearing upon the grouping of the organic remains in the Black River and Trenton limestones, as well as noting the distribution of these formations wherever they might be met with in the district to be examined.

Having proceeded up the Bonne-chere to the village of Eganville, I there engaged Mr. J. McMullen, whose extensive knowledge of the geographical features of that region I found would be of much service, to accompany me for a few days. At the lumbering depot of Messrs. Egan & Co. we procured a supply of provisions, and Messrs M. & J. Hickey obligingly furnished us with camping utensils. I then visited Lake Clear, in the newly surveyed township of Sebastopol, and was engaged in that neighbourhood seven days. During my examinations, I received much information from T. P. French, Esq., the Government agent for the settlement of the Crown lands upon the Opeongo road. Mr. French hospitably entertained us for two nights, and did all in his power to further the objects which I had in view.

After leaving Lake Clear I returned to Eganville, and ascended the river to Golden Lake, the shores of which I examined, and then made an excursion from the south side through the woods nearly to the hills presently to be mentioned. I then returned to the Fourth Chute, and was fortunate in arriving there at a time when the channel of the river was laid nearly dry in consequence of the water being cut off by the closing of the feeding apparatus of the slide at the foot of Mud lake. I had made arrangements to have this effected, but as it was also required by the workmen engaged in the construction of a bridge at Eganville, the water was shut off without being done on my account.

After examining the section at the Fourth Chute, and making a collection of fossils, I returned to Montreal. The following are the observations made during this expedition;

Lake Clear.

This lake is about six miles in length, and extends diagonally nearly across the northern half of the township of Sebastopol, its direction being about W.N.W. and E.S.E. It is of an oblong-oval shape, and three miles across in its widest part. There are fifteen small islands in it, lying principally at the south-east end. The south shore rises with a somewhat rapidly increasing slope from the water's edge, until it attains a height of from one hundred to three hundred feet. Viewed from the north shore this high land appears to be a ridge of hills or mountains, but on crossing over it is found not to be too steep towards the lake to interfere materially with cultivation, and accordingly several good farms have been there commenced. The timber is principally hardwood on the south and east shores, but on the north and east spruce and pine.

On the north side there are several smaller lakes connected with the principal one by small creeks. In these I found that extensive deposits of shell marl were in the progress of accumulation. The fresh water mollusca from whose shells these valuable deposits are being formed, I ascertained to be *Physa heterostropha* (Say), *Planorbis campanulatus* (Say), *P. bicarinatus* (Rackett), *Paludina decisa* (Say), and *Cyclas orbicularis?* (Say). There were also two species of Naiades, the widely distributed *Unio complanatus* (Lea), and *Anodon fluviatilis* (Lea). While coasting round the lake I saw hundreds of these two, but none of the others so common in the Ottawa. The same fact was observed with respect to their distribution in Golden Lake, but at the Fourth Chute of the Bonnechere, *Margaritana marginata* (Lea), and *M. rugosa* (Lea), were seen.

The marl however consists almost altogether of the shells of the species of gasteropoda above mentioned, and as the living specimens do not appear to be more numerous in the lake than they are upon the shores of some of the rivers of the country, it must have required a great length of time for their remains to accumulate to the depth of several feet, which is often attained by these beds of marl.

The lake abounds with fish, the most abundant species being the Perch, *Perca flavescens* (Cuvier), the Sun-fish, *Pomotis vulgaris* (Cuvier), the Rock-bass, *Centrarchus œneus* (Cuvier), the Pike, *Esox reticulatus* (Lesueur), and the Salmon-trout, *Salmo namaycush* (Pennant). This latter species during the spring and summer months, according to the information I received from the settlers, retires to the deepest parts of the lake, and is rarely seen in shallow waters, but in the month of October it appears upon the shoals in vast numbers, the bottom being sometimes literally covered with them. They are then easily captured, and in such quantities that one of the inhabitants is in the habit of feeding his pigs with them. The method of taking them is by spearing at night from a canoe, the light used being a torch of the roots of the pitch pine or the bark of the white birch. Several barrels have been taken in one night by a single party.

The formations observed in the neighbourhood of Lake Clear are the Laurentian and Trenton. The former occupies the whole of the north and east shores, and a portion of the south shore; all the islands consist of Laurentian rocks. The Opeonga road runs nearly parallel with the lake, at a distance of from half a mile to one mile and a-half from the south shore. Following this road

through the township of Sebastopol, numerous exposures of gneiss were observed, but no Silurian limestones except in scattered blocks, which by their included fossils were ascertained to have been in general derived from some deposit of the age of the Black River. At Eganville, distant about ten miles, there is, as stated in former reports, an outlier of this rock, but it is situated at a level three hundred feet below some of the hills upon which these boulders are now found. If they have been derived from this outlier, this locality affords a good example of the transport of boulders from a lower to a higher level.

The rock exposed on the road consists of different varieties of gneiss, with no crystalline limestone except in one locality, lot 53, where a one-foot bed was seen. The gneiss in numerous places where I examined it has a dip of about 45° towards the north-east. This appears to be the prevailing dip from Renfrew to Golden Lake, a distance of forty miles. White crystalline limestone occurs at the south east end of the lake, but in no great quantity. It is there interstratified with the gneissoid rocks.

In order to ascertain the distribution of the Silurian limestone mentioned in Mr. Murray's Report of 1853, I coasted along the south shore of the lake in a canoe, starting from lot No. 49 which is occupied by Mr. French. The whole of the shore east of this point is occupied by the Laurentian formation. Proceeding westerly no exposures of rock in place were seen until at the distance of about one mile from lot No. 49, I found the Trenton limestone at the water's edge. There were only two beds visible, each about six inches in thickness. Half a mile further west another small exposure was found, which like the former, is at the water's edge. The only fossils seen were *Strophomena alternata* (Conrad), *Leptæna sericea* (Sowerby), and *Pleurotomaria umbilicata*, (Hall). Further on in the same direction on lot No. 16 in the tenth range, at Michael Mulroy's clearing, the same rock occurs in place at the water's edge. The shore here rises to the height of eighty feet, and is no doubt an ancient cliff of Trenton limestone, as the whole face of the hill is a mass of angular fragments of that rock. The fossils are *Petraia corniculum* (Hall), *Monticulipora dendrosa* (Billings), *Leptæna sericea* (Sowerby), *Strophomena alternata* (Conrad), *Orthis testudinaria* (Dalman), *Bellerophon bilobatus* (Sowerby), *Murchisonia bellicincta* (Hall), *Pleurotomaria umbilicata* (Hall), *Oncoceras constrictum* (Hall), *Asaphus gigas* (Dekay), *Illænus* ———, *Heterocrinus Canadensis* (Billings.)

With a view of ascertaining how far the limestone might extend back from the lake I ascended the hill and proceeded in a southerly direction. At the distance of about four hundred yards from the shore there is a terrace of drift, the top of which is estimated to be one hundred and fifty feet above the first terrace. Then succeeds a flat space, with but a gentle rise for five hundred paces, when we come to a cliff of gneiss running parallel with the lake. This cliff is a portion of the ridge of hills which runs the whole length of the lake, and is continued further on in the same direction beyond Golden Lake. No limestone was found west of Mulroy's clearing on the lake shore, the land at that end being low and exhibiting no exposures of rocks of any kind.

It appears therefore to be quite certain that the fossiliferous rocks at Lake Clear are confined to a narrow strip, not more than five hundred yards in width, extending along the south shore from within a mile of lot. No. 49, westerly.

But, although on the south shore its limits are thus confined there can be but little doubt that the limestone underlies the flat land at the west end of the lake, and extends three or four miles further. In that direction I found the land in many places covered with fragments of the rock, and on lot No. 7 in the

fourteenth concession, occupied by John Ryan, there is a small exposure which appears to be at the base of the Trenton. The fossils are *Monticulipora petropolitana* (Pander), *Orthis tricenaria* (Hall), *Strophomena alternata* (Conrad), *S. fililitexta* (Hall). Beyond this point no other exposure of the rock could be found.

At Golden Lake there are some indications of Silurian rocks at a point on the north shore about two miles west of Mr. Thomas's house, which is situated at the eastern extremity of the lake. Fragments of an argillaceous limestone are there seen abundantly along the shore, presenting all the characters of having been derived from underlying beds, and I was informed that in low water, about half a mile from the shore opposite this point, the bottom can be seen to be composed of the same material. It resembles some of the beds of the Chazy, and probably forms the bottom of much of the lake. Elsewhere the shores and surrounding lands are all of the Laurentian formation wherever rock can be seen in place. The ridge of high land which passes along the south of Lake Clear runs also past the south side of Golden Lake, but at the distance of about four miles from the shore. The intervening space is partly swampy land, and in part, consists of low hills of gneiss for at least two miles, which is as far as I proceeded in that direction.

The Fauna of the Black River Limestone of Canada compared with that of the same formation in the State of New York.

While preparing the first volume of the Palæontology of New York, Professor Hall found that in the Potsdam sandstone three species were then known, which were strictly confined to that formation. The several species of *Protichnites* published by yourself and Professor R. Owen of London in the Journal of the Geological Society, have as yet only been seen in the same rocks.

In the Calciferous sand-rock Professor Hall found thirteen species, only one of which passed upwards into succeeding strata; in the Chazy limestone forty-five species, all except one confined to this rock; in the Bird's-eye limestone nineteen, one of these passing upwards. In the Black River limestone thirteen, and out of these three were also found in the Trenton limestone.

Out of the seventy-seven species found in the Chazy, Bird's eye and Black River limestones, only three pass the line between the last-mentioned and the Trenton in the State of New York. These formations have been therefore very properly described as almost totally distinct from each other in that country. In Canada, however, the case is very different. The discovery of the connection between the Black River and Trenton limestones was first made by yourself, and communicated to the British Association at their meeting, held at Ipswich in July, 1851. On that occasion Mr. Salter, Palæontologist to the Geological Survey of Great Britain, also read a paper on the fossils collected at Pauquette's Rapids on the Ottawa, which confirmed your previously expressed views. Since that time a great deal of additional evidence has been accumulated, and one of the objects of my visit to the Bonne-chere was to ascertain if the same intermingling of the fossils could be observed in the exposures of the rock on that river.

The locality most specially examined is at the Fourth Chute, near Mr. C. Merrick's mill, where Mr. Murray measured the section published in his report for 1854, pages 96 and 97. The strata of limestone and shale there exposed are in all forty-six feet in thickness and well charged with fossils. The lowest bed

visible at low-water mark on the south side of the stream at the foot of the timber slide, holds *Columnaria alveolata*, *Stromatocerium rugosum*, *Ormoceras tenuifilum*, and *Orthoceras multitubulatum* of the Black River limestone. This bed is continued across the channel and forms the base of the cliff on the North side opposite the foot of the slide. From this level up to the mouth of the cave through which the water flows to Mr. Merrick's mill there are about thirty-five feet in thickness of shales and limestone in which the following species of fossils occur.

1. <i>Columnaria alveolata</i>	(Goldfuss).	Black River.
2. <i>Stromatocerium rugosum</i> ,.....	(Hall).	Black River.
3. <i>Monticulipora dendrosa</i>	(Billings).	Trenton. a
4. <i>Glyptocrinus priscus</i>	(Billings).	
5. Columns of <i>Thysanocrinus</i> .		
6. <i>Orthis gibbosa?</i>	(Billings).	
7. ——— <i>insculpta</i>	(Hall).	Trenton.
8. ——— <i>tricenaria</i>	(Conrad).	Trenton.
9. <i>Strophomena alternata</i>	(Conrad).	Trenton.
10. <i>Rhynchonella increbescens</i>	(Hall).	Trenton.
11. ——— <i>bisulcata</i> ,.....	(Emmons).	Trenton.
12. <i>Eichwaldia subtrigonalis</i> ,.....	(Billings).	
13. <i>Vanuxemia inconstans</i> ,.....	(Billings).	
14. <i>Cyrtodonta Canadensis</i> ,.....	(Billings).	
15. <i>Raphistoma staminea</i>	(Hall).	Chazy.
16. <i>Pleurotomaria subconica</i>	(Hall).	Trenton.
17. ——— <i>umbilicata</i>	(Hall).	Trenton.
18. <i>Murchisonia gracilis</i>	(Hall).	Trenton.
19. ——— <i>bicincta</i>	(Hall).	Trenton.
20. ——— <i>ventricosa</i>	(Hall).	Trenton.
21. ——— <i>perangulata</i>	(Hall).	Birdseye.
22. <i>Subulites elongatus</i>	(Emmons).	Trenton.
23. <i>Orthoceras bilineatum</i>	(Hall).	Trenton.
24. ——— <i>multitubulatum</i> ,.....	(Hall).	Black River.
25. ——— <i>tenuifilum</i> ,.....	(Hall).	Black River.
26. <i>Illaenus arcturus</i>	(Hall).	Chazy.
27. <i>Phacops callicephalus</i> ,.....	(Hall).	Trenton.
28. <i>Cheirurus pleurexanthemus</i> ,.....	(Green).	Trenton.
29. <i>Acidaspis? spiniger</i>	(Hall).	Trenton.

In the above list all the species marked Chazy, Birdseye or Black River, are confined to these formations in the State of New York with the exceptions of *Pleurotomaria umbilicata* and *Monticulipora dendrosa*. The former occurs in both the Birdseye and Trenton in New York, and the latter which is the same as the branched form of *Chaetetes lycoperdon* ranges from the Calciferous upward, perhaps to the Upper Silurian. Those marked Trenton do not occur below that formation in New York, although some of them are found in higher groups. The new species in the above list have been seen in Canada in the Black River only. The list contains sixteen Trenton limestone species; four of the Black River, one of the Birdseye, and two of the Chazy, besides three new species as yet confined to the Black River and one, *Glyptocrinus priscus*, which occurs also in the Trenton. The columns of *Thysanocrinus* appear to be those of *T. pyriformis*.

Orthis gibbosa is a species described by me under that name in last year's Report, but having since received from Dr. Shumard a very perfect specimen of *O. subaquata* (Conrad) from the Hudson River group at Cincinnati, I find upon comparison that the two forms are almost identical, and I have therefore marked it doubtful. I have never seen it in the Trenton.

Orthis insculpta.—The specimens are in no respect distinguishable from those of the Hudson River group, except that the dorsal valve exhibits a slight mesial depression. It occurs in the Trenton in Canada.

Raphistomea staminea.—The specimens vary much in the proportional depth

and breadth as well as in the amount of the elevation of the spire and sharpness of the outer edge.

There are several species of Bryozoa, one of which appears to be *Stictopora fenestrata* of the Chazy and another *S. ramosa*.

From the mouth of the cave up to the top of the section, there is, including the large flat exposure above the bridge, a thickness of about twelve feet consisting of limestones and shales. In this part of the section the fossils are more numerous and their state of preservation is precisely that exhibited by specimens collected at Pauquette's Rapids and Lake St. John. The grouping of the species is also the same as at Pauquette's Rapids. Above the bridge on the shore of the river and in the neighbouring fields a large proportion of all the species that have been found in the Black River in Canada were either collected or observed in place. As they will all be given in the next list it is not necessary to enumerate them separately, and I shall not therefore designate them here.

It would be very difficult to decide by mere fossil evidence whether the rocks at this locality should be classified as belonging to the Trenton limestone, or to the Black River formation. If we call them Trenton, then we must suppose that the fauna of the Black River age, after becoming extinct in other places, lingered on for a while in this spot, until the Trenton period had become well advanced. But if these rocks are to be called Black River, then the Trenton species were introduced here in advance of the period usually assigned for their appearance in the Silurian seas. Such would be the only explanation that could be given, if the line between these formations so strongly defined in New York, is to be regarded as a good natural horizon of separation. If on the other hand, it be granted that the Black River and Trenton fossils constitute but one zoological group, then of course, a great portion of the difficulty would be removed, the only question remaining being to decide upon a name for the formation.

The following is a list of fossils found in the beds which hold the characteristic species of the Black River limestone in Canada, all new forms not known to occur in the Trenton, and all species not clearly identified being excluded. A list shewing the number of Trenton species which occur in the Chazy is in preparation.

! Signifies common, !! abundant.

Position in New York.

- | | |
|--|--------------------------------|
| 1. <i>Tetradium cellulosum</i> !! (Hall sp.) This is the <i>Phytopsis cellulosum</i> of the Paleontology of New York. Professor Safford has shewn that these species belong to the Genus <i>Tetradium</i> of Dana; <i>T. fibratum</i> (Safford) of the Lower Silurian of Tennessee is closely allied to ours, and I should not be surprised if it should be found identical. [See Safford's paper on <i>Tetradium</i> , <i>Silliman's Journal</i> , 2d series, vol. 22, page 236.] | Birdseye. |
| 2. <i>Columnaria alveolata</i>.....(Goldfuss)..... | Black River. |
| 3. <i>Monticulipora dendrosa</i>.....(Billings)..... | Trenton. |
| 4. <i>Petraia profunda</i> !.....(Hall sp.)..... | Black River. |
| 5. _____ <i>corniculum</i> !.....(Hall sp.)..... | Trenton. |
| 6. <i>Receptaculites occidentalis</i> !.....(Salter)..... | Trenton. |
| 7. <i>Stromatocerium rugosum</i>(Hall)..... | { Birdseye and
Black River. |
| 8. <i>Glyptocrinus priscus</i> (Billings). This species is not reported as occurring in New York. The only perfect head was found by myself in the mouth of the cave in the Bonnehochere section several years ago. I have ascertained its existence in the Trenton in Canada. | |

9.	<i>Strophomena alternata</i>	(Conrad)	Trenton.
10.	_____ <i>flitexta</i> !	(Hall)	Trenton.
11.	<i>Leptæna sericea</i>	(Sowerby)	Trenton.
12.	<i>Orthis testudinaria</i>	(Dalman)	Trenton.
13.	_____ <i>gibbosa</i> ?	(Billings)	
14.	_____ <i>insculpta</i> !	(Hall)	Trenton.
15.	_____ <i>tricenaria</i>	(Conrad)	Trenton.
16.	<i>Rhynchonella increbescens</i> !	(Hall)	Trenton.
17.	_____ <i>recurvirostra</i> !	(Hall)	Trenton.
18.	_____ <i>bisulcata</i>	(Emmons),	Trenton.
19.	<i>Ctenodonta levata</i>	(Hall)	Trenton.
20.	_____ <i>nasuta</i> ! !	(Hall)	Trenton.
21.	_____ <i>gibbosa</i>	(Hall)	Trenton.
22.	_____ <i>dubia</i> ! !	(Hall)	Trenton.
23.	<i>Euomphalus umiangulatus</i> ! ! (Hall)		Calcliferous.

This species occurs in the Calcliferous sandrock, Black River and Trenton limestones in Canada.

24.	<i>Raphistoma staminea</i> (Hall)		Chazy.
25.	_____ <i>Maclurea Logani</i>	(Salter),	
26.	<i>Pleurotomaria lenticularis</i> !	(Hall),	Trenton.
27.	_____ <i>rotuloides</i>	(Hall),	Trenton.
28.	_____ <i>umbilicata</i> ! !	(Hall),	Trenton.
Occurs also in the Black River in New York.			
29.	_____ <i>subconica</i> !	(Hall),	Trenton.
30.	<i>Murchisonia bicincta</i> !	(Hall),	Trenton.
31.	_____ <i>tricarinata</i> !	(Hall),	Trenton.
32.	_____ <i>ventricosa</i> !	(Hall),	Birdseye.
Occurs in the Trenton in Canada.			
33.	_____ <i>perangulata</i>	(Hall),	Birdseye.
34.	_____ <i>bellicincta</i> !	(Hall),	Trenton.
35.	_____ <i>gracilis</i> ! !	(Hall),	Trenton.
36.	_____ <i>subfusiformis</i>	(Hall),	Trenton.
37.	<i>Subulites elongatus</i> !	(Emmons),	Trenton.
38.	<i>Bellerophon sulcatus</i> !	(Emmons),	Chazy.
39.	_____ <i>rotundatus</i> !	(Hall),	Chazy.
40.	_____ <i>bilobatus</i> !	(Sowerby),	Trenton.
41.	_____ <i>expansus</i> !	(Hall),	Trenton.
42.	_____ <i>bidorsatus</i> !	(Hall),	Trenton.
43.	_____ <i>punctifrons</i> !	(Emmons),	Trenton.
44.	<i>Crytolites compressus</i>	(Conrad Sp.),	Trenton.
45.	<i>Orthoceras (Ormoceras) tenuifilum</i>	(Hall),	Black River.
46.	_____ <i>multicameratum</i>	(Conrad),	Birdseye.
47.	_____ <i>recticameratum</i>	(Hall),	Birdseye.
48.	_____ <i>fusiforme</i>	(Hall),	Birdseye.
49.	_____ <i>arcuoliratum</i> ! !	(Hall),	Trenton.
50.	_____ <i>bilineatum</i> !	(Hall),	Trenton.
51.	_____ <i>anellum</i> !	(Conrad),	Trenton.
52.	_____ <i>amplicameratum</i>	(Hall),	Trenton.
53.	_____ <i>strigatum</i>	(Hall),	Trenton.
54.	_____ <i>laqueatum</i>	(Hall),	Trenton.
55.	_____ <i>Allumettense</i> !	(Billings),	Trenton.
56.	_____ <i>Ottawaense</i> ! !	(Billings),	Trenton.
57.	_____ <i>hastatum</i> !	(Billings),	Trenton.
58.	_____ <i>decrescens</i> !	(Billings),	Trenton.
59.	_____ <i>Huronense</i> !	(Billings),	Trenton.

The five last mentioned species are common in the Trenton and Black River in Canada and *O. Allumettense* is also found in the Chazy sandstone at Aylmer and Hawkesbury.

60.	<i>Goniceras anceps</i>	(Hall),	Black River.
61.	<i>Orthoceras subcentrale</i>	(Hall),	Black River.
62.	_____ <i>longissimum</i>	(Hall),	Black River.
63.	_____ <i>multitubulatum</i>	(Hall),	Black River.
64.	_____ <i>annulatum</i>	(Hall),	Trenton.
65.	<i>Oncoceras constrictum</i> !	(Hall),	Trenton.
66.	<i>Cyrtoceras annulatum</i>	(Hall),	Trenton.
67.	_____ <i>macrostromum</i>	(Hall),	Trenton.
68.	_____ <i>multicameratum</i>	(Hall),	Birdseye.
69.	<i>Lituites undatus</i>	(Emmons),	Black River.

70. <i>Asaphus extans</i>	(Hall),	Birdseye.
71. <i>Illænus arcturus</i> !!	(Hall),	Chazy.
72. <i>Cerourus pleurexanthemus</i>	(Green),	Trenton.
73. <i>Phacops callicephalus</i>	(Hall),	Trenton.
74. <i>Illænus ovatus</i> !	(Conrad),	Trenton.
75. <i>Acidaspis? spiniger</i>	(Hall),	Trenton.

In the above list we have sixteen species given as occurring in the Birdseye or Black River limestones of New York, forty-four of the Trenton, four of the Chazy and one of the Calciferous. (There are six new species known to occur in both Black River and Trenton in Canada and two only known in the Black River.) Out of seventy-five species, fifty-two are common to the two formations. Besides these there are about thirty others known to pass from the Black River into the Trenton, part of which are new and undescribed, while the others appear to be the same as some of those figured in the first volume of the Palæontology of New York.

On the other hand however, we have about eighty species of *Echinodermata*, consisting of *Cystidea*, *Crinoidea* and *Asteridea* in the Trenton, not yet found in the Black River. As these fossils however are thought to have a very limited vertical range they do not materially affect the main question, whether the Black River and Trenton limestones were deposited during a period in which the bulk of the fauna remained unchanged, and in which there occurred no catastrophe such as an almost total destruction of life, immediately followed by a new creation.

The Fauna of the Black River Limestone of Canada compared with that of the Lower Silurian of Tennessee.

The lists of fossils published by Professor Safford of Tennessee bear directly upon this subject, and as they may be of service to those studying geology in Canada, I beg to transcribe them into this report.* The Lower Silurian limestones of Middle Tennessee are about five hundred feet thick and are divided into two principal groups.

1. THE STONES RIVER GROUP from 240 to 260 feet in thickness. This division corresponds to the Black River and Trenton formations of Canada.

The lowest seventy-five feet of this formation consists of "blue and brownish-blue limestones, mostly fine grained and thick bedded, some of the strata of which abound in dark flinty layers." They are called the *Stones River beds*, and contain the following fossils:—

1. <i>Stromatocerium rugosum</i>	(Hall),	Black River.
2. <i>Orthis bellarugosa</i>	(Conrad),	Trenton.
3. <i>Atrypa hemiplicata</i>	(Hall),	Trenton.
4. " <i>recurvirostra?</i>	(Hall),	
5. <i>Leptæna incassata</i>		
6. <i>Pleurotomaria umbilicata</i>	(Hall),	Black River & Trenton.
7. <i>Goniceras anceps</i>	(Hall),	Black River.
8. <i>Actinoceras tenuifilum</i>	(Hall),	Black River.

Excluding the doubtful forms, there are in this list three Black River species, two Trenton, and one which is both Black River and Trenton. They are all found in the Black River in Canada.

* *The Silurian Basin of Middle Tennessee, with notices of the Strata surrounding it*; by James M. Safford, A.M., Prof. of Chemistry and Geology, Cumberland University, Lebanon, Tenn. *Silliman's American Journal of Science*, Vol. xii., 2nd series, page 352.

Above these beds Professor Safford says there are from fifty to sixty feet of thin bedded "sky-blue layers, sometimes separated by seams of argillaceous matter." They are "coarsely-crystalline and abound in calcareous remains." The fossils are:—

1. *Chatetes*, new species!! allied to *Lycoperdon*.
2. " ? new species.
3. *Trematopora*, two new species.
4. *Stictopora*!! four or five new species.
5. *Retepora fenestrata*.....(Hall), Chazy.
6. *Escharopora*, new species.
7. *Graptolithus amplexicaulis*.....(Hall), Trenton.
8. *Schizocrinus*, new species.
9. Fragment of a cystidean, new genus.
10. " of a *Sphaeronite*, new species.
11. *Stems of Cystideæ*.
12. *Leptæna incrassata*!!.....(Hall), Chazy.
13. " *sericea*.....(Sowerby), Trenton.
14. " *filitexta*.....(Hall), Trenton.
15. " three species, new and undetermined.
16. *Orthis deflecta*!!.....(Conrad), Trenton.
17. " *subæquata*!!.....(Conrad), Trenton.
18. " *perveta*.....(Conrad), Trenton.
19. " *tricenaria*!!.....(Conrad), Trenton.
20. " *bellarugosa*.....(Conrad), Trenton.
21. " ———? allied to *O. disparalis*.
22. *Atrypa increbescens*?
23. ——— allied to *A. recurvirostra*.
24. *Ambonychia amygdalina*.....(Hall), Trenton.
25. " *obtusa*.....(Hall), Trenton.
26. *Edmondia ventricosa*.....(Hall), Trenton.
27. *Maclurca magna*.....(Lesueur), Chazy.
28. *Pleurotomaria umbilicata*.....(Hall), Trenton & Black River.
29. ——— *subconica*.....(Hall), Trenton.
30. ——— *lenticularis*.....(Sowerby), Trenton.
31. *Subulites elongatus*!!.....(Emmons), Trenton.
32. *Holopea*, new species.
33. " ———? allied to *H. obliqua*.
34. *Murchisonia bicincta*!!.....(Hall), Trenton.
35. *Cyrtolites compressus*.....(Conrad), Trenton.
36. *Bucania bidorsata*.....(Hall), Trenton.
37. ——— *expansa*.....(Hall), Trenton.
38. *Carinaropsis*, new species.
39. *Endoceras proteiforme*!.....(Hall), Trenton.
40. ——— new species.
41. *Orthoceras fusiforme*!.....(Hall), Black River.
42. ——— *multicameratum*?
43. ——— *undulostratum*?
44. *Actinoceras tenuifilum*!.....(Hall), Black River.
45. *Gonioceras anceps*.....(Hall), Black River.
46. *Oncoceras constrictum*.....(Hall), Trenton.
47. *Lituites*? new species.
48. *Cyrtoceras*, allied to *arcuatum*.....(Hall).
49. *Cytherina fabulites*!!.....(Conrad).
50. *Ceraurus pleurexanthemus*.....(Green), Trenton.
51. *Calymene Blumenbachii*!!
52. *Iliaenus ovatus*.....(Conrad), Trenton.
53. ——— species?
54. *Phacops callicephalus*.....(Hall), Trenton.
55. *Isotelus megistos*.
56. *Tail of Lichas*.

This list contains three Chazy species, three Black-River species, twenty-four Trenton species, and one common to the Black River and Trenton.

There are eight Trenton species which have not yet been found in the Black River in Canada, but in Canada we have in this rock twenty-eight Trenton species not given in these lists as occurring in Tennessee.

This last list contains the fossils of that part of the Stones-River group which Prof. Safford calls the *Lower Lebanon limestone*. The next beds in the ascending order called the *Upper Lebanon limestone*, are from one hundred and ten to one hundred and thirty feet thick, consisting of brownish-blue thick-bedded strata, with about twenty feet of thin beds interstratified occasionally with seams, and rarely beds of clay. Fossils are not very abundant, but "the middle portion of the member is everywhere characterised by groups of silicified *Columnaria alveolata*, *Streptelasma profunda* (Hall), and the rough spherical masses of *Stromatocerium rugosum*, to which we may add *Actinoceras tenuifilum*." The following species occur in this group:—

1. <i>Stromatocerium rugosum</i> !!	Hall.
2. <i>Columnaria alveolata</i> !!	Goldfuss.
3. <i>Astrocerium</i> , new species.	
4. <i>Chaetetes lycoperdon</i> ?	Say.
5. " <i>columnaris</i>	Hall.
6. <i>Streptelasma profunda</i>	Hall.
7. <i>Clathropora</i> , species undescribed.	
8. <i>Stictopora</i> , two new species.	
9. <i>Atrypa recurvirostra</i>	Hall.
10. <i>Leptæna filitexta</i>	Hall.
11. <i>Pleurotomaria rotuloides</i>	Hall.
12. ——— <i>subconica</i>	Hall.
13. <i>Murchisonia bicincta</i>	Hall.
14. <i>Actinoceras tenuifilum</i> !!	
15. <i>Orthoceras anellum</i> ?	
16. ——— <i>multicameratum</i> ?	

It is evident from this list and from the remarks of Professor Safford, that the Upper Lebanon rocks are more strongly marked with a Black River fauna than the Lower Lebanon formation, while the latter is characterized principally by Trenton species. In fact we have here a Trenton formation lying below a group of rocks which in Canada or New York would be called Black River, provided we are to designate as such all rocks holding *Columnaria alveolata* and *Stromatocerium rugosum*.

Such groupings as these show the immense importance of obtaining many other lists of fossils from localities widely separated from those already examined. Otherwise in mapping a new country, large tracts may receive a colour that must be afterwards removed.

But although there is in Canada this intermingling of forms characteristic of the two groups, there has, thus far, been no confusion, because in all instances where the transition can be observed, the Black River strata pass upwards into a group three hundred or more feet in thickness, exclusively charged with Trenton forms. It is easy therefore to determine which is the lower or upper part of the group, even should the Black River and Trenton be regarded as characterised in a general way by the same fauna. In Tennessee, on the other hand, the Trenton limestone appears either not to have been deposited, or if deposited at all it was during the Black River period, because the Upper Lebanon formation is followed immediately by strata charged with fossils of the Hudson River age.

GALT LIMESTONE, ONONDAGO AND CORNIFEROUS LIMESTONES, &c.

On the 9th October last I left Montreal for the purpose of examining the limestones in Western Canada, in which work I was engaged until the middle of November. The weather, during a part of the time, was very unfavourable,

and I did not accomplish all the objects I had in view. I spent one week in the neighbourhood of Trenton, Belleville, and Shannonville, in the County of Hastings, collecting fossils, and then proceeded by the Grand Trunk Railway to Guelph and Galt, thence to Dundas, Hamilton, Thorold, Port Colborne and Cayuga. In all these places I made collections, but as a great many of the species are either new, undescribed, or difficult of determination without comparison with European specimens, it is thought advisable not to report upon them until they shall have been further examined.

The principal object of the expedition being to examine the organic remains of the country, not much attention was given to physical geology. Of the facts observed the following are some of the most important.

Rocks at Port Colborne.—The Welland Canal as it approaches Lake Erie has a direction nearly north and south for a distance of seven miles before it reaches the turn near Port Colborne, called Rama's Bend. Throughout this distance it has been excavated in a level clay country, no rock cuttings having occurred in the construction of the work. At Rama's Bend, which is about two miles distant from the Lake, the first rocks were met with. On the east side, opposite the bend, the land rises fifteen or twenty feet above the level of the canal, and displays several quarries of an impure nodular limestone, with a few fossils in the face of the slope. In the banks of the canal no exposure of rock is to be seen above the level of the water. Between Rama's Bend and the railway, a distance of about a mile-and-a-half, there are large quantities of rock among the material thrown out of the excavation and placed on the west bank of the canal. Upon inquiry I found that this had been taken from a cutting through the rock to a depth amounting on an average to fifteen feet. The fossils and the nature of the rock shew that this excavation has been made through strata which form the junction between the Onondaga Salt Group and the Onondaga and Corniferous Limestones. As however the strata were altogether beneath the water at the time of my visit, the only opinion which I could form as to their character was necessarily based upon the examination of the debris upon the shore.

At Rama's Bend this consists of three kinds of rock, a blue stone with numerous irregular cavities. Proceeding towards the lake from this point in the first hundred yards, we find shale, a light drab water ? limestone, and a dark drab lime among the debris blocks of rock holding small masses of snowy gypsum. At the end of 200 yards the shales disappear. The dark coloured limestone disappears at 350 yards, but the porous limestone with gypsum continues, with some limestone holding silicious nodules. At 800 yards from the bend, all the rock disappears, and the debris consists only of blue clay. At 1560 yards from the bend the rock is again heaped up on the bank, and consists of the same materials as before, with the addition of some thick beds holding numerous corals of species identical with those of the corniferous limestone.

The shales and limestone holding the gypsum belong no doubt to the upper part of the Onondaga Salt Group, and as the fossiliferous limestone evidently succeeds it, or reposes upon it in the cutting in the canal, it follows that the Oriskany sandstone is absent at this locality.

Being desirous of ascertaining whether the same succession could be found in the tract lying between the Welland canal and the Niagara river, I went to Fort Erie and after proceeding down the river about two miles made an excursion westerly until I found an escarpment of the water-lime on lot No. 5, in the 10th concession of Bertie. This outcrop strikes directly for Port Colborne and is no doubt the same as that which crosses the canal at Rama's bend; I follow-

ed it four miles and was informed that it could be traced continuously for fourteen miles in a line parallel with the lake shore and distant from it two to three miles.

After leaving Port Colborne, I proceeded to Cayuga in the County of Hal-
dimand and spent a week in that neighbourhood. The country is in general
covered with drift clay and there are few good exposures of fossiliferous rocks.
The most interesting is a tract of the Oriskany sandstone situated on the town
line between Oneida and Cayuga, formerly noticed by Mr. Murray. This rock
I found to be abundantly stored with the characteristic fossils of the formation.
The extent of the exposure has since my visit been ascertained by Mr. J. De
Cew, D. P. L. S., of Decewsville, who is much interested in the study of
geology. Mr. De Cew's plan shews that on the town line the sandstone occurs
on the lots Nos. 46, 47, 48, 49 and 50, and the whole area exposed is only 230
acres. The locality is of much interest as being the only one known in West-
ern Canada, where good collections of the fossils of the Oriskany sandstone
can be procured.

Many of the species which I collected in this expedition are new, and as
they require much consideration, I beg to reserve them for the next Report.
The following are some that I have determined during the present year.

Genus FISTULIPORA (McCoy).

(McCoy, *British Palæozoic Fossils*, p. 11.)

Generic Characters.—"Corallum incrusting, or forming large masses, com-
posed of long, simple, cylindrical, thick-walled tubes, the mouths of which
open as simple, equal circular smooth-edged cells on the surface, and have
numerous transverse diaphragms at variable distances; intervals between the
tubes occupied by a cellular network of small vesicular plates, or capillary tu-
bules traversed by diaphragms."

This genus has no radiating lamellæ, a character which constitutes the only
difference between it and *Heliolites* (Dana.)

1. FISTULIPORA CANADENSIS (Billings).

Description.—Corallum forming irregular, contorted masses, or wide, flat,
undulating expansions or layers from one-half of an inch to one inch in thick-
ness, which are based upon a thin, concentrically wrinkled epitheca. Cell-
tubes half a line or less in diameter, and about one line distant from each
other; the mouths of the tubes protruding a little above the general surface.
Transverse diaphragms thin, horizontal or flexuous, and sometimes very nume-
rous, there being in some of the tubes three or four in half a line of the length of
the tube. The intercellular tubules are polygonal, and about four in the diame-
ter of one of the principal cells; their transverse diaphragms are well developed,
usually four or five to one line of the length.

F. Canadensis differs from the other described species in the following res-
pects:—From *F. decipiens* (McCoy) in having the cell-tubes more distant and the
diaphragms more numerous, and from *F. minor* (McCoy) in the same particulars,
the cell-tubes of the latter species being still smaller and closer together than in
F. decipiens.

This coral much resembles *Heliolites porosa* (Goldfuss), but can be readily
distinguished by the absence of the radiating septa

Locality and Formation.—Devonian; Corniferous or Onondaga limestone; lot 6, con. 1, Township of Wainfleet; at the east end of Lake Erie.

Collector—A. Murray, Esq.

Genus COLUMNARIA (Goldfuss).

Generic characters.—Composed of large masses of elongated sub-parallel corallites, which when separate are round, but when in contact polygonal. Radiating septa either rudimentary, or well developed, sometimes reaching the centre. Transverse diaphragms numerous, usually complete, and either horizontal, oblique or flexuous.

COLUMNARIA GOLDFUSSI (Billings).

Description.—This species is found in large amorphous or sub-globose masses composed of long straight or flexuous polygonal corallites with an average diameter of about half a line; transverse diaphragms from four to six in a line; radiating septa rudimentary, but distinctly striating the interior walls.

Formation and Locality.—Hudson River group? Snake Island and Traverse point, Lake St. John.

Collector.—J. Richardson.

COLUMNARIA BLAINVILLI (Billings).

Description.—Forming large sub-globose pyriform or hemispheric masses of polygonal corallites one line and a-half in diameter; about eighteen radiating septa which reach the centre; transverse diaphragms three or four to one line.

The radiating septa in fractured specimens where the interiors of the tubes are well exposed, striate the surface exactly as in *Columnaria alveolata*, from which species and from *Favistella stellata*, Hall, it only differs by its smaller size.

Formation and Locality.—Hudson River Group. Snake Island, Lake St. John.

Collector.—J. Richardson.

COLUMNARIA RIGIDA (Billings).

Description.—Forming large masses of polygonal corallites, usually three lines in diameter, but with numerous smaller ones, and occasionally others of a larger size; radiating septa, about twenty, not reaching the centre; transverse diaphragms from two to four in one line.

This species also resembles *C. alveolata*, but differs in the greater development of the radiating septa which extend about half-way to the centre. The tubes are also about the same size as those of *Favistella stellata*, Hall, which differs in the septa not only reaching the centre, but also in their often being so strongly developed there, as to produce by their junction the appearance of a pseudo-columella.

Formation & Locality.—Hudson River group? Lake St. John.

Collector.—J. Richardson.

COLUMNARIA ERRATICA (Billings).

Description.—Forming large masses of corallites either in contact or separate. The separate cells are round, those in contact more or less polygonal, the

radiating septa rudimentary, forming about four sulci in the breadth of one line upon the interior; diameter of corallites from two to five lines, in general about three and a-half lines. The transverse diaphragms are not visible in the specimens examined. The walls of the separate corallites are thick and concentrically wrinkled.

One specimen with corallites two lines in diameter appears to be a variety of this species.

Formation and Locality.—Trenton; Blue Point, Lake St. John.

Collector.—J. Richardson.

Genus PALÆOPHYLLUM (Billings).

Generic characters.—Corallum fasciculate or aggregate; corallites surrounded by a thick wall; radiating septa extending the whole length; transverse diaphragms either none or rudimentary; increase by lateral budding.

This genus only differs from *Petraia* or *Streptelasma* by forming long fasciculate or aggregate masses instead of being simple.

PALÆOPHYLLUM RUGOSUM (Billings).

Description.—Corallum in large aggregations of scarcely separate corallites, which where they open out upon the surface of the rock are from one to six lines in diameter, the average adult size being about four lines. Radiating septa reaching the centre; about twenty-two septa in a corallite four lines in diameter, with an equal number in a rudimentary state between.

The great disparity in the size of the tubes in the same mass is owing to the mode of increase and gradual growth of the young corallites. These, of all sizes from one line in diameter and upwards, are uniformly intermingled with the adult individuals.

Formation and Locality.—Trenton; Lake St. John, Little Discharge.

Collector.—J. Richardson.

PETRAIA RUSTICA (Billings).

Description.—Straight or slightly curved, covered with a strong epitheca, which is more or less annulated with broad shallow undulations; radiating septa about one hundred or usually a little more; much confused in the centre, where they form a vesicular mass; every alternate septum much smaller than the others, only half the whole number reaching the centre. Length from two inches and a-half to three inches and a-half. Diameter of cup one inch to one inch and a half; depth of cup half an inch or somewhat more.

This species appears to be the same as that described by Edwards and Haime under the name of *Streptelasma corniculum*. The true *S. corniculum* of Mr. Hall is a very different species, being always shorter and much curved.

Formation and Locality.—Hudson River group; Snake Island, Lake St. John.

Collector.—J. Richardson.

Genus SYRINGOPORA (Goldfuss.)

Generic characters.—The fossils of this genus are fasciculated or composed of large aggregations of long cylindrical corallites somewhat parallel to each other and connected by numerous smaller transverse tubes. The exterior walls consist

of a well developed solid epitheca; the cells circular; radiating septa rudimentary; transverse diaphragms infundibuliform or placed one within another like a series of funnels.

About twenty species of this genus are known, and these are found in the Upper Silurian, Devonian and Carboniferous formations.

SYRINGOPORA DALMANII (Billings).

Description.—Forming large masses; corallites long subparallel, slightly radiating, occasionally a little flexuous, annulated, one line or rather more in diameter, distant usually half a line, occasionally in contact or where flexures occur, more than one line apart; connecting processes very short, about two lines distant.

Formation and Locality.—Upper Silurian, Head of Lake Temiscaming.

Collector.—Sir W. E. Logan.

SYRINGOPORA COMPACTA (Billings).

Description.—Forming large hemispherical masses of straight parallel or slightly diverging corallites, which are so closely aggregated as to compose a nearly solid mass; about six corallites in two lines.

This species differs from all others of this genus hitherto described in the closeness of the corallites. These are so small, straight and closely united that large masses broken in the longitudinal direction of the tubes have the aspect of some species of *Monticulipora*.

Formation and Locality.—Upper Silurian. L'Ance a la Vieille, Gaspé.

Collector.—Sir W. E. Logan.

SYRINGOPORA VERTICILATA, (Goldfuss.)

(Goldfuss, *Petr. Germ.*, vol. i. p. 76, note 25, 26.)

Description.—Forming large masses, corallites nearly straight, about two lines in diameter, and from two to three lines distant; connecting tubes three or four lines distant, verticillating, or three or four radiating from the tube at the same level in different directions, like the spokes of a wheel.

Formation and Locality.—Upper Silurian. Head of Lake Temiscaming. Goldfuss specimens were from Lake Huron.

Collector.—Sir W. E. Logan.

SYRINGOPORA RETEFORMIS (Billings).

Description.—Forming large masses; corallites much geniculated, frequently anastomosing or connecting by stout processes; diameter of corallites about two-thirds of a line, distant from each other from half-a-line to a line and a-half; distance of connecting processes one line to three lines, usually about two lines.

Formation and Locality.—Upper Silurian. Isthmus Bay; Lake Huron.

Collector.—A. Murray.

SYRINGOPORA DEBILIS (Billings).

Description.—Corallites a little more than half a line in diameter, distant one or two diameters; connecting processes slender, distant one or two lines.

Formation and Locality.—Upper Silurian; L'Anse à la Vieille.
Collector.—Sir W. E. Logan.

SYRINGOPORA TUBIPOROIDES, (Yandell and Shumard.)

(Contributions to the Geology of Kentucky, page 8; 1847.)

(M. Edwards and L. Haime, *Polypiers fossiles des terrains palæozoïques*, p. 292.)

Description.—This species is found in large masses of long slightly flexuous corallites. These have a diameter of about one line and a-half, and owing to their flexuosity, are at times in contact, and often two, three or four lines a part. In large colonies which have grown luxuriantly without the interference of disturbing causes, the corallites are more regular than in the smaller or stunted groups, in which the corallites are much bent and confused. The connecting processes are very short and distant, and appear to be sometimes mere inosculation of the stems. The corallites after growing separately for a short distance, approach each other and seem to grow together or adhere to each other for the space of a line and a-half or more, they then diverge and again unite. These points of contact occur at distances varying from three lines to six, nine, or even twelve lines. Externally they exhibit numerous other indistinct annulations, and also faint indications of longitudinal striæ.

Formation and Locality.—Devonian; abundant in the Corniferous limestone of Canada West.

Collectors.—A. Murray, E. Billings.

SYRINGOPORA NOBILIS (Billings).

Description.—Corallites three lines in diameter, distant two to four lines. The connecting processes in this species have not been observed, but the size of the corallites is quite sufficient to separate it from any known species.

Formation and Locality.—Devonian; Corniferous limestone, near Woodstock Canada West.

Collector.—A. Murray.

SYRINGOPORA ELEGANS (Billings).

Description.—Corallites, one line in diameter, sometimes a little more or less, distant a little less than one line; connecting tubes half a line in diameter, and distant from one line to one line and a half, usually projecting at right angles, but sometimes a little oblique. Epitheca with numerous annulations, generally indistinct, but under certain circumstances of growth sharply defined and deep, so much so as to give to the corallites the appearance of the jointed stalk of a crinoid. The young individuals are produced by lateral budding, and in one specimen examined the whole colony appears to be based upon a broad lamellar foot secretion like that which forms the base of a Favosite.

The distance of the corallites is usually about a line, but like all the other species, this one varies a good deal in this respect. When some cause has intervened to prevent their regular growth they are much flexed and consequently at times more distant than when they have been disturbed. The connecting tubes on the same side of the corallite are three or four lines distant, but generally on the other sides one or two others in the same space occur, making the average distance one line or one line and a half.

Formation and Locality.—Devonian; Corniferous limestone, near Woodstock Canada West.

Collector—A. Murray, Esq.

SYRINGOPORA HISINGERI (Billings).

Description.—This specie forms large masses of very long, nearly parallel or slightly varying, slender corallites, which are closely aggregated and present a rugged or knobby appearance from the great number of the connecting tubes. The diameter of the corallites is one-third of a line, or a little more. The tubes of connection are distant from two-thirds of a line to one line and a-half. The distance between the corallites is for the greater part less than their diameter. The young corallites branch from the sides of the adult individuals, and immediately become parallel with the parent, and connected with it again by the usual tubes of connection.

Formation and Locality.—Devonian; Corniferous limestone, Canada West. (common.)

Collectors—A. Murray and E. Billings.

Affinities of S. Hisingeri.—Edwards and Haimé have described two species from Ohio, collected in rocks of the age of the Onondaga and Corniferous limestones, which appear to be closely allied to this; the following are their descriptions:

“SYRINGOPORA VERNEULLI.—Corallites long, distance between them twice or thrice their diameter, subflexuous and angular at the points of the origin of the tubes of connection, these are distant two or three millimetres; diameter of the corallites two-thirds of a millimetre.”—Devonian, Columbus, Ohio. (*Polypiers Fossiles*, p. 289.)

“SYRINGOPORA CLEVIANA.—Corallites slightly flexuous, distant once or twice their diameter, which is two-thirds of a millimetre.”—Devonian, Carleton and Dayton, Ohio. (*Polypiers Fossiles*, p. 295.)

The first of these species is different from *S. Hisingeri* in the greater distance of the corallites. The description of the second is too incomplete to enable us to decide whether it refers to the same species or not. The authors state that their specimen was imperfect, and that they were not certain that it had not been previously described.

Genus MICHELINIA (De Koninck).

Generic Characters.—“Corallum compound, forming rounded, or conoidal masses of inseparably united, thick-walled, polygonal tubes of large size, marked internally with numerous vertical lamellar striæ, and communicating pores; base of cells filled up by very irregular, numerous, highly inclined vesicular plates, not forming distinct horizontal diaphragms; external or basal epitheca of the general mass, strong, concentrically wrinkled, and sometimes spinose.”—McCoy, *British Palæozoic Fossils*, page 80.

This genus differs from *Favosites* in the vesicular character of the transverse diaphragms, and in the radiating lamellæ being represented by vertical striæ on the inner surface of the cells, instead of series of minute spines. The cells are usually much larger than in *Favosites*. The genus appears to be confined to the Devonian and Carboniferous formations.

MICHELINIA CONVEXA (D'Orbigny).

(Prodr. de Paleont., t. 1, p. 107, 1850.)

Description.—Corallum forming hemispherical, or erect rudely cylindrical masses, several inches in diameter; the base covered by a strong wrinkled epitheca. Adult calices from four to five lines in diameter; about forty septal striæ in each; pores small, arranged in several vertical series in some of the tubes, irregularly distributed in others; distant from half a line to more than one line. Diaphragms very convex in the centre of the tubes, and usually with three or four smaller rounded prominences on their surface; a vertical section shews that they are more vesicular at the sides of the cells than in the centre, where they are from half a line to one line and a-half distant.

MM. Edwards and Haime in their description of this species say that there are two vertical series of pores on the larger plane sides of the cells and one on the smaller. Our specimen, however shew that this is not a constant character.*

Formation and Locality.—Devonian; Onondaga and Corniferous limestones. Rama's farm, Port Colborne. Savage's quarry, lot 6, con. 1, Wainfleet, Oxford, near Woodstock, and in numerous other localities in Western Canada. This species occurs in Michigan and in Preston County, Virginia.

MICHELINIA INTERMITTENS (Billings).

Description.—Corallum forming large hemispherical masses; calyces nearly equal in diameter, with periodical constrictions within at the distance of half a line to one line and a-half. Diaphragms numerous, thin, slightly convex, sometimes shewing four or five vesicular swellings upon a single surface. The septal striæ are but slightly developed, about fifty to the inner circumference of the cell. Pores only visible in the intervals between the constrictions where the walls are thin, three or four series on each plane side of the tube. The cells are from three to four lines in diameter.

The constrictions give to the cells of this species a circular aspect, whereas they are in fact polygonal. I am not certain that this fossil is different from the species described by Edwards and Haime (op. cit. p. 299,) under the name of *Chonostegites Clappi*. If so it should I think be called *Michelinia Clappi*, as it exhibits all the characters of *Michelinia*. The constrictions appear to be occasioned only by the periodical thickening of the walls of the cells. Where not constricted the cells have the usual prismatic shape, with pores and septal striæ.

Formation and Locality.—The only specimen I have seen was collected by Mr. Murray, near Woodstock, C. W. It was found loose, but in lithological characters, it resembles the other species from the Corniferous one of that region.

MICHELINIA FAVOSOIDEA (Billings).

Description.—Corallum forming large hemispheric or flattened masses; cells unequal in size, adult diameter about two lines and a half; diaphragms, flat, horizontal, with small vesicular swellings, usually around the margins of the

* See Polypiers Fossiles des Terrains Palæozoïques, page 251.

upper surface; septal striæ very obscure, six to eight on each plane side of the cells; pores, very small, irregularly distributed, sometimes in rows of five or six across the cell, about one-sixth of a line distant from each other in some places, and sometimes absent in spaces of half a line in width. This species has much of the aspect of *Favosites fuvosa*, Goldfuss, but is notwithstanding very clearly a true *Michelinia*.

Formation and Locality.—Corniferous. Rama's farm, Port Colborne.
Collector.—E. Billings.

GENUS ZAPHRENTIS (Rafinesque).

Generic Characters.—Corallum simple, elongated, free and turbinated, surrounded by a complete epitheca; cup more or less deep; no columella?; a single fossette well developed and occupying the place of one of the radiating septa; these are in general well developed, denticulated upon their margins, and extend upon the surface of the transverse diaphragms to the central of the visceral chambers.

Edwards and Haime in the *Polypiers Fossiles*, page 326, have in substance given the above definition of this genus. In some of the species there is a rudimentary columella, and sometimes even in the same species the radiating septa may or may not reach the centre in different individuals.

ZAPHRENTIS PROLIFICA (Billings).

Description.—Corallum simple, turbate, curved, with a few broad shallow encircling folds. Septal fossette of a pyriform shape, gradually enlarging from the margin towards but not quite reaching the centre, variable in its position in relation to the curvature of the fossil. Radiating septa in the adult specimens between sixty and seventy-five of the larger size, alternating with a like number of smaller ones, the former in some of the individuals extending to the centre on the bottom of the cup, where they are spirally twisted or irregularly contorted, in other specimens not reaching the centre, which is then occupied by a smooth space or often with a columella elongated in a direction from the septal fossette towards the opposite side. The septa are also sharp-edged for about half the distance from the bottom of the cup to the margin, then become gradually less projecting until at the edge of the cup they are reduced to mere flat rounded ridges. Length from four to five inches or a little more. Width of cup from two inches to two inches and a half. Depth of cup about one inch.

Very numerous specimens of young individuals of this species, one inch and a-half and upwards in length, and with fifty or more principal radiating septa occur along with those full grown. These small ones might perhaps be regarded as constituting distinct species, but when good specimens can be observed they all exhibit the characters which are persistent in the large individuals.

The presence of the columella seems at first sight to be a sufficient ground for placing the individuals in which it occurs in the genus *Lophophyllum* (Edwards and Haime). I have however examined a great number of specimens and have found every gradation between the following characteristics.

- 1st. Specimens with a perfectly smooth space in the bottom of the cup, no columella.
- 2nd. With a columella slightly developed.
- 3rd. Columella large and prominent, with a smooth space all round.

4th. Columella well developed, but with a number of irregular often elongated tubercles in the surrounding smooth space.

5th. The septa reaching the columella, no smooth space.

6th. Septa covering the columella.

7th. Septa reaching the centre, with the columella either prominently, slightly or not all indicated beneath.

This last mentioned form must certainly be regarded as a true *Zaphrentis*, all other characters of the genus being present, and from it there is a regular series of forms leading in the seven directions above indicated or more. It appears to me therefore that so far from these specimens being divisible into several genera they only constitute one species.

The most persistent characters are the rounded edges of the septa near the margin of the cup, and the oval shape of the septal fossette, in the bottom of which where it reaches the side of the cup is a single septum which projects a little and partially divides the fossette.

This species somewhat resemble *Z. cornicula* (Lesueur), but differs in the edges of the septa, which are not dentated as in that species.

Formation and Locality. Devonian; Corniferous limestone. Extremely abundant at Rama's Farm near Port Colborne, Canada West.

ZAPHRENTIS SPATIOSA (Billings).

Description.—Corallum short, turbate, moderately curved and very broadly expanding. At the margin of the cup about ninety radiating septa alternately a little unequal and with their edges broadly rounded as in *Z. prolifica*. Length measured on the side of the greater curvature, about three inches, width of cup two inches and a-half. Septal fossette unknown.

This species is closely related to *Z. prolifica*, and may perhaps be united with it when its characters become more fully known.

Formation and Locality.—Devonian, Onondaga and Corniferous limestones, Rama's Farm, near Port Colborne Canada West.

Genus CYSTIPHYLLUM (Lonsdale.)

Generic Characters.—Corallum simple, turbate, entirely filled with vesicular celluliferous structure; radiating septa, rudimentary or obsolete.

CYSTIPHYLLUM SULCATUM (Billings.)

Description.—Short, turbate, much curved, expanding at the rate of between forty and forty-five degrees from the minute sharp curved point upwards; cup oblique, the lower margin being on the side of the lesser curvature, moderately deep and nearly regularly concave, the bottom covered with obscure coarse rounded radiating ridges; a shallow rounded groove or fossette extending from the centre to the higher margin, and in some specimens two others much less distinct radiating to the sides at right angles to the main groove. Exterior encircled by obscure undulations, and longitudinally striated by the rudimentary radiating septa. The vesicular structure consists of irregular sub-lenticular cells from half a line to two lines in width; length of the convex side from one inch and a half to three inches, the usual length appears to be about two inches or a little more; width of cup from one inch to one inch and a half; depth about half an inch.

This species when the interior cannot be seen might be mistaken upon a superficial examination for a small curved *Cyathophyllum* or *Zaphrentis*. It is about the size and shape of the curved specimens of *Petraia cornicula*.

Locality and Formation.—Rather common in the Corniferous or Onondaga limestone on Rama's farm, Port Colborne.

Collector—E. Billings.

Genus CYRTODONTA (Billings).

Generic Characters.—Equivale, inequilateral; umbones near the anterior end; general form obliquely tumid, transversely sub-rhomboidal or ovate, posterior extremity larger than the anterior and usually broadly rounded; two muscular impressions, of which the posterior is superficial and the anterior sometimes deeply excavated; three oblique, often more or less curved, anterior teeth, situated either beneath or a little in front of the umbones; two or three remote posterior lateral, teeth parallel with the hinge line; pallial line simple; ligament external; some of the species have a narrow area between or behind the beaks.

CYRTODONTA RUGOSA (Billings).



Fig. 1.



Fig. 2.

Figure 1. Exterior of right valve.
" 2. Interior of same specimen.

Description.—Small, sub-rhomboidal or sub-quadrate, the dorsal and ventral margins being somewhat parallel, and the anterior and posterior extremities obtusely rounded, the latter broader than the former; obliquely tumid from the beaks to the posterior ventral angle; the beaks rather small and incurved; a broad, shallow, scarcely perceptible depression extending from the ventral margin obliquely forward and upward towards the umbones; surface concentrically striated, and also marked with several more or less prominent sub-imblicating concentric ridges of growth; hinge line nearly straight, a little curved; interior shewing in the right valve three anterior teeth, the central one of which is the largest, and two posterior lateral teeth. In the left valve there appear to be four anterior teeth; but as the specimens are somewhat imperfect, this may not be the correct number. Width nine lines; length from the centre of the hinge line to the centre of the ventral margin, seven lines; depth of a single valve, three lines.

None of the specimens that I have seen are larger than the one represented in figures 1 and 2.

Locality and Formation.—Fourth Chute of the Bonne chère, Pauquette's Rapids, and at La Petite Chaudière Rapids near the city of Ottawa north side, associated with numerous fossils of the Trenton and Black River formations.

Collectors—Sir W. E. Logan, J. Richardson, E. Billings.

CYRTODONTA HURONENSIS (Billings).

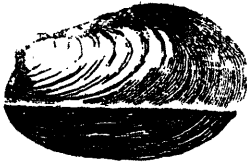


Fig. 3.

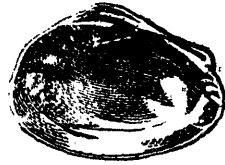


Fig. 4.

Figure 3. View of left valve from Lake Huron.
 " 4. Interior of another specimen, same locality.

Description.—Transversely oval; anterior and posterior extremities rounded; ventral margin moderately convex, dorsal margin a little more convex than the ventral; umbones rather small, incurved; greatest tumidity extending from the umbones obliquely towards the posterior ventral angle; surface concentrically marked with fine striæ and ridges of growth. Width one inch five lines; length at the centre, one inch.

Locality and Formation.—The specimens are from an island in the group lying off Point Palladeau, Lake Huron, where they were found associated with Chazy, Black River and Trenton fossils; also at Point Claire, Island of Montreal.

Collector—A. Murray.

CYRTODONTA SUBCARINATA (Billings).

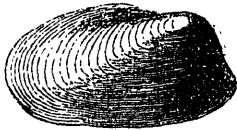


Fig. 5.

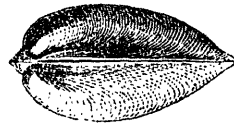


Fig. 6.



Fig. 7.

[Figure 5. A specimen from Pointe Claire.
 " 6. Dorsal view of same specimen.
 " 7. A cast from lot 26, con. 5, Osnabruck.]

Description.—Transversely sub-oval; ventral margin scarcely convex, straight or slightly sinuated for a small space of the centre; dorsal margin elevated in the centre and sloping with a slight curve towards the posterior end, which is narrowly rounded, or truncate in the casts of the interior; umbones moderately small, incurved, and somewhat carinate for a greater or less distance; surface marked with obscure concentric ridges of growth. The interior has not been seen. Width one inch three lines; length nine lines.

This species may perhaps be considered a variety of the last; but the proportions are somewhat different, and it is always characterised by the

strong, rounded carina, which extends from the umbones to the posterior ventral angle.

Locality and Formation.—Occurs at Pointe Claire and in numerous localities in the valley of the Ottawa in the top of the Chazy, throughout the Birdseye and Black River limestones, and in the base of the Trenton.

Collectors—Sir W. E. Logan, A. Murray, J. Richardson, E. Billings.

CYRTODONTA CANADENSIS (Billings).

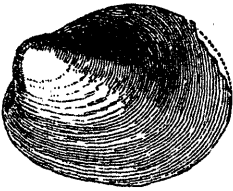


Fig. 8.

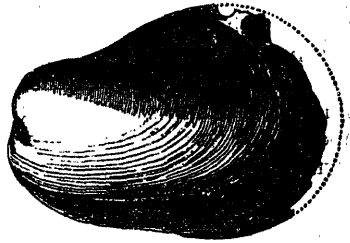


Fig. 9.

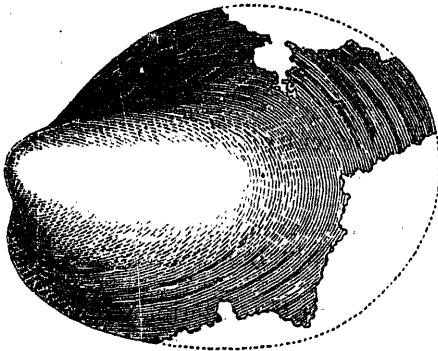


Fig. 10.

Figure 8. A small specimen from the north side of St. Joseph's Island, Lake Huron.

" 9. An elongated variety from the lower beds opposite the foot of the timber-slide, 4th Chute of the Bonne chère.

Fig. 10. A large specimen from Pauquette's Rapids.

Description.—Transversely broad-oval; anterior, posterior, and ventral margins, and also the posterior half of the dorsal margin regularly rounded; a portion of the ventral margin about the centre of the width is sometimes nearly straight; dorsal margin elevated, somewhat compressed; diagonally and rounded ventricose from the umbones towards the posterior ventral angle; beaks short, obtusely rounded, incurved; surface nearly smooth or obscurely marked with concentric ridges; a few strong imbricating lamellæ of growth near the margin of some specimens. Width from fifteen lines to two inches and one-fourth; length from eleven lines to twenty-one lines.

Some of the specimens are a little more transverse than others; but there are intermediate forms connecting the specimen, represented by Figure 9, with Figures 8 and 10.

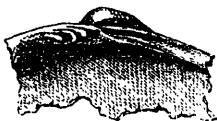


Fig. 11.

Fig. 11. A fragment, shewing the anterior teeth.

The anterior teeth are short, the central one being the longest and the most curved; the posterior teeth of the specimen represented by Fig. 10 are two in number, elongated and prominent.

Locality and Formation.—Island of St. Joseph's Lake Huron; La Petite Chaudière Rapids near the City of Ottawa; Fourth Chute of the Bonne chère and Pauquette's Rapids; associated with fossils of the Trenton and Black River formations.

Collectors—Sir W. E. Logan, J. Richardson, A. Murray, E. Billings.

CYRTODONTA SPINIFERA (Billings).



Fig. 12.

Description.—Small, sub-circular; greatest length and breadth about equal; moderately convex; hinge line much elevated; umbones small, incurved; dorsal margin nearly straight from the umbones about half-way to the posterior extremity of the hinge line; anterior, ventral, posterior and posterior half of dorsal margins broadly and regularly rounded; surface smooth, with a few short stout spines.

The specimen figured shews the anterior teeth: they are three in number, and do not differ from those of *C. rugosa*. Length eight lines; breadth the same.

Locality and Formation.—Pauquette's Rapids, and Fourth Chute of Bonne chère, associated with fossils of the Trenton and Black River formations.

Collectors—Sir W. E. Logan, J. Richardson, E. Billings.

CYRTODONTA OBTUSA (Hall sp.)

(*Ambonychia obtusa*, Hall, Palæontology of New York. Vol. 1, p. 167. Plate 36; Figures 8a, 8b.)

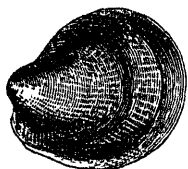


Fig. 13.



Fig. 14.

Figure 13. Left valve from Pauquette's Rapids.
" 14. Interior of some shewing the teeth.

Description.—The following is Professor Hall's description: "Obliquely ovate, short, gibbous; umbones short, obtuse, scarcely incurved or bending forwards; shell somewhat compressed towards the lower margin, convex on the centre and becoming inflated above; anterior side obtuse, rounded, scarcely extending beyond the umbones; posterior side compressed, scarcely alated; cardinal line straight, margin of shell curving from its posterior extremity; surface?"

"The specimens seen are casts, where the markings of the shell are not preserved. This species is distinguished from the others by its short, ovate form, as well as the shorter, very obtuse and gibbous umbones. It departs somewhat from the typical forms of the genus (*Ambonychia*); but it has nevertheless the essential features, and cannot be referred to any other genus." (Pal. N. Y., vol. 1, page 167.)

Locality and Formation.—City of Ottawa, Belleville, and at Trenton on the Bay of Quinte, in the Trenton limestone; at the Fourth Chute of the Bonne chère, and also at Pauquette's Rapids very perfect specimens are common, associated with fossils of the Trenton and Black River formations.

Collectors.—Sir W. E. Logan, J. Richardson, and E. Billings.

CYRTODONTA SUB-TRUNCATA (Hall sp.).

Edmondia sub-truncata, Hall, Palæontology of New York, Vol. i., page 156, Plate 35, Figure 3 c, (not Fig. 9, Plate 34.)

This species is common in the Trenton and Black River limestones of Canada at all the localities above mentioned. The silicified specimens shew the internal characters of *Cyrtodonta* very clearly.

CYRTODONTA SUB-ANGULATA (Hall sp.)

Edmondia sub-angulata, Hall, Palæontology of New York, Vol. i., page 156, Plate 35, Figures 2 a, b.

A specimen of this species from Pauquette's Rapids exhibits in the right valve two posterior lateral teeth and an area between the beaks. That portion of the hinge line occupied by the anterior hinge teeth is destroyed, so that their character cannot be observed. There is an anterior muscular impression as in the other species.

It occurs at Pauquette's Rapids and at La Petite Chaudière.

CYRTODONTA CORDIFORMIS (Billings).

Description.—Sub-rhomboidal; cordiform; extremely ventricose; umbones strongly incurved; obtusely carinate on their upper side; the carination extending backwards and diagonally downwards, becoming more rounded and nearly obsolete before reaching the posterior ventral angle; the hinge-line is straight, short, and about at right angles to the direction of the carina; from the extremity of the hinge-line the posterior side slopes abruptly, but with a moderate curve, to the posterior ventral angle; ventral margin a little convex, and about as long as the posterior side; anterior margin half the length of the ventral, not much curved; anterior muscular scar oval and distinctly marked; surface concentrically striated. Length of largest specimen examined from the beaks to the posterior ventral angle, thirteen lines; length of hinge-line, seven lines; length of posterior and ventral sides, about ten lines each. The diagonal carina is not straight, but has a strong upward curve.

Locality and Formation.—East point of St. Joseph's Island, Lake Huron, Trenton Limestone.

Collector.—A. Murray.

CYRTODONTA SIGMOIDEA (Billings).

Description.—Sub-rhomboidal, ventricose, a strong obtusely angular carina extending from the closely appressed beaks with a sigmoid curve to the posterior ventral margin; anterior end rounded, projecting a little in front of the beaks; ventral margin longer than the dorsal and moderately convex; posterior extremity obliquely truncate. Width one inch and a half; length from the umbones to the ventral margin thirteen lines.

Locality and Formation.—Hudson River group, Anticosti.

Collector.—J. Richardson.

Sub-genus VANUXEMIA (Billings).

Generic characters.—Ovate; beaks terminal or sub-terminal; posterior extremity rounded; anterior more or less acuminate; two muscular impressions; anterior teeth variable in number, sometimes curved and striated; posterior lateral teeth from two to four.

VANUXEMIA INCONSTANS (Billings).

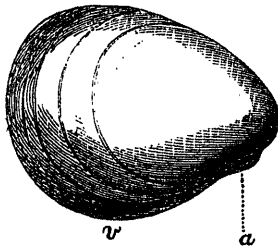


Fig. 15.

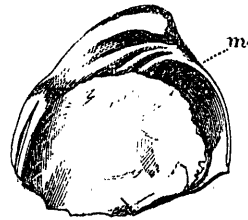


Fig. 16.

Figure 15. Right valve; *v*, ventral margin; *a*, the small anterior ear.

" 16. A fragment shewing the teeth obscurely; *m*, the muscular impression.

Description.—Ovate; moderately convex; beaks terminal gradually expanding from the beaks to the posterior extremity, which is broadly rounded; dorsal margin slightly and uniformly convex from the beaks to the posterior angle; anterior extremity represented by a very small projection beneath the beaks; ventral side regularly rounded, except a short space near the beaks, which is sometimes concave and partly occupied by the small projection of the anterior extremity. Three strong curving anterior teeth; two posterior lateral teeth; shell very thick towards the anterior end; a small area between the beaks; the anterior muscular impression is apparently excavated in the edge of the very thick shell. Surface with a few more or less strongly marked concentric furrows of growth. The beaks are short, rounded, and closely incurved.

The proportional length and breadth varies. The specimens are usually an inch and a half in length from the beaks to the posterior extremity, the greatest width from the dorsal to the ventral side being an inch and three or four lines.

There is a small variety, scarcely an inch in length, and more obtuse at the anterior end, than the specimen figured; it is also more ventricose.

Locality and Formation.—Fourth Chute of the Bonne chère, La Petite Chaudière Rapids near the city of Ottawa, and numerous localities in the valley of the Ottawa, associated with fossils of the Black River and Trenton formations.

Collectors.—Sir W. E. Logan, E. Billings, J. Richardson.

VANUXEMIA BAYFIELDII (Billings).

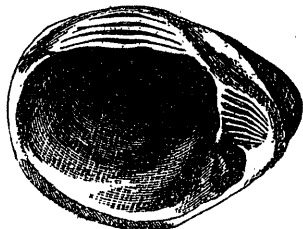


Fig. 17.

Figure 17. Interior of the left valve of *V. Bayfieldii*.

Description.—Very ventricose; ovate; the anterior extremity, including the beaks, narrowly rounded; the posterior end broadly rounded; shell very thick; seven anterior teeth; four posterior teeth; anterior muscular impression large, deep, and excavated in the very much thickened edge of the shell; posterior muscular impression sub-circular, superficial and situated just beneath the posterior extremity of the hinge line.

The specimen figured is deeply imbedded in a coral (*Monticulipora petropolitana*), and only exhibits the edges and inside of the shell. From the great thickness of the shell, casts of the interior must bear very little resemblance to a perfect specimen. The form is very like that of *Vanuxemia inconstans*, but the characters of the interior leave no doubt as to its distinctness.

Locality and Formation.—Bayfield Sound, Lake Huron a single loose specimen; Lower Silurian appears to be of the Hudson River Group.

Collector.—A. Murray.

Genus MATHERIA (Billings.)

Generic Characters.—Transverse; equivalve; inequilateral; beaks near the anterior end; dorsal and ventral margins sub-parallel; two small obtuse cardinal teeth in the left valve, and one in the right; no lateral teeth; two muscular impressions; ligament external.

This genus is dedicated to Mather, one of the Geologists of the New York Survey.

MATHERIA TENER.

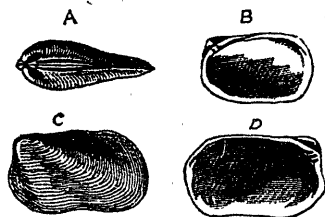


Fig. 18.

Figure 18. A, dorsal view of *Matheria tener*; B, interior of right valve; C, exterior of left valve; D, interior of left valve.

Description.—Small, oblong, depressed; dorsal and ventral margins nearly straight and parallel; upper half of posterior extremity obliquely truncate; lower half rounded; anterior extremity sub-truncate from the beaks nearly to the anterior ventral angle, which is rounded, and projects slightly beyond the umbones. From the beaks to the anterior ventral angle extends a prominent obtusely angular canina; surface marked with fine concentric striae. Width eight lines; length four lines.

Locality and Formation.—Blue Point, Lake St. Johns; Trenton limestone.

Collectors—J. Richardson, R. Bell.

Genus OBOLUS (Eichwald).

OBOLUS CANADENSIS (Billings).

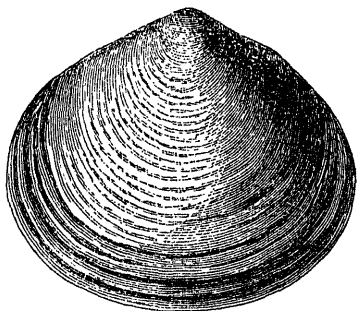


Fig. 19.



Fig. 20.

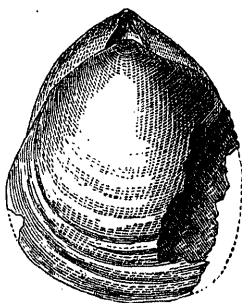


Fig. 21.

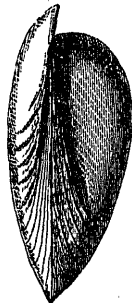


Fig. 22.

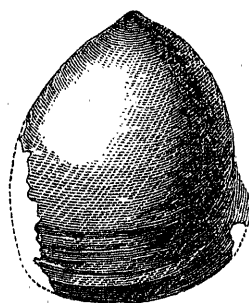


Fig. 23.

Figure 19. Dorsal valve. 20. Interior of dorsal valve. 21. Dorsal view of an elongated specimen which has both valves in place but a little distorted. 22. Side view of the same specimen. 23. Ventral view.

Description.—The form of this magnificent species is somewhat variable, the width being often greater than the length, and sometimes less. Usually, it is transversely broad-oval; the apex of the dorsal valve obtusely angular, and that of the ventral rather acute. The dorsal valve is moderately and pretty uniformly convex; the ventral valve depressed-convex. The beak of the ventral valve projects about two lines above that of the dorsal valve, and exhibits a wide, scarcely concave area, with a triangular excavation representing the obsolete foramen; the surface is smooth, or with a few concentric imbricating furrows of growth. In the inside of the dorsal valve there are near, but above the centre, two pyriform muscular impressions, with their pointed extremities close together and directed downwards, while in the upward direction they diverge outwards; they are separated by an obscure rounded ridge, and surrounded on the lower side by an elevated angular border, which forms a projecting point just below their lower extremities. Beneath and close to the hinge there is a narrow and deep flexuous furrow. The muscular impression at the cardinal angles figured by Davidson in *O. Apollanis* (Eichwald), *O. transversa* (Salter), and *O. Davidsoni* (Salter), are very indistinct in this species; the area of the ventral valve does not appear to be striated. The interior of the ventral valve is not clearly shewn in any of our specimens. Width usually about two inches, but some of the fragments undoubtedly belonged to individuals which were three inches wide. The length from the beaks to the base, is either equal to or a little greater or less than the width, the dimensions being variable.

Locality and Formation.—Occurs abundantly at the Fourth Chute of the Bonne-chère, Pauquette's Rapids, and in the Townships of Stafford and Westmeath, County of Renfrew, associated with fossils of the Trenton and Black River limestones.

Collectors—Sir W. E. Logan, J. Richardson, and E. Billings.

Genus EICHWALDIA (Billings.)

Generic Characters.—Large valve perforated on the umbo for the passage of the peduncle; the place of the foramen beneath the beak occupied by an imperforate concave plate, the interior divided by an obscure medio-longitudinal ridge; interior of smaller valve divided throughout from the beak to the front by a very prominent medio-longitudinal ridge; no hinge, teeth, sockets, or other articulating apparatus in either valve.

After a great deal of examination and comparison I have not been able to refer the species for which the above generic name is proposed to any of the described genera. Although several silicified specimens exhibiting the interior have been obtained, they do not show any muscular impressions. The perforation on the back of the beak was at first supposed to be a fracture, but we have now specimens which exhibit its characters so completely that I do not think it possible there can be any mistake. The internal structure of the larger valve somewhat resembles that of *Pentamerus* or *Camarophoria*, the concave plate beneath the beak appearing to be the homologue of the floor of the triangular chamber found in these genera. I cannot make out however, that it is in any way connected with the medio-longitudinal ridge as is the case in both *Pentamerus* and *Camarophoria*. In removing the limestone from silicified specimens the delicate processes in the interior of species of brachiopoda are very often destroyed, and it is possible that the connection in question may exist in perfect specimens, but not appear after treatment with acids. It is therefore uncertain whether or not it is attached to the plate beneath the beak. If it should be

hereafter ascertained that it is so connected, the foramen on the umbo would still be sufficient to show that this is a new genus, to the establishment of which the characters of the smaller valve and the absence of any articulating and apophysary apparatus would be additional characters. As other specimens can be procured and as the internal characters cannot be well shewn by wood-engraving, I shall for the present give figures of the exterior only.

EICHWALDIA SUBTRIGONALIS (Billings.)

Description.—Sub-triangular; both valves moderately convex and smooth; apical angle about ninety degrees or a little less; sides from the beak to about one half the length straight, then rounded; front more or less broadly rounded; beak of larger valve extended, incurved at the point and with a moderately large concave area; beneath beak of smaller valve strongly incurved apparently entering the visceral cavity beneath the area of the larger valve; length and width about equal.

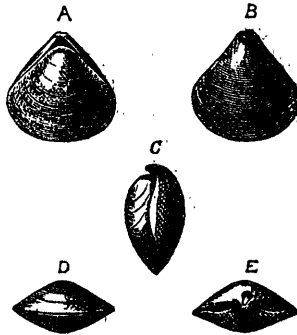


Fig. 24.

Figure 24. A, dorsal view; B, ventral; C, side; D, front; E, apex, shewing the foramen.

Locality and Formation.—Fourth Chute of the Bonne-chère and Pauquette's Rapids, associated with numerous fossils of the Black River and Trenton Formations.

Collectors—Sir W. E. Logan, J. Richardson, E. Billings.

I have the honour to be,
Sir,
Your most obedient servant,

E. BILLINGS.

REPORT

FOR THE YEAR 1857,

OF

T. STERRY HUNT, Esq.,

CHEMIST AND MINERALOGIST TO THE GEOLOGICAL SURVEY OF CANADA,

ADDRESSED TO

SIR W. E. LOGAN, F.R.S.,

DIRECTOR OF THE GEOLOGICAL SURVEY OF CANADA.

MONTREAL, 1st March, 1858.

SIR,

I have now the honour to lay before you some of the results of my chemical investigations in connection with the Geological Survey during the past year. In the first place, and in continuation of the inquiries suggested in my last report, I have to offer a series of analysis of various dolomites and magnesian limestones, and to give the results of some experiments which serve to explain the conditions and mode of their formation. In this connection it may be well to recall some of the principal facts in the history of dolomites, as a preliminary to the researches and discussions which are to follow.

DOLOMITES.

The name of dolomite, as is well known, is employed to designate a mineral which in its purest state is composed of equivalent weights of carbonate of lime and carbonate of magnesia, these being in the proportions of 50 to 42, or in 100 parts of 54.35 of carbonate of lime, and 45.65 of carbonate of magnesia. This compound is distinguished from carbonate of lime by its greater density (which is from 2.85 to 2.90), and by its somewhat superior hardness. It is also much less readily attacked by acids than carbonate of lime, and at ordinary temperatures does not perceptibly effervesce with nitric or muriatic acids, unless reduced to powder. When calcined it gives a mixture of lime and magnesia, which is said to yield a stronger mortar than ordinary lime, but which slakes slowly and with but little evolution of heat.

A portion of the magnesia in dolomite is often replaced by protoxyd of iron, and more rarely by oxyd of manganese. The dolomites containing carbonate of iron are generally yellowish or reddish on their weathered surfaces, from the change of a portion of the iron into hydrated peroxyd, and those containing carbonate of manganese become brownish-black on the exterior from a similar cause. Both of these cases may be observed in the dolomites of the Eastern Townships of Canada.

Besides the crystallized dolomites which occur in veins and cavities in various rocks, and have received the names of *bitterspar* and *pearl-spar*, (the latter in allusion to the pearly lustre of the faces of the rhombohedron, which are generally curved), we find this double carbonate forming great beds of a rock which is also known by the name of magnesian limestone. The yellow magnesian limestones of the Permian system in England are those best known, and have in some cases a total thickness of 300 feet. They are immediately overlaid by gypseous marls, to which succeed the limestones, gypsum and rock-salt of the Triassic series. Similar magnesian limestones occur in the Devonian and Carboniferous formations of England and Russia. Descending in the geological series, we find in the Saliferous group of Western Canada and New York, beds of dolomite with gypsum, (see Report for 1856, p. 475); and immediately below, in the Niagara group, there occurs a remarkable deposit of dolomite about to be described. In the Report just cited, p. 465, I have described the dolomites which occur interstratified with pure limestones in the Hudson River group. The examinations of Messrs. Owen and Whitney have shown that in Michigan, Iowa, and Minnesota, the calcareous strata immediately overlying the Potsdam sandstone, and corresponding to the Calciferous sand-rock, are highly magnesian, often constituting true dolomites; and I have found thin layers of dolomite among the limestones of the Chazy division on the island of Montreal. The argillaceous limestone from this formation at Hull, which is employed as a hydraulic cement, also contains about 20 per cent. of magnesian carbonate.

Beneath the oldest known fossiliferous rocks, and among the limestones of the Laurentian series, we meet with great beds of dolomite, sometimes ferriferous, and often containing serpentine and other silicious minerals (see Report already cited, pp. 366 and 482.)

When on the other hand, we ascend from the Permian, we find the Jurassic formation of the Alps containing immense masses of dolomite, which also occur in the same formation in France and Germany. In the Cretaceous formation dolomites occur in Gascony, and in the Paris basin; and in 1855 I visited in company with the members of the Geological Society of France, a deposit of dolomite in the Tertiary strata at Pont St. Maxence, in the valley of the Oise, in France, since described in the Bulletin of the Society. The dolomite, which there reposes upon the nummulitic limestone, and is overlaid by the *calcaire grossier*, forms irregular beds or masses several feet in thickness. It is in the form of an incoherent sand, which consists according to Damour, of nearly pure crystalline dolomite, with a little bitumen and some quartzose sand. Between it and the overlying fossiliferous limestone, is a thin layer of yellowish tufaceous cellular limestone, which does not contain a trace of magnesia. (See Bulletin of the Geol. Soc. of France, vol. xiii., p. 67.)

We are indebted to Mr. J. D. Dana for the discovery of a dolomite of recent origin in Matea, an elevated coral island near Tahiti, where among the limestones which he supposes to be formed by the solidification of coral mud, is one containing 8.3 per cent. of carbonate of magnesia, and another which according to Prof. Silliman, jr., yields 38.07 per cent. of carbonate of magnesia. This dolomite, which is compact, finely granular and very tenacious, is at the same time cavernous, and I found its density in powder to be 2.83, its hardness being above 4.0. Analysis gave me 38.25 per cent. of carbonate of magnesia, 0.30 of silica, and 60.50 of carbonate of lime.—(*Am. Jour. of Science*, [2] xiv. p. 82, and xix. p. 429.)

The preceding dolomites belong to marine formations, but dolomites are

said to occur in the lacustrine limestone at Dächingen near Ulm, and in the brown-coal formation at Giessen.

It appears then from the facts which we have here cited; that the production of dolomites was continued from the time of the earliest known stratified rocks up to the tertiary period, and is perhaps even now going on.

Physical Characters of Dolomites.—Apart from the altered crystalline dolomites of metamorphic strata, the generally crystalline texture of those of unaltered regions is remarkable. In some cases the rock is an aggregate of pearly, cleavable grains of dolomite, which occasionally have but little coherence, or are in the form of loose sand. At other times the rock is concretionary, having an oolitic or a botryoidal structure, the masses often exhibiting a radiated arrangement; more rarely compact varieties of dolomite are met with. The concretionary action has sometimes, according to Lyell, so far disturbed the original arrangement as to obliterate the marks of stratification. Most dolomites exhibit cavities, which have often been filled by subsequent deposits of other minerals, and seem to indicate a contraction, apparently attendant upon chemical change after the deposition of the rock.

A remarkable mode of occurrence is that in which dolomite forms the cement of breccias and conglomerates. I have in my last report described rocks of this kind from the Quebec division of the Hudson River group, where rounded fragments of limestone, shale, and even of dolomite, have been re-cemented into a rock by the introduction of a crystalline ferriferous dolomite. Analogous to this is the well-known conglomerate of the Permian system near Bristol, and in other parts of England, where in hollows of the Mountain Limestone, are found accumulations of fragments of this limestone, with others of coal-shale, mixed with bones and teeth of saurians; the whole cemented together by a red or yellow dolomite, and resting unconformably upon the Carboniferous strata. Similar conglomerates occur in the same formation in Normandy, where they enclose concretionary masses of nearly pure dolomite, while in the Permian rocks of the Vosges concretions of sandy dolomite occur imbedded in layers of micaceous sandy clay, itself sometimes agglutinated by a dolomitic cement. (*Explication de la Carte Géologique de France*, ii., pp. 15 and 128.)

In this connection I must recall the existence of a crystalline ferriferous dolomite filling the shells of *Orthoceras*, *Pleurotomaria* and *Murchisonia*, as also small fissures in the non-magnesian Trenton limestones of Ottawa, described in the Report for 1852, p. 174; and I have to remark the existence of similarly replaced fossils in the Chazy limestone at Montreal. But while these dolomitic casts occur in pure limestone, I have presently to describe beds from the Niagara formation, in which, on the contrary, purely calcareous corals occur imbedded in a yellow magnesian limestone.

Having thus brought together the principal facts in the history of magnesian limestones, I proceed to give the analytical results in support of several of these points, at the same time referring to previous Reports already cited for other analysis:—

Dolomites of the Laurentian series: 1846, p. 124; 1853-56, pp. 366-482.

Dolomites of the Silurian series: 1852, p. 174; 1853-56, p. 465.

Analyses of Limestones and Dolomites.

Chazy Limestone.—Between the beds of the dark compact fossiliferous limestone at the quarries near the St. Lawrence toll-gate, Montreal, there are found irregular interrupted layers, occasionally an inch or more in thickness, of a yellow

pulverulent material, containing great numbers of fragments of encrinal stems. The matrix is easily crushed, permitting us to separate the organic remains by means of a sieve. A portion of the yellow powder thus obtained was dissolved with effervescence by hydrochloric acid, leaving only a residue of white silicious matter, and the solution contained lime, magnesia and iron, but no alumina; nor could the presence of manganese, nickel, or any allied metals, be detected. The analysis, which represents a very ferriferous dolomite with an excess of iron, gives the iron as carbonate, while it exists in part as peroxyd, and hence the slight increase. 100 parts gave me :—

Carbonate of lime,	40.95
“ of magnesia,	24.19
“ of iron,	27.03
Insoluble sand,	9.01
	101.18

A portion of grayish crystalline limestone, distant about an inch from the magnesian layer, left on solution in acid, 18.4 per cent. of white insoluble matter, and gave only 1.09 per cent. of carbonate of magnesia, the rest being carbonate of lime.

At the above locality there are found casts of orthoceratites, consisting of a coarsely lamellar white dolomite, weathering reddish-yellow, crumbling, and evidently very ferruginous. These are imbedded in a nearly black, fine-grained limestone, which, as in the case of similar specimens from Ottawa, is traversed by thin, irregular veins of dolomite, leading to the casts. A portion of this black limestone was dissolved in hydrochloric acid, during which process the carbonic acid gas evolved contained traces of sulphuretted hydrogen. A little iron pyrites remained in the insoluble residue, and was dissolved by nitric acid with separation of sulphur. The residue thus purified, was black when dry from the presence of carbonaceous matter, but became white by ignition in the air, and then equalled 12.8 per cent. of the rock. A dilute solution of soda, aided by heat, removed from the calcined residue 9.47 per cent. of silica, leaving a matter having nearly the composition of a feldspar. It was examined for sulphate of baryta, which I once detected in the insoluble residue of an earthy limestone, but contained only a trace of sulphuric acid. An analysis by fusion with an alkaline carbonate, gave me :—

Silica,	73.02
Alumina,	18.31
Lime, .....	.93
Magnesia, .....	.87
Alkalies, by difference,	6.87
	100.00

Dolomite of Dudswell.—In your Report for 1847, p. 54, you have described the Upper Silurian limestones of Dudswell, which are often more or less micaceous and interstratified with micaceous schists, but contain, in a state which admits of their identification, the characteristic fossils of the Niagara group. Sometimes the rock consists of masses of corals of the genera *Cyathophyllum*, *Porites* and *Favosites*, imbedded in a yellowish granular paste. The dark, almost black colour of the polished corals, which generally exhibit organic structure, contrasts agreeably with the yellow base. In other portions the structure of the rock seems to be due to the fact that beds of gray fossiliferous limestone have

been broken and shattered, generally in the plane of stratification, and the fissures subsequently filled up with the yellow paste, which forms layers, sometimes half an inch thick, occasionally enclosing the fragments of gray limestone. Blocks of this variety which you have caused to be cut and polished, yield a marble of considerable beauty.

A chemical examination of these rocks shows that while the fossils, and the grayish base which often envelops them, are pure carbonate of lime, the yellowish portions are magnesian. A fragment of the gray, finely granular limestone, gave me 6.2 per cent. of insoluble sand, a trace of oxyd of iron, and 1.3 per cent of carbonate of magnesia, the rest being carbonate of lime.

A specimen of the yellow portion freed from iron pyrites, which is often disseminated through it in crystals, gave me as follows:—

Carbonate of lime,	56.60
“ of magnesia,	11.76
“ of iron,	3.23
Insoluble quartz sand,	26.72
	98.31

The proportion of magnesia here present is far from being sufficient to form with the lime a dolomite. Karsten, however, many years since pointed out that acetic acid in the cold scarcely attacks dolomite, although readily dissolving carbonate of lime; so that magnesian limestones, when treated with this acid, leave a residue of dolomite. By taking advantage of this reaction, I found a lamellar crystalline limestone from Loughborough, which contains 7.5 per cent. of carbonate of magnesia, to be a mixture of dolomite and carbonate of lime, (Report 1853-6, p. 366), and the same mode of analysis was now applied to the yellow magnesian limestone of Dudswell. When reduced to powder it effervesced freely with acetic acid in the cold, and when a renewed application of the acid no longer produced effervescence, the residue was carefully washed and dried. A weighed portion of it was then digested with dilute hydrochloric acid, which left a residue of 52.0 per cent. of sand and pyrites. The composition of the soluble part was as follows:—

Carbonate of lime,	51.75
“ of magnesia,	35.73
“ of iron,	12.52
	100.00

The above numbers correspond very exactly to a dolomite, in which a portion of magnesia is replaced by protoxyd of iron, while the portion dissolved by acetic acid contained 4.0 per cent. of carbonate of magnesia, and only a trace of iron. The pyrites of this magnesian limestone contained no traces of cobalt or nickel.

Portor Marble.—The resemblances as to color and structure, between the marble of Dudswell and the black and yellow marble from northern Italy, known by the name of *Portor*, were such, that I was induced to examine the latter. This marble is chiefly wrought in the Gulf of Spezzia, and according to Savi, belongs to the Neocomian formation. It has a black or dark-gray ground, susceptible of a high polish, and is penetrated by irregular veins of a deep yellow or reddish-brown color. These seem to envelope the black masses, and sometimes to give rise to a breccia.

A well characterized specimen of Italian portor was chosen for examination. The black compact portions dissolved in hydrochloric acid, leaving no appreciable residue, and contained 1.0 per cent. of carbonate of magnesia, the rest being carbonate of lime. The yellow veins were granular in their texture, closely resembling those of the Dudswell marble. By solution in hydrochloric acid, they left a residue of silicious sand equal to 4.6 per cent., and the solution gave besides lime and a little oxyd of iron, magnesia equal to 35.5 per cent. of magnesian carbonate.

Dolomitic Conglomerate of St. Helen.—In your Report for 1857, p. 15, you have described as occurring on the Island of St. Helen, a peculiar conglomerate rock, made up of pebbles of shale, chert, sandstone, and sometimes of limestone, which latter contain organic remains of Lower Silurian age, the whole cemented by a calcareo-silicious paste into a mass exceedingly tough, and so solid, that a fracture from a blow passes equally through the pebbles and the matrix. The rock is grayish within, and weathers deeply of an ochre-yellow. In the report already cited, you expressed a doubt as to the age of this conglomerate, which at St. Helen reposes upon the Utica slate, but you have since recognized it as belonging to the Lower Helderberg series of the New York geologists.

Acids at the ordinary temperature, have but little effect on this rock; but by the aid of heat, dissolve from it a large amount of carbonates with effervescence. A portion of the fine-grained paste gave to hydrochloric acid 46.0 per cent. of soluble matters, consisting of lime, magnesia and protoxyd of iron, with but a trace of alumina, and left a silicious sand. The composition of the soluble part was as follows:—

Carbonate of lime,.....	57.8
“ of magnesia,.....	16.4
“ of iron,.....	25.8
	100.00

You subsequently found a similar yellow-weathering conglomerate reposing on the Calciferous sand-rock at Isle Bizard; and Mr. Richardson has observed it in a like position at Ste. Anne; also resting upon Laurentian rocks at Mont Calvaire; and at the White-Horse Rapids upon the Trenton limestone. I have examined specimens of the conglomerate from the last three localities, and have in each case found the cement to be a magnesian carbonate of lime, with a large amount of carbonate of iron. These conglomerates however offer some varieties in their colour and their imbedded minerals. That from Ste. Anne has a base somewhat greenish in color, while that from Mont Calvaire is bluish, and holds in addition to pebbles of chert and sandstone, fragments of orthoclase, and others of the violet-coloured triclinic feldspars of the Laurentian rocks. It also contains in abundance, masses of cleavable black augite, and others of brownish-black mica. The conglomerate of the White-Horse Rapids has a dark greenish base, apparently more homogenous than the preceding, and contains in addition to quartzite, augite and mica, small fragments of a mineral resembling obsidian. Large blocks of a similar conglomerate, with a greenish, reddish-weathering dolomitic base, are found along the shores of the Island of Montreal, near Lachine. In some of these blocks, rounded masses of black cleavable augite an inch or two in diameter are met with, besides large plates of mica, and more rarely fragments of dark green olivine, half an inch in diameter.

The cement of these conglomerates is not however always dolomitic, for

some of the beds at Mont Calvaire are distinguished by the absence of any yellow colour on the weathered surfaces, and by effervescing freely with acids. The cement of these is a nearly pure carbonate of lime, without iron and with but a trace of magnesia.

Point Lévis.—In my last report, (p. 464) I have described the conglomerates of Point Lévis, which in a paste of silicious yellow-weathering dolomite, hold pebbles of pure limestone, and others of yellow crystalline dolomite. One of the latter yielded on solution 4.6 per cent. of silicious sand, and the solution, besides carbonate of lime and a little iron, gave 33.8 per cent. of magnesia. These imbedded masses of dolomite are perhaps concretionary.

A fragment of the travertine whose beds occur associated with these dolomites, gave me by analysis, 9.3 per cent. of silicious sand, and 0.75 per cent. of carbonate of magnesia, the remainder being pure carbonate of lime. Prof. J. W. Dawson, who has kindly examined a section of this limestone microscopally, finds in it no trace of organic structure, and confirms my opinion, expressed in my last report, that it is a travertine or calcareous sinter.

Gaspé.—The lower portion of the Hudson River group in Gaspé, exhibits in several parts a thin-bedded, black, very compact rock, of an argillaceous aspect, associated with graptolitic shales. It weathers reddish-yellow, and is characterized by the occurrence of thin crystalline crusts of carbonate of lime adhering to the surface of the beds, and giving to portions an appearance like what is called *moiré*. The rock is but slightly attacked by acids in the cold; hydrochloric acid decomposes it however by heat, leaving a residue of fine white argillaceous matter. The analysis gave as follows :

Carbonate of lime,	43.17
“ of magnesia,	32.12
Oxyd of iron with alumina,	4.10
Insoluble residue,	20.30
	100.00

From the proportion of argillaceous matter which this dolomite contains, it was probable that it might yield a hydraulic cement. By calcination it assumed a pale buff colour, and when afterwards pulverized and made into a paste with water, became hard after five minutes under water, and soon acquired a great degree of solidity. It will probably prove to be very valuable for hydraulic constructions.

Manganesian Dolomite.—The dolomites of the Eastern Townships have been described in previous reports as often associated with chrome, titanium and manganese. The iron ore of the 9th lot of the 9th range of Sutton occurs in part as a band of massive peroxyd, and in part as octahedral crystals of magnetite, disseminated with chlorite through a grayish granular dolomite, which weathers brownish-black from the presence of manganese. The crystals of iron ore are arranged in bands in this dolomitic belt, portions of which, an inch or two in thickness, are often free from imbedded minerals. Such a portion was taken for analysis and gave the following results:—

Carbonate of lime,	40.10
“ of magnesia,	20.20
“ of iron,	10.65
“ of manganese,	7.65
Insoluble,	21.45
	100.00

The insoluble residue was nearly pure quartz. The associated crystals of magnetite contained no foreign metals. The dolomite, which contained no trace of nickel or cobalt, is remarkable for the large amount of carbonate of manganese, whose occurrence is interesting in connection with the presence of this metal in two distant parts of the same series of rocks. In the metamorphic strata of Massachusetts, New Hampshire and Maine, beds of manganese spar occur interstratified with micaceous schists. This spar is not a pure silicate of manganese, but contains small portions of lime and iron as silicates, together with grains of quartz, and in some cases considerable amounts of disseminated carbonates of manganese, iron and lime.

In the Island of Newfoundland, a massive carbonate of manganese has been found at Placentia Bay, imbedded in slates which are supposed to be of Silurian age. This mineral, for a specimen of which I am indebted to Prof. Dawson, is compact and impalpable in texture, brittle, with a conchoidal fracture and a feeble waxy lustre; slightly translucent on the edges; colour, fawn to pale chestnut-brown; streak white; hardness 4.0; density, 3.25. The specimen shows faint lines, which seem to be those of deposition, and give to the mass the aspect of a sinter. It is incrustated and penetrated in parts with black crystalline oxyd of manganese.

This mineral is not attacked by acids in the cold, but with heat readily dissolves in nitric acid with effervescence of carbonic acid, leaving a residue of 14.4 per cent. of silica, of which all but two per cent. were readily soluble in a dilute solution of potash. It contained besides, 84.6 per cent. of carbonate of manganese, with small portions of lime and iron, and a trace of magnesia. This substance is thus, apart from the intermingled silica, a very pure carbonate of manganese or diallogite. Manganese, from the facility with which it passes into a higher state of oxydation, is generally separated in the form of peroxyd from those mineral waters which contain it, although Sir Robert Kane has described a deposit of an impure earthy variety of carbonate of manganese from beneath a bog in Glendree, in Ireland. The occurrence of this carbonate mixed with silica in Silurian rocks, enables us to explain the formation of the beds of silicate of manganese which occur in the metamorphic strata of the same age.

Dolomites of Galt.—The magnesian character of large portions of the Niagara limestone in the Western United States, has been noticed by Mr. Whitney, in his Report on Lake Superior and the adjacent regions. The geodes of pearl-spar from Niagara Falls, which are associated with calcite, selenite, and more rarely with the sulphates of baryta and strontia, and with fluor-spar, occur (at least in the specimens now before me,) in a finely granular magnesian limestone. In the vicinity of Galt, we meet with a remarkable formation of dolomite, which is interposed between the Niagara limestone and the overlying Onondaga salt group, and attains, even in Western Canada, a considerable, but as yet undetermined thickness. It corresponds, according to Mr. James Hall, to the magnesian limestone of Leclaire, on the Mississippi river, which has there a thickness of 500 feet. It is characterized at Galt by the presence, in great numbers, of the casts of the interior of *Megalamus Canadensis*, the shells of which have disappeared. The casts, as well as the enveloping rock, are made up of a yellowish-gray crystalline dolomite. The vacant spaces left by the disappearance of the shell retain its markings, and have small crystals of dolomite scattered over their walls.

Besides the rock from Galt, I have examined four other specimens of this magnesian limestone from that vicinity, which are wrought as building stones, and which you placed in my hands. The first of these is from McDonald's

quarry, Guelph; the second from Howitt's quarry, Puslinch; and the third and fourth from Strange's quarry, Rockwood. The first three closely resemble each other and the dolomite of Galt. They are made up of crystalline cleavable grains, which under a lens, exhibit the pearly lustre characteristic of dolomite. The rock is of a yellowish colour, cellular, exhibiting little cavities lined with crystals, and is not very strongly coherent. The first three specimens exhibited no fossils; but the fourth specimen, which is more coarsely crystalline, and more coherent than the others, contains in great numbers, fragments of encrinal columns, replaced by a white spar, whose colour contrasts with the bluish tint of the base. This rock is cellular like the last, and is in every part a dolomite. These specimens effervesce very feebly with cold acids, but are dissolved by the aid of heat, leaving in the case of three and four, 0.90, and 0.65 per cent. of insoluble matter. They are all pure dolomites, containing 54.0 per cent. of carbonate of lime, the rest being carbonate of magnesia.*

Dolomites with an excess of Magnesia.—We have seen that pure dolomites consist of equal equivalents of the two carbonates, corresponding to 54.35 of carbonate of lime and 45.65 of carbonate of magnesia, and that where the carbonate of lime is in excess, it is in a state of mixture, and readily removed by acetic acid from the double carbonate. There are not wanting, however, rocks in which the magnesian carbonate predominates over the lime, leading us to suppose a mixture of magnesite with the dolomite.

The examples of dolomites with an excess of carbonate of magnesia are numerous. Of two specimens from the Muschelkalk of Thuringia, one gave to Rammelsberg, 51.54 of carbonate of lime and 48.57 of carbonate of magnesia; while the other yielded to Senft, 42.9 of carbonate of lime and 55.4 of carbonate of magnesia, besides 2.7 of carbonate of iron=101.1. (Senft, *die Felsarten*, p. 130.) A very pure bituminous dolomite from the Salzberger Alps, gave to Lipold, carbonate of lime, 51.48; carbonate of magnesia, 46.13; and a lacustrine dolomite from the brown-coal deposit near Giessen, afforded Knapp, carbonate of lime, 42.80; carbonate of magnesia, 49.63; oxyd of iron, 1.65; insoluble, 1.42.† In like manner, Whitney (Report on Lake Superior, vol. ii. p. 193.) found for a dolomite from the Calciferous sand-rock, carbonate of lime, 25.28; carbonate of magnesia, 32.57; besides 0.45 of oxyd of iron, traces of alumina, and 37.0 of sand. A direct determination of the carbonic acid confirmed the correctness of this analysis.

The variegated marls of the *Keuper*, or upper part of the Triassic system in Germany, according to Alberti, often contain an excess of magnesian carbonate, and are very slightly attacked by acids. The analysis of a tender greenish-gray schistose marl from Tübingen, gave carbonate of lime, 14.56; car-

* The following facts with regard to the dolomites of the palæozoic rocks of the Mississippi valley have been kindly furnished me by Mr. James Hall. We have in ascending order—

1. The so-called Lower Magnesian limestone, which is the equivalent of the Calciferous sandrock, and is from 200 to 250 feet thick. It is the lead-bearing rock of Missouri, and probably contains the cobalt ores of that region.

2. The Galena limestone; about 250 feet of dolomite interposed between the Trenton and the Hudson River group. It is the lead-bearing rock of Iowa, Wisconsin and Illinois.

3. The Niagara limestone, also dolomitic, about 250 feet thick, and sometimes holding galena and blende.

4. The Leclaire or Galt dolomite already described.

5. The magnesian limestone of the Onondaga salt group—100 feet thick.

6. A dolomite deposit in the upper part of the Carboniferous limestone series.

† See Liebig and Kopp's Jahresbericht, 1848, vol. ii. page 501, (Eng. ed.)—and 1851, p. 873.

bonate of magnesia, 19.10; oxyd of iron, 3.40; alumina, 3.92; clay, 59.12 = 100.10. (Senft, *die Felsarten*, p. 134.)

A dark-gray rock associated with limestone from the *keuper* near Solothurn gave to Völckel: carbonate of iron, 33.94; carbonate of magnesia 54.55; carbonate of lime, 0.67; silicate of alumina, 8.89; water and organic matters, 1.95.—(L. & K., *Jahresbericht*, 1849, p. 581. Eng. ed.)

In these two analyses we see the transition from dolomites to a ferriferous magnesite like those of Sutton and Bolton, described in my Report for 1856, p. 460.

ON THE ORIGIN AND FORMATION OF DOLOMITES AND MAGNESIAN LIMESTONES.

This question has long been regarded as one of extreme difficulty, and among the many solutions hitherto proposed none appear to be satisfactory. I propose to notice them briefly, and to indicate the facts and experiments which bear upon the subject.

Agency of Organic Life.—In a previous Report I have alluded to the well-known fact that carbonate of magnesia occurs in but very small quantities in calcareous tufas and travertint. The same thing is true in the case of limestones of organic origin, which are generally nearly pure carbonate of lime. The limestones of Montreal and Dudswell among others, seldom contain more than one per cent. of carbonate of magnesia. Such limestones are made for the greater part of the remains, often finely comminuted, of corals and mollusks, and the living species of these are in general nearly pure carbonate of lime. The analyses of Silliman and myself, and the more recent ones of Forchammer, show that corals generally contain less than one per cent. of magnesian carbonate; and the same is true of the shells of *Nautilus*, *Pinna*, *Tritonium*, *Cerithium*, *Terebratula* and *Modiolopsis*. Forchammer however found in *Coralium nobile* 2.1 per cent. of carbonate of magnesia, in *Isis hippuris* 6.36 per cent., and in different species of *Serpula* from 1.35 to 7.64 per cent. of carbonate of magnesia; but these genera form exceptions to the general rule.

The Millepores, in like manner, are in great portion made up of carbonates; in some species the mineral matter is almost entirely carbonate of lime, while in others the carbonate of magnesia forms from 16.0 to 19.0 per cent. of the inorganic portion. These millepores are often very abundant, and a non-magnesian species forms beds on the northern shores of France, which are wrought for burning into lime, while a species containing a large proportion of magnesia is very abundant on the coast of Algiers. Mr. Damour has called attention to the part which these millepores may play in the production of magnesian limestones (*Annales de Chimie et de Physique*, 3d series, vol. xxxii. p. 362.) He however describes them as dissolving readily in acetic acid, which would seem to indicate the absence of dolomite.

The carbonates of lime and magnesia are both much more soluble in carbonated water than the double carbonate, which according to Bischoff, yields little or no magnesia to a solution of carbonic acid. Grandjean, and after him Sandberger, supposes that certain dolomites may have been formed from limestones containing an admixture of carbonate of magnesia, by the action of carbonated waters, which might give rise to dolomite and a soluble bi-carbonate of lime; the iron and other metallic oxyds, being thus concentrated in the residue, their predominance in some dolomites would be explained.—(Liebig and Kopp, *Jahresbericht*, 1848, [Eng. Ed.] vol. ii. p. 501.)

Forchammer, in attempting to illustrate by experiment the formation of

dolomite, found that when a solution of bi-carbonate of lime is mingled with sea-water at a boiling heat, the precipitated carbonate of lime carries down with it 12·23 per cent. of carbonate of magnesia; while, if carbonate of soda be mixed with the solution of bi-carbonate, the proportion of magnesian carbonate in the precipitate may rise to 27·93 per cent. The amount of magnesia separated, according to him, appears to augment with the temperature.—(Ibid, vol. ii. p. 575.)

Haidinger long since endeavoured to explain the formation of dolomite and its frequent association with gypsum, by supposing that a reaction between carbonate of lime and sulphate of magnesia might give rise to sulphate of lime and carbonate of magnesia. At ordinary temperatures, it is true, the inverse affinities prevail. Mitscherlich found that a solution of gypsum was completely decomposed after fourteen days contact with carbonate of magnesia, into sulphate of magnesia and carbonate of lime, and the same decomposition takes place when solution of gypsum is filtered through dolomite. Haidinger however conjectured that at an elevated temperature these affinities might be reversed, and this has been confirmed by Morlot, who found that when a mixture of one equivalent of crystallized sulphate of magnesia and two equivalents of calcareous spar is heated in sealed tubes to 200°. Centigrade, it is completely converted into dolomite and sulphate of lime. (L. & K., *Jahresbericht*, 1848, vol. ii, p. 500.)

Marignac, in like manner, found that at 200°. Centigrade, carbonate of lime with a solution of chlorid of magnesium, slowly gave rise to a double carbonate of lime and magnesia; after six hours the product contained 52·0 per cent. of carbonate of magnesia.—(Favre. *Bull. Soc. Geol. France* [2], vi., p. 318.)

De Sénarmont found in some experiments with mingled solutions of bi-carbonate of magnesia and chlorid of calcium, that at the ordinary temperature, and at temperatures below 100°. Centigrade, a precipitate of pure carbonate of lime separates, provided that the proportion of chlorid of calcium present is more than equivalent to the magnesia in solution; but at 150°. whether the lime-salt be in excess or not, a precipitate of carbonate of magnesia is obtained, with little or no lime. The conditions of this last experiment are similar to that of Marignac, for the carbonate of lime which separates at 100°. is afterwards decomposed at a high temperature by the magnesian chlorid. By double decomposition of carbonate of soda and sulphate of magnesia at from 160°. to 175°. and also by the action of a heat of 155° upon a solution of bi-carbonate of magnesia, De Sénarmont obtained crystallized carbonate of magnesia. (*Ann. de Chim. et Phys.* [3] vol. xxxii. p. 148.)

Taking the experiments of Morlot and the theory of Haidinger as a point of departure, Favre attempts to explain the formation of dolomites. He supposes that eruptions of igneous rocks, at the bottom of a sea 500 or 600 feet in depth, would afford the necessary conditions of heat and pressure; and since the dolomites of the Alps are associated with melaphyres, which are more or less magnesian, he supposes a simultaneous evolution of sulphurous and hydrochloric acids; these, acting upon the ejected rocks, would produce the magnesian salts necessary for the conversion into dolomites of the adjacent limestones, which, according to him, are interstratified near their base with pyroxenic tufa. These dolomites of the Tyrol are filled with small cavities, while they retain the marks of stratification, and exhibit the remains of corals and encrinites. Favre supposes that they were originally deposited as pure limestones, and in their subsequent conversion into dolomites became cavernous. He conceives that the sea beneath which the volcanic eruptions took place was widely extend-

ed, and thus explains the formation of dolomites far away from any intrusive rocks. At the same time, however, he admits that the compact dolomites in many stratified rocks have been originally deposited as such and are not the result of alteration.

To this hypothesis of Favre, Coquand opposes the insufficiency of the erupted masses to heat the water to the temperature required, and he supposes waters, charged with carbonate of magnesia, to have been the agent of the alteration.

The famous theory of Von Buch, based in great part upon these dolomites of the Tyrol, supposes that the dolomization of limestones has been effected by the intervention of some volatile compound of magnesia evolved during the eruption of the porphyries of that region. In support of this hypothesis, Durocher made the experiment of heating together to low redness, in an iron tube, fragments of porous limestone and anhydrous chlorid of magnesium for some hours. The soluble matter being then washed away, the residue effervesced strongly at first with hydrochloric acid; but the action then became feeble, and the residue exhibited transparent crystals under the microscope, which were supposed to be dolomite, but do not appear to have been further examined. (*Philos. Magazine* [4], vol. ii. p. 504.)

To this theory of Von Buch it is to be objected, however, that neither the chlorid nor any other known compound of magnesium, is volatile; and that it is only by the hypothesis of Favre, which supposes the intervention of water, that we can connect the dolomization of limestones, with the eruption of the igneous rocks. Delanouë and Daubeny have rejected the hypothesis of Von Buch; and Fournet has since shown that the melaphyres associated with the dolomites of the Tyrol, so far from being intrusive rocks, are themselves stratified rocks, probably of Carboniferous age, metamorphosed *in situ*, and that their alteration was effected long before the deposition of the dolomites, which are of the Jurassic period. Between these metamorphic strata and the dolomites are beds of unaltered Triassic rocks, including the *Muschelkalk*, and a conglomerate which holds rolled pebbles of the subjacent melaphyres. (*Bull. Soc. Geol. de France* [2,] vi., pp. 506-516.)

Delesse has remarked that in many instances limestones which have been regarded as dolomitized by the proximity of igneous rocks, have been rendered crystalline, but contain no magnesia. Delanouë has pointed out examples of a similar error in the crystalline limestones of the calamine mines in Belgium, where in cases of supposed dolomization by contact with igneous rocks, he found no increase in the proportion of magnesia.

The preceding facts show that dolomites have been formed under conditions where the theory of the intervention of volcanic and metamorphic agencies is inadmissible, and we are to conclude that they have been deposited as magnesian sediments in seas or basins, sometimes lacustrine, from waters which often permitted the development of animal life. The conditions required for the separation of carbonate of magnesia from the sea or other waters, therefore naturally claim our attention, as a first step towards the solution of the problem before us. I have shown, in my last Report, that the precipitate produced by carbonate of soda in a water containing soluble salts of lime and magnesia, consists in great part of carbonate of lime, the magnesian salts being decomposed only after the lime has been removed. Some experiments since made with carbonated waters, serve further to illustrate this geologically important fact.

If to an artificial sea-water, containing besides common salt, chlorids

of calcium and magnesium in the proportion of one equivalent of each, we add a solution of bi-carbonate of soda in water saturated with carbonic acid, a gelatinous precipitate separates, which immediately becomes crystalline. This precipitate being separated after a few hours, washed, dried and submitted to analysis, gave for three successive precipitations from the same liquid, 2.20, 2.00, and 1.23 per cent. of carbonate of lime, the remainder being carbonate of magnesia. It thus appears that the proportion of carbonate of magnesia precipitated, diminished as the magnesian salt became predominant in the solution, which now gave no further precipitate with bi-carbonate of soda, but deposited, by evaporation to dryness, a granular residue of hydrated carbonate of magnesia with a little carbonate of lime. From a litre there was thus obtained by evaporation, 4.19 grams of carbonate of magnesia with 0.14 grams of carbonate of lime, while the soluble portion contained in the form of chlorid, 1.176 of magnesia, but no lime.

By boiling for thirty minutes a part of the above solution, from which the first portion (about one-third,) of the lime had been thrown down, there was obtained a precipitate, which for a litre, equalled 0.666 grams of carbonate of lime, and 0.173 of carbonate of magnesia. Another portion of the same solution gave by spontaneous evaporation, for a litre 0.805 of carbonate of lime, without any carbonate of magnesia. If we employ a more dilute solution of bi-carbonate of soda in the preceding experiment, there is no immediate precipitate of carbonate of lime. A solution was prepared with one litre of water and 29.2 grams ($\frac{1}{2}$ eq.) of sea-salt, 13.8 grams ($\frac{1}{4}$ eq.) of chlorid of calcium, and 50.7 grams ($\frac{1}{2}$ eq.) of crystallized hydrochlorate of magnesia, with an addition of 10.0 grams of crystallized sulphate of soda. In another litre of water were dissolved 42.0 grams ($\frac{1}{2}$ eq.) of bi-carbonate of soda, and a stream of carbonic acid gas was passed through the liquid to saturation. Of this solution 500 cubic centimetres would have been required to decompose the whole of the chlorid of calcium in the first solution, and 200 were gradually added to it with stirring, without producing any visible effect; a third portion of 100 cubic centimetres caused a slight turbidness, which was soon replaced by a crystalline precipitate adhering to the sides of the vessel, and gradually augmenting in quantity. After a repose of forty hours at 68° F., the precipitate was collected and analyzed. It contained 96.7 per cent of carbonate of lime, and 3.3 of carbonate of magnesia, and equalled 4.304 grams.

The liquid, augmented by the washings of the precipitate, measured 1.400 cubic centimetres; one-half of this was mixed with 100 cubic centimetres of the solution of bi-carbonate, being the quantity required for the decomposition of the remaining lime-salt. There was no immediate change apparent; but after twenty-four hours a crystalline precipitate was collected, which consisted of carbonate of lime, 97.4; carbonate of magnesia, 2.6; and equalled 2.288 grams.

The explanation of these facts is found in the power of carbonate of magnesia to decompose the salts of lime, converting them into carbonate. We have already mentioned the observation of Mitscherlich, that carbonate of magnesia, and even dolomite decomposes a solution of gypsum at the ordinary temperature, with formation of sulphate of magnesia; and Bineau has very recently shown, that if we evaporate solutions containing bi-carbonates of lime and magnesia, in presence of sulphate or muriate of lime, either at the ordinary temperature or by artificial heat, the carbonate of lime is deposited with but a trace of magnesia; from this he concludes that the carbonates of magnesia exhibit with all the soluble salts of lime, the same reactions of incompatibility

as the corresponding carbonates of potash and soda. (*Ann. de Chim. et de Phys.*, [3], vol. 51, p. 302.)

Another cause which prevents the precipitation of carbonate of magnesia with the carbonate of lime, even when other salts of lime no longer exist in the solution, is found in the great solubility of bi-carbonate of magnesia as compared with the bi-carbonate of lime. According to Bischoff, carbonate of lime requires for its solution about 1000 parts of water saturated with carbonic acid, and I have found in a solution of bi-carbonate of lime saturated under pressure and then allowed to stand for twenty-four hours, in an imperfectly closed vessel, at a temperature of 60° F., only 0.730 grams of carbonate to a litre, while by adding known portions of carbonate of soda to a solution of chlorid of magnesium in excess, and then passing a current of carbonic acid through the solution, I have found it easy to obtain solutions containing 10.0 grams of magnesia, equal to 21.0 grams of carbonate of magnesia to a litre of water, or 2.1 per cent.

Bineau found that by the aid of a current of carbonic acid prolonged for several days, a solution might be obtained, containing 11.2 grams of magnesia, combined with very nearly two equivalents of carbonic acid, in a litre of water. Such solutions by spontaneous evaporation in the open air, lose carbonic acid and deposit carbonate of magnesia, and finally retain only 0.108 grams of magnesia in a litre, with carbonic acid sufficient to form a sesquicarbonate. Bineau however remarked that in some cases, by the process of evaporation, solutions of sesqui-carbonate were obtained holding 0.17 grams of magnesia to the litre. These super-saturated solutions, when transferred to close vessels, deposited a portion of their magnesia in the form of carbonate. This curious reaction, which depends upon the spontaneous decomposition of the sesqui-carbonate of magnesia into the bi-carbonate and the neutral salt, I have observed in a very remarkable manner in the spontaneous evaporation of carbonated saline mineral waters. A litre of water from the Plantagenet spring was allowed to evaporate in an open porcelain basin in summer until its volume was reduced to one-fifth, during which process, a crystalline crust of carbonates of lime and magnesia, was deposited. The clear solution being poured off, and transferred to a carefully closed bottle, deposited after two or three days, a strongly adherent crystalline crust of hydrated carbonate of magnesia, chiefly upon the lower parts of the vessel. The amount of the precipitate was equal to 0.772 grams of carbonate of magnesia for a litre of the solution, which contained no lime, but abundance of chlorid of magnesium and bi-carbonate of magnesia, after the separation of the carbonate.

When recently precipitated hydrated carbonate of magnesia is added to a solution of bi-carbonate of lime, it immediately dissolves, but the transparent solution soon after becomes troubled from the precipitation of carbonate of lime. This reaction is precisely analogous to that produced by carbonate of soda, which with bi-carbonate of lime gives a precipitate of neutral carbonate. The carbonate of lime thrown down from solutions of bi-carbonate of magnesia is always nearly pure; and the results of a great variety of experiments undertaken in the hope of producing a double carbonate of lime and magnesia have shown me that when the bi-carbonates of lime and magnesia are dissolved in pure water, in solutions of sea-salt, of chlorid of magnesium, or of carbonate of soda, and evaporated at the ordinary temperature, or heated to 100° F., the carbonate of lime is deposited as in the previous experiments, carrying with it only traces of the magnesian carbonate, which is afterwards separated by elevating the temperature nearly to the boiling-point, or by farther evaporation.

The addition of chlorid of calcium suffices to decompose the magnesian bi-carbonate and to precipitate carbonate of lime even at ordinary temperatures; but when the solution of the two bi-carbonates is boiled, even in the presence of chlorid of calcium, a portion of the magnesian carbonate falls down with the carbonate of lime, as in Forchammer's experiments. In none of these conditions however do we obtain that double carbonate of lime and magnesia, insoluble in acetic acid, which forms the base of the magnesian limestones, and Mr. J. D. Whitney, in commenting upon Morlot's investigations which we have already cited, has well remarked that we have no evidence in these of the formation of a true dolomite.

I have found in the course of my experiments that the introduction of a soluble sulphate modifies in an unsuspected manner the results already described. Mitscherlich found gypsum to be incompatible at ordinary temperatures with carbonate of magnesia, but it is no longer so in the presence of an excess of carbonic acid; in fact, gypsum may be crystallized from a solution of bi-carbonate of magnesia. If to a solution of bi-carbonate of lime, we add a sufficient quantity of sulphate of magnesia, and allow the liquid to evaporate at the ordinary temperature, or by a gentle heat, to a small volume, the whole of the lime is deposited in the form of crystalline gypsum. The same result is obtained when bi-carbonate of lime is added to a solution containing sea-salt, chlorid of magnesium and sulphates. By evaporation at a temperature of from 90° to 100° F. the gypsum is entirely deposited before the separation of the sea-salt commences, while the bi-carbonate of magnesia remains in solution, and is only separated by evaporation to complete dryness or by ebullition. This reaction may help to explain the frequent association of gypsum and dolomite, as well as the frequent occurrence of both of these in fresh-water formations.

It is evident that with the facts as yet before us, we are not able to determine with certainty the manner in which dolomites have been formed. Bi-carbonate of magnesia may however be produced in two ways: first, by the action of bi-carbonate of lime upon waters containing both sulphates and magnesian salts, gypsum being generated at the same time; and secondly, by the action of bi-carbonate of soda upon magnesian waters from which the lime has previously been separated, either as carbonate by the previous action of bi-carbonate of soda, or by evaporation in the form of sulphate, as takes place during the concentration of seawater. From these solutions beds of carbonate of magnesia may readily be formed by evaporation in limited basins, precisely as we conceive gypsum and rock-salt to have been deposited; and if we suppose an admixture of carbonate of lime deposited from the alkaline waters or any other source, we have all the elements of dolomite, although not chemically combined as a double salt. H. Ste. Claire Deville, in his beautiful researches on the double carbonates, found that when a mixture of basic carbonate of magnesia with bi-carbonate of soda and water is exposed to a gentle heat, a slow combination ensues, and the mixture is transformed into a mass of small transparent crystals, which are an anhydrous double carbonate of soda and magnesia, insoluble in water,—in fact, a soda dolomite. (*Ann. de Chim. et Phys.* [3] vol. xxxiii. p. 89).

A similar reaction between the mingled carbonates of lime and magnesia, under conditions not yet understood, may probably result in their gradual transformation into dolomite.

FISH MANURES.

Before describing the results of some enquiries into the value of these manures, and the practicability of introducing their manufacture into Canada, it may be well to explain briefly certain principles which may serve to guide us in the appreciation of the subject. Modern investigations of the chemistry of vegetation have led to a more or less correct understanding of the laws of vegetable nutrition and the theory of manures, and we are all aware how many natural and artificial matters have been proposed as substitutes for the manure of the stable and farm-yard. Foremost among these ranks the Peruvian guano, composed for the most part of the exuviae of sea-birds, and employed for centuries by the Peruvians as a powerful stimulant to vegetation. This substance owes its value to the phosphoric acid and ammonia which it is capable of affording to the growing plant; the former element being indispensable to the healthy development of vegetation and entering in large proportion into the mineral matter of the cereals, while ammonia furnishes, in a form capable of assimilation, the nitrogen, which with the elements of water and carbonic acid, makes up the organic tissues of plants. Besides these essential principles, plants require sulphuric acid, chlorine, potash, soda, lime, magnesia and oxyd of iron, all of which elements are found in their ashes, and are required for their healthy growth. In a fertile soil all of these ingredients are present, as well as phosphoric acid and ammonia, which last substance is constantly produced by the decay of animal and vegetable matters, and is either at once retained by the soil, which has the power of absorbing a certain portion of it, or is evolved into the air and afterwards dissolved and brought down by the rains to the earth.

Many of the mineral elements of a soil are present in it in an insoluble form, and are only set free by the slow chemical re-actions constantly going on under the influence of air and water. Such is the case with the alkalies, potash and soda, and to a certain extent with the phosphates. Now although there is probably no soil which does not yield by analysis quantities of all the mineral elements sufficient for many crops, yet by long and uninterrupted tillage the more soluble combinations of these elements may be all taken up, and the land will then require a certain time of repose in order that a store of more soluble matters may be formed. Hence the utility of fallows.

In my analyses of the soils of the Richelieu valley, in the Report for 1850, pp. 79-90, I have shown, by comparing the virgin soils with those exhausted by continued crops of wheat during fifty years, that the proportions of phosphoric acid and magnesia, elements which are contained in large quantities in this grain, have been greatly diminished, but the soil still contains as much phosphate as it has lost, and this only requires to be rendered soluble in order to be available to vegetation.

In forests and untilled lands the conditions of a healthy vegetable growth are seldom wanting; the soil affords in sufficient quantity all the chemical elements required, while the leaves and seeds which annually fall and decay give back to the earth a great proportion of the elements which it has yielded. In this way the only loss of mineral matter is that which remains stored up in the growing wood or is removed by waters from the soil. Far different is the case in cultivated fields, since in the shape of corn, of fat cattle, and the products of the dairy, we remove from the soil its phosphates, alkalies and nitrogen, and send them to foreign markets. The effect of tillage becomes doubly exhaustive when by artificial means we stimulate vegetation without furnishing all the materials required for the growing plants. Such is the effect of many

special manures, which while they supply certain elements, enable the plants to remove the others more rapidly from the soil. A partial exhaustion of the soil results likewise from repeated crops of the same kind; for the elements of which the cereals require the largest quantity are taken in smaller proportions by green crops, and reciprocally, so that by judicious alternations the balance between the different mineral ingredients of the soil is preserved.

One of the great problems in scientific agriculture is to supply to the soil the ammonia and the mineral matters necessary to support abundant vegetation, and to obtain from various sources these different elements at prices which will permit of their being economically made use of. Nowhere but in the manure of the stable and farm-yard can we find combined all the fertilizing elements required, but several of them may be very cheaply procured. Thus lime and magnesia are abundant in the shape of marl and limestones; soda is readily obtained, together with chlorine, in common salt; while gypsum or plaster of Paris supplies at a low price both sulphuric acid and lime. Potash when wanting may be supplied to the soil by wood-ashes, but phosphoric acid and ammonia are less easily obtained and command higher prices.

An abundant supply of phosphate of lime is found in bones, which when dried contain from 50.0 to 60.0 p. c. of mineral matter, consisting of phosphate of lime, with a little carbonate, and small portions of salts of magnesia and soda. The remainder is organic matter, which is destroyed when the bones are burned. This phosphate of lime of bones contains 46.0 per cent of phosphoric acid, and the refuse bone-black of the sugar-refiners usually affords about 32.0 per cent. of the acid. The different guanos also contain large amounts of phosphoric acid, and that known as Columbian guano is principally phosphate of lime. Various deposits of mineral phosphate of lime have of late attracted the attention of scientific agriculturists. I may mention in this connection the crystalline phosphate of lime or apatite of our Laurentian limestones, and the phosphatic nodules found in different parts of the Lower Silurian strata of Canada and described in previous Reports.

These mineral phosphates are in such a state of aggregation, that it is necessary to decompose them by sulphuric acid before applying them to the soil. The same process is also very often applied to bones; for this end the phosphate of lime in powder is to be mingled with nearly two-thirds its weight of sulphuric acid, which converts two-thirds of the lime into sulphate, and leaves the remainder combined with the phosphoric acid as a soluble super-phosphate. In this way, the phosphoric acid may be applied to the soil in a much more divided state, and its efficiency is thereby greatly increased. Even in its soluble form however, the phosphoric acid is at once neutralized by the basic oxyds in the soil, and Mr. Paul Thenard has lately shown that ordinary phosphate of lime, when dissolved in carbonic-acid water, is decomposed by digestion with earth, insoluble phosphates of iron and alumina being formed, which are again slowly decomposed by the somewhat soluble silicate of lime present in the soil, and transformed into silicates with formation of phosphate of lime. It is probable that alkaline silicates may also play a similar part in the soil. These considerations show that the superior value of soluble phosphate of lime as a manure, depends solely upon its greater subdivision. A portion of the phosphoric acid in Peruvian guano exists in a soluble condition as phosphate of ammonia.

With regard to the nitrogen in manures, it may exist in the form of ammoniacal salts, or combined in organic matters which evolve ammonia by their slow decay. The ammonia which the latter are capable of thus yielding, is de-

signated as potential or possible ammonia, as distinguished from the ammonia of the ammoniacal salts, which is generally soluble in water, and is at once disengaged when these matters are mingled with potash or quick-lime. Such is the sulphate of ammonia, which is prepared on a large scale from the alkaline liquid condensed in the manufacture of coal-gas. In Peruvian guano a large amount of the nitrogen is present as a salt of ammonia, and the remainder chiefly as uric acid, a substance which readily decomposes, and produces a great deal of ammonia. In fact, this decomposition takes place spontaneously, with so much rapidity, that the best guanos may, it is said, lose more than one-fifth of their nitrogen in the form of ammonia in a few months' time, if exposed to a moist atmosphere.

Other manures, however, contain nitrogen in combinations which undergo decomposition less readily than uric acid. Thus unburned bones yield from six to seven per cent. of ammonia, and dried blood, fifteen or sixteen per cent., while woolen rags and leather yield about as large a quantity. In estimating the value of such matters as manures, the difference in the facility with which they enter into decomposition, must be taken into account. Thus if too large quantities of guano are applied to the soil, a portion of the ammonia may be volatilized and lost, while with leather and wool the decay is so slow, that these materials have but little immediate effect as manures. The nitrogen of blood and flesh is converted into ammonia with so much ease, that it may be considered almost as available for the purpose of a manure as that which is contained in ammoniacal salts.

Attempts have been made to fix the money value of the ammonia and the phosphates in manures, and thus to enable us from the results of analysis, to estimate the value of any fertilizer containing these elements. This was I believe first suggested a few years since, by an eminent agricultural chemist of Saxony, Dr. Stöckhardt, and has been adopted by the scientific agriculturists of Great Britain, France, and the United States. These values vary of course very much for different countries; but I shall avail myself of the calculations made by Prof. S. W. Johnson of New Haven, Connecticut, which are based on the prices of manures in the United States in 1857. In order to fix the value of phosphoric acid in its insoluble combinations, he has taken the market prices of Columbian guano, and the refuse bone-ash of the sugar refiners, which contain respectively about 40 and 32 per cent. of phosphoric acid, and from these he deduces as a mean $4\frac{1}{2}$ cents the pound as the value of phosphoric acid when present in the form of phosphate of lime. This would give \$1.44 as the value of 100 pounds of bone-ash, and \$1.60 for the same amount of the guano, while they are sold for \$30 and \$35 the ton.

The value of soluble phosphoric acid has been fixed by Dr. Völcker in England, and by Stöckhardt in Saxony, at $12\frac{1}{2}$ cents the pound. This evaluation is based upon the market price of the commercial super-phosphates of lime. Mr. Way, of the Royal Agricultural Society, however, estimates the value of phosphoric acid in its soluble combination at only $10\frac{1}{2}$ cents the pound; and Mr. Johnson, although adopting the higher price, regards it as above the true value.

In order to fix the real value of ammonia, Prof. Johnson deducts from the price of Peruvian guano, at \$65 the ton, the value of the phosphoric acid which it contains, and thus arrives at 14 cents the pound for the price of the available ammonia present. This kind of guano, however, now commands a price considerably above that which serves for the basis of the above calculation; and both Völcker and Stöckhardt fix the value of ammonia at 20 cents the pound.

The price of potash as a manure is estimated by Mr. Johnson at 4 cents the pound; but this alkali rarely enters to any considerable extent into any concentrated manures, and may therefore be neglected in estimates of their value.

The use of fish as a manure has long been known; on the shores of Scotland, Cornwall, Brittany, some parts of the United States, and on our own sea-coasts, the offal from fisheries, as well as certain bony fishes of little value for food, are applied to the soil with great benefit. The idea of converting these materials into a portable manure was however I believe first carried into effect in France by Mr. Démolon, who seven or eight years since, erected establishments for this object on the coast of Brittany and in Newfoundland. For the details of this manufacture I am indebted to the *Chimie Industrielle* of Payen. Concarneau, in the department of Finisterre, is a small town whose inhabitants are employed in fishing for sardines, and it is the refuse of this fishery which is employed in the manufacture of manure. The offal is placed in large coppers and heated by steam until thoroughly cooked, after which it is submitted to pressure, which extracts the water and oil. The pressed mass is then rasped, dried in a current of hot air, and ground to powder. 100 parts of the recent offal yield on an average 22 parts of the powder, besides from 2 to 2½ parts of oil. The manufactory of Concarneau employs six men and ten boys, and is able to work up daily eighteen or twenty tons of fish, and produce from four to five tons of the powdered manure.

This manure contains, according to an average of several analyses, 80·0 per cent. of organic matters, and 14·1 per cent. of phosphates of lime and magnesia, besides some common salt, a little carbonate of lime, small portions of sulphate and carbonate of ammonia, and only 1·0 per cent of water. The nitrogen of this manure, which is almost wholly in the form of organic matters, corresponds to 14·5 per cent of ammonia, and we may estimate the phosphoric acid, which is here present in an insoluble form, at 7·0 per cent. If we calculate the value of this manure according to the rules above laid down, we shall have as follows for 100 pounds:—

Ammonia,—14½ pounds, at 14 cents,.....	\$2.03
Phosphoric Acid,—7 pounds, at 4½ cents,.....	0.31½
	\$2.34½

This is equal to \$47 the ton of 2000 pounds; the manufactured product of Concarneau, however, according to Payen, is sold in the nearest shipping ports at 20 francs the 100 kilogrammes, (equal to 220 pounds), which, counting the franc at \$0.20, is equivalent only to \$1.81 the 100 pounds, or a little over \$37 the ton. This however was in 1854, since which time the price of manures has probably increased.

Mr. Démolon in company with his brother, has also according to Payen, erected a large establishment for the manufacture of this manure on the coast of Newfoundland, at Kerpon, near the eastern entrance of the Strait of Bellisle, in a harbor which is greatly resorted to by the vessels engaged in the cod-fishery. This manufactory, now in successful operation, is able to produce 8,000 or 10,000 tons of manure annually. Payen estimates the total yearly produce of the cod-fisheries of the North American coast to be equal to about 1,500,000 tons of fresh fish; of this, one-half is refuse, and is thrown into the sea or left to decay on the shore, while if treated by the process of Démolon, it would yield more than 150,000 tons of a manure nearly equal in value to the guano of the Peruvian islands, which now furnish annually from 300,000 to 400,000

tons. If to the manure which might be obtained from the cod-fisheries of the Lower Provinces, we add that of many other great fisheries, we are surprised at the immense resources for agriculture now neglected, which may be drawn at a little expense from the sea, and even from the otherwise worthless refuse of another industry. To this may be added vast quantities of other fish, which at certain seasons and on some coasts are so abundant that they are even taken for the express purpose of spreading upon the adjacent lands, and which would greatly extend the resources of this new manufacture. The oil, whose extraction is made an object of economic importance in the fabrication of manure from sardines in France, exists in but very small quantities in the cod, but in the herring it equals 10 per cent. of the recent fish, and in some other species rises to 3·0 and 4·0 per cent.

Mr. Duncan Bruce of Gaspé has lately been endeavoring to introduce the manufacture of fish-manure into Canada; but he has conceived the idea of combining the fish-offal with a large amount of calcined shale, under the impression that the manure thus prepared will have the effect of driving away insects from the plants to which it is applied. He employs a black bituminous shale from Port Daniel, and distilling this at a red heat, passes the disengaged vapours into a vat containing the fish, which by a gentle and continued heat, have been reduced to a pulpy mass. The calcined shale is then ground to powder and mingled with the fish, and the whole dried. Experiments made with this manure appear to have given very satisfactory results, and it is said to have had the effect of driving away insects when applied to growing crops, a result which may be due to the small amount of bituminous matter in the products of the distillation of the shale, rather than to the admixture of the calcined residue. Coal-tar is known to be an efficient agent for the destruction of insects, and in a recent number of the journal, *Le Cosmos*, it is stated that simply painting the wood-work of the inside of green-houses with coal-tar has the effect of expelling from them all noxious insects. Mr. Bruce caused several analyses of this shale to be made by Dr. Reid of New York, from which it appears that different specimens contain from 2·0 to 26·0 per cent. of carbonate of lime, besides from 1·4 to 2·0 per cent. of gypsum, 2·0 per cent. of iron pyrites, and from 4·5 to 6·7 per cent. of carbon remaining after distillation. The amount of volatile matter, described by Dr. Reid as consisting of water, naphtha and ammonia, was found by him in two different samples to equal only 3·5 per cent., of which a large proportion is probably water.

I have examined two specimens of manure prepared by Mr. Bruce from the fish commonly known as the menhadden (*Alosa menhadden*). No. 1 was made with the Port Daniel shale, as before described; while for No. 2, this was replaced by a mixture of clay and saw-dust, which was distilled like the shale, the volatile products being added to the decomposing fish. The oil which rose to the surface of the liquid mass had been separated from the second preparation, but remained mingled with the first. Both of these specimens were in the form of a black granular mass, moist, cohering under pressure, and having a very fishy odour. A proximate analysis of these manures was first effected by exposing a weighed portion to a temperature of 200° F. till it no longer lost weight, and then calcining the residue, from which the carbonaceous residue very readily burned away. The oil in the first specimen was obtained by digesting a second portion, previously dried, with ether, so long as anything was taken up. The solution by evaporation left the oil, whose weight was deducted from the loss by ignition. The portion of oil remaining in the second sample was not determined.

	I.	II.
Animal matters and carbon,.....	23·7	} 21·0
Oil,.....	6·6	
Water,	13·5	21·8
Earthy matters,.....	56·2	57·2
	<u>100·0</u>	<u>100·0</u>

The residue of the calcination was digested with hydrochloric acid, which dissolved the phosphate of lime from the fish-bones, together with portions of lime, magnesia, alumina, and oxyd of iron, derived from the shale and clay. The solution from No. 1 contained, moreover, a considerable portion of sulphate from the gypsum of the shale. Small quantities of common salt were also removed by water from the calcined residues. The dissolved phosphoric acid, lime, and magnesia were separated by precipitating the phosphoric acid in combination with peroxyd of iron, from a boiling acetic solution, and were determined according to the method of Fresenius. The nitrogen of the organic matter was estimated by the direct method of burning a portion of the dried substance with soda-lime, and weighing the disengaged ammonia as ammonio-chlorid of platinum. The results were as follows for a hundred parts:—

	I.	II.
Phosphoric acid,.....	3·40	3·99
Sulphuric acid,	2·16	·15
Lime,	5·90	4·44
Magnesia,	1·20	1·15
Ammonia,.....	3·76	2·60

If we calculate the value of the first specimen according to the rules already laid down, we have as follows for 100 pounds:—

Phosphoric acid, $3\frac{4}{10}$ pounds at $4\frac{1}{2}$ cents,.....	\$0·153
Ammonia, $3\frac{7}{10}$ pounds at 14 cents,	0·525
	<u>\$0·678</u>

At 68 cents the 100 pounds, this manure would be worth \$13.60 the ton. The sulphuric acid is of small value, corresponding to 80 pounds of plaster of Paris to the ton, and we do not take it into the calculation. The somewhat larger amount of phosphoric acid in the second specimen, is probably derived in part from the ashes of the saw-dust, and in part from the clay. The value of this manure would be \$10·88 the ton.

In order to arrive at the real value of the animal portion of this manure after the removal of the oil, we may suppose, since Dr. Reid obtained from the shales from 4·5 to 7·6 per cent. of fixed carbon, that with the 56·2 parts of calcined residue, there were originally 3·7 parts of carbon derived from the shales. This deducted from 23·7 parts leaves 20·0 of nitrogenized animal matter in 100 parts of the manure, yielding 3·76 parts, or 18·8 per cent. of ammonia. This matter consists chiefly of muscular and gelatinous tissues, and Payen obtained from the dried muscle of the codfish, 16·8 per cent. of nitrogen, equal to 20·4 of ammonia. The 3·4 parts of phosphoric acid in the manure will correspond to 7·4 of bone-phosphate, and if to this we add for moisture, impurities, etc., 2·6 parts, = 30·0 in all, we should have for 100 pounds of the fish when freed from oil and dried, the following quantities of ammonia and phosphoric acid:—

Ammonia,—12 $\frac{1}{2}$ pounds at 14 cents,	\$1·75
Phosphoric acid,—11 $\frac{1}{2}$ pounds at $4\frac{1}{2}$ cents,	0·51
	<u>\$2·26</u>

The matter thus prepared would have a value of \$45.20 the ton, agreeing closely with that which we have calculated for the manure manufactured from sardines in France, in which the quantity of ammonia is somewhat greater, and the phosphoric acid less, giving it a value of \$47 the ton.

Prof. George H. Cook of New Jersey, in an analysis of the menhadden, obtained from 100 parts of the dried fish, 16.7 parts of oil, besides 61.6 of azotized matters yielding 9.28 parts of ammonia, and 21.7 of inorganic matters, etc., containing 7.78 of phosphoric acid.* If we deduct the oil, we shall have for 100 parts of the fish, according to this analysis, 11.2 of ammonia, and 9.3 of phosphoric acid.

By comparing these figures with the results calculated for the animal portion of Mr. Bruce's manures, we find :—

	Ammonia.	Phosphoric acid.
Manure from sardines (Payen),	14.5	7.0
Dried menhadden (Cooke),	11.2	9.3
Manure by Mr. Bruce.....	3.75	3.4
" " (excluding shale),	12.5	11.3

The proportion of phosphates is of course greater in the more bony fishes. In the manure of Mr. Bruce there are doubtless small amounts of phosphoric acid and ammonia, derived from the shale and the products of its distillation; but these do not however warrant the introduction of an inert material which reduces more than two-thirds the commercial value of the manure. The results which we have given clearly show that by the application of a process similar to that now applied in France and in Newfoundland, which consists in cooking the fish, pressing it to extract the oil and water, drying by artificial heat, and grinding it to powder, it is easy to prepare a concentrated portable manure, whose value, as a source of phosphoric acid and ammonia, will be in round numbers, about \$40 the ton.

We can scarcely doubt that by the application of this process a new source of profit may be found in the fisheries of the Gulf, which will not only render us independent of foreign guano, now brought into the Province to some extent, but will enable us to export large quantities of a most valuable concentrated manure, at prices which will be found remunerative.

I have the honor to be,
Sir,

Your most obedient servant,
T. STERRY HUNT.

* Report of the Geological Survey of New Jersey for 1856, p. 63.

REPORT,

FOR THE YEAR 1857,

OF

LIEUT. E. D. ASHE, R.N., F.R.A.S.,

ADDRESSED TO

SIR W. E. LOGAN, F.R.S.,

DIRECTORY OF THE GEOLOGICAL SURVEY OF CANADA.

ON THE LONGITUDE OF SOME OF THE PRINCIPAL PLACES IN CANADA, AS
DETERMINED BY ELECTRIC TELEGRAPH IN THE YEARS 1856-57.

QUEBEC, 20th January, 1858.

SIR,

In the month of October, 1856, at your request I left Quebec for Montreal, in order to determine by electric telegraph the longitude of that city. On my arrival, the first object was to procure a suitable place, not far from the telegraph wire, and permission was given to make use of the top of the Exchange.

The transit instrument was placed upon a stack of chimnies, and a temporary canvas cover erected to protect the instrument from the wind. On the 28th October the transit instrument was in the meridian, the telegraph wire was led up to the top of the house, and a message sent to Quebec to be ready at 7 P.M. The night was fine and clear, and we commenced by giving a signal to look out when a star entered the field of the telescope, and as it passed each wire a single dot was sent along the line to Quebec. The assistant, Mr. Heatley, on the signal being given to look out, listened attentively to these dots and to the tick of the sidereal clock, and registered the fraction of a second; by these means the observations at Montreal were noted down with all the ease and facility that could have been attained in a properly fitted observatory, instead of the temporary arrangement we had on the top of a house.

From the operators not understanding some technical expressions, and from the novelty of the transaction, many stars were lost; but considering that it was a first trial we had every reason to expect that we should finally succeed.

On the following night we were again connected by the telegraph wire, but after sending a few stars a great disagreement was found to exist between this and the preceding night's work. On my taking observations to determine the errors of the instrument, I found that it had moved considerably out of the meridian; and subsequently I discovered that the passing of a cart, even at the distance of two streets, put the whole chimney in motion; for this there was no remedy, and the idea of succeeding with the present arrangement was hopeless.

Having to return to Quebec, I left on the 2nd November, with the knowledge taught by experience that a transit instrument placed on the top of a house could only give doubtful observations, which were worse than useless.

On the 29th December I left Quebec for Toronto, and on my arrival took up my quarters with my friend Professor Kingston of the Magnetic Observatory.

Here there was every convenience, a small transit instrument in position, and a sidereal clock. The observations for time were under the superintendence of Professor Kingston. The distance of the Observatory from the Telegraph Office is, I should think, about two miles, and the work of leading the wire through the town and into the Observatory presented many difficulties—one, the ground being frozen hard could not be opened for the sinking posts, and another, the interference with private property; but by the hearty co-operation of the Superintendent of the Telegraph Office, Mr. Dwight, and by some contrivance, these difficulties were surmounted.

The cloudy state of the atmosphere prevented our working until the 17th January, which was fair for observations. As our object was to determine the time by the face of our respective clocks at the same instant, thirty dots were sent at intervals of a second in each minute, so that if the clocks were not beating together, the fraction of a second that one clock was after the other might be guessed at. The fraction being known, the second, minute, and hour are sent, and consequently the readings of the two clocks are known at the same moment.

The errors of the clocks were obtained by observations of many stars on the same night, and the errors applied to the respective clocks; the true difference of time between Quebec and Toronto was thus known, and hence the longitude. See *Table*.

On the 5th February I left Quebec for Kingston, and on my arrival was offered a home and every assistance by Dr. Yates. The site which I selected for the temporary Observatory is situated in a cross street between Earl street and Barrie street. Two large blocks of limestone were brought and placed in the corner of a yard, and some planks about six feet long were fixed around them, covering in a space about eight feet square. This was also some distance from the Telegraph Office, but by taking advantage of an old fence and of an occasional tree, the wire was brought to the Observatory without much difficulty.

My past experience had taught me to avoid the tops of houses, and to select the solid earth and solid rock for the support of my transit instrument. Still I had another lesson to learn. This neighborhood was infested with boys, who when they saw a light shining through the cracks of the boards, commenced throwing stones with a determination and precision worthy of a better cause; and some of the few clear nights that occurred in this month were lost in consequence of boys' love of mischief. I first tried mild entreaties and then severe threatenings; they laughed at the former, and made faces at the latter. I then procured the service of the police, who partly succeeded in keeping the boys from further interference with my duties.

On the night of the 20th February, all being ready, and the weather favorable, we made arrangements for sending signals to Quebec. I found that the method adopted at Montreal, of sending a signal to the Observatory at Quebec each time a star passed the wire of the telescope, involved the necessity of employing a telegraph operator for some hours; but by merely exchanging the time, the operator was not required for a longer period than half-an-hour; consequently, in this case, we sent thirteen taps, at intervals of twenty seconds, from Kingston to Quebec, from a mean solar chronometer. As a sidereal clock gains one second on the mean solar chronometer in six minutes, Quebec listened for and marked down the second of the sidereal clock which was co-incident with the signal sent from Kingston, and consequently without any guess-work, had the fraction of a second. Quebec then sent similar signals from the sidereal clock, and Kingston listened for and marked down the second which was co-incident with the signal sent from Quebec; in this way was the difference between the two places

ascertained to the hundredth part of a second. I conceive that signals sent from one end of the line by *mean time* and from the other end by *sidereal time* ensure the most satisfactory results. Although the observations for time were not very satisfactory, still from the severity of the weather, and the nuisance above alluded to, I resolved not to stay any longer for further trials, but left for Montreal on the 30th. On my arrival, I accompanied you, and we reconnoitred in the neighbourhood of Viger square, where we were glad to find that there appeared to be a scarcity of boys, and those that did heave in sight were perfectly tame. The gardener's tool-house, in Viger square, appeared well suited to our purpose, and by placing a large block of limestone, on a solid basis built beneath it, we had in perfection the principal requisite for the support of a transit instrument—that of fixity.

In order that I might avail myself of every opportunity of taking observations, I took up my residence there, and although great cold was experienced, nevertheless the advantage of being close to my work, far more than compensated for the severity of the weather.

The night of the 12th March was clear, the instrument firmly fixed and well adjusted, and signals were sent to and from Quebec. Although the electric current was weak, and the signals at the Montreal end of the line difficult to be heard, still the results were most satisfactory, and I left on the following morning for Quebec.

Chicago being placed on some charts, in a longitude differing by upwards of forty miles from that on another, it was of the greatest consequence before making a map of Canada, that the right position of Chicago should be ascertained. I therefore with that view, left Quebec early in the month of April, for this renowned city, and on my arrival, called on Lieut.-Col. Graham, U. S. A., and stated the object of my visit. He offered and gave me his valuable assistance, and obliged me by taking charge of the operations at one end of the line; after an observatory was erected, my transit instrument in position, and the telegraph authorities spoken to, I hurried back to Quebec, and found that they had succeeded on one night in sending signals; but in consequence of the weather not being very favorable at Chicago, we were again in communication on the night of the 15th May.

The electric current was transmitted *via* Toledo, Cleveland, Buffalo, Toronto and Montreal, a distance of 1210 miles, by one entire connection between the two extreme stations, and without any intermediate repetition, and yet all the signals were heard distinctly at either end of the line; the signal occupied only $\cdot 08$ of a second in passing along that distance.

On the 24th July, I left Quebec for Windsor, and my past experience enabled me soon to select a spot suitable for the transit instrument, around which a covering of boards was put up; on the night of the 15th August, we succeeded in sending signals to Quebec; but unfortunately the sky became cloudy, and I was unable to get satisfactory observations for the local time. However, on the 18th, the signals and observations for time were most complete.

On the 19th, I left Windsor for Collingwood, and on my arrival, I found rock and quietness in the yard of Mr. Armstrong's house, where I was stopping. The instrument was in position and the night favorable, on the 1st September, and satisfactory signals were exchanged. I left on the following day for Quebec.

It was now most important that the longitude of Quebec should be determined with the utmost possible accuracy. I had formerly by electric signals on one night from Fredericton, N. B., obtained, by the kindness and assistance of Doctors Toldervy and Jack, the position of the Quebec Observatory, but on

that night observations for our local time could not be taken, and we had to trust to the observations taken on the previous night and to the good character of the sidereal clock.

If we had been able to get the difference of longitude between Fredericton and Quebec, the position of the Quebec Observatory would have been quite certain, as the longitude of the former had been obtained by frequent signals on many nights with Cambridge, which by interchange of several hundred chronometers with Greenwich, is supposed to have its meridional difference of longitude ascertained with all the accuracy possible short of that to be arrived at by the transatlantic cable.

We were unable to again get telegraphic communication with Fredericton on account of the submerged cable at Cape Rouge being broken; but Professor W. C. Bond, of Cambridge Observatory, offered in the kindest manner possible to send and receive signals to and from Quebec; on the 21st September and 9th October, the communications between the Observatories of Cambridge and Quebec, were completely successful, and the longitude of Quebec, as well as those places already referred to, finally settled.

The longitude of this Observatory as obtained by telegraphic signals, and the longitude published on the Admiralty Charts, differ by no less than fourteen seconds of time, and the other places whose positions have been determined in a similar manner have a still greater difference.

On the 29th October, I left Quebec for Ottawa, and on my arrival put up at Mr. Doran's boarding house and went in quest of a site for the transit instrument. On Barrack Hill there were several blocks of limestone, around one of which I built a little Observatory and had the telegraph wire brought there. The night of the 14th November was beautifully clear, and the result of our night's work most satisfactory.

In conclusion I may say that the ease and accuracy with which the position of a place can now be fixed by means of the electric telegraph renders it imperative that all those places which can avail themselves of the use of the telegraph line, should have their longitudes determined at once, in order that a correct map of Canada may be produced.

Subjoined I send you an abstract of the observations made.

I have the honor to be,

Sir,

Your most obedient servant.

E. D. ASHE

Abstract of the Telegraphic Observations determining the Longitudes of several places in North America, by LIEUT. E. D. ASHE, R. N.

QUEBEC, 21st Sept., 1857.

The place of observation was the Observatory in Mann's Bastion, Citadel.

	H. m. s.
By the signals sent from Quebec to Cambridge, the difference of longitude is shown to be	0 0 18·27
And by the signals from Cambridge to Quebec	0 0 18·25
Mean difference of longitude by the work of the 21st September,	0 0 18·26
Again on the 9th October:—	
By the signals sent from Quebec to Cambridge, &c.	0 0 18·44
By the signals from Cambridge to Quebec	0 0 18·33
Mean difference of longitude by the work of the 9th October	0 0 18·38
Mean of both nights' work:—	
Quebec Observatory west of Cambridge Observatory,	0 0 18·32
Longitude of Cambridge west of Greenwich, as communicated by Prof. W. C. Bond	4 44 30·70
Longitude of Quebec Observatory	4 44 49·02

TORONTO, 21st January, 1857.

The place of observation was the Magnetic Observatory.

	H. m. s.
By the signals sent from Quebec, Toronto is west of Quebec.	0 32 44·51
By the signals from Toronto, " " "	0 32 44·31
Mean difference of longitude	0 32 44·41
Longitude of Quebec	4 44 49·02
Longitude of Toronto Magnetic Observatory	5 17 33·43

KINGSTON, 28th February, 1857.

The place of observation was the new Court-house.

	H. m. s.
By the signals sent from Quebec, Kingston is west of Quebec	0 21 05·60
By the signals from Kingston, " " "	0 21 05·39
Mean difference of longitude	0 21 05·50
Longitude of Quebec	4 44 49·02
Longitude of Kingston.. .. .	5 5 54·52

MONTREAL, 12th March, 1857.

The place of observation was in Viger Square, 650 feet west of Captain Bayfield's station on Gate Island.

	H. m. s.
By the signals sent from Quebec, Montreal is west of Quebec	0 9 22·01
By the signals sent from Montreal, " " "	0 9 22·38
Mean difference of longitude	0 9 22·70
Longitude of Quebec	4 44 49·02
Longitude of Montreal	4 54 11·72

CHICAGO, 15th May, 1857.

The place of observation was in the play-ground of the School situated to the northward of the Roman Catholic Church, Huron Street.

	<i>H. m. s.</i>
By the signals sent from Quebec, Chicago is west of Quebec	1 5 41.44
By the signals sent from Chicago, " " "	1 5 41.60
Mean difference of longitude	15 41.52
Longitude of Quebec	4 44 49.02
Longitude of Chicago	5 50 30.54

WINDSOR, 18th August, 1857.

The place of observation was in the yard of Mr. Sholand in Goyeau Street about fifty yards to the westward of the new English Church, and twenty yards to the westward of the Court-house.

	<i>H. m. s.</i>
By the signals sent from Quebec, Windsor is west of Quebec	0 47 19.04
By the signals sent from Windsor, " " "	0 47 18.97
Mean difference of longitude	0 47 19.00
Longitude of Quebec	4 44 49.02
Longitude of Windsor	5 32 08.02

COLLINGWOOD, 1st September, 1857.

The place of observation was the Railway terminus.

	<i>H. m. s.</i>
By the signals sent from Quebec, Collingwood is west of Quebec	0 36 01.43
By the signals sent from Collingwood, " " "	0 36 01.59
Mean difference of longitude	0 36 01.51
Longitude of Quebec	4 44 49.02
Longitude of Collingwood	5 20 50.53

OTTAWA, 14th November, 1857.

The place of observation was 120 yards east of the Flag-staff on Barrack Hill.

	<i>H. m. s.</i>
By the signals sent from Quebec, Ottawa is west of Quebec	0 17 59.24
By the signals sent from Ottawa, " " "	0 17 59.30
Mean difference of longitude	0 17 59.27
Longitude of Quebec	4 44 49.02
Longitude of Ottawa	5 2 48.29

RETURN

TO AN ADDRESS from the Legislative Assembly of the 19th instant; for copies of papers relative to removal of Montreal Registry Office to Court House.

By Command,

T. J. J. LORANGER,
Secretary.

Secretary's Office,
Toronto, 26th April, 1858

Copy of the Correspondence relative to the removal of the Montreal Registry Office into the Court House.

SECRETARY'S OFFICE,
Toronto, 12th January, 1858.

SIR,—I have it in command from His Excellency, the Governor General, to inquire whether you have conformed with the Proclamation of the 17th April, 1856, ordering the Registry Office for the County of Montreal to be held in the Court House from and after the 1st May then next ensuing, and in case you have not done so, to direct you to remove your office thereto without delay; and at the same time to intimate to you that, in case of your failure to have complied with the requirement of that Proclamation, you and your sureties will be responsible for such neglect.

I have the honor to be, Sir,
Your obedient servant,
(Signed) ET. PARENT,
Assistant Secretary.

G. H. Ryland, Esq.,
Registrar, Montreal.

REGISTRY OFFICE,
Montreal, 17th January, 1858.

SIR,—I have the honor to acknowledge the receipt of your official communication of the 12th instant.

It is doubtless the duty of every public servant to obey the reasonable commands of his Government. But though such has ever been my wish, and I might add, invariable practice, I would humbly submit that it is perfectly competent in an officer mildly and respectfully to dissent to an order calculated seriously to interfere with the proper working of the Department under his charge, and the health of his assistants.

Such is the case at present, I have no objection to move into the Court House; on the contrary, it has long been my wish to do so, provided I receive rooms where I and my officers can work without danger to our lives, which would be seriously jeopardized were we to occupy the cells allotted to us.

Under the Act 12 Vic., chap. 112, a heavy and obnoxious tax on registration was imposed on the public for the express purpose of providing suitable accommodation for the Registrar of Montreal.

When the new Court House, however, was nearly finished, it was found that no provision was made for that functionary, and it was only after repeated and urgent representations on my part that the Board of Works consented to ventilate and light the vaults in the rear of the building, which, though not very well adapted to the purpose, I consented to occupy.

But Mr. Honey, a Clerk in the Prothonotaries Office, having taken a fancy to these Chambers, one of those wheels within wheels which sometimes so strongly affect the political machinery of a Government, was made to revolve within the atmospheric circle of the Attorney General, who, yielding to its secret influence, immediately issued a peremptory order to the Architect in charge of the Court House, to be guided in all matters relative to the distribution of the building by the directions of the Prothonotaries without reference to the interests of any other party whatever.

The consequence was the appropriation by them of the accommodation preparing for the Registrar, and the substitution of unventilated and ill-lighted vaults which had been previously declared by them unfit to receive the antiquated and musty records of their office, to which access is but seldom required.

In vain I protested against this partial and unjust proceeding; in vain, after further fruitless efforts, I, on the 5th of March, 1856, forwarded to the Governor General a *procès-verbal* signed by the professional men who had examined and declared this portion of the Buildings unfitted, without great changes, for the purposes of a Registry Office. The Prothonotaries, under the protection of the Attorney General, were paramount.

Seeing then that against such odds I could effect nothing, I on the 11th April, 1856, addressed an official letter to the Government praying to be allowed to remain in the rooms now occupied by me till other suitable accommodation could be provided for me. To this I received a reply dated 18th April, informing me that "the subject would receive His Excellency's attention." Thus the matter has remained ever since till the receipt of your letter of the 12th instant.

In the meantime no steps have been taken to rectify the evil complained of by me; and yet the Clerks of the Peace, who on the opening of the Court House, were similarly situated at the other end of the building, only that their vaults were well lighted and ventilated, having represented their case, were immediately provided with luxurious rooms upstairs.

Under these circumstances I feel assured His Excellency, the Governor General, would be the last person to exercise a high-handed act of authority in compelling the removal of the Registry Office with its important documents, until rooms possessing the requisite essentials of light and air are provided.

Should this be found impracticable in the Court House, and the rooms now occupied by me be required for other purposes, I would respectfully pray to be allowed to hire premises as near the neighborhood as possible, and to defray the expense out of the tax now raised on registration, till a proper building is erected for this purpose, which might be done at a trifling expense, without detracting from the harmony of the new Court House, on the plan of the Savings Bank lately attached to the Bank of Montreal, in this city.

Praying His Excellency's favorable consideration of this suggestion,

I have the honor to be, Sir,

Your most obedient servant,

(Signed,)

G. H. RYLAND.

To E. Parent, Esq.,

Assistant Provincial Secretary, &c. &c., &c.

SECRETARY'S OFFICE,
Toronto, 29th January, 1858.

GENTLEMEN,—I have the honor to transmit the accompanying copy of a letter received from G. H. Ryland, Esquire, Registrar of the County of Montreal, of the 17th instant, in reply to one addressed to him from this Department on the 12th, relative to the removal of the Registry Office into the Montreal Court House; and to request from you such remarks as you may deem proper to make thereon, for the consideration of His Excellency the Governor General.

I have the honor to be, Gentlemen,
Your obedient servant,
(Signed,)

T. J. J. LORANGER,
Secretary.

Messrs. Monk, Coffin & Papineau,
Prothonotaries, Montreal.

SECRETARY'S OFFICE,
Toronto, 29th January, 1858.

GENTLEMEN,—I have the honor to transmit the accompanying copy of a letter received from G. H. Ryland, Esquire, Registrar of the County of Montreal, of the 17th instant, in reply to one addressed to him from this Department on the 12th, relative to the removal of the Registry Office into the Montreal Court House; and to request from you such remarks as you may deem proper to make thereon, for the consideration of His Excellency the Governor General.

I have the honor to be, Gentlemen,
Your obedient servant,
(Signed,)

T. J. J. LORANGER,
Secretary.

Messieurs Delisle & Bréhaut,
Clerks of the Peace, Montreal.

PROTHONOTARY'S OFFICE,
Montreal, 4th February, 1858.

SIR,—In answer to the letter from the Registrar, complaining of the rooms allotted to him in this building, and referred to us by His Excellency's commands, for such observations as we may deem necessary to make, we would remark that these apartments are four in number, thirteen feet six inches high from the floor to the centre of the ceiling of the arches, and nine feet high from the floor to the cornice below the spring of the arches. Two of the apartments are fronting on Notre Dame Street; one of these allotted for the principal office of the Registrar, is forty feet long by nineteen feet wide, and the other twenty-four feet long by twenty-four feet wide; this latter might be fitted up with shelving for the registers, &c., which is well adapted for that purpose. The other two apartments are in the rear of the principal office, one is eleven feet by forty, and the other seven feet by forty, thus giving that officer an aggregate space of two thousand and fifty-six superficial feet for his offices, all of which is fire-proof, and as much room as is allotted to the Prothonotary of the Superior Court—the latter having vaults in rear of those allotted to the Registrar, containing two thousand four hundred and fifty superficial feet, being only three hundred and ninety-four more than the former, to contain all the registers, records, and archives, before and since the conquest of this country.

This distribution of the vaults was suggested to the Honorable the Commissioners of the Board of Works by us, on the eighteenth January, 1856, and acquiesced

in, as will appear on reference to a copy of the telegraphic dispatch of the 16th February, 1856, herewith transmitted.

On the third day of March, 1856, we received another dispatch, a copy of which is herewith enclosed, and in compliance therewith, on the next day requested Mr. Lafrenaye, Advocate Mr. Labadie, Notary Public and John Wells, Architect, to examine the apartments, and on the same day forwarded their report, a copy of which is also transmitted, with a copy of our letter accompanying the same.

We yesterday examined those apartments, and entirely concur in the report of Messieurs Lafrenaye, Labadie, and Wells, and recommend their suggestions to be carried out as respects the ventilation of these rooms, which are entirely above ground and perfectly dry. And we do not hesitate to assure the Government that no Registrar in the Province would have better fire-proof vaults and offices than those assigned to the Registrar for the County of Montreal.

The Clerk of the Peace occupy the offices originally intended for them. The Superintendent of Police and Clerks have theirs on the same flat as those intended for the Registrar, and do not complain of their rooms being damp, although situate at the north end, while the Registrar's are at the south end; it is impossible they should be.

As Mr. Ryland has mentioned the name of Mr. Honey, our deputy, in his communication to the Government, we, at his earnest request, beg to say, that it was by our directions he measured the rooms and made the plans thereof, that the Commissioners might the better be enabled to judge of their fitness for offices, and it is a well acknowledged fact that Mr. Honey, during the erection of the Court House, suggested many improvements and alterations, which were approved of and carried out, and have since proved of great advantage and safety to the building.

We have the honor to be, Sir,

Your most obedient servant,

(Signed,)

MONK, COFFIN & PAPINEAU,

Prothonotary, S. C.

To the Honorable T. J. J. Loranger,
Secretary, &c.,
Toronto.

MONTREAL TELEGRAPH COMPANY,

Montreal, 16th February, 1856.

By Telegraph from Toronto.

To S. W. Monk.

Ostell telegraphed; your plan must be carried out; no other will be entertained.

(Signed,)

THOS. A. BEGLY.

MONTREAL TELEGRAPH COMPANY,

Montreal, 3rd March, 1856.

By Telegraph from Toronto.

To the Prothonotary, Court House.

Registrar states vaults appropriated to him uninhabitable; have examination made by competent party, and report here.

(Signed,)

THOS. A. BEGLY.

MONTREAL, 4th March, 1856.

GENTLEMEN,—At your request we visited the new Court House, and carefully examined the vaults Nos. 1, 2, 3, 10 and 11, which you have informed us have been

allotted to the Registrar for his office, and we are of opinion that they are in all respects well suited for that purpose. The hot air pipes are carried through the vaults, which will keep them in perfect temperature, and the windows are so placed that they will be sufficiently ventilated. With regard to the windows in the west end of the vaults allotted to the Registrar, we would recommend that they should be enlarged, and made exactly of the same dimensions as those in the adjoining vaults situated in the rear facing the parade-ground. We would also suggest the propriety of making another window in vault No. 1, at the west end, of the same dimensions; by so doing, we are of opinion that these vaults will be admirably adapted for the purposes intended, and will be then well lighted and ventilated, and there would be no necessity of any change in the front windows. We have examined the flooring of these vaults, and would state that it is about two feet and a half above the level of the ground, and may be called a basement or ground story, and the latter perfectly free from damp, and are fire-proof.

We have the honor to be,

Your obedient servants,

(Signed,)

JOHN WELLS, Architect,

“

P. R. LAFRENYE, Advocate,

“

JOSEPH A. LABADIE, Notary Public.

To Messieurs Monk, Coffin & Papineau,
Prothonotary Superior Court, Montreal.

PROTHONOTARY'S OFFICE,

Montreal, 4th March, 1856.

SIR,—In obedience to your telegraph dispatch, we have caused the vaults to be examined, and enclose the report of Mr. Wells, an Architect; Mr. Lafrenaye, an Advocate; and Mr. Labadie, a Notary Public; and though not called upon to offer an opinion on the subject, we would express a wish that the suggestion of these gentlemen might be carried out.

We have the honor to be,

Your obedient servants,

(Signed,)

MONK, COFFIN & PAPINEAU,

Prothonotary.

To Thomas A. Begly, Esq.,
Secretary Board of Works,
Toronto.

PEACE OFFICE,

Montreal, 4th February, 1858.

SIR,—We have the honor to acknowledge the receipt of your letter of the 29th January last, transmitting a copy of a letter from G. H. Ryland, Esquire, Registrar of the County of Montreal, in reply to one addressed to him relative to the removal of the Registry Office into the Montreal Court House, and requesting from us such remarks as we may deem proper to make thereon, for the consideration of His Excellency the Governor General.

In communicating Mr. Ryland's letter to us, requesting us to offer such remarks thereon as we deem proper, we assume that His Excellency the Governor General is desirous of knowing whether suitable accommodation can be found in the Court House for the Department of the Registrar for this County.

Having consulted the plan of the building and examined the portion of it which is unoccupied, we have the honor to state that by the original plan, seven rooms or vaults on the basement floor of the western wing were allotted to the Registrar for his Office, and place of safety for records, four of which were subsequently appro-

priated by the Prothonotary of the Superior Court for the use of their office, substituting two small and inferior vaults on the front of the building in lieu of the four taken.

Having visited the five rooms or vaults now left for the Registry office, we would remark that two of them, which could be used as offices, are defective as regards light, and we respectfully suggest that a window might be made in the west end of the front office, and the window in the adjoining vault, also to the west, be enlarged to the size of those in the Police Office facing the Champ de Mars.

There is a chimney in the front room, which can be used for greater ventilation, if necessary, or for the use of stoves, if the heat from the hot water pipes is objectionable.

As certain changes in the *Tutelle* and *Curatelle* Department are about being made, it has been intimated to us that one of the Prothonotaries will occupy one of the rooms vacated by the late Circuit Judges, which will leave the room now occupied by one of them vacant, and as it is just above those intended for the Registry Office, it might perhaps be given to Mr. Ryland as a private office, with a staircase communicating to the apartments below.

Whilst the Prothonotaries have taken four of the rooms originally intended for the Department of the Registrar, we find a suite of nine rooms in the rear of the building, totally unconnected with any Department, three of which are well aired and lighted, in the possession of the keeper of the Court-House, who according to his own account, only uses them as a deposit for furniture, except one which is used as a kitchen, and in addition to these unoccupied rooms in the basement story, Mr. Loïselle occupies a room on the principal story which was originally destined to the use of the Judges of the Court of Queen's Bench.

☐ In conclusion we would add that in our opinion ample accommodation can be found in the new Court-House, for Mr. Ryland's Department.

I have the honor to be, Sir,

Your obedient servant,

(Signed),

DELISLE & BRÉHAUT.

Clerk of the Peace.

The Honorable T. J. J. Loranger,
Secretary,
Toronto.

SECRETARY'S OFFICE,

Toronto, 16th February, 1858.

GENTLEMEN,—Adverting to previous correspondence with you relative to the office of the Registrar of Montreal, I have the honor to enclose a copy of a letter of the Clerk of the Peace on the same subject, on the 4th instant, and to request that you will state whether the upper room therein mentioned as vacant, and being just above the rooms intended for the Registry Office, can be given up for the use of the Registrar of Montreal.

I have the honor to be, Gentlemen,

Your obedient servant,

T. J. J. LORANGER,

Secretary.

Messieurs Monk, Coffin, & Papineau,
Prothonotary, Montreal.

PROTHONOTARY'S OFFICE,

Montreal, 20th February, 1858.

SIR,—In answer to yours of the 16th instant. we have the honor to state that the Clerk of the Peace have been led into error; we have no room vacant which could be allotted to the Registrar. The apartment immediately over the one intended for that officer, is occupied by Mr. Coffin, in which he examines the Registers and Judgments, and in arranging all the Records and Documents of various kinds, as well under the French Government as since the conquest, in order that they may be preserved,—a tedious and important work which has already taken the greatest part of his time for the last ten years, and it would be impossible for him to complete it if he were subject to the constant interruption and bustle of a public office.

We would further bring under the notice of the Government that all the rooms in the west end of the Court House are vaulted, and if stairs were erected leading down to the apartments below in case of fire, the whole building would be in danger. The *délibéré* room, opposite the one occupied by Mr. Coffin and formerly belonging to the Circuit Judges, is now used by the Judges of the Superior Court when the Circuit Court is in session and the *Enquête* days.

In our remarks we confine ourselves strictly to the points alluded to in your letter.

We have the honor to be, Sir,

Your most obedient servant,

(Signed,) MONK, COFFIN & PAPINEAU,
Prothy. S. C.

To the Hon. Thomas J. J. Loranger,
Secretary, &c., Toronto.

REGISTRY OFFICE,

Montreal, 20th February, 1858.

SIR,—Since my return here I have visited the Court House, and as I find that by the recent Act of Parliament the Judges of the Circuit Court are removed up into the Court of Queen's Bench, I am now enabled to offer a suggestion which, with your approbation, will at once meet the question at issue in regard to the accommodation required for the Registry Office in the Court House, and at the same time obviate the necessity of any expenditure or alteration calculated to injure the appearance of the building.

In fact, if you approve, we could move the office by Tuesday next. Herewith is a small plan of the premises.

A. and B. are the two rooms hitherto appropriated to the Judges of the Circuit Court, from which a staircase leads direct to the back of the vaults intended for the Registrar. The only expense would be the breaking open of a door through a thin brick wall at E., at once connecting these vaults with the two rooms above.

By this means access would be secured to the public either at the entrance H. on the front of the basement wings or from the corridor running through the Court House.

The rooms here mentioned are not required by the Judges, inasmuch as they have two exactly similar rooms over head adjoining the Court of Queen's Bench.

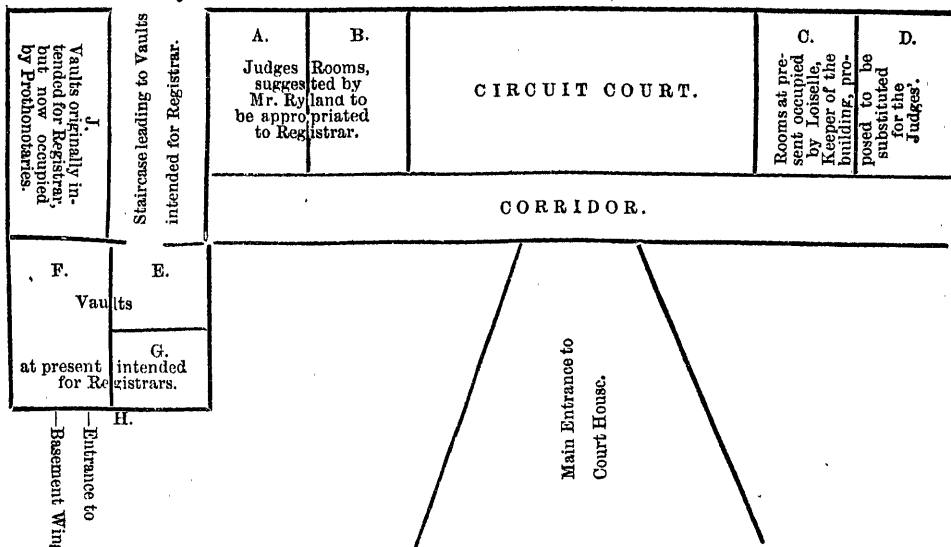
But if it is deemed desirable to retain one or two rooms for the use of the Judges on the same floor as the Circuit Court, there are those opening into it at the other end, marked C. D., at present occupied by Loiselle, the Keeper of the building, which would be fully as convenient to the Judges as the others.

The plan I here propose is so simple, so easy of execution, so little calculated to interfere with the accommodation of any other department, and at the same time so free from expense, that I cannot but think you will feel disposed to adopt it, particularly if on reference to the Board of Works you find it calculated to attain the object in view.

I am told that the Prothonotaries are anxious to obtain these rooms for themselves, but if they are allowed to retain what they have, they ought to be very well satisfied.

I have the honor to be, Sir,
Your most obedient servant,
(Signed,) G. H. RYLAND.

To the Hon. G. E. Cartier,
Attorney General.



SECRETARY'S OFFICE,
Toronto, 24th February, 1858.

GENTLEMEN,—I have the honor to enclose to you herewith a copy of a letter, dated 20th instant, from the Registrar of the County of Montreal, on the subject of accommodation, in the Montreal Court House, for his office, and to request that you will furnish me, for the information of His Excellency the Governor General, with such remarks on the subject of the above mentioned letter as you may deem proper.

I have the honor to be, Gentlemen,
Your obedient servant,
(Signed,) T. J. J. LORANGER,
Secretary.

The Prothonotary,
Montreal.

PROTHONOTARY'S OFFICE,
Montreal, 26th February, 1858.

SIR,—We had the honor of stating in a former communication on the subject of Mr. Ryland's application for apartments other than those originally allotted to

him in this building, that the rooms appropriated to the Circuit Judges were required by the Judges of the Superior Court.

We hope that the enclosed will remove any suspicion that the Prothonotary were anxious to obtain these rooms for themselves. The other rooms mentioned by Mr. Ryland, one is occupied by the guardian, and properly so, as it gives him a better opportunity of overlooking the building during the night, and the other by the Judges of the Court of Queen's Bench during the session of the Criminal terms. We regret it is not in our power to point out any room that would better answer Mr. Ryland's wishes, other than those intended for him.

We have the honor to be, Sir,

Your most obedient servant,

MONK, COFFIN & PAPINEAU,
Prothonotary, S. C.

To the Honorable T. J. J. Loranger,
Provincial Secretary,
Toronto.

JUDGES' CHAMBER,

Montreal, 26th February, 1858.

GENTLEMEN,—In answer to your letter of this date on the subject of the Judges' Chamber adjoining the Court Hall of the Circuit Court, the Judges have no hesitation in declaring that these rooms are indispensable for the use of the Judges holding that Court, and that their appropriation to any other purpose is entirely inadmissible.

I have the honor to be, Gentlemen,

Your obedient Servant,

(Signed,)

CHARLES D. DAY, J. S. C.

To Messrs. Monk, Coffin & Papineau,
Prothonotary.

SECRETARY'S OFFICE,

Toronto, 4th March, 1858.

SIR,—I have it in command from His Excellency, the Governor General, to inform you that, after a careful examination of the recent correspondence had with you, the Prothonotary and the Clerk of the Peace, relative to certain apartments in the Montreal Court House to be appropriated for your office, His Excellency is satisfied that the vaults mentioned in the Prothonotary's letter of the 4th February last, will, when altered as recommended in the report of Messieurs Wells, Lafrenaye, and Labadie, of March 4th, 1856, be sufficient and in all respects suitable for the Registry office.

I have therefore to intimate to you that your office must be removed therto, and held therein, so soon as the alterations as above suggested shall have been made, and in respect of which the Prothonotary has received instructions.

I have the honor to be, Sir,

Your obedient servant,

(Signed,)

T. J. J. LORANGER,

Secretary.

G. H. Ryland, Esquire,
Registrar,
Montreal.

SECRETARY'S OFFICE,

Toronto, 4th March, 1858.

GENTLEMEN,—With reference to the recent correspondence with you, the Registrar and the Clerk of the Peace of Montreal, relative to certain apartments in the Montreal Court House, I have it in command from His Excellency the Governor General, to state that after a careful examination of the above correspondence, His Excellency is satisfied that the vaults mentioned in your letter of the 4th February last, will, when altered as recommended in the report of Messieurs Wells, Lafrenaye, and Labadie, of March 4th, 1856, be sufficient and in all respects suitable for the Registry Office.

Mr. Ryland will be in consequence informed that his office must be removed thereto, and held therein; so soon as the alterations as above suggested shall have been made.

As the building is now under your charge, the alterations should be made under your directions; but previously to commencing them, you will procure and submit, through this Department, an estimate of the costs to be incurred by those alterations.

I have to intimate to you at the same time, in reply to your application for accommodation for the deposit of notarial documents, that no part of the above vaults can be spared for that purpose.

I have the honor to be, gentlemen,

Your obedient servant,

(Signed,)

T. J. J. LORANGER,

Secretary.

The Prothonotary,
Montreal.

PROTHONOTARY'S OFFICE,

Montreal, 8th March, 1858.

SIR,—In compliance with the instructions contained in your letter of the 4th instant, we have the honor to enclose an estimate of the costs of the alterations recommended by Messieurs Wells, Lafrenaye, and Labadie, to the apartments of the Registrar, in the Court House.

We have taken the liberty of adding three summer blinds, as the sun will cause much inconvenience to those gentlemen who will occupy these rooms.

The estimate is made by Mr. Laberge, the contractor and builder of the Court House.

We have the honor to be, Sir,

Your obedient servant,

(Signed,)

MONK, COFFIN, & PAPINEAU,

Prothonotary S. C.

To the Honorable T. J. J. Loranger,
Provincial Secretary,
Toronto.

MONTREAL, 6th March, 1858.

GENTLEMEN,—I hereby offer and agree to complete the following works required in the offices allotted to the Registrar, situate in the west end of the Court House, for the sum of sixty pounds currency, viz :

Stone-mason work in cutting through the walls of the principal office, and making and completing stone work, sills, &c., for a large window in the front or principal

office, and same for two windows in adjoining offices, &c.; brick-work and plastering required in fitting up same to receive iron shutters.....	£15	0	0
Three large inside windows and frames complete, glazing and painting, at £2 each	6	0	0
Three window sashes for ditto, at £1 10s. each	4	10	0
Three summer blinds, at £2 each.....	6	0	0
Three wire gratings to windows, full size, at £1 10s. each ..	4	10	0
Three double sets of inside iron shutters, complete, full size, at £8 each.....	24	0	0
	£60		0 0

To be furnished in the best workmanlike manner.

(Signed,)

AUGUSTIN LABERGE.

To Messrs. Monk, Coffin, and Papineau,
Prothonotary.

REGISTRY OFFICE,

Montreal, 9th March, 1858.

SIR,—I have the honor to acknowledge the receipt of your official communication of the 4th instant, informing me that “His Excellency is satisfied that the vaults mentioned in the Prothonotary’s letter of the 4th February will be sufficient and in all respects suitable for the Registry Office.”

It would be difficult for me, and for obvious reasons I will not attempt, to account for the total want of courtesy with which I have been treated in this matter.

But denying, as I do, the right of the Prothonotaries to interfere with or control the Department under my charge, I would respectfully pray of His Excellency that the matter at issue be referred to the proper authorities, viz, the Board of Works, for their consideration and report, and that I may be present when the examination of the premises takes place.

The representations of Mr. Loisselle, the mere keeper of the building, who refused to occupy vaults in every way better ventilated and lighted than the cells into which the Government would drive me, were at once attended to, and he is allowed to occupy one of the best rooms upstairs, reserved for the Judges.

It might naturally be supposed that I, the head of one of the most important offices in the country, would have been considered entitled to at least equal attention. But quite the contrary. The Prothonotaries, or rather Mr. Honey, their *ci-devant* servant and present junior colleague, having taken a fancy to the rooms which the Board of Works were preparing for me, got up without my knowledge a hole-and-corner meeting, composed of themselves, a young lawyer who had never made dungeons his peculiar study, an antiquated architect, who was unacquainted with the precise purpose for which his opinion was asked, and a Notary Public, the cadaverous aspect of whose family affords a practical illustration of the effects of vaults in general. These three scientific individuals were induced to sign a report by which the Prothonotaries contrived to gain possession of my rooms, and, in the teeth of the *procès-verbal* which I had the honor to submit, and of the Act 12 Vic. cap. 112, procured an order consigning me to a set of dark, fetid cells, possessing none of the requisite essentials to health and life, but with the nude apparatus of a water-closet gracing the entrance door of what would be if there was light, the record office, into which applicants for information would be hourly introduced.

Against this arbitrary decision so at variance with official usage, I, as a public officer holding an important charge, considered it my duty respectfully to remonstrate. And certainly I had a right to expect that the grounds on which I founded my objection to enter the vaults in question would have been referred to some disinterested third party, duly qualified to judge of the matter, and instructed to communicate with me on the subject.

Instead of this obviously proper course the matter was, without communication to me, referred back to the very party of whose unauthorised interference I complained, and who as a matter of course, in self defence, support their original suggestion.

But if the vaults are what this newly constituted branch of the Public Works have stated, why not appropriate them to their own use, and give me back the rooms originally intended for me.

The only expense attending this act of restitution would be the re-opening of a door, a short brick partition, and the removal of their papers, which being in pigeon holes could easily be effected by some of their idle clerks.

As it is, and until a proper survey is made, I respectfully protest against the present decision.

Not that I object to a removal of the Registry office into the Court House ; I am, as I before said, willing and anxious to go there, provided I receive the accommodation contemplated by the Act 12 Vic. cap. 112 : *i.e.*, healthy rooms in which the officers of my department can see and breathe.

This, considering the heavy tax imposed upon the public for this express purpose, I am surely entitled to ask and expect.

Praying for my language, the sincerity of which may sometimes be objectionable, the most indulgent construction, I would express a hope, that as I have never attempted to interfere with the internal arrangements of the Prothonotaries or any other department, I may not be subject to the humiliation of having the internal arrangements or requirements of my office interfered with by them.

“*Nullum Imperium tutum nisi benevolentia munitum*,” and I would add that it is by extending to public servants the official courtesy to which they are entitled, that a government will best secure this respect and deference, which I for one shall ever feel it a pleasure and duty to accord.

I have the honor to be, Sir,

Your most obedient Servant,

(Signed,) G. H. RYLAND.

The Honorable Mr. Loranger,
Provincial Secretary.

Extract from the Act 12 Vic. cap. 112.

“Such Court House to contain sufficient accommodation for all the Courts to be held in the said city, and for the Registry office for the county of Montreal, and to be erected under the superintendence of the Commissioners of Public Works, according to plans and estimates to be approved by the Governor in Council, and that the said Commissioners may offer premiums for the best plan for the same.”

N.B.—This Act is for two distinct purposes, a Court House and a Registry Office, the expense of providing which is procured from two distinct sources, but there is nothing in the law which directly or impliedly places the Registry Office under the supervision of the Prothonotaries, who are the guardians only of what pertains to the Court.

Their interference then with the accommodation prepared by the Board of Works, in their capacity of Commissioners for the Registry Office, ought to have been considered as an impertinent meddling with what did not concern them.

SECRETARY'S OFFICE,

Toronto, 16th March, 1858.

SIR,—With reference to your letter of the 9th instant, I have it in command from His Excellency, the Governor General, to state that His Excellency does not consider that any want of courtesy has been shewn or intended towards you in the applications made to the Prothonotary for their suggestions as to the alterations required to the Court House, a building which under the provisions of the 39th Geo. III, cap. 10, is held by that officer, who was thereby made and declared a corporation for the special purpose of being capable of taking and holding in perpetual succession the land on which that Court House stands, and the building thereon erected. However a copy of the correspondence had with the Prothonotary is herewith transmitted to you, with the intimation that His Excellency sees no reason for deviating from the determination arrived at relative to the location of the Registry Office.

I have the honor to be, Sir,
Your obedient Servant,
(Signed,) T. J. J. LORANGER,
Secretary.

G. H. Ryland, Esquire,
Registrar, Montreal.

SECRETARY'S OFFICE,

Toronto, 24th March, 1858.

GENTLEMEN,—In reply to your letter of the 8th instant enclosing an estimate of the cost of the alterations to be made to the apartments allotted to the Registrar in the Montreal Court House, I have the honor to convey to you His Excellency's authority to cause the said alterations to be made and the cost thereof to be paid out of the Tax levied under the Act 12 Vict., cap. 112, and the fees received under the order in Council pursuant thereto.

I have the honor to be, Gentlemen,
Your obedient servant,
(Signed.) T. J. J. LORANGER,
Secretary.

The Prothonotary, Montreal.

REGISTRY OFFICE,

Montreal, 22nd March, 1858.

SIR,—I have to acknowledge the receipt of your letter of the 16th instant, enclosing a small portion of the correspondence which has been had with the Prothonotaries in relation to the cells under the new Court House, into which it is proposed to move the Registry Office.

I observe, however, that neither the correspondence with the Clerk of the Peace on this subject, nor the previous correspondence with the Prothonotaries, including the voluntary report of Messrs. Labadie, Lafrenaye, and Wells, are included among the papers sent to me.

Feeling that this omission is purely accidental, I need only mention it to be put in possession of the whole.

In the meantime I would respectfully remark that though under the provisions of the 39th Geo. III, cap. 10, the "Prothonotaries may be declared a Corporation for the special purpose of being capable of taking and holding in perpetual succession the land on which the Court stands and the building thereon erected,"

yet nothing in that statute directly or impliedly contemplated that they should have a right of interfering with or judging of the requirements of other offices not then dreamt of, erected under subsequent Acts of Parliament, and entirely unconnected with the Courts of Justice of which they are the servants.

And though the Act 12 Vic., cap. 112, imposes a heavy tax upon the public for the purpose of building a Court House and providing suitable accommodation for the Registrar, no part of that statute extends the authority of the Prothonotaries over the Registrar.

On the contrary, the two purposes under which the tax is collected are kept distinct and separate, and it was the evident intention of the Legislature, not that the Prothonotaries should be clothed in purple and fine linen, and the Registrar consigned to the pestilential influence of a fetid vault below their palatial abode, but that each office should be independent of the other, and both fitly and equally as well accommodated.

It is upon these and other public grounds that I respectfully resist the attempt to place the Department under my charge in a locality which cannot be made fitting to receive it, and where the health, and I may say the lives, of my officers will be endangered.

I am perfectly aware of the adverse feeling which some members of the Government entertain towards me, but I have too high an opinion of their integrity and honor to suppose that their feelings will in any way influence their decision in a case of this kind.

In order, therefore, more fully to prove the unfitness of the cells in question for a Registry Office, I now enclose a report upon the subject by Messrs. Hopkins, Lawford, and Nelson, Architects of some celebrity, who have visited the premises and to whom I communicated your letter and enclosures, containing the estimate of Mr. Laberge for alterations which would in no way add to the health of the apartments.

Trusting that in these representations I may be met in the spirit in which they are made,

I have the honor to be, Sir,

Your most obedient servant,

(Signed)

G. H. RYLAND.

The Honorable T. J. J. LORANGER,
Provincial Secretary.

P. S.—Seeing that Mr. Ouimet has given notice of a motion to have the correspondence between the Government and myself, relative to the removal of the Registry Office into the new Court House, laid before the House, I trust this communication, as well as the report of Messrs. Hopkins, Lawford, and Nelson, may accompany the other papers.

(Signed)

G. H. R.

Report upon the present state and condition of certain vaults in the Court House, Montreal, proposed to be used as offices for the Registrar of the County :

In conformity with instructions received from G. H. Ryland, Esquire, requesting me to inspect the vaults of the Court House, set apart for the offices of the Registrar of the County of Montreal, with a view to ascertain how far they are applicable to their intended purposes, we have, after making a careful examination of the premises in question, to report as follows :

In the first place, we think that the distribution of the different vaults in themselves is very far from what it should be for the convenience, not only of the clerks engaged in the business of the department, but also for that of the public. Any one wishing to refer to documents of a private nature, without bringing the par-

ticulars before the public, would be unable to do so from want of any provision being made for an office, distinct from the others, for this special purpose; and indeed it would be very difficult, by any alterations or additions, to provide convenient private offices or apartments of a suitable nature for the accommodation of the Registrar.

The means of communication, too, between the different vaults for the speedy execution of business, is insufficient, as the only mode of obtaining access to the largest vault, where, of course, most constant reference would be made, is by going through all the intermediate vaults, which are small and ill adapted for freedom of passage.

In the second place, we find that in two of the vaults, in which documents would be deposited, there is great insufficiency of light; a defect, in our opinion, of considerable importance in offices where accuracy in depositing papers in their proper places, is positively essential to the efficient management of the business of the department. The two vaults in question are nearly forty feet in length; one is about eleven feet in width, and the other still narrower. They are each lighted by a small window at one end; and even were the windows enlarged, as has, we believe, been proposed, we do not consider that the admission of light would be nearly adequate to the requirements of the offices.

In the third place, we find that the whole of the vaults are without any means of ventilation whatever, and that damp is consequently always more or less visible on the walls, precluding thereby the possibility of keeping papers or books for any length of time in good preservation. When we examined the vaults, we ascertained that warm air (which is supplied to the different parts of the building by hot water pipes running along the sides of the floors) had been freely admitted into them during the greater part of the winter; and although the vaults were unoccupied, and consequently a smaller amount of vitiated air allowed to circulate in them than would have been the case had they been in use, the walls were, to a very considerable extent, covered with mildew and large drops of condensed vapour almost every where visible on them and the vaulted ceilings, arising of course from want of a proper and sufficient egress for the vitiated air. This imparts to the rooms during the winter months, although not too much heat, far too damp and unwholesome an atmosphere for any one to remain in them for a long period with safety, and tends, in addition, to produce decay amongst the papers deposited therein.

Taking, then, into consideration the above facts, and also that, in our estimation, thorough light and ventilation, perfect freedom from damp and a good arrangement of offices in connection with the necessary vaults, are absolute and indispensable requirements for the department of the Registrar, we are of opinion that the vaults in question, which possess none of these qualifications whatever, are not only entirely inapplicable to the purposes to which it is proposed to adapt them; but that in their present state, the health of any one occupying them for any length of time would be greatly endangered.

This is more especially to be feared in the case of the Registrar and the officers in his department, whose duties compel them to remain at their posts till long after the usual hours of business.

Respectfully submitted,

(Signed) HOPKINS, LAWFORD, & NELSON,
Architects.

Montreal, 22nd March, 1858.

SECRETARY'S OFFICE,

TORONTO, 27th March, 1858.

GENTLEMEN,—I have the honor to enclose to you herewith, for your information, a copy of letter received from the Registrar of the County of Montreal, dated 22nd instant, with a copy of the report therein alluded to.

I have the honor to be, Gentlemen,

Your obedient servant,

(Signed)

ET. PARENT,

Assistant Secretary.

The Prothonotary, Montreal.

PROTHONOTARY'S OFFICE,

MONTREAL, 31st March, 1858.

SIR,—We have the honor to acknowledge the receipt of yours of the 27th instant, with a copy of the Report of Messrs. Hopkins, Lawford and Nelson.

It would be unbecoming in us, and a want of due respect to the Government of His Excellency the Governor General, were we to notice any of the personal observations of the Registrar, and shall therefore confine ourselves to the Report itself; We beg leave, however, to disclaim any interested motives in the opinions we have given as respects the fitness of the apartments allotted to that officer. Whether we have voluntarily interfered, or how far we offered an opinion undesired, we would respectfully appeal to the Honorable the Provincial Secretary.

To the first objection we have already forwarded the number and exact dimensions of the rooms, and assuredly out of four one might be set apart for private communication of papers or private conversation with the Registrar; we have reason to believe he would have been satisfied had he obtained possession of the Judges' Chambers (Circuit Court) only two in number.

To the second objection, we remark that Messrs. Lafrenaye, Wells and Labadie, recommended the enlargement of the three windows, which is now being done, and when completed the three rooms will have as much light as any in the Court House.

To the third objection, it is true a small part of the front wall in the front apartment is damp, all the other rooms are perfectly free; and when it is considered that, with the exception of occasionally heating the pipes to prevent their freezing there has been no warmth in that part of the basement story during the winter, it is not to be wondered at that some portion of the wall should be so. We have several times within the last two months examined the rooms in question, and can safely state that we could not discover any "mildew" or "large drops of condensed vapour," and positively there is none at present. The apartments in our possession, adjoining those intended for the Registrar, are and always have been, perfectly dry and perfectly free from damp; and they are heated in the same manner.

In conclusion, we would respectfully observe, that we have a fewer number of rooms in this building and smaller, except the one where the public business is transacted, than our predecessors ever had; and we say so from personal knowledge of forty-three years.

We have the honor to be, Sir,

Your obedient servants,

MONK, COFFIN & PAPINEAU,

Prothonotary S. C.

To Etienne Parent, Esq.,
Assistant Secretary,

Toronto.

R E T U R N

To an Address from the Legislative Assembly to His Excellency the Governor General, dated the 19th instant, praying His Excellency to cause to be laid before the House, "Copies of all Correspondence which has taken place between the Government and any party or parties, in anticipation of, and relative to the Commission of the Peace recently issued for the County of Norfolk."

By Command.

T. J. J. LORANGER,

Secretary.

SECRETARY'S OFFICE,

Toronto, 29th April, 1858.

(Copy.)

CLERK OF THE PEACE OFFICE, SIMCOE,

Norfolk, C.W., 14th May, 1856.

Sir,—I have the honor to enclose a Petition, forwarded to me by Mr. George Walker, of Houghton, praying His Excellency the Governor General to issue a Special Commission of the Peace for that Township.

The statements contained in the Petition are, I believe, correct, and should His Excellency think proper to grant the prayer thereof, there are several Gentlemen in that Township who would make efficient Magistrates.

I have, &c.,

WM. M. WILSON,

Clerk of the Peace,

Norfolk.

To the Honorable the Provincial Secretary,

&c.,

&c.,

&c.

To His Excellency Sir EDMUND WALKER HEAD, Baronet, Governor General of British North America, &c., &c., &c.

The humble Petition of the undersigned, Inhabitants of the TOWNSHIP OF HOUGHTON ;

MOST RESPECTFULLY SHEWETH :—

That the Inhabitants of this Township have for a length of time suffered much inconvenience from there being no Justices of the Peace resident within the limits of the Township. That the Township Reeve, who is, *ex officio*, a Justice of the Peace, resides in the front of this Township, and that all officers requiring to take the oaths of office have necessarily been put to much trouble and expense in consequence thereof. That in every other Township in the County many Magistrates have been appointed, while we have been overlooked.

That in the last Commission of the Peace issued for the County of Norfolk, five Gentlemen were appointed for Houghton, four of whom never took the oaths of office, and the other has left the Township.

Your Petitioners therefore pray that Your Excellency will be pleased to institute an inquiry into the matters, and to take such steps therein, by the appointment of Justices of the Peace, as may tend to the more speedy administration of Justice, and to ensure greater satisfaction to the loyal subjects of Her Majesty ; and as in duty bound, your Petitioners will ever pray.

Houghton, County of Norfolk, May, 1856.

To His Excellency Sir EDMUND WALKER HEAD, Baronet, Governor General of British North America, &c., &c., &c.

In Council.

The Memorial of WILLIAM SALMON, Chairman of the Court of Quarter Sessions, and of SIMPSON McCALL, Warden of the COUNTY of NORFOLK ;

MOST RESPECTFULLY SHEWETH :—

That in the opinion of your Memorialists, it would much conduce to the public interest, and tend to facilitate the administration of Justice, if a new Commission of the Peace were to be issued for the County of Norfolk.

Your Memorialists would also most respectfully state, for the information of Your Excellency, that out of the names included in the present Commission of the Peace, there are twenty who have never taken the oaths of office, to enable them to act as Justices, ten are dead, eight have left this County, and one has been discharged by a Special Writ issued by Your Excellency for that purpose ; they would also further state that (with the exception of the Reeve, who is, *ex officio*, a Magistrate,) there is no Magistrate resident within the Township of Houghton.

Your Memorialists have carefully examined the present Commission of the Peace, and have extracted the names of those Gentlemen who have taken the oaths of office and qualification as Justices ; they have also, (actuated solely by a desire to maintain the character and efficiency of the Bench in this County.)

made a selection of the names of such persons, as in their opinion, could, with propriety, be recommended to Your Excellency as fit and proper persons for appointment as Magistrates, both of which lists are hereunto appended, and most respectfully submitted for consideration.

Your Memorialists, having thus brought the matter before Your Excellency, entreat for it a favorable consideration.

And your Memorialists, as in duty bound, will ever pray, &c.

WILLIAM SALMON,
Clerk, Quarter Sessions.

S. McCALL,
Warden, County of Norfolk.

Simcoe, 28th April, 1857.

LIST of MAGISTRATES who have qualified, under the last Commission for the
COUNTY of NORFOLK.

TOWN OF SIMCOE.

Salmon, William,
Ritchie, James Wilson,
Covernton, Charles William,
VanNorman, Delevan D.,
Austin, John S.,
Wilson, Walter T.,
Lyons, James A.,
Kent, George W.

TOWNSHIP OF WINDHAM.

Matthews, Daniel,
Hunt, Lawrence H.,
Robins, John,
Reach, John,
Kelly, Samuel,
Wallace, John,
McIntosh, John R.,
Langs, Jacob,
Varbinder, Philip,
Freeman, Daniel W.,
Vasbinder, John Nelson.

TOWNSHIP OF WALSINGHAM.

Williams, Titus,
Killmaster, John,
Killmaster, George A.,
Killmaster, Henry J.,
Hutchison, John B.,
Backhouse, John A.,
Hunter, John,
Foster, Edward,
Armstrong, Cornelius.

TOWNSHIP OF CHARLOTTEVILLE.

McCall, Simpson,
Covernton, James,
Wood, Jacob,
Mabee, Oliver,
Tisdale, Joseph,
Potts, Jacob,
Shearer, Gabriel,
Fergusson, John W.,
Slaght, Job,
VanNorman, Romaine F.

LIST OF MAGISTRATES who have qualified, under the last Commission for the
COUNTY OF NORFOLK.—(Continued.)

TOWNSHIP OF MIDDLETON.

Crysler, Roger,
Buchner, Edward D.,
Cook, Luke.

TOWNSHIP OF HOUGHTON.

None.

TOWNSHIP OF TOWNSEND.

Blake, Oliver,
Perney, John,
Clark, Thomas W.,
Kellum, Jason,
Barber, Henry J.,
Johnson, Joseph,
Owen, Joel W.,
Shaw, Benjamin C.,
Taylor, Gilbert.

Total number of Magistrates appointed in Commission of 1852...91.

List of names of persons recommended to be included in new COMMISSION of the
PEACE for the COUNTY of NORFOLK.

TOWN OF SIMCOE.

Campbell, Duncan,
Walsh, Thomas William,
Ford, Nathan Cook,
Wilson, James Graham,
Walsh, Aquila,
Wallace, William,
Curtis, John,
Toms, Albert,
Boyd, John,
Mercer, William.

TOWNSHIP OF WOODHOUSE.

Walker, Solomon,
Powell, Walker,
Waters, Thomas,
Lees, Andrew,
Haycock, James F.,
Mead, Richard,
Kempt, James,
Riddell, James,
Forsyth, Gideon,
Marr, James.

TOWNSHIP OF MIDDLETON.

Tisdale, Lot,
Swayze, Daniel C.,
Sovereign, William Lewis,
Ostrander, John,
Sovereign, Jacob,
Rouson, Thomas B.

TOWNSHIP OF HOUGHTON.

Misner, Andrew,
Francis, John,
Chamberlin, Thomas,
Hutchison, John James,
Walker, George,
Clifford, John,
Guthrie, Alexander.

List of names of persons recommended to be included in new COMMISSION of the PEACE for the COUNTY of NORFOLK.—(Continued.)

TOWNSHIP OF WINDHAM.

Snider, George,
Walsh, Francis,
Ball, William,
Clement, Robert.

TOWNSHIP OF WALSINGHAM.

Barrett, Hugh Massey,
Hutchison, George, senr.,
Franklin, Augustus,
Dedrick, James L.,
Richardson, Richard,
Firman, Reuben H.,
Robinson, Thomas,
Price, Stephen,
Phelan, John,
Knowles, Robert,
Backhouse, John H.,
Hutchison, Alexander W. B.,
Stevenson, William H.,

TOWNSHIP OF CHARLOTTEVILLE.

McCall, Daniel,
Smith, Obed Morris,
Potts, Edwin Lockwood,
Johnston, Jeremiah,
Tisdale, Ephraim,
Finlay, William,
McCall, David W.,
Smith, Daniel B.,
McCall, John H.,
Young, Peter E.

TOWNSHIP OF TOWNSEND.

McKerlie, John,
McKay, Alexander,
McLaren, John,
Wilson, James,
Hare, Bartholomew,
Park, George W.,
Wymer, James,
Young, Robert,
Collver, Nesbitt,
Dunlop, Robert,
Haviland, John.

SECRETARY'S OFFICE,

Toronto, 6th May, 1857.

Sir,—I have had the honor to receive and lay before His Excellency the Governor General the Memorial, signed by you and the Warden of the County of Norfolk, urging the necessity, for the reasons therein set forth, of issuing a new Commission of the Peace for that County.

His Excellency directs me to state that the subject will receive consideration, and that whenever he may feel it necessary to direct another Commission to be prepared for that County, the names submitted by you will not fail to engage his attention.

I have, &c.,

T. LEE TERRILL.

WILLIAM SALMON, Esquire,
Judge of County Court, Simcoe,
County of Norfolk, U. C.

PRINTED BY ROLLO CAMPBELL, CORNER OF YONGE AND WELLINGTON STREETS, TORONTO.

R E T U R N

To an Address from the Legislative Assembly to His Excellency the Governor General, dated the 19th instant, praying His Excellency to cause to be laid before the House, "Copies of all Letters, Memorials, or other Documents addressed to the Provincial Government, or any member thereof, in anticipation of the issuing of the recent Commission of the Peace for the County of Wellington, and referring thereto."

By Command.

T. J. J. LORANGER,

Secretary.

SECRETARY'S OFFICE,

Toronto, 29th April, 1858.

NOTE.—*The above Return was ordered, by the House, not to be printed, in accordance with the recommendation of the Standing Committee on Printing.*

PRINTED BY ROLLO CAMPBELL, CORNER OF YONGE AND WELLINGTON STREETS, TORONTO.

R E T U R N

To an Address from the Legislative Assembly to His Excellency the Governor General, dated the 15th ultimo, praying His Excellency to cause to be laid before the House, "a Return from the several Municipalities of this Province, of the number of places licensed for the sale of Malt and Spirituous Liquors, for the year 1857, and the amount of Revenue derived from the same; and also the quantity of Malt and Spirituous Liquors imported into the Province, with the amount of Duties paid thereon, for the same year."

By Command.

T. J. J. LORANGER,

Secretary.

SECRETARY'S OFFICE,

Toronto, 29th April, 1858.

RETURN of the Number of StillS in operation, the number of gallons of Proof Spirits manufactured, and the Amount of Duties on the same, in each of the Counties and Townships undermentioned, during the year 1857.

COUNTIES.	TOWNSHIPS.	NAMES OF DISTILLERS.	No. of StillS.	No. of Gallons.	Amount of Duties.			Total of Gallons.	Total of Duties.		
					£	s.	d.		£	s.	d.
BRANT	Brantford.	Charles Turner	1	48545	272	3	1	177515	1109	9	5
	do	Alexander Bunnell	1	110515	690	14	6				
	Paris	William Patton	1	9244	57	13	0				
	Glen Norris	Wallace & Stiel	1	7703	48	2	10				
	Brantford	Alfred Watts	1	6528	40	16	0				
CARLTON	Richmond	Robert Lyon	1	3945	24	13	1
	Bowmanville	J. T. Usher & Co.	1	12881	80	3	11	92050	168	17	3
do	John Burke	1	21877	136	14	8					
do	D. Sutton & Co.	1	13684	85	10	6					
Port Hope	John Lynn	1	6099	38	2	4					
do	E. Dodd	1	17877	111	14	7					
ESSEX	Clarke	George Elliott	1	19682	123	0	8	34494	215	11	11
	Amherstburg	C. McLeod	1	27017	168	17	3	125490	771	8	11
Sandwich	A. B. Sutton	1	7477	46	14	8					
FRONTENAC, LENNOX, AND AD- DINGTON	Camden	J. Johnson	1	6822	42	12	7	34494	215	11	11
	Loborough	W. Mace	1	10549	65	18	0				
	Fredsburgh	C. Clement	1	1014	6	7	0				
	Kingston	J. Morton	1	105251	645	6	4				
	Napanee	D. McPherson	1	1794	11	4	4				
				
				

HASTINGS	Sidney	J. F. Flindall	1	15777	98	12	2	188961	1149	15	2
	Frankfort	Thomas Jordan	1	21758	136	0	0				
	Belleville	R. Reid	1	125858	783	10	0				
	Stirling	Robert Kerr	1	3158	19	14	6				
	Trenton	G. H. Gordon	1	17910	111	18	6				
HURON AND BRUCE	Clinton	Rance & Brothers	1	6004	37	10	6	15524	97	0	6
	Egmondville	C. L. Nure Egmond	1	1175	7	6	11				
	Kincardine	F. Walker	1	5641	35	5	1				
	Goderich	Keeling & Co.	1	2704	16	18	0				
	Indiana	J. Kirkland	1	6880	43	0	0				
HALDIMAND	do	T. K. & W. Musson	1	7428	46	8	6	14308	89	8	6
	Chatham	J. & W. Northwood	1	4471	27	19	0				
KENT	do	S. & A. Alder	1	11372	71	1	7	15843	99	0	7
	Montague	Thomas Bourk	1	755	4	14	4				
LANARK AND RENFREW	Perth	R. Gemmill	1	1386	8	13	4	2141	13	7	8
	Prescott	Robert Riskey	1	109119	681	19	10				
LEEDS AND GRENVILLE	do	John Orichton	1	46715	291	19	4	258344	1614	13	0
	do	G. A. Payne	1	66222	413	17	9				
	do	J. P. Miser	1	27300	170	12	6				
	Maitland	J. McCarthy	1	8320	52	0	0				
	Augusta	D. Conway	1	668	4	3	6				
LINCOLN AND WELLAND	Chippawa	O. F. Macklem	1	169877	1058	12	1	204654	1279	1	9
	Grimsby	D. C. McMillan	1	10000	62	10	0				
	do	Garret & Freeland	1	10721	67	0	1				
	Stamford	James Warden	2	2855	17	16	10				
	Grantham	Brownlee & Co.	2	11701	73	2	7				
			44				1128209	£7088	16	10	

Carried over

RETURN of the Quantity and Value of MALT and SPIRITUOUS LIQUORS, imported into CANADA, in the year 1857, and the Amount of Duty collected thereon.

ARTICLES.	Quantity.	Value.			Duty.		
		£	s.	d.	£	s.	d.
Ale and Beer Gallons.	366361	25518	14	11	3880	0	9
Cordials..... do.	3286½	1297	18	7	809	13	6
Brandy do.	25591	18182	16	8	5118	2	6
Gin do.	99976	14215	10	8	17495	18	0
Rum do.	21725	3660	0	5	2444	4	1
Whisky do.	313551	84572	18	9	9798	13	9
Wine in Wood, £10 per pipe or under..... do.	51296	3747	2	0	2564	16	0
do over £10, and not exceeding £20..	58090	6207	14	7	3981	15	0
do over £20	105898	86816	19	5	10589	16	0
do in Bottles, Quarts.....Dozen	4757	8502	15	4	2452	6	7
do do, Pints. do	705	727	8	6	181	14	2
Total.....£	.....£	147899	19	10	59267	0	4

R. S. M. BOUCHETTE,
Commissioner of Customs.

INSPECTOR GENERAL'S OFFICE,
Customs Department,
Toronto, 28th April, 1858.

PRINTED BY ROLLO CAMPBELL, CORNER OF YONGE AND WELLINGTON STREETS, TORONTO.

RETURN

To AN ADDRESS from the Legislative Assembly of the 19th instant; for copy of the Report of the Exploration and Track laid out for the proposed Road from Buckland to the Kempt Road.

By Command,

(Signed)

T. J. J. LORANGER,

Secretary.

Secretary's Office,

Toronto, 28th April, 1858.

(Translation.)

Report of the Line surveyed for the south-west section of the projected Road from the Township of Buckland to Metis.

To the Honorable L. V. SICOTTE, Commissioner of Crown Lands, &c. &c.

SIR,—I have the honor to submit to you the following Report of my operations, accompanied by some remarks concerning the quality of the soil, the timber, &c., during my survey of the S. W. section of the intended road from the Township of Buckland to the Metis Road, entrusted to me in July last, in virtue of instructions from your Department, dated in the same month and signed by the Honorable E. P. Taché, then Commissioner of Crown Lands.

On 4th August, my travelling preparations being completed, I engaged my conveyances, and set out with my complement of men. We travelled by a road which leads from St. Jean and St. Roch des Aulnais, in the County of L'Islet, to the Elgin Road, now in operation in the Township of Fournier. From that point we followed the Elgin Road to the south-east extremity of the section, now open for travel.

I have pleasure in bearing witness to the merits of P. C. Fournier, Esquire, and Mr. Pamphile Verreault, who have been appointed, in the present year, to the superintendence of this road, and no less to the labors of those who preceded them in the management of the same work. It is indeed a work which does honor to those appointed to superintend its execution.

This road—meaning that part which was opened by Government—taking a straight direction over a flat country, affords through its excellent construction a ready and advantageous means of transit at all seasons of the year to the settler who is bold enough to hew his livelihood out of the virgin forest through which it passes.

Having on the 6th reached with my party the starting point indicated in my instructions between No. 20 and No. 21 on the same road, we commenced our labors, and made an exploration between the 3rd and 4th ranges of the Township.

of Garneau, in order to ascertain whether that section presented the advantages which you require for the twofold object of colonization and a favorable location of the line of road. But not judging very favorably of the land, considered with a view to settlement, and meeting at several points with low and swampy ground unfitted to be the site of a good road, I thought it right, even according to the letter of my instructions, to leave the right line and incline a couple of miles more to the south-east, where I fell in with what is unmistakably a superior soil, and where the swamp almost entirely disappeared which intersected the line first explored. I therefore established the line of the road in the section last mentioned, setting out from the Elgin Road between Lots 33 and 34, and continuing from the line bounding the rear of those lots on the concession line between the 5th and 6th ranges of the Township of Garneau as far as the Township of Arago, lying on the south-west side of it.

In deciding with Mr. Casgrain that, in order to sacrifice none of the advantages to be expected from this road, we would take the point of departure of each of our sections on the Elgin road, at the distance of about a mile from each other, we were influenced by the desire of saving the cost of a mile of road in one of the lateral lines nearest to the road in question.

In drawing the line between the 5th and 6th concessions of the Township of Garneau, and using it as that of the intended road, I divided it into sections of 13 chains, and planted line-pickets on each side, in order to make it a double concession line (*rang double*). I also planted mile-posts, in running the line, numbered from the Elgin road towards the south-west.

Throughout this whole line the land is worth clearing; the timber, which is commonly mixed, is of good growth, and indicates strong and vigorous soil. Cedar groves of considerable extent cover in many places low ground which would perhaps be difficult to bring into cultivation, but ground of excellent quality, and promising a rich return to the farmer.

No river of any importance intersects the line, until the end of the sixth mile; at that place there is one, not very wide, but deep, and carrying water enough to serve a saw-mill, should that branch of industry hereafter present any prospect of advantage to the settler in this district. It runs to the south-east, and is probably a tributary to the Black River.

Having now reached the Township of Arago, I visited the 3rd, 4th, and 5th Concessions, and always influenced by a desire of realizing all the advantages which you anticipated from the opening of the intended road, I again made choice of the Concession line between the 5th and 6th ranges as the line of my road, as being best adapted for the construction of a good road, and passing over the largest tract of arable land. I have therefore the great satisfaction of believing that three-fourths of the lots, adjacent to and abutting on the road, are suitable for agriculture, and await only the courage and the exertions of the settler to yield him an honorable livelihood. I drew the line between the Townships of Garneau and Arago, as far as the above mentioned Concession line, and while measuring it, planted mile-posts in continuation of the former part of my line.

I also continued my measurement on the frontier line, adopted as the line of road, refreshing the land-marks and renewing the line-pickets which had been displaced, as far as the north-east line of the Township of Patton. The land on this latter line is generally level, and well studded with timber of various kinds and excellent quality. There are not more than two hills in nearly nine miles requiring to be avoided, and the deviation does not greatly increase the distance. The country is well watered by numerous rivulets, besides a couple of rivers, one at the commencement of the fourteenth, the other about the middle of the eighteenth, each about fifty or sixty feet wide, intersecting the line of road. These will require

to be bridged, especially the first mentioned, at some expense. Their course is southward, and they are tributaries to the Black River. Both may be available, the former particularly, to float down timber to that river. A fine saw mill, built on one of the branches of the Black River, a powerful tributary to the St. John, by Mr. Joseph Faford de l'Islet, a young and enterprising Canadian, is already in operation about three miles higher than the first, where our road crosses. Here is an advantage usually long desired and needed in a new location: that, namely, of procuring readily and without great expense, the sawn lumber required in the erection of dwelling houses.

From the south-western extremity of this Concession line, I laid out and measured the line between the Townships of Arago and Patton, descending to a mountain situated at the point where it intersects the line between the 4th and 5th ranges of the said Township of Patton. I next explored the said Township, in order to make choice of the most suitable location for my line of road.

After the most exact examination of the front lines, passing near the line indicated, I concluded that the Concession line between the 4th and 5th ranges offered the greatest advantage for the opening of the road, besides being the most level. I therefore laid it out and measured it, setting out from the line between the Townships of Arago and Patton, from a picket on the south-east of the mountain before mentioned, indicating the commencement of a diagonal line near the line pickets between lots 2 and 3, and planted with posts duly numbered. We found on this line only one hill, to the west of the central line. This we were obliged to avoid, but the detour was effected on the north side, without greatly increasing the length of the road. Besides this we had another but smaller hill to avoid; and this we did by a detour of a few chains only. The remainder of the distance presented no serious difference of level, or rise of land to be considered as an obstacle to the formation of a good road. The line crosses no stream of a size to require expensive bridging. The largest being only thirty or forty links wide, and of such there are only two. The lands abutting on this road are, with slight exceptions, eligible for settlement. The soil is of a superior quality, though occasionally stony. The stones are generally silicose, but this vitrified earth has been fertilized by the admixture of a thick layer of vegetable matter, the product of the decomposition of plants, trees, &c.

The timber, generally mixed, but occasionally all hard-wood, is of fine growth. There is no swampy ground on the whole line.

Having reached the north-east line of the Township of Montmagny, I proceeded to explore it, and after examining the Concession lines between the 4th and 5th, the 4th and 3rd, and the 3rd and 2nd ranges, all mountainous and broken, I thought it my duty to select that lying between the 3rd and 4th ranges for the continuation of the projected road, as being that in which the inequalities might be most easily avoided, and perhaps the only one on which a good road could be made. Accordingly, notwithstanding the ruggedness of the ground in several places, I succeeded, after diligent search, in finding a tolerably favorable site.

Having measured upon the division line, between the Townships of Montminy and Patton, from the Concession line between the 4th and 5th ranges of the latter Township, a distance of 15 chains 23 links, I thence ran a diagonal line, irregular in its direction, to the Concession line between the 3rd and 4th ranges of the said Township of Montminy, for the purpose of avoiding a swamp of some extent, lying at the commencement of the range. From thence, I again left the main line, but kept near it by various deviating lines on the north, a distance of nearly a mile, to avoid several hills which lay in the right line. After these deviations, the country becoming more level, I resumed the right line, and followed it in my measurement, still avoiding a few elevations by rounding them, till I reached the line pickets, be-

tween the 26th and 27th lots, west of the Central Line, where I took a new departure, in order to fall on the north-east line of the Township of Mailloux, at the post planted between the 3rd and 4th ranges, with a view of avoiding a considerable mountain lying just in the main line.

This front line passes through and divides the Button Settlement. The land, although rough, is generally well adapted for cultivation, and the lots are nearly all taken up along the road. The hard wood predominates on many of them.

Clearings are found on all the lots, several of sufficient extent to afford subsistence to a family. The inhabitants residing in the two ranges abutting on the line of frontage, including a few in the adjacent ranges on either side, number one hundred. These settlers will in the present year reap a fair return for their labor, as the crops look well, if the autumnal frosts which occur so early in new settlements, do not destroy their hopes.

A pretty chapel is at this moment rising amidst the settlement, where the people already enjoy the consolation afforded by the occasional ministry of a missionary.

In addition to several saw mills already in operation in the district, there will soon be a grist mill, now actually being built over a good water power, in the centre of the settlement, which will for a long time suffice for the wants of the community.

My labors being concluded in the Township of Montminy, I made an exploration in that of Mailloux, in order to choose the proper location there, as in the other townships, for the continuation of my line.

As I could not follow the concession line between the 3rd and 4th ranges, on account of the lofty banks of one of the forks of Pine River, which crosses it in several places, I laid it out and measured it, from the south-west line of the Township of Montminy to the line picket between lots 43 and 42. From that point I ran a line cutting diagonally across to the line picket between lots 15 and 16 of the north-east range of Pine River, passing over excellent land, very level, and well timbered with mixed wood.

Having reached Nos. 15 and 16, I ran a line between them which I continued to the point where it cut the intended road in Mailloux to the Province line, and the concession line between the north-west and south-east ranges.

About midway in this last line, I fell in with the main trunk of Pine River, which may easily be bridged at small cost. This river, in which the water never fails, is, and has been, used to float timber, and thus becomes a great resource for the settlers who will hereafter establish themselves in the neighborhood.

The environs of this river are composed of alluvial soil; at some distance rise two steep mountains, one of which consists of irregularly lying vitreous rocks. This we turned by following a narrow pass which avoids it. From the road to the Province line, I laid out and measured the concession line between the north-west and south-east ranges, as far as the Township of Buckland, and planted mile posts. In re-establishing that line, I made several detours to avoid abrupt declivities which intersect it. There is, however, on the line a sharp ridge which I could not avoid; but it is of clay, very narrow at the top, and may, without any great outlay, be cut down and diminished.

The land throughout all this tract, is generally well adapted for settlement, and all the lots on both sides of the line are taken, except two or three which are situated on a swamp.

Several settlers have already commenced clearings, particularly as we approach the river called the North West River, and to the west of that, where the soil is of a superior quality, consisting of strong loam, formed by alluvial deposit.

The lands adjacent to the frontier line, where it is intersected by the river, have suffered much damage, for two years past, from an accumulation of logs, to the number of several hundreds, obstructing the current. These have produced considerable inundations and the submersion of many acres of land. It would be matter of regret if means were not speedily taken to clear the river, and allow it to resume its natural course. It is now divided into several small branches, laying waste and destroying a quantity of land valuable to the settler, both for grain crops and for hay. The undertaking has, however, now attained such dimensions, that it could scarcely be achieved by the small number of settlers at hand, without the assistance of Government.

I consider that £50 would be sufficient to aid the settlers in clearing and restoring the natural course of the river.

From the south-west line of the Township of Mailloux, I made an exploration in the Township of Buckland and made choice in the latter of the same Concession line which I had followed in the Township of Mailloux. I laid it out, measured it, and planted mile-posts; renewing the line-pickets as far as the Concession line between the 9th and 10th ranges.

A road already beaten and used by the settlers on this frontier line, in order to reach the Government road, will greatly facilitate the work, while it will diminish the expense. There are not more than two hills worthy of note.

The soil of this tract is of excellent quality, and covered generally with a growth of hard wood, in which the maple and birch predominate. The lots on the line are all taken and cleared to the extent of several arpents.

Three saw-mills and two grist-mills, built on this river, suffice for the wants of the population. A pretty chapel is being built.

Having reached the Concession line between the 9th and 10th ranges, I explored it as far as the line separating the 8th and 9th ranges, but, finding that it would be difficult to continue the road to that line without changing its direction, on account of the steep hills, I returned the same way (between the 8th and 9th ranges) to the road opened by the Government between Buckland and the Seigniority of St. Gervais, and found that there also it would be nearly impossible to carry my line; the adjacent lands being, moreover, ineligible for cultivation. I therefore concluded, with a view to the best interests of colonization, that it was advisable to adopt the Concession line between the 9th and 10th ranges, in order to effect a junction between my line and the road already opened from Buckland to St. Gervais. This I considered to promise the greatest advantages in respect both of a suitable location and the prospects of agriculture. The adjacent lands are all taken up, and promise by their excellent quality a rich reward to the settler. Extensive maple-groves, which cover the greater part of these lots, will become a source of wealth to their owners. Having laid out and measured this Concession line, along which the settlers had already broken a road, and deviated in two places from the direct line to avoid two hills, I made a regular survey of the Government road, from the point where it meets my line to its south-west terminus.

Notwithstanding the various changes of direction required to avoid the mountains and hills occurring in the direct line, I did not consider it my duty to alter the original subdivisions of the Townships which I traversed; first, because the deviations are of no great length; and next, because they generally occur on occupied lots, and pass through clearings. Moreover, except in two places only, some part of the lots in front of which these deviations occur, touches the Concession lines.

While completing the final section of my survey and exploration, I was much gratified to find proofs of the great convenience of the road, opened at the expense of the Province, from Buckland to St. Gervais. In fact, no money grant

of the Government has done so much for the cause of colonization. The road has been made with great care, and it already gives access to the clearings of a hundred settlers in the Townships of Mailloux and Buckland. Hereafter, when it shall have become a main artery or high road of communication, it will be trodden by thousands who are destined to clear and cultivate the now waste lands of the Crown, which await only the axe of the sturdy woodman to pour forth their hidden wealth.

How many thousands who now languish in town and country, destitute both of bread and the means of rearing their families, might find on these lands, so little known yet so near at hand, a comfortable and a respectable subsistence!

My labors being closed, I proceeded to St. Charles, and, with my party, returned home by the Railroad.

I have the honor to be, Sir,

Your obedient, humble Servant,

L. G. FORTIN,

Surveyor.

L'Islet, 18th February, 1858.

Report (1) by Mr. E. Casgrain, Provincial Surveyor, of the survey of the central south-west section of the intended Road, on the south side of the St. Lawrence, from the Township of Buckland to the Metis or Kempt Road.

PRELIMINARY REMARKS.

The intention of the survey of this grand line of communication being to determine the most suitable site for locating a road important to the colonization of the waste lands of the Crown, in rear of the Seigniories on the south shore of the St. Lawrence, my first aim was, as far as practicable, to give my line such a direction that it might pass through the lands most suitable for agriculture, and next, that it might render such lands acceptable to the pioneers of the wilderness, by an easy, free, and unencumbered road, freed as far as possible from the obstruction of mountains, swamps, ravines, and rivers.

For this reason, I was unable to adopt as my starting point, from the Elgin Road, the picket 20 and 21 as I had been recommended to do: for having explored the land in the environs in company with Mr. Gaspard Fortin, Provincial Surveyor, with whom I was to act, in selecting a point of departure for the operations of both, I came to a conclusion with him that the thing was nearly impossible, and not conducive to the end proposed in making the line. Giving up this point, therefore, I had to find a more favorable one, and adopted one on the division line between lots 26 and 27, and on the Concession line between the 4th and 5th ranges of the Township of Garneau on the Elgin Road.

TOWNSHIP OF LAFONTAINE.

From my starting point on the Elgin Road to the Western side line of the Township of Lafontaine, is a distance of eighty-three chains; and taking my departure from that road at the division line between lots 26 and 27, I took a course N. 45° E. five miles, finding almost uniformly, on both sides of my line, a rich,

(1) This Report is divided into sections, each of which relates to a separate Township, as the same is intersected by the survey in question. It was executed in obedience to the instructions of the Hon. E. P. Taché, then Commissioner of Crown Lands, signed by him at his office in Toronto, 17th July last.

level country, covered with large groves of maple. I thence continued my line by a diagonal of three miles N. 39° 30' E. in order to avoid some steep hills, rocky ground and a swamp. By this diagonal I reached the front line between the 3rd and 4th ranges of the Township of Lafontaine, at the picket between lots 44 and 45, being the point indicated on the plan delivered to me, by which the intended line of road was to pass. Here I found land unfavorable for colonization, but very favorable to the surveyor and to the colonization of the proposed road. From the last mentioned picket, following the front line of lots 44 and 45, I arrived, by a course two miles in length, at the side line of the Townships of Lafontaine and Chapais. In this part of the Township of Lafontaine, the land is generally level and susceptible of cultivation, one half being of good quality, but the line is intersected by a swamp about ten chains across, and two small fordable streams—the banks of which are of no great height. Besides the maple groves which I before noticed in this Township, the timber is not very abundant. It consists generally of tamarack, birch and white birch (*bouleau*.)

TOWNSHIP OF CHAPAIS.

From my last course, I drew a diagonal line N. 42° 15' E. the whole length of the Township, to strike the lower part of the 3rd range at the western side line of the Township of Painchaud. I found in the first four miles a stony soil, but little adapted for cultivation; on each side were mountains running from east to west, and a few lots of good land made accessible to settlers by the opening of the Government road which intersects my line in this Township. In the four miles mentioned, the most common wood is white birch (*bouleau*), a second growth springing up after the fires which have destroyed the forest in this neighbourhood; but to the east of this first section, advancing towards the Township of Painchaud, the soil is generally good, level, and covered with fir, white birch, (*bouleau*), birch, tamarack, and a small quantity of maple. This Township is watered by four small rivulets, which may be crossed on foot and have low banks. My line crosses these, and passes along two small lakes in the Township, in which no serious obstacle exists to impede the construction of the road.

TOWNSHIP OF PAINCHAUD.

Having arrived at the western side line of the Township of Painchaud I advanced about fourteen arpents to the south-east along that line, in order to reach the concession line between the 6th and 7th ranges of the Township. On this line I continued the whole breadth of the Township without deviation, except in the places where it was necessary to avoid a small hill, and a large mountain covered with magnificent maples.

The Government road to Mount Carmel, which is extended to East Lake, in the south-west part of the Township, intersects my line. The soil in the south-western part of Painchaud is in general free from rock and sufficiently level, until we arrive at the large mountain just mentioned, about forty arpents from the eastern side line of the Township. The land is well timbered with spruce, fir, cedar, and birch on both sides of my line. In the whole Township I found only two small fordable streams, easy to be crossed.

TOWNSHIP OF CHABOT.

From my last stopping place, I continued my survey in the same direction to a distance of about sixty-five chains on the south-east of a rocky mountain lying east and west, after which I diverged obliquely to the north, a distance of two miles. I next ran 35 chains north, 45° west, after which turning north $31^{\circ} 15'$ east I ran a diagonal line to the concession line between the 4th and 5th ranges of the Township. This line I followed sixty-five chains to the south-west side of a large mountain, meeting one declivity of 5° to 15° inclination in a distance of twenty-five chains, and a fordable rivulet of about fifty links in width.

At the end of the sixty-five chains, I deviated to the northward, but returned after making a slight curve, and continued my line along the southern side of the mountain as far as the central line of the Township. From that point I kept the right line five miles, till I reached the side line of the Townships of Chabot and Pohenegamook. About sixty chains west of the latter Township, I fell in with a fordable river forty links wide, where my line crossed it.

A rather remarkable circumstance is the absence of water-power in the whole line which I traced, while in the Township of Chabot the two streams which water it—one of them in particular—supply many water privileges, a perfect series of waterfalls, and offer to industry wherewith to compensate for the poverty of the soil, in all the south-western part of the Township. No doubt the opening of the road would be both expensive and difficult to execute. Near the first river, the mountains are considerable, and run to the south-east. This fact explains the diagonals which I had to adopt, to avail myself of a pass between the mountains. As to the north-east part of the Township, with the exception of two rather considerable hills, on the mountain, the ground is level, rich and productive; the timber is fine, consisting of cedar, fir, spruce, and extensive groves of maple, covering the large mountain and a part of the valley near the central line.

TOWNSHIP OF POHENEGAMOOK.

From the last point reached by my line of exploration I continued taking a straight course N. $14^{\circ} 45'$ E. to the front line between the 4th and 5th ranges, a distance of three miles and a quarter. This line corresponds with that of the same range in the Township of Chabot. Having attained this line, I struck northward, to avoid a declivity following a narrow pass which brought me back to the front line, and likewise to the Government road from St. Alexandre to the interior. I found in the Township three small streams, which were all fordable. The soil is rich and the land level and generally well wooded with cedar, ash, birch, fir, and spruce. This road being the terminus of the section entrusted to me, I here terminated my operations, having commenced my survey on 31st July, and ended it on 3rd October.

A reference to my journal of exploration and to the plan of the line, annexed to this report, will show details too minute to be particularized here, but useful to reconcile the general conclusions of my report with the observations and explorations made on the spot.

In order to a better acquaintance with the soil and the timber, I frequently explored the country on both sides of my line, and this enabled me to collect more certain information.

The better to fulfil my instructions, I divided a great number of lots in the Townships of Lafontaine, Chapais, and Chabot, and also planted posts at each mile of my line.

Before closing this report I should mention, that from the Elgin road to the

terminus of my line, I did not meet with any thing that could be considered as an obstacle to the opening of this great line of communication. On the contrary, every thing concurred in facilitating its execution, the land was generally level and but little broken, the rivulets all fordable, and the whole country favorable to the hopes of the agriculturist and the settler.

The whole humbly submitted.

(Signed,)

E. CASGRAIN, P. S.

L'Islet, 28th January, 1858.

GENERAL REPORT of the Exploration and Survey of the North East Central Section of the intended Road from the Township of Buckland to Metis.

To the Honorable L. V. SICOTTE, Commissioner of Crown Lands.

SIR,—In conformity with the instructions received from your Department, dated 21st July last, I have the honor to transmit to you the following report of the results of the works entrusted to me, together with a few remarks relative to the quality of the soil in general, the timber, rivers, &c., and a general statement of the apparent level of the whole section assigned to me.

Having, on 12th August last, left St. Jean Port Joli, accompanied by my party, I proceeded by water as far as Trois Pistoles, and then by land with Mr. Belanger, Surveyor, to St. Simon, in rear of which Parish I was to commence my exploration.

After forwarding our joint stock of provisions and baggage to the extremity of the road made by the Government in rear of St. Simon, we applied ourselves to the clearing of a road to the Concession line of the Seigniory of Rioux, in order to send on our provisions. This clearing might be considered as an exploration for the lengthening of the St. Simon road. The work occupied us several days, in consequence of the particular attention which it required, to avoid various hills and low lands, in which the construction of a road would have proved an expensive work.

Having, with some difficulty, jointly established a common point of departure, a mile from the rear concession of the Seigniory of Rioux, I commenced my survey by going south-west, marking off sections of thirteen chains perpendicular and planting mile posts numbered from the starting point, towards the west.

As it appears in the plan annexed hereto, I was frequently obliged, by the nature of the ground and other causes, to change the direction of my line, sometimes to avoid a mountain or a lake, sometimes to cross a river at a place favorable for the building of a bridge.

In the different Townships which I crossed, I was careful before locating my line to make a minute exploration of the various concession lines nearest to the general direction indicated in the diagram appended to my instructions; and in the unsurveyed Townships, I moved across them in various directions, and selected those places which seemed most suitable for colonization and the formation of a good road.

TOWNSHIP OF BEDARD.

The soil of the first five miles in this Township is generally sandy, poor, more or less stony or gravelly, and almost every where mountainous and rocky. Yet, though the chain of clearings must here be broken (except on a few strips of good

land) the well timbered lands allow the road to be continued through the unfertile tract. As to the remainder of the distance in this Township, my line passes over arable land, in some places of considerable extent. In certain spots, the hard wood lands alternate with wooded hollows of excellent quality, well worthy of the labor of the settler.

TOWNSHIP OF BEGON.

From the division line between this Township and that of Bédard, I followed the concession line between the 7th and 8th ranges as far as the River Boisbouscash, a distance of three miles; but as the continuation of the road on this line did not promise the same advantages which another direction presented, I considered it right to cut diagonally across the eighth range of the Township: first, to avoid a large cedar swamp and a considerable mountain reaching to the river Trois Pistoles, and in the second place, to follow a magnificent maple grove which extends as far as the centre of the Township of Denonville. In following this maple-bush, the soil of which though sandy is admirably adapted for colonization, I occasionally changed the direction of my line, in order to round or avoid considerable hills, the sides of which bear hard timber.

In this township, the road crosses two rivers of considerable volume: one, the river Boisbouscash, which in its winding course waters an alluvial belt of land of varying width very admirably adapted for colonization, as appears by the settlements already commenced lower down the stream, a branch of the river Trois Pistoles; the other, the river Trois Pistoles itself, which divides the Townships of Bégon and Denonville, carrying a considerable body of water, increased by different streams which fall into it, among them the river Saniscoop. On each side of the river Trois Pistoles rise lofty hills mostly covered with maples, the interval bordering on the river is of considerable extent and very favorable for agriculture, consisting almost every where of rich alluvial land covered with beech, cedar, ash, elm and pine timber.

TOWNSHIP OF DENONVILLE.

After leaving the River Trois Pistoles, I took a more southerly direction, dividing the Township diagonally on the 7th range, and passing through some fine settlements commenced last year, on Lots Nos. 2, 3, 4, 5, and 6. The produce of these clearings in the last year are amply sufficient to encourage the settlers to future exertions. One of these settlers, who occupies Lot No. 5, reaped 1,800 sheaves (*gerbes*) of all kinds of grain, the produce of fifteen bushels and a half of seed, and expected to have 400 minots net of grain.

The neighbors, although less advanced, are also very well satisfied with their harvest. Having reached Lot No. 13, I again followed the Concession line between the 7th and 8th ranges, as far as the division line between this Township and that of Viger. Before arriving at that line, I observed on the four last lots some commencement of clearing, as far as Lot No. 23 of the Township of Viger.

The soil, generally level, or slightly undulating throughout the Township, and particularly on that broad belt between the Rivers Mariakèche and Toupiquée, both flowing south, is generally composed of rich marl.

The timber most commonly met with is maple and birch, in considerable quantities. Here and there we fall in with low land, covered with cedar of good quality, but occasionally the land is stony.

TOWNSHIP OF VIGER.

Without mentioning the clearings already commenced in this Township, above mentioned, or the land east of the River Mariakèche, intersected by the line, I followed the Concession line between the 8th and 9th ranges, laying it out with stakes in order to retrace and measure it.

The soil, from the Township line to its centre, is absolutely the same as that which I have already described in the preceding Township; but there the scene changes, the ground is more unequal, although the line of road is generally level; the soil is sandy and ledgy. The timber, which consists of fir, spruce, and pine, the best of which has been cut, is mostly of small size. Occasionally the cedar is met with in the low grounds; and those spots, though more difficult to clear, will yield greater profit to the settler.

TOWNSHIP OF WHITWORTH.

Setting out from the division line, between this and the Township of Viger, having explored the country, I ran a diagonal to the Concession line between the 8th and 9th ranges, on lots Nos. 15 and 16, and then, taking a direction nearly south, I coasted Lake St. Francis, regulating the distance from its shore by the nature of the ground. Afterwards, taking the River St. Francis as the main base of my operations, I followed it as far as the 42nd mile, when I struck the division line between the 12th range of Whitworth and the intended Township of Armand, on lot No. 29 in Whitworth.

In running this last mentioned course, I fell in with the old Temiscouata road, at the post occupied by M. B. Fournier, and in the 40th mile, I followed the new road to some distance. The nature of the soil, from the north-east boundary line of this Township to the post planted between the 38th and 39th miles, is generally favorable to agriculture, consisting almost everywhere of an alluvial of the finest quality. I need not remark that such a soil is the most highly prized by the agriculturist; this is shewn in the clearings already commenced in that neighborhood, a presage of what may be expected, when a road shall have been made, to facilitate communication with these lands.

Excepting the thirty-seventh and thirty-eighth miles, the soil of which is sandy or rocky, and the surface broken, rough, and unfit for cultivation, the Township generally may be pronounced not only fit but favorable for agricultural purposes.

TOWNSHIP OF ARMAND.

The line of road in this Township follows the river St. Francis, with some deviations as to distance from its banks, crossing several small rivulets flowing into it, and coasting a small lake which abounds with fish in the fourth range. This I surveyed. The line then follows a small river, running through a narrow bottom, between lofty mountains, to the division line between this Township and that of Pohenegamook, and continues with it in the latter Township, until the rivulet falls into the St. Francis, in the second range of the Township of Pohenegamook.

The surface of this Township, which is yet unsurveyed, is generally undulating, frequently mountainous, and even the hills are of considerable height, though their summits are rounded, and their sides as well as the valleys separating the ranges are often clothed with a fine growth of hardwood and trees of the

pine tribe. These valleys are however generally narrow, and cut up with ravines. The soil is mostly sandy, except that of the valleys, where a stronger staple is met with, very superior in quality.

This Township (at least the portion of it which I have visited) will not be so easy to settle as those above described; and, although the land is generally good (with few exceptions), it is not reasonable to expect that we are not to meet with some spots, the soil of which will fail to be cultivated for the present—perhaps for ever. The settler will always prefer a poor soil to a broken country provided it is generally level.

TOWNSHIP OF POHENEGAMOOK.

Leaving the division line between this Township and the unsurveyed lands to the north-east, I followed, as before mentioned, a small river, and, having reached Lot No. 42, I crossed the St. Francis; I again began to follow the high bank of that river to the south-west, as far as Lot No. 34, where I commenced the ascent of the bank by a long slope, to be described in the next chapter.

Having reached the top of the bank, I fell in with the concession line between the 4th and 5th ranges, which I followed to the St. Alexandre road. The River St. Francis issues from the lake of the same name, and runs into Lake Pohenegamook, supplying two other lakes, and then falls into the Great River St. John. From its source, it is buried between high lands, generally timbered with hard wood. This river, of no extraordinary width, is generally of good depth, and navigable for canoes as far as the River St. John, and thence as far as the head of Lake Temiscouata.

The surface of this Township, although undulating and sometimes mountainous, is composed of an argillaceous, occasionally of a sandy soil. On the declivities it is light, and mostly covered with hard wood. Along the River St. Francis there is a belt of alluvial soil of undoubted excellence, unfortunately in some places it is narrow. It may be said generally, that the soil of the Township except the hills, is favorable to colonization. Taken collectively, the several Townships which I have traversed in my exploration of the north-east central section, contain a great deal of land suitable for colonization, and some of them are remarkable for the advantages they present to the settlers, in respect of soil, situation, and natural resources.

GENERAL SKETCH OF APPARENT LEVEL.

By the terms "general sketch of apparent level," I mean the unavoidable hills which I was obliged to surmount, and of which I have not yet spoken. In a distance of $55\frac{1}{2}$ miles, which I surveyed and laid out, it would not be reasonable to expect to find a perfectly level road. Notwithstanding a prolonged research, sometimes occupying a long period, I was occasionally obliged to ascend slopes more or less steep, sometimes to surmount or descend a hill, sometimes to effect the crossing of a river, or to avoid a swampy bottom, which might have greatly increased the expense of making the road.

From the starting point at the commencement of my line to the Township of Bédard, the road passes over level ground, and we meet no hill (likely to increase the cost of making it) till the 4th mile, where it crosses the head of the River Boisbouscash. Continuing the line, we meet with no hills, a few undulations excepted, till the tenth mile, on Lot No. 14, where we fall in with high

ground of a few chains in width, not considerable enough to be a hill, and not likely to increase the cost of the road. I have not however thought fit to omit mentioning it, as I wish to give a clear perception of the elevations and depressions in this part of the line.

Still following the line traced on the plan annexed to this report, we come in the nineteenth mile to the River Trois Pistoles, the north-east bank of which forms a hill of greater height than any on the whole line surveyed. This hill, composed of earth, with an inclination of 10° to the west in a width of three arpents, will require to be cut down some feet. The south-west bank of the same river, which is much less rapid, and which has an inclination of 7° nearly, will not greatly increase the expense of the road. Both will be such hills as we meet with very commonly in the roads along the River St. Lawrence.

After this we continue the line over ground which is generally level to the twenty-seventh mile, on Lot No. 37, of the Township of Viger. Although the north-east bank of the River Mariakèche, which we here cross, is not a very abrupt declivity, the south-west bank will require to be cut down a length of two arpents to a depth of six or seven feet.

With the forty-third mile another hill commences, which, though it will not add to the expense of making the road, should nevertheless be noticed. The declivity is in length three arpents, and forms an elevation of about 9° .

Following the same line, we arrive at the 45th mile, nearly between Lots Nos. 44 and 45 of the Township of Armand. This hill, having an elevation of 15° in a length of $3\frac{1}{2}$ arpents, with a slope of about 1 foot in 6, will cause a considerable increase in the cost of the road.

Arriving afterwards at the commencement of the 54th mile, we meet the foot of an incline on the south-east side of the River St. Francis, which has an elevation of about 9° in a distance of about half a mile. This incline, though not excessively steep, will require in some places an increase of labor, and therefore of outlay, in making the road.

We now follow the Concession line between the 4th and 5th ranges, and, although the land slopes to the west, and with some steepness, in two places, I however kept the front line, being less able to attend to the natural obstacles in this part of the line, on account of the failure of our provisions.

My labors being completed, I made my way by the St. Alexandre road to the 4th range in that parish, where I engaged carters to take me and my party, baggage, &c., to St. Jean Port Joli, where I arrived on 16th February last.

The whole respectfully submitted.

I have the honor to be, Sir,

Your very humble and obedient Servant,

(Signed)

C. A. VERREAULT,

Surveyor.

St. Jean Port Joli, 22nd March, 1858.

REPORT of the Exploration and Survey of a Colonization Road, from the St. Simon Road continued to the Kempt Road.

To the Honorable the Commissioner of Crown Lands.

SIR,—In conformity with instructions from the Department of Crown Lands, dated 22nd July, 1857, for the exploration and survey of an intended colonization road from Buckland to the Kempt Road, I explored and made a survey of a suitable line, and I have the honor to make a report relating to the north-east section thereof.

Jointly with Mr. Verreault, surveyor, I continued the St. Simon road to the division line between the Seignioriy Nicolas Rioux and the Crown Lands, being guided by a line of exploration formerly made.

Having explored the country east and west, we ran a line 80 chains and 80 links in length to the south of the division line in a south-east course. At the end of that line we separated: Mr. Verreault going to the south-west, and I to the north-east. In the first ten miles, I found the land gently undulating and mostly of superior quality. Between the first quarter of the second mile and the termination of the third, I encountered a hill of considerable extent but easy ascent; after passing which a short distance, I deviated from the direct line in order to avoid a lake known as the Lac de Vingt-quatre Arpents (twenty-four acre lake) lying N. N. E., nearly two miles in length, and extending beyond the division line between the Seignioriy of Nicolas Rioux and the Crown Lands. This compelled me to continue my line in a south-east direction nearly half a mile; here I fell in with a large hill which I found no means of avoiding by rounding it on either side; it extends several miles to the S. E. and N. E. In order to render the road practicable, it will be necessary either to form an embankment at the foot or to change the direction of the line by lengthening the eighteenth section to the north. The latter alternative would require terrace work, or the formation of the road along the side of the declivity by removing the earth on the one hand and using it for embankment on the other. The cost would not exceed that of embankment, and it would render the ascent and descent much more easy.

As far as the commencement of the fifth mile, my line took a general direction to the S. S. E. over several sections, in order to avoid different little rocks and hills. From that point a direction nearly N. E. through a hard-wood country, and over the same kind of soil, with but little variation. On the S. S. W. lies a large swamp covered with black spruce and cedar, and there are several small lakes. This easterly deviation was made in order to avoid the large Lake des Baies, and several others of less extent.

There is on the plan a line commencing on lot No. 28, and going N. E. rather more than a mile and a quarter to a tongue of land of superior quality. This line I abandoned, because it led to the shore of the large Lake des Baies. I nevertheless subdivided it into regular lots of thirteen chains frontage each. The tongue of land is about two miles in length, and runs out into the lake.

Between Lake des Baies and the Lake or expansion of the River à la Truite, there is a tongue of land which I did not find of sufficiently good quality to carry the road there. I therefore crossed the river, which falls into the Lake des Baies, and continued my line to the east, by zig-zag lines beyond River à la Truite, for the purpose of avoiding small rocks and cedar swamps. From thence I continued in a line having a general bearing N. E. between Lake à la Truite and the river of that name where the soil is generally good to the end of the tenth mile. From the eleventh mile to the river Rimouski at the commencement of the eighteenth, the country is mountainous and rocky and the soil dry, with few exceptions, when for short distances it is of superior quality. After the eighteenth and nineteenth miles, the soil is generally good, this quality extending a good way towards the south and south east, and towards the east as far as the small Lake Macpés, shewn on the plan.

I should observe that all the lakes in the Townships of Bedard and Chenier have not been surveyed, but only sketched on the plan, according to the general idea which I formed of them as I explored this country.

In the Townships of Duquesne, Macpés and Fleuriau, I made a survey of the

lakes in the two ranges, on each side of the line, in order to deduct the several portions of their area from the lots on which they lie. Of the lakes in the Townships of Bedard and Chenier I made no survey, because those Townships not being yet surveyed, and the rear lines not being drawn, it was useless to ascertain the extent of them, as it is useless yet for some time to survey the Townships themselves.

From the twentieth to the twenty-fourth mile inclusive, in Duquesne and Macpés, more than half the land is bad: that is to say, towards the Government road in Macpés on the twenty-sixth lot; but the north-east part of the road in Macpés passes over land of superior quality, generally well-timbered with hard wood. In the township of Neigette the soil is of superior quality, almost without exception, and the prevailing kind of timber is birch, maple, and white birch (*bouleau*). In the Township of Fleuriau, although we meet with a few hills and several small lakes, the soil is really excellent throughout its whole extent, and seems to be of the same quality to a great distance southward.

Beyond the Montloring road, going to the north-east, as far as the Township of Chabot, a great number of lots are occupied by squatters, and those which are not will be squatted on next spring; for many settlers came and asked to have their names entered for lots, and were refused as not being squatters, and because I apprehended a design of making them a means of speculation. I find the names of several of these persons in my journal of exploration, as applicants for lots to settle on.

In the Township of Chabot, the land north of the line is altogether occupied by squatters, who were absent when I was there. The line crosses the River Rimouski, above the Big Falls, at a place which might easily be made fordable by improving the rocky bed of the river. At a short distance to the south, the river is very deep, and might be crossed by a ferry, until a bridge could be built.

In the Township of Fleuriau it will be absolutely necessary to build a bridge over the Red River, when the road is made, as also to lower the north bank, where a culvert must be made. The bridge must be of 40 feet span, besides abutments. The river Metis, where it is crossed by my line, is three chains and three links wide, and its banks are eight feet in height above the water line; they are of loamy friable earth, always wasting. The bed of the river is rocky, and I believe it is fordable at low water. When the river is full, it might be crossed in a scow, until a bridge can be built.

In the Township of Fleuriau, at the 191st and 192nd section of my line, followed the line of a new road from Kempt to Restigouche, made by F. Baillargé, Esquire, Surveyor, by order of the Department of Public Works. The courses which I followed are on part of No. 69, Nos. 70 and 71, and part of No. 72. This part of my line is near the river Paquet, and extends to the river Metis on the Fief Theberge, near the division line between the Fief and the Crown Lands, and the road will be of use to the squatters, and as far as it goes, that is to say from the River Metis to Lot No. 72, will render the colonization road unnecessary.

The Department will find, on examining my field notes and report, evidence of the excellent quality of most of the lands lying near the line of road. It will also be found that the surest means of developing the resources of the country would be the continuation and completion of the several Government roads which lead to the line run by me.

I must here, with a view to save much minute investigation, call the attention of the Department to an error which has slipped into the addition of the measurements in the 21st mile: that measurement was effected in stormy weather, and the twentieth mile was made to contain no more than 70 chains.

The line run from the St. Simon road continued to the Kempt road is 51 miles, 58 chains, and 70 links in length.

The whole nevertheless humbly submitted.

(Signed,)

E. BELANGER,
Provincial Surveyor.

A true copy of the originals remaining of record in the Department of Crown Lands.

L. V. SICOTTE,
C. of C. L.

Department of Crown Lands,
Toronto, 27th April, 1858.

TORONTO:

PRINTED BY JOHN LOVELL, CORNER OF YONGE AND MELINDA STREETS.

R E T U R N

[IN PART]

To an Address from the Legislative Assembly, of the 7th ultimo, for Statement of Cases before Superior and Circuit Courts for last three years.

By Command.

T. J. J. LORANGER,

Secretary.

SECRETARY'S OFFICE,

Toronto, 13th August, 1858.

NOTE.—*The above Return was ordered, by the House, not to be printed, in accordance with the recommendation of the Standing Committee on Printing.*

PRINTED BY ROLLO CAMPBELL, CORNER OF YONGE AND WELLINGTON STREETS, TORONTO.

R E T U R N

To an Address from the Legislative Assembly to His Excellency the Governor General, dated the 2nd instant, praying his Excellency to cause to be laid before the House, "A Statement of all causes in which judgment has been rendered in this Province, which, within the last three years, have been carried before Her Majesty's Privy Council; of all those in which Judgment has been given by the Privy Council, showing whether the Judgments have been confirmed, reversed, or modified; moreover, of all those in which the parties have given the recognizances required by Law, but in which the Records have not been transmitted to the Privy Council; and lastly, of those causes in which the parties have obtained leave to appeal, but in which they have not given the recognizances required by Law."

By Command.

T. J. J. LORANGER,

Secretary.

SECRETARY'S OFFICE,

Toronto, 12th June, 1858.

A RETURN, shewing the Cases argued and determined in the COURTS of UPPER CANADA, appealed to the QUEEN in PRIVY COUNCIL, during the last three years.

Bowes, }
vs. } Judgment of Court of Error and Appeal, affirming Decree made in the Court of Chancery, affirmed.
City of Toronto. }

Gilmour, }
vs. } Judgment of Court of Error and Appeal, affirming Judgment of the Court of Common Pleas, affirmed.
Supple. }

My books do not shew any cases in which leave has been given to appeal, and the parties have failed to give the Recognizances as required by law: nor any in which such recognizances have been given, but in which the Records have not been transmitted to the Privy Council.

A. GRANT,
Clerk,
Court of Error and Appeal.

Dated, 10th June, 1858.

STATEMENT shewing the number of Cases decided in the COURT of QUEEN'S BENCH for LOWER CANADA, (Appeal side,) in which an Appeal to Her Majesty's Privy Council has been granted, since the 1st July, 1858.

Moffatt, Appellant and Bouthallier, Respondent.	No Recognizance given.		
Freligh, <i>et al.</i> and Seymour.	No Recognizance given.		
Freligh, <i>et al.</i> and Seymour.	No Recognizance given.		
Triggs, <i>et al.</i> and Geoffiney.	Recognizance given	Transmitted to Privy Council	Dismissed in default of proceeding within 3 months from date of filing.
Jackson, <i>et al.</i> and Jones.	Recognizance given.	Abandoned	
Moreau, <i>et al.</i> and Fisher.	No Recognizance.		
Beaudry and The Corporation of Montreal.	Recognizance given.	Transmitted	Affirmed.

STATEMENT shewing the number of Cases decided in the COURT of QUEEN'S BENCH, for LOWER CANADA, (Appeal side,) &c.—
(Continued.)

Poulin	No Recognizance.		
and La Fabrique de la Paroisse de Ste. Famille, Isle d'Orleans.			
Montreal and New York Railroad Company	No Recognizance.		
and Gilbert.			
Quebec and Richmond Railroad Company	Recognizance given	Transmitted	Pending before Her Majesty.
and Quinn.			
Honorable S. Gale	No Recognizance.		
and Desrivieres, <i>et al.</i>			
Judah	Recognizance given	Transmitted	Pending.
and McCarthy.			
Honorable Rolland	No Recognizance.		
and Lamothe.			
The Solicitor General .....	.....	Abandoned and discontinued.	
and People's Building Society.			

David	No Recognizance.		
and Thomas.			
Stuart	No Recognizance.		
and De la Gorgendière.			
Shaw	Recognizance given	Transmitted	Pending.
and Geffery.			
Thibardeau	No Recognizance.		
and Lee.			
Gilmour	Recognizance given	Transmitted	Pending.
and Minor.			
Honorable Rolland	No Recognizance.		
and De la-Kandière, <i>et al.</i>			
Moreau	Recognizance given	Transmitted	Pending.
and Motz.			
Frelich	No Recognizance given.		
and Seymour.			

STATEMENT shewing the number of Cases decided in the COURT of QUEEN'S BENCH for LOWER CANADA, (Appeal side,) &c.—
(Continued.)

Desvoiau and Pâton, <i>et al.</i>	No Recognizance given.	
Merizzi and Bélanger.	Recognizance given	Period for transmitting record not yet expired.
Baron de Lafrenière and Gubbart.	Recognizance given	Period for transmitting record not yet expired.
Wilson and Brash.	No Recognizance.	
McGillivray and Montreal Assurance Company.	Recognizance given	Transcrit sous presse.
Price and Burstall.	Recognizance given	Transcrit sous presse.
Laporte and The Ordnance Office.	No Recognizance.	

Stuart and Blair.	No Recognizance.	
Scott and Paquet.	Recognizance given	Period for transmitting not yet expired.
Scott and Scott, <i>et al.</i>	Recognizance given	Period for transmitting not yet expired.
Mullins and McDonald.	No Recognizance.	
Black and Beaubien.	No Recognizance.	
Lalouette, <i>et al.</i> and Delisle, <i>et al.</i>	No Recognizance.	
Languedoc and Lavolette	No Recognizance.	

(Certified.)

J. H. BEAUDRY,
Clerk of Appeals.

MONTREAL, 8th June, 1858.

PRINTED BY ROLLO CAMPBELL, CORNER OF YONGE AND WELLINGTON STREETS, TORONTO.

R E T U R N

To an Address from the Legislative Assembly of the 19th April, 1858,
for Copies of Documents relative to closing of School of Navigation, estab-
lished in Quebec.

By Command.

T. J. J. LORANGER,

Secretary.

SECRETARY'S OFFICE,

Toronto, 3rd May, 1858.

(Copy.)

NAUTICAL COLLEGE,

QUEBEC, 13th July, 1854.

Sir,—The conclusion of the first year that the Nautical College has been in operation seems a fitting occasion to present, for the inspection of His Excellency the Governor General, a report of its proceedings. As the use of such a report will be to supply materials for judging of the extent to which the institution is fulfilling and promises to fulfil its objects, it will be right for me to explain what such objects properly are.

The objects which a place of nautical instruction can be conceived to propose to itself, are three:—

I.—To instruct in the scientific parts of their profession persons already occupied in a sea-faring life.

II.—To train for the position of officers young men or boys who have not served at sea.

III.—To rear up working seamen.

(I.)—Of Schools having in view the first of the objects above named, there are numerous examples in England. At Portsmouth there is the Royal Naval College for the improvement of Captains and Naval Officers in the Royal Navy, and at the great trading ports there are adult nautical schools, always well attended by merchant officers and seamen. I regard these establishments of unquestionable advantage to the mercantile marine, and through them to the country at large.

(II.)—Of schools for the furtherance of the second object, there are not in England, at present, that I am aware of, any examples worthy of note. The Naval Schools of Greenwich and New Cross obtain the name "Naval" rather from the origin than from the destiny of the pupils. They were instituted not to make

officers and seamen, but to educate the children of officers and seamen; and although most of the boys take to the sea, it is not from this circumstance that they derive their name, or on this account that they are maintained. I mention this fact only to account for the large number of pupils that these schools accumulate in a country where the orphans of seamen must be numerous, and not for the sake of leading to the inference from the example of England, that a school for rearing young sea officers is a useless institution. On the contrary, I regard the absence of such schools in England as a serious defect, and by no means worthy of imitation. The most perfect idea of a Nautical School having for its object that of rearing boys to become officers, is a union of the drilling on board a sea-going ship in the summer with study on shore in the winter.

There are however objections to the plans as regards Canada.

We are not yet in a position to guarantee that boys so educated will afterwards find suitable employment at sea; employment, that is, in which they will be made something better than mere menial drudges, which is their too frequent lot when under the command of a captain in whose eyes mental culture is a crime. Under these circumstances parents will be reluctant to allow their boys to join the Nautical College in such numbers as to make the advantage of such a vessel commensurate with its expense. Such a scheme will, I trust, eventually be in operation; but the country is not ripe for it yet. It must grow out of and not precede the formation of a local commercial Navy.

(III.)—The third object, that of rearing boys to become working seamen, is effected in England by the Naval-apprentice vessels, which are tenders attached to the guard-ships at the naval ports.

The pupils are under the command of Naval officers, are subject to naval discipline, and are liable to be punished as deserters if they quit the navy before the expiration of their apprenticeship. Manual operations form their chief employment; the schooling which is under the direction of a man ranking with a sergeant of marines, occupies a very subordinate place in the system. These vessels turn out, I believe, first-rate seamen. In applying, however, to this country, conclusions drawn from the example of the British Navy, it should be remembered that in England the country that supports these boys can also and does command their services; and that there is an easy matter to find boys among the children of a large sea-faring population, as well as from among the many who are ready to escape starvation at the price of their liberty.

In Canada where manual labour is so well remunerated, a similar apparatus could not be maintained without supporting the boys and paying them well besides.

Laying aside then this third object as inapplicable to the present circumstances of the country, I shall go on to show how far the two former objects promised to be promoted by the Nautical College.

The students (including nine adult sea-faring men) that have been admitted into the College, are 24 in number; namely, 13 English and 11 French Canadians.

The present disposal of the 24 is, as follows:—

Have returned to sea for the summer	7
Has gone to sea for the first time	1
Has obtained occupation on shore	1
Temporarily absent	3
Drowned off Islet	3
Under instruction	9
Total	24

As most of these will probably return, the College may be considered as numbering 18 students.

This number it is true is little more than one-third of the proposed complement of 50; but if it be considered that the institution is new and comparatively little known, there is not, I think, in this circumstance much ground for discouragement. I have reason for expecting considerable additions in this respect next winter; there are already about 12 that have applied for admission, and doubtless each succeeding winter will bring further accessions to our number.

With respect to the attainments of the students.

With very few exceptions, the preparatory knowledge they bring with them is extremely limited. Those that have attended the Seminary and other similar places of instruction, are generally intelligent, and exhibit signs of mental development; but with respect to the particular sort of knowledge that they must begin with here (I speak of the common processes of arithmetic) they even are sadly deficient.

This defective preparation in the majority of the students, renders it necessary for me to direct their attention chiefly to the mathematical processes and their application to the common nautical problems, and to reserve the exposition of the principles (excepting in a very elementary manner) from which these processes are derived, till the pupils have acquired what is to them more essential, a familiarity with the practice. There are, however, exceptions to this rule; I could name two of my men who, to a familiarity with the most important nautical problems, add an acquaintance with mathematics equal in amount to that possessed by an average Cambridge freshman; and from the boys whose minds have not suffered from so long a fallow, I have reason to anticipate still better things. As regards seamanship, I do not hesitate to say that the students who have diligently attended Mr. Mackenzie would turn a piece of work out of hand as well as most midshipmen in the Navy.

From these statements, it is, I think, right to infer that the College is fulfilling the work for which it was designed, and it should be remembered, that if its numbers be comparatively small, this is a defect that every winter will diminish. It is, I feel confident, qualifying for their duty men to whom life and property is often entrusted to the great risk when they are ignorant of those who trust them.

Persons who expect the Nautical College to raise working seamen will of course be disappointed. It may have indirectly the effect of raising up native officers with whom native seamen may be more willing to serve, but to expect it to raise working seamen is wholly to mistake its design.

Though I see no cause for apprehending that the Nautical College will fail in the furtherance of its legitimate object, that namely of rearing boys who will eventually become officers, as well as that also of improving men already in that capacity. I consider that the interests of the country would be materially advanced if the benefits of the instructions here given were extended to other classes of the community besides those engaged in or destined for the sea.

The country is in a state of rapid progression; its resources are becoming more and more developed; a spirit of activity is abroad. Engineers and architects will be required for the many great works that must before long be in progress. Men skilled not only in the routine of land surveying, but in the higher branches of Geodesy, will find ample employment as new regions become settled, and their accurate definition more necessary. Eminent surveyors in this Province that I have consulted, inform me that the practical astronomy that is taught here would render the young assistant-surveyors much more efficient than they

are at present, and that their admission here would be a great benefit to the profession. The marine architect also would find a knowledge of mathematical science more valuable in promoting the improvement of his art, and in fact there are few callings for the successful prosecution of which mathematical and physical science would not be a useful auxiliary if not an essential element.

Now the principles of mathematical and physical science which the practical man afterwards learns to apply to his own peculiar calling, as well as the processes of mathematics, are to a considerable extent identical for all professions to which mathematics are applied. Whatever difference may prevail in the amount of development given to particular truths, the theory or exposition of the principles of pure mathematics, as well as the operation immediately founded on it, are as far as they are required for the seaman, equally useful to the architect, the surveyor, the machinist, and the engineer.

The staff of teachers requisite for a purely nautical school would be equally available for the other purposes, and without any additional expense.

It is not my present design to propose that the Nautical College should at once become an establishment for giving a perfect professional education to engineers or architects. The institution is not quite in a position to give the requisite specific instruction for which professional assistants and a considerable addition to the stock of instruments would be required. It may be hereafter expedient to make such an extension, and it would be well to keep the probability of doing so in view, but it is not to be recommended now.

The requests that I beg respectfully to urge upon the attention of His Excellency are the two following:—

(I).—That he will be pleased to order that in the erection of a new building consequent on the sale of the one now in use, regard be paid to the following requisites:—

(1).—The building should be erected on such a site and on such a plan as may admit of any expansions as may be hereafter thought advisable, whether for classrooms, workshops, or hostels for students.

(2).—The ground attached to the building should be large enough for the purposes of drilling and athletic games.

(3).—For the purposes of astronomical observations the ground should not be shaded by adjoining buildings, and should be sufficiently removed from the public road to be exempt from the tremor occasioned by the passing of vehicles, which often renders the use of the artificial horizon quite impracticable.

To meet these requisites I deem it very objectionable that any part of the Lower Town should be selected; and as in the Upper Town there is not any available site of sufficient extent, I consider the best possible position would be on the St. Louis road, in the neighbourhood of the turnpike. Such a position would be of easy access to the students, and would, for the sake of boating, be within reach of the river.

The second request I have to make is, that His Excellency will be pleased to give me authority to advertise publicly, that persons wishing to acquire a knowledge of any branch of the mathematical science, may be received as students on conditions a statement of which is given in a proposed advertisement given herewith.

In conclusion, I venture to offer that I think I see my way for making the Nautical College a great mathematical school for Lower Canada, and one in

which may be taught not only the highest mathematical science, but eventually also the various applications to mechanical art.

I have the honor to be, Sir,
Your obedient Servant,

(Signed,) G. T. KINGSTON,
Principal of the Nautical College.

The Honorable P. J. O. CHAUVEAU,
Provincial Secretary.

ADVERTISEMENT.

NAUTICAL COLLEGE OF CANADA, QUEBEC.

The Nautical College is designed chiefly to promote the following objects:—

I.—To furnish instruction in navigation, and other scientific parts of their profession, to persons already engaged in a seafaring life.

II.—To impart similar instruction to young men or boys who have not yet taken to the sea, but who desire to qualify themselves for becoming officers either in the Royal Navy or in the Merchant service.

It is also arranged that other persons not engaged in or instructed for the sea, who desire instruction in any branch of mathematical science, will be permitted on conditions given herewith, to enter as students at the College.

The subjects of instruction given at the institution, are as follows:—

PURE MATHEMATICS :

Geometry,
Arithmetic,
Algebra,
Trigonometry plane and Spherical,
Conic sections treated geometrically,
Differential and integral calculus,
Co-ordinate geometry of 2 and 3 dimension,
&c., &c., &c.

Application of pure mathematics to navigation and practical astronomy with special reference to nautical purposes and Geodesy.

Mixed Mathematics,	Application;
Statics,	Construction of Arches, &c.,
Newton's principia,	Projectiles, Gunnery,
Dynamics,	Physical Astronomy,
Hydrostatics,	Steam Engine,
Hydrodynamics,	Construction of Optical Instruments.
Optics,	

Other branches of knowledge, especially instruction in the French and English languages, will also be given as far as attention to the main object will permit; and to students designed for the sea, instruction will be given in the art of rigging and managing a boat.

As the College building is not at present adapted to receive boarders, students will be required to provide elsewhere for their board and lodging.

The vacations are as follows:—

At Christmas, two weeks, commencing December 22nd.

At Easter, one week, commencing Thursday, in Passion week.

Midsummer, two months, commencing July 1st.

REGULATIONS FOR THE ADMISSION OF STUDENTS.

No candidate is eligible for admission until he has attained the age of 13 years.

He must read and write correctly and fluently in one language, English or French, and must be expert in the common operations of arithmetic, as far at least as the vulgar fractions.

Students who have served at least six months, either at sea, on the Lakes or on the St. Lawrence, will be required to pay an entrance fee of £2 in advance, to cover the expense of books supplied to them, together with £1 in advance for the first as well as for every succeeding term.*

The students not intended for the sea will pay an entrance fee of £2 in advance, and £3 in advance each term, or (if they prefer it) £1 in advance each month. Students not already sea-faring men, but who intend to enter the profession, may enter as sea-faring students, provided that they give security to the amount of £20, that they will within one year after their discharge from the college, serve at least six months in a sea-going ship.

Students already possessing any of the requisite books will be allowed to reckon them in part payment for the entrance fees, and every candidate must give proof that he is of proper age, and must produce a certificate of character either from his last schoolmaster, or the minister of his parish, or the captain or owner of his last ship.

QUEBEC, 3rd March, 1855.

Sir,—Having been informed by Professor Kingston that he intends submitting, for the information of His Excellency the Governor in Council, the expediency of making the Nautical College more particularly useful by admitting students of Land Surveying and Civil Engineering, and others desirous of availing themselves of the advantages to be derived from the course of instruction it affords, we beg respectfully to recommend the adoption of his proposal and to express our conviction, that great benefit to the public would result from the proposed change in so far as the profession of Land Surveying is concerned.

In our capacity of members of the Board of Examiners of Land Surveyors we have often had cause of regret that the candidates have not had that thorough knowledge of those branches of Mathematics and Practical Astronomy which is requisite to enable them to excel in the profession, a knowledge which they have neither the time nor the opportunity of acquiring during their apprenticeship, which should be devoted to field service. This knowledge Professor Kingston

* The academical terms commence on the first days of May and November.

is, from his varied and extensive experience as a teacher, eminently qualified to impart.

We have the honor to be, Sir,

Your most obedient Servants,

(Signed,) JOS. BOUCHETTE,
" ANDREW RUSSELL.

The Honorable GEO. E. CARTIER,
Provincial Secretary, &c.

NAUTICAL COLLEGE,
QUEBEC, 5th March, 1855.

Sir,—I had the honor, on the 13th July, 1854, to address a letter to the late Provincial Secretary, containing a report of the proceedings of the Nautical College, together with a proposal to make the instruction available to other classes besides those destined for the sea, such as land surveyors, engineers, architects and others.

Further experience confirms the views I expressed, and as I consider their adoption with certain modifications to be of importance, I beg that you will favor me by bringing under the notice of His Excellency the Governor General in Council, the proposals given herewith. In doing this I have respectfully to request that if one or more of these proposals be approved of, I may have the authority to act on that approval forthwith, without waiting for the adoption of the rest.

The proposals are as follow:—

(I.) That all persons wishing to avail themselves of the instruction afforded by the College, shall be permitted to enter.

(II.) That all students who have not been already engaged in some capacity on the sea, the lakes, or the river, whatever be their destination, shall in addition to the fees for books named in the circular, pay a further sum, in advance, of £2 each half-yearly term for tuition.

(III.) That in order to encourage the pursuit of mathematical knowledge, three-fourths of the proceeds from the tuition fees be devoted to founding scholarships, to be granted at the annual examinations as rewards of proficiency, and that the remaining fourth be employed in procuring instruments and apparatus.

The following is an approximate estimate of the relative amount and disposal of the tuition fees:—

Of 10 students in attendance, 5 probably would pay tuition fees, and thus produce £20.

This would give you average of £15 scholarship for every 10 students, with a balance of £5 for apparatus.

The scholarships to be held for one year, and to be paid at regular intervals during attendance.

(IV.)—It would tend to the improvement of pilots, if all pilot apprentices were for the future compelled to pass three winters at the College.

(V.)—As many of these persons do not reside at Quebec, and have not usually pecuniary resources at command, their compulsory attendance at Quebec during

the winter, might be thought a grievance, unless their expenses were defrayed either wholly or in part; it might be therefore desirable to furnish to a limited number of apprentices every year a weekly allowance of 10s. or 15s. each during residence.

Respecting the two proposals relative to the apprentice-pilots, I beg to suggest that the Board of Trinity might be advantageously consulted.

With respect to the three first proposals, I have to observe that the admission of students intended for professions on shore cannot injuriously affect those intended for the sea; on the contrary, by the foundation of scholarships, which the introduction of these students occasions, sea-going students derive benefit, both in a pecuniary sense, as well as from the healthy emulation introduced.

The extension requires no additional expenditure of public money, but renders more productive the public money already expended.

I have therefore to request, in conclusion, that you will bring this matter without delay before His Excellency in Council.

I have the honor to be,
Your obedient Servant,

(Signed,) G. T. KINGSTON, M.A.,
Principal of the Nautical College.

The Honorable G. E. CARTIER,
Provincial Secretary, &c., &c.

NAUTICAL COLLEGE OF CANADA, QUEBEC.

Under the direction of GEORGE T. KINGSTON, Esquire, M.A., of Gonville, and Caius College, Cambridge.

The Nautical College of Canada was established by the Government with the design of promoting the following objects:—

I.—To afford to captains, mates, pilots, and seamen, such instruction in the scientific parts of the nautical profession, as may qualify them for the position of officers in the Royal Navy or Merchant Service.

II.—To prepare for similar appointments young men or boys who have not yet entered upon the sea life.

The ordinary course includes:—

Geometry,

Arithmetic,

Algebra,

Trigonometry, plane and Spherical,

Navigation and Nautical Astronomy,

Elementary Mechanics and Hydrostatics, with their application to the Steam Engine.

Instruction by the boatswain in rigging and other parts of seamanship.

To such students as may be qualified for it, instruction will also be given in a superior course, including:—

IN PURE MATHEMATICS.

The higher parts of Geometry, Algebra, and Trigonometry,
 Conic Sections,
 Co-ordinate Geometry of two and three dimensions,
 Differential Calculus,
 Integral Calculus and differential Equations,
 Calculus of finite differences.

IN NATURAL PHILOSOPHY.

Statics,
 Dynamics and Newton's Principia,
 Hydrostatics and Hydrodynamics,
 Optics,
 Astronomy.

The instruction is gratuitous; but in order to cover the expense of books and other necessaries supplied by the institution, each student is required, on admission, to pay an entrance fee of £2, together with £1 payable in advance for each half yearly term, during any part of which he may be under instruction.

The terms commence 1st May and 1st November.

As the College premises are not yet adapted to accommodate boarders, students will have for the present to provide elsewhere for their board and lodging.

The vacations, are:—

At Christmas, 2 weeks, commencing 22nd December.

At Midsummer, 2 months, commencing 1st July.

REGULATIONS FOR THE ADMISSION OF STUDENTS.

No candidate is eligible for admission under the age of 13 years.

He must be able to read and write fluently and correctly in one language (English or French), and must be expert at arithmetic, including at least the four first rules and reduction.

The candidate must be supplied with a certificate of character, and must give proof that he is of the proper age.

Applications to be addressed to the Principal,

“GEORGE T. KINGSTON, Esquire,
 Nautical College, Quebec.”

SECRETARY'S OFFICE,

Quebec, 24th March, 1855.

Sir,—I have the honor to request that you will furnish me with the following information; to be laid before His Excellency the Governor General:—

1st.—What number of pupils have received instruction since the Nautical School was founded, and whether all nautical; and

2nd.—The number of pupils at present receiving instruction in the school, and whether all nautical.

I have the honor to be, Sir,
Your obedient Servant,

(Signed,) E. PARENT,
Assistant Secretary.

G. T. KINGSTON, Esquire,
Principal, Nautical College.

NAUTICAL COLLEGE,

Quebec, 24th March, 1855.

Sir,—In reply to your letter of this day, I have the honor to state, that as it is impossible to speak with certainty as to the number of my pupils, who will hereafter take to sea, I must restrict the application of the word nautical to those who have been engaged in the sea life, either previous to or since their entry into the Institution. Using the word nautical in this limited sense, I have to inform you that thirty-five pupils have received instruction at the College since its establishment, including twelve nautical pupils.

During the present term twenty have received instruction, including three nautical pupils.

I have the honor to be, Sir,
Your obedient Servant,

(Signed,) G. T. KINGSTON,
Principal, Nautical College.

E. PARENT, Esquire,
Assistant Secretary.

SECRETARY'S OFFICE,

Quebec, 26th March, 1855.

Sir,—With reference to your letter of the 24th instant, I have the honor to inform you that the Governor General requests you to state, that by the term "Nautical Pupils," you meant pupils who sought for instruction with the avowed intention of going to sea. If the forms employed by you for the registration of scholars do not afford this information, it appears to His Excellency that they ought to do so. If they do, he will thank you for an abstract of the entries.

I have the honor to be, Sir,
Your obedient Servant,

(Signed,) E. PARENT,
Assistant Secretary.

G. T. KINGSTON, Esquire,
Principal, Nautical College.

NAUTICAL COLLEGE,

Quebec, 26th March, 1855.

Sir,—In reply to your letter of this day, I regret to state that I have not in my register made any entry relative to the future of the pupils. I have not done so simply from the fact that I have no means of compelling those to take to the sea who might avow their intention of doing so; and, on the other hand, that I have thought it not improbable that some not making that avowal might be induced to take to the sea-life through the influence of others.

Although I have not made any entry on the matter, my own impression is, that not more than ten or eleven of those present during the current term, will really take to the sea.

I have the honor to be, Sir,
Your obedient Servant,

(Signed,) G. T. KINGSTON.

E. PARENT, Esquire,
Assistant Secretary.

NAUTICAL COLLEGE,

27th March, 1855.

Sir,—Before further expense is incurred by the removal of the Nautical College to another locality, I consider it right to lay before His Excellency the Governor General, my views respecting the utility of the Institution, with reference to its influence on the nautical interests of the Province. In my letter of the 13th July, I expressed a hope that persons already engaged at sea would attend in greater numbers.

The experience of this winter has disappointed that hope. Two only of the sea-faring men of last winter have attended during any part of this season.

The cause of this fact I have learnt from a most trustworthy source. These men, I am told, and many others who were not here before, have declared their intention not to come; and they gave as their reason that the subjects I teach are too hard.

It might be inferred from the complaints of these men that I have insisted on their mastering all the mathematical principles upon which navigation is founded. Such is not the fact. I insist only on a familiarity with the ordinary processes of arithmetic with other elementary matters equally necessary; and as a means of understanding better the common phenomena of Astronomy, I have made them apply a part of their time to Euclid's Geometry.

The Navigation that these men wish to acquire, is that which the British Legislature has made great effort to uproot; and I feel that I would be unworthy of trust were I to aid in perpetrating anything so destructive to life and property.

Whatever good may possibly be done by the Nautical College expanded into a Polytechnic School, my own deliberate conviction is, that, with its present aim, its advantage is altogether out of proportion to its expense.

I have the honor to be, Sir,
Your obedient Servant,

(Signed,) G. T. KINGSTON,
Principal, N.C.

The Honorable G. E. CARTIER,
Provincial Secretary, &c., &c., &c.

NAUTICAL COLLEGE,

QUEBEC, 28th May, 1855.

Sir,—As your letter containing my appointment to the University of Toronto, and acknowledged in my letter of this day's date, directs me to proceed to Toronto, as soon as I am relieved from my charge here, I request that you will honor me by making me acquainted with the intentions of the Government with reference to the Nautical College.

If the continuance of the Institution in any form be thought expedient, it is most desirable that I should employ the time, prior to my departure, in acquainting my successor with the details of the work, and in transferring the books and instruments to his care.

If on the other hand the abolition of the institution be in contemplation, I propose, with your permission, to offer a few suggestions respecting the most useful mode of appropriating the books and instruments.

I beg leave further to call your attention respectfully to my three letters, dated 15th June, 1853, 30th January, 1854, and 26th April, 1855.

I have the honor to be,

Your obedient Servant,

(Signed,) G. T. KINGSTON.

The Honorable G. E. CARTIER,
Provincial Secretary, &c., &c.

NAUTICAL COLLEGE,

QUEBEC, 5th June, 1855.

Sir,—I have the honor to request that, in bringing forward the affairs of the Nautical College for the purpose of their final settlement, you will do me the favor to lay before His Excellency the cases of the subordinates of the institution, with a view either of finding them suitable employment, or awarding them some gratuity to enable them to live till they find situations for themselves.

I desire especially to name Mr. McKenzie, the Boatswain, and Serjeant Reynolds, the Messenger.

They are two highly respectable, trustworthy, and in every way deserving men.

Mr. McKenzie is now too old to follow his vocation at sea, but is well adapted to take charge of any public building, or to do the duty of a messenger. His salary has been £78 17s.

Serjeant Reynolds who, before his appointment, served 25 years in the army, and obtained the good service medal, is a very active and intelligent man, and, as he writes a good hand, would be well suited for any employment in which outdoor duties and writing are combined. His salary, together with that of his wife, amounts to £60.

I enclose an inventory of the books, maps, instruments and furniture lately used by the institution.

The astronomical instruments, as well as the more valuable of the books, have been removed for safety to the observatory, and are at present in charge of Lieutenant Ashe,

The rest of the books are packed ready for removal; each case being accompanied by an inventory describing its contents.

Waiting your further instructions,

I have the honor to be, Sir,
Your obedient Servant,

(Signed,) G. T. KINGSTON.

The Honorable G. E. CARTIER,
Provincial Secretary.

(For Inventory see Manuscript.)

QUEBEC, 14th June, 1855.

Sir,—Mr. Kingston being about to leave the Nautical College, and to go to the University of Toronto, I take the liberty of applying for authority to receive from him the instruments, books, &c., in his possession, belonging to the establishment; in order that I may have it in my power to go on whenever the Government provides me with premises.

I have the honor to be, Sir,
Your obedient Servant,

(Signed,) ALFRED HAMEL.

The Honorable G. E. CARTIER,
Provincial Secretary,
&c., &c., &c.

PROVINCIAL SECRETARY'S OFFICE,

Quebec, 14th June, 1855.

Sir,—In reply to your letter of this day, I have the honor to inform you that as His Excellency the Governor General has not yet determined to continue the Nautical School, it is not necessary to cause to be delivered to you the instruments, books, &c., belonging to that School, which His Excellency is informed have been put in a safe place by Mr. Kingston.

I have the honor to be, Sir,
Your obedient Servant,

(Signed,) GEO. E. CARTIER,
Secretary.

ALFRED HAMEL, Esquire,
Quebec.

SECRETARY'S OFFICE,

Quebec, 21st June, 1855.

Sir,—The services of the undermentioned being no longer required in connection with the Nautical School in this city, I am commanded by His Excellency the Governor General to request that you will inform them that the same will be dispensed with from this date, and that they will be allowed a quarter's salary:

Mr. Hamel, Assistant Nautical Teacher; John McKenzie, Boatswain; Thomas Reynolds, Drill Master and Messenger, and his wife as Housekeeper.

You will be good enough to apply for the amount due these several parties.

I have the honor to be, Sir,
Your obedient Servant,

(Signed,) E. PARENT,
Assistant Secretary.

G. T. KINGSTON, Esquire,
Principal, Nautical School, Quebec.

SECRETARY'S OFFICE,

Quebec, 21st June, 1855.

Sir,—The services of the undermentioned being no longer required in connection with the Nautical School in this city, I have received the command of His Excellency the Governor General, to inform you that the same will be dispensed with from this date, and they are to be allowed a quarter's salary, viz. :—

Mr. Hamel, Assistant Teacher, £150 per annum.

John McKenzie, Boatswain, £6 per lunar month.

Thomas Reynolds, Drill Master and Messenger, £40 per annum; and his wife as Housekeeper, £20 per annum.

I have the honor to be, Sir,
Your obedient Servant,

(Signed,) E. PARENT,
Assistant Secretary.

JOS. CARY, Esquire,
Deputy Inspector General, &c., &c., &c.

4, ESPLANADE, QUEBEC,

29th June, 1855.

Sir,—The subordinate officers of the Nautical College having been discharged, and the property committed to the care of the Department of Public Works, nothing further remains that I am aware of, to detain me from entering on my duties at Toronto, but the settlement of my own pecuniary claims, I beg therefore that you will bring under the notice of His Excellency in Council, my request that authority may be given to the Deputy Inspector General;

1st. To discharge the payment of my demand for house rent since my arrival in this country, the details of which I enclose; and

2nd. To settle finally, my usual quarterly account of contingencies.

May I also request you to inform me whether I may, on the settlement of these affairs, consider myself at liberty to leave Quebec. This inquiry is necessary in as much as your letter of the 26th May, acquainting me with my appointment to Toronto University, expressly states that I am to proceed to Toronto, as soon

as I can make the necessary arrangements for being relieved from my charge here.

I have the honor to be, Sir,
Your obedient Servant,

(Signed,) G. T. KINGSTON.

The Honorable G. E. CARTIER,
Provincial Secretary.

Account of G. T. Kingston, Principal of the Nautical School, Quebec, for Lodging Money and House Rent, from his arrival at Quebec, 5th March, 1853, to 30th June, 1855 :—

Lodgings, from 5th March, 1853, to 30th April, 1853,	£18	0	0
Two years' House Rent, at £60 per annum, from 1st			
May, 1853, to 30th April, 1855.....	120	0	0
Lodgings from 1st May, 1855, to 30th June, 1855....	22	0	0
			0
	Total,	£160	0 0

QUEBEC, 30th July, 1855.

NOTE.—Warrant for £160, ordered in favor of Mr. Kingston, 30th July, 1855.

SECRETARY'S OFFICE,

Quebec, 29th June, 1855.

Sir,—In reply to your letter of this day, I have the honor to inform you that the claim which you therein make will be taken into consideration by His Excellency the Governor General in Council, and that whenever a decision shall have been come to, it will be communicated to you; in the mean time there is nothing preventing your proceeding to Toronto, to enter upon the duties of your office there.

I have the honor to be, Sir,
Your obedient Servant,

(Signed,) GEO. E. CARTIER,
Secretary.

G. T. KINGSTON, Esquire, A.M.,
Quebec.

(Copy.)

SECRETARY'S OFFICE,

Quebec, 26th May, 1855.

Sir,—I have the honor, by command of the Governor General, to inform you that His Excellency having had under his consideration the testimonials submitted to him some months ago, has been pleased to appoint you to the chair of Natural Philosophy, in University College, Toronto, vacated by the appointment of Professor Cherriman, to another chair in that Institution.

The Chair of Mathematics is at present amalgamated with that of Natural Philosophy and the duties of both will therefore devolve on you.

The salary attached to the Chair is £450 per annum, over and above the fees derived from the students attending your lectures.

The commission appointing you to the Chair aforesaid is being prepared, and will be forwarded to you when ready.

As soon as you can make the necessary arrangements to be relieved from your charge here, you will have the goodness to proceed to Toronto, for the purpose of entering upon your new duties.

On your arrival at Toronto, you will please report yourself to the President of University College, who has been advised of your appointment.

I have the honor to be, Sir,
Your obedient Servant,

(Signed,) GEO. ET. CARTIER,
Secretary.

GEORGE KINGSTON, Esquire, A.M.,
Quebec.

Plan of a School of Navigation on board of "La Canadienne."

There are in Canada only a few Sea Captains capable of taking charge of a vessel bound for Europe, India, Australia, &c., &c., or even the West Indies.

According to the information I have been able to procure, there are only eight or ten Sea Captains in the whole District of Quebec, competent to take a vessel to the ports of the United Kingdom, the United States, or the West Indies—so that the Quebec ship-builders are obliged to bring persons out from England at a great expense to take charge of their vessels to Liverpool and other ports, where they can be sold.

The masters of Canadian vessels are, with few exceptions, merely coast pilots. When they wish to undertake a voyage beyond St. Johns, Newfoundland, Halifax, or St. Johns New Brunswick, they are obliged to obtain from foreign ports sailors capable of managing their vessels.

The want of educated seamen in Canada is, I think, the reason why the Canadian trade in Canadian vessels is confined to the traffic between Montreal and Quebec, and some ports of the Lower Provinces, the United States, and the West Indies.

The products of the Canadian Fisheries in the Gulf of St. Lawrence are carried to the European and South American markets almost entirely by the vessels of Jersey ship-owners.

The products of the West Indies consumed in Canada, are brought in summer chiefly by vessels of Nova Scotia, and in winter by vessels of the United States to Portland and other ports, from whence they come to us by railway, while we often have in the port of Quebec several schooners and brigantines which for months together cannot obtain freights, because the masters who command them are, from ignorance of navigation, incapable of sailing them beyond the British ports I have mentioned.

Since we build ships cheaper than they can be built anywhere else, and since hundreds of our young men whose natural taste induces them to adopt a sea-faring life, are, from inability to obtain employment here, obliged to go on board of American vessels engaged in the Fisheries in the Gulf of St. Lawrence, and in the trade on the Lakes, and on the coasts of the United States, if we had in Canada a number of well instructed Sea captains capable of undertaking any Sea voyage, why could we not dispatch to all parts of the world vessels to be engaged in the Whale fisheries, &c., &c., or at least carry to market the products of our Forests, but especially those of our Fisheries, the annual value of which exceeds six hundred thousand dollars, and which form the cargoes of nearly a hundred vessels, and bring back from the West Indies, in our own vessels, such of their products as we require in exchange for our salted and dried fish, our salt meat, lumber, &c. ?

But how shall we give our sailors the necessary nautical education ?

By establishing on board of a vessel a school for the purpose of instructing pupils in nautical science both theoretically and practically.

The Government schooner "La Canadienne," whose size is much the same as that of a sloop of war carrying from 40 to 50 men, would answer very well for a School ship until a larger vessel should be required by an increase in the number of pupils.

In order to protect the Fishery and the public revenue in the Gulf of St. Lawrence, "La Canadienne" requires a complement of twenty-five, including officers. Well, let there be a master competent to give instruction in the theory and practice of navigation, and a Boatswain able to teach the mode of working, and doing the ordinary work of a ship, and the crew might be composed in a great measure of young men entered as pupils on board the schooner ; and since these pupils would not be entitled to such high wages as are generally paid to sailors, the difference would in some degree counterbalance the increase of expenditure attendant on the establishment of the School on a proper footing.

I need not mention that the Government have in their possession all the requisite nautical instruments.

The pupils should engage to serve for at least one season, on pain of forfeiting their wages ; and in order to make them go through the whole course of instruction, which ought to last at least three years, stoppages should be made from their wages, to be returned in the shape of prizes, consisting of nautical instruments, charts, works on navigation, &c., when they obtain their diplomas as captains.

The magistrate commanding the Government schooner, whose duties in the Gulf afford him some leisure hours every day, could translate French lessons in Navigation into English, and vice versa, and also give the pupils the necessary instruction in Arithmetic, Trigonometry, Astronomy, Geography, &c.

I think I can confidently predict that if a nautical school were established in which, while making enough to support themselves, young men of the country might learn the theory and practice of navigation, a great number of the most active would at once present themselves for admission ; and these young men, as soon as they obtain their diplomas as Captains, would be able to sail our vessels to any ports where good profits were to be obtained, or, having become ship-owners themselves, might forward to foreign markets on their own account the products of our Forests and our Fisheries.

(Signed,) P. FORTIN.

PRINTED BY ROLLO CAMPBELL, CORNER OF YONGE AND WELLINGTON STREETS, TORONTO.

R E T U R N

TO AN ADDRESS from the Legislative Assembly, to His Excellency the Governor General, dated the 19th ultimo, praying His Excellency to cause to be laid before the House, "Copies of all papers connected with the Petition of George Nichols, praying to be "restored to his credibility."

By Command,

T. J. J. LORANGER,

Secretary.

Secretary's Office,

Toronto, 3rd May, 1858.

(Copy.)

To His Excellency Sir Edmund Walker Head, Governor General of British North America, &c. &c. &c.

MAY IT PLEASE YOUR EXCELLENCY :

The petition of George Nichols, of Toronto, Gentleman, humbly sheweth :

That at the Fall Assizes held in Brockville, in the County of Leeds, one of the United Counties of Leeds and Grenville, in the month of October, 1856, before the Honorable Justice Hagerty, one of Her Majesty's Judges of the Court of Common Pleas, and as such assigned to take said Assizes.

Your petitioner was convicted of perjury on improper and mistaken evidence. That William Tucker was the principal witness against petitioner. That the said Tucker swore that the petitioner committed perjury in May, 1844, before the Honourable Chief Justice Robinson. That the perjury was as follows : That James H. Nichols, in May, 1844, prosecuted the said William Tucker for an assault ; that George Nichols, father of the said James H. Nichols, was a witness against the said William Tucker, in favor of his son ; that the said William Tucker indicted petitioner for perjury committed in the son's case, when in truth, and in fact, no such trial

ever had an existence; nor was petitioner ever a witness in any case, civil or criminal, when the said William Tucker was either plaintiff or defendant.

Petitioner humbly hopes that he may be restored to credibility, of which he has been deprived by evil design, and that reference be made to the Honorable Sir John Beverley Robinson.

And your petitioner, as in duty bound, will ever pray.

(Signed)

GEORGE NICHOLS.

Toronto, 9th January, 1858.

(Copy.)

SECRETARY'S OFFICE,

Toronto, 15th January, 1858.

SIR,—I have the honor, by command of His Excellency the Governor General, to transmit to you the accompanying copy of a Petition to His Excellency, from one George Nichols, of this city.

His Excellency is informed that at the last Assizes held at Brockville, William Tucker, the person referred to in the Petition, was tried before you for perjury. His Excellency desires me to state that he should be glad to be favored with your Report and opinion on the last mentioned case, so far as it has any bearing on the prayer of Nichols' petition.

In the absence of such Report and opinion, the Attorney General states that it is almost impossible to arrive at any satisfactory conclusion in the matter.

I have the honor to be,

Sir,

Your obedient servant,

(Signed)

E. A. MEREDITH,

Assistant Secretary.

The Honorable

The Chief Justice of Upper Canada.

(Copy.)

TORONTO, 21st January, 1858.

SIR,—I have the honor to report that, at the last Assizes for Brockville, held before me in October, 1857, William Tucker was tried upon an indictment for perjury, and was acquitted. The perjury assigned was, that upon a trial of George Nichols for perjury, at a Court held in Brockville, in October, 1856, Tucker had sworn that Nichols had been examined as a witness for the plaintiff on a trial at Brockville, in May, 1844, of a civil action brought by James Nichols, son of George Nichols, against Tucker, the defendant in this case, for an assault and battery alleged to have been committed by him on James Nichols; and that George Nichols had on that occasion made certain statements as a witness: whereas, in truth, there was no cause tried at Brockville against William Tucker for an assault and battery on James Nichols, either in May, 1844, or at any time, and George Nichols had never been examined as a witness in any such cause against William Tucker.

To make the case more intelligible, I must state what had taken place previously:

Some time before 1856 there was published in a newspaper, conducted as it seems by Ogle R. Gowan, Esq., an article in which it was stated that George Nichols had a long time before that (I believe in 1841) charged Gowan, on oath, with having made an attempt to assassinate him by shooting him with a pistol in the highway, and that Nichols had afterwards been prosecuted for perjury, and had absconded.

I have not the paper before me, but from my recollection of the contents, as read at the trial, I think it plainly imported that George Nichols had been prosecuted at the instance of Gowan for perjury committed by him in making that charge. It appears to me that Nichols would naturally place that construction upon what was said in that paper, and might suppose that others would do the same.

Nichols affirming that he never had made a charge against Gowan for attempting to assassinate him, and had never been prosecuted for perjury in making such a charge, caused an indictment to be preferred against Gowan for publishing a malicious libel of him; and under the Statute 13 & 14 Vic. ch. 60, sec. 7, Gowan pleaded in justification—

1st. That George Nichols was prosecuted for perjury by a grand jury at the Assizes, &c., and that a bench warrant was issued against him (without alleging in reference to what statement it was that he had been charged with perjury).

2nd. That George Nichols did appear before a Justice of the Peace and swear that Gowan had attempted to assassinate him—that he was prosecuted by a grand jury for perjury, and a writ or bench warrant issued against him.

I did not try the case for libel, and have not the indictment before me, and I make this statement only from a short note of the pleadings taken in a subsequent case in which they were given in evidence.

Upon the trial of Gowan for libel, Nichols expected, as he has stated, that Gowan would attempt to support one or both of his pleas by proving that he, Nichols, had charged him on oath with attempting to assassinate him, and that in consequence of making such a charge he, Nichols, had been prosecuted for perjury; but he complains, as I understood upon the trial of this case before me, that he, as prosecutor in the libel case, was taken by surprise upon the trial of that case by Gowan attempting to fasten upon him the guilt of perjury in reference to a matter that had no connection with the supposed charge of an attempt to assassinate. It does appear that after Nichols had stated as a witness that he had not been prosecuted for perjury, a presentment made by the Grand Jury at the assizes for Brockville in October, 1844, against George Nichols, of Prescott, tailor, for perjury, was put in his hands in the witness box. The presentment was framed in terms so general that it gave no intimation as to the statement in which Nichols had committed perjury, or on what occasion it was made; and Nichols was told to look at it and say whether he could any longer deny that he had been prosecuted for perjury; and whether he was not the George Nichols named in that presentment. He was probably taken by surprise and was excited and agitated, as a respectable witness, on describing what then took place, afterwards swore; but he did swear, it seems, that he was not the person named in that presentment; that it could not be he, but it might be his son, George Nichols, and probably had some connection with a scrape he had got into on the 12th July; that he himself had never carried on the business of a tailor in Prescott, though it was his trade, and he had worked at it in other places; that he had never gone before a Grand Jury and charged Mr. Gowan with an attempt to assassinate him; and that he had never gone to the Deputy Sheriff to inquire whether he had a warrant against him for perjury.

In consequence, it seems, of this evidence given by George Nichols and of the

failure of any attempt to prove the second plea, the jury considered that neither of the pleas of justification was proved, and Gowan was found guilty of libel.

Mr. Gowan then afterwards, as he has sworn, referred to William Tucker, whose name he found endorsed on the presentment as a witness before the Grand Jury against George Nichols for perjury, and upon the explanation which he received from Tucker he had George Nichols indicted for perjury in making the above statements as witness upon the trial against Gowan for libel.

The trial of that indictment came on in October, 1856, before Mr. Justice Hagerty, who, I believe, has long ago made a report on the case for the information of His Excellency.

William Tucker swore upon that trial of George Nichols for perjury, that he was the person upon whose testimony the Grand Jury had made the presentment against George Nichols for perjury, that Nichols the defendant then upon his trial for perjury alleged to be committed by him as a witness on the trial for libel, was the same George Nichols who was named in that presentment, and that it was not a son of his, also called George Nichols, who was intended to be presented, as the defendant George Nichols had stated was probably the case. Tucker swore further, that the charge which he had made before the Grand Jury for perjury had no reference to any accusation said to have been brought by Nichols against Gowan for attempting to assassinate him, but arose out of a wholly different matter; and he then stated that a civil action had been brought by James Nichols, a son of George Nichols (the defendant then on his trial for perjury), against him, William Tucker, for an alleged assault and battery, which action was tried, he said, at Brockville, in May, 1844. That besides this action there was another brought by George Nichols himself against William Tucker and three others for an alleged illegal distress; that in the said action the father, George Nichols, was examined as a witness for him, and swore that he, Tucker, assaulted and beat his son at the time that he was assisting in making the distress, which was the occasion referred to in the civil action, which statement Tucker swore was wholly untrue. That when he heard Nichols swear to that statement he called out openly to Nichols in Court that he would have him indicted for perjury in giving that evidence, and that the Judge rebuked him (Tucker) for doing so. And he swore that he did in October, 1844, go before the Grand Jury and have George Nichols presented for the false evidence which he gave on that occasion in May previous.

This seemed to establish the fact denied by George Nichols, that he (Nichols) had been presented for perjury, and that he was the person named and intended to be named in the presentment.

There was also, as it seems, evidence given upon the trial before Mr. Justice Hagerty, that George Nichols had worked at the trade of a tailor in Prescott in and before 1844, and that he was commonly spoken of and known there as a tailor. Nichols had denied this upon the trial of the libel case, though he admitted that he was in fact a tailor by trade, and had worked at it in other places, and was generally known to be a tailor. Upon the point whether George Nichols had or had not carried on business as a tailor in Prescott on or before 1844, the testimony was contradictory.

It was proved also by the Deputy Sheriff, who had been in office some years before him, that George Nichols did come to him on one occasion and ask whether he had at any time held a Bench Warrant against him for perjury, and that he told him he had not, which the Deputy Sheriff said was the fact.

The Jury found George Nichols guilty of perjury on the first, third and fourth counts of the indictment in which Counts perjury was assigned. In regard to the several statements which I have just mentioned, he was sentenced to be imprisoned three months in gaol.

At the assizes held before me in October last, George Nichols had William Tucker indicted for perjury, in swearing as he did on the trial of Nichols for perjury, that he Nichols had given evidence as a witness in May, 1844, for James Nichols, his son, in an action brought by the said James Nichols against William Tucker, for an assault and battery, and it was charged in this indictment that the evidence of William Tucker was false, for that there was no action for an assault or battery brought by James Nichols against William Tucker, and tried in Brockville in 1844, or at any time, and George Nichols had given no evidence then or at any time in any such action or in any action of James Nichols against Tucker.

It was clearly proved that the testimony of William Tucker was altogether untrue in the essential particulars charged in the indictment, for there really never was any action brought by James Nichols against Tucker for an assault, nor I think for any other cause of action, and it was therefore impossible that Tucker could have that particular ground for bringing a charge against George Nichols for perjury, which he swore he had.

The Jury, however, though they could have no doubt on that point, after hearing the evidence, acquitted Tucker of wilful and corrupt perjury, and I have no doubt from a conviction that he had fallen into an error in one respect in describing proceedings which had taken place 12 years before he gave his evidence.

As Tucker was not convicted, His Excellency perhaps does not desire that I should send a copy of the evidence against him. If it should be requested, I take the liberty of referring to a copy of the evidence I allowed to be taken from my notes for the information of the Attorney General, and I will only state shortly what ground the jury had for concluding that Tucker made the incorrect statement which he did, in error, and not wilfully and corruptly.

I happened to have held the assizes myself at Brockville in May, 1844, when, according to Tucker's statement, Nichols swore falsely in an action between James Nichols and Tucker for assault and battery, and it is quite certain that there was in truth no such case tried.

George Nichols and his son had lived together in a house in Prescott, which George Nichols rented from one Patrick Mooney; an arrear of rent was due, and Mooney distrained for it, through Tucker as his bailiff, assisted by two men named Dillon and Martin. Nichols contended there was not so much rent due as was distrained for, and brought an action against Mooney, Dillon, Martin, and Tucker for excessive distress, and for certain alleged irregularities in conducting it.

In that action, George Nichols, being the sole plaintiff was not examined as a witness, and could not be; and James Nichols was no party to the suit.

Besides this action there was another action in which George Nichols alone was plaintiff, and one Erringer alone defendant for an alleged illegal distress upon George Nichols' goods in making a previous seizure under warrant, in which latter case a verdict was found for the defendant at the same assizes.

And there was a third action brought by James Nichols alone, against William Martin alone, for an alleged assault and battery of James Nichols, and for taking some of the plaintiff's goods under a warrant to levy upon his father's goods for taxes. In that case George Nichols was examined as to the assault; he swore that he was present when Martin came to seize the things; that the plaintiff, James Nichols, came forward and asserted that some of the goods seized were his, and forbade Martin taking them, and that Martin thereupon struck James Nichols a severe blow in the breast and abused him. George Nichols' wife confirmed his evidence.

On the side of Martin, William Tucker was called, and Patrick Dillon, both of whom were defendants with Martin in the civil action by George Nichols, which I

have first spoken of, and they swore that they were present and saw all that took place, and that Tucker did not strike or assault plaintiff.

The jury being satisfied, as we may suppose upon the whole evidence, that there had been no assault by Martin, and that the goods which James Nichols claimed were not his, but his father's, gave a verdict for the defendant, Martin, who was, as I have stated, the only defendant in that action.

At the conclusion of the trial of William Tucker for perjury, in October last, I told the jury that the testimony seemed to establish that Tucker did give the evidence which he was charged with having given on the trial of George Nichols for perjury; that his evidence was material, because it tended to prove what Nichols had denied on oath, namely, that he was the person presented in 1844 for perjury, and not his son, and it was brought for that purpose.

That there could be no doubt that the statement made by Tucker on that occasion was not true in fact, for Nichols had given no evidence in an action against Tucker for an assault, there being no such action, and had not sworn that Tucker had committed an assault upon his son, which was the statement in which he was alleged to have committed perjury.

But the jury were reminded that at the same assizes at Brockville in May 1844, there was an action tried of James Nichols against William Martin (not Tucker) for an assault in which George Nichols was examined for his son, and did give evidence which Tucker contradicted on that trial, and it may well have been the case that Tucker did in consequence go before the Grand Jury at the next assizes, and charge Nichols with swearing falsely in that cause, and that the presentment may have been made on that ground.

And it was left to the jury to determine whether it was probable, considering how the parties had been mixed up together in the first action for the excessive distress in which Tucker, as well as Martin, was a defendant, that Tucker being an illiterate man, speaking of what had taken place twelve years before, had confounded the circumstances and made a statement, untrue in fact, but not with a knowledge at the time that it was untrue, and so that without the corrupt intention of committing perjury. On the one side it seemed strange that Tucker should have imagined that he was defendant in two actions, when he was only a defendant in one; and that he was charged with an assault, which he never had been charged with; and that Nichols had sworn that he had struck the plaintiff when it was Martin that Nichols charged with it, and not Tucker, and when it could not be material to the case tried whether Tucker had assaulted James Nichols or not.

On the other hand it was to be considered that there could be no apparent motive to induce Tucker to mistake the facts as he did in 1856, because the untruth could be detected at any time and easily exposed by reference to the records of the Court; and supposing the truth to be—as no doubt it is—that Tucker meaning to impute perjury to Nichols, in the evidence that he had given in Martin's case, had complained of that in 1844, the same purpose would have been served by so stating the fact in his evidence in 1856; since the one would be perjury in Nichols as much as the other, and it is clear that Tucker did, upon his oath, contradict Nichols in 1844 in what he swore upon Martin's trial, so that he may well have had the impression upon his mind that the testimony was false, though he may have forgotten the real facts twelve years afterwards, and may have supposed it to have been given in a case against himself when it clearly was not.

Tucker received an excellent character from many respectable witnesses, and I have no doubt the jury concluded that after so great a lapse of time, he had forgotten in what case it was that Nichols gave his evidence, and who it was that he had charged with committing the assault.

I was not surprised that the Jury acquitted Tucker of perjury,—though such a mistake seems not easy to be accounted for,—and indeed it was proved, and was

admitted by Nichols upon the trial, that he had told Tucker a few days before, that he had no wish to have him convicted of perjury if he would state frankly in writing that he had made a mistake in his evidence, and that what he had sworn to was not true in fact. Tucker declined to do this, perhaps imagining that he might be understood or represented to have admitted that he had sworn to what he knew *at the time* to be false.

There is this material circumstance to be considered, that before Nichols was tried for perjury, being aware that Tucker was at least mistaken in what he had sworn to, he had through his attorney taken measures to prepare himself for proving that upon his trial. By reference to my notes and to the minutes of the Assizes in May, 1844, his attorney had ascertained that there was no such case tried as that in which Tucker had sworn that Nichols had been a witness, and that he had given no evidence charging Tucker with having committed an assault.

I remember that an attorney or his clerk came to me, and got me to look up my note book of the cases tried by me at Brockville in 1844, and at my request I allowed my book to go into his hands that he might take a copy of the evidence in the different cases, and send it to the Counsel below who was to defend Nichols against the charge of perjury. I know that a copy was made, but either the attorney did not understand that he was to forward it to Brockville, or he forgot to do so, for the copy was made no use of after it was taken, but was left by the person who made it between two leaves of my note book, which was returned to the closet in Judges' Chambers, in which the Judges' note books are usually kept; and was found there long after Nichols had been tried and convicted.

If the copy of my notes had been produced at the Assizes, and had been read as evidence, which I apprehend they could not regularly have been, especially in a criminal case, the Jury might perhaps have acquitted him of that count in the indictment which charged him with swearing falsely in the libel case that he was not the person named in the presentment made in October, 1844, for they might have doubted whether he was not sincerely under that impression when he made the statement.

But it is to be considered that he was convicted also upon two other counts in the indictment, which, as I have already mentioned, charged perjury in two other answers given by him upon his cross-examination; namely, upon the point of his not being a tailor in Prescott, in which case the description in the presentment would not seem to apply to him; and also in denying that he had asked the Deputy Sheriff, some two years before, whether he had any bench warrant in his hands against him for perjury.

The verdict which the jury were to give upon those points would not necessarily be influenced by shewing the inaccuracy of the account which Tucker had given of the civil actions, and of the real effect of Nichols' evidence.

On a review of the whole matter, I have to remark, that I think now, as I did upon the trial of the civil cases in 1844, that it was unreasonable and unwise in Mr. Nichols and his son to worry themselves and the defendants in those suits, with expensive actions, about alleged injuries that were really very trifling, if they had been clearly proved, and which it appeared, after all the evidence was heard, rested upon a very doubtful foundation. It could serve no end, as the result proved, but to increase trouble and aggravate a feeling of ill-will that had better have been allowed to subside.

But these proceedings really afford no just pretence for the article in Mr. Gowan's paper that Mr. Nichols complained of as a libel. That rested upon a statement respecting a much graver matter, and one perfectly unconnected with the civil suits, and it may naturally have seemed to Nichols to be unfair, that Mr. Gowan, after imputing to him perjury expressly in connection with the charge of assassination (and that only), should, upon the trial of the indictment for libel,

attempt to prove the truth of his assertion by shewing simply that Nichols had been presented for perjury, without connecting the presentment with the charge referred to in the newspaper article, and by bringing forward a presentment which had in truth no reference to that matter, but was founded on something wholly distinct from it.

Mr. Gowan, in his evidence on the trial of Tucker before me, gave as an explanation of this, that he did not mean to assert that Nichols was in fact presented at his instance for perjury in charging him with firing or attempting to fire at him; but the libel seemed, I think, to impute that and nothing else.

But however much Mr. Nichols may have been taken by surprise when the presentment was produced, of which he declared he had never before heard, (and it is certain he had left the Province before it was found, and was some years away,) yet that would not justify him in giving an untrue answer to the questions put to him, whether he was the person named in the presentment, whether he had not been a tailor at Prescott, and whether he had not himself inquired of the Deputy Sheriff, if he held any bench warrant against him on a charge of perjury.—Whether he did or did not give knowingly a false answer to any of these questions it was for the jury to judge. I have no other means of knowing than are furnished by the evidence which was given in the cases against Nichols and against Tucker for perjury, which has already been reported to the Government.

Again, as respects Mr. Tucker, it required a liberal allowance to be made for his want of recollection before concluding that he must have confounded an action against Martin with a supposed action against himself, which had no existence, and that he believed he had been tried for an assault and had been charged by Nichols with committing an assault, when it was Martin only, and not he, who was charged in the action, and by Nichols' evidence.

There was, in truth, such a confusion in the whole thing that I think it most likely that the estimation in which any of the parties had been previously held in that part of the country has not been materially affected by any of the proceedings, and that all have been harassed to little purpose.

I have the honor to be, Sir,

Your most obedient, humble servant,

(Signed,) JOHN B. ROBINSON,
Chief Justice.

The Honourable the Provincial Secretary.

(Copy.)

SECRETARY'S OFFICE,

Toronto, 13th February, 1858.

SIR,—Your petition of the 9th ultimo, praying that you be restored to your credibility, has received the attentive consideration of His Excellency the Governor General.

His Excellency, in compliance with your suggestion, caused a full report upon the facts referred to in your petition to be procured from the learned Chief Justice for Upper Canada.

Having given that Report and your Petition his mature consideration, His Excellency is advised that no further action is called for on your Petition.

I have the honor to be, &c.,

T. J. J. LORANGER,
Secretary.

Mr. George Nichols, Toronto.

(Copy.)

BELLEVILLE, 2nd April, 1858.

SIR,—Your letter dated the 13th February, 1858, and addressed to Mr. George Nichols, Toronto, has this moment been submitted to me. I have to bring under your notice, and that of His Excellency the Governor General, in Council, that it was in January, 1857, that the Petition of Mr. Nichols was presented by me; that upon the suggestion of the Honorable Attorney General West, I did not press for the appointment of a Committee of the Assembly to inquire into the nature of his complaint, but the subject was referred to the Honorable Attorney General West to suggest what redress could be granted, as it was admitted a wrong had been done. I ought to say, that in my opinion your letter to Mr. Nichols does not meet my expectations, and as I do not wish to move formally in the House for the production of all papers connected with the case, including the report of the learned Chief Justice of Upper Canada, I have to beg that, at the re-assembling of Parliament, they may be laid before the House, so that the public may know what action was taken by the Executive after I consented to leave the matter in their hands.

I have the honor to be, Sir,

Your obedient servant,

(Signed), G. BENJAMIN.

To the Hon. T. J. J. Loranger,
Provincial Secretary.

SECRETARY'S OFFICE,

Toronto, 10th April, 1858.

SIR,—I have the honor to inform you that the attention of the Attorney General has been called to your letter of the 2nd instant, relative to the case of George Nichols.

The Attorney General requests me to intimate to you that should you desire that the papers in this case should be laid before the House of Assembly, it will be necessary for you to move for them formally in the House.

I have the honor to be, Sir,

Your obedient servant,

(Signed), E. A. MEREDITH,
Assistant Secretary.

G. Benjamin, Esquire, M. P. P.

(Copy.)

TORONTO, 9th June, 1858.

SIR,—In a Report made by me 21st January last, of a trial which took place before me, at Brockville, of William Tucker, for perjury, I had occasion to refer to a conviction of Mr. George Nichols for perjury, at a former Court in Brockville in which Mr. Justice Hagerty had presided.

In stating the substance of the different counts on which the jury gave their verdict in the last mentioned case, I was guided by my understanding of the short abstract of the several counts which I saw in Mr. Justice Hagerty's note book.

I find that what I stated, in the last page but two, of my letter to you of 21st January, as the substance of the charge contained in the fourth count, does not accord with the indictment itself which is before me, and from which I beg to give the following more accurate statement.

The fourth count charged that the defendant, George Nichols, deposed and swore to the effect following: "That he, the said George Nichols, had applied to one James L. Schofield to ascertain from him if there was in his office or possession any warrant for the arrest of his, the said George Nichols' son; and that the said James L. Schofield then told him there was a warrant for his, the said George Nichols' son in his possession, which fact was material to the said issue, —whereas in truth the said George Nichols asked the said James L. Schofield if there was in his office or possession any warrant for the arrest of him, the said George Nichols, or of his, the said George Nichols' son; to which the said James L. Schofield replied that there was not any warrant in his, the said James L. Schofield's, office or possession for the arrest of either him, the said George Nichols, or of his, the said George Nichols' son,"—"and the said George Nichols did thereby," &c. &c.

You will oblige me by seeing that this correction accompanies my former letter.

I have the honor to be, Sir,

Your most obedient humble servant.

(Signed,) J.A.O. B. ROBINSON, C. J.

The Honorable

The Provincial Secretary,

&c. &c. &c.

A true copy.

H. BERNARD.

To His Excellency SIR EDMUND HEAD, Governor General of British North America, &c. &c. &c.

MAY IT PLEASE YOUR EXCELLENCY:

Petitioner—GEORGE NICHOLS, of Toronto, Gentleman,—

Humbly submits to Your Excellency the following explanatory notes in reference to his Petition of the 10th instant:

To judge men's actions it is necessary to know their motives.

Supposing that a question be asked, what were the motives which induced Petitioner to inquire whether there was a Bench Warrant against him? the answer is: It was published in a newspaper, by Ogle R. Gowan; that he, Gowan, had presented a petition for perjury; that a Bench Warrant having been issued for his apprehension, he absconded to avoid its service. Before I could take any notice of the publication, it was necessary I should ascertain what foundation there was for the report. I applied not only to Deputy Sheriff Schofield, but to the High Sheriff, Adiel Sherwood, also to the successor of Schofield, and all answered—No. I then indicted Ogle R. Gowan, and convicted him of the libel. I had no notice that I was to be a witness, but was informed of the contrary by the Queen's Counsel, who stated that the Crown wanted no witnesses—Gowan having admitted the publication. I was questioned if I was the person named in the presentment against one George Nichols, of Prescott, tailor, dated October 8, 1844. I was taken by surprise; and knowing that I was residing in Montreal at the date of the presentment, I indignantly answered—No. I believed it to be a trumpery got up by Gowan in support of the perjury alleged in the libel, and knowing that I had never charged him with an attempt to assassinate me, I felt satisfied in answering as I did.

I know of no reliable fact (notwithstanding all that has transpired since) that would justify any other answer; but I do know that I was not a witness in any of the actions in which it was alleged I committed perjury, nor is there a tittle of evidence that I was.

William Martin before the Magistrates.

Martin swore to the existence of my son George, and alleged that the perjury was committed in the Mooney case; his evidence will be found next but one, to Schofield's. He says, after the trial I left the Court, and when he went to Prescott he found me gone. It was to show that I was not a witness in that action that the Judge's notes were intended to be used.

His Honor the Chief Justice seems to forget how his notes were obtained, and why, after they were obtained, they were not used. To the kindness of Judge Richards I am indebted. He it was who informed me that the Chief had allowed a copy of his notes to be taken. I understood the Chief had noticed in Martin's testimony before the magistrates, that perjury was alleged in the civil action. His Honor, having examined the evidence upon my application for bail, ordered me to be admitted to bail. William B. Heward agreed to furnish me with a certified copy of the Judge's notes, and appointed a time for me to receive them. When the time arrived I learned he had employed a Mr. Rordan to copy them; Rordan charged me five dollars for the copy, half of which he said was for Mr. Heward. Rordan gave me a receipt that he received the money for Heward; I took the copy to Mr. Heward, but the Judge's book did not come into my possession. Heward promised from day to day that he would compare them, and then certify them. To save my bail I was obliged to go to Brockville without them. Before leaving for Brockville I received from Mr. Heward a solemn assurance that he would mail them in time. I understood upon my arriving in Brockville that Tucker was to corroborate Martin's testimony. I became anxious for the notes and wrote to Heward that he would for God's sake send them to me; he took no notice of my appeal and the mischief was done. After I had in a measure recovered from the terrible shock I had sustained, I wrote the Chief complaining of Heward; I have reason to believe the Chief sent him my letter, because it was Heward answered it; he was disingenuous enough to affirm that he had sent them. The Chief in his report says "the copy was made no use of after it was taken, but was left by the person who made it between two leaves of my note book, which was returned to the closet in Judges' Chambers in which the Judges' note books are usually kept, and found there long after Nichols was tried and convicted." With these facts in view, how stands the conduct of Heward? I now beg leave to state good and probable reasons for believing that Tucker's evidence was not given through mistake, but was the result of deliberate consultation. Be it remembered that Gowan was under conviction waiting for sentence which he was endeavoring to put off, and sensible that if I escaped conviction he must receive punishment. He could perceive that if Tucker corroborated Martin's testimony, I could prove that I was not a witness in the action; and as Martin in his evidence makes no mention or allusion to any other suit or trial, Mr. Gowan would have a strong motive for keeping Martin out of the way, for he was kept out of the way; and although he was summoned on the side of the Crown, and for the defence also, he could not be found, although he was in Court at the commencement of the trial. Every discerning and penetrating mind may perceive the necessity of Gowan in the want of another witness, and as Tucker was not concerned in the libel suit, neither was he a witness before the Magistrates; he appeared before the Court a new man, and gave new evidence, every word of which has been proved untrue, and I conscientiously believe, sworn to against light and knowledge. It is impossible for any rational man to conceive that such evidence could be a mistake. Are not all those reasons

strong enough to justify a belief, at least a suspicion, that there was a plot, a conspiracy between Gowan and Tucker.

It is in evidence that his Lordship Judge Macaulay stopped my reading some documents at the close of my evidence in the libel case of the Queen *vs.* Gowan: I beg leave to state they were those enclosed with Mr. Cameron's certificate—one of them is from Judge Macaulay himself. The object I had in reading them was to show the time and the reason why and when I abandoned the business of a tailor; I intended the reading of them as an explanation to my answer that I was not a tailor in Prescott. At the mention of His Lordship's name he stopped me, supposing it to be irrelevant.

It is stated that when I gave my evidence I was excited; I was much excited, I was intoxicated, but it was with joy; every pane of glass in the Court House was illumined; the red cross banner of St. George, and that flag, the flag of England, that for a thousand years has braved the battle and the breeze, was floating over his Lordship, while a privileged confusion and joyful noise prevailed outside the Court. In the square, were assembled men and boys whose shouts and huzzahs of victory did not assist his Lordship's hearing; squibs, fire crackers, and sky rockets illumined the firmament above; the roll of musketry and the roar of cannon reverberated through the Court House; the Mayor's proclamation calling on the loyal inhabitants to celebrate by public demonstration the fall of Sebastopol, was in the front of his Lordship. It was in the midst of this scene that I was unexpectedly and unpreparedly called to the witness box. Little did I imagine, in the joy of a British heart, that I was by a base and ingenious plotter to be deprived of a Briton's name and rights, and to be robbed of the sweetness of existence. There was no man prouder of the name of a British subject—no man prouder of being the subject of such a Sovereign. Where is the man so dead to loyal and generous feelings, so blind to the beauties of moral excellence, that is not proud to be a subject of Victoria, our Queen, a woman, wife, and mother, as well as Sovereign, who in her christian character acknowledges herself to be the subject of the King of Kings and Lord of Lords. On that night these were my thoughts and not the thoughts of perjury.

I have tired Your Excellency's patience, and fear that I will be thought troublesome, but misfortunes and wrongs make men troublesome, in view of which I pray to be excused.

All of which is respectfully submitted by the Petitioner for Your Excellency's consideration, and for which, as in duty bound, Petitioner will ever pray.

(Signed,) GEORGE NICHOLS.

Toronto, 14th June 1858.

To His Excellency SIR EDMUND W. HEAD, Governor General of British North America, &c. &c. &c.

MAY IT PLEASE YOUR EXCELLENCY:

The Petition of GEORGE NICHOLS, of Toronto, Gentleman,

Humbly sheweth,—

That in consequence of His Honor Chief Justice Robinson having withdrawn his Report for alteration and correction, which he made of the trial of William Tucker, who was tried before His Honor at the Fall Assizes in October last, at Brockville, for perjury.

In an official letter from the Secretary's Office, of the 15th January, 1858, addressed to His Honor the Chief Justice, Your Excellency desires to be favored

with the Report and opinion in the case of Tucker, so far as it has any bearing on the prayer of the petition of George Nichols to be restored to his rights as a British subject—adding, that in the absence of such report and opinion, the Attorney General states it almost impossible to arrive at any satisfactory conclusion in the matter.

Petitioner acknowledges the receipt of a letter of the 13th February, 1858, from the Provincial Secretary, in which Petitioner is informed that the desired report and opinion of the Chief Justice had been procured, and that the said report and petitioner's memorial of the 9th of March, 1857, had received mature consideration, and that no further action is called for on said petition.

As the report of the Chief Justice is admitted to be incorrect in a most important point, His Honor, as he states, made it in the absence of the indictment and report of evidence furnished by Judge Hagerty, in the case of the Queen *vs.* George Nichols.

The letter of the 13th of February, referred to above, being based upon a confessedly incorrect report, is in justice to petitioner entitled to renewed consideration.

In full assurance of Your Excellency's power and inclination to see that justice be done in the premises, your petitioner submits for His Excellency's information important public documents, in support of his case, which documents, being under the Crown seal, will prove themselves.

For the sake of brevity, and to avoid long repetitions, petitioner respectfully requests that references to himself may be in the first person.

There are four counts in the indictment. The first charges me with falsely, &c., swearing that I was not the person named in a presentment made on the 3rd of October, 1844, against one George Nichols, late of Prescott, tailor. If the evidence of Tucker was unimpeachable, there would be ground for a verdict of guilty on the first count, but as it does not contain one word of truth, it is but just to examine the case as if he (Tucker) gave no evidence at all. Add to which, there is not a tittle of evidence that I was cognizant of the existence of such a presentment till after I gave my answers. The evidence of Ogle R. Gowan, the principal witness, and interested prosecutor, amounts to nothing—it was mere hearsay, and such as any one might give, though ignorant of the real facts of the case.

The evidence of John Weatherhead proves no fact, it amounts to this: he knew of no other George Nichols, and so assumed a conclusion that I must be the man. This was the evidence adduced in support of the first count. The opinion of learned counsel is, that it fails, because it does not in fact show that I was the person named in the indictment, but that I knew I was. The statement that I absconded on the Friday before the Assizes, which would be on the 29th of September, 1844 (as the Assize commenced on Tuesday, the 3rd October, 1844) to avoid a presentment not made, is a little improbable on the face of it. It would be madness in any man to persevere in the manner I have done to bring Gowan to trial, for publishing that he had me presented, if I had any knowledge of such a presentment when I brought the action for the libel, which was in October, 1854.

Again, would it not be the height of absurdity and presumption to importune the Government for employment in 1845, if I knew there was a charge against me for perjury committed in 1844. As I do not intend to submit any evidence to your Excellency which is only assertive, nor any statement unsupported by other proof, have to submit for the information of Your Excellency, the certificate of the Hon. Malcolm Cameron, which I received from him in Montreal the 6th of March, 1845. I went to reside in Montreal in August, 1844, that I might be near the Government, and not with the intention, as Tucker swore and Gowan published.

The second count being abandoned, how stands the evidence in the third. The third count charges me with perjury, for having sworn that I never followed the business of a tailor, in Prescott.

For the prosecution there are two witnesses, whose evidence is sufficiently specific to be of any value—these two are Frances Dalmage and James Wilson. The former testified that she knew me, in my own shop, to measure her son for clothes. Her evidence took me by surprise; it was new and unexpected; fresh from Gowan's witness factory in Leeds.

The witness Dalmage, I have reason to know, was actuated by spiteful feelings; in proof of which I beg leave to submit a copy of complaint I made to the Government in 1843, against Philip Dalmage, father of witness. It is endorsed in letter B, and endorsed, Complaint of Nichols *vs.* Dalmage. I have a clear recollection of the witness Dalmage coming to my shop in the fall of 1843, in company with her father, the said Philip Dalmage; they had with them a copy of the complaint alluded to above, which they gave me to understand they had received from the Government, but instead of patronage in the way of business, I got nothing but abuse, and threats of vengeance. I most solemnly declare that was the only time I ever saw the woman till she gave her evidence for Gowan. Her general character is that of a woman of ill-fame, living evidence of which exists in her illegitimate offspring.

The next witness is James Wilson. I knew him in Toronto before the Rebellion; he was then a journeyman tailor; he was so intemperate that he was seldom employed. Wilson in his answers, when cross-examined, swears that he knew me before the Rebellion; also, that he saw me cutting trowsers, though he does not state when or where. He swore I had a sign, George Nichols, tailor, from Dublin. If Wilson were properly examined, the facts would appear thus. He could prove that I carried on the business of a tailor in Toronto; that he worked for me as a journeyman; that I had in Toronto such a sign as he swore to; indeed, he might have sworn that I cut trowsers for him to make, and that I discharged him from my employment on account of his unsteady conduct. He enlisted in one of the militia regiments, and is now an out-door labourer. Now if Wilson knew me before the Rebellion, it must have been in Toronto, and not in Prescott, as I did not move to Prescott till 1843, previous to which I taught the village school in Johnstown, as stated on oath by William M. Hines, who paid me in 1844 for 1843. I remember the money was partly for 1842-3. Mr. Hines was then Superintendent of Education in Johnstown District; he was a witness on the part of the defence.

The next witness for the defence is James Gillard.

The testimony of Gillard not only conflicts with that of the witness Dalmage, but which comes from a man who, from his situation and knowledge of me, the defendant, was well able to testify. His testimony is to this effect.

I am a tailor by trade; lived in Prescott from 1832 to 1846. I knew Nichols, the defendant. I understood he had been a tailor; that a wound received in 1837 prevented his following the trade in 1844. He was an auctioneer, and kept a temperance house. I lived near him. Had he been a tailor, I should have known it. I knew his son James; he was a tailor. I made defendant a coat between June and July, 1844. As to the sign sworn to by Wilson, the witness Gillard swore he did not know of any such sign. Finally, that he did now know of any charge against me.

Next witness for the defence is Marcus Burrett, Esq., a Barrister of Prescott; his evidence is as follows: I have lived in Prescott 25 years, I knew defendant lived there in 1843-4; he was an auctioneer as I thought; to my knowledge he was not a tailor. He was known as Nichols the tailor. I knew him well. I lived opposite; don't remember any sign.

Well might his Honor the Chief Justice report that the evidence in support of the third count was contradictory. It may be presumed that the evidence of Messrs.

Burrett, Hines, and Gillard is as deserving of credit as that of Frances Dalmage or James Wilson, for at every step there is a conflict of testimony.

When it is considered that the early part of my life was passed as a tailor, but not in Prescott. I followed it first in Brockville, where I became known as a tailor, afterwards in Toronto, till after the Rebellion. In 1842 the Board of Surgeons appointed to examine me at Brockville, at that time I lived in Johnstown. The Board reported that I was incapacitated from following the business of a tailor, and the same Board of Surgeons in 1853, reported to the same effect. Dr. Gainfort, one of the said Board, lived neighbor to me in Prescott, in 1843-4. How ridiculous to believe that a man would be working at a trade at the very time he was furnishing proof to the Government of his incapacity to work at it, and that in the very neighborhood of the Board. There is another circumstance worthy of remark. It will be seen in the declaration under the seal of the Crown. It contains a Schedule of the goods seized in December, 1843, and as all was taken, without a bed or covering left for infant children in cold December, the action was for excessive distress, the same alluded to in the Chief Justice's report. The list of goods is on the first page of said declaration, it will prove the absence of everything connected with tailoring, and is as follows:—

One sofa, twelve chairs, three tables, six blankets, three feather beds, seven pillow-cases, two show-cases, two counterpanes, five quilts, eighteen pounds of tea, one pair of patent balance scales, two sets of weights, seven strings of sleigh-bells, one buffalo robe lined and trimmed, one bedstead, one wood-saw, and four chests of much greater value than the amount of the said arrears of rent.

The issue upon the fourth count will admit of an easy review.

In the fourth count I am charged with having committed perjury in swearing that James L. Schofield told me there was a Bench Warrant issued against my son; in this the perjury is said to lie. In the case of the *Queen vs. Nichols*, for perjury, tried before Judge Hagerty, Schofield's evidence is not very contradictory to mine. The proof of the fourth count is in Schofield before the magistrates, to which I respectfully beg your Excellency's attention. It will be found at head of fifth leaf, envelope D, endorsed *Queen vs. Nichols*. It is as follows:

James L. Schofield, sworn, says,—

"Heard the prisoner state that witness had told him he had a warrant against his son. Witness never told prisoner so; nor never had a warrant against his son to his recollection. Cross examined: Witness has no recollection of any thing connected with the case then. There never was a Bench Warrant issued as he knows of. Prisoner called on witness, two or three years ago, to know if there was a Bench Warrant issued for him for perjury. Prisoner might have said that what he said had reference to the libel. Never had a Bench Warrant against the prisoner; remembers selling the lot for debt and costs; don't remember any conversation at Prescott about a warrant for prisoner's son, but there might be. Upon reflection witness states that a conversation of that kind might have taken place, but still has no recollection of it. Was in the Sheriff's office in part of 1842 till 1846. Thinks that if a Bench Warrant had been issued while he was Deputy Sheriff against prisoner, it must have come into his hands. This testimony, both in chief and in cross examination, is precise and positive; but a conversation such as alleged by me might have taken place, and Schofield after an interval of many years entirely forgot it. The deposition of Schofield admits as much, in express words: "don't remember any conversation at Prescott about a warrant for prisoner's son, but there might be. Upon reflection, witness (Schofield) states that a conversation of that kind might have taken place, but still has no recollection of it."

To convict a man of perjury upon such testimony is neither right nor reasonable.

The probabilities in favor of the inquiry having been made are increased by the production of the return of criminal business done in Brockville, in the District of Johnstown, at the Spring Assizes of 1844, in which a presentment of the Queen vs. James H. Nichols is shown with the memorandum "Bench Warrant issued." This Nichols, the victim of malicious persecution, I stated upon oath was my son. Now the return is made by W. H. Draper, and if it be taken as correct, a Bench Warrant was issued, and if issued must have been sent to the Sheriff.

The opinion of the learned judge who tried the case may be gathered from the fact that the sentence imposed on the three counts, was only three months in common jail without the more degrading sentence of hard labor.

Had the learned judge been of opinion that the charges were heinous and sustained by proof, such a sentence never would have been passed. From this as much as from anything that transpired at the trial, there is good reason to argue that the conviction was not in accordance with either law or evidence. But I have good reason to believe that if Gowan thought it served his purpose to point me out as Townsend, the murderer, the same witnesses, with some exceptions, would do him service in carrying out his purpose.

His Honor the Chief Justice has, I understand, altered his report. The variance was in the account of the evidence given in support of the fourth count; it was in direct contradiction to the facts sworn to. There are several other mistakes; but, as they form no part of the testimony upon oath, let them be. But in respect to the evidence of William Tucker, can it be admitted on a plea of mistake?

The formalities of law, especially the law of England, are slow, solemn, and impressive. First, there must be a complaint before a magistrate or grand jury. Second, an examination. Third, a warrant and arrest. Fourth, a committal or bail entered. Fifth, a presentment. Sixth, an indictment. Seventh, an arraignment and plea. Eighth, the trial and defence. Ninth, verdict and result.

How could any sane man swear he passed through such an ordeal without knowing whether he did or not.

Had he rambled or wandered in his evidence, there might be some reason to suppose his memory at fault. But no; he gave his evidence in a clear, distinct, and positive manner, like a school boy that had his lesson well.

Petitioner, trusting in your Excellency's justice, begs most respectfully that a report upon his case will, by the Honorable Attorney General, be made and sent down to the Legislature.

And petitioner, as in duty bound, will ever pray.

(Signed)

GEORGE NICHOLS.

Toronto, June 10, 1858.

(Copy A.)

MONTREAL, 6th March, 1845.

I have much pleasure in stating, at the request of Mr. George Nichols, that Mr. Hincks, while Inspector General, frequently mentioned Mr. N. as deserving of consideration from his loss from a wound received during the Rebellion, and was of opinion that he could be of advantage to the public service in the Revenue department or as a Light-house keeper, in which opinion I fully concurred.

(Signed)

MALCOLM CAMERON.

KINGSTON, 8th June, 1855.

This is a true copy of a letter which I gave Mr. Nichol at the date then given.

(Signed)

MALCOLM CAMERON.

TORONTO, 14th December, 1840.

I certify that I have known Mr. George Nichols about the period of six years, and believe, both from my own knowledge and from his general character, that he is a very deserving person. I can testify to the zeal with which he exerted himself in the time of danger in December, 1837; his conduct on which occasion led to the accident which incapacitated him from pursuing what was then a prosperous business.

(Signed)

ROBERT G. JAMESON, V. C.
JOHN H. DUNN.

I first knew Mr. Nichols during the Rebellion in 1837, and observed that he was on that occasion particularly active. I believe him to be a very respectable person and worthy of the favor of the Government.

(Signed)

JONAS JONES.

16th December, 1840.

I have every reason to believe that the above certificate and several others which I have this day seen, are justly merited by Mr. Nichols, whose loyalty and zeal I have always heard commended by those who had better opportunities of personally knowing him than I have enjoyed.

(Signed)

J. B. MACAULAY, J.

Toronto, 17th December, 1840.

Mr. Nichols was zealous, active and loyal during the Rebellion of 1837, and I think he well merits the favorable consideration of the Government, not only in justice to himself but for the encouragement of others.

(Signed)

L. P. SHERWOOD.

17th December, 1840.

BROCKVILLE, 21st Oct., 1856.

I certify that in March, 1845, George Nichols came to me in Montreal, anxious to obtain a situation in the Customs, and that I gave him a letter stating my readiness to assist him, as he had recommendation from friends of mine.

(Signed)

MALCOLM CAMERON.

TORONTO, 29th January, 1840.

I certify that being presiding Magistrate at the City Hall from 9 o'clock in the evening of the 4th December, 1837, until 7 o'clock in the morning of the 5th, that Mr. George Nichols was not only one of the first men who came before me to be sworn in as a special Constable for the protection of the City that night, but rendered important assistance by bringing forward a number of loyal men who were sworn in by me for the same purpose.

(Signed)

ALEX. DIXON,
Alderman.

I hereby certify that Mr. George Nichols, of the City of Toronto, served as a Volunteer at the Batteries in front of Navy Island during its occupation by the Brigands in January, 1838.

(Signed)

WM. STENNETT,
Capt. Prov'l Artillery.

Toronto, 24th January, 1840.

I have known the Memorialist, George Nichols, for some years, and I believe him to be a person well worthy of the assistance of the Government, and having a good claim for his services and loyal character.

(Signed) JNO. B ROBINSON.

I cordially join in the Certificate of the Chief Justice, and beg leave strongly to recommend the Petitioner to the recommendation of the Government.

(Signed) A. McLEAN,
CHR. A. HAGERMAN,
WM. H. DRAPER.

23rd June, 1840.

MAYOR'S OFFICE, CITY OF TORONTO,
30th January, 1840.

I certify that Mr. George Nichols was act'ly employed on the frontier during the winter of 1837-'8, although not actually attached to any particular Company; he also rendered himself useful in the City during the week of the Rebellion. I believe him to be a truly loyal man.

(Signed) JOHN POWELL,
Mayor of Toronto.

The bearer of this is George Nichols, a mechanic of the City of Toronto, in Upper Canada; he informs me he is about to proceed to England and has requested me to state my opinion of his conduct and character—a request I cheerfully comply with, because I have it in my power to say that I believe him to be an honest man and a loyal subject, and that he will on all occasions, to the utmost of his ability, perform whatever engagements he may enter into. I believe him free from embarrassment, and that he is frugal and prudent.

(Signed) CHR. A. HAGERMAN,
Attorney General, U. C.

Toronto, 9th April, 1839.

To His Excellency Sir George Arthur.

I do certify that the bearer, George Nichols, is a loyal subject, a respectable inhabitant of Toronto, and I very much regret that in consequence of his zeal in coming forward during the attack upon Toronto, he has received an injury, which, though trifling in appearance, has been productive to him of great misfortune.

(Signed) F. B. HEAD.

Athenæum, London, 20th May, 1839.

I do certify that Mr. George Nichols, a citizen of Toronto, took up arms in defence of this City on the night of the 4th December, 1837, and was among the most forward of our militia in the action with the Rebels on the 7th of that month; and further, that he has suffered a serious injury in his right hand while employed in the execution of orders received from me during the insurrection.

(Signed) JAMES FITZGIBBON,
Colonel of Militia in Upper Canada,
then commanding in the City of Toronto.

Toronto, 11th April, 1839.

I hereby certify that Mr. George Nichols served as a Volunteer on the Niagara Frontier, under my command in January, 1838.

(Signed)

ALLAN N. MACNAB,
Colonel.

Toronto, 3rd January, 1839.

I believe Mr. George Nichols to be a worthy man, and had an opportunity of judging of his humanity during the excitement consequent on the late troubles, which greatly raised him in my estimation, and will always induce me to feel rejoiced in his welfare.

(Signed)

ROBERT BALDWIN,
Solicitor General.

Toronto, 30th December, 1840.

I certify that Mr. George Nichols of this City was amongst the foremost of those who turned out in defence of the Government when assailed by the Rebels on the night of the 4th December, 1840.

(Signed)

J. ELMSLEY.

Toronto, 17th December, 1840.

I hereby certify that Mr. George Nichols of Toronto joined the Night Patrol formed under my command for the protection of the City in 1837, at its first organization here until he went to Navy Island. Upon his return he again joined the Patrol and continued to serve until we were discharged in the month of March following.

(Signed)

C. GAMBLE.

Toronto, 30th January, 1840.

D.

Province of Canada, County of Leeds, one of the }
United Counties of Leeds and Grenville, } To wit:

The examination of Ogle R. Gowan, George Sherwood, John Weatherhead, Esquire, Richard Ballard, James L. Schofield, Esquire, Stephen M. Beach, the younger, James R. Wilson, and C. Leggo, taken on oath this 13th day of October, in the year of our Lord 1855, at Brockville, in the County of Leeds, one of the United Counties aforesaid, before the undersigned five Justices of the Peace for the said County of Leeds, in the presence and hearing of George Nichols, who is charged this day before us, for that he, the said George Nichols, did, on the 28th day of September now last past, at the Town of Brockville, in the County of Leeds aforesaid, in swearing that he was not the same person presented by a Grand Jury of the old Johnstown District, on the 3rd day of October, 1844, for willful and corrupt perjury, whereby the ends of justice were defeated. First witness called was Ogle R. Gowan, and this deponent, upon his oath, says as follows:—is acquainted with the prisoner. Has known him for about 25 years. Witness is the complainant in this case. Witness says he knows prisoner to be guilty of wilful and corrupt perjury at different times, but the particular case for which he is now a prisoner took place on the 28th day of September last. The circumstances were these. That he, Nichols, had been presented for perjury by

the Grand Inquest of the late District of Johnstown, now the United Counties of Leeds and Grenville. Witness stated further that a Bench Warrant had been issued for his arrest, and the prisoner absconded the Province to evade the service of the warrant. For witness so stating, he proceeded against him for libel. Witness pleaded justification, and in proof of the justification witness produced in open Court an exemplification of the Grand Inquest before mentioned, of whom John Weatherhead, Esquire, was Foreman. In that presentment George Nichols is charged with willful and corrupt perjury, being late of the Town of Prescott, tailor, in the County of Grenville. The words of the presentment are as follows, viz. : "The Jurors of our Lady the Queen, upon their oaths, present that George Nichol, late of Prescott, tailor, on or about the 13th day of May, in the 7th year of our Lady the Queen, at Brockville, in the District aforesaid, did wilfully and corruptly commit perjury against the form of the statute in such case made and provided, and against the peace of our Lady the Queen, Her Crown and dignity. (Signed,) John Weatherhead, Foreman. The 3rd day of October, 1844." On the back of the presentment are the following endorsements: "Filed 3rd October, 1844. Wm. A. C. The Queen *vs.* George Nichols. Presentment. Stephen M. Jarvis, Wm. Martin, William Tucker, bound in £10 each. Bench Warrant issued 3rd October, 1844. Wm. A. C. Filed 23rd October, 1844. C. C. Small."

Then there is an endorsement over that, which the witness believes to be in the handwriting of Judge Draper. Defendant absconded October, 1855. Witness produced the original exemplification on the trial for libel as evidence. The prisoner afterwards was placed in the witness box, and testified before the Court and Jury that he was not the person named in that exemplification, but that it was his son. Upon this witness positively believes he swore false. Witness further states that he verily believes that prisoner was the same person presented by the Grand Jury aforesaid, and on the day and year aforesaid. This is the ground work of the complaint *vs.* prisoner. Witness also says that prisoner swore at the same time that he never went before a Grand Jury to have witness presented for attempting to assassinate him on the public road. He also swore on the same occasion that he never told any person that witness had attempted to take his life by firing a pistol at him. Witness further states that Nichols called on James L. Schofield, then Deputy Sheriff, to inquire if he (Schofield) had a warrant for his (Nichols') son. Prisoner swore that Schofield said he had. He also swore that what Amos Knapp said was false. Prisoner stated that he never followed the tailoring trade in the Town of Prescott, nor never requested Mr. Knapp's custom as such while in Prescott. Witness further swears that prisoner initiated his (witness's) son into the mysteries of Orangeism in 1843, which was false. Prisoner stated before the Court that he might be mistaken about the number of the Lodge, but the fact of initiating him in 1843 was true, and was done in the house of David Mair, in the Town of Brockville.

Mr. Gowan cross-examined: Knows the prisoner by the name of George Nichols. Thinks he writes his name George Nichols. Knows prisoner for 25 years. Never held a District Meeting in Ballymena. Has no recollection of seeing him in Ireland. Has no recollection of being in prisoner's house in Brockville. The Court rules that Mr. Gowan need not say anything about an old book shewn him. Mr. Gowan swears that he has known prisoner to have been guilty of wilful and corrupt perjury at many times heretofore. Witness says he never had prisoner presented for perjury. Saw the exemplification of the presentment in the spring of 1855. The evidence of the prisoner was of such importance, the Jury stated to witness, that it was his evidence that gave a verdict to the Crown.

(Signed) OGLE R. GOWAN.

Thomas May sworn: says he is acquainted with the handwriting of Mr. Gurnett, of Toronto, Police Magistrate, and that the name signed there is correct in regard to a warrant issued at Brockville by E. Dunham and endorsed or countersigned by the said George Gurnett, to arrest one George Nichols for perjury.

John Weatherhead sworn: says he was the Foreman of the Grand Inquest for the Fall Assizes of 1844, for the then District of Johnstown. Says the prisoner was presented in the Fall of 1844 by the Grand Jury for perjury. Is positive the prisoner is the same person. Witness would not believe the prisoner if he would or did swear that he had never been presented for perjury. Cross-examined: has seen prisoner at Prescott and Brockville. Witness don't know if prisoner was cognizant of the Grand Jury presenting him for perjury at that time.

(Signed) JOHN WEATHERHEAD.

George Sherwood, Esquire, sworn: says he was present in Court the last Assizes, and asked prisoner, as Counsel for Mr. Gowan, if he was the person named in that presentment for perjury, that was produced on the trial, purporting to be against one George Nichols; when he replied that he was not. Thinks he asked him who he was, when he said it was his son. Considers the questions and answers were material in the case. Prisoner stated that he applied to Mr. Schofield to ascertain if he had a warrant against him, but prisoner stated distinctly that Mr. Schofield told him he had not, but that he had one against his son. Prisoner said that the only occasion on which he ever went before a Grand Jury against Mr. Gowan was in a case of libel. Prisoner stated he never solicited Mr. Knapp's custom in his capacity as tailor at Prescott.

Mr. Sherwood don't know that prisoner knew of a presentment having been made against him by the Grand Jury or not.

(Signed) GEORGE SHERWOOD.

Richard Ballard sworn, says: Knew the prisoner in 1843 and 1844 in Prescott. Knew he had a son, James Nichols—was about 14 or 15 years old. Witness don't know of himself that the son was presented for perjury. The witness says that prisoner's son had a double name. Witness knew the prisoner to work at tailoring in the Town of Prescott in 1843 and 1844. Saw prisoner use the shears in cutting out cloth and taking measures. Never knew any other person of the name of George Nichols in the Town of Prescott a tailor but the prisoner. Had no son called George Nichols. Never knew but one son, as before stated. Mr. Nichols had ready-made clothing to sell in his shop in Prescott. Had ready-made clothing in the same shop in which he took measures and cut cloth.

Cross-examined: Witness swears he was acquainted with prisoner in 1843 and 1844. The termination of witness's acquaintance ended in the spring of 1844. Don't recollect the prisoner being in Prescott in the Fall of 1844. Was acquainted with prisoner intimately. Don't recollect prisoner speaking on this subject. Had some small children, but did not know of but one son.

Re-examined: Witness understood from prisoner, in a conversation with him, that if Bill Martin, Pat Mooney, Bill Tucker, and Pat Dillon, came up, they would of course convict him of perjury. Prisoner said, "Could not Mr. Gowan leave him alone and not conspire with them against him?" This conversation took place two or three days before the last Assizes in this Town. This conversation took place in Brockville.

(Signed) R. BALLARD.

Stephen N. Beach, sworn : Says he was examined : did not hear the prisoner examined. Heard prisoner state that he was going before the Grand Jury to have Mr. Gowan indicted for threatening to shoot him. This conversation took place in the West Ward Market House, eleven or twelve years ago. Thinks one of the persons was Mr. Ormond Jones, to whom the prisoner was speaking at the time.

(Signed) STEPHEN N. BEACH.

James L. Schofield, sworn : Heard the prisoner state that witness had told him that he had a warrant against his son. Witness never told prisoner so, nor never had a warrant against his son to his recollection. Cross-examined : Witness has no recollection of anything connected with the case then ; there never was a Bench Warrant issued, as he knows of. Prisoner called on witness two or three years ago to know if there was a Bench Warrant issued for him for perjury. Prisoner might have said that what he said had reference to the libel. Never had a Bench Warrant against the prisoner. Remember selling the lot for debt and costs. Don't remember any conversation at Prescott about a warrant for prisoner's son, but there might be : upon reflection witness states that a conversation of that kind might have taken place, but still has no recollection of it ; was in the Sheriff's office in part of 1842 till 1846. Thinks that if a Bench Warrant had been issued while he was Deputy Sheriff against prisoner, it must have come into his hands.

(Signed) J. L. SCHOFIELD.

The Court adjourns till Wednesday afternoon, at two o'clock, to give the parties time to get witnesses. In the mean time the prisoner is ordered to be committed.

(Signed) WILLIAM GERVEY, J.P.
 " ROBERT PELLEW, J.P.
 " G. W. ARNOLD, J.P.
 " EPHRAIM DUNHAM, J.P.
 " JOHN READ, J.P.

Brockville, Oct. 13, 1855.

Should the prisoner get bail, he must be bound himself in £100, and two sureties in £50 each.

(Signed) WM. GERVEY,
 Chairman.

WEDNESDAY, 2 o'clock.

The Court opened according to adjournment.

Present :

ROBERT PELLEW,
 JAMES BREAKENRIDGE,
 JOHN G. BOOTH,
 EPHRAIM DUNHAM,
 JOHN READ,
 MOSES READ,
 JOHN KILBORNE.

The defendant requested the witnesses to be examined should retire, except the one under examination. Mr. Gowan has no witnesses, except the Sheriff and Mr. Martin, to be examined.

Mr. Martin, sworn: Resides in Prescott; resided in Prescott 28 years; has seen the defendant; his name is George Nichol or Nichols; some time ago, nine, ten, or eleven years ago; witness was acting as constable at the time; was another Nichol, said to be son of defendant; is certain that the defendant is the same George Nichols that was indicted; that he left the Court, and when he went back to Prescott found him gone; knows the defendant, as he was a witness against him before the Grand Jury, and has worked for him as George Nichols.

(Signed) WM. MARTIN.

Cross-examined:—Says that he had a son—that he was called George Nichols—dont know as they were sometimes called Old George and Young George; was a man grown; don't know as his son was a tailor or not; says Mooney gave him a distress warrant against defendant's goods; that he distrained the goods, and defendant brought an action against him and Mooney for the goods distrained. Prisoner was in Court at the time the action was against witness and Mooney, and remembers the trial between him and Mooney came off at Brockville; was present when the said trial was going on.

(Signed) WILLIAM MARTIN.

Adiel Sherwood, Esq., sworn:—Has been Sheriff for upwards of the last twenty years; knew the defendant for a number of years, and that he resided in Prescott; knows his name was Nichol or Nichols, understood so; was a tailor by trade. Recollects some two years ago or thereabouts defendant called upon him and asked if there was a warrant against him; I replied I was not aware of any against him. I think he said there was a warrant against his son, and wanted to know if there was any against himself at any previous period. Cross-examined: Recollects prisoner said a good deal; thinks he did not speak about the libel until he inquired about the warrant; thinks it probable he may have spoken about the libel; knows he has since done so; he might have asked about the warrant for the purpose of meeting the charge, but dont recollect; there was a good deal said.

(Signed) ADIEL SHERWOOD.

John Crawford, Esq., sworn:—Was foreman of Grand Jury about two years ago; recollects George Nichols coming before the Grand Jury, but did not then enter a complaint against Mr. Ogle R. Gowan, but against his son.

(Signed) JOHN CRAWFORD.

Henry Jones, sworn:—Was acting for Clerk of the Assizes last Court; heard prisoner say that he never had gone before a Grand Jury to indict Mr. Gowan for libel, except about two years ago. Witness inferred it was Ogle R. Gowan he referred to; thinks he heard the prisoner say at the trial, when a question was put to him, if a presentment had been against him; he replied it was not him, but his son; heard him also state that he had initiated Mr. Gowan's son into the Orange Lodge (Nassau C. Gowan) No. 1; is not positive as witness recollects it. Prisoner swore that he had never seen a gun or pistol in Mr. Gowan's hands, but thought that parties had done so by the instigation of Mr. Gowan. Cross-examined: Won't swear that the prisoner was in witness-box when he stated what he has stated. Won't say the conversation had reference to a former complaint; believes

it had not reference to the trial then pending; possibly the Crown officer may have asked the question if he, Mr. Nichols, knew of any presentment; has not the slightest doubt but Mr. Nichols stated in that there was an indictment against his son. When the exemplification was read, defendant objected to the name; did not know as defendant had any knowledge of a presentment against Nichols.

(Signed) HENRY A. JONES.

DEFENCE.

John G. Booth, sworn :—Says he has heard something about his qualification, but dont know as that it is general, but nothing of his own knowledge.

Mr. M. Dunham sworn :—What is the general character of Mr. Gowan for truth and veracity? He has heard a number of things against Mr. Gowan's character, but knows nothing of the correctness of them.

(Signed) WM. M. DUNHAM.

Elnathen Hubbel, sworn :—Has known Mr. Gowan for a long time, but knows nothing against his character; would believe him on oath, where he had an interest. Cross-examined: Knows nothing against Mr. Nichols.

Christopher Leggo, sworn :—What is Mr. Gowan's character for truth and veracity? Says it is not good; would not believe Mr. Gowan under oath when his interest is concerned; formed this opinion from hearing that Mr. Gowan had qualified upon 1300 acres of land which did not belong to him; knows nothing of the fact but from hearsay.

(Signed) C. LEGGO.

Dr. Edmondson, sworn :—His general character with one party stood very high; with the other not quite so high; would believe Mr. Gowan upon oath under any circumstances.

(Signed) R. EDMONDSON.

Dr. P. Schofield, sworn :—Of Mr. Gowan's character with his strong political friends it is very good; with his strong political opponents it is very bad; but with the moderate thinking portion of both parties it is good.

Wm. Buell, sworn :—With the people with whom I associate, Mr. Gowan's character is bad; cannot say what the others think, meaning his political friends.

(Signed) WM. BUELL.

Hon. James Morris, sworn: Mr. Gowan has two characters, one with the reformers and the other with the conservative party. When Mr. Morris was a candidate, Mr. Gowan said or imputed of him and of his political party things which Mr. Gowan must have known were untrue; but in any matter affecting life and property he would not call Mr. Gowan's evidence in question. Cross examined: Never knew Mr. Gowan in his social and commercial intercourse with him to swerve from the truth.

(Signed) JAMES MORRIS.

Robert Fitzimmons, sworn : Mr. Gowan's character for truth and veracity was good, for any thing he knows. Some believe it to be perfectly good ; others do not. Would believe him upon oath when he was concerned.

(Signed) ROBERT FITZIMMONS.

Frederick Jones, sworn : Mr. Gowan's character for truth and veracity is as good as the average of the community, and would believe Mr. Gowan upon oath.

(Signed) FRED. JONES.

Amos O'Dell, sworn : Mr. Gowan's general character for truth and veracity is good. With some it is bad ; but from any thing I have had to do with Mr. Gowan, I think his character is good.

(Signed) AMOS O'DELL.

Ira Billings, sworn : Mr. Gowan's character for truth and veracity—has not heard any thing against his general character, and knows nothing against him.

(Signed) IRA BILLINGS.

Thomas Smart, sworn : Mr. Gowan's general character for truth and veracity—never heard it impeached. Thinks the public are divided in opinion regarding Mr. Gowan's character upon political grounds. One party thinks Mr. Gowan's character good, and another party thinks it bad.

(Signed) THOMAS SMART.

Joel P. Euston, sworn : What is Mr. Gowan's character for truth and veracity, in the Township of Brockville and the County of Leeds? Believes it to be good, excepting what has arrived out of politics, and would believe Mr. Gowan upon oath.

(Signed) JOEL P. EUSTON.

Ogle R. Gowan, recalled and sworn : Has no doubt but that the prisoner was presented for perjury. Believes he was, and has no doubt upon the subject that the prisoner is the person set forth in the exemplification of the presentment referred to. Believes the prisoner's name to be George Nichols. Does not know the perjury for which he was presented. Believes the prisoner was here when the presentment was made. The presentment was not made through witness's instrumentality.

Province of Canada,
 United Counties of Leeds and Grenville, } Statement of the accused :—George
 To wit : } Nichols stands charged before the un-
 of the Peace, in and for the United Counties of Leeds and Grenville, this seven-
 teenth day of October, in the year of our Lord, one thousand eight hundred and
 fifty-five, for that he the said George Nichols, on the twenty-eighth day of Septem-

ber, now last past, at the Town of Brockville, in the said County of Leeds, did commit wilful and corrupt perjury by swearing that on the trial of a certain indictment against one Ogle Robert Gowan for libel, that he the said George Nichol was not the person named in a certain presentment for perjury, produced and put in as evidence in the trial of the said cause, while in fact and in truth the said George Nichols was the same person, and the said charge being read to the said George Nichols, and the witnesses for the prosecution, Ogle Robert Gowan, Thomas Imry, John Weatherhead, George Sherwood, Richard Ballard, Stephen N. Beach, James L. Schofield, Ephraim Dunham, and others, being severally examined in his presence, the said George Nichols is now addressed by us as follows :

Having heard the evidence, do you wish to say anything in answer to the charge? You are not obliged to say anything unless you desire to do so. But whatever you do say will be taken down in writing and may be given in evidence against you at your trial.

Whereupon the said George Nichols saith as follows:—Certainly he is not guilty of the charge, and that it is a false charge.

(Signed) . GEORGE NICHOLS.

Taken before us this 17th day of October, 1855.

(Signed)

WM. GERVEY, J.P.
ROBERT PELLEW.
JAMES BREAKENRIDGE, J.P.
EPHRAIM DUNHAM, J.P.
MOSES READ, J.P.
JOHN REID, J.P.

United Counties } To James Kincaid, High Constable for the United
of } Counties of Leeds & Grenville, and to the Keeper of the
Leeds and Grenville. } Common Jail of the said Counties.

Whereas George Nichols was this day charged before us, the undersigned, for the said Counties of Leeds and Grenville, on the oaths of Ogle R. Gowan, Thomas May, John Weatherhead, George Sherwood, R. Ballard, W. Beach, and others, for that he the said George Nichols, on the 28th day of September, now last past, at the Town of Brockville in the said County of Leeds, did commit wilful and corrupt perjury by swearing, on the trial of a certain indictment against one Ogle R. Gowan, for libel, that he the said George Nichols was not the person named in a certain presentment for perjury, produced and put in as evidence on the trial of the said cause, while in fact and in truth the said George Nichols was the same person named in the said presentment.

These are therefore to command you the said Constable to take the said George Nichols, and him safely convey to the Common Jail at Brockville, in the said County of Leeds, and there deliver him to the keeper thereof, together with this precept. And we do hereby command you the said keeper of said Common Jail to secure the said George Nichols into your custody in the said Common Jail, and there safely to keep him until he shall be thence delivered by due course of law.

Given under our hands and seals this 17th day of October, in the year of our Lord 1855, at Brockville, in the said County of Leeds.

(Signed)

ROBERT REDEN, J.P.
JAMES BREAKENRIDGE, J.P.
EPHRAIM DUNHAM, J.P.
JOHN REID.

[LS]
[LS]
[LS]
[LS]

I hereby certify that hereunto annexed is a true copy of all the examinations and other evidences touching the charge of perjury wherewith George Nichols has been charged, and for which he has been committed to take his trial at the the next Assizes for the United Counties of Leeds and Grenville, and also of the Warrant of Commitment upon which he has been committed as aforesaid.

As witness my hand and seal this 13th day of November, 1855, at Brockville.

(Signed) ROBERT REDEN, J.P.

N. B.—I understand the information has either been lost or mislaid, as it did not come into my possession with the other documents of which the annexed is a copy.

E.

In the Queen's Bench.

I, Charles Coxwell Small, Clerk of the Crown and Pleas for Upper Canada,—do hereby certify that the annexed paper writing, marked A, is a true copy of a paper purporting to be a return of criminal business conducted by William Henry Draper, Queen's Counsel at the Court of Oyer and Terminer and General Gaol Delivery for the District of Johnstown, commencing 9th May, 1844. Also that paper, marked B, is a true copy of a paper purporting to be a Return of Crown business at the same Assizes, requiring further attention, together with the endorsements thereon, now remaining of record upon the fyles of this Honorable Court. For testimony whereof I have hereunto set my hand and affixed the seal of the Court this twenty-eighth day of February, 1857.

(Signed)

CHARLES C. SMALL.

A.
RETURN of Crown Business conducted by William Henry Draper, Esq., Queen's Counsel at the Court of Oyer and Terminer, and Gaol Delivery for the District of Johnstown, commencing 9th May, 1844.

Names.	Crime.	Finding by Jury.	Verdict.	Sentence.	Remarks.
John S. Gilman.....	Misdemeanor.....	True bill.....	.....	.....	.....
Aimé Rahel.....	Larceny.....	True bill.....	Guilty.....	3 mos. common gaol.	The principal witness for the Crown was, as was said, kept away; defendant was bound over.
Aimé Rahel.....	Larceny.....	True bill.....	Pled guilty.....	3 mos. common gaol.	Two different offences of a similar character; trial put off on different affidavits.
Amos Heath.....	Felony.....	True bill.....	.....	.....	.....
Henry Burns.....	Larceny.....	True bill.....	Pleads guilty.....	3 mos. common gaol.	.....
Stephen Scott.....	Misdemeanor.....	True bill.....	.....	.....	.....
Stephen Scott.....	Bestiality.....	True bill.....	Not guilty.....	.....	Not tried in consequence of acquittal in next case.
Duncan B. McDonald.....	Forgery.....	True bill.....	Guilty.....	7 years Penitentiary.	.....
Patrick Westoor.....	Perjury.....	True bill.....	Guilty.....	2 years Penitentiary.	.....
Jemima Fonton.....	Perjury.....	No bill.....	.....	.....	.....

(Signed,) **WM. H. DRAPER.**

B.
RETURN of Crown Business at the Court of Oyer and Terminer, and General Gaol Delivery for the District of Johnstown, held 9th May, 1844, requiring further attention.

Names.	Crime.	Finding by Jury.	Sentence.	Remarks.
The Queen vs. John S. Gilman.....	Assaulting a Revenue Officer.....	Indictment found.....	Defendant bound over.....	Crown Witness said to have been induced to keep out of the way.
The Queen vs. Amos Heath.....	Malicious shooting.....	Indictment found.....	.....	Trial put off on defendant's affidavit; witness bound over by Mr. A. Campbell, Clerk of Assize.
The Queen vs. James H. Nichols.....	Presentment for perjury.....	Bench warrant issued.....	.....	Witness bound over by Mr. A. Campbell, Clerk of Assize.

(Signed,) **WM. H. DRAPER.**

The Queen } Perjury, October, for swearing at Court of Oyer and Terminer
 vs. } that he was not the person named in a presentment made 3rd
 George Nichols. } October, 1844, by the Grand Jury of Johnstown District, against
 George Nichols, late of Prescott, tailor.—2nd Count. That on same occasion he
 swore that he had never gone before a Grand Jury for having presented or fired a
 pistol at him.—3rd Count. That on same occasion he swore that he had never
 followed the trade of a tailor in Prescott.—4th Count. That on same occasion he
 had applied to James L. Schofield to know if there was in his office a warrant for
 his the said Nichols' son. Whereas in truth he did apply to Schofield, to which
 Schofield replied, there was not any warrant either against Nichols or his son.

Notes. The indictment against Gowan produced is for a libel, that Nichols had
 sworn an affidavit that Gowan had tried to assassinate him by firing a pistol while
 driving on the road. That Gowan had him presented for perjury by the Grand
 Jury, and having a Bench Warrant for his apprehension.—Pleas in justification.
 That said Nichols was presented for perjury by Grand Jury at Brockville, and a
 Bench Warrant issued. 2nd Plea. That Nichols did appear before a Justice of the
 Peace. That Gowan had tried to assassinate him. That Nichols was presented
 by Grand Jury for perjury, and Bench Warrant issued.

EVIDENCE.

Indictment put in it as a record of Common Pleas.

Presentment: Queen vs. George Nichols, by Grand Jury, Johnstown District,
 3rd Oct., 1844, perjury marked, Bench Warrant issued. Defendant absconded.

Presentment, 4th May, 1844, Grand Jury, Johnstown District, against James
 Hancock Nichols, Perjury marked Bench Warrant.

George Sherwood, Esq.—I was present at the trial of Queen vs. O. R. Gowan
 for libel before Chief Justice Macaulay. I was examined by Counsel for the
 defence at the trial of indictment now produced, October, 1855. For the defence
 I put in a presentment now produced, The Queen vs George Nichols. I recol-
 lize that now produced as the presentment. The present defendant was duly
 sworn on trial of Queen vs Gowan, 1855, and appeared as witness. I asked him
 on that trial had he ever been presented by Grand Jury for perjury, he said no.
 Then I showed him the presentment and asked was he the George Nichols men-
 tioned in that presentment, he said he was not. I asked him in reference thereto
 had he ever carried on the business of tailor in Prescott, he said he had not. I
 asked him had he ever gone before the Grand Jury of this District to complain of
 Gowan having fired a pistol at him, he said he had never gone before such Grand
 Jury against Gowan. Never before any Grand Jury except one that presented for
 libel. I asked him had he ever applied to Mr. Schofield (who was Deputy Sheriff)
 to ask if there was a warrant against himself, he said he had, and the answer was,
 none, but there was a warrant against his son, after he denied that he was the
 person named in the presentment; he said the presentment was against his son.
 I had known defendant years before; when I first knew him he resided at Johns-
 town, before Prescott, as I thought. I think he did reside in Brockville, but was
 not sure. I understood he was a tailor; I think he lived in Prescott; I was
 counsel for Gowan on that trial: the charge was for libel. I look at presentment
 —it looks as if the last "l" was indifferent ink. I understood him to say he did
 not carry on the business of tailor in Prescott. Defendant is an excitable person,
 and was then excited. I have heard defendant is a Pensioner of Provincial Gov-
 ernment. I think it was the original presentment, and not an exemplification—
 that I know the defendant. There was, I think, an exemplification on the trial—am
 not sure. I am sure I have seen this original presentment before; it is possible I
 may have seen this original presentment at the last Assizes about this trial. I saw
 documents in his hands which he seemed to wish to read. C. J. stopped him, but

not in any relevant matters. This his evidence was material in dividing the case. Re-examined: He knew perfectly well what he swore, he answered deliberately.

Henry A. Jones, Esq.: I was Clerk of Assize, Feb. 1855. I was present at *Queen vs. Gowan*. I swore defendant as a witness. I saw a presentment or exemplification thereof put in, I think, there lastly. I heard him asked by Mr. Sherwood was he the George Nichols mentioned therein; he said no, it was a son of his. He was asked, had he ever carried on the business of a tailor in Prescott; he said he had not; his son carried on the business. I think he stated he applied to Schofield if there was a warrant against him; that he was told there was not, but there was one against his son, O. R. Gowan.—I was defendant in *Queen vs. Gowan*; I was present at trial. I heard defendant examined; I heard him asked if he was George Nichols named in presentment; it was handed to him; he said he was not; he said if I must tell, I will; he said it was his son; he said (on being asked) he had never followed the trade of a tailor in Prescott for a living in Prescott; he was asked if he had ever gone before a Grand Jury to complain of me for firing a pistol at him; he said he had never gone before a Grand Jury to complain of me except for libel; he was asked had he ever gone to inquire of Schofield or Sheriff Sherwood to inquire if there was a warrant against him; he said he had; there was none against himself but one against his son. I was residing here when the presentment for perjury was made in 1844 against defendant. I understood he then resided at Prescott; he was well known and reputed to be a tailor; that in Prescott he sold clothes, and was tailor and saloon keeper. I heard of the presentment of 1844; when I heard he left the country soon after I was found guilty by the jury of publishing the libel, my defence was to shew he had been presented for perjury.

Cross-examined—I have known defendant twenty-five years, first at Toronto; I was in Parliament in 1843. I did not of my own knowledge know of this presentment; I heard of it when made; I don't remember seeing him since presentment till three or four years ago; I have no doubt I saw him in October, in 1844; I never saw it till I saw it in Toronto. Defendant did go before a Justice of the Peace (Mr. Campbell) to charge me with having attempted to assassinate him.

William Tucker—I lived in Johnstown, in 1843-4, as a constable; I knew Nichols then; he resided then in Prescott; he was a tailor and confectioner. I executed a landlord's (Mooney's) warrant on his goods; he brought an action against me for the seizure, and against Mooney, Martin, and Dillon. The son brought a suit against me for assault; defendant was a witness in the son's case; his son was a witness in defendant's case. I took proceedings against Nichols for perjury, committed on that trial, in October, 1844; a presentment was made; Mr. Weatherhead was foreman; I had been before the grand jury in the preceding May, 1845, against the son; a presentment was made then against the son by the Grand Jury; these presentments were well known, and made a great noise. Defendant remained in Prescott till October, 1844, and then absconded; on Friday before assizes he absconded. I let him know at the May, 1844, assizes that I would proceed against him for perjury the following assizes; we were bound over to prosecute.

Cross-examined—This was twelve years ago, and I lived three miles below Prescott; I saw defendant in October, 1844; he was in his shop there then to the best of my opinion; I went in, he called me in; there were clocks, bull's eyes, candies, &c., there; I think it was the middle of the week before assizes; I think the defendant was in court in box at spring assizes, 1844, when I said I would have him up for perjury.

Re-examined—I know of the time he absconded by the fact I had a warrant in his favor against a person; I got it from him on Wednesday; I think I had to

serve ; could not ; I went to tell him on Friday, but he was gone. Defendant was known always as George Nichols the tailor.

John Weatherhead.—I live in Brockville ; I was foreman of the Grand Jury in 1844 ; the presentment produced was made by the Grand Jury ; I signed it as foreman ; I had formerly known defendant ; he was known as a tailor in Prescott ; I understood the present defendant to be the man the Grand Jury presented and meant to present ; I don't remember the witnesses examined ; I knew defendant by sight ; can't say when he left ; cannot say he ever knew of the presentment ; I knew no other George Nichols.

Henry Hurlbert.—I lived in Prescott in 1844 ; I remember a crowd around defendant's shop ; I recognize defendant as the man I remember in Prescott ; he passed as a tailor ; I cannot say when the seizure was which caused the crowd.

Cross-examined—I don't know if he followed any other business.

Frances Dalmage.—I lived near Prescott in 1843 and 1844 ; I knew the defendant then, he was a tailor ; he worked for me as such, I think, in 1843 ; I am not very well acquainted ; I knew the defendant in his own shop, measured my son for clothes ; I paid the defendant ; it was a small shop ; did not know him before. This was in the spring of 1843 ; I saw a boy who called him "Pa."

Roger McCarthy.—I lived in Prescott in 1843-4 ; defendant lived there also ; I was as corporation clerk ; defendant was known as a tailor, he also kept auctioneer's rooms, and sold goods ; I never saw him work ; I think he left in 1844 or 1845 ; can't say which.

Cross-examined—I heard he taught school in Johnstown.

James L. Schofield.—I was Deputy Sheriff of Johnstown District in 1843-4 ; I remember defendant calling on me three or four years ago, when I was not Deputy, in this court house, and asked if I knew of any warrant for perjury against him ; I said no, I had not.

Cross-examined—I ceased in 1846 ; I never had a warrant against either defendant or his son ; I have frequently seen him in Prescott ; I knew of no Bench Warrant issued on the presentments in 1844.

James Wilson.—I lived in Prescott in 1843-4 ; I have seen defendant working at his trade as tailor in those times ; he had a sign up as tailor—"G. Nichols, Tailor, from Dublin." I knew of no other man then of the name.

Cross-examined—I knew defendant since before the rebellion ; I saw him once cutting trowsers.

Richard Ballard.—I have known defendant since 1842 ; he lived in Prescott in 1843-4 ; he carried on tailoring and auctioneering ; he was called Nichols the tailor ; I conversed with defendant before the last trial, during the court.

Henry A. Jones, re-called.—When defendant was asked if he was the man in presentment, he said it was his son, and had something to do with a 12th of July scrape.

DEFENCE.

The Crown abandoned the 2nd count.

James Gillard.—I am a tailor by trade, and lived in Prescott from 1832 to 1846 ; I knew defendant ; I understood he had been a tailor, and that a wound in 1837 prevented his following the trade ; in 1843-4 he was auctioneer, and kept a temperance house ; I lived near him ; had he been a tailor then I should have known it ; I knew his son James ; he was a tailor ; defendant's wife assisted ; I made him, the defendant, a coat between June and July, 1844.

Cross-examined—Son and father lived together ; defendant's injury would not prevent his cutting ; I heard he left ; I missed him in the fall of 1844 ; I knew of no charge against him ; I don't know of any sign.

Marcus Burrett, Esq.—I have lived in Prescott twenty-five years ; I know defendant lived there in 1843-4 ; he was auctioneer, as I thought, and kept a small bull's-eye shop and eating saloon, &c. To my knowledge he was not a tailor ; he was known as Nichols the tailor ; I knew him well, and remember a sign board opposite William N. Hinds, school teacher. I was Superintendent of Education in 1844 ; I knew defendant, his name was down as school teacher ; I paid him money as such in 1844.

Cross examined—It was for teaching this year, 1843, in Johnstown.

Exemplification of action brought by defendant against Mooney, Tucker, Dillon, and Marten, 1844, put in to show no tailoring goods seized. By consent letter of Provincial Secretary granting defendant a pension, in 1842, for injury received.

Guilty, first, third, and fourth counts.

Sentence : Three months in gaol, and then to find sureties to keep the peace twelve months towards all Her Majesty's subjects, £100 himself, and two sureties, each £25. Same in each count, but uncurrent.

(Copy.)

To His Excellency the Right Honorable SIR CHARLES METCALFE, K. C. B., Governor and General Governor of British North America, &c. &c. &c.

MAY IT PLEASE YOUR EXCELLENCY :

The Petition of GEORGE NICHOLS of Prescott, in the Johnstown District, Humbly Sheweth,—

That your Petitioner has been vindictively and tyrannically persecuted by Philip Dalmage, Esq., a Magistrate who maketh a business of peddling law in Prescott, where he owns neither property, residence, nor office of any kind, but supports himself by encouraging litigation and the compounding of cases brought before him ; and further, he the said Philip Dalmage, Esq., has lately been tried, convicted and fined by the Board of Police of the Town of Prescott for improper conduct. Your Petitioner also begs leave to inform Your Excellency that the conduct of the said Philip Dalmage, Esq., on the 12th of July last, in Prescott and Brockville, was in a great measure the cause of a riot in Prescott on the anniversary of the Battle of the Boyne, he having on the said 12th of July decorated his person with orange and purple, and paraded the streets with music and banners, although he had information officially given him on the eleventh of a conspiracy to attack the Orangemen in the event of a procession, which information he treated with contempt, and spoke in a very disrespectful manner of the Proclamation of Sir George Arthur addressed to all Sheriffs, Magistrates, Peace Officers and others, on the subject of Orange Processions. That Your Excellency may cause inquiry to be made is the prayer of your humble servant.

(Signed)

GEORGE NICHOLS.

Prescott, 16th Sept., 1843.

Certified to be a true copy.

(Signed)

E. A. MEREDITH,
Assistant Secretary.

R E T U R N

TO AN ADDRESS from the Legislative Assembly to His Excellency the Governor General, dated the 19th ultimo, praying His Excellency to cause to be laid before the House, “ A statement shewing the whole amount of Consolidated “ Municipal Loan Fund Debentures issued to the 31st “ January last, under 16 Vic. cap. 22, and 18 Vic. cap. 13 ; “ and also the amount issued for each Municipality ; the “ amount of principal, if any, unpaid to the Sinking Fund ; “ the amount of principal over-due ; the amount of interest, “ if any, paid ; and the amount of principal and interest “ re-imbursed from the Clergy Reserve Fund, with such “ amount, and the name of the Municipality in each case.”

By command.

T. J. J. LORANGER,

Secretary.

Secretary's Office,

Toronto, 3rd May, 1858.

STATEMENT shewing the amount of Debentures issued under the Consolidated Municipal Loan Fund Act of Upper Canada (16 Vic. cap. 22) up to 31st January, 1858; also the amount of Interest, 8 per cent., paid, and of Interest, 8 per cent., due by each Municipality up to same date; distinguishing the amount retained from each Municipality ex Clergy Reserve Fund, U. C.; with other particulars in accordance with Address of the Legislative Assembly, dated 22nd April, 1858.

Municipalities.	Loan.		Amount of Interest, 8 per cent., paid.		Amount of Interest, 8 per cent., due.		Clergy Reserve moneys retained from Municipalities for Interest, &c.	Remarks.	
	£	s. d.	£	s. d.	£	s. d.			
Town of Port Hope	215000	0 0	10392	3 3	37974	0 11	2021	11 5	
Township of Hope	15000	0 0	4238	1 5	1561	18 7	1438	1 5	
Town of Niagara	70000	0 0	10329	3 2	9837	2 11	1362	17 1	
" Cobourg	125000	0 0	11522	16 11	28868	18 8	1942	0 6	
Village of Chippawa	6500	0 0	1520	2 2	520	0 0	345	18 6	
County of Grey	4000	0 0	1303	13 5	*160	0 0	.....	.....
Township of Bertie	10000	0 0	3366	11 6	400	0 0	.....	.....
" Brantford	12500	0 0	4208	4 4	500	0 0	535	15 1	
Town of Brantford	125000	0 0	24548	2 0	11849	3 2	1610	7 6	
Township of Wainfleet	5000	0 0	1883	5 9	.....	.....	81	15 9
" Canboro'	2000	0 0	673	6 3	80	0 0	.....	.....
Counties of Huron, Perth, and Bruce ..	127000	0 0	27854	9 8	18559	13 5	.....	.....
County of Perth	22000	0 0	6825	8 6	850	0 0	.....	.....
Township of Moulton and Sherbrooke ..	4200	0 0	1819	5 9	.....	.....	.....	.....
Village of Paris	10000	0 0	2866	13 4	800	0 0	15	5 6	
County of Oxford	5000	0 0	1875	12 4	.....	.....	.....	.....
City of Ottawa	50000	0 0	6740	12 4	10092	5 2	3907	14 10	
Town of Prescott	25000	0 0	2536	3 6	5303	11 0	1196	9 0	
County of Lincoln	12000	0 0	3559	17 9	480	0 0	538	14 11	
" Lambton	4000	0 0	1295	15 7	.....	.....	.....	.....
Township of Middleton	750	0 0	468	15 11	.....	.....	159	2 7
Town of St. Catharines	47500	0 0	8036	1 1	5131	12 3	500	0 0	
" Woodstock	25000	0 0	5203	5 8	2656	19 10	2523	2 4	
Township of Stanley	2500	0 0	624	13 2	200	0 0	1343	0 2	
" Woodhouse	20000	0 0	3938	1 0	2402	15 5	3	16 5	
" Norwich	50000	0 0	9658	0 1	6134	1 0	797	4 7	
Town of Cornwall	3000	0 0	681	10 8	240	0 0	1805	19 0	
" Belleville	5000	0 0	1096	19 8	400	0 0	247	0 11	
Counties of Northumberland & Durham	115000	0 0	16052	16 5	4503	9 7	415	13 1	
Township of Ops	20000	0 0	3589	0 5	2883	6 2	.....	.....
County of Elgin	20000	0 0	5085	4 1	800	0 0	1116	13 10	
City of London	93850	0 0	13661	8 9	7508	0 0	.....	.....
Township of Windham	25000	0 0	3611	9 8	3040	11 5	4208	14 9	
Town of Simcoe	25000	0 0	3297	6 1	3354	15 0	959	8 7	
Counties of Lanark and Renfrew	200000	0 0	18088	4 8	14705	2 0	645	5 0	
Town of Brockville	100000	0 0	4824	7 9	11562	5 7	2744	18 0	
Township of Elizabethtown	38500	0 0	2584	18 2	1068	8 6	437	14 5	
Village of Stratford	25000	0 0	1316	3 8	5429	0 5	951	2 8	
Town of Goderich	25000	0 0	4916	4 6	1828	18 7	570	19 7	
County of Hastings	39400	0 0	3993	7 5	2889	7 4	927	9 6	
" Essex	3000	0 0	1062	11 6	640	0 0	2414	12 8	
Town of Barrie	3000	0 0	515	16 8	†120	0 0	.....	.....
" Chatham	25000	0 0	3082	3 10	2000	0 0	.....	.....
" Dundas	13000	0 0	1622	13 9	1040	0 0	4	5 1	
" Guelph	25000	0 0	2085	3 1	1605	16 1	523	19 9	
" Peterboro'	‡25000	0 0	.....	.....	.....	.....	1594	8 11
	£	1823700	0 0	257235	16 7	210481	4 0	40110	7 3

* This amount has been paid since 31st Jany. last.

† This amount has been paid since 31st Jany. last.

‡ This loan formerly belonged to the Township of Wolford, and was afterwards transferred to the Town of Peterboro', by mutual consent, per Order in Council 25th November, 1857. The £216 9s. 9d., ex Clergy Reserves, was retained from Wolford when they had the loan.

Out of the £1,825,000, Currency, issued under this Act, £1300 has been re-paid to Sinking Fund—say, by Township of Moulton and Sherbrooke £800 0 0
 By Township of Middleton \$500 0 0
 No amount of principal is over due.

§ This sum is Clergy Reserves Fund money.

Receiver General's Department,
 Toronto, 30th April, 1858.

C. E. ANDERSON,
 D. R. G.

STATEMENT shewing the amount of Debentures issued under the Consolidated Municipal Loan Fund Act of Lower Canada (18th Vic., cap. 13) up to 31st January, 1858; also the amount of interest 8 per cent. paid, and of interest 8 per cent. due, by each Municipality, up to same date; with other particulars in accordance with Address of the Legislative Assembly, dated 22nd April, 1858.

Municipalities.	Loan.	Interest, 8 per cent., paid.	Interest, 8 per cent., due.	Clergy Reserve moneys retained from Muni- cipalities for Interest, &c.	Remarks.
	£ s. d.	£ s. d.	£ s. d.		
County of Stanstead	1700 0 0	86 12 7	272 0 0	No distribution of money out of the Clergy Reserve Fund for Lower Canada has taken place, the same being reserved for other purposes.	* £2273 19s. 6d. has been paid on this amount since 31st January last. † Of this amount £7500 has been issued since 31st January, 1858. ‡ This amount has been issued since 31st Jan., '58.
" Shefford	25000 0 0	307 13 5	1280 0 0		
" Terrebonne	23500 0 0	.....	5170 0 0	
" Ottawa (Division No. 2)	32900 0 0	.....	7245 14 1	
" Megantic (Division No. 1)	1400 0 0	.....	280 0 0	
City of Montreal	200000 0 0	18000 0 0	*6673 19 6		
Township of Acton	6000 0 0	.....	700 18 6	
Town of St. Hyacinthe	4000 0 0	.....	640 0 0	
" Sherbrooke	20000 0 0	.....	3153 18 10	
Village of Varennes	500 0 0	.....	57 8 5	
" Huntingdon	1750 0 0	.....	210 0 0	
Township of Roxton	7500 0 0	.....	798 17 11	
" Lingwick	2500 0 0	.....	281 7 5	
Village of St. John	5000 0 0	187 7 11	400 0 0		
" Laprairie	1000 0 0	53 7 4	.....	
Township of Tring	5000 0 0	.....	133 14 0	
Parish of Ste. Marie de Monroir	1000 0 0	.....	26 14 10	
" St. Romuald de Farnham	7500 0 0	.....	.....
Township of Shefford	14375 0 0	.....	.....
Town of Three Rivers	†15000 0 0	.....	.....
Parish of St. Romuald d'Etchemin	5000 0 0	.....	.....
Township of Granby	7500 0 0	.....	.....
Borough of William Henry	5000 0 0	.....	.....
Townships of Ascot and Westbury	2000 0 0	.....	.....
Parish of St. Jean Isle d'Orleans	‡20000 0 0	.....	.....
	£ 397125 0 0	18635 1 3	27284 13 6	

No amount of principal has been as yet re-paid to Sinking Fund.
 No amount of principal is over due.

C. E. ANDERSON,
 D. R. G

Receiver General's Department,
 Toronto, 30th April, 1858.

TORONTO:

PRINTED BY JOHN LOVELL, YONGE STREET.

RETURN

TO AN ADDRESS from the Legislative Assembly to His Excellency the Governor General, dated the 19th ultimo, praying His Excellency to cause to be laid before the House, “A Statement of all sums apportioned to the several Municipalities in Upper Canada from the Clergy Reserves Appropriation Fund, as also from what Municipalities the appropriation was retained owing to their indebtedness to the Consolidated Municipal Loan Fund, to the present time.”

By command.

T. J. J. LORANGER,

Secretary.

Secretary's Office,

Toronto, 3rd May, 1858.

STATEMENT of all sums apportioned to the several Municipalities in Upper Canada from "The Clergy Reserves Appropriation Fund" (for 1855 and 1856); also shewing from what Municipalities the appropriation in the distribution has been retained, owing to their indebtedness to the Consolidated Municipal Loan Fund, U. C.

Municipality.	1855.		1856.		Remarks.
	Amount appropriated.	Amount Retained.	Amount appropriated.	Amount Retained.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Township of Adelaide	614 18 5	.....	190 12 3	.....
Aldhoro'	494 16 7	.....	161 14 5	.....
Asphodel	606 4 10	.....	185 0 2	.....
Arthur, Minto, and Luther.	1458 9 0	.....	690 1 1	.....
Artemesia	645 6 2	.....	214 18 5	.....
Adolphustown	232 18 11	.....	69 17 3	.....
Ashfield	533 17 11	.....	173 19 4	.....
Anan	434 1 3	.....	175 10 5	.....
Albion	1106 17 2	.....	327 6 5	.....
Ameliasburg	873 18 3	.....	235 0 8	.....
Alnwick	253 4 1	.....	75 9 3	.....
Augusta	1115 10 10	.....	335 18 10	.....
Alfred	425 7 7	.....	95 14 9	.....
Adjala	594 13 4	.....	183 5 7	.....
Amherst Island	277 16 0	.....	86 5 0	.....
Amaranth	551 5 2	.....	159 2 7	.....
Admaston	286 9 7	.....	110 8 0	110 8 0	On account United Counties Lanark and Renfrew.
Anderdon	370 8 0	.....	122 9 6	.....
Athol	380 10 7	.....	115 2 11	.....
Ancaster	875 7 2	.....	267 16 2	.....
Town of Amherstburg	559 18 10	.....	181 2 6	.....
Township of Bentinck	1085 3 1	.....	427 16 0	.....
Brighton	934 13 8	.....	310 10 0	.....
Blanchard	690 3 3	.....	230 5 9	.....
Brantford	1428 1 3	533 12 6	467 9 6	2 2 7	
Blenheim	1164 14 8	.....	367 17 1	.....
Beyham	1128 11 3	.....	373 17 11	.....
Belmont and Methuen	502 1 4	.....	.....	.....
Beverley	1121 6 7	.....	338 10 7	.....
Bastard and Burgess	933 4 8	.....	266 10 3	.....
Burford	1161 16 10	.....	358 7 4	.....
Brooke	250 6 2	.....	74 12 2	.....
Burgess, North	254 13 0	.....	76 15 3	76 15 3	On account United Counties Lanark and Renfrew.
Bruce and Kincardine	1464 4 9	.....	.....	.....
Brock	774 1 7	.....	235 17 11	.....
Biddulph	667 0 2	.....	206 14 6	.....
Binbrooke	394 19 11	.....	118 11 11	.....
Bagot, B. and Brougham	232 18 11	.....	92 5 9	92 5 9	On account United Counties Lanark and Renfrew.
Bertie	720 10 11	.....	209 11 9	.....
Bosanguet	546 18 5	.....	173 10 9	.....
Blandford	273 9 2	.....	86 13 7	.....
Bromley	189 10 10	.....	67 5 6	67 5 6	On account United Counties Lanark and Renfrew.
Brant	771 3 8	.....	242 15 10	.....
Bathurst and Sherbrook, S.	1072 2 8	.....	335 18 10	335 18 10	On account United Counties Lanark and Renfrew.
Barton	726 6 7	.....	229 8 6	.....
Bedford	230 1 1	.....	71 3 1	.....
Belmont .....	.....	.....	154 7 9	.....
Bruce .....	.....	.....	222 19 2	.....
Beckwith	567 3 6	.....	169 1 0	169 1 0	On account United Counties Lanark and Renfrew.
Village of Berlin	543 7 4	.....	209 3 2	.....
Brampton	464 16 7	.....	194 18 6	.....
Bowmanville	668 9 2	.....	266 1 7	.....
Town of Brockville	1487 7 9	.....	487 14 5	497 14 5	
Barrie	350 2 10	.....	128 18 10	.....
Brantford	1610 7 6	1610 7 6	661 18 2	.....
Belleville	2433 12 10	211 16 0	644 14 5	203 17 1	On ac. County Hastings.
Do .....	.....	.....	.....	420 0 11	
Township of Cumberland	386 6 4	.....	126 15 9	.....
Corwall	926 0 0	.....	283 15 3	.....
Clarke	1640 15 1	.....	519 13 1	.....
Charlotteville	768 8 10	.....	332 17 6	.....
Chatham	506 8 2	.....	149 13 11	.....
Caledon	831 19 1	.....	260 0 10	.....
Crowland	422 9 9	.....	129 16 2	.....
Collingwood	217 0 8	.....	78 1 1	.....
Clarence	442 14 10	.....	177 13 6	.....
Clinton	528 2 2	.....	155 18 8	116 16 7	On ac. County Lincoln.

STATEMENT of all sums apportioned to the several Municipalities in Upper Canada from the "The Clergy Reserves Appropriation Fund," &c.—(Continued.)

Municipality.	1855.			1856.			Remarks.
	Amount appropriated.	Amount Retained.		Amount appropriated.	Amount retained.		
	£ s. d.	£	s. d.	£ s. d.	£	s. d.	
Township of Cartwright	568 12 5			172 18 7			
Cavan	1027 5 7			305 15 1			
Cramahe	778 8 5			248 8 0			
Charlottenburg	1347 0 10			411 16 10			
Camden and Zone	597 11 2			194 18 6			
Carradoc	784 4 2			256 11 10			
Crosby, North	419 11 10			125 9 10			
Colborne	321 4 1			106 19 0			
Cayuga, South	215 11 8			65 16 6			
Cayuga, North	584 13 4			224 13 8			
Canboro'	380 10 7			59 3 9	3 1 2		
Camden, East	1770 19 6			579 12 0			
Crosby, South	403 13 7			131 19 3			
Chinguacousy	1387 13 7			401 1 3			
Colchester	485 8 0			159 11 3			
Caistor	460 2 2			137 2 9	102 18 0		On account County Lincoln.
Caledonia	321 4 2			99 8 5			
Carrick	525 4 3			182 8 5			
Culross				142 14 11			
Village of Caledonia	371 16 11			116 0 2			
Chippawa	490 3 5	206 2 0		139 14 6	139 14 6		
Town of Chatham	1173 8 4			378 12 9	4 5 1		
Cobourg	1480 3 1	1480 3 1		461 17 5	461 17 5		
Cornwall	522 0 5	127 0 11		175 1 9	120 0 0		
Township of Derby	285 0 8			94 17 6			
Darlington	1403 9 4			419 12 2			
Delaware	381 19 6			118 3 3			
Dummer and Burleigh	541 2 8			168 9 3			
Douro	567 3 6			175 1 9			
Dover, East and West	471 13 8			163 0 3			
Dawn	260 8 9			94 0 8			
Drummond	732 2 4			223 7 9			
Dereham	996 17 11			297 19 10			
Darling	164 18 11			49 11 11	49 11 11		On account United Counties Lanark and Renfrew.
Dorchester, South	486 3 0			146 12 6			
Downie	684 7 5			257 17 9			
Dalhousie, Sherbrooke N., and Levant	449 10 7			134 2 4	134 2 4		On account United Counties Lanark and Renfrew.
Dunwich	739 7 1			302 14 9			
Dunfries, North	729 4 6			280 6 3			
Dunfries, South	737 18 2			241 10 0			
Dorchester, North	866 13 7			260 0 11			
Dunn	342 18 2			75 18 0			
Town of Dundas	1279 0 9	521 15 6		383 7 7	2 4 3		
Township of Egremont	1023 14 7			372 3 4			
Erin	968 12 5			301 8 11			
Eramosa	590 6 6			189 6 4			
Esqueving	1310 17 4			407 2 0			
Ernesttown	1375 19 7			420 1 11			
Emily	739 7 1			222 1 10			
Edwardsburg	1031 12 5			314 16 3			
Ekfrid	835 6 10			163 17 6			
Ellice	875 7 2			250 19 9			
Elmsley, North	368 19 1			105 13 2	105 13 2		On account United Counties Lanark and Renfrew.
Elderslie	358 16 6			150 10 1			
Etobicoke	811 13 11			236 6 6			
Euphemia	471 13 8			152 13 3			
Easthope, North	593 4 4			181 19 9			
Elmsley	305 5 9			91 8 6			
Enniskillen	151 18 6			50 0 6			
Essa	422 9 9			138 0 0			
Eldon	384 17 5			125 1 3			
Easthope, South	441 5 11			187 2 9			
Ernismore	248 17 3			65 19 7			
Euphrasia	273 9 2			200 10 8			
Elizabethtown	1347 0 10	559 11 2		391 11 6	391 11 6		
Fredericksburg	820 7 7			264 7 1			
Finch	535 6 10			162 3 0			
Fitzroy	594 13 4			171 12 9			
Fenelon and Bexley	286 9 7			181 2 6			
Flamboro', West	745 2 10			235 18 4			
Flos	162 1 0			58 4 5			
Fullarton	588 17 7			184 11 6			
Flamboro', East	814 11 10			248 16 8			
Gleneig	1059 2 3			326 9 2			
Gloucester	811 13 11			248 16 7			

STATEMENT of all sums apportioned to the several Municipalities in Upper Canada, from "The Clergy Reserves Appropriation Fund," &c.—(Continued.)

Municipality.	1855.		1856.		Remarks.
	Amount appropriated.	Amount retained.	Amount appropriated.	Amount retained.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Township of Gwillimbury, West.....	729 4 6	.....	228 19 11	.....
Grimsby	732 2 5	.....	226 16 9	170 3 1	On account County Lincoln.
Grantham	1054 15 5	.....	308 15 6'	.....
Glanford	503 10 3	.....	140 11 9	.....
Gwillimbury, East	930 6 10	.....	321 5 7	.....
Georgina	432 12 3	.....	117 14 8	.....
Gwillimbury, North.....	322 13 1	.....	102 12 9	.....
Guelph	639 10 9	.....	216 9 9	.....
Goderich	839 3 5	.....	267 0 6	.....
Gainsboro'	638 1 5	.....	198 7 6	149 17 3	On account County Lincoln.
Grey	651 1 10	.....	207 17 3	.....
Gosfield	444 3 10	.....	138 17 3	.....
Greenock and Culross	872 9 4	.....	.....	.....
Gower, South	209 15 11	.....	73 9 0	.....
Gower, North	452 17 5	.....	144 9 4	.....
Gore of Toronto	397 17 10	.....	120 15 0	.....
Garafraza	776 19 5	.....	271 13 9	.....
Goulbourne	593 4 4	.....	201 7 11	.....
Greenock .....	.....	.....	169 1 0	.....
Town of Guelph	1078 15 9	1076 5 4	517 18 7	517 18 7	
Goderich	687 5 4	687 5 4	240 4 2	240 4 2	
Village of Galt	1035 19 3	.....	321 5 7	.....
Township of Holland	733 11 4	.....	255 14 8	.....
Huntingdon	580 3 11	.....	176 16 3	168 9 2	On ac. County Hastings.
Haldimand	1200 18 1	.....	392 8 9	.....
Howard	860 17 10	.....	273 8 3	.....
Hope	1086 12 1	1086 12 1	351 9 4	351 9 4	
Horton	358 16 6	.....	100 18 3	.....
Hallowell	924 11 1	.....	272 2 5	.....
Hibbert	455 15 4	.....	147 1 1	.....
Huntley	529 11 2	.....	169 11 3	.....
Howick	546 18 4	.....	129 7 6	.....
Hungerford	821 16 6	.....	243 4 6	231 14 10	On ac. County Hastings.
Hamilton	1468 11 7	.....	460 2 11	.....
Hay	517 19 8	.....	149 12 10	.....
Hillier	656 17 7	.....	207 0 0	.....
Houghton	493 7 8	.....	140 11 9	.....
Hullett and Morris	685 16 5	.....	.....	.....
Hawkesbury, West	546 18 4	.....	156 10 10	.....
Hawkesbury, East	826 3 4	.....	231 3 0	.....
Humberston	432 9 0	.....	153 19 2	.....
Huron	561 7 9	.....	218 4 3	.....
Harwick	849 0 4	.....	299 5 9	.....
Hullett .....	.....	.....	141 0 5	.....
City of Hamilton	7591 15 0	.....	2285 3 10	.....
Township of Innisfil	566 16 11	.....	226 16 9	.....
Village of Ingersoll	597 11 2	.....	225 10 11	.....
Township of Kingston	1163 5 9	.....	404 18 10	.....
King	1477 5 2	.....	477 7 11	.....
Kitley	797 4 7	.....	226 16 9	.....
Kenyon	894 3 4	.....	270 16 6	.....
Kinloss	341 9 3	.....	155 13 7	.....
Kincardine .....	.....	.....	321 5 8	.....
City of Kingston	4352 4 0	.....	1289 8 9	.....
Township of Lobo	756 14 4	.....	253 11 6	.....
Lochiel	933 4 8	.....	274 5 6	.....
Lancaster	362 6 9	.....	260 18 2	.....
Lanark	600 9 1	.....	175 19 0	175 19 0	On account United Counties Lanark and Renfrew.
Louth	412 7 2	.....	136 5 8	.....
Logan, Elma and Wallace	648 4 0	.....	232 8 10	.....
Longueuil	363 3 4	.....	123 6 9	.....
Leeds & Lansdowne, Rear	436 19 2	.....	130 4 9	.....
Leeds & Lansdowne, Front	852 4 2	.....	267 7 6	.....
Loughboro'	570 1 5	.....	187 11 10	.....
London	2623 3 8	.....	776 5 0	.....
City of London	7260 8 4	4119 4 4	2451 4 6	89 10 5	
Township of Matilda	1001 4 9	.....	299 14 5	.....
Malahide	1283 7 7	.....	347 3 1	.....
Manvers	610 11 8	.....	214 15 3	.....
March	257 10 10	.....	80 12 11	.....
Mersea	413 16 2	.....	124 4 0	.....
Middleton	509 6 2	500 0 0	159 2 7	159 2 7	
Mosa	708 19 4	.....	228 2 8	.....
Montague	829 1 2	.....	245 7 7	245 7 7	On account United Counties Lanark and Renfrew.
Mornington	503 10 3	.....	190 12 3	.....
Marmora and Lake	219 18 6	.....	73 6 3	69 16 9	On ac. County Hastings.
Maidstone	402 4 8	.....	123 6 9	.....

STATEMENT of all sums apportioned to the several Municipalities in Upper Canada from "The Clergy Reserves Appropriation Fund," &c.—(Continued.)

Municipality.	1855.		1856.		Remarks.
	Amount appropriated.	Amount retained.	Amount appropriated.	Amount retained.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Township of Marysburg	834 16 11	.....	276 17 3	.....
Metcalf	426 16 7	.....	138 0 0	.....
Maryboro'	682 13 5	.....	157 16 9	.....
Mono	733 11 6	.....	228 8 2	.....
Murray	672 15 11	.....	245 16 3	.....
Madoc, Elzevir, and Tudor	733 11 4	.....	205 5 6	195 11 8	On ac. County Hastings.
Malancthon and Proton	575 17 1	.....	221 13 3	.....
Moore	601 18 2	.....	202 5 2	.....
Mariposa	1030 3 6	.....	354 1 1	.....
Mulmur	762 10 1	.....	91 8 6	.....
Malden	340 0 4	.....	97 17 11	.....
Moulton and Sherbrooke	798 18 6	.....	227 5 4	.....
Monaghan, North	315 8 4	.....	94 0 3	.....
Mara and Rama	681 12 1	.....	246 5 3	.....
Marlboro'	502 1 4	.....	153 10 6	.....
Monaghan, South	285 3 8	.....	87 10 11	.....
Medonté	711 17 2	.....	227 5 4	.....
Mountain	681 4 5	.....	215 12 6	.....
Markham	1724 13 6	.....	538 4 0	.....
Morris .....	.....	.....	122 9 6	.....
McGillivray	785 13 1	.....	231 3 0	.....
McNab	415 5 4	.....	140 3 2	.....
McKillop	377 12 8	.....	120 6 4	.....
Normanby	871 0 4	.....	307 9 7	.....
Nicholl	658 6 7	.....	224 5 0	.....
Nelson	979 10 8	.....	308 15 6	.....
Norwich	1400 11 6	1400 11 6	405 7 6	405 7 6	
Nottawasaga	789 14 9	.....	333 15 9	.....
Nepean	850 15 3	.....	260 0 11	.....
Nassageweysa	629 7 10	.....	187 3 3	.....
Nissouri, West	617 16 4	.....	184 2 10	.....
Nissouri, East	782 15 2	.....	238 9 8	.....
Niagara	555 12 0	.....	150 10 1	.....
Town of Niagara	1080 16 4	1080 16 4	282 0 9	282 0 9	
Village of Napanee	461 11 1	.....	153 19 2	.....
Township of Orillia	248 17 3	.....	34 10 6	.....
Osgoode	889 16 7	.....	298 8 6	.....
Osnabruck	1044 12 10	.....	289 5 9	.....
Ops	849 6 4	849 6 4	267 7 6	267 7 6	
Oro	897 1 3	.....	180 13 10	.....
Otonabee	910 1 8	.....	298 17 2	.....
Oakland	235 16 10	.....	77 3 10	.....
Oneida	557 0 11	.....	159 11 3	.....
Orford	400 15 8	.....	131 19 3	.....
Oxford, East	509 6 0	.....	140 1 6	.....
Onondaga	439 17 0	.....	158 7 0	.....
Oxford, West	409 9 0	.....	128 10 3	.....
Oxford, North	296 12 6	.....	92 5 9	.....
Osprey	668 9 1	.....	171 12 9	.....
Oxford	1628 14 7	.....	310 1 5	.....
City of Ottawa	3080 10 6	3080 10 6	817 4 4	817 4 4	
Village of Oshawa	507 17 1	.....	169 18 3	.....
Township of Pickering	1393 6 10	.....	397 3 8	.....
Percy	771 3 8	.....	277 14 6	.....
Pittsburg and Howe Island	840 12 8	.....	252 5 7	.....
Pilkington	833 8 0	.....	246 4 11	.....
Puslinch	940 9 4	.....	233 15 3	.....
Pembroke	172 3 7	.....	51 6 4	51 6 4	On account United Counties Lanark and Renfrew.
Plympton	610 11 7	.....	189 6 5	.....
Pakenham	458 18 3	.....	141 9 0	141 9 0	On account United Counties Lanark and Renfrew.
Plantagenet, North	548 7 4	.....	135 16 10	.....
Plantagenet, South	186 12 11	.....	93 3 0	.....
Pelham	588 17 7	.....	196 4 5	.....
Portland, Hinchinbrook, and Kenebec	763 19 0	.....	247 10 9	.....
Peel	915 17 5	.....	314 7 7	.....
Town of Paris	804 9 3	.....	286 7 0	15 5 6	
Peterboro'	983 17 6	.....	322 2 11	.....
Prescott	934 13 8	934 13 8	261 15 4	261 15 4	
Port Hope	1510 10 9	1510 10 9	511 0 8	511 0 8	
Picton	526 13 3	.....	175 10 4	.....
Perth	901 8 1	.....	274 14 2	274 14 2	On account United Counties Lanark and Renfrew.
Village of Preston	510 14 11	.....	246 13 6	.....
Township of Ramsay	754 4 2	.....	238 9 7	238 9 7	On account United Counties Lanark and Renfrew.
Romney	206 18 1	.....	37 10 5	.....
Russell and Cambridge	285 0 8	.....	109 2 1	.....
Raleigh	787 2 0	.....	246 4 11	.....

STATEMENT of all sums apportioned to the several Municipalities in Upper Canada from "The Clergy Reserves Appropriation Fund," &c.—(Continued.)

Municipality.	1855.		1856.		Remarks.
	Amount appropriated.	Amount retained.	Amount appropriated.	Amount retained.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Township of Ross	363 3 4		120 6 4	120 6 4	On account United Counties Lanark and Renfrew.
Reade and Scoug	1170 10 5				
Richmond	769 14 9		250 19 9		
Rawdon	1062 0 1		262 12 7	250 4 7	On ac. County Hastings.
Rainham	425 7 8		133 5 2		
Roxboro'	665 11 3		207 0 0		
Rochester	279 4 11		90 2 7		
Reach			332 9 11		
Village of Richmond	146 2 8		50 0 6		
Townships of Sheffield, Caledar, and Anglesea	803 0 4		239 6 11		
Smith and Harvey	672 15 11		210 17 7		
Sydenham	1130 0 2		356 12 11		
St. Vincent	439 17 0		161 14 4		
Sidney	1163 5 9		378 4 2	360 7 1	On ac. County Hastings.
Sarnia	772 12 8		244 10 4		
Seneca	743 13 10		223 7 9		
Stafford and Alice	125 17 7		77 3 11		
Scarboro'	827 12 3		293 13 7		
Southwold	1339 16 2		348 9 0		
Stanley	775 10 6		251 17 0	3 16 5	
Sullivan	653 19 9		200 19 3		
Seymour	743 13 10		235 17 11		
Sophasburg	766 16 10		225 2 3		
Stephen	432 12 4		121 3 7		
Sombra	593 4 5		172 1 5		
Stamford	871 0 4		297 19 11		
Saugeen	509 6 0		147 9 9		
Storrington	571 10 4		194 1 3		
Saltfleet	632 5 8		217 15 7		
Sandwich	1122 15 6		357 18 9		
Scott	316 17 4		100 9 8		
Scoug			40 2 2		
Town of St. Catharines	1954 14 7	1954 14 7	568 7 9	568 7 9	
Simcoe	481 16 2	481 16 2	163 8 10	163 8 10	
St. Thomas	645 6 1		219 10 2		
Village of Smith's Falls	334 4 7		94 17 6	94 17 6	On account United Counties Lanark and Renfrew.
Stratford	444 3 10	444 3 10	126 15 9	126 15 9	
St. Mary's	434 1 3		131 10 7		
Township of Trafalgar	1902 12 10		526 11 2		
Tyendinaga	1490 5 3		488 12 1	167 1 11	On ac. County Hastings.
Townsend	1076 9 6		326 0 6		
Thorold	921 13 2		267 16 1		
Toronto	1594 9 1		460 11 6		
Tecumseth	785 13 1		244 1 9		
Thorah	303 16 10		95 14 9		
Tilbury, West	245 19 5		94 17 6		
Tay and Tiny	253 4 1		77 3 11		
Tuckersmith	648 4 0		210 9 0		
Torbolton	219 18 6		41 16 8		
Tilbury, East	507 17 1		151 7 4		
Tossoronto	153 7 4		48 6 9		
Thurlow	1338 7 2		445 1 0	422 5 4	On ac. County Hastings.
City of Toronto	13911 14 1		4783 17 1		
Village of Trenton	439 17 0		135 8 3	129 0 5	On ac. County Hastings.
Thorold	619 5 3		143 7 0		
Township of Uxbridge	668 6 7		222 1 10		
Usborne	640 19 4		204 18 11		
Vespra and Sunnidale	283 11 9		101 15 6		
Verulam and Somerville	461 11 1		132 7 10		
Vaughan	1498 19 3		419 3 6		
Village of Vienna	355 18 7		114 14 3		
Township of Wilberforce, Grattan, and Frazer	483 5 1		142 6 3	142 6 3	On account United Counties Lanark and Renfrew.
Wawanosh and Turnbury	662 10 10		218 4 3		
Williams	899 19 2		279 9 0		
Williamsburg	975 3 10		204 19 6		
Wolford	723 8 9		216 9 9	216 9 9	
Walpole	1040 1 10		315 13 6		
Wainfleet	504 19 2	81 15 9	153 1 11		
Willoughby	293 14 4		96 3 4		
Windham	716 4 1	716 4 1	243 4 6	243 4 6	
Wellesley	1083 16 9		343 14 2		
Whitby	1507 12 10		523 19 5		
Waterloo	1820 3 4		585 11 1		
Woodhouse	797 4 7	797 4 7	237 12 5		

STATEMENT of all sums apportioned to the several Municipalities in Upper Canada from "The Clergy Reserves Appropriation Fund," &c.—(Continued.)

Municipality.	1855.		1856.		Remarks.
	Amount appropriated.	Amount retained.	Amount appropriated.	Amount retained.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Township of Warwick	651 1 11	216 9 9	
Wolfe Island.....	736 9 2	210 17 7	
Whitchurch.....	1080 16 4	428 13 3	
Westminster.....	1504 15 0	407 19 3	
Westmeath.....	397 17 10	119 0 6	119 0 6	On account United Counties Lanark and Bentew.
Winchester.....	662 13 5	.....	216 1 2	.....
Wilmot.....	1274 13 11	.....	380 7 3	.....
Woolwich.....	949 3 0	.....	299 14 4	.....
Walsingham.....	818 18 7	.....	238 1 0	.....
Town of Whitby.....	735 0 3	.....	264 15 9	.....
Woodstock.....	991 2 2	991 2 2	351 18 0	351 18 0	
Village of Windsor.....	497 14 6	.....	103 10 0	.....
Township of Yonge and Escott, Rear	496 5 7	.....	137 11 4	.....
Yonge and Escott, Front...	733 11 4	.....	210 0 5	.....
Yarmouth.....	1334 0 4	.....	495 1 6	.....
York.....	1846 4 3	.....	617 11 0	.....
Town of Yorkville.....	394 19 11	.....	119 0 6	.....
Township of Zorra, East.....	817 9 8	.....	247 19 4	.....
Zorra, West.....	775 10 7	.....	284 12 6	.....
Amount unappropriated.....	432 16 3	
	£ 304423 7 8	27053 6 0	97214 7 4	13067 1 3	

C. E. ANDERSON,
D. R. G.

Receiver General's Department,
Toronto, 29th April, 1858.

TORONTO:

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EMIGRATION REPORT.

OFFICE OF HER MAJESTY'S CHIEF AGENT FOR THE
SUPERINTENDENCE OF EMIGRATION TO CANADA.
QUEBEC, 31st December, 1857.

SIR,—I have the honor to submit to Your Excellency, for the information of Her Majesty's Government, my Annual Report on the Immigration to the Province during the year 1857.

Table No. 1 of the Appendix furnishes the usual returns of the seasons' immigration, from which it will appear that the number of persons embarked from Europe for this port during the season was as follows:

	Cabin.	Steerage.
Adults, males	892	12,458
" females	576	8,857
Children, males	177	3,928
" females	157	3,676
" under 1 year	38	1,547
	1840	30,451
Births on passage		32,291
		44
Total		32,335
Deaths on passage		206
Quarantine		32
		238
Total number landed		32,097

From this table it will further be seen that the number of vessels engaged in the conveyance of emigrants from Europe was 231, having a tonnage capacity of 143,963 tons, and navigated by 5,436 seamen; 213 of these vessels were of the ordinary class of sailing ships, and these had an average passage of 44 days. The remainder were steamships, which made an average passage of 12 days. Of the 213 sailing ships in this return, 180 were from ports in the United Kingdom; 93 of these came within the regulations of the Passenger Act, and 87 were exempt. The former brought out 19,997, and the latter 789 passengers. The foreign immigration employed 51 ships, 7 of which were British, and 44 foreign. Of the whole immigration of the season there arrived by the

	Cabin.	Steerage.
18 Steamships	1,549	3,245
213 Sailing vessels	291	27,012
	1,840	30,257

The immigration has been very free from disease, the average mortality among the passengers from the United Kingdom having been no more than $\frac{1}{3}$ of 1 per cent., chiefly confined to children. The foreign passengers have suffered more, but among them the average mortality, between embarkation in Europe and landing in Quebec, has been less than 1 and $\frac{2}{3}$ per cent, children included. The mortality

at sea has been confined to sailing vessels, not a single death having been reported on board any of the steamers. The following is a comparative statement of the arrivals from each country for the years 1856 and 1857 :

	1856.	1857.
From England	10,353	15,471
“ Ireland	1,688	2,016
“ Scotland	2,794	3,218
“ Germany	4,537	4,961
“ Norway and Sweden	2,806	6,407
“ Lower Provinces.....	260	24
	<u>22,439</u>	<u>32,097</u>

Shewing the increase in 1857 of 9,658 souls, equal to 43 per cent. And distinguishing the nationality or origin of the immigrants of the two seasons, they will appear as follows :

	1856.	1857.
English	5,555	11,098
Irish	4,357	4,466
Scotch.....	3,872	4,924
Germans.....	4,745	4,872
Norwegians and Swedes.....	2,806	6,470
Belgians.....	843	216
Canadians	261	51
	<u>22,439</u>	<u>32,097</u>

The increase is principally on the English and Norwegians.

Of the former, the increase is 5,543 persons, and of the latter 3,664. From Scotland the increase is 1,052, and from Ireland 109, from Germany 127, while on the number from Belgium and the Lower Provinces there is a decrease of 837 persons. Table No. 2 of the Appendix presents a return of the ships and passengers from each port and country during 1857, with the mortality from each port respectively, also showing a comparative statement of the immigration from each port and country for the seasons 1855 and 1856. The deaths among 15,544 persons who sailed from English ports were 73, or equal to 0.47 per cent. From Ireland, among 2,018 persons, but 2 deaths occurred. From Scotland, out of 3,224, but 6 deaths occurred. Among the Germans the deaths were 37 out of 5,018 persons, equal to 1.13 per cent. The greatest mortality occurred among the Norwegians, being 100 on an emigration of 6,507, or equal to 1.53 per cent. Table No. 3 presents a general hospital return, shewing the number of patients admitted for medical relief, with the results at the Quarantine Station between 1st May and its close on the 31st of October, at the Marine and Emigrant Hospital in this city, and at the General Hospital, Montreal, between the 1st May and 31st December. From this return it will be seen that the total number of cases treated in these several institutions was 537 and the deaths 40. Table No. 4 furnishes a return of the adult male immigration, distinguishing trades and callings. The total males embarked was 12,443, who were classed as follows, viz :

Farmers and agricultural labourers	3,518
Mechanics	2,185
Merchants, Clerks, &c.	327
Servants.....	134
Labourers	6,279

12,443

Table No. 5 presents a comparative statement of the number of emigrants landed at this Port since the year 1829 to the present time, a period of 29 years, numbering in the aggregate 901,005 souls, affording an average of 31,070 per annum.

Table No. 6 furnishes a return of persons who have been aided in their emigration to this country by private individuals, charitable societies, or under the sanction of the Poor Law Commission.

The total number assisted was 1,740, and the amount paid among them on arrival here was £885 10s. 8d., of which sum £816 15s. 8d. was paid through this office, and £68 15s. by agents.

The Wellington Emigration Society sent out from England 1,062 persons, who received a sum of 10s. each adult on landing here, in addition to a free passage to Western Canada; 33 lads were from the London Reformatory School, and 62 persons were sent out by their parishes. From Ireland there were 379 persons, viz:—13 males, 293 females, and 73 children, all from Poor Law Unions, they received from 10s. to 25s. sterling each on landing here. Those from the Continent number 49 men, 51 women, and 94 children; 81 persons received money on landing here, amounting to £72 15s., and 133 received a free passage only. I have to report but two cases of disaster at sea occurring to Emigrant vessels bound to this port during the past season, viz:—the ship *Martin Luther*, which sailed from Liverpool on the 9th of April, with 499 passengers, after having been a few days at sea, was dismasted in the Channel and carried into Plymouth, where she refitted and sailed again on the 28th of May. The second case was that of the ship *St. Clair*, which sailed from Tralee on the 11th June with 227 passengers, and having sprung a leak was abandoned at sea, her passengers were rescued by the *Ariel*, of Bristol, and taken into Cork, where they were provided with a passage by the *Maria*, and arrived here on the 3rd September in good health. It is satisfactory to find that in both these cases, although the passengers were exposed to much suffering and hardship, there was no loss of life. Although the disasters at sea have fortunately been attended with no loss of life, I regret to have to refer to a most disastrous disaster which occurred on the river St. Lawrence, within a few miles of this city. The steamer *Montreal*, which formed one of a line between Quebec and Montreal, left her wharf here on the afternoon of the 26th of June with from 300 to 400 persons on board. She took fire shortly after, and was totally consumed after having been run aground on a shoal some distance from the shore. The loss of life never can be correctly ascertained, but 254 bodies in the whole were recovered.

The passengers by this ill-fated vessel were composed chiefly of the emigrants by the ship *Jno. McKenzie*, from Glasgow, which vessel had arrived the previous evening with 338 souls. Of this number 69 left the next morning by railway, and 11 remained in this city, 258 are consequently supposed to have embarked on board the *Montreal*, of which number but 67 are ascertained to have been saved, leaving 191 persons missing. Those saved suffered the entire loss of such of their baggage and property as was not carried on their persons. There has been much humane attention directed to the survivors of this catastrophe, and assistance has been presented by the cities of Quebec, Montreal and Toronto, as well as by other places.

The St. Andrew's Society of Montreal have taken a most active and efficient course for the relief of the Scotch emigrants, and have been zealously seconded by the sister society of Quebec. These institutions have offered a warm sympathy for the surviving dismembered families by contributing largely towards making good their losses of property, and by enabling such as desired it to return to their relations or to proceed to their original destination.

The circumstances of this disaster underwent at the time a searching inquest, which resulted in a verdict of "Manslaughter" against the captain, owner, pilot and mate of the vessel. The owner has evaded arrest, but the master is now in jail, and the pilot and mate are under bail, all awaiting their trial. In the course of the season complaints were made by the passengers of five vessels for infringement of the regulations of the Passengers' Act. In three cases in which I found it necessary to institute legal proceedings convictions were obtained, and in two other cases compensation was made to the satisfaction of the passengers.

The first case was against Captain Craig, of the steamer *United Service*, from London, for short issue of water.

The vessel having proceeded to Montreal, the information with the necessary instructions were transmitted to the agent in that city, and on the complaint being heard the master was fined in a penalty of £50 currency, with costs. The second case was against Captain Olive, of the ship *E. A. Bright*, from Liverpool, under three clauses of the Act, viz.: 1st. By issuing an insufficient allowance of meat and flour during the voyage; 2nd. By issuing an insufficient supply of water; 3rd. By neglecting to keep the abstracts of the Passenger Acts and Order in Council posted up, as required by Law. The sitting Magistrates condemned the Captain in the penalty of £5 sterling, and costs, for each of the two first offences, and forty shillings and costs for the last. The third case was against Captain Corner, of the ship "*McDonnell*," from London, for not having issued a proper and sufficient supply of water and provisions during the voyage. The complaint for the non-issue of water was fully proved, and the master was fined £1 sterling per day, during the period of 34 days, in which the full allowance of water was withheld. The complaint respecting the deficiency in provisions not being proved, was withdrawn.

The following complaints were settled without the necessity of a reference to the Magistrates: Some few articles in the dietary scale of the ship "*Ion*," from London, had fallen short, owing to the length of passage, 68 days, but the master at once allowed the value of the articles deficient, amounting to 2s. 6d. for each passenger, with which they were well satisfied. The last case was by the passenger ship "*Melbourne*," from Liverpool; this vessel cleared outwards with only 24 steerage passengers, and accordingly did not appear to come under the Act, but a family of four persons having entered as cabin passengers, and although they paid cabin fare, having been provisioned and accommodated only as steerage passengers, the master was made to perceive that all the regulations of the Act might be enforced against him. In order to prevent the case being brought before the Magistrates the matter was settled by a money payment to the satisfaction of the complainants.

Complaints for breach of contract were also made by the passengers, 24 in number, per "*Esmeralda*," from Liverpool. As the vessel did not come within the operation of the Passenger Act, I was unable to afford them any assistance in obtaining redress. The petition of the passengers setting forth their grievances, was transmitted by their request to the Government Emigration Board in London.

The numerous testimonials and complimentary addresses presented to the masters of passenger ships, on their arrival here, shew that the treatment experienced by emigrants on their voyage to this port is generally satisfactory to them. The only case of personal ill treatment which came under my notice, was made by the passengers of the "*E. A. Bright*" against the subordinate officers of that ship, and proceedings were about being taken by several of the passengers against the chief mate and boatswain for assaults under various circumstances during the voyage. None of the accused were, however, forthcoming, nor could any of them be found during the stay of the prosecutors in this city. They had been made

aware of the passengers' intention to prosecute them, and dreading the punishment which they must have been sensible awaited them, they evaded a trial. Serious complaints of this kind are, I am happy to say, of rare occurrence on board emigrant ships coming to this port. The masters of the regular traders are generally kind, humane men, and being interested in obtaining and preserving a good name for their ships, provide with every care for the comfort of their passengers. Casual ships are not always so well commanded, although it is seldom that any charge can be urged beyond that of want of experience in the carriage of passengers. A very large proportion of the British as well as the Foreign emigrants proceeding to the western part of the Province, continue to take the route of New York. I regret to say numerous complaints are made of the treatment experienced by passengers on this route, not only while on their voyage across the Atlantic, but also when arrived at New York, and on the journey inland. The vessels employed in the New York passenger trade are more frequently transient ships, with masters less experienced in the business than those of the regular traders to this port, and, I feel warranted in saying, less respectable in their characters, so many cases of infamous conduct towards their steerage passengers, and particularly the females, have become public, that the Canadian emigration will be largely diverted from this line hereafter. The Commissioners of Emigration of New York, I am aware, do all in their power to check the impositions practised upon emigrants who land there, and since the establishment of the depot at Castle Gardens, for the reception and temporary accommodation of the steerage passengers arriving, they are saved from many of the evils to which they were formerly subject. Still the extent and character of the population of the City of New York, of the lower class, make it impracticable that a full protection should be afforded. The stranger is yet imposed upon by over charges, detained as long as he has money to expend, misdirected on his way, and often plundered, by force, of his only means. The American press is loud in denouncing the frauds practised upon those who are so pressingly invited to adopt the United States route, and their own interest leads the respectable part of the community to desire their prevention. But the too general absence of suspicion in the victims offers a temptation apparently not to be resisted, and the mal-practises seem rather to extend. The countrymen of the emigrants are often employed to inveigle them, sharing, doubtless, in the plunder obtained, and English, Irish and German are largely made use of by all the pretended forwarding companies and agents, who impose by means of worthless railway and steamboat tickets. The regulations of both the railways and steamboats of the United States are less strict in regard to luggage than is the case in Europe. Emigrants' property is exposed to loss from the confusion permitted, and if lost or stolen is seldom recovered. Emigrants, and more particularly families and single females, are cautioned against risks they run in adopting the New York route. If their destination is Canada, or indeed any of the northern or western states, they are strongly advised to come out by way of Quebec in the summer, and by way of Portland in the winter. The passage at either season is no longer, while it is on the whole, less expensive, and the inland route by the St. Lawrence and the Lakes, or by Railway, is more direct and a good deal cheaper. There is no detention, and any attempt at imposition, if made known, can hardly fail of being promptly punished by the authorities. Emigrants are advised, in all cases where circumstances will permit, to secure their passage by steamer in preference to sailing vessels, and if time, health and comfort are fully considered, the steamship will prove the cheapest in the end. The establishment of a regular weekly line of mail steamers from Liverpool to this port, which will come into operation in the ensuing spring, will afford intending emigrants full opportunity of securing a speedy, safe and regular conveyance. The service performed by this line

during the past season, has given general satisfaction, from its regularity and despatch. The first vessel arrived here on the 1st of May, and the last left this port on the 14th of November, making fourteen trips. They brought out 1,466 cabin and 2,631 steerage passengers, making an average passage of less than eleven days. On their return trips, thirteen in number, they carried 958 cabin and 1,609 steerage passengers, making an average passage of ten days twenty hours, giving the total passengers carried out and home by this line, 2,424 cabin and 4,240 steerage.

The total expenditure of the Emigration Department, including the Quarantine establishment at Grosse Isle, amounts to £11,939 15s. 4d. The cost of the Quarantine establishment amounted to the sum of..... £2,603 6 1
and the Steamboat service for the same..... 1,200 0 0

Total..... £3,803 6 1

The expenditure for the direct relief of emigrants in transfer and provisions, together with the salaries and other expenses, are..... £8,136 9 3

£11,939 15 4

The several heads of the expenditure on account of the Quarantine establishment during the season of 1857, above referred to, were as follows, viz.:

Pay of Officers and Staff.....	£2092	10	6
Hospital Supplies.....	164	3	10
Hospital Furniture.....	29	15	0
Cartages.....	70	6	10
Washing.....	23	0	3
Drugs.....	12	8	1
Boats for use of Station.....	54	17	6
Sundries.....	21	7	0
Printing, Stationery, &c.....	39	17	1
Advance to wintering party.....	95	0	0

£2603 6 1

This sum, when compared with the expenditure of 1856, shows a small increase of £188 3s. 7d. The expense of the Quarantine establishment was equal to 2s. 4d. per head on each emigrant embarked from Europe.

The expenditure of the emigration department to 31st December, has been as follows, to wit:

QUEBEC.

Transport (inland).....	£2535	16	11
Provisions.....	29	6	3
Sundries, funeral expenses, &c.....	172	16	6
Agency charges.....	94	18	2
Salaries.....	394	9	0

£3227 6 10

MONTREAL.

Transport.....	£579	16	9
Provisions.....	26	8	4
Sundries.....	40	14	2
Agency charges.....	53	8	3
Salaries.....	408	5	0

£1108 12 6

OTTAWA.

Transport,	£ 45	8	0	
Provisions,	2	18	3	
Agency charges,	74	9	9	
Salaries,	225	0	0	
				<u>£347 16 0</u>

TORONTO AND KINGSTON.

Transport,	£851	11	7	
Provisions,	93	5	6	
Agency charges,	169	10	0	
Salaries,	925	18	11	
				<u>£2040 6 0</u>

HAMILTON.

Transport	£772	13	2	
Provisions	91	6	6	
Agency charges	98	8	3	
Salaries	450	0	0	
				<u>£1412 7 11</u>
				<u>£8136 9 3</u>

From this statement it will be seen that the total direct relief extended to destitute Immigrants at the usual agencies throughout the Province was

In Transport	£4785	6	5	
Provisions	243	4	10	
Funeral and other expenses attending the loss of steamer Montreal	213	10	8	
Office charges and sundries	490	14	5	
Salaries	2403	12	11	
				<u>£8136 9 3</u>

The number of persons assisted at the Quebec Agency was 4180 viz.:

Males	995
Females	1632
Children	1553

4180 equal to 3232½ adults

There were forwarded to Montreal	1040
Eastern Townships	69
Ottawa	40½
Western Canada	1744
Western States	260
Ports on Lake Erie	27
New York	52
	<u>3232</u>

at an average cost of 15s. 6½d. each adult.

Of the above number 1519 were foreigners, viz.:

Male adults	433
Females	443
Children	643

They were constituted of 915 Norwegians and 614 Germans.

The Montreal agent reports the number assisted there was equal to 917 adults at an average cost of 2s. 6d per adult. These consisted of, viz.:

Male adults.....	304	
Females	436	
Children	495	
		1235

They were forwarded, viz.:

To Western Canada	766
Ottawa District	285
United States.....	184

of which number 223 were foreigners, viz. : 126 Germans, and 97 Norwegians.

Males 54, females 64, children 105.

The number of persons relieved at the several agencies in Western Canada are not stated in the returns which have reached me.

The expenditure for 1857 at the several agencies of this Department when compared with those of 1856, shows an increase of £3,329 7s. 5d. This has been incurred chiefly under the head of Transport and Provisions. In Lower Canada the increased expenditure, amounting to £1,414, is in proportion only to the increased number of emigrants arrived. In Upper Canada, both at Toronto and Hamilton, this proportion has been exceeded, the extra expenditure at those two places being £1,916, while in proportion to the larger number of the emigration it should have been nearly £1000 less. The demands for assistance made on these two agencies were very numerous during all the latter part of the season, consequently on the superabundant labor accumulated there, and the duty of dispersing those unable to obtain employment became extremely burthensome. The establishment of an agency at the City of Ottawa has also involved some additional expenditure. But this, owing to the extended field opened for emigrants in that section is likely to exercise an important and beneficial influence in future, and be the means of attracting a large portion of our future emigration to the Government Lands recently opened for sale in all the neighboring Districts. The Emigrant Tax realized in course of the past season was as follows, viz. : at Quebec

22,567 Adults, at 5s.....	£5641	15	0
7,883 1 to 14 years, at 3s. 9d.....	1478	1	3
7 " " 7s. 6d.....	2	12	6
36 Stowaways, " 47s. 6d.....	85	10	0
Montreal,			
124 Adults, at 5s.....	31	0	0
51 1 to 14 years, at 3s. 9d	9	11	3
<hr/>			
30,668	£7,248	10	0

being equal to an average of 4s. 8d. on each Emigrant from Europe above the age of one year. The total expenditure on the emigration, including the cost of the maintenance of the Quarantine Establishment, amounting to 7s. 9d. per head. But including the expenses of the Grosse Isle Establishment, and taking the direct expenditure in the relief and assistance of the destitute among the Immigration of the year, the average outlay per head is 5s. 3d.

At page 27 I add copy of the annual Report received from Mr. Hawke, the chief Agent for Western Canada, on the result of the Season's Immigration to the section of the Province under his more immediate charge. From this Report it will appear that the total arrivals of Immigrants in Canada during the year was 71,220, viz: 32,097 by the route of the St. Lawrence, and 39,123 by the route of

the United States, and of the whole number 37,034 proceeded to the Western States, and 34,186 have remained as settlers in Canada. The attempt to ascertain the final place of settlement of the Immigration is always attended with difficulty, and a precise result cannot be produced by any extent of inquiry. I submit, however, the following table which I have drawn up from the best resources at my command and which may be considered to be a near approximation to the truth.

ARRIVALS.

Number of Emigrants landed at Quebec, exclusive of cabin passengers....	30257
Number received from Portland from railway returns, viz:	
from Europe	1087
from United States	1784
	<u>2871</u>
At Toronto and Hamilton, from ports on Lake Ontario, as stated by Mr. Hawke	3180
At Hamilton, by route of Niagara Suspension Bridge, as stated by Mr. Dixon, Emigrant Agent there.....	35943
	<u>72251</u>

DISTRIBUTION.

Proceeded to the Western States from Hamilton by Mr. Dixon's report	37034
From Eastern Canada, from returns.....	685
Returned to United Kingdom by steam and sailing vessels from Quebec, and according to Custom return, 1856.	
One-half of whom are estimated to have been emigrants of the season	678
Number lost by the burning of the steamer Montreal.....	191
	<u>38588</u>
Settled in Canada	33663
	<u>72251</u>
Of this number, Mr. Hawke estimates that there settled in Western Canada	31423
Settled in Eastern Canada	2240
	<u>33663</u>

I do not venture to offer an estimate of the property which is brought into the Province by the annual emigration, because systematic inquiry on this point is not made, and because I find that from a large class of the emigration it is difficult to obtain reliable answers, even when the question is put incidentally. The amount drawn on their arrival here by the Norwegian passengers of the season, chiefly through bills of exchange on New York, I ascertained to have been \$140,000, equal to \$23 per head.

The Commissioners of Emigration at New York, in their report for 1856, state that the average amount of money brought to that place by the European immigrants bound to Canada, was over \$76. With some persons undoubtedly there will always be a disposition to overstate their means; but the mass of the emigration are too apprehensive of sharpers to allow the amount of money on their persons to transpire, and I believe all estimates on this head to be understated. On a review of the immigration of the past season, I may be permitted to remark that the country has received an accession to her population by the introduction of a large body of healthy immigrants, many of whom have brought a considerable amount

of wealth and intelligence with them, and although some, doubtless, may have experienced disappointment, because their progress has not been such as they had been led to expect, the fault has been attributed to themselves rather than to any amount of means on the part of the country to provide for them. The general condition and prospects of those who had been fitted by their education and previous habits for removal to such a country as Canada, are not unsatisfactory. Laborers, and more especially agriculturists, have been in general demand throughout the spring and summer, and in many parts of the Province the supply was so far from meeting the demand that the farmers were subjected to much inconvenience and even loss from want of hands. Domestic servants, more particularly females, were universally inquired for, and all such readily found employment at fair wages. But during both the last season and that of 1856 we have received a large number of skilled mechanics, such as machinists, locomotive builders, tool makers and others practising the higher branches of mechanics, who have found it difficult to obtain employment. The demand for this description of labor is at all times limited, and newcomers are at great disadvantage in finding places for themselves. The Agent at Hamilton reports that some of this class who reached his district, have gone to the United States, while a few who had means returned to England dissatisfied and disappointed. But the class to whom this country offers the least encouragement are those who have no business or calling, persons who have been brought up as merchants, bankers or lawyers, clerks, unaccustomed to labor, or persons whose sedentary employment has affected their constitution and strength, or who have been confined to a single branch of a manufacture until they are incapacitated from taking other labor. No person of these descriptions ought to be induced to emigrate unless some previous preparation has been made for them, or unless they come out to friends who are in a position to provide for them until suitable employment can be found.

In the return of the past season there are no less than 327 persons among the steerage passengers styled merchants and clerks, for whom there is really no employment. The country has an oversupply of this class, of native growth, while many among the self-styled mechanics and tradesmen are equally without the capacity for any branch of labor that this country at this time offers. Having mentioned the description of emigrants who are unfitted for this country, it remains only to repeat that, although persons having capital, with judgment and experience to guide its employment, must possess great advantages in Canada, still there is ample encouragement for the hardy and industrious, even without large resources at their command. Farm laborers are the most generally sought for and fair wages are always open for their acceptance. But no man who possesses health and strength, with a determination to take up such offers of employment as may be made to him, can fail to earn a good livelihood; nor if he exercises his intelligence, within a short period greatly to improve his condition, and that of his family. Lands are open for inspection or occupation on terms that bring them within easy reach, and the laboring man who is saving cannot be long in any employment without laying up sufficient store to enable him to become a settler and proprietor of a lot of land which in a few years may be made a valuable farm. I regret that the condition of the Province at the present time does not promise so fairly for the unskilled laboring emigrant of the next season, as it has done for many years past. The commercial difficulties which commenced in the United States, and subsequently extended to this Province, have exercised a very depressing influence upon all classes; and the field of employment on which so large a portion of our annual immigration depends, has been necessarily contracted; some large works in operation have been suspended, and many that were in contemplation have been deferred; a

severe check also has been given to private enterprise. The ensuing winter, it is feared, may be one of suffering among the newly arrived of our laboring class. In the country districts, from the abundance and moderate price of provisions, there can be no want. But in many of the larger towns, the municipal authorities are already called upon to alleviate the distress by providing employment for those most in need. In a country like Canada, however, possessing so great natural resources in her valuable forests and extensive tracts of fertile lands, awaiting only the application of labor to render them available, the existing state of things cannot long continue—all superabundant labor must be absorbed, and room made for the arrival of fresh supplies. By the spring, I anticipate that business will have resumed its usual course, and that the country generally will have been restored to its progressive condition, so that even if some of our extensive public works be immediately re-entered upon, there will be a general activity among the farmers and settlers, whose ample stores will enable them to undertake further improvements of their lands by means of the labor now to be had on terms within their reach. Wages will be lower than for some years back; mechanics and artizans, unless in a few branches of work, will still find a strong competition for employment; and unskilled labor must be distributed throughout the Province in order to be provided for. Agriculturists, however, and all who can assist efficiently in the farm work of the country, with plough, hoe or axe, will not fail to meet employment at fair wages. At Paper No. 7 in the Appendix, I submit copy of the notes appended to the periodical reports made to Your Excellency during the past season, in which I have had occasion to notice the condition and more immediate prospects of the Emigrants as they arrived. Submitting this Report to Your Excellency's favorable consideration,

I have the honor to be,

Your Excellency's

Most obedient humble servant,

(Signed) A. C. BUCHANAN,

Chief Agent.

GOVERNMENT EMIGRATION OFFICE,

Toronto, 21st December, 1857.

DEAR SIR,—It appears from the returns made to this office that the total number of emigrants who have entered Canada during the year 1857, amounts to 71,220, viz.:

Landed at Quebec, according to your report.....	32,097
From various Ports on Lake Ontario, chiefly Oswego and Rochester.	3,180
By the Niagara Falls Suspension Bridge, as per return made by T. C. Dixon, Emigrant Agent at Hamilton.....	35,943
Making a total of.....	71,220

Out of the emigrants who landed at Quebec, it appears that the number who proceeded direct to the Western States was 10,840, and the number who came by the Suspension Bridge, and proceeded to the same destination, amounted to 26,194, making the total number who proceeded to the United States, 37,034, leaving

34,186 to be accounted for ; these, as nearly I can ascertain, have been distributed as follows, viz. :

Settled between the River Ottawa and Toronto	7,840
And in Cities, Towns and Counties of Upper Canada, west of Toronto	23,588
	31,428

Making the total number of actual settlers in 1857, 31,423. As to the remainder (2,763), some have probably settled in Lower Canada, and many no doubt returned home, having been disappointed in procuring the kind of employment they had been accustomed to. Of the 37,034 who proceeded to the United States, the returns here and at Hamilton show, that 26,823 were Germans and Norwegians ; 2,858 English ; 3,894 Irish ; and 1,506 Scotch. The nationality of the remainder cannot be ascertained.

Settled in Upper Canada.—The monthly returns kept here and at Hamilton show the following results, viz. :

From England by the Steamers.....	7363
“ Ireland do	3507
“ Scotland do	2908
Germans and other Foreigners, by the Steamers	1987
From Ireland, by American Ports on Lake Ontario.....	1535
“ England and Scotland.....	1645
“ Germany, by Suspension Bridge	1976
“ England, do	3992
“ Scotland, do	1674
“ Ireland, do	2048
Americans, do	29
	28664
Settlers whose nationality could not be ascertained	2759
	31,423

More than one-half of the settlers belonged to the labouring class ; about one-fourth agricultural, farmers, and farm servants ; and the remainder to mechanical branches, and persons calling themselves shop-men, clerks, warehouse-men, &c. There were also a considerable number belonging to a class who would do better in almost any part of the world than in North America, persons who have been comfortably brought up, who could do “nothing in particular,” but who were willing to “do any thing ;” many such have left for parts unknown, some still hang loose upon society, and others have written to their relations for assistance to return to the United Kingdom ; but as far as I can judge, not one-tenth of the number have found any kind of employment by which they can earn a livelihood. Canada has an over supply of this class, of native growth. The sanitary condition of the emigrants has been very good, and the season remarkably healthy. As to the result of the year’s emigration, I fully concur in the opinions expressed by Mr. Dixon, in his report of the 16th inst. He says : “Numbers of persons possessed of information and skill in the higher branches of mechanism, have been induced to emigrate for the purpose of benefitting the condition of themselves and families, without ever considering whether their various callings were in existence in this new country, or if they were, whether there was sufficient scope for healthy competition. The consequence has been, that a number of strictly skilled mechanics, book-keepers,

clerks, subordinate in the different professions, and such like, have found their way to this part of Canada, and having been grievously disappointed in their expectations, the necessitous among them have been induced to turn their attention to labour and agriculture, in order to obtain bread, and no doubt in time they will reap a satisfactory result. Others with sufficient means, have left to return to their native land; on the other hand the real agriculturists and labourers with a knowledge of agriculture, have all succeeded well, and even yet there is a limited demand for English and Scotch farmers. The result of the whole year's emigration in this part of the Province has been successful, with the above exceptions, and certainly furnishes ground for its repetition next year, provided those persons unfitted for the country be properly advised of the privations and suffering to which they subject themselves by leaving a certainty for an uncertainty." As to the demand for labour, I can only repeat what I have already said in answer to that question in the colonization circular of the 17th instant, viz.: That the prospects for 1858 are not encouraging. An unusual pressure in monetary matters has been felt in every part of British North America, as well as throughout the United States. The banks in the latter country have been obliged to suspend specie payments, immense numbers of mechanics and labourers have been dismissed, and distress has been greater than was ever before witnessed; many of these have sought employment in this Province. Canada has not suffered to an equal extent; none of our banks have been obliged to suspend, and labourers with few exceptions have found work at slightly reduced wages; mechanics have suffered most, and I cannot invite many of that class to come out next year. Farm servants, and especially females, may depend on immediate work at good wages. Farmers with working families, who have small capital, can always settle themselves to advantage, and if prudent and industrious, are sure to better their condition.

I am, &c., &c.,

(Signed,)

A. B. HAWKE,

Chief Emigrant Agent for Upper Canada.

Whence.	Deaths in Quarantine.						Total deaths.	Total landed in the Colony.							Grand total landed in the Colony.	
	Adults.		Children, 1 to 14 years.		Infants.			Adults.		Children, 1 to 14 years.		Total.	Infants.	Total steerage.		Cabin Passengers.
	M.	F.	M.	F.	M.	F.		M.	F.	M.	F.					
	M.	F.	M.	F.	M.	F.		M.	F.	M.	F.	Male.	Female.	Male.		Female.
England.....	1	..	2	8	1	7	73	7015	4268	1775	1677	8790	5940	18824	1647	15471
Ireland.....	..	..	..	..	..	..	2	845	776	177	159	1023	985	2015	1	2016
Scotland.....	..	..	..	..	..	..	6	1349	961	381	374	1780	1385	3080	188	3216
Germany.....	1	..	1	1	1	4	57	1768	1523	728	665	2496	2188	4957	4	4961
Norway and Sweden.....	2	4	3	7	5	21	100	2381	1887	978	900	3307	2787	6407	..	6407
New Brunswick and Nova Scotia.....	..	..	..	..	..	..	..	10	10	2	3	19	12	24	..	24
Total.....	4	4	6	11	7	32	288	13318	9420	4039	3777	17357	13197	30257	1840	32097

(Signed,) A. C. BUCHANAN,
Chief Agent.

Emigration Department,
Quebec, December, 1857.

No. 2.

ABSTRACT STATEMENT of the number of Emigrants embarked, births on the passage, with the number died at Sea and at Quarantine, and total landed in the Colony, distinguishing the Countries and Ports whence they sailed, during the season.

Ports whence sailed.	No. of Vessels.	Passengers.		Births.	Total.	Deaths.		Landed in the Colony.		
		Steerage.	Cabin.			At Sea.	Quarantine.	1857.	1856.	1855.
<i>England and Wales.</i>										
Aberystwith .....	..	..	..	..	..	..	..	..	..	4
Bideford	3	22	..	..	22	..	..	22	..	33
Bristol	10	320	19	..	339	2	..	337	41	36
Cardiff	1	3	..	..	3	..	..	3	13	..
Carlisle	1	4	..	..	4	..	..	4	..	49
Falmouth .....	..	..	..	..	..	..	..	..	32	..
Exeter	1	8	..	..	8	..	..	8	..	..
Fowey	1	70	..	..	70	..	..	70	..	131
Grangemouth .....	..	..	..	..	..	..	..	..	4	..
Hull	4	325	2	2	329	2	..	327	344	557
Harrington .....	..	..	..	..	..	..	..	..	3	..
Liverpool	50	8703	1492	6	10201	30	5	10166	7262	3812
London	20	1559	86	3	1648	8	..	1640	395	287
Maryport	2	9	..	..	9	..	..	9	12	..
Milford .....	..	..	..	..	..	..	..	..	6	6
Newcastle	1	1	..	..	1	..	..	1	1	..
Newport	1	6	..	..	6	..	..	6	..	..
Padstow	2	16	..	..	16	..	..	16	13	..
Penzance	1	5	..	..	5	..	..	5	..	..
Plymouth	15	2722	48	4	2774	24	2	2748	1673	1750
Poole	1	15	..	..	10	..	..	15	24	19
Portsmouth	1	10	..	..	10	..	..	10	371	13
Shields .....	..	..	..	..	..	..	..	..	..	17
Swanzen	1	8	..	..	8	..	..	8	..	..
Torquay	1	23	..	..	23	..	..	23	..	..
Truro	2	36	..	..	36	..	..	36	159	50
Weymouth	1	11	..	..	11	..	..	11	..	..
Workington	1	6	..	..	6	..	..	6	..	10
Total	121	13832	1647	15	15544	66	7	15471	10853	6754
<i>Ireland.</i>										
Belfast	3	503	..	2	505	..	..	505	..	130
Cork	2	144	..	..	144	1	..	143	64	189
Donegal .....	..	..	..	..	..	..	..	..	6	4
Dublin .....	..	..	..	..	..	..	..	..	11	..
Galway .....	..	..	..	..	..	..	..	..	15	..
Limerick	7	73	1	..	73	..	..	73	109	1050
Londonderry	4	257	..	..	257	..	..	257	188	235
Newry .....	..	..	..	..	..	..	..	..	12	29
New Ross	5	623	..	1	623	..	..	623	671	1156
Skibereen .....	..	..	..	..	..	..	..	..	..	10
Sligo .....	..	..	..	..	..	..	..	..	..	193
Tralee	1	218	..	..	218	..	..	218	435	724
Waterford	4	185	..	..	185	1	..	184	177	206
Westport .....	..	..	..	..	..	..	..	..	..	125
Youghal	2	13	..	..	13	..	..	13	..	..
Total	23	2014	1	3	2018	2	..	2016	1688	4106

No. 2.—Abstract statement of the number of Emigrants embarked, births on the passage, &c,—(Continued.)

Ports whence sailed.	No. of Vessels.	Passengers.		Births.	Total.	Deaths.		Landed in the Colony.		
		Steerage.	Cabin.			At Sea.	Quarantine.	1857.	1856.	1855.
<i>Scotland.</i>										
Aberdeen	7	877	37	..	914	1	..	913	846	1414
Annan	1	5	..	..	5	..	..	5	..	8
Dumfries .....	..	..	..	..	..	..	..	..	9	13
Dundee .....	..	..	..	..	..	..	..	..	..	19
Glasgow	16	1615	130	1	1746	4	..	1742	1262	2499
Greenock	3	283	2	..	285	..	..	285	332	268
Leith .....	..	..	..	..	..	..	..	..	4	10
Lewis Isle .....	..	..	..	..	..	..	..	..	..	331
Montrose	3	269	19	..	288	1	..	287	341	281
Stromness .....	..	..	..	..	..	..	..	..	..	16
Trone	1	6	..	..	6	..	..	..	..	..
Total	31	3035	188	1	3224	6	..	3218	2794	4859
<i>Germany, &c.</i>										
Antwerp	3	787	4	3	794	8	1	785	927	438
Bremen	2	3	..	..	3	..	..	3	441	1584
Hamburg	15	4209	..	12	4221	45	3	4173	3169	1575
Total	20	4999	4	15	5018	53	4	4961	4537	3597
<i>Norway and Sweden.</i>										
Bergen	10	2464	..	4	2468	14	6	2448	1193	229
Christiana	4	961	..	3	964	29	8	927	347	380
Drammen	4	930	..	..	930	27	1	902	207	214
Drontheim	1	198	..	..	198	1	..	192	..	..
Kiøgerø	1	41	..	..	41	..	..	41	..	..
Porsgrund	3	386	..	..	386	..	1	385	247	239
Stavanger	4	917	..	1	918	1	3	914	588	183
Sandfjord .....	..	..	..	..	..	..	..	..	224	..
Tensberg	2	322	..	1	323	7	2	314	..	..
Gottenburg	2	283	..	1	284	..	..	284	..	..
Total	31	6497	..	10	6507	79	21	6407	2806	1267
<i>Lower Ports.</i>										
Total	4	24	..	..	24	..	..	24	261	691
<i>Recapitulation.</i>										
England	121	18882	1647	15	15544	66	7	15471	10353	6754
Ireland	28	2014	1	3	2018	2	..	2016	1688	4106
Scotland	21	3035	188	1	3224	6	..	3218	2794	4859
Germany	20	4999	4	15	5018	53	4	4961	4537	3597
Norway and Sweden	31	6497	..	10	6507	79	21	6407	2806	1267
Lower Ports	4	24	..	..	24	..	..	24	261	691
Total	285	30451	1840	44	32335	206	32	32097	22439	21274

(Signed)

A. C. BUCHANAN,

Government Emigration Office,
Quebec, 31st December, 1857.

Chief Agent.

No. 3.

RETURN of the number of admissions into Hospital, discharges, and deaths of Emigrants, during the season of 1857.

	Admissions.	Discharges.	Deaths.	Remaining.
Grosse Isle Hospital	417	385	82	.
Marine and Emigrant Hospital, Quebec.....	69	59	3	7
General Hospital, Montreal	51	44	5	2
	537	488	40	9

No. 4.

TRADES and Callings of Emigrants, 1857.

Bakers	19	Papermakers.....	1
Butchers.....	85	Plasterers.....	1
Braziers and Tinsmiths	20	Saddlers and Harnessmakers.....	15
Bookbinders and Printers	22	Sawyers	21
Bricklayers and Masons.....	119	Shoemakers	157
Cabinetmakers and Turners.....	25	Smiths	201
Cart and Wheelwrights	44	Stonecutters	27
Carpenters and Joiners	478	Tailors	257
Coachmakers	5	Watch and Clockmakers	31
Coopers	21	Wool and Flax Dressers	10
Curriers and Tanners	11	Weavers	41
Engineers	124	Unenumerated	134
Gardeners.....	32	House Servants.....	134
Hatters.....	6	Farmers and Farm Servants.....	3518
Millers and Millwrights.....	127	Labourers.....	6279
Miners	156		9297
Merchants and Clerks.....	327		12443
Moulders and Foundrymen	21		
Painters and Glaziers.....	24		

(Signed,)

A. C. BUCHANAN,
Chief Agent.

Government Emigration Office,
Quebec, 31st December, 1857.

No. 5.

COMPARATIVE STATEMENT of the number of Emigrants arrived at the port of Quebec since the year 1829 inclusive.

Whence.	Five years from					1849.	1850.	1851.	1852.	1853.	1854.	1855.	1856.	1857.	Total.
	1829 to 1838.	1834 to 1838.	1839 to 1843.	1844 to 1848.	1849.										
England.....	43386	28661	30791	60453	8980	9887	9677	9276	9685	18175	6754	10353	15471	261949	
Ireland.....	102266	54904	74981	112192	23126	17976	22381	15988	14417	16165	4106	1688	2016	482204	
Scotland.....	20143	11061	16311	12767	4984	2879	7042	5477	4745	6446	4859	2794	3218	102726	
Continent of Europe.....	15	485	..	9728	486	849	870	7256	7456	11587	4864	7849	11868	62207	
Lower Ports.....	1889	1346	1777	1219	968	701	1106	1184	496	857	691	261	24	72519	
Total.....	167699	96857	123860	196859	38494	32292	41076	39176	36699	53183	21274	22439	32097	901005	

A. C. BUCHANAN,
Chief Agent.

Government Emigration Office,
Quebec, 31st December, 1857.

No. 6.

RETURN of the number of persons who received assistance to emigrate from the United Kingdom and the Continent of Europe, with the amount paid them on landing, 1857.

Date.	Ship.	Whence.	Number of persons.	Males.		Females.		Children.	By whom sent out.	Paid Emigration Department.		Less other agents.		Remarks.			
										£	s.	d.	£		s.	d.	
May 26	Arran	Liverpool	16	16	..	..	..	..	London Ragged School	16	10	0	..	..	
" 28	Ocean Bride	Do	72	..	43	..	29	..	Wexford Union	45	0	6	..	..	
" 28	Creole	Londonderry	5	..	1	..	4	..	Strabane Union	2	10	0	..	Free passage only.			
" 29	Eliza	Plymouth	8	..	1	..	6	..	The Parish	..	..	..	..	Do
" 29	Montezuma	London	7	..	..	..	..	..	London Ragged School	4	0	0	..	..	
June 16	Oregon	Liverpool	4	..	..	..	..	..	Sligo Union	63	0	0	..	..	
July 9	Chicago	Do	63	..	59	..	1	..	Clonmell Union	7	6	0	..	Free pass to destination.			
" 16	Wexford	Do	7	..	..	..	..	..	London Ragged School	..	..	..	..	..
" 17	Envelope	London	72	39	13	..	20	..	Wellington Fund, Woolwich Dockyard	11	0	0		
" 17	Do	Do	14	8	6	..	5	..	Poor Law Contact	30	5	0	..	..	
" 18	Medlemian	Do	76	23	30	..	30	..	Wellington Fund, Woolwich Artizans	102	5	0	..	..	
" 30	Henry Cook	Liverpool	281	92	60	..	129	..	Do	125	5	0	..	..	
" 31	J. G. Parsons	Do	105	..	30	..	9	..	Waterford Union	31	0	0	..	..	
" 31	Do	Do	31	1	..	..	..	..	Edenderry Union	151	15	0	..	..	
Aug. 12	John Owens	London	381	141	79	..	161	..	Wellington Fund, Woolwich Dockyard	1	10	0		
" 12	Do	Do	3	..	..	..	..	..	Poor Law Contract	46	10	0	..	..	
Sept. 5	E. A. Bright	Liverpool	48	5	84	..	8	..	Ennesceerthy Union	4	0	0	..	..	
" 5	Do	Do	4	..	4	..	..	..	Kennare Union	92	10	0	..	..	
" 14	Ton	London	238	73	70	..	95	..	Wellington Fund Artizans	6	4	2	..	..	
" 14	Do	Do	40	5	8	..	27	..	Poor Law Contract	82	15	0	..	..	
" 14	Arran	Do	10	19	..	..	..	..	London Ragged School	2	0	0	..	..	
" 19	Ocean Bride	Liverpool	38	4	24	..	10	..	Ennesceerthy Union	4	0	0	..	..	
" 19	Do	Do	5	..	1	..	4	..	Wexford Union	2	0	0	..	..	
" 20	Creole	Londonderry	4	..	..	..	..	..	Strabane Union	7	0	0	..	..	
Oct. 5	Hibernia	London	14	14	..	..	..	..	Wellington Fund, Artizans	..	..	..	..	..
			1546	446	555	..	545	..		£	778	15	8	£	39	0	0

No. 6.—RETURN of the number of persons who received assistance to emigrate, &c.—(Concluded.)

Date.	Ship.	Whence.	Number of persons.	Males.	Females.	Children.	By whom sent out.	Paid Emigrant Department.	Less other agents.	Remarks.
May 6.....	Eliza Mary.....	Antwerp.....	10	3	3	4	Government of Wurtemberg.....	\$ c.	\$ c	
" 6.....	Do.....	Do.....	13	5	4	4	Do.....	38 00	38 00	Paid in Antwerp.
" 12.....	Copenhagen.....	Hamburg.....	4	1	2	2	Land Co., Meeklenberg.....	48 00	48 00	
" 12.....	Do.....	Do.....	4	2	2	..	Do.....	..	..	Only free passage.
June 3.....	Europa.....	Do.....	4	1	1	2	Parish of Saxe Weimar.....	..	..
" 3.....	Do.....	Do.....	4	1	1	2	Prussia.....	..	15 00	Do
" 8.....	Robert Parker.....	Antwerp.....	56	9	14	33	Government of Wurtemberg.....	172 00	..	Paid in Antwerp.
" 8.....	Do.....	Do.....	12	2	3	7	Do.....	..	..
July 1.....	Christiana.....	Gomeuburg.....	56	17	15	24	Parish in Sweden.....	..	..
" 9.....	Franklin.....	Hamburg.....	4	..	1	3	Prussia.....	..	..
Sept. 3.....	Mortimer Livingston.....	Antwerp.....	7	2	2	3	Government of Wurtemberg.....	..	20 00	
" 8.....	Do.....	Do.....	4	2	2	..	Lucerne, Switzerland.....	..	..
Oct. 7.....	Dantsig.....	Gomeuburg.....	16	4	2	10	Parish in Sweden.....	..	..
		Total.....	194	49	51	94		\$172 00	119 00	

Recapitulation.

	From England.		Ireland.		Continent.	
	Number.	Amount.	Number.	Amount.	Number.	Amount.
Wellington Emigration Fund.....		£ s. d.		£ s. d.		\$ c.
Parish Funds.....	1062	883 15 0				243 00
Private Funds.....	90	69 0 2	379	860 0 6	77	48 00
Free Passage only.....	15				113	
Total.....	1167	452 15 2	379	860 0 6	194	291 00

Government Emigration Office,
Quebec, 31st December, 1857.

No. 7.—EXTRACT from the notes appended to the periodical Reports of arrivals of Passenger Ships at the Ports of Quebec and Montreal, in the season of 1857.

Return No. 1.

Six thousand nine hundred and sixty-seven emigrants landed at this port from the 22nd May to the 2nd June, being an increase of 6671 on the season over the number arrived to corresponding period in 1856.

They arrived in good health; deaths on the passage, 38, chiefly children from the effects of measles, with the exception of those on board the ship "Gipsy Queen," from Plymouth, fourteen deaths having occurred from scarlatina,—two adults and twelve children.

The majority of the emigrants are from England; and the natives of that country, as may be seen by reference to this return, are very considerably in excess of those from any other country. The male adults are classed in the ships' lists as follows:

Farmers	940
Labourers.....	1525
Mechanics	538
Servants.....	7
Cabin	49

— 3059

The ships have arrived clean and in good order; the passengers all report most favorably of the treatment they received during the passage; the only complaint which has been made was by the passengers, twenty-four in number, per the "Esmeralda," from Liverpool, which vessel, owing to the small number of passengers, did not come within the provisions of the Act; the particulars of their complaint, as stated by them in writing, has been transmitted to Her Majesty's Commissioners of Emigration at London.

1944 emigrants arrived in eight vessels from Plymouth, a fine healthy body of west of England farmers and agricultural laborers, many of whom appear to possess good means; a large proportion have emigrated to join their friends in the Newcastle, Home, and Gore, Brock and London Districts, and a few to the Western States. Those by the "Montezuma," from London, are chiefly mechanics and laborers seeking employment; there were a number of young men who had acted in the capacity of clerks or store porters, who aspire to a position above that of ordinary laborers: to persons of this class, Canada offers but little inducements at present, and unless they are prepared to undertake manual labor, they will, I fear, find some difficulty in earning their support.

The emigrants from Hull and Bristol are generally respectable farmers, proceeding to friends in different sections of western Canada.

Of the Scotch, 476 are from the port of Aberdeen, and 319 from Glasgow; they consist of respectable farmers, farm laborers, and mechanics; a large proportion have emigrated to join friends in the Home, Gore, London, and Huron Districts.

The Irish emigration direct number but 443 persons, from New Ross and Waterford; but 541 in addition came, *via* Liverpool; these are mostly poor families coming out to join their relations; about one-half proceed to the United States.

The Germans, 727 in number, have nearly all gone to the United States, except about two hundred, who have proceeded to the German settlements in Western Canada.

The Norwegians, 1173 in number, have all gone to Illinois and Wisconsin.

A considerable number of the emigration of this season from the Ports of Plymouth, Liverpool, and Glasgow, have come out under the through ticket system

arranged last winter by the Grand Trunk and Mail Packet Steamers; it so far appears to answer well; the emigrants have been received and carried forward to their destination with safety and despatch, and at fair and reasonable charges.

I annex a copy of the printed notice issued from this office for the information and guidance of emigrants, with a statement of the routes and rates of inland transport from this port.

The number of persons assisted from the several ships in this return, were as follows:

	Adults.	Children.	Under 3 years.
From the Port of Liverpool	171	72	18
“ “ Plymouth	115	85	37
“ “ London	9	5	2
“ “ Glasgow	5	3	0
“ “ Aberdeen	8	5	0
“ “ New Ross & Waterford .	38	28	4
“ “ Londonderry	28	20	0
“ “ Germany	60	28	14
“ “ Norway	48	29	18
	482	275	93

Number 850 souls, equal to 619½ adults.

Return No. 2.—(From the 2nd to the 13th June, 1858.)

The emigrants arrived at this port from the 2nd to the 13th June, have all landed in good health, two-thirds of whom are foreigners, and one-third natives of the United Kingdom; those from the United Kingdom have chiefly emigrated to friends, and fully three-fourths will remain as permanent settlers in Canada.

The Germans arrived number 1971 souls; about 400 stated their intention of settling in Canada, among whom are some families possessing considerable means; a number of Prussians have proceeded to the Ottawa section of the country, with the intention of working for a short time, and then settling on the free grants.

A number of poor were sent out by the ship “Robert Parker” from Antwerp, they were from Wurtemberg, and received ten guilders each on landing here, to enable them to proceed where suitable employment could be obtained. They were directed up the Ottawa and to the Bay of Quinté, where they have all succeeded in procuring work; the remainder proceeded to the Western States.

The Norwegians arrived numbered 1733, all of whom have proceeded to the Western States.

The Irish were generally very poor, and a large number consisting of females and children had to be assisted to enable them to proceed.

The total assistance granted from the several vessels in these returns amount to 693 souls, viz.:

From England	68,	equal to 8½	per cent on the new arrivals.
From Ireland	215,	“ 34	“ “
From Germany	197,	“ 10	“ “
From Norway	213,	“ 12½	“ “

Return No. 3.—(From the 13th to the 20th June.)

The emigrants of the past week have all landed in good health, they were chiefly Norwegians, and with the exception of a few young men who, being without means, were sent into the Eastern Townships for employment, have all proceeded to Wisconsin.

A number of the Germans have been induced to remain in Canada, many of whom have proceeded up the Ottawa River, where they readily found employment, and have reported themselves pleased and satisfied with their situation.

The emigration from the United Kingdom are all from Liverpool, and are chiefly English. They have proceeded with few exceptions to Western Canada.

The number of persons assisted was 175, viz., 51 from England, 21 Germans, and 103 Norwegians. The nature of assistance rendered was in free passages to the different sections of the Province. The demands for labour in the rural districts is good, and if those seeking employment will avoid the cities, and proceed at once into the rural districts, they will find no difficulty in procuring work.

Return No. 4.—(From the 20th to the 30th June.)

The emigrants arrived during the week ending the 30th June, numbered 2319 souls, about two-thirds of whom are foreigners; all have appeared free from sickness.

Those from the United Kingdom consist of respectable farmers, mechanics and agricultural labourers, fully four-fifths of them having emigrated with the object of joining their friends already in the country.

On the evening of the 26th occurred on the Saint Lawrence, within ten miles of Quebec, one of the most extensive disasters which has been known in Canada in connexion with the inland transportation of emigrants.

The large steamer "Montreal," plying between Quebec and Montreal, and on this occasion having on board as nearly as can be ascertained three hundred and fifty passengers, took fire soon after leaving this City, and was totally consumed.

The loss of life which has been ascertained up to this date amounts to two hundred and fifty-four, and it is possible that some have perished of whom no account have yet been taken. The exact number of persons on board the steamer at the time of her loss can never be ascertained, but it is supposed that besides the crew there were upwards of 300 passengers.

The emigrants among those consisted of one family of Norwegians, 7 souls, and 258 Scotch emigrants, very recently landed from on board the ship "John McKenzie" from Glasgow.

Of the Norwegians one only, a child, is among the saved, and of the 258 Scotch emigrants only 67 are known to have escaped. The "John McKenzie" sailed from Glasgow with 10 cabin and 330 steerage passengers, 2 children died on the passage, making the number landed at Quebec 338.

Proceeded to Montreal by Rail.....	69
Remained in Quebec, 2 cabin and 9 steerage.....	11 — 80
	<hr/>
Embarked on board the Montreal.....	258
Saved.....	67

Drowned or missing..... 191

Those saved suffered the entire loss of their baggage and property not carried on their persons.

There has been much humane attention directed to the survivors of this catastrophe, and assistance has been presented by the cities of Quebec, Montreal and Toronto, as well as by other places.

The St. Andrew's Society of Montreal have taken a most active and efficient course for the relief of the Scotch emigrants, and have been zealously seconded by the sister society of Quebec; these institutions have offered a warm sympathy for the surviving dismembered families, and are contributing largely towards making good their losses of property.

A coroner's inquest has been instituted in the case, measures have been taken for the receiving and identification of the bodies of the drowned, as well as for the protection of their effects, and decent interment in the cemetery of Mount Hermon near this City is provided.

The Reverend Dr. Cook, Minister of the Church of Scotland, interesting himself in the performance of the last offices of the dead.

The inquest remains occupied in inquiring into the causes of the disaster and consequent fatality.

Return No. 5.—(From 30th June to 11th July.)

Two thousand nine hundred and seven emigrants arrived in this Port in good health from the 1st to the 11th inst.

The deaths during the passage were but eleven souls, chiefly young children.

Over two-thirds are from the United Kingdom. The male adults are classed as follows: Mechanics, 194; farmers, 308; labourers, 617; servants, 17; and cabin passengers, 36.

Those from the United Kingdom have chiefly proceeded to different sections of Western Canada, some to join friends, and others in search of employment; a large proportion had arranged for their inland transport under the through ticket system established by the Grand Trunk Railway and Mail Line of Steamers.

The foreign emigrants number 996 souls. The Norwegians and Swedes all proceeded to the Western States; of the Germans about 150 remained in Canada, the remainder proceeded to the Western States.

The demand for agricultural labour and female domestic servants is very good, and in some sections of the Province considerable difficulty is experienced in obtaining the necessary supply of labour.

For mechanics the inquiry is not so great, and the country appears generally sufficiently well supplied with emigrants of this class.

The number of emigrants assisted from the several ships included in this return were 301, viz., 173 adults, 99 children, and 29 under 3 years.

They were from England.....	112
Ireland.....	98
Germany.....	78
Norway.....	13

Return No. 6.—(From the 11th to the 18th July.)

The arrivals during the week ending this date were 1347, chiefly English and Scotch, they all landed in good health. The emigrants per "Martin Luther" chiefly emigrated to join their relations. They had been upwards of three months on board this vessel, in consequence of her having been dismasted in the English channel shortly after she sailed from Liverpool. The people were healthy, but many were without means, having spent all their small stock of cash during their detention in Plymouth to refit. One hundred and five required assistance on their landing here to enable them to reach their friends.

The Passengers per "Wexford" from Liverpool, and "S. D. Ryerson" from Glasgow, were respectable farmers, labourers and mechanics. They all appeared to have friends before them. By the "Wexford" were seven lads from the London Ragged School. They received £1 sterling each and all proceeded to Kingston, C. W., where they would find immediate employment.

By the "Envelope" and "Mid-Lothian" were received the first portion of the Woolwich artizans, sent out by the Wellington Emigration Society. They landed healthy. Those by the "Mid-Lothian" received 10s. sterling each adult, which was paid to them on board the ship. They all had through tickets by the Grand Trunk

Railway for Toronto, but as there was but little demand for their labour in that City they were advised to proceed to the Ottawa or to Belleville, Trenton and Cobourg, where they would at once find steady employment.

Return No. 7.—(From the 18th to the 31st July.)

The emigrants arrived between the 18th and 31st July number 1612. They are from Liverpool, with the exception of 224 by one vessel from Hamburg.

On board the ship "Henry Cook," from Liverpool, were 277 passengers, Woolwich artizans, chiefly families sent out by the Wellington Emigration Association. They had been supplied with through tickets by Railway to Toronto, and they received at this Port on landing 10s. sterling each adult.

As there was at the time comparatively little demand for labor in the Western section of the Province, I furnished some of them with written recommendations for employment to some influential gentlemen residing in the Township of Sydney and Seymour in the County of Hastings, and I directed a large proportion of the others to the Government Emigration Agent at Ottawa, where labourers were very much wanted, and where consequently these people were certain of finding immediate employment. Those who stopped at the Trenton Station, about twenty families, obtained employment at once on their arrival. The party destined for the Ottawa did not leave the Grand Trunk line at Prescott according to the directions, but were carried on to Toronto, and I have reason to doubt whether they have been equally successful in finding places and the means of support.

The system of securing their inland transport from Quebec to the Western sections of the Province, which has been somewhat largely adopted this season by emigrants from the United Kingdom, has doubtless some advantages for those who have a fixed destination within the Province or proceed to North-western States, but to those whose course remains to be governed by circumstances, and particularly to those dependent on employment, it is objectionable.

The field for labor is not always most promising in the same part of the country; indeed, if the entire emigration were led into any one district, it must be altogether overstocked with labor for the time.

It frequently occurs, that the best opening for settlers as well as labourers are presented by the sections eastward of Toronto, and the emigrant who leaves his arrangement for inland transport to be completed at Quebec, may often save a portion of the expense as far as Toronto by adopting an intermediate stopping place.

There is open to him further the possibility of his obtaining transport at rates reduced by the competition of the season, much below the regular fare, whether by steamer or by rail.

The "J. S. Parsons" brought out the large number of 792 passengers, from Liverpool; among those were a party of 105 females, from the Waterford, and 31 from the Edenderry Union. The former received 25s. sterling, each adult, on landing, and the latter 20s. sterling, each. They were distributed as follows: 21 obtained situations in Quebec, 39 in Montreal, 64 at the Ottawa City, and 12 left the Province to join friends in the United States.

Those engaged in this City and Montreal were hired in the office at wages from 12s. 6d. to 15s. per month, and all the 64 who were sent to Ottawa, Mr. Clemoro-writes, "were engaged in that vicinity immediately on arrival, and had there been 300 additional, I could easily have provided for them; they are in respectable places, at wages from 10s. to 15s. per month, with the understanding that an increase will take place on the expiration of the first month."

"The male labourers that have arrived here this season have been well provided for, and it is only to be regretted that a larger number had not

reached this section of the country. The demand continues very good in the rural parts, and the farmers are greatly disappointed at not being able to get the amount of labor they require.

I annex abstract return of the arrivals at this port to 31st July, showing the total number from each country, as also the nativity of the emigrants, from which it will appear that the English are far in excess of those from any other country, and that the Irish, who formerly so much exceeded those from all other countries, are now the lowest in number on the list.

Number arrived to 31st July :

From		Natives of
England	10,206	7222
Ireland.....	1692	3346
Scotland	1972	3210
Germany	4565	4609
Norway and Sweden.....	6034	6082
New Brunswick	16	16
	24,485	24,485

Return No. 8.—(From the 31st July to the 18th August.)

The arrivals to the 15th instant have all landed in good health, three-fourths of whom are English and Scotch; they are classed as follows: 192 farmers, 382 laborers, and 178 mechanics. On board the "John Owens" there were 381 persons, Woolwich artizans, sent out by the Wellington Emigration Society. They received 10s. sterling, each adult, on landing here, amounting to £151 15s. sterling, and each had been provided with an order for their inland passage as far as Toronto, by the Grand Trunk Railway. They left this on the evening of the 13th instant; about 50 families were induced to settle in the Ottawa country, where they have all found employment; the remainder proceeded to their original destination, Toronto. Numerous inquiries continue to be made for female servants, and agricultural laborers, and all our emigrants of this class readily find employment at fair wages.

A number of poor families by the "St. James," "Agamemnon," and the "Transatlantic," were assisted, to enable them to reach their friends in different parts of Western Canada. The total number relieved was 177, viz.: 111 adults, and 66 children.

Return No. 9.—(From the 15th to the 31st August.)

The arrivals during the past fortnight have been but 784 souls, chiefly Scotch and English. They were all the better class of emigrants, and consisted of farmers, agricultural laborers, and mechanics.

Some complaints were made by the steerage passengers, by the steamer "United Service," for infringement of the regulations of the Passenger Act. The ship having proceeded to Montreal, I instructed the emigrant agent at that port to institute proceedings against Captain Craig. The chief cause of complaint was for issuing bad provisions, and for a short allowance of water; judgment was given by the presiding Magistrates against the master, under the latter complaint, and he was fined £50 currency, with costs.

This vessel was 31 days on her passage, and having run short of coal was obliged to put into Sydney for a supply. Employment continues abundant throughout the Province for agricultural laborers, and female servants, and several hundreds of the latter could at once be profitably employed at wages varying from 12s. 6d. to 20s., according to capacity.

The number assisted from the several ships included in this return was 18 souls,—11 adults and 7 children.

Return No. 10.—(From 31st August to 19th September.)

Two thousand eight hundred and thirty-seven emigrants landed at this port during the period embraced in this return, all in good health, notwithstanding the long passages of several of the sailing ships, the average of which was over 44 days.

Those from England, which comprise near two-thirds of the whole number, were composed of farmers, mechanics and laborers, and with the exception of the Woolwich emigrants, by the ship "Ion," appears to have emigrated to friends, and proceeded at once to their several destinations. Those by the "Ion" had all been provided with through tickets to Toronto, to which point they proceeded by rail. This vessel had a long passage of 68 days. Some articles of the dietary scale falling short the master settled the difficulty to the satisfaction of the passengers by allowing them the value of the articles deficient, which amounted to 2s 6d each, which he paid them in cash. The Woolwich emigrants by this vessel—equal to 185 adults—were paid 10s. sterling each on leaving the ship.

Complaints were made by the passengers per ship "E. A. Bright," Olive, Master, from Liverpool, and the charges having been placed in the hands of the Solicitor General, proceedings were instituted against the master for short supply of water, and thirdly, for neglecting to keep the abstract of the Passengers Act and Order in Council posted up according to law. The cases were heard before the sitting magistrate, and the master was convicted and fined £5 sterling, with costs, on each of the two first offences, and £2, with costs, for the last. They also complained of ill treatment and ruffianly conduct on the part of the officers of the ship, which, from the statements made, does not appear to have been checked by the master.

The parties complained against all deserted the ship immediately on arrival, and by this means escaped punishment. Their names are James Betlie, 1st mate; Charles McTice, 2nd mate, and Reebard Kennan, boatswain. Among the emigrants directly from Ireland were 138 persons by the "Maria" from Cork. These were a portion of the passengers who sailed from Tralee on the 11th June, in the ship "St. Clair," which vessel foundered at sea. Her passengers, 227 in number, were fortunately all saved and carried into Cork, where upwards of 80 returned to their homes; the remainder were provided with a passage by the above ship. They arrived here very destitute, having lost nearly all their effects when wrecked. They were chiefly young able-bodied men and women coming out to their friends, and under the circumstances they were forwarded to Montreal.

This return will most probably close the arrival of foreign emigrants for the season. The Norwegians (383) have all proceeded to the Western States. These people are generally poor, more so than any previously arrived this season, and upwards of 80 persons had to be forwarded from this. They consisted of helpless families proceeding to join their relations in Wisconsin. The inquiry and demand for all classes of emigrant labor, except female servants, has considerably fallen off during the present month. The demand for harvest work has almost ceased, and Mr. Hawke reports that the number of emigrants are gradually increasing in Toronto, for whom no suitable employ can be found. This chiefly refers to mechanics, clerks, shopmen and porters. They may, however, readily obtain employment on the railroads at a dollar per day, if disposed.

Return No. 11.—From the 19th to the 30th September.

The emigrants arrived by the several vessels in this return have chiefly emigrated to join their friends.

Among those by the "Ocean Bride" were a number of families coming out to join their husbands, many of whom had only arrived in the country by the spring ships. They were generally poor, and 137 persons were forwarded to their destination in Western Canada free, viz: 68 adults, and 69 children under 12 years.

Complaints were made by the passengers per the ship "Melbourne," from Liverpool, for breach of contract. This vessel when cleared did not come under the Act. But one family of four persons entered as cabin passengers, and although they paid full cabin fare to the charterer, were only provisioned and accommodated as steerage passengers. They would consequently have brought the ship within the Act. There were also five stow-aways found on board. The master, however, settled with his passengers by allowing them £2 each, to prevent the case coming before the Magistrates; the amount paid amounted to £48.

Return No. 12.—(From the 1st to the 10th of October.)

The emigrants arrived during the past week have chiefly come out to join their friends. Complaints were made by the passengers of the "McDonald," Corner, Master, from London, for breach of contract, Passenger's Act, in not having issued a proper and sufficient supply of water and provisions during a part of the passage. The charges were heard before the sitting magistrates, and the complaint for the non-issue of water was fully proved, and the master was fined £1 per day during the period of thirty-four days, in which the full allowance of water was withheld. The complaint respecting the provisions not being proved, was withdrawn. The magistrates awarded one moiety of the penalty to be divided among the parties complaining (twenty-seven in number), which amounted to three dollars each.

The "Hibernia," from London, brought out the last party of Woolwich artisans, seventeen in number. This vessel had a long passage of sixty-six days, and having put into a harbor in Newfoundland for supplies, three of the number remained there, having received offers of employment; the remainder (fourteen) landed here, and were paid 10s. sterling each.

The ship "Danzig," from Gothenburg, brought out eighty passengers, Swedes. This vessel had eighty-one days passage. They are farmers and agriculturalists, and some of the families expressed a desire to locate themselves on the Government Free Grants in Western Canada, and left this with that view.

The number of persons assisted from the several ships in this return, were seventy-six; forty-one adults, and thirty-five children. They were proceeding to Western Canada to friends.

The emigration of this season is now drawing to a close, all the sailing vessels expected having arrived.

As the mail steamers make two more trips, they may be expected to bring a few. I annex a comparative statement of the arrivals of the season to this date;

Whence.	1856.	1857.	Increase.
England.....	9149	15016	5867
Ireland.....	1652	2008	356
Scotland.....	2760	3171	411
Germany.....	4582	5023	441
Norway.....	2845	6496	3651
Lower ports.....	147	24	...
Total.....	21135	31738	10726

TORONTO:

PRINTED BY JOHN LOVELL, YONGE STREET.

R E T U R N

TO AN ADDRESS from the Legislative Assembly to His Excellency the Governor General, dated the 19th ult., praying His Excellency to cause to be laid before the House "a Return " showing the number of Vessels which have passed in and " out, under the Great Western Draw Bridge over the Desjardin's Canal, and for which the Draw had to be used " in each year since its construction: Also, a like Return " for the same period of all vessels which have passed in " and out without the use of the Draw."

By Command,

T. J. J. LORANGER,

Secretary.

Secretary's Office,
Toronto, 6th May, 1858. }

DUNDAS, 7th April, 1858.

SIR,—Yours of the 24th instant is duly received, in reply to which I beg to state that the same has been handed to the Secretary of the Desjardins Canal Company, who will, in a few days, be able to forward to you the information required anent the number of vessels for which the draw had been used, &c., since the construction of the G. W. R. R. Draw Bridge across the Desjardins Canal.

I am, Sir,

Your obedient servant,

ARCH'D M. TAGGART,

Collector.

T. J. J. Loranger, Esq., M. P. P.,
Provincial Secretary,

Toronto.

DUNDAS, 5th May, 1858.

SIR,—Referring to my letter of the 27th April, in reply to yours of the 24th, I now beg to enclose you the information required respecting the Great Western Railroad bridge across the Desjardins Canal.

From these statements you will observe that the bridge had been drawn 592 times since its erection, and I believe the average of steamboats and other small craft passing and re-passing under the bridge, and for which it had not been drawn, to be four times each day for eight months each year, being 5,092 times. You will also observe that there is a falling off in the arrival of vessels at this port, requiring the bridge to be drawn to allow them to pass. The falling off arises from various reasons, which I take the liberty of bringing before your notice, and which prevented vessels from returning to this port a second time.

First. The Great Western Railroad Company did not complete the depth of water which they were bound to furnish, and which they did not do for three years after the time agreed upon, and even now it is not complete, as they have to dredge about where they had a temporary bridge, during the time their new bridge was building. Several vessels grounded coming through, which caused delay and expense for lighterage. This arose from imperfect dredging. Vessels frequently, after being lightened, had to return to Hamilton and discharge their cargo, which had been sent here by steamer and railroad, at a very heavy expense to the owners.

Second. The Great Western Railroad Company will not swing the bridge for vessels to pass through except when convenient to themselves, causing delay to vessels by a change of wind of a day or two, and sometimes longer, or causing them, if inward bound, to discharge at Hamilton. Several vessels had received damage coming up with a fair wind, in consequence of the bridge not being swung in time, and in some instances dismantled. It would appear the Great Western Railroad Company use every means in their power to annoy and prevent vessels from coming here at all, and in this they have to a great extent succeeded, as masters of vessels, in consequence of the delay and annoyance they have been subjected to by that Company, will not engage to take a cargo for this port unless they fail in procuring freight for some other place. In many cases when vessels come to the bridge and cannot get through, they return to Hamilton and discharge, subjecting our merchants here to additional wharfage and forwarding. I trust you will find the statements such as you require, and the information in reference to the Canal and Bridge can be substantiated if required.

I have the honor to remain,

Your obedient servant,

ARCH'D M. TAGGART,

Collector, D. C. C.

To T. J. J. Loranger, Esq., M.P.P.,
Provincial Secretary,
Toronto.

RETURN of Vessels entering the Desjardins Canal during the year 1854:—

Vessels Inwards	103	
Tonnage		11,148
Vessels Outwards.....	103	
Tonnage.....		11,148
<hr/>		
Total number of times the Bridge had to be drawn.....	206	22,296 tonnage.

 RETURN of Vessels entering the Desjardins Canal during the year 1855:—

Vessels Inwards	71	
Tonnage		8,101
Vessels Outwards	71	
Tonnage		8,101
	<hr/>	<hr/>
Total Vessels Inwards and Outwards ..	142	16,202 tonnage.

 PORT OF DUNDAS.

Vessels Inwards and Outwards for 1856:

Vessels Inwards	69	
Tonnage		6,825
Vessels Outwards	69	
Tonnage		6,825
	<hr/>	<hr/>
Total Vessels Inwards and Outwards..	138	13,650 tonnage.

 Vessels Entered Inwards and Outwards for the year 1857:—

Vessels Inwards	53	
Tonnage		5,347
Vessels Outwards	53	
Tonnage		5,347
	<hr/>	<hr/>
Total Vessels Inwards and Outwards ...	106	10,694 tonnage.

Dundas, 4th May, 1858.

TORONTO:

PRINTED BY JOHN LOVELL, YONGE STREET.

SPECIAL REPORT

ON THE

SEPARATE SCHOOL PROVISIONS

OF THE

SCHOOL LAW OF UPPER CANADA,

AND THE

MEASURES WHICH HAVE BEEN ADOPTED TO SUPPLY THE
SCHOOL SECTIONS AND MUNICIPALITIES

WITH

SCHOOL TEXT BOOKS, APPARATUS AND LIBRARIES.

BY THE CHIEF SUPERINTENDENT OF EDUCATION,

FOR UPPER CANADA.

Printed by Order of the Legislative Assembly.



TORONTO:

PRINTED BY JOHN LOVELL, CORNER OF YONGE AND MELINDA STREETS.
1858.

RETURN

To an ADDRESS from the Legislative Assembly to His Excellency the Governor General, dated the 4th instant, praying His Excellency to cause to be laid before the House “copies of
“ any Report or Reports that may have been made to him by
“ the Chief Superintendent of Education, during the present
“ year, on the subject of Separate or Dissident Schools.”

By Command,

T. J. J. LORANGER,

Secretary.

Secretary's Office,

Toronto, 7th May, 1858

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DEPARTMENT OF PUBLIC INSTRUCTION FOR UPPER CANADA.

[No. 1118, A.]

EDUCATION OFFICE,

Toronto, 20th April, 1858.

SIR,—I have the honor to submit, for the information of the Governor General in Council and the Members of the Legislature, the following Special Report on the Separate School provisions of the School Law of Upper Canada, and the measures which have been adopted to supply the Municipalities with school text-books, apparatus, and libraries.

I have thought it my duty, once for all, to lay before the Government and the Legislature the fullest information at my command on these subjects,—presenting, as they do, features of our system of public instruction which, (excepting that of separate schools) have attracted little public attention, and are, perhaps, less understood, if not less appreciated, than some other parts of our public school system. From the following Report it will be seen that what I have done in regard to providing public schools and municipalities with apparatus and libraries, has been done after the most careful inquiry and consideration, and in accordance with the best example and highest authority both in England and in the neighboring States.

Since the first establishment of the National Board of Education in Ireland, in 1831, its system and proceedings have been fiercely assailed, and often grossly misrepresented. In one of its early reports, the Board put forth a full reply to all these attacks and misrepresentations, and it has reprinted that reply, with additions, in the appendix to every annual report for more than twenty-five years—thus causing each annual report to contain not only an exposé of the operations of the system of National Education in Ireland, but a complete vindication of it. Instead of thus encumbering my annual report with an exposition and discussion of that kind, I have thought it better to present the following Special Report.

I have the honor to be, Sir,

Your most obedient servant,

E. RYERSON.

The Honorable T. J. J. Loranger, M. P. P.,
Secretary of the Province,
Toronto.

SPECIAL REPORT.

PUBLIC SCHOOL SYSTEM, UPPER CANADA.

For the information of the Government and Members of the Legislature, I desire to present the following Special Report respecting those features of public instruction in Upper Canada which permit the establishment of separate schools, and provide for public libraries, text-books, maps, globes, and other apparatus, for the Common and Grammar Schools; and to make a few remarks in reference to certain objections which have been made in some of the public prints to the school system.

PART I.

PROVISIONS OF THE LAW RELATING TO SEPARATE SCHOOLS.

In the first School Act which was passed by the Legislature, at its first session, in 1841, after the Union of Upper and Lower Canada, provision was made permitting the establishment of separate Protestant and Roman Catholic schools under certain circumstances. This Act applied equally to Upper and Lower Canada; but it was not found equally applicable to both sections of United Canada, and, therefore, in 1843, an amended Upper Canada School Act was passed, having been introduced into the Legislature by the Honorable Mr. Hincks, then Inspector General. Its provisions relating to separate schools were in the following words:

“LV. And be it enacted, That in all cases wherein the teacher of any such school shall happen to be a Roman Catholic, the Protestant inhabitants shall be entitled to have a teacher of their own religious persuasion, upon the application of ten or more resident freeholders or householders of any school district, or within the limits assigned to any town or city school; and in like manner, when the teacher of any such school shall happen to be a Protestant, the Roman Catholic inhabitants shall have a separate school, with a teacher of their own religious persuasion, upon a like application.”

“LVI. And be it enacted, That such applications shall be made in writing, signed with the names of each resident freeholder or household, and addressed and delivered to the Township, Town, or City Superintendent; and such application shall contain the names of three Trustees who shall be the Trustees of such separate school; and upon the compliance of such Trustees, and of the Township, Town, or City Superintendent, with the requirements of this Act, such school shall be entitled to receive its share of the public appropriation, according to the number of children of the religious persuasion who shall attend such separate school which share shall be settled and adjudged by the Township, Town, or City Superintendent, subject to an appeal to the County Superintendent; and all such separate schools shall be subject to the visitations, conditions, rules and obligations, provided in this Act with reference to other common schools, or to other town or city schools established under this Act.”

When teacher is a Roman Catholic, Protestant inhabitants entitled to a Protestant teacher, and vice versa.

Application to be made in writing, and to contain name of three trustees.

School entitled to grant.

Separate Schools subject to visitation, and other obligations.

In the School Act of 1846, introduced into the Legislature by the Honorable Mr. Draper, then Attorney General, amending and superseding the Act of 1843, establishing a Board or Council of Public Instruction, providing for a Normal School, &c., the same provisions in regard to separate schools were re-enacted in the following words :

Provisions
same as
Section LV.
above.

“ XXXII. And be it enacted, That in all cases wherein the teacher of any Common School shall happen to be a Roman Catholic, the Protestant inhabitants of the section to which such school belongs shall be entitled to have a school with a Protestant teacher, upon the application of ten or more resident landholders or householders of any such school section, or within the limits assigned to any town or city school; and in like manner when the teacher of any such school shall happen to be a Protestant, the Roman Catholic inhabitants shall have a separate school, with a teacher of their own religious persuasion, upon a like application.”

Provisions
same as
Section LVI.
above.

“ XXXIII. And be it enacted, That such applications shall be made in writing, signed with the name of each landholder or householder, and addressed and transmitted to the District superintendent; and such application shall contain the names of three Trustees, who shall be the Trustees of such separate school; and upon the compliance of such Trustees with the requirements of this Act, such school shall be entitled to receive its share of the public appropriation, according to the number of children of the religious class or persuasion who shall attend such separate school and from any Common School District; which share shall be determined by the District Superintendent; and such separate schools shall be subject to the visitations, conditions, rules and obligations provided in this Act, with reference to other common schools.”

The first School Act creating one Board of School Trustees, and providing for a system of schools in the cities and towns of Upper Canada, was passed in 1847, having been introduced into the Legislature by the Honorable J. Hillyard Cameron, then Solicitor General, and contained the following provision with regard to separate schools :

Board to de-
termine kind
of Schools in
cities & towns.

“ V. It shall be the duty of the Board of Trustees of each City and Town,” “ Thirdly, to determine the number, sites and description of schools which shall be established and maintained in such city or town, and whether such school or schools shall be denominational or mixed.” This provision was not satisfactory to the supporters of Separate Schools, who desired the right to establish them to be restored to themselves instead of being placed at the discretion of the public Board of Trustees.”

The Upper Canada School Act, passed during the session of the burning of the Parliament House in Montreal, in 1849, contained no provision for Separate Schools; but that Act never came into operation, and was superseded by the Common School Act of 1850, introduced into the Legislature by the Honorable Mr. Hincks, then Inspector General, and which embraced all the provisions of the School Acts of 1846 and 1847, with such modifications and additions as were suggested by experience and required by the progress of the school system. The following are the provisions of that Act in regard to separate schools :

“XIX. And be it enacted, That it shall be the duty of the Municipal Council of any Township, and of the Board of School Trustees of any City, Town, or incorporated Village, on the application in writing of twelve or more resident heads of families, to authorize the establishment of one or more separate schools for Protestants, Roman Catholics, or coloured people, and, in such case, it shall prescribe the limits of the divisions or sections for such schools, and shall make the same provision for the holding of the first meeting for the election of Trustees of each such separate school or schools, as is provided in the fourth section of this Act for holding the first school meeting in a new school section: Provided always, that each such separate school shall go into operation at the same time with alterations in school sections, and shall be under the same regulations in respect to the persons for whom such school is permitted to be established, as are Common Schools generally: Provided secondly, that none but coloured people shall be allowed to vote for the election of Trustees of the separate school for their children, and none but the parties petitioning for the establishment of, or sending children to a separate Protestant or Roman Catholic school, shall vote at the election of Trustees of such school: Provided thirdly, that each such separate Protestant, or Roman Catholic, or coloured school shall be entitled to share in the school fund according to the average attendance of pupils attending each such separate school, (the mean attendance of pupils for both summer and winter being taken,) as compared with the whole average attendance of pupils attending the Common Schools in such City, Town, Village or Township: Provided fourthly, that no Protestant separate school shall be allowed in any school division except when the Teacher of the Common School is a Roman Catholic, nor shall any Roman Catholic separate school be allowed except when the Teacher of the Common School is a Protestant: Provided fifthly, that the Trustees of the Common School sections within the limits of which such separate school section or sections shall have been formed, shall not include the children attending such separate school or schools, in their return of children of school age residing in their school sections.”

May establish separate schools for Protestants, Roman Catholics, and coloured people.

Manner of electing Trustees in such separate school sections.

And of apportioning school moneys to them.

Proviso as to certain returns.

Application having been made for a second Roman Catholic separate school in Toronto, and objection having been made to the right of having more than one under the foregoing section of the statute, and the Court of Queen's Bench having by its decision sustained the objection, a short Act was introduced into the Legislature in 1851, by the Honorable John Ross, and passed, consisting of the following section:

AN ACT TO DEFINE AND RESTORE CERTAIN RIGHTS TO PARTIES
THEREIN MENTIONED.

[Received the Royal Assent, 30th August, 1851.]

“WHEREAS it is expedient to remove doubts which have arisen in regard to certain provisions of the nineteenth section of an Act passed in the thirteenth and fourteenth years of Her Majesty's Reign, and intituled *An Act for the better Establishment and Maintenance of Common Schools in Upper Canada*; and whereas it is inexpedient to deprive any of the parties concerned of rights which they have enjoyed under preceding School Acts for Upper Canada: Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Legislative Council and Legislative Assembly of the

Preamble.

18th and 14th Victoria, chapter 43, Section xix., cited.

Province of Canada, constituted and assembled by virtue of and under the authority of an Act passed in the Parliament of the United Kingdom of Great Britain and Ireland, and intituled *An Act to re-unite the Provinces of Upper and Lower Canada, and for the Government of Canada*, and it is hereby enacted by the authority of the same,

That each of the parties applying, according to the provisions of the said nineteenth section of said Act, shall be entitled to have a separate school in each ward, or in two or more wards united, as said party or parties shall judge expedient, in each city or town in Upper Canada: Provided always, that each such school shall be subject to all the obligations and entitled to all the advantages imposed and conferred upon separate schools by the said nineteenth section of the said Act."

Each party applying shall be entitled to have a separate school in each ward or wards. Proviso.

In 1853, the Supplementary School Act was passed, having been introduced into the Legislature by the Honorable Mr. Richards, then Attorney General; and, to remove the objections and satisfy the wishes of certain parties, the following section was adopted, modifying that of 1850, in regard to separate schools:

"IV. And be it enacted, That in all Cities, Towns, and incorporated Villages and School Sections, in which separate Schools do or shall exist according to the provisions of the Common School Acts of Upper Canada, persons of the religious persuasion of each such separate school, sending children to it, or supporting such school by subscribing thereto annually an amount equal to the sum which each such person would be liable to pay (if such separate school did not exist) on any assessment to obtain the annual Common School grant for each such City, Town, incorporated Village or Township, shall be exempted from the payment of all rates imposed for the support of the common public Schools of each such City, Town, incorporated Village or School Section, and of all rates imposed for the purpose of obtaining the Legislative Common School Grant for such City, Town, incorporated Village or Township; and each such separate School shall share in such Legislative Common School Grant only (and not in any School money raised by Local Municipal Assessment) according to the average attendance of pupils attending each such separate School, (the mean attendance of pupils for winter and summer being taken) as compared with the whole average attendance of pupils attending the common schools in each such City, Town, incorporated Village or Township; and a certificate of qualification signed by the majority of the Trustees of such separate School shall be sufficient for any Teacher of such School; Provided always, firstly, that the exemption from the payment of such School rates, as herein provided, shall not extend beyond the period of such persons sending children to or subscribing as aforesaid for the support of such separate School; nor shall such exemption extend to School rates or taxes imposed or to be imposed to pay for School-houses, the erection of which was undertaken or entered into before the establishment of such separate School; Provided secondly, that the Trustees of each such separate School shall, on or before the thirteenth day of June, and thirty-first day of December of each year, transmit to the local Superintendent, a correct return of the names of all persons of the religious persuasion of such separate School, who shall have sent children to or subscribed as aforesaid for the support of such separate School during the six months previous, and the names of the

Persons sending children to or subscribing a certain amount to separate schools to be exempted from Common School rates.

Separate Schools to share in Legislative School Grant according to average attendance.

1st Proviso—Exemptions from the payment of Common School Rates.

Conditional Exception.

2nd Proviso—Returns from Separate Schools to local Superintendent. Names of supporters—

children sent, and amounts subscribed by them respectively, together with the average attendance of pupils in such separate School during such period; And the Superintendent shall forthwith make a return to the Clerk of the Municipality and to the Trustees of the School Section or Municipality in which such separate School is established, stating the names of all the persons who, being members of the same religious denomination, contribute or send children to such separate School, and the Clerk shall not include in the Collector's Roll for the general or other School rate, and the Trustees or Board of Trustees shall not include in their School Rolls, except for any rate for the building of School-houses undertaken before the establishing of such separate School as herein mentioned, the name of any such person as appears upon such return then last received from the said Superintendent: And the Clerk or other Officer of the Municipality within which such separate School is established, having possession of the Assessor or Collector's Roll of the said Municipality, is hereby required to allow any one of the said Trustees, or their authorized Collector, to make a copy of such Roll as far as it shall relate to their School Section; Provided thirdly, that the provisions of the thirteenth section of the said Upper Canada School Act of 1850 shall apply to the Trustees and Teachers of separate Schools, the same as to Trustees and Teachers of other Common Schools: Provided fourthly, that the Trustees of each such separate School shall be a corporation and shall have the same power to impose, levy and collect School rates or subscriptions upon and from persons sending children to or subscribing towards the support of such separate School, as the Trustees of a School Section have to impose, levy and collect School Rates or subscriptions from persons having property in such Section or sending children to or subscribing towards the support of the Common School of such section: Provided fifthly, that the foregoing provisions in this clause shall take effect from the first day of January, one thousand eight hundred and fifty-three, and shall extend to the separate Schools established or intended to be established under the provisions of the Upper Canada Common School Acts: Provided sixthly, that no person belonging to the religious persuasion of such separate School, and sending a child or children thereto or subscribing towards the support thereof, shall be allowed to vote at the Election of any Trustee for a public Common School in the City, Town, incorporated Village or School Section within the limits of which such separate School shall be situate."

names of children—amount subscribed.
 Local Superintendent to make return to Clerk of Municipality.
 Clerk shall not include the supporters of separate Schools in Collector's Roll.
 Access to Roll allowed.
 3rd Proviso. Section 13, School Act, 1850, shall apply to separate Schools.
 4th Proviso. Trustees of separate Schools to be a corporation. Their power to collect rates, &c.
 5th Proviso. To have effect from Jan., 1853.
 6th Proviso. Supporters of separate Schools not permitted to vote for Common School Trustees.

I think it but fair to add, that these provisions of the several School Acts respecting separate Schools, together with the drafts of the Acts themselves passed from 1846 to 1853 inclusive, were all prepared and recommended by the writer of this Report.

In the winter of 1852 and 1853, I made an official tour of Upper Canada, and held by appointment a public school meeting in each county,—having previously prepared the first draft of the Supplementary School Act of 1853. On the provisions of that draft of Bill, I consulted the most intelligent and experienced men in school matters in the several counties, and especially on the clauses of the above quoted fourth section of the Act. I think I am warranted in saying, that those intelligent men of all parties whom I consulted without reserve, unanimously agreed to those clauses of the separate school section; but were also strongly of

the opinion, with myself, that no further concession in that direction should be made under any circumstances, or could be made without endangering the whole national school system, and violating individual and municipal rights. After having completed my tour, I proceeded to Quebec in March, 1853, to submit to the favorable consideration of the Government the draft of Bill as revised and improved by extensive consultations with practical men in all parts of Upper Canada,—stating it as the result of much consultation,—that the fourth section of it was the largest and the last concession that could ever be obtained from Upper Canada on the subject of separate schools. I conversed on the subject with the leading men of all parties in the Legislature. The Bill was introduced and passed without a division, as far as I can recollect, and became the Supplementary School Act of 1853. After the passing of that Act, the Roman Catholic ecclesiastics and the press under their control, expressed their satisfaction with and eulogized the separate school section of it. But some of them soon recommenced an agitation on new issues.

At length, in 1855, the provisions of the preceding Acts, so far as they related to Roman Catholic separate Schools, were superseded by the present Roman Catholic Separate School Act, prepared under the auspices of certain Roman Catholic ecclesiastics, and introduced into the Legislature by the Honorable Colonel Taché,—the first time that Lower Canada influence was invoked and employed to control legislation on the educational affairs of Upper Canada. But the provisions of this Act, as modified under the auspices of the Attorney General for Upper Canada, and in accordance with the wishes of the Upper Canada members of the Legislature, having been restricted to the Roman Catholics under the sanction of certain of whose ecclesiastical dignitaries it was prepared, are, in my opinion, quite as consistent with the integrity and efficiency of our general School system as the separate School provisions of the preceding School Acts, and not so convenient for the supporters of separate Schools as the fourth section of the Supplementary School Act.

In connexion with this sketch of legislation respecting separate Schools, two or three remarks are required. The first is, that until 1850, the leading men and press of all parties acquiesced in the separate School provisions of the law. I do not recollect that there was even a discussion on the subject, either in or out of Parliament, or any objection to it from any quarter.

A second remark is, that until 1852, separate Schools were never advocated as a theory, much less as a doctrine, and less still as an article of faith. No parent was ever considered guilty of sin, much less of "mortal sin," for sending his child to a public or mixed School. A Roman Catholic separate School was authorized by law only when the teacher of the public school was a Protestant, and *vice versa*. No attack upon, or objection to, the moral character of the public schools was then made, though they were then much more defective morally, as well as otherwise, than now. Separate Schools were designed for, and almost if not entirely confined to, places where the then strong, (more so than now) and often exasperated, feelings between the Irish Protestants and Roman Catholics did not permit them to unite in the school education of their children. As late as 1851, a Roman Catholic Prelate and Vicar General, in desiring the provision in the Honorable Mr. Ross's short Act above referred to, averred that they did not desire separate Schools, they only wanted protection from insult and injustice; so that they might say to Trustees of public schools, that if Roman Catholic children were not treated as fairly as others they would establish separate Schools; and, after the passing of that Act, the same Prelate and Vicar General called upon me to express their thanks for the part I had taken in preparing and recommending it for them. But what was before had recourse to under certain circumstances, was afterwards demanded without reference to circumstances; and what was before desired as a protection against insult and oppression, was afterwards announced as a doctrine of conscience and advocated as an instrument of religious propagandism.

This leads me to a third remark, namely, that certain dignitaries of the Church in Upper Canada, for whose members the separate School provisions of the School law were specially designed, have assumed since 1852, a threefold position essentially different from what they had ever before professed. (1) They have advocated separate Schools (not as a protection against wrong in particular cases, but) as an institution and agency of their Church, and as a dogma of faith and a rule of duty binding upon all their adherents, and in all places. (2) They have advocated the support of these Schools by Municipal taxation, as well as by Legislative grant, and that according to the number of their Church population, and not according to the number of children they might teach, or even according to the number of those who might desire separate Schools for their children—thus leaving their own Church adherents without any right of individual choice, and the Municipalities or Common School Trustees without any power to levy a School rate, to erect a School-house or furnish a School, or support a teacher or for any School purpose whatever, unless a corresponding sum according to population was given in support of the Roman Catholic Church Schools. (3) They have, in order to build up their own Schools at the expense of the public Schools, and to promote the other objects of their Church organization, attacked the character of the Common Schools generally as nurseries of vice rather than of virtue, as sinks of iniquity instead of fountains of knowledge, and avowed their great and ultimate object to be the destruction of the national School system of Upper Canada, and have invoked aid from Lower Canada to accomplish it.

To show that I am quite correct in my remarks in reference to the first of the positions above stated, it is only necessary to recollect the means which the Roman Catholic Bishop of Toronto employed to enforce his Church teachings, when in an official circular to the clergy and laity of his diocese, he said "Catholic electors in this country, who do not use their electoral power in behalf of Separate Schools are guilty of mortal sin. Likewise parents who do not make the sacrifices necessary to secure such schools, or send their children to mixed schools. Moreover the Confessor who would give absolution to such parents, electors, or legislators as support mixed schools to the prejudice of separate schools, would be guilty of a mortal sin." I may also add that each of the three bills prepared and insisted upon by the authority of several prelates of the Roman Catholic Church, involved all, and a good deal more, than is implied in the second of the above stated positions.* And as to their attacking the character and system of public schools in Upper Canada, the Roman Catholic Bishop of Toronto declaring them so "dangerous to faith and morals" that it was "mortal sin" for a Roman Catholic parent to send his children to them, was but the signal of a whole volley of the fiercest attacks upon the schools and school system of Upper Canada by the press, and clergy under the endorsement of certain Bishops of the same church, avowing the destruction of those schools, and declaiming in the language of anticipated triumph that "the days of the Common School system are numbered; its dissolution is only a question of time." (Reverend J. M. Bruyère's letters, page 100.) The Montreal newspaper organ of the same party has avowed again and again that their object was the destruction of our public school system—designating our schools as "hell-begotten common schools"—declaring that "the public opinion or strong feeling of Protestants of Upper Canada in favor of the actual iniquitous school system of that section of the Province is in our ears but the blatant bellowing of a brutal and ignorant rabble," and concluding with the words "come what may, state schoolism must be crushed." ("Montreal True Witness," February 19th, and March 5th, 1858.)†

* See *Correspondence on Separate Schools in Upper Canada*, printed by order of the Legislative Assembly, in Return to an Address dated the 2nd of April, 1855.

† The same paper, under date of the 7th of May, after quoting from recent attacks in the Toronto

It would have been unjustifiable for me to introduce into this Report such epithets and language in regard to the schools and Protestant inhabitants of Upper Canada, were they not mere samples of the spirit and style of the publication from which they are selected, during the last three or four years, and was not that publication the recognized organ of those who have assailed our public school system—Bishops and clergy publicly subscribing to sustain it, and recommending it to the “Catholics of the Province,” eulogizing the invaluable services rendered by the *True Witness* “to religion and society,” and declaring, as in the language of a public meeting presided over by T. D. McGee, Esq., M.P.P., “that the discontinuance of the *True Witness* under any circumstances would be an immense misfortune to the whole Catholic public of Canada.”

Considering that for more than ten years no dissatisfaction had been expressed by any party with the separate school provisions of our School Law, and that all parties had consented to their introduction and continuance, and that these provisions, as has been shown by the most minute analysis and comparison,* are, as a whole, more favorable to separate schools in Upper Canada than the corresponding provisions in the Lower Canada School Law are to the dissentient schools of that section of the Province; and considering the new positions assumed by the advocates of separate schools, their attacks upon the character of the schools and great majority of the people of Upper Canada, their efforts to subvert the educational system of Upper Canada by means of Lower Canada votes, to be given under episcopal penalties, it is not surprising that a deep and general feeling should be awakened in the western section of the Province, and that many persons who have been all along assenting parties to the separate school provisions of the law, should, in retaliation for insults, and as a measure of self-defence, resolve to do all in their power to sweep these provisions from the statute book.

But in this view I cannot concur; and I entreat the attention of the friends of our system of public instruction in Upper Canada of all parties to the following facts and considerations:

1. In connexion with these separate school provisions, our public school system has been established, has been developed, and has advanced and extended beyond precedent or parallel in any other country. In a few rural sections some temporary or local inconvenience may be experienced from them; but in the cities and towns it may be questioned whether the character and efficiency of the public schools are not rather promoted by the existence of separate schools. Certain it is that if any educational, intellectual, or social disadvantages are connected with the existence of separate schools, it is on the side of those who establish and have recourse to them, and the community at large is only affected and interested by the voluntary injuries self-inflicted by a few. It is also certain that whatever may be the divisive spirit of some ecclesiastics, the spirit of the people at large, both Protestant and Catholic, as well as their interests, are to unity and co-operation, rather than division and isolation. It is the genius of our Government, it is the pervading spirit of all our municipal institutions, and involves the essential elements of our progressive civilization. Experience will teach the economy and immense intellectual, moral, social, and political advantages of unity and co-operation in educational, as well as other matters; and experience will do more through the understanding and the heart, than forced legislation can accomplish against the will and the prejudices if not, in some instances at least, against the conscience.

Daily *Colonist*, proceeds as follows: “What is our object in citing these opinions of Protestants? * * * Our object is to encourage [our Catholic readers] to persevere, and to renewed activity in their opposition to the [Common School system of Upper Canada,] by shewing that they will not have to fight the battle * * * single-handed. That we are not left to fight that good fight alone is the great fact which we wish to impress upon our readers. We have allies in the Protestant camp: more allies than we wot of,” &c.

* See Appendix A.

2. Nor should it be forgotten that as long as the right of establishing separate Schools is claimed by, and granted to the Protestant minority in Lower Canada, the right to establish separate Schools ought not to be denied to the Roman Catholic minority in Upper Canada, and on equal terms. Supposing it to be a disadvantage to that minority in both cases, it is for the parties chiefly and immediately concerned to judge, rather than for others. As long as these provisions do not impair the general efficiency, or impede the progress of the national school system, they may at least be allowed to remain in the statute book, after having been so long in existence, and being still desired by a considerable minority.

3. Ought it not also to be recollected, that giving corporate powers to a number of private individuals, or a large religious community, and taking away those corporate powers, are two very different things; and though conferring them in the first place may have been unwise and objectionable, yet depriving the parties of them after having received and employed them may be still more unwise and objectionable. As a general rule, corporate powers once bestowed upon any party are never resumed, unless they are grossly abused, or perverted to injurious purposes. Very few of those who have established separate Schools, or who are likely to establish them, have been the culpable aggressors upon the character and institutions of their fellow-citizens. It would be a grave offence indeed on the part of one of our great religious communities to require and justify the repeal of their College charter, whether it were wise to grant that charter in the first place or not; and it should be an offence equally grave that would justify the repeal of the corporate rights granted for the establishment of the less pretentious separate schools.

4. Since the commencement of the present session of the Legislature, the Lower Canada members of all parties, with few exceptions, have disclaimed the idea and the doctrine of attempting to pass laws for Upper Canada against the wish of a majority of its own representatives. The ecclesiastical mandates and efforts to enlist a Lower Canada crusade against the educational institutions of Upper Canada have been practically repudiated by the enlightened legislators of Lower Canada; and in the presence of such a fact, and with such a guaranty, the legislators of Upper Canada can afford, and will I am persuaded be disposed, as also a great majority of the people, to be generous as well as just, in regard to the provisions respecting separate Schools, and give our Roman Catholic fellow citizens reason to be grateful, rather than complaining, in respect to every thing affecting their rights, feelings, and interests, that they are associated in government and in all the rights and immunities of a free people, with those, a fundamental principle of whose religion is right of private judgment and liberty of conscience, and among whom "equal rights and privileges amongst all classes" is a tradition of history. It is very true that authorising the establishment of separate Schools by law, and aiding them out of legislative school grants, is granting to Roman Catholics more than equal rights with other classes of the community, but it is better to lean to the side of indulgence than to give any pretext for complaining of persecution. The Protestant inhabitants of Upper Canada are well able to be generous and indulgent, and they will have more to hope for and congratulate themselves upon by permitting the separate school provisions of the school law to remain as they are, than of giving the appearance of returning evil for evil by abolishing them.

My belief is, that in view of the past, present, and future, the separate-school clauses of the school law ought not to be interfered with, either by making an iota of concession to the unreasonable demands of ultra-religious propagandists, or by taking away an iota of the rights granted to and possessed by Roman Catholics during nearly twenty years. I believe that by still maintaining the school law inviolate in this respect, the interests of the school system will be best.

consulted, as well as the social happiness of Upper Canada. It was agreed by the leaders of both parties in the Legislative Assembly, in 1850, that the interests of education should not be made subservient to the purposes of any political party, but should be identified with the well-being of the country at large, irrespective of political party. The school system has been so administered and regarded, from the beginning to the present time; it has grown up under successive administrations, and by the support of men of all political parties. I believe that the greatest calamity that could happen to the national school system of Upper Canada would be to identify it with any political party, to degrade it into an engine, a battle ground, or football of political party conflict. This I have deprecated in successive annual reports, and I do so most earnestly in this special report. The interests of national education are certainly above those of political party, and what has been agreed by all parties to introduce into the statute book, and to continue there for so many years, may still be allowed to remain there without inconsistency or compromise of any party, especially as aggression from Lower Canada legislators is no longer to be apprehended, and as Upper Canada cannot be otherwise than true to herself. Separate Schools, of which there are 108 out of 3,742 Common Schools, exist in only sixty-four out of 400 municipalities in Upper Canada, and exist mostly in city, town, and village municipalities, where they certainly do no harm to anybody, except to those who establish them. I think the reasons for allowing the separate School provisions of the law to remain on the statute book are stronger now than in past years, and I therefore respectfully submit the propriety and wisdom of this course to the consideration of all parties and of the country at large.

PART II.

MEASURES ADOPTED TO INTRODUCE INTO THE PUBLIC SCHOOLS OF UPPER CANADA UNIFORMITY OF TEXT BOOKS, AND TO SUPPLY THE SCHOOLS WITH THE SAME.

On account of the public statements and appeals which have been made on the subject of supplying the public schools with text-books, globes, maps, &c., and the municipalities with libraries, I think it proper to lay before the members of the Government and Legislature a statement of the measures which have been adopted to accomplish these objects; and first in reference to introducing proper text-books, maps, &c., into the schools.

Next to providing a school with a good teacher, it is necessary to provide the teacher and pupils with the proper tools of books, maps, &c., for their work. Therefore, in my "*Report on a System of Public Elementary Instruction for Upper Canada*," submitted to Government and Parliament in 1846, I discussed and recommended the introduction of a uniform series of text-books into the schools in immediate connexion with the establishment of a Normal School for the training of teachers. (See pages 171-174.) I commenced by observing, "The variety of text-books in the schools, and the objectionable character of many of them, is a subject of serious and general complaint. All classification of pupils is thereby prevented, the exertions of the best teachers are in a great measure paralyzed, the time of the scholars is almost wasted, and improper sentiments are often inculcated. This is a subject of loud complaint in the neighbouring

States." I then quoted authorities to show the nature and extent of this evil in the United States, and remedies suggested, as also the measures which had been adopted in Prussia, France, Great Britain, and Ireland, in order to provide for the introduction and use of a uniform system of text-books in the public schools, and concluded with the following remarks: "The responsible, delicate, and difficult task of selecting and recommending books for schools, can, I think, be more judiciously and satisfactorily performed by a Provincial Board or Council, than by any individual superintendent. A mere recommendatory authority in such a body would, I am inclined to believe, be quite sufficient to secure the introduction and use of proper books in the schools."

A few weeks after presenting that report, I was directed by the Government to prepare a draft of a bill to give effect to the principles and recommendations embodied in it. The School Act of 1846 was the result, shortly followed by the issuing of a commission appointing a Board (since called Council) of Public Instruction, which took immediate steps to establish a Normal School, and recommend a series of text-books for the schools. Shortly after its organization, the Board addressed a circular to the Municipal Councils of districts (now counties) and cities, soliciting their co-operation, by each Council aiding two young men to attend the Normal School, and by promoting the other objects of the School Act. The introductory paragraphs of that circular are as follows:

"The new School Act for Upper Canada has provided for the appointment of a Board of Education, whose special duty it is to select and recommend proper books and libraries, and to establish a Normal School for the better education of school teachers in Upper Canada.

"We to whom this duty has been assigned, have undertaken it with a strong conviction of its importance and difficulty, and with an earnest desire to perform it in a manner that will promote, to the greatest possible extent, the best interests of the country.

"Addressing ourselves to the work committed to us, with an interest in common with our fellow-subjects, we hope for the cordial and generous co-operation of the several District Councils, in promoting the important objects for which the Board has been constituted.

"In respect to school-books, it may be sufficient at the present time for us to state, that we shall endeavor to make such arrangements that those school-books which may be recommended by the Board of Education, for use in schools, shall have the additional advantage of being the cheapest as well as the best of their kind. Reduction in the price of school-books will, indeed, follow as the natural consequence of the use of a uniform series throughout the Province. Persons in this branch of business will find it expedient to supply themselves with books which are in general and permanent demand; and, like all other articles in general and constant use, the price of such books will be reduced in proportion to the extent of their circulation and the facilities for procuring them."

The circular from which the above is extracted, is dated "Toronto, August 4th, 1846," and signed by all the members of the Board, as follows; "† Michael, Bishop of Toronto,* Chairman; Egerton Ryerson, H. J. Grasett, S. B. Harrison, Joseph C. Morrison, Hugh Scobie, J. S. Howard."

The subsequent steps taken to introduce and provide proper books for the use of the schools, may be best stated in the words of the special report which I presented, June 24th, 1847, for the information of His Excellency the Governor

* I cannot forbear remarking how much the religious peace and unity of Upper Canada, nay of all Canada, would have been promoted, and the educational interests of the Roman Catholic population advanced, had the present Roman Catholic Bishop of Toronto thought proper to follow in the educational footsteps of his lamented predecessor.

General and of the Legislature on the measures which had been adopted to establish the Normal School, and to carry into effect generally the Act 9 Vic., cap. 20. The report proceeded as follows :

“ One part of the duty of the Board of Education is ‘ to examine, and recommend or disapprove of, all books, plans, or forms which may be submitted to them with a view to their use in schools’; and I lost no time in laying before the Board specimens of the National School Books, and the advantageous terms on which I believed, from personal conversations with the Commissioners in Dublin, these admirable books could be obtained; as also permission to reprint them in Upper Canada. An official communication was directed to be addressed in behalf of the Board to the Commissioners of National Education in Ireland, on the subject; in reply to which the Board received permission to reprint the National School Books in Upper Canada, and the offer on the part of the Commissioners to supply the Dublin editions for Canadian schools at cost price—nearly one hundred per cent. below the retail selling price of these books to the British public.

“ The Board, in the first instance, advertised for tenders for reprinting these books, proposing to confine its own privilege of reprinting them to the publisher or publishers who would engage to print them in a style similar to the Dublin editions, at the lowest prices to the public. Several tenders were sent in for reprinting single numbers of the series, in the terms of which there was scarcely a shadow of difference; but no publishing house was willing to invest the capital and assume the responsibility of reprinting the entire series at the reduced prices of the imported editions. The Board determined, at length, to extend its own privilege of reprinting the National Books to any publisher in Canada who might choose to avail himself of it, reserving merely the right of expressing its opinion, favorable or otherwise, as to the correctness or quality of any reprints of them.

“ The Board adopted a similar course with a view to encourage the importation of the National School Books—extending its recommendations to the National Commissioners in Dublin in behalf of any person in Upper Canada, to be furnished with their books at their proposed reduced prices, who would engage to sell them at the rate of not more than twopence currency for every penny sterling of the cost prices. Several Canadian booksellers have availed themselves of this offer of the Board; and two publishing houses in Toronto have got the first three Readers of the series stereotyped—*fac-similes* of the last Dublin editions.

“ Being satisfied in my own mind that furnishing each Municipal Council in Upper Canada with a complete set of the National School Books—as specimens—would tend greatly to facilitate and promote their introduction into our schools, I determined, if possible, to accomplish that object at my own expense. Accordingly, I wrote to the Secretaries of the National Commissioners in Dublin, explaining the object I had in view, and requesting to be informed as to the lowest terms at which they would furnish me with twenty-three sets of their books for such a purpose. The National Commissioners far exceeded my request and my expectations by presenting me with twenty-five complete sets, not only of the books published by them, but also of those sanctioned by them, and of their annual reports, each set consisting of more than fifty publications.

“ The following is an extract from the reply directed by the National Commissioners to my application :

‘ EDUCATION OFFICE,

‘ Dublin, 1st May, 1847.

‘ SIR,—Having laid before the Commissioners of National Education your letter of the 22nd March last, we are now to inform you that the Commissioners, appreciating your earnest and sincere desire to promote liberal education in Upper Canada, and also to facilitate the dissemination of the Irish National School Books

in that Colony, have great pleasure in presenting you with twenty-five sets of the publications of this Board, for the important purpose stated in your gratifying communication, free of any charge except for freight, &c.

In addition, the Commissioners send for your acceptance twenty-five sets of School Books, not published but sanctioned by them, in the Irish National Schools; and also a complete series of the Annual Reports of the Commissioners, with School Registers, Daily Report Books, Class Rolls, &c., in sets of twenty-five each.

It may appear hardly credible that measures so moderate, so practical, so obviously beneficial to the country, would have encountered any hostility or opposition. Yet so it was, that a majority of the Toronto newspapers, and several others in the country, assailed the provisions of the law, and the authority of the Board of Education, and of the Chief Superintendent, with the same kind of objections, and in terms almost as vituperative as those recently employed by a Toronto bookseller, a Toronto Editor, and a Toronto wooden-ware and toy merchant. In the special Report above quoted, I replied to the attacks of the American School-book dealers and their editorial coadjutors; and an extract from that reply will throw light upon the state of things in Upper Canada at that time in regard to School-books, will illustrate the resistance which had to be encountered in order to effect the present improved state of things, and will show that the recent representations as to the exorbitant powers and irresponsibility of the Chief Superintendent and Council of Public Instruction, are but the re-hash of the fabulous creations of 1846 and 1847. The special Report, after referring to convictions produced by examination of the provisions of the then recent School Act, proceeds thus:

“It has been found that so far from the Trustees having no power to employ a Teacher without the permission of the Chief Superintendent, they have more power than had been conferred upon School Trustees by the former Act, and can employ whom they please, and in what manner and for what time they please; that so far from the Board of Education interfering in matters of conscience between parents and children, and compelling parents to forego cheap and buy dear School-books, the Board has no authority of the kind, and has employed its best exertions to bring within the reach of all parents cheap as well as good books; that so far from the Chief Superintendent of Schools having authority to introduce what books he pleases into Schools, he has no authority whatever in respect to introducing books; and so far from having power to employ and dismiss School Teachers at his pleasure, he has no power to employ a School Teacher at all, or even to give him a legal certificate of qualification; that he has no power to interfere in the affairs of any School Section, unless appealed to by some party concerned; that his decisions have in no case the authority of a Court of Law; that both his power and his duty relate to seeing the conditions imposed by the Legislature fulfilled in the expenditure of the Legislative School grant; that his power is much less than is given to a similar officer in the neighboring State of New York, and is an accumulation of labor, and not an exercise of any arbitrary authority; that every act of the Chief Superintendent of Schools is subject to the authority of a Government responsible to the Legislature of the country. But while the constitution of the Board of Education has been ostensibly objected to, I believe the real objection is rather against that with which the Board has been identified, namely, the prohibition of United States School-books in our Common Schools. It seems to be supposed that if there were no Board of Education to recommend books to be used in Schools, there would be no exclusion of American books from the Schools.

“The extent to which these books have been introduced into our Schools during the last ten years is almost incredible. I believe that nearly one-half of the books used in our Schools are from the United States. I have been informed by a gentleman who had attended the examination of a Common School, some

“ months since, in the interior of the Home District, that out of twenty-seven
 “ different School-books in the School, twenty-five of them were American. These
 “ Books are recommended by their adaptation to Elementary Schools, by their
 “ style and cheapness, in comparison of School-books heretofore printed in Canada.

“ Many persons have become concerned in the trade of these books; and
 “ many Teachers and parents have acquired a partiality for them.

“ Hence the attacks upon the Board of Education and the Superintendent of
 “ Schools in respect to School-books. The fact, however, is, that American School-
 “ books, unless permitted by the Board, are excluded by the 30th section of the
 “ statute; whereas the Board of Education is constituted by the 3rd section.

“ In regard to the exclusion of American books from our schools, I have
 “ explained, as I have had opportunity, that it is not because they are foreign books
 “ simply that they are excluded, although it is patriotic to use our own in prefer-
 “ ence to foreign publications; but because they are, with very few exceptions,
 “ anti-British, in every sense of the word.

“ They are unlike the School-books of any other enlightened people, so far as
 “ I have the means of knowing. The School-books of Germany, France, and Great
 “ Britain, contain nothing hostile to the institutions or derogatory to the character
 “ of any other nation. I know not of a single English School-book, in which there
 “ is an allusion to the United States, not calculated to excite a feeling of respect for
 “ their inhabitants and government. It is not so with American School-books.
 “ With very few exceptions, they abound in statements and allusions prejudicial
 “ to the institutions and character of the British nation. It may be said, that such
 “ statements and allusions are ‘few and far between,’ and exert no injurious
 “ influence upon the minds of children and their parents. But surely no School-
 “ book would be tolerated which should contain statements and allusions ‘few and
 “ ‘far between’ against the character and institutions of our common Christianity.
 “ And why should books be authorized or used in our Schools inveighing against
 “ the character and institutions of our common country? And as to the influence
 “ of such publications, I believe, though silent and imperceptible in its operations,
 “ it is more extensive and powerful than is generally supposed. I believe such
 “ books are one element of powerful influence against the established govern-
 “ ment of the country. From facts which have come to my knowledge, I believe
 “ it will be found, on inquiry, that in precisely those parts of Upper Canada where
 “ United States books had been used most extensively, there the spirit of the
 “ insurrection in 1837 and 1838 was most prevalent.

“ The section of the Act excluding foreign School-books, is, I have good reason
 “ to believe, the real cause of much of the hostility which has been manifested, in
 “ some quarters, against the authority of the Board of Education,—an authority which
 “ is deemed necessary, in some form or other, in every country on which a public
 “ system of Schools is established.

“ Though impressed with the magnitude of the evil arising from the indiscrimi-
 “ nate use of United States books in our schools, I have thought it premature to
 “ recommend the enforcement of the law precluding them, until a proper supply
 “ of equally cheap, if not cheaper books, recommended by the Board of Education,
 “ should be provided. This, I believe, will be done in the course of the current
 “ year; and I doubt not but all parties in the Legislature will agree in the pro-
 “ priety and expediency of using our own books in our own Schools.”

In 1847, I presented to each County and City Council in Upper Canada a set
 of the Irish National School-books, which have soon began, as they have since con-
 tinued, to supersede all other books in the Schools. When in England in 1850,
 on the subject of Libraries (to which I will refer hereafter), I found that Her
 Majesty’s Government had adopted a system of supplying Schools in England and

Scotland with books, maps, and apparatus, such as were unknown in Canada, and such as if adopted here might be made eminently advantageous to us. I had interviews on the subject with the Marquis of Lansdowne, who was then Chairman of the Committee of the Privy Council on Education, and with Earl Grey, who was then Principal Secretary of State for the Colonies. Their Lordships entered cordially into my views. I at length, through Earl Grey, submitted the subject to the consideration of the Lords of the Committee of Council on Education, in an official letter, of which the following is an extract :

(Copy.)

“ 27, CRAVEN STREET, STRAND,
London, 3rd December, 1850.

“ MY LORD,—I have the honor to submit to the favorable consideration of your Lordship, the advantage and importance of obtaining, by means of your Lordship’s good offices, the sanction of the Lords of the Committee of Council on Education to an arrangement for supplying Schools in Canada, through the department of Public Instruction there, with Books, Maps and Apparatus for Schools at the same prices at which Schools, aided by the Committee of Council in England, are supplied.”

“ From official documents, with copies of which I have been favored since my arrival in London, I learn that the Committee of Council on Education have adopted the same method, which the Government of Canada has authorized me to employ, for supplying Schools and Municipalities in Upper Canada with Books for Schools and Libraries. To anglicize our School system as much as possible in the books used, the School law of Upper Canada expressly provides, ‘That no foreign book in the English branch of education shall be used in any School without the express permission of the Council of Public Instruction.’ In the spirit of this legal provision, I have come to England, determined to leave no means unemployed to give effect to the design of the law, not by mere arbitrary authority, but by procuring and recommending better and cheaper English and Canadian Books than can be imported from the United States ; at least so far as it relates to Text Books, Maps, &c., in the Schools,—the publications which exert the most potent influence over the youthful mind and domestic associations of the country.

“ In former years Upper Canada was filled with objectionable American School books, from the zeal of American book-vendors, and from the paucity of other good School books ; but during the last four years I have succeeded in reducing the use of American School Books in Upper Canada at least five hundred per cent, by means of procuring and recommending other good and cheap books ; and should the Lords of the Committee of Council on Education sanction the arrangement which I now propose, I have strong confidence that we shall be able to supply our Schools with English Maps and Books in every branch of elementary instruction.

“ In the list of Books and Maps sanctioned and provided by the Committee of Council on Education, are included all the School publications we will require in our Schools, except some Prints and Books in Natural History, which I have arranged for obtaining on moderate terms from the Society for the Promotion of Christian Knowledge ; and the prices which the Committee of Council on Education dispose of the publications recommended by them to Managers of Schools, aided out of the Parliamentary grant, are lower than the prices at which I can procure them from the individual publishers themselves, apart from the trouble and expense and almost impossibility of treating and dealing with so many parties.”

(Signed,)

E. RYERSON.

Earl Grey lost no time in recommending the proposals of my letter to the favorable consideration of the Committee of Council on Education and soon afterwards enclosed to me a copy of their reply, of which the following is an extract :

(Copy.)

COMMITTEE OF COUNCIL ON EDUCATION,
PRIVY COUNCIL OFFICE,

Downing Street, 18th December, 1850.

“ Upper Canada.

“ SIR,—I have the honor to acknowledge the receipt of your letter, dated the 10th instant, in which by direction of Earl Grey, you recommend the application of Dr. Ryerson, Superintendent of Education in Upper Canada, to obtain supplies of Books and Maps for the Schools in that Province, through the agency which the Education Committee of the Privy Council has provided for the supply of Schools under inspection in England and Wales.

“ Their lordships are desirous of meeting the wishes of Earl Grey, as far as may be in their power. I am, however, to make the following remarks :—

“ The terms upon which the various works named in their Lordship's book schedules are supplied by the publishers, have been the subject of separate agreements, and part of the understanding into which the Committee entered with the publishers, was to the effect that orders for books at the prices specified, should be issued by their Lordships on account of those schools only which would be admissible to receive other assistance from the Education grant. This grant being applicable to Great Britain only, and not to the Colonies, my Lords cannot, under the existing agreements carry Dr. Ryerson's proposal into effect. They will, however, issue a circular to the publishers, inquiring whether they are willing that Dr. Ryerson's orders should be included in those issued to them by the Committee.

“ My Lords do not anticipate any objection on the part of the publishers, the increased sale at the reduced prices being likely to more than counterbalance the profits of the smaller sale at unreduced prices which it may supersede.

“ The collection and distribution of the works, from time to time, ordered by their Lordships, is managed by Messrs. Longman, as their agent. For this service Messrs. Longman receive a percentage of five per cent. on the total value of the books ordered. This percentage includes the cost of packing, but not the carriage or delivery, which has to be defrayed by the persons receiving the books. The percentage for agency is not charged to the promoters of Schools in England and Wales, but is borne upon the Education grant. In the case of Canada, however (for the reason above stated), a proportional part of this percentage, according to the amount of the quarterly order, would have to be paid as well as the value of the books by the agents for the Colony.

“ The orders from Canada would also have to be strictly limited to the number proposed (four in the year), in order not to increase materially the pressure upon that part of their Lordships' establishment in which these grants are administered, and which is not more than adequate to the existing calls upon it.

“ It will be time, after receiving an answer from the publishers, to fix upon a correspondent in London, to whom the books may be addressed.

(Signed,)

R. R. W. LINGEN.

The following is a copy of the Circular which the Committee of Council on Education addressed to the publishers of the books, maps, and apparatus, purchased and recommended by their Lordships for the use of schools.

(Copy.)

“ COMMITTEE OF COUNCIL ON EDUCATION,
 “ PRIVE COUNCIL OFFICE,
 “ DOWNING STREET, December, 1850.

“ GENTLEMEN,—I beg leave to request your attention to the following extract from a letter addressed by the Superintendent of Education, in the Province of Upper Canada, to the Right Honorable the Secretary of State for the Colonies, and strongly recommended by His Lordship to the favorable attention of the Education Committee of the Privy Council.

“ I am directed by their Lordships to enquire, whether you are willing to supply the Canadian Schools upon the same terms as those under inspection in England and Wales, with such of your publications as are named in their Lordships' schedules.

“ In case (as their Lordships hope) you should consent to this proposal, I am to state, that the works needed for the Canadian Schools will be included in their Lordships' usual orders.

“ I am to request the favor of an answer one fortnight from this date.

“ My Lords would require a specific assurance from the Colonial Government that the works thus obtained should be supplied to the Canadian Schools at a price not exceeding that paid by their Lordships to the publishers in this country.

“ (Signed,) R. R. W. LINGEN.”

The publishers in England and Scotland all consented to the arrangement proposed in the above circular, as I was soon informed by direction of Earl Grey. Having been thus introduced to the principal publishers in England and Scotland, I sought to make arrangements with them to supply books for public libraries in Canada upon the same terms as those upon which they had agreed to supply text-books, maps, &c., for schools,—proposals to which they readily assented; and I found them much more anxious to execute my orders *directly*, even for school books, maps, &c., than through the Committee of Council, and their agents, the Messrs. Longman, to whom they did not wish five per cent. to be paid as commission on their books. On my suggestion, Mr. Lingen, the Secretary of the Committee of Council, very readily agreed to be relieved from the trouble of executing my orders for books, while the five per cent. payable to the Messrs. Longman for their agency was saved to Canada in the purchase of the books. I then agreed with each English and Scotch publisher of the books, maps, &c., sanctioned by the Committee of Council on Education, to supply the Educational Department in Canada with his publications upon the same terms that he did the Educational Department in England, and that directly and as often as we might require them.

Then, to bring these publications and the facilities for procuring them under the notice of the Municipal and School authorities in each County in Upper Canada, a parcel was sent to each County Clerk, with a circular, of which the following is a copy :

(Copy.)

“ EDUCATION OFFICE,
 “ Toronto, 1st December, 1851.

“ SIR,—I forward to your address a sufficient number of copies of my Annual School Report for 1850, to supply the County Council, the County Board of Public Instruction, each Township Council, each Local Superintendent of Schools, and each School Corporation in your County with a copy.

“ This is the first Annual Report which has been prepared under the present School Act, and no pains have been spared in collecting its varied statistics; a copy of the School Act is given in the Appendix, and various documents and papers are inserted, to render it a practical expositor of the school system, and a convenient

“ manual of reference for Councillors and all other persons concerned in the execution of the law and in promoting education.

“ I also transmit to you the first, second, and third volumes of the Journal of Education, for each of the Local Superintendents in your County, likewise a copy of the second and third volumes (not having any more copies of the first volume) of the Journal of Education, for each of your Township Councils, and a copy of the first three volumes for the County Council, and County Board of Public Instruction.* The Indices in these volumes and in my Annual School Report, will enable the Municipal Councils to satisfy themselves on all doubtful matters in the performance of their duties, without the trouble and loss of time occasioned by frequent references to the Department. I hope you will lose no time in seeing that these publications and documents are forwarded to the parties to whom they are addressed, that if they do not receive them as a New Year's Gift, they may at least receive them by New Year's day. I should have transmitted them to you earlier, could my Annual Report (of nearly 400 royal octavo pages, and a large proportion of it statistical tables,) have possibly been sooner got through the press.

“ 2. I likewise forward to you for the acceptance of the County Council, and for reference by all School officers, between £7 and £8 worth of specimen maps, Natural History prints, &c. &c., for the use of schools. These are samples of the great variety of School publications and requisites, for sale at the Educational Depository, a descriptive catalogue of which (with prices annexed) occupies the last sixteen pages of the Appendix to my Annual Report, and which, from the advantageous arrangements which I have made with the publishers, can be procured through this Department at lower prices than they can be purchased at retail in the cities where they are published.

“ In 1847, I had the pleasure of presenting to each County Council in Upper Canada, a complete set of the National School Books, &c., (a donation from the Board in Dublin) with a list of the prices at which they could be procured. The examination of these books produced at once an almost, (and so far as I know) an unanimous impression upon the local representatives of the people, and soon through them, upon the public mind at large, in favor of the National Books, both on account of their excellence and cheapness.

“ And now as appears by the Returns which will be found in my Annual Report, the great majority of our schools are supplied with these excellent books, instead of the old, inappropriate, and often pernicious books which were formerly inflicted upon children and teachers. Last year I was enabled to present each Municipal Council in Upper Canada with a copy of a practical and valuable work on school architecture, containing also various plans of schoolhouses. By the same means I am able this year to present the County Council, through you, with the maps and publications above referred to. I may add that I have recently procured samples of improved schoolhouse furniture, which can be seen by inquiring parties at this office, and a supply of which I hope to get manufactured in this city, as I am assured it can be manufactured in Canada as cheaply as it can be imported from the United States. At all events I trust to be able to announce that all trustees who may wish to furnish their schoolhouses in the best manner, can procure furniture for that purpose either through this Department, or from some furniture establishment in this city.

“ 3. From the beginning I have had no desire—nor have I ever made any attempt—to force any part of our school system upon the country; but to reason, to persuade, and to diffuse information in every way possible, to provide as far as

* The first volume was transmitted on the 6th of February, 1849, to the Wardens of Counties for the use of the Educational Committee of the various Municipal Councils.

“ possible for the more thorough training, the more careful licensing, and the better
 “ protection and support of teachers, and not only to ascertain the best school publi-
 “ cations and various school requisites devised and introduced into schools in other
 “ countries, but to provide facilities for rendering them accessible at the least expense
 “ to the authorities of every school, even in the remotest townships of Upper
 “ Canada. These efforts have been most cordially aided by the Government, and
 “ heartily responded to—with very few exceptions—by the Municipalities through-
 “ out Upper Canada.

“ 4. Between one and two thousand volumes of books have been selected for
 “ county, township, and school section libraries, and arrangements have been made
 “ for procuring them, on advantageous terms, in London, Edinburgh, and Dublin,
 “ New York, Philadelphia, and Boston.

“ Before these books can be finally recommended by the Council of Public
 “ Instruction, to be introduced into public libraries, they must be carefully examined,
 “ —which will be a work of some months,—when a descriptive catalogue of them
 “ will be published in the Journal of Education for 1852, together with regulations
 “ for the establishment and management of the proposed libraries.

(Signed,) “ E. RYERSON.”

The hope expressed in the above Circular as to the Canadian manufacture of school furniture, was soon realised, as the schoolhouses in Hamilton, Toronto, and many other places in almost every county of Upper Canada bear witness. As the Committee of Council on Education in England have from time to time increased their list of publications, including materials and models, and various philosophical apparatus, for schools of science and art; arrangements to procure them have been made, and specimens of them have been obtained, as also objects of art from England and from the continent: so that any Municipality or public school in Canada that may desire it, can procure any book, map, globe, or article of school or philosophical apparatus, and any model or object of art contained in the Educational Museum of our Educational Department at Toronto.

In 1853 the present Grammar School Act was passed, and the same means have been employed to recommend and provide a uniform series of text-books, and proper maps and apparatus for the Grammar Schools, as had been employed to provide them for the Common Schools. Several of the text-books and most of the maps and apparatus recommended and provided for the Grammar schools, are included in the Privy Council publications for schools in England and Scotland. There these text-books and publications are provided both for the school authorities, and the scholars as well as teachers and assistant teachers in the schools. The following are extracts from the Minutes of the Committee of Council on Education on this subject.

“ The Committee have prepared Schedules, from which school books and
 “ maps,—those most approved in the profession,—and embracing nearly all in com-
 “ mon use throughout the country, may be selected by Managers of Schools; and
 “ they have made an arrangement with publishers, securing the important advan-
 “ tage of a reduction varying from 32 to 55 (averaging 43½) per cent. on the retail
 “ prices of lesson books and maps, towards the purchase of which they award a
 “ grant amounting to one third of this reduced price, provided that two-thirds be
 “ raised by local subscription.

“ The Managers are required to engage that the books and maps shall be
 “ devoted to the exclusive use of their scholars, pupil-teachers, and teachers. They
 “ may also sell any of them at the reduced prices specified in the Schedules to the
 “ scholars, pupil-teachers, and teachers for their own use and property.” “ Books
 “ for the *school library or for prizes* may be included in the application for books
 “ and maps at the reduced prices.”

As to the schools whose managers, teachers, and scholars, are thus aided by Government, I may remark that they include all schools aided by parliament (the colleges and endowed grammar schools being on private foundations and not subject to Government inspection), such as the schools of science and art, the models, materials, and apparatus for studying in which are furnished to both managers and scholars. In England, such as the schools in connection with the Church of England, the British and Foreign School Society, the Wesleyans, the Roman Catholics, the Workhouses; in Scotland, the schools connected with the Established Church, the Free Church, the Episcopal Church; besides which the Committee of Council say:—"Grants for the purchase of books and maps will be made to Ragged and Reformatory Schools on the same terms as to other schools."

To this may be added the two following extracts:

"The Committee of Council give grants towards the purchase of apparatus adapted for the purpose of experimental science in elementary schools liable to inspection. The grant is two-thirds of the cost of the apparatus. There are three sets of apparatus, each at the estimated cost of £10, £15, and £20 respectively." "Grants amounting to two-thirds of the cost will be given to Training Colleges under inspection, towards the purchase of apparatus for giving instruction in the experimental sciences. Three sets of apparatus have been selected, at the estimated cost of £100, £125, and £150.

It is thus seen that libraries, text-books, maps, and apparatus of every description are supplied by the Privy Council Committee on Education in England, (not excluding Ragged or Poor Schools) to all schools that are aided by Parliamentary grants of whatever description, and even to all schools that allow Government inspection. It is also worthy of remark that while such care is taken in selecting and recommending books, maps and apparatus for the schools, and such liberality in aiding to supply them, the Privy Council Committee do not do so through ordinary publishers and booksellers, abundant as their agency is in every part of the United Kingdom; nor do the Privy Council Committee grant aid to local school authorities to buy these publications where and how they please, though some dealers might offer to supply them at the same prices specified in the official catalogue or schedule. The Privy Council Committee go so far as to make, under certain conditions, "free grants of books and maps for the establishing of depôts, which the managers of schools and the promoters of education may be able to visit in their own neighborhood." But the Privy Council Committee add—"All these depôts are to be understood as depôts for specimen copies only. All applications for grants of books and maps must be made to the Committee of Council, who retain in their own hands the appropriation of them to particular schools. They do not make general grants, leaving the distribution of them to intermediate boards or agencies."

The Committee of Council were well aware that if they did not make provision to supply the schools with books and apparatus direct, their recommendations would be of little use, and that there would be no protection to managers of schools and their scholars against being imposed upon by inferior editions or copies of publications if supplied by itinerant or interested dealers; that there could be no security that the public money would be applied to the purposes for which it had been granted, unless its application were controlled by some responsible officer or department of the Government, as in the case of the application of all other public moneys.

It must not be supposed that this system of supplying schools with books, maps, &c., was established without opposition. More than one bookseller and author complained that the Government was interfering with private rights and trampling upon private interests by favoring some authors and some publishing

booksellers at the expense of others; that the Government had come into the market as a bookbuyer and a bookseller. An association of publishers and booksellers was formed in London, for the alleged protection of the trade against Government interference and monopoly, pamphlets were written, a large portion of the public press was enlisted, and Members of Parliament were secured to denounce and put down this Government book business. Lampons were written and delivered both in and out of Parliament, much more brilliant and potent than those which have appeared in Toronto, on the Lords of Her Majesty's Privy Council becoming booksellers and stationers at the expense of the private tradesman. But the answer to the whole of this declamation of mistaken selfishness against the public welfare was very simple and conclusive. It was, that Government having long and grossly neglected its duty in regard to the education of the mass of the nation, was no reason that it should do so any longer; that the Government had nothing to do with the ordinary book trade; but that if Government, aided by Parliament, assisted in the establishment of schools for the education of the people at all, it was bound to do everything possible to promote the efficiency of those schools, to aid their managers, and to encourage and assist the pupils attending them; that one of the most effectual means of doing so was, to aid them in procuring proper text-books, maps, &c., which could not be done without selecting them from a mass of rival publications, and providing to supply them readily and at reduced prices; that Government existed for society at large, and not for certain individuals at the expense of society, and was bound to do what was most promotive of the public interests, whether it might or might not enhance the gain of an individual dealer in books or in stocks. It is scarcely necessary to add, that the Committee of Council have been sustained by Parliament and by the public in their course of proceeding, and year after year has witnessed increased variety in their selected publications, and increased liberality in their arrangements to supply those publications to the managers, teachers and pupils, of the public schools.

In regard to the public schools in Ireland, it is well known that the Government Board have even published their own school books, &c., and have for many years monopolized the copy-right, as well as sale of them, though they have lately thrown open the copy-right as the Canadian Board did ten years ago; and they now supply the schools with their publications at their usual rates by contract with their publisher, the same as I supply libraries, maps, &c., by contracts with publishers and manufacturers in Europe, the United States and Canada. The National Board in Ireland, any more than the Lords of the Committee of Council on Education in England, do not think it beneath their office to supply, not only books, but every description of requisites for the public schools, from the thimbles and needles required in the industrial school to the philosophical apparatus used to illustrate chemical and natural philosophy lectures in a high school, justly regarding it the duty of a Department of Public Instruction to overlook the interests of no class of society.

How groundless and untrue then are the invective statements, that I have acted without the authority of the Canadian Government, and at variance with the example of the English Government, in the measures which I have recommended and adopted for supplying the public schools in Upper Canada with appropriate text-books, maps and apparatus, since I proceeded to England under the express sanction of the Canadian Government, and was enabled by the active and cordial co-operation of the Government Board of National Education in Ireland and Privy Council Committee on Education in England, to establish the very system which has contributed so much to the efficiency and attractive usefulness of our public schools, and saved so many thousand pounds to the Municipalities and to the parents supporting them.

My report on this subject would be incomplete did I not refer to what has been done in the neighboring States, in order to provide uniformity of Text-books and proper Apparatus in the Public Schools. In some of the principal cities and towns, the Public Board of Education prescribe the books which shall be used in the schools under their charge, and have Depositories to supply the prescribed books to the teachers and pupils of the Schools at reduced prices; in other cities and towns the Boards of Trustees leave the pupils to provide themselves with the Text-books required in the Schools, which is done throughout Upper Canada. But in the country parts of Pennsylvania, New York and the Eastern States, the rival publishers and authors have prevented any provision for uniformity of Text-books in the Schools, and each new teacher subsidized by some author or publisher, insists upon a new set of books in order to make "a first rate school." The Commissioner of Public Schools in the State of Rhode Island, in his Report of 1856, portrays a state of things such as formerly existed, and such as would have existed in Upper Canada at present, had not the measures commenced in 1846 (for which I am now assailed by certain parties) succeeded in remedying them. The State Commissioner proceed, as follows:—

"The subject of Text-books is a fruitful one both of annoyance to the teachers and expense to the parents. Perhaps all the other sources of complaint put together are not so fruitful of ill-feeling, and so really injurious to the improvement of our schools as this one alone. Scholars come to the school-room, with each an old book, different from any other book on the same branch of study in the whole School. Readers are quite as numerous as the classes, if not as many as the families in the district. A half-dozen sorts of Arithmetics give a great variety in the examples for practice, and in the mode of carrying on the numerical operations. There are almost as many Geographies as pupils in the study—some of them with atlases, some without them, some of them of very recent date, and others of them having served the fathers and mothers of the present generation of scholars. As to Grammars, Murray still holds his place in some schools, in the midst of a whole host of reformers who quarrel with him and with each other. While spellers and new spellers, Definers and Revised Definers, are as plenty as the frogs were in Egypt, and quite as vexatious. And smaller books, Primers, and improved Primers, Child's First Books, and Children's Pictorial Primers and Readers, all crowd into the peaceful arena of the District School, to do over again 'the battle of the books,' and re-introduce the confusion of Babel without the possibility of a Babel-like dispersion.

"But still another difficulty arises from the multiplication of new editions of the same book. A very popular school book, to name which would be easy, has passed through not less than eight changes within the last ten years; and it is almost impossible to use in the same class any two of these, as it would be to use books by different authors. Thus we find several versions by each of several authors on almost every branch of school study, and in many cases the disorder is multiplied by first, second and third edition, revised and enlarged, of each of these versions. How can scholars be guided and classified, and be made to move on at an equal pace, and with pleasure, rapidity and uniformity in such a state of things as this? And how can a teacher who enters such a school to remain only four months be expected to do much for his pupils' advancement in knowledge? The methods of these discordant books are conflicting and contrary, and in prefaces, remarks or foot-notes, often contain improper allusions to the others, and inflict marked censure upon their rules or arrangements. In such circumstances, the teacher's task is, if possible, more hopeless than that of the Israelites to make bricks without straw; it is truly like making sweetness with acids and alkalies; and he is one of the great

“men who, with disadvantages like these, can accomplish so much that the winter or summer shall not be a total loss.

“It can hardly be doubted, but that the cost to the whole people of the States would be much less, if the books were all bought by the towns, or by the State itself, and the money to pay for them raised by tax on the property, and complete uniformity required in all the Schools, restricting changes to particular times in each of the School studies. This would remove many of the school committees and teachers from the almost intolerable nuisance of such book agents as travel about to find fault with every treatise on a particular topic, except the single one of which they happen to be the vendors.

“Could the State, as is proposed by a Resolution now before the Committee of the House of Representatives on Education, or could the towns be authorized and induced to adopt some system of producing uniformity, without obliging the parents of the children to purchase so many books, there can be no doubt but that the measure would, as soon as it was fairly in practice, commend itself to the good sense of the community, and aid more than almost any other measure to give perfection and stability to our excellent system of Common Schools. The cost would be so much less, if there could be a perfect combination of the whole people; the good expected from the Schools would be so much more, if every scholar always had the proper books of suitable quality, and the general progress would be so much more uniform in all localities, if every child possessed exactly the same advantages of Text-books, as well as of teachers, that no one can hesitate to desire to accomplish the end.”

In the States of Ohio and Indiana, several school laws have been passed since that of Upper Canada in 1850, some of the provisions of which, I have reason to know, are embodied in a modified form in our own Acts. They created township (as well as city) Boards of Education, instead of Trustees of School Sections, and provided for uniformity of text books in the schools, for supplying them with apparatus, and for the establishment and supply of school libraries. The Ohio State Commissioner of Common Schools says in his second Annual Report, of 1856:

“The framers of the present law sought to remove the discouragement, expense, and other evils attendant on a multiplicity and frequent change of text-books, by vesting in Boards of Education the power of determining the class of books to be used in the several schools under their charge, and it is greatly to be regretted that so many Boards have hitherto neglected to perform their duty in this regard, and to abate at once an evil which is the subject of such earnest and continual complaint throughout the whole country, and which so frequently discourages scholars, subjects parents to needless expense, and retards the advancement of the true educational interests of the State.”

As to school apparatus the same Report states: “The value of school apparatus distributed during the same period was \$15,834 $\frac{42}{100}$. A tabular statement is annexed of the articles furnished, and their cost. A circular has been issued to Boards of Education, inviting them to determine whether and how far they would prefer to be furnished with apparatus in preference to books, and to communicate their selection with the proper vouchers, to the undersigned, (State Commissioner,) who would cause the articles to be supplied at liberal discounts under arrangements effected with the manufacturers. From present indications a large portion of the library fund will be appropriated in the purchase of philosophical and chemical apparatus.”

The articles thus furnished to the local school authorities consist, as in Canada of orreries, tellurians, terrestrial globes, hemisphere globes, numeral frames, geometrical solids, maps, philosophical and chemical apparatus.

In the State of Indiana, the Superintendent of Public Instruction, in his first Annual Report, 1852, says:

“The law makes it the duty of the State Board of Education to introduce uniform school books. The design of this provision of the law was undoubtedly to correct the serious evils arising from the frequent changing of text-books in our public schools, subjecting the people to onerous and unnecessary expenses in the constantly recurring purchase of new books. With every change of teachers comes a change of text-books. The people are subject to heavy expense without any redeeming advantage. Yet books must be uniform in every school. The teacher cannot get along with scholars using different grammars, and different geographies, and different reading books. But to establish and maintain uniformity of text-books in so large a State as ours is a work of great difficulty. Parents and children often have their favorites among the old authors. They can see no good reason why the State Superintendent should not select and the board of Education approve the very books to which they have been accustomed. They see not why he should dictate the book they should use. The second reason for his decision on the relative merits of different series, and they deem his action arbitrary. Township Trustees and School Committees may think they should have the right of selection and decision. Another obstruction more formidable still, is found in the self-interest of rival publishing houses, whose agents spare neither time, expense, nor conscience, in securing by whatever means they may, the sale of the books of their own establishment, in competition with other houses; and if possible, to the exclusion of all other books from the market. Should the Superintendent select, and the Board of Education approve a list of text-books, it may be expected that an onslaught will be made on the list, in general and in detail, by the agents of those houses whose publications happen not to be among the selected list.” “The Superintendent will, however, in spite of all the difficulties in the way, as soon as he can do it, consistent with other duties of his office, thoroughly examine all the series of text-books within his reach, carefully select such as he deems best adapted to our wants in this State, present the list to the Board of Education, ask their approval, and rely on the confidence of the people in his judgment, experience and integrity, endorsed he must be by the Board of Education, to introduce the books, and resist all attempts at change, until the State authorities shall present an improved list.”

A list of text-books was afterwards selected and approved; and though a change subsequently took place in the person filling the office of Superintendent of Public Instruction, no change took place in the system, and scarcely any in the books selected; for in the fourth Annual Report of that officer, 1856, occurs the following passage, the concluding sentences of which are as remarkable for elegance and beauty as for loftiness of sentiment:

“Uniformity of text-books is a matter of no small moment to the purses of the parents and the progress of the pupils. They are the silent teachers, directing the enquiries and prompting the investigations of the scholars, and should impart uniform instruction, and in the happiest manner. A wise selection of these cannot fail to be seen and felt in the prosperity of the schools. The law provides this uniformity in order to obviate evils that have heretofore proved serious obstacles to the pupils’ progress, and fruitful sources of dissatisfaction on the part of the parent, and the no small annoyance of the teacher. No change in the list first established has been deemed necessary or desirable, except in the geography, for which a series has been substituted, as far as published, that will occasion no cause of regret to either pupils, parents or teachers. The economy and freedom from vexation secured by the aforesaid uniformity, are objects worthy of regard, and should not be sacrificed to the dictates of either ignorance or selfishness. In science there will necessarily be pro-

“gress, and consequently a change of text-books will occasionally be demanded. But the text-book in morals is the production of an author, whose wisdom needs no revision, whose knowledge is susceptible of no increase, and whose benevolence admits of no question. The Bible, without note or comment, is installed in the schools of Indiana, and its continuance as the moral standard in the nurseries of her future citizens, will as surely mark the period of her prosperity and grace the zenith of her glory, as its exclusion would prove the precursor of her decline the herald of her shame.”

It is thus clear that in the neighboring States they are either suffering and lamenting, under the evils of an endless variety and endless changes of school text-books, or they have adopted similar methods of introducing uniformity of text-books into the schools, and supplying them with apparatus, with those which have been adopted in Upper Canada. While therefore our Canadian system of text-books is in harmony with both British and American practice, the modes of giving it effect need not shrink from comparison with those adopted in any other country or state.

PART III.

MEASURES ADOPTED TO SELECT AND PROVIDE BOOKS FOR PUBLIC LIBRARIES IN UPPER CANADA.

After the establishment of the Normal Schools for the training of teachers, and provision had been made for supplying the schools with proper text-books, maps and apparatus, the next step necessary for the intellectual improvement of the country was to establish Public Libraries, consisting of proper books, easily and cheaply procured. Accordingly, in July, 1849, I submitted to the Governor General in Council my plan for accomplishing that object in a letter, of which the following are extracts :

(“Copy.)

“EDUCATION OFFICE,

“Toronto, 16th July, 1849:

“SIR,—I have the honor to submit to the favorable consideration of the Governor General in Council the following remarks and recommendations, with a view to the introduction of School Libraries into Upper Canada, as contemplated by each of the Common School Acts which have been sanctioned by the Legislature. There can be but one opinion as to the great importance of introducing into each township of Upper Canada, as soon as possible, a Township Library, with branches for the several school sections, consisting of a suitable selection of entertaining and instructive books, in the various departments of biography, travels, history (ancient and modern), natural philosophy and history, practical arts, agriculture, literature, political economy, &c., &c., &c. It is not easy to conceive the vast and salutary influence that would be exerted upon the entire population, the young portion especially, in furnishing useful occupation for leisure hours, in improving the tastes and feelings, in elevating and enlarging the views, in prompting to varied and useful enterprise, that would flow from the introduction of such a fountain of knowledge and enjoyment in each township in Upper Canada.

“But in order even to commence so noble and beneficial an undertaking, two things are necessary; the first is, to obtain, and for the Board of Education to examine and select the proper books; the second is to render such books easily and cheaply accessible to every part of the Province. As the books are not and cannot be published in this country, they must for some time, at least, be obtained from

“ abroad—from England and the United States, arrangements must be made for that purpose, as the ordinary agencies of book trade are insufficient.

“ When in Dublin, in 1845, I arranged with the National Board to obtain their books for schools in Upper Canada at cost prices, much below the wholesale prices, to the British public; and by means of that arrangement those excellent books are now sold in Upper Canada, about twenty per cent. cheaper than they were three years since; and we now say to each of our Canadian booksellers, that if he will agree not to sell those books at more than two-pence currency for every penny sterling that he pays for them, we will give him a certificate to the National Board in Dublin to obtain them at the reduced prices. By this simple arrangement private trade is encouraged, at excellent profits, rather than interfered with; and the books are then sold at much lower prices than heretofore. The selling prices of the books are published in the printed forms and regulations for schools, and are uniform in every part of the Province, and known to every Trustee and Teacher. A Canadian house has reprinted an edition of most of these books (fac similes of the Dublin edition) at even lower prices than the imported editions.

“ Now, I propose the adoption of an extension of the same arrangements to procure books for School Libraries. I propose to make an arrangement with some of the book societies in London (such as the Society for the Diffusion of Useful Knowledge, &c.) and the cheap library publishers in London and Edinburgh, for procuring such of their works as may be required for School Libraries in Canada at the lowest prices. I propose to make the same arrangements with the National Board in Dublin, for procuring portions of the series of books which they have lately selected and adopted for School Libraries, that we have heretofore made in order to procure their school books. And as but few of the books composing the School Libraries in the neighbouring States of New York and Massachusetts are of an exclusively local and politically objectionable character, and as the greater part of their School Library books are as suitable to the youth of Canada as to those of the United States—many of the books being re-prints of English works, and translations from the French and German—I propose to make a similar arrangement with School Library (and perhaps some other) publishers in New York and Boston, that I have above proposed to make with English publishers.

“ According to this arrangement, I propose to secure, at the cheapest rate possible, to the reading youth and people of Canada, the best popular works which emanate from the British and American press. There will thus be a *British* and an *American* series, with the price affixed to each, and directions where and how they may be procured, leaving to local councils or committees the option of selecting from either series, or from both, at their discretion.

“ In the catalogue of these library books, I think a characteristic notice of each book should be inserted (including two or three sentences, but of course, requiring considerable thought, judgment and labor in the preparation.) A catalogue should be furnished to each local council, and the books generally be also brought to the notice of the public, in the columns of the *Journal of Education*, and personally by the Chief Superintendent, during his visits to the various Districts, one of which I had intended to make during the latter part of the current year. Should the plan thus briefly explained be approved of by the Governor General in Council, I propose to devote the next three or four months to its accomplishment, by going to the United States and England, to make the arrangements suggested, and to select and procure specimen books for the school libraries, to lay before the Board of Education for Upper Canada, for their examination and judgment.

“ With these remarks I submit this important subject to the favorable consideration of the Governor General in Council; and should the task I have proposed be approved of, I will lose no time in prosecuting it. In the meantime, I

“ would respectfully recommend that John George Hodgins, Esq., Senior Clerk in
 “ the Education Office, be authorized, by the Governor General in Council, to act
 “ as Deputy Superintendent of Schools for Upper Canada during my absence, as I
 “ have entire confidence in his integrity, knowledge, and ability.”

(Signed,)

E. RYERSON.

The Honorable James Leslie,
 Secretary of the Province, Montreal.

Any further steps for giving effect to the plan thus proposed, were deferred for more than a year, by the following circumstances. A few days after the letter was written, from which the above extracts are given, a school bill was hastily passed during the last hours of the Session, affecting my official position, and calculated, as I believed, to subvert the school system which I had begun to establish. I gave immediate notice of my intention to resign office sooner than administer such a law. That the leading members of the administration did not desire, after the time and labor I had bestowed to the investigation of the question of public instruction, and the progress which had been made in introducing a system into Upper Canada. I was requested to reduce to writing my objections to the new Act. They were considered valid, and I was authorized to suspend its operations as far as possible, until another school Act could be passed. By request I prepared the draft of another school Bill, to the examination and correction of which the Honorable Robert Baldwin, then Attorney General, devoted with me parts of two or three days. That Bill was brought into the Legislature by the Honorable Mr. Hincks, and, after long and careful discussion, was passed by the consent of all parties in the Legislature, and became the Common School Act of 1850. About two months after the passing of that Act, I again submitted my plan for the establishment of school libraries to the consideration of the Governor General in Council, in a letter, of which the following is a copy.

“(Copy,)

EDUCATION OFFICE,

Toronto, 21st September, 1850.

“ SIR,—I beg most respectfully to solicit the attention of His Excellency the
 “ Governor General, in Council, to the letter which I had the honor to address you
 “ the 16th July, 1849, on the steps preparatory to the introduction of School
 “ Libraries in the several Counties, Cities, Towns and Villages of Upper Canada.
 “ That letter was printed as part of the correspondence in the School Law of Upper
 “ Canada, laid before the Legislature at its last session, and printed pages 55, 56.
 “ I hereto annex a copy of it [See the letter last above quoted.]

“ I am fully satisfied of the propriety and practical character of the recommen-
 “ dations contained in the annexed copy of letter. During the last few weeks I
 “ have attended at Philadelphia, a National Convention of three days' continuance,
 “ the object of which was the universal diffusion of thorough Christian Education
 “ throughout the several United States, embracing a consideration of the several
 “ systems of Public Instruction and Educational Institutions from Primary Schools
 “ up to the Universities, their defects and the remedies for them. This Convention
 “ was attended by State Governors and State Superintendents of Schools, Presi-
 “ dents and Professors of Colleges, Educationists and distinguished Teachers, from
 “ various States. In my intercourse with many of these gentlemen, of large ex-
 “ perience in matters of popular Education, I found, without exception, the most
 “ unreserved approval of the plan which I propose for the introduction of School
 “ Libraries into Upper Canada. I was informed by several of them, that the most
 “ serious drawback to the success of their system of School libraries with the older
 “ States is the heterogenous collection of unsuitable books which have been largely
 “ introduced into them, by the pressing competition of the rival publishers and

“itinerant book venders, in the absence of any judicious State Board to select and recommend Library Books. Repeated attempts have been made in the States of Massachusetts and New York, to remedy this evil, which has brought discredit upon their library system, and paralyzed it in many places; but though the subject has been discussed in books, pamphlets, and addresses, and pressed in official reports, the evil continues, from opposition made by the rival parties who are each interested in selling his own books, and at as high prices as possible. I was assured without exception, by these experienced American Educationists, that had they at the commencement of their State system, adopted regulations and measures similar to those provided by law in Upper Canada, in regard to School *Text and Library Books*, the progress of their Schools and Libraries would have been much more rapid and satisfactory; and some of them expressed the opinion that there was little hope of much improvement in their Common Schools, beyond the limits of Cities and Towns, until some such system as had been provided by law among us, should be adopted among them in regard to Text and Library Books, and the inspection of Schools. Indeed, one gentleman, who has for some time been President of the Board of Education for the State of Michigan, and who devotes most of his time to delivering Educational lectures throughout the States, applied and obtained from me documents that would enable him to prepare a lecture on the system of Public Instruction in Upper Canada, which he intends to make the subject of one of the short course of four or five lectures which he is accustomed to deliver in each of the Principal towns in the State. The Connecticut State Superintendent of Schools (who has been an Educational State Officer for many years, has visited Canada, and made himself familiar with our system and School statistics), stated on one occasion, that more progress has been made in Upper Canada, in the system of Common Schools, during the last five years, than in any state of the American Union, and that the new School law in Upper Canada, was an improvement upon that of any of their States.”

“Such opinions from such quarters were not a little gratifying and encouraging to me; and I found by conversation with Booksellers that the plan detailed in the annexed copy of letter, in regard to the mode of procuring and selecting Books for School Libraries will be found eminently economical and advantageous to our local Councils, and all engaged in the establishment of public School Libraries.

“I propose during the next three or four months to make the necessary tour and arrangements for carrying that plan into effect, and therefore pray that His Excellency will be pleased to order a warrant for five hundred pounds (£500) to issue in my favor, to be expended and accounted for in the manner stated in the annexed copy of letter.”

(Signed,)

E. RYERSON.

To the Honorable James Leslie,
Secretary of the Province, Toronto.

The following is a copy of the Provincial Secretary's reply to the foregoing letter:
(Copy.)

SECRETARY'S OFFICE,

Toronto, 27th September, 1850.

“REVEREND SIR,—I am commanded by the Governor General to inform you that His Excellency has had under his consideration in Council your letter of the 16th July, 1849, and the 21st instant, suggesting the propriety of your proceeding to Europe, for the purpose of making the necessary arrangements for the establishment of School Libraries in the various Townships in Upper Canada, and requesting the issue of an accountable warrant for the sum of £500, for that purpose, to be charged on the grant for establishing School Libraries in the various Townships of Upper Canada

“ His Excellency has been pleased to direct the issue of the warrant in your favor for the above amount, and has also granted you leave of absence to proceed to Europe, to make the arrangements contemplated in your letter. His Excellency has also been pleased to authorize John George Hodgins, Esquire, to act as your Deputy during your absence.”

(Signed,)

J. LESLIE,
Secretary.

The Reverend E. Ryerson, D. D.
Chief Superintendent of Education for U. C.

Having proceeded to England, I was enabled by the aid of the Privy Council on Education, as narrated in a preceding part of this report, (pp. 29-34) to make advantageous arrangements with publishers in London, Edinburgh and Dublin, for the purchasing of books for our Public School Libraries, and made considerable selections for examination from their catalogues. I afterwards made similar arrangements with publishers, and similar selections from their catalogues in Boston, New York, and Philadelphia. The examination of the books thus selected occupied a great part of my morning and evening hours during nearly two years.

But before deciding on the kind of libraries, and the mode of establishing them, or submitting regulations for that purpose to the consideration of the Council of Public Instruction, I made a tour of Upper Canada, and, as previously announced in a printed circular, I submitted the whole question as to the mode of supplying and establishing public libraries to a convention in each County, consisting of the Municipal Councillors, Clergy, Magistrates, Local Superintendents, Trustees, and as many other persons as chose to attend, and received an expression of strong, and in most cases unanimous approbation of the system which has been adopted, and is still pursued for establishing and extending public libraries in the various Municipalities of Upper Canada.

Thus, so far from acting on the mere imaginings of my own mind, without authority, and at variance with the example of the mother country, I have had the express authority and aid of the Governor General in Council, have largely advised with experienced and able educationists in the neighbouring States, have followed the example and been aided by the co-operation of the Government Board of Education in Ireland, and of Her Majesty's Privy Council Committee on Education in England, have consulted and received the cordial expression of approving co-operation from a County convention in each County of Upper Canada, in regard to that very system of public libraries which has been so grossly assailed by certain parties in Toronto.

If anything could add force to the official documents referred to, it would be the personal testimony of the Earl of Elgin, who was Governor General of Canada during the whole period of the establishment and maturing of the Normal and Library branches of the school system, who familiarised himself with its working, and aided on every possible occasion in its development. On one occasion, his Lordship hapily termed the Normal School “ the seed-plot of the whole system ;” on another occasion, with no less force than heart, he designated “ Township and County Libraries as the crown and glory of the institutions of the Province.” On his resigning the Government of Canada, Lord Elgin prepared and presented to Her Majesty's Principal Secretary of State for the Colonies, an elaborate report of his Canadian administration. In that report, dated December, 1854, he devotes several pages to a comprehensive view of our school system, including a minute account of the system of public libraries, and the general machinery and administration of the school law and its results. It may not be inappropriate to give Lord Elgin's statement in his own words, omitting only the concluding part of

it, in which he gives the statistics, and candidly states and discusses the question of religious instruction. After adverting to the comparative state of education in Upper Canada in the years from 1847 to 1853 inclusive, Lord Elgin proceeds as follows:—

“ In the former of these years the Normal School, which may be considered the foundation of the system, was instituted, and at the close of the latter, the first volume issued from the educational department to the public school libraries, which are its crown and completion. If it may be affirmed of reciprocity with the United States, that it introduces a new era in the commercial history of the province; so may it I think be said of the latter measure, that it introduces a new era in its educational and intellectual history. The subject is so important that I must beg leave to say a few words upon it before proceeding to other matters. In order to prevent misapprehension, however, I may observe that the term school libraries does not imply that the libraries in question are specially designed for the benefit of common school pupils. They are in point of fact, public libraries intended for the use of the general population; and they are entitled school libraries because their establishment has been provided for in the School Acts, and their management confided to the school authorities.

“ Public school libraries then, similar to those which are now being introduced into Canada, have been in operation for several years in some states of the neighboring Union, and many of the most valuable features of the Canadian system have been borrowed from them. In most of the states, however, which have appropriated funds for library purposes, the selection of books has been left to the trustees appointed by the different districts, many of whom are ill qualified for the task, and the consequence has been that the travelling pedlars, who offer the most showy books at the lowest prices, have had the principal share in furnishing the libraries. In introducing the system into Canada, precautions have been taken, which I trust, will have the effect of obviating this great evil.

“ In the School Act of 1850, which first set apart a sum of money for the establishment and support of school libraries, it is declared to be the duty of the Chief Superintendent of education to apportion the sum granted for this purpose by the legislature under the following condition: ‘ That no aid should be given towards the establishment and support of any school library unless an equal amount be contributed or expended from local sources for the same object;’ and the council of public instruction is required to examine, and at its discretion to recommend or disapprove of text books for the use of schools or books for school libraries. ‘ Provided that no portion of the legislative school grant shall be applied in aid of any school in which any book is used that has been disapproved of by the Council, and public notice given of such disapproval.’

“ The council of public instruction in the discharge of the responsibility thus imposed upon it, has adopted, among the general regulations for the establishment and management of public school libraries in Upper Canada, the following rule:—‘ In order to prevent the introduction of improper books into libraries, it is required that no books shall be admitted into any public school library established under these regulations, which is not included in the catalogue of public school library books prepared according to law;’ and the principles by which it has been guided in performing the task of selecting books for these libraries, are stated in the following extract from the minutes of its proceedings:

“ ‘ 1. The council regards it as imperative that no work of a licentious, vicious, or immoral tendency, and no works hostile to the Christian religion should be admitted into the libraries.*

* The first and part of the second of these paragraphs have been adopted verbatim in the new school law and regulations of New Brunswick relating to public libraries.

“ 2. Nor is it in the opinion of the council compatible with the objects of the public school libraries, to introduce into them controversial works on theology, or works of denominational controversy; although it would not be desirable to exclude all historical and other works in which such topics are referred to and discussed, and it is desirable to include a selection of suitable works on the evidences of natural and revealed religion.

“ 3. In regard to works on ecclesiastical history, the council agree on a selection of the most approved works on each side.

“ 4. With these exceptions and within these limitations, it is the opinion of the council that as wide a selection as possible should be made of useful and entertaining books of permanent value, adapted to popular reading in the various departments of human knowledge; leaving each municipality to consult its own taste, and exercise its own discretion in selecting such books from the general catalogue.

“ 5. The including of any books in the general catalogue is not to be understood as the expression of any opinion by the council in regard to any sentiments inculcated or combated in such books; but merely as an acquiescence on the part of the council in the purchase of such by any municipality, should it think proper to do so.

“ 6. The general catalogue of books for public school libraries, may be modified and enlarged from year to year as circumstances may suggest, and as suitable new works of value may appear.

“ The catalogue above referred to, and of which I enclose a copy, affords ample proof of the intelligence and liberal spirit in which the principles above stated have been carried out by the council of public instruction. The Chief Superintendent observes, that in the case of the libraries established up to the present time, the local authorities have, in a large number of instances, assigned the task of selecting books to the Chief Superintendent; that in some they have by a committee of one or more of themselves, chosen all the books desired by them, and that in others they have selected them to the amount of their own appropriation, requesting the Chief Superintendent to choose the remainder to the amount of the apportionment of the library grant. The Chief Superintendent recommends the last as a preferable mode. The total number of volumes issued from the educational department to public libraries in Upper Canada from November 1853, when the issue commenced, to the end of August last, was 62,866.

“ The system of public instruction in Upper Canada is engrafted upon the municipal institutions of the province, to which an organization very complete in its details, and admirably adapted to develop the resources, confirm the credit, and promote the moral and social interests of a young country, was imparted by an Act passed in 1849. The law by which the common schools are regulated was passed in 1850, and it embraces all the modifications and improvements suggested by experience in the provisions of the several school acts passed subsequently to 1851, when the important principle of granting money to each county, on condition that an equal amount were raised within it by local assessment, was first introduced into the statute book.

“ The development of individual self-reliance and local exertion, under the superintendence of a central authority exercising an influence almost exclusively moral, is the ruling principle of the system. Accordingly, it rests with the freeholders and householders of each school section to decide whether they will support their school by voluntary subscription, by rate bill for each pupil attending the school (which must not, however, exceed one shilling per month), or by rates on property. The trustees elected by the same freeholders and

“householders are required to determine the amount to be raised within their
 “respective school sections for all school purposes whatsoever, to hire teachers
 “from among persons holding legal certificates of qualification, and to agree
 “with them as to salary. On the local superintendents appointed by the County
 “Councils is devolved the duty of apportioning the legislative grant among the
 “school sections within the county, of inspecting the schools, and reporting upon
 “them to the Chief Superintendent. The county boards of public instruction,
 “composed of the local superintendent or superintendents and the trustees
 “of the county grammar school, examine candidates for the office of teacher,
 “and give certificates of qualification, which are valid for the county; the Chief
 “Superintendent giving certificates to Normal School pupils, which are valid
 “for the province; while the Chief Superintendent, who holds his appointment
 “from the Crown, aided, in specified cases, by the council of public instruction,
 “has under his especial charge the Normal and the Model schools, besides
 “exercising a general control over the whole system,—duties most efficiently
 “performed by the able head of the department, Dr. Ryerson, to whom the inhab-
 “itants of Upper Canada are mainly indebted, for the system of public instruction
 “which is now in such successful operation among them.”

“I will now advert briefly to what has been done in the neighboring States on
 this subject. By the Common School Act of the State of Ohio, which went into
 operation in 1854, the *tenth of a mill* on the valuation of property throughout the
 whole State was to be annually appropriated for the purchase of books and appar-
 atus. That tax amounted the first year to *eighty thousand dollars*. Besides
 expending \$15,834.49 in the purchasing and distribution of school apparatus, the
 State Commissioner of Schools, in his annual report for 1855, makes the following
 statement in respect to the libraries:

“The subject of School District Libraries was fully discussed in the last annual
 “report of the undersigned, and a catalogue of the books composing the respective
 “series was also presented. During the years 1854 and 1855, the number of
 “volumes distributed by the undersigned, amounted to 258,986, the cost of the
 “same was 150,787.⁰⁸/₁₀₀. Full details of the distribution to the respective coun-
 ties in addition to the statement of the last annual report, will be found in the
 appendix.” (Page 10.)

It is to be observed that the County or Township authorities had nothing to do
 with the selection or the purchase of the books, which were selected and purchased
 by the State Commissioner of Schools, and the same series of books was sent to
 each County, according to population.

In the State of Indiana there is a State Board of Education, consisting of five
 members, “the Governor, the Superintendent of Public Instruction, the Secretary
 of State, the Auditor of State, and the Treasurer of State.” The Superintendent
 selects and submits the list of books for the township libraries to the Board, which
 approves of them and authorizes the purchase of them by the State superintendent.
 The provision for libraries is even more magnificent in Indiana than in Ohio. The
 School Law of Indiana, passed in 1852, “imposed a tax of a *quarter of a mill* on
 the property, and an assessment of *twenty-five cents* on the poll, for the purpose of
 establishing a library in every civil township of the commonwealth. The library
 assessments collected during the two first years amounted to \$176,336. The State
 is divided into 690 townships, each of which was supplied with a library containing
 321 volumes, making the aggregate 221,490 volumes. The cost of each library,
 exclusive of the expense of transportation and distribution, was \$213, and the
 aggregate cost of the whole of the books \$147,222. Precisely the same books were
 sent to each township of the State, consequently 690 copies of each of the 321

volumes were purchased and distributed, not through ordinary booksellers, but by the State Superintendent, who proceeded to New York and purchased all the books from only six booksellers. It may be worth while to give the following extract from his report relative to the expenditure of this Library Fund and the purchase of the books:

“The following exhibit presents the various bills composing the aggregate expense connected with the purchase and distribution of the aforesaid libraries:

Messrs. Harper's bill for books, binding, printing catalogues, circulars, rules and regulations, labels, boxes, packing, drayage, storage, and insurance.....	\$115,986 53
Charles Scribner's bill for books.....	26,726 32
J. J. Redfield's bill for books	2,507 63
G. E. Waring's bill for books	262 58
Messrs. Streets and Braden's bill for books	700 00
H. W. Derby's bill for books	1,210 30
Professor Larrabee's (State Superintendent's) bill for cash, paid out in expenses of examining, selecting, purchasing, cataloguing, assorting and shipping books for Indiana School Library	1,085 38
Railroad charges for the transportation of 2073 boxes of books from New York to Indianapolis	3,057 08
The Library distribution to the Counties	2,800 00

Total of the above bills \$154,335 22

“The annexed catalogue of books, with prices appended, is made according to the classified arrangement adopted in packing the boxes marked A. B. and C. It is expected that \$90,000 worth of books will be distributed to the Townships the ensuing summer, varying from five to more than two thousand dollars each, according to population. This addition will impart new life and interest to the enterprise, as well as enlarge its capacity and power for usefulness.”

The liberality of the Indiana (as well as the Ohio) Legislature in providing funds for the establishment of public libraries, cannot be too highly applauded, nor the zeal of the State Superintendent in giving effect to that liberality, be too much admired; but it is questionable whether such purchases, and so general a report of the expenditure of so large a sum of money, would be deemed quite satisfactory in Toronto, any more than the sole agency of the State Superintendent in distributing as well as selecting and purchasing the books for the libraries. It is also questionable whether the counties, townships, cities and towns of Upper Canada would prefer to have 321 volumes apportioned and sent to them, or have a classified catalogue of more than 3,000 volumes, from which they could select such books as they might prefer, and in such quantities and at such times as they might desire them. It may also be remarked that the prices at which the books are stated to have been bought in such large quantities at New York for the Indiana township libraries, are, in most cases, not so low as the prices at which the same books are supplied in single copies to the local school and municipal authorities in the remotest townships of Upper Canada.

I now proceed to the justly famed State of New York, which has been held up as a pattern for imitation in the School Library System of Upper Canada. Many eloquent eulogies of the New York State School Library System have been written, both by English travellers and American educationists, and not without reason. But on investigating it in 1849 and 1850, tracing its history and working as detailed in successive reports, and consulting many intelligent citizens of that State as to its operations, I believed it not adapted to Upper Canada without great modifications, and likely to decline in usefulness, if not fail, in the State of New York itself.

These views I expressed in my letter above quoted (pp. 58, 59), addressed to the Provincial Secretary, September 23rd, 1850; and I regret to say that the apprehensions then expressed have already been more than realized. Many years ago, the State Superintendent recommended an extensive series of books for the school district libraries; but they were to be supplied through the ordinary booksellers, and the only check upon the introduction of all kinds of books into the libraries, was the power of the State Superintendent to eject any improper book from them; an ungracious and impossible task in regard to a hundred thousand dollars worth of books per annum, and these scattered over a large proportion of nearly 11,000 school districts throughout the State. The State School Library Fund amounts to \$54,937 a year, and is expended upon the condition that a like sum to that apportioned be raised in each school district. Yet, in connection with the annual expenditure of this large sum, has the number of volumes in the school libraries decreased during the last four years at the rate of more than 50,000 volumes a year! The State Superintendent, in his Report for last year, laid before the Legislature, the 27th January, of the current year, after having stated the whole number of volumes in the school libraries each year from 1847 to 1857, inclusive, proceeds as follows:

"It will thus be seen that notwithstanding the large sum appropriated annually to an increase of the district libraries, the number of volumes reported in 1857 is but little in excess of that reported in 1848, and 226,277 less than that reported in 1853.* To what particular cause this falling off is attributable, whether to the destruction of the books by use, or to their dispersion and loss by want of care and attention, I have no means of determining. A rational presumption would be, that the amount annually received from the State would, in most of the districts, be sufficient to guard against an actual diminution in the number of volumes possessed; but so far from this being the case, there has been an average decrease in the number of volumes during the last four years of 56,569 per annum. Certain it is, in many sections of the State, the interest heretofore felt in the preservation and increase of the district library has greatly diminished if it has not entirely ceased. That this is owing in part to the want of sound judgment in regard to the books selected is very probable. Works of an ephemeral character, embodying little amusement and less instruction, have too often been urged upon trustees, and found their way into the library more to the gratification of the publishing agent than the benefit of the district. It is true also, in many cases, that when a library has attained to a respectable number of volumes as measured in the estimation of those having it in charge, they look upon its enlargement as unnecessary, and seek to turn the appropriation from its legitimate purpose. Hence arise frequent applications to the department for leave to appropriate the library money to the payment of teacher's wages; whilst others, it is apprehended, divert it to this and other purposes, without the formalities required by law. Whilst I am not prepared to make a specific recommendation as to the legislative action required in the premises, the value of the property involved, to say nothing of the higher considerations connected with the subject, seems to demand some remedy for a rapidly accelerating evil." (p.p. .)

Now it is a system of school libraries thus declining as rapidly of late years as it grew in former years, that we are called upon by certain parties to substitute for our present Canadian system of public libraries.

To the foregoing facts I will add the following extract from the report of 1856 by the Commissioner of Public Schools in the State of Rhode Island, containing as it does statements of peculiar interest, and a testimony to our Canadian Library System of the deepest significance:

* The number of volumes in 1853 being 1,604,210, and in 1857, 1,377,938.

“It should be the State’s duty then to provide reading for such purposes, in order that it may profit by all the talent it has discovered in the common school.

“It is believed that considerations like these have prompted our neighbors to engage in this very useful and very promising field. Massachusetts, many years ago, gave to each of her three thousand districts a school library worth thirty dollars. New York distributed more than a million of dollars among her inhabitants. Ohio pays a tax of one mill on a dollar, raising thereby some fifty thousand dollars annually, to give her children some good books to read. Indiana has expended two hundred thousand for the same great object; and Canada West annually gives to each of its districts a sum equal to that which it will raise by tax on itself, for the great purpose of continuing the education of the children which the common schools begins. Other States, both East and West, are moving to elevate themselves by the same liberally devised and far-seeing philanthropy. And shall we be less enterprising in our own behalf?

“*The plan of providing such district school libraries, adopted by the Parliament of Canada West, is undoubtedly the wisest that has yet been acted upon.* It is in short this. The Parliament by vote appropriated a specific sum to purchase a suitable number of books, charts and articles of apparatus for schools and school libraries. This sum was expended under the direction of the Superintendent of Public Education, and a large depository of excellent and select books for the reading of youth and older persons was made at the Office of Education. Whenever any school district or municipality wishes to form a library, it may send to the office of the General Superintendent a sum not less than five dollars, and the Superintendent adds one hundred per cent to the sum, and returns, at cost price, such books to the district as may, by a committee or otherwise, have been selected from the printed catalogue of the depository. Thus the books that go into libraries are books that have been well examined, and contain nothing that is frivolous, or that could poison the morals of those who read them; the libraries purchase them at the wholesale price, and of course can obtain a much larger amount of reading matter for their money than as though they had each made the purchase direct from the booksellers for themselves, and at the same time they are stimulated to do something for themselves as well as to ask that something may be done for them. It is believed that some such plan might be carried into effect in our own State greatly to the profit of the whole community.”

PART IV.

OBJECTIONS ANSWERED.

Before, and about the commencement of the session of the legislature in each year, for several years past, the cherished and pent up hostility of certain parties to our system of public instruction has developed itself in the form of letters, pamphlets, and sometimes reviews, after which the anti-school philanthropists have retired into sullen silence until the corresponding period of the ensuing year, when the preceding year’s process was repeated almost *verbatim et literalim*. Last year and for several years preceding, this belligerent host consisted of a wooden-ware and toy merchant, who is known to have a great horror of school-taxes, and a

* If a tone of sharpness appears in some parts of the following pages, it has arisen from the fact that the parties referred to have put forth their claims on personal grounds, and have supported them not by a calm discussion of the question as one of political and social economy, but by gross personal attacks and imputations upon the Chief Superintendent of Education. Under such circumstances I have thought it but due to them, as well as to the public and myself, that they should be pointedly answered, if not sharply rebuked.

mistaken priest, who regards a system of public education and universal reading as "dangerous to faith and morals." For the present year the leaders of anti-school crusaders consist of the same toy dealer, a professedly conservative editor, and a bookseller, who has commenced business in Toronto since the establishment of our public library system, and since more than 100,000 volumes of public library books have been sent to various Municipalities of Upper Canada; a bookseller who has stated in the *Globe* newspaper, of the 22nd of March, that he would gladly, with the aid of the Government "Bounty" of the Legislative Library Grant, supply the public schools with libraries,—thus leaving every other bookseller to take care of himself as best he can,—imagining it to be no monopoly for him to do what he complains of a public department for doing, and assuming that the school and municipal authorities of the country would have equal security both as to the quality and prices of their books in an irresponsible private bookseller, who is interested in buying the cheapest editions of books, and selling them at the highest prices possible, with a responsible Head of a Public Department, who has not and cannot have any interest different from that of any trustee or Municipal Corporation, whose only interest and ambition it must be to procure the best editions and best quality of books, and supply them at the lowest prices possible, who must account to Government quarterly for all his receipts and expenditures through a vigilant auditor of public accounts, and who may be complained of to, and brought to account by, the Governor General in Council, for every act of injustice or neglect of duty. But though the paucity and evident objects of these periodical assailants might not entitle their attacks to notice, yet as these attacks afford an opportunity on the present occasion to illustrate some of the features and workings of our school system which may not be generally understood, I will briefly advert to them.

The narrative and references in a preceding part of this Report, furnish a sufficient refutation of the statements of the Toronto editor and bookseller as to our system of providing the schools and municipalities with apparatus and libraries not having been established by the authority of the Canadian Government, and not having the sanction of governmental example in England or in the United States. As to the prices at which these publications are supplied to schools and municipalities, the following facts may be stated:—(1.) These publications are supplied to the remotest townships of Upper Canada at the same prices at which they are supplied to the School or Municipal Corporations of Toronto, and at prices lower than has ever before been witnessed in this country. (2.) An examination and comparison of Catalogues (and it can be made by any member of the Legislature, or other inquiring party calling at the Education Office) will show, that the price at which maps, and other apparatus and books are supplied to the schools and municipalities are lower than the catalogue prices at which these same publications are sold to the public where they are produced, in Edinburgh, London, Boston, New York, or Philadelphia. (3.) A large number of the 321 volumes which the Superintendent of Public Instruction in Indiana supplied in 1854 and 1855 to each of the 690 townships in that State, are contained in the official Catalogue of books for public libraries in Canada, and the average price at which single copies of these books are supplied to any Municipality in Canada are lower than the average prices at which the same books were distributed by the Indiana State Superintendent, according to the list of the purchasing prices of them which he has published in his Fourth Annual Report. It is possible that a bookseller, from a purchase made at auction, or for a particular purpose, may advertise to sell certain books as low as they are supplied from the Public Educational Depository, but the facts above stated are conclusive on the whole subject, and the burden of the complaints against that Depository is that

the publications are there supplied at prices so low as to render it impossible for a private bookseller to compete with them. It is the very spring and ground of attack upon that vital element of our public school system. A private bookseller, not contented with his legitimate sphere of trade and competition, covets, as a supposed fortune, the right of supplying a public want, the wide-spread feeling of which the department of Public Instruction has created, and which such a department alone can effectually supply. Hence such a bookseller, absorbed with views of coveted gain, and imagining that society exists specially for him, claims to take precedence of the Government on one side, and of the Public School sections and municipalities on the other—denying to the former the right as well as obligation of providing requisites for Public Schools after having created them, and denying to the latter the right and privilege of facilities such as never existed before (and which were the creation of the Department of Public Instruction) for rendering their schools efficient, and their population intelligent. The late Hugh Scobie, Esquire,—a man of remarkable business talents, and of statesman-like views, and manly patriotism,—was, at the time of his decease, and some years previously, the leading bookseller, stationer, and publisher in Toronto; he was at the same time a member of the Council of Public Instruction, when the whole of the present system of public libraries was first considered and adopted, and examined many of the books and often visited the depository of maps, &c.; but though a man most keenly perceptive and sensitive to legitimate private rights and interests, and who watched with sleepless diligence and an honest pride over the progress of his own fine establishment, he felt also what truly appertained to the duties of Government and the interests of the public, and gave the whole school system and the Department of Public Instruction the aid of his private counsel, and the support of his public journal “The British Colonist”—a paper marvellously changed on this subject since it has passed out of the hands of Mr. Scobie.

Then as to the bookselling interest itself, it is known that the taste and demand for books are of very slow growth, and require the precursor of much information and of many exciting influences; yet that interest (as the Customs returns will show*) has advanced of late years beyond all precedent, and more rapidly than most other collateral interests of trade. But what agencies and

* The following statistical paper has been compiled from the “Trade and Navigation Returns” for the years specified, showing the gross value of books (not school apparatus) imported into Canada.

Year.	Value of Books entered at Ports in Lower Canada.	Value of Books entered at Ports in <i>Upper Canada.</i>	Total value of Books imported into the Province.	Proportion imported for this Department taken from its own books.
	£	£	£	£
1850	25470	35425	60895	21
1851	30175	42933	73108	824
1852	35294	39817	75111	322
1853	39675	63570	103245	5691
1854	42863	76952	119815	11165
1855	48589	84698	133287	6406
1856	52159	106998	159157	2552
1857	*56100	77293	133393	4007
Total for the eight years..	£330,325	527,686	858,011	30,988

* With reference to the increase in this year over 1856 for Lower Canada and the decrease for Upper Canada, it is to be observed that the Canadian line of steamers having been then established, goods to a large amount intended for Upper Canada were frequently entered at Montreal; besides, the importation of 1856 was unprecedentedly large.

influences have been in operation since 1850 which were not acting upon the public mind during the previous eight years to produce so remarkable a development and extension of the book trade? The only additional agencies and influences of which I am aware, are the improvement of our schools, the monthly circulation of the "Journal of Education" in each of the 3500 School Sections in Upper Canada, besides among school superintendents and municipal officers, a provincial tour of the Chief Superintendent bringing before a public convention in each county the subject of books and the advantage and means of circulating them, and the publication and circulation of many thousand copies of extensive classified catalogues of some 3000 books, with the title of all of them in full—thus exhibiting to a large if not controlling portion of the community in each county a world of entertainment and profit from books of the existence of which they had previously no means of knowing. I have reason to believe that great numbers of persons who have thus come to a knowledge of books which they know could not be supplied by the Department of Public Instruction to any private party (books being supplied by that Department only to Public Institutions), have sought and purchased them of private booksellers. I believe that the private book trade has largely benefited by the Department of Public Instruction and the system of public libraries; and I have been informed that some most intelligent and extensive booksellers are of the same opinion.* By means of the Public Libraries, many persons see or learn of books which they desire to possess for themselves and families, and which of course they can only procure of private booksellers, as they must all exclusively religious and denominational books—such not being included in the Public Libraries. But it is vain for a private bookseller to think of competing with the Public Depository in the price of books, and not honest, in my opinion, for him to pretend to do so. I have repeatedly stated, in public official documents, and often otherwise, that it is unreasonable for any one to expect to

* Since this paragraph was written, several of the parties referred to have borne spontaneous and public testimony on the subject in a memorial to the Legislature. Among the signatures to that memorial are the names of three parties who are the most extensively engaged in the book trade of any booksellers in Toronto, and whose practical and disinterested testimony outweighs that of scores of interested parties on the other side. The following is a copy of the memorial:

To the Honorable the Legislative Assembly of Canada, in Provincial Parliament assembled.

HUMBLY SHEWETH,—

That your Memorialists, the undersigned wholesale and retail booksellers and publishers in Toronto are deeply interested in the welfare of the bookselling trade of Canada, and in all institutions which tend to give a proper tone to the reading of the country, and to diffuse a love of literature amongst its inhabitants.

Your Memorialists are of the decided opinion that the establishment of the educational depository has done a great deal, in fostering a desire for literature among the people of Canada, and has indirectly added to the wealth of persons in the book trade, inasmuch as the desire for general literature has been supplied through their means, and your Memorialists would respectfully refer for a proof of this to the Customs returns attending this branch of trade in the Province of Canada.

Your Memorialists would further urge the fact that the destruction of the depository would be attended with grave consequences to the people of Canada, seeing that a pure and healthy fountain of literature would be destroyed, and the advantage lost that public schools have enjoyed of forming the nucleus of public libraries at an easy and reasonable rate. Further, that whilst your Memorialists can have no objection to an inquiry into the efficiency of the depository, as conducted by Dr. Ryerson, and the removal of abuses if they are found to exist, yet they do not share in the opinion expressed in a petition presented to your honorable House by other of their fellow-booksellers as to the inefficiency of this establishment, or its detrimental character to their interests, and would respectfully urge your honorable House to weigh well the advantages which the country has already derived from the existence of such an establishment, before introducing any change which might impair its present usefulness.

Wherefore your Memorialists humbly pray.

(Signed,)

JAMES CAMPBELL,
JAMES CARLESS,
MACLEAR & Co.,
G. R. SANDBERSON,
ROBERT DICK.

get any thing like the variety of books of private booksellers lower than from twenty to fifty per cent. above those at which books are supplied by the Public Depository for Township and School Libraries. How futile and ridiculous would it be for any bookseller in England to attempt or pretend to compete either in the variety or with the prices at which the Privy Council Committee furnish text-books, apparatus, and libraries to the managers and pupils of Schools aided by Parliamentary grant or liable to governmental inspection! Equally absurd would a similar pretension be on the part of a Canadian bookseller. But to enhance the gain of the bookseller is not the primary question for the consideration of Government, whose first duty and right it undoubtedly is, as well as that of the several Municipalities and School authorities, to provide as far as possible the means of instruction and knowledge for all classes of the population.*

Nothing can show more clearly than the statistics of the foregoing table, the utter groundlessness and absurdity of the statements that the Department of Public Instruction has monopolised or injured the book trade of the country. It is seen, that of books imported into Upper Canada from 1850 to 1857 inclusive, to the value of £527,686, books to the value of only £30,988 have been imported by the Educational Department—that is one-seventeenth part of the books imported during that period; that of books to the value of £184,291, imported during the last two years, books to the value of only £6,559 have been imported by the Department of Public Instruction—only one-twenty-eighth part of the whole of the books imported—a mere drop in the bucket—scarcely deserving of public notice in connexion with the general question or interests of the book trade, and which perhaps would not have been noticed but for the misguided and pugnacious selfishness of certain persons engaged in it in Toronto, who seem to look upon the whole country as their own to rule in the supply and prices of books.†

The statistics of the foregoing table also show that subsequently to the preparatory steps for the introduction of public libraries in Upper Canada, and simultaneously with their establishment, an unprecedented increase of the book trade commenced. In 1851, the Chief Superintendent procured specimens of library books, and in 1852 visited and held a county meeting on the subject in each county of Upper Canada, commenced the publication and circulation of catalogues, &c., with 1853, and the sending out of the books for libraries the latter part of the year. And in that very year a new impulse and extension were given to the book trade of the country—the increase of 1853 over the imports of 1852 being £23,753; while that of 1852 over 1851 was only £7,508—since which time the book trade has steadily and rapidly advanced. And when it is considered that no unusual agency, except that of the Department of Public Instruction, has been employed to create so unusual a taste and demand for books, it may be fairly inferred that booksellers are not a little indebted to that Department for the increase of their business, and may naturally be ashamed of the attacks upon it by certain of their number, with whom perhaps largeness of profits on books sold, rather than the number sold, may be the prime consideration, and who feel that the Educational Department does exert an indirect influence in reducing the prices of books as well as in promoting their circulation—hence their vehement attack. But if the influence of that Department is both to reduce the prices and increase the circulation

* The complaining parties have alleged that supplying the classical institutions of the country and their pupils with classical and mathematical books recommended by the Council of Public Instruction, has deprived private booksellers of their principal source of profit. As a record is kept at the Depository of the Department of Public Instruction of every book sold, to whom, by whom, and for what, the result of an enquiry into the quantity of these books furnished by the Department to the Managers and Students of Colleges and Grammar Schools throughout Upper Canada, during the year 1857, amounts just to £197 18s. 3d., a fact sufficiently illustrative of the truth and honesty of the allegations of those parties.

† See Appendix B.

of books, I think the book-purchasing country at large will be satisfied and grateful, however certain of the book-selling community may be dissatisfied and complain.

Perhaps not the least remarkable fact revealed by the statistics of the foregoing table, in connexion with what is transpiring in the country, is, that with so small an expenditure the Educational Department has contributed so largely, not only in diffusing knowledge, but in awakening so general attention to, and exciting so strong a desire for recreation and improvement by means of books, besides reducing the expenses of them and adding to the facilities of circulating them. What has been done has proved no less beneficial to the book trade on the one side than to the public on the other.

It is also worthy of remark, that the whole of the book trade of the country that was ever open to booksellers, is still occupied, exclusively occupied or "monopolized" by them. The Department of Public Instruction does not intrude upon it, but supplies public corporations which never before had authority to procure libraries, and which exist and act for the benefit of the community at large as a body politic, and whose rights and powers and duties should not be subordinated to or made dependent upon the personal and extravagant pretensions of an individual bookseller. Much has been said and written against the powers of public bodies, from the government downwards, being rendered subservient to the purposes of individual speculation; yet it is the very object and demand of certain booksellers to speculate out of the public school and municipal authorities of the country, and to make these authorities exclusively dependent upon them for that purpose. If such booksellers content themselves with their legitimate sphere of trade, there can be no competition between them and the department of public instruction, and all that is done by the Municipal and School authorities through the aid of the Educational Department to establish public libraries and diffuse useful knowledge, will, as it has already done, as shown by the Customs Returns, contribute to the greater demand for books on the part of individuals and in families. But as well, and with more reason, might private teachers deny to the government or a public corporation the right of establishing a school because they would teach all the children in the municipality, and because their enterprise ought not be interfered with, than for a private bookseller to deny to government or a public corporation the right of establishing a public library except through his agency and at his prices. The greater weight of argument is altogether in favor of the private teachers, who might teach all the children of the neighborhood, and whose interests and employments are, perhaps, altogether superseded by the public school; but the private bookseller is not interfered with, but has the monopoly of his trade to the widest limits of its legitimate sphere.

I have argued this question upon general grounds, assuming that the private booksellers are as abundantly able to supply the variety of books recommended for the public libraries in Upper Canada as are private booksellers in England. But what would be the condition of more than three-fourths of the Townships of Upper Canada could they not procure from the department of public instruction the libraries, as well as the maps, globes, and school apparatus they require? But for the arrangements and catalogues of the Educational Department, they would not have known of the existence of most of these aids for their schools and that mental entertainment for their evenings and leisure hours, much less would they have been accessible to them. And even now, after all the information diffused by the Educational Department, how many of such aids and books could such Township and School Municipalities obtain from private booksellers? In what County or Township would or could the required supply be kept, and upon what terms, and with what guarantees? And if the result would be a sort of monopoly of certain booksellers in Toronto from whom local parties would obtain their supplies (assuming

it possible to obtain such supplies,) what would be the expense of the municipal and school authorities after payment of profits to each of these intervening agencies, and what security would they have against exorbitant prices, or as to the quality and kind of the articles and books required? If a bookseller had not a tenth of the articles and books mentioned in the official catalogues, and required by Municipalities, and sought to press upon them other publications of his stock, what other resource would such municipalities have? The unsatisfactory working and declining state of the public school library system in the State of New York, as detailed in a preceding page, (pp. 41, 42) is a sufficient illustration of the fruits of what is demanded by the bookselling assailants of our public library system, in a country where the private book trade is much more extended in its supplies and operations than in Upper Canada.

Whether, therefore, our system of providing public libraries, as well as maps, globes, and other school apparatus, be considered in regard to the higher or lower grounds above stated, the conclusion is that which was expressed by the President of the American Association for the advancement of Education at a late anniversary of that noble society, as quoted by the Earl of Elgin in a speech at Glasgow, after his return from Canada. The report says,—“The President made some remarks on the difficulty in the United States of procuring proper libraries for schools, keeping out bad books and procuring good ones at reasonable rates, *and he strongly recommended* the system adopted by the Educational Department at Toronto, Canada, West.”

I now address myself to objections which have emanated from other quarters.

2. By one writer it has been alleged that “In establishing the school system, the Legislature commenced by taking from the parent the sacred right, and still more sacred duty, of educating his children in his own way.” This assertion can only be regarded as a libel upon the Legislature and school system of Upper Canada. There might be some truth in such an assertion in regard to the school system of a country where the sovereign is a despot, and by his own absolute authority provides a revenue, establishes a school system, appoints teachers, prescribes the instruction to be given in the schools, disallows private schools, and requires all children of certain ages to be taught in the royal or imperial schools; but it is without the shadow of truth in respect to the Legislature or school system of Upper Canada. Our Legislature imposes no school tax, as do the Legislatures of New York and other American States, but simply empowers the local Municipalities to do so if they please, and encourages, to a certain amount, those who are disposed to help themselves in establishing and maintaining schools for the education of their children; but which schools the local parties themselves determine upon the manner of supporting, appoint and remove the teachers, each parent determining what his own children shall be taught in the public school, and there being no restriction whatever in the establishment of private schools. No, the “sacred right, and still more sacred duty, of educating his children in his own way” is taken from the parent by those who impose upon him the punishment of “mortal sin” if he does not send his children to a certain kind of schools, or if he presumes to send them to the public schools.

3. By another writer, the whole school system is denounced, on account of the state and alleged expensiveness of the Common Schools of the City of Toronto. But it happens that Toronto is not Canada, as Paris is said to be France. It also happens that the Common Schools are the pride and boast of the City of Hamilton, where the same law prevails that exists in Toronto. It is true that in 1850 Toronto did not own a decent common school house, if a school house at all, and that since then a school site has been obtained and a noble school house erected in each ward of the city—a fact which the assailants of the

system on account of its expensiveness have carefully concealed. The City of Hamilton has pursued the same noble career in the erection of school houses, but differs from Toronto in the erection of a large central school for the higher classes and larger pupils, and primary school houses in each ward for the smaller children, who are drafted or promoted to the central school as they advance in their studies. Hamilton has also adopted the Normal and Model School system, by employing a head master and teachers, all of whom have been trained in the Normal School. Toronto has thought proper to ignore the Normal School, though established within its limits; and not a Normal School teacher has been placed in charge of one of the Common Schools of the city, and only two or three employed in subordinate positions. Hamilton furnishes an illustration of the Provincial Normal and Model School system; Toronto of the old system, except in the character and furniture of the school houses. Besides, Toronto is favored in having located within it the Upper Canada College and other educational institutions endowed at the expense of the Province. But perhaps these city advantages are a disadvantage to the Common Schools, as many persons, availing themselves of the provincially endowed institutions, look down upon and exclaim against being taxed for the support of the city Common Schools, insisting that every man should educate his own children; whereas, had they done so, they should themselves have purchased the site and erected the buildings for Upper Canada College, or of the University College, or both, endowed the Masterships and Professorships, and defrayed all the current and incidental expenses of those establishments. Persons who have been educated at Schools or Colleges established or aided by Public Grants or endowments, or who have been educated, or who are educating their children at such establishments, ought to be the last to object to payment of taxes for the support of the Common Schools, or to profess that every man should educate his own children. On submitting in 1847 the first draft of Bill for our present system of Schools in Cities and Towns to the Honorable J. H. Cameron, then Solicitor-General, I explained to him that if he agreed to introduce one provision of the Bill, he would have to pay more for the support of Common Schools than he had ever thought of paying, especially as he was the highest on the Assessment Roll of any member of the City Corporation, and the principle of the Bill being that Common School education was a public interest to which every man should contribute according to the property which he had acquired and which was protected in the country. After consideration, Mr. Cameron replied that the principle was right and he knew how such a provision of the law would work; "out of every ten persons nine would be directly interested in it and support it, and the tenth would be very angry about it." I am sure Mr. Cameron will pardon me for this allusion to a private conversation so honorable to his head and heart, due to him as having introduced and carried through the Legislature the first Bill containing a provision (not a requirement, but a permissive municipal power) which has already conferred benefits upon thousands of parents and children in Upper Canada, though every tenth man may be still angry about it, notwithstanding he himself or his son may perhaps have been educated at institutions largely endowed or assisted from public sources.*

It is also to be observed that the law does not prescribe any particular kind of Schools in Cities and Towns, nor any particular mode of supporting them. The electors in each of such Municipalities, through their elective Board of Trustees, are empowered without any restriction "to determine the number, kind, and

* I think it but just to add, that the late Hon. H. Sherwood, who was Attorney General in 1847, after a similar explanation to that given to Mr. Cameron, cordially assented, and supported the principle of the Bill, which passed the Legislative Assembly without a division, and, I believe, without an objection to it from any party.

"description of Schools which shall be established or maintained in such City or Town." The Board of Trustees in any City or Town, (also in any incorporated village by the 26th section of the same Act 13 and 14 Vic., c. 48), may establish and maintain Church of England, Roman Catholic, Presbyterian, Wesleyan, Baptist or Congregational Schools, and appoint a Committee of three from each Church to the immediate care of the School designed for its members, as I stated in the first Official Circular, after the passing of the law. Nor does the law restrict such Municipalities to any particular modes of supporting their Schools, the only restrictive clause of the law in regard to rate bills and rates applying to School sections alone, but empowers the Boards of Trustees in each City, Town or Incorporated Village to impose as high a rate bill on pupils as they please, or none at all, to support their Schools wholly or partially, or not at all, by a rate on property.

Moreover I may state still further that the law does not compel any Municipality to adopt or maintain the School system at all. Any or every City, Town or Incorporated Village and Township in Upper Canada, may relinquish the Public School system, and leave School education to the voluntary system. As an illustration and proof several Townships in the eastern part of Upper Canada, declined for years coming into the School system, and the Town of Richmond in the County of Carleton, has remained a "voluntary" in School matters to this day—never having levied a school rate, or had a Board of Common Schools Trustees, or a Common School—and applying only the third of the current month for instructions to enable it to adopt the Common School System. Now, Toronto and every other Municipality in Upper Canada might always have been, and may forthwith become, if it pleases, a Town of Richmond in School voluntarism. Parties therefore who wish to abolish the present School system in Toronto, or in any other Municipality, have no need either to assail the Chief Superintendent, or petition Parliament; let them go to the rate-payers themselves and their representative Trustees and Councillors—the only parties that can levy the rates, and the very parties that can terminate them, and adopt the voluntary system. They can adduce as an example the Town of Richmond, which has never paid or been burdened with a sixpence Common School tax, where the prospect is not broken by a single common school house, or the children tormented by the tasks of a common school, where the Grammar School itself has grown "small by degrees and so beautifully less," as to forfeit the right of sharing in the Grammar School Fund. But if other Municipalities have pursued a different course, and erected good school-houses, and properly furnished them, and employed good teachers and established good schools, it is because they have chosen, and not because the law has compelled them, to do so. If some Municipalities and School divisions have managed their School affairs very badly, they have perhaps managed their Municipal affairs just as badly; but the School Law is no more to blame in the one case, than the Municipal Law is in the other. If the people in their several Municipalities have actually increased their self-imposed School taxes during the last few years at the rate of nearly \$100,000 a year for the payment of teachers alone, and increased their self-imposed taxes for the erection of School Houses, the purchase of School Apparatus and Libraries in corresponding ratios, so as to exceed in the amount of their self-imposed school rates, in proportion to population, the old and great State of New York, where the School Tax is imposed by the State Legislature, and collected by the State tax-gatherer, what does the fact prove but the amazing capabilities of our *laissez-faire* municipal system, and the hold which that system has upon the minds and hearts of the people, bating perhaps the "tenth angry man" for the nine educational and progressive men. To repeal the School Law then, like

repealing the Municipal Law, is not to relieve the people from the control of any central power, but to take away from them the right and privilege of collective or municipal association in school as well as in other affairs, and to deprive them of the right and privilege of being encouraged and assisted by Government to educate their children in their own way. The school, like the municipal system, has become a part and parcel of the local self-government rights of the people, and he must be a bold man who will attempt the invasion of them.

3. It has also been objected to the school system, that it allows a man's property wherever situated, to be taxed for school purposes, though he does not reside upon it, and can derive no benefit from the school tax which he is compelled to pay. To this it may be replied by asking, if one man is so fortunate as to own land in ten different school municipalities, and another man owns land in only one school municipality, whether the former ought not to pay school, as well as other taxes, in ten times as many places as the latter? If so, the next question is, whether the school tax thus payable should be expended to support the school in the school section where it is situated, or that of the section in which the absentee proprietor resides? I answer, the value of land is, as a general rule, maintained or increased by the labor, enterprise and intelligence of those who reside in the neighbourhood round about it, and are they not justly entitled to some return for the value which their joint labor maintains or confers upon the land of such absentee? And can that return be more properly and cheaply made, than for the land to be made to pay a rate towards the education of those youths whose labor, in connexion with that of their fathers, maintain and often largely increase its value? Nothing, in my opinion, can be more equitable than that the land of any absentee should be liable to pay school tax for the benefit of the neighbourhood in which it is situated; and it is unfair and unjust that the inhabitants of a neighbourhood should be subject to all the inconvenience and disadvantages of land absenteeism, without any mitigation of it. If the land is occupied, then the tenant has, of course, an interest in the school in common with other residents.

I now come to objections of a different kind, from another quarter.* The writer whose objections I now notice, is the subject not only of a singular annual mania of writing and publishing against our system of public schools, but of an extraordinary aberration in perverting and misrepresenting all facts with which he professes to deal. I will give a few examples.

1. In my Annual Reports, as I have advertised the public, I have noticed the defects of any local returns, and have, in the extracts from local reports, given the dark as well as the bright side of the state and progress of the public schools in every part of Upper Canada, not misleading the public to imagine that so much has been done that they may now relax their exertions, but presenting proofs that after allowing for every drawback of indifference and ignorance in some cases, and of poverty and sparse settlements in others, enough at least has been done in the improvement of schools and the spread of know-

* The objections noticed in the following paragraphs of this Report have been put forth by a respectable cooper, who has of late years become a wooden ware and toy merchant of this city—a gentleman who is very religious when writing against our public schools, and who has had an expensive mania for writing and publishing against them during several years; who, according to his own account published, on the eve of the Session of Parliament one year, a series of letters against the public school system under the signature of a "*Layman*;" another year he published one or two numbers of a ponderous Educational Review, of which I believe some thirty copies were sold: a third year he published another series of letters, under the signature of a "*Protestant*," appearing in the first instance in the anti-public school "*Catholic Citizen*" newspaper, and afterwards in a pamphlet; a fourth year he published, in the same newspaper and afterwards in pamphlet, another series of letters under the signature of "*Angus Dallas*." In these letters, which, as on previous occasions, he has scattered abroad with a liberal hand, he complains that his previous labors have been unnoticed. He will now experience the gratification of having them recorded and noticed.

ledge, to excite gratitude, to inspire confidence, and to encourage exertion. But the person whose last signature is that of "Angus Dallas," avails himself of the impartiality of my reports, by quoting extracts of the local reports from six townships to prove that Trustees throughout the other 350 townships are ignorant, have made defective returns, have been negligent in their duties, and that, therefore, the reports of Trustees are not to be relied upon, that Local Boards of School Trustees are a "curse," and ought to be abolished. In the same way, quotations are made from six reports of six Township Superintendents respecting their little remuneration, their onerous duties, changes in the incumbents of their office and defects in their returns, to prove that there is no value in the reports of Local Superintendents throughout Upper Canada; that their office is useless, and ought also to be abolished. Now, every intelligent and sane man knows that the defectiveness of statistical returns cause the truth to be understated rather than overstated; and, therefore, warrants the inference that if our School Returns were more complete than they have been, they would exhibit greater progress in our Public Schools than my Annual Reports have shown. 2. Again, extracts and isolated sentences are laboriously culled from twenty-eight Township Reports, to "show the general condition of the schools, produced by the inferior character of the teachers" employed, and, therefore, that the Normal School has done nothing to improve the character and qualifications of Common School teaching, that "the Chief Superintendent and Board of Public Instruction have mistaken the true object of popular education;" that the system of examining teachers by Local Boards, and of employing them by Trustees is radically defective; that the Boards of both Grammar and Common School Trustees are a "curse to the Municipalities!" 4. It is alleged that only 142 teachers, trained in the Normal School, are teaching in Upper Canada, and that my Annual Reports to the contrary are false, because that number are reported as teaching who hold "Provincial Normal School certificates;" whereas such certificates were not issued at all until six years after the establishment of the Normal School, and have only since been issued to a comparatively small number of the students; the rest getting their certificates on examination before the County Boards as other teachers. Of the teachers who have attended the New York State Normal School, at Albany, only about one in ten have obtained diplomas or State certificates. The declaration required of candidates admitted to our Normal School is the same as that required of candidates admitted to the Normal Schools in the neighboring States, and more explicit than that required in England, Ireland or Scotland. In addition to which, about two-thirds of all the candidates admitted into our Normal School had been teachers before applying for admission there for further training. 5. A fifth example of this mode of perverting and misrepresenting facts will suffice. In my last report, I remarked, on the defectiveness of the returns of the school population between the ages of five and sixteen years, and also of the returns respecting school-houses; and this is adduced as proof that, according to my own statement, no reliance is to be placed upon the statistics of my report! My pointing to the defectiveness of returns when I found them so, shows that I did not wish to mislead; and any one knows that Trustees might omit giving any description of their school-house, and not ascertain and return the number of residents in their School Section between the ages of five and sixteen years, and yet, from the School Register, report accurately the number of pupils in their schools, the time of their attendance, the subjects of their studies, the period of keeping open their school, by whom taught; and from their own Secretary Treasurer's books they could give an accurate account of the moneys which they have received and expended during the year, from what sources derived, and for what purposes expended; and from these returns by the Trustees of each School Section, the Local Superintendent could prepare his Township

Report, adding various items of information as the result of his own official acts and observations. The returns of such facts exhibit the real state and progress of education in each neighborhood. Besides, since the law makes the ages of school attendance to be between five and twenty-one years, many Trustees have thought it needless to ascertain the number of residents from five to sixteen years of age. However, for such defects in their returns, which are exceptions to the general rule, as I have pointed out, Mr. Angus Dallas, not only regards all local returns as fabulous, but purposes to blot Trustees and Local Superintendents out of existence. He says:—"So long as Trustees and Local Superintendents, whether detected or not, can act with impunity in the non-performance of their prescribed duties, the prospect of amendment must be very remote. Under Government inspection, these irregularities could not occur." It happens, however, in England, where Government inspection obtains, and where elective School corporations are unknown, that the returns are vastly less full, and less explicit than they are in Upper Canada.

I have thought proper to devote the foregoing paragraph to the statements of this writer, after his several year's labor in the same cause, and as he has been put forth as the Corypheus of those adverse to the present school system. The proposed remedies for the evils of our present school system are, the different religious denominations to be substituted for the Municipalities and elective trustees; "a Minister of Public Instruction with a staff of District Inspectors," for the Chief Superintendent of Education and local superintendents; a Government Board of Examiners, "granting certificates to teachers for all Upper Canada"; and that "each teacher—who should be a man, and not a boy—should be capable to undergo an examination in both the Greek and Latin languages, and more particularly with Latin his acquaintance should be thorough and familiar."

This scheme needs no comment or illustration; and my only apology for noticing it is, that it is the fruit of so many year's labor, and the only substitute which has ever been proposed for our present school system.

I beg to conclude this Report with a few general remarks.

Our school system is pre-eminently a Municipal system, in which each Municipality, and even each school section, acts independently of every other, and over which the Government itself exercises no control beyond that of co-operating with it on certain conditions, and those conditions involve no surrender of its own management, but simply of keeping open the school by a qualified teacher so many months in the year, and allowing all residents between the ages of five and twenty-one years to attend the school so long as they pay the required fee and observe the established rules, and not compelling any of them to read from any religious book, or to be present at any religious exercises to which their parents or guardians object. Such being the local, independent, Municipal character of our school system, there must be a great diversity in the character and efficiency of the schools in different cities, towns, and townships, (managed as they are by upwards of 10,000 trustees,) and in different sections of the same township; so that the success of the system can only be judged of by ascertainng general results, since the state of the schools in one Municipality might give a too favorable view of its progress, and the reverse in another Municipality. These results, notwithstanding the much that yet remains to be done in each Municipality, evince a progress in the elementary schools of Upper Canada, not equalled by those of Great Britain or Ireland, or of any State in America. In Ireland the elementary school system is non-denominational, and is jointly administered by a Government Board and local patrons, sustained in 1856 by a parliamentary grant amounting to \$1,126,428 80, had 5,245 schools, which included 560,134 pupils. The elementary school system in Great Britain is denominational, and is jointly administered by a Government Council and local denominational or voluntary association managers, was sustained

in 1856 by a parliamentary grant of \$2,061,680 39, had 5,179 schools, which included 645,905 pupils. The elementary school system in Upper Canada is non-denominational (for the most part), and is administered by the co-operation of a Government Council and superintendent and local elective municipalities and trustees, and was aided in 1856 by a parliamentary grant of \$168,932 00, which included 251,145 pupils,—nearly half as many as there are in all England.

It appears, therefore, that the system of elementary schools in Upper Canada [according to the returns of 1856—the last year for which they have been received] costs the Parliament, in proportion to the number of pupils in the schools, 67 cents per pupil; that of Ireland \$2.01 per pupil; that of Great Britain \$3.20 per pupil, or more than six times that of Upper Canada; while the annual increase of pupils in our schools is absolutely nearly as large as that of Great Britain or Ireland; and proportionably several times larger. Our elementary schools embrace rather more than three-fourths of the whole population of school age in Upper Canada; while, in England, elementary schools do not embrace one-half of the population of school age. The opponents of our school system have advocated the abolition of the powers of our local Municipal Councils and School Sections to combine and erect School-houses and support the Schools by property rates, and the introduction of the English Privy Council denominational system of elementary instruction. That system has been in operation nearly twice as long as has our present Canadian system. The following extracts from recent speeches of Members of the House of Commons—especially from the speeches of Sir John Pakington, late Secretary of State for the Colonies, and now First Lord of the Admiralty, and of Lord John Russell, the founder of the English system—will show in what light the English system is viewed by those noblemen and gentlemen who best understand it, and how much Upper Canada would gain by its introduction in place of our present School system. Sir John Pakington moving the 11th February for the appointment of a Commission to inquire into the state of popular education in England, and to report what measures are required for the extension of sound and cheap elementary education to all classes of the community, and in the course of an elaborate speech, made the following statements:

“He believed that the noble lord, the member for London [Lord J. Russell] in his speech upon this question in 1856, made a statement to the effect that it was not the object of those who founded the Committee system in 1839 to make it pervade every part of the country and supersede all other agencies, but rather to establish a nucleus for the encouragement of education in every way [Lord J. Russell, ‘hear, hear’]. The question to which the house should address itself was, whether, bearing in mind the statement of the noble lord, that Committee of Council system, valuable as it was, had not grown to an extent entirely beyond what was originally intended, and whether it could be carried much further with safety to the public interests. The annual grants were annually growing. The estimate last year was between £500,000 and £600,000. That for the present year, he was informed at the Council office, would be about £100,000 more than that of last year (Hear, hear). To carry out this great system of the Committee of Council, they had an increasing army of Inspectors. In the year 1850, the number of Inspectors was 19; in 1857, it was 46; and, if the system were to expand still farther, that number would require to be considerably increased. The time, therefore, had arrived when it ought to be asked whether that state of things would not lead to an amount of centralization never contemplated by those who founded the system, and to an expenditure so vast as to make it impossible for those whose duty it was to keep a watchful and jealous guard over the public money to permit the system to continue. He spoke with some

reserve on the subject, because he would be sorry to check the generosity of Parliament; but he believed that it was impossible to keep a sufficiently vigilant guard over the expenditure of minute fractions in every part of the country of so large a sum as was now annually granted for School purposes. In order to secure the proper expenditure of the Annual Grants, under the present system, a multitude of minute conditions and complicated arrangements would have to be made, the operation of which would prove injurious and inconvenient. If such conditions and arrangements were not made, they ran the risk of not receiving an equivalent for their expenditure. He had stated upon previous occasions that he wished to retain the present system as a nucleus of a more extended one, and the centre of our educational action. But he believed that the present was only a half system."

In another part of his speech, Sir John Pakington said, "In Canada there was an admirable system of education in existence, and the Australian colonies were most anxiously endeavoring to establish a sound system which would reach all parts of the country."

Mr. W. J. Fox also said—"In the colony of Canada, schools of recent establishment had been scattered over the country in which the use of the Scriptures was voluntary, and it was now the boast of Canadians that education in that country was more extensive than in some of the American States that were foremost in the possession of a system of education (hear, hear.)"

Lord John Russell, in the course of a powerful speech, made the following startling and affecting statements:

"There are 4,000,000 or 5,000,000 of children in want of education. The present system extends to only 570,000. Why is it restricted to that number? The answer is easy. It was proposed to assist by grants the means of those who were willing to build Schools and carry them on, but who could not provide themselves all the resources necessary for that purpose. The hope was that the establishment of these Schools would lead by example to the establishment of others, and that thus the system might spread. It was very much in the nature of an experiment, and it remained to be seen whether that extension of education took place rapidly and generally, or whether it was a slow and partial process. The system has now been in operation for about 18 years, and I must say that though with regard to those children who are under education, it has been very successful, it has not spread so rapidly or so extensively as could have been wished (hear, hear). Let me ask, then, what is to be done? You are not making any very great progress, because, I believe, if any one will look at the amount and increase of the grants, and then look at the increase of the number of children, he will find that at least the 70,000 who have been added recently to the list of scholars, are receiving grants from the State to a much larger proportionate amount in money than the 500,000 who first received the benefits of the system (hear, hear). If that is the case, I think it is deserving of inquiry how the system can be beneficially extended. I can conceive many ways in which it might be beneficially extended. For example, I believe that in many cases the clergy of the established Church, as well as the ministers of Dissenting denominations, would be willing with their congregations to contribute to a certain amount, not perhaps complying with all the conditions of the Committee of Privy Council, but yet making better schools than now exist. Would not that be a desirable object? (Hear, hear.) I believe we have greatly improved the quality of education, but we ought not to lose sight of quantity, and, if we find in certain districts, education making no progress, is it not desirable to examine whether, by restricted grants and less stringent conditions, we may not be able to extend the present system? (Hear, hear.) A

Bishop of the Established Church has told me that he thinks much might be done, and he pointed out to me that there were whole districts in his diocese in which there were no schools of any value whatever. (Hear, hear.) I have heard others, who have great practical experience, say, that while in their own places there were schools very well conducted, that the grants of the Privy Council were not only sufficient, but were munificent, you might go for ten or twelve miles from their parishes and not find a single locality where a valuable school existed. You cannot, at present, enquire into these facts; your inspectors cannot tell you anything about them. Is it not worth while, then, to have an investigation which shall inform you as to the actual state of things. (Hear, hear.)”

Let any man who has a heart to feel, ponder the above statements of Sir John Pakington and Lord John Russell, and say whether we have not reason to maintain and extend with more earnestness and confidence than ever our Canadian system of public instruction. No one can be more sensible than myself that our School system is far from being perfect—that the details of the law itself are susceptible of amendment in several respects—that in the organization, alterations and settlements of boundaries of School sections, improvements are practicable—that as the standard of the qualifications of teachers has already been raised higher than it was formerly, so it must be raised higher than it is now, as fast as qualified teachers can be found to fill the schools—that much may be done to render the system of inspecting schools more effective, to secure more general and punctual attendance at schools, and to render them instruments of greater good; yet no intelligent and candid man can compare our School system with that of other countries, without acknowledging that it has less machinery, and is more simple than that of any other country or State in Europe or America; that it is better adapted than any other to do the very thing most wanted in England, and not properly provided for in the neighboring States—to combine and develop local action and resources in co-operation with Governmental counsel and assistance—that its progress during the short period of its existence is without precedent or rival, and that we have every encouragement to persevere in its extension and improvement, until it shall impart to every child in the land that learning of which Cicero so eloquently says,—“It affords nourishment in youth, and delight in old age. It is an ornament in prosperity, and a solace in adversity. It pleases at home, and does not encumber abroad. A constant companion by night and by day, it attends us in our pastimes and forsakes us not in our labours.”

E. RYERSON.

Department of Public Instruction,
Toronto, 19th April, 1858.

APPENDIX A.

PROVISIONS OF THE LAW RELATING TO ROMAN CATHOLIC SEPARATE SCHOOLS IN UPPER CANADA, AND TO DISSENTIENT SCHOOLS IN LOWER CANADA.

EXPLANATION OF ABBREVIATED REFERENCES IN THE SIDE NOTES :

- "L. C. Act."—Lower Canada Act relating to Dissentient Schools.
 "U. C. Act."—Upper Canada Roman Catholic Separate School Act of 1855.
 "L. C. Cir."—Lower Canada Circular.
 "U. C. Cir."—Upper Canada Circular.
 "U. C. Dep. Reg."—Upper Canada Departmental Regulations.

* * * The figures refer to the parts of the Lower Canada School Act, Circular, &c., which have been numbered for convenience of reference.

Reference
to Lower
Canada Acts,
Circulars, &
Instructions,
in the side
notes below.

An Act to amend the laws relating to Roman Catholic Separate Schools in Upper Canada.

18 VICTORIA, CHAPTER 131.

[Received Royal Assent, 30th May, 1855.]

WHEREAS it is expedient to amend the laws relating to separate schools in Upper Canada so far as they affect the Roman Catholic inhabitants thereof: Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Legislative Council and of the Legislative Assembly of the Province of Canada, constituted and assembled by virtue of and under the authority of an Act passed in the Parliament of the United Kingdom of Great Britain and Ireland, and intituled *An Act to reunite the Provinces of Upper and Lower Canada, and for the Government of Canada*, and it is hereby enacted by the authority of the same as follows:

Acts Repealed.

I. The nineteenth section of "*the Upper Canada School Act of 1850*," and the fourth Section of "*the Upper Canada Supplementary School Act of 1853*," and all other provisions of the said acts or of any other act, are hereby repealed so far only as they severally relate to the Roman Catholics of Upper Canada. [13 & 14 Vic., ch. 48, § xix. 14 & 15 Vic., ch. 111. 16 Vic., ch. 185, § iv, repealed.]

Five Heads of Families may call a Meeting.

See L. C. Cir.
No. 58.

L. C. Act,
No. 1.

L. C. Act,
No. 2.

II. Any number of persons not less than five heads of families, being freeholders or householders resident within any school section of any township or within any ward of any city or town, and being Roman Catholics, may convene a public meeting of persons desirous to establish a separate school for Roman Catholics in such school section or ward for the election of trustees for the management thereof.

Majority present to elect three Trustees.

L. C. Act,
No. 2, Cir. 50.

L. C. Act,
No. 47.

III. A majority of the persons present, not less than ten in number, being freeholders or householders, and being Roman Catholics, at any such meeting may elect three persons resident within such section to act as trustees for the management of such separate school, and any person, being a British subject, may be elected as such trustee whether he be a freeholder, or householder, or not.

Notice of establishment of Separate School.

L. C. Act,
No. 1.

IV. A notice addressed to the reeve, or to the chairman of the board of common school trustees, in the township, city or town in which such

section is situate, may be given by all persons resident within such section being freeholders or householders, and being Roman Catholics, favourable to the establishment of such separate school, whether they were present at such meeting or not, declaring that they desire to establish a separate school in such school section, and designating by their names, professions and places of abode the persons elected in the manner aforesaid as trustees for the management thereof.

V. Every such notice shall be delivered to the proper officer by one of the trustees so elected, and it shall be the duty of the officer receiving the same to endorse thereon the date of the reception thereof, and to deliver a copy of the same, so endorsed and duly certified by him, to such trustee.

Effect of such Notice.

VI. From the day of the date of the reception of every such notice, the trustees therein named shall be a body corporate under the name of "The Trustees of the Roman Catholic Separate School for the section number _____, in the township (city or town as the case may be), in the county of _____" L. C. Act, No. 36.

Union of Separate Schools in Cities and Towns.

VII. If a separate school or separate schools shall have been established in more than one ward of any city or town, the trustees of such separate schools may, if they think fit, form an union of such separate schools, and, from the day of the date of the notice in any public newspaper, published in such city or town announcing such union, the trustees of the several wards shall together form a body corporate under the title of "The Board of Trustees of the Roman Catholic United Separate Schools for the city (or town) of _____, in the county of _____" L. C. Act, Nos. 27, 28, and Cir. 50.

Powers and obligations of Trustees.

VIII. All trustees elected and forming a body corporate under this act shall have the same power to impose, levy and collect school rates or subscriptions upon and from persons sending children to, or subscribing towards the support of separate schools, as the trustees of common schools have and possess under the provisions of the acts hereinbefore cited in respect of common schools; and they shall also be bound to perform all duties required of, and shall be subject to all penalties provided against the trustees of common schools; and teachers of separate schools shall be liable to all penalties provided against teachers of common schools. L. C. Act, No. 4, and Cir. 51. L. C. Act, Nos. 34, 35, 39 & 41. L. C. Act, Nos. 3 & 6. L. C. Act, Nos. 17 & 32.

Trustees' period of office and re-election.

IX. All trustees elected under this act shall remain in office until the second Wednesday of the month of January next following their election, on which day in each year an annual meeting shall be held, commencing at the hour of ten o'clock in the forenoon, for the election of trustees for separate schools theretofore established; but no trustee shall be re-elected at any such meeting without his consent, unless after the expiration of four years from the time when he went out of office. L. C. Act, Nos. 19 & 26.

Children from adjoining sections may attend.

X. All trustees elected under this act shall allow children from other school sections to be received into any separate school under their management, at the request of the parents or lawful guardians of such children, provided such children or their parents or guardians are Roman Catholics; and no children attending such school shall be included in the return hereafter provided to be made to the Chief Superintendent of Schools unless they shall be Roman Catholics. L. C. Act, No. 21.

Teachers' Certificate. Disposal of Moneys.

L. C. Act,
No. 29.

XI. A majority of the trustees in any township or village or of the board of trustees in any town or village elected under this act, shall have power to grant certificates of qualification to teachers of separate schools under their management, and to dispose of all school funds of every description coming into their hands for school purposes.

Condition of Municipal Exemption from School Rates.

L. C. Act,
No. 32.

XII. Every person paying rates, whether as proprietor or tenant, who, on or before the first day of February of any year, shall have given notice to the clerk of the municipality in which any separate school is situated, that he is a Roman Catholic and a supporter of such separate school, shall be exempted from the payment of all rates imposed within such ward or school section for the support of common schools and of common school libraries for the year then next following, and every clerk of a municipality, upon receiving any such notice, shall deliver a certificate to the person giving the same, to the effect that such notice has been given, and shewing the date of such notice; but any person who shall fraudulently give any such notice, or shall wilfully make any false statement therein, shall not secure any exemption thereby, but shall, on the contrary, be liable to a penalty of ten pounds currency, recoverable, with costs, before any Justice of the Peace at the suit of the municipality interested: Provided always, that nothing herein contained shall exempt any such person from paying any rate for the support of common schools or common school libraries, or for the erection of a school-house or school-houses which shall have been imposed before such separate school was established.

L. C. Act,
No. 17.

L. C. Act,
No. 18.

Conditions of receiving aid from Legislative Grant.

L. C. Act,
Nos. 7 & 11.

XIII. Every separate school established under this Act shall be entitled to a share in the fund annually granted by the legislature of this Province for the support of common schools, according to the average number of pupils attending such school during the twelve next preceding months or during the number of months which may have elapsed from the establishment of a new separate school as compared with the whole average number of pupils attending school in the same city, town, village or township: Provided always, that no separate school shall be entitled to a share in any such fund unless the average number of pupils so attending the same be fifteen or more, (periods of epidemic or contagious diseases excepted): Provided also, that nothing herein contained shall entitle any such separate school within any city, town, village or township, to any part or portion of school moneys arising or accruing from local assessment for common school purposes within any such city, town, village or township, or the county or union of counties within which such town, village or township is situate: Provided also, that if any separate school shall not have been in operation for a whole year at the time of the apportionment, it shall not receive the sum to which it should have been entitled for a whole year, but only an amount proportional to the time during which it has been kept open.

L. C. Act,
No. 12.

By L. C. Act
32, Dissident
schools only
receive the
rates of Dis-
sidents.

Apportionment based on half-yearly returns.

L. C. Bct,
Nos. 15 & 42.

XIV. The trustees of each separate school shall on or before the thirtieth day of June and the thirty-first day of December of each year, transmit to the Chief Superintendent of Schools for Upper Canada a correct statement of the names of the children attending such school, together with the average attendance during the six next preceding months, or during the number of months which may have elapsed since the establish-

ment thereof, and the number of months it shall have been so kept open, and the Chief Superintendent shall thereupon determine the proportion which the trustees of such separate schools shall be entitled to receive out of such legislative grant, and shall pay over the amount thereof to such trustees, and every such statement shall be verified on oath before any Justice of the Peace for the county or union of counties within which such separate school is situate by at least one of the trustees making the same.

L. C. Act,
Nos. 37, 42, &
49.
L. C. Act,
No. 42.

Trustees' election void in certain cases.

XV. But the election of any trustee or trustees made under this act shall become void unless a separate school shall be established under his or their management within two months from the election of such trustee or trustees.

Restriction as to voting at C. S. elections.

XVI. And no person subscribing towards the support of a separate school or sending children thereto shall be allowed to vote at the election of any trustee for a common school in the city, town, village or township in which such separate school is situate.

L. C. Act,
No. 28.

FROM THE COMMON SCHOOL ACT, 13 & 14 VICTORIA,
CHAP. 48.

Election of Trustees—No restriction in the selection.

VI. And be it enacted, That at every annual school section meeting in any township, as authorised and required to be held by the second section of this Act, it shall be the duty of the freeholders or householders of such section present at such meeting, or a majority of them,—

Thirdly. (A) To elect one or more persons as trustee or trustees, to fill up the vacancy or vacancies in the Trustee Corporation, according to law; Provided always, that no teacher in such school section shall hold the office of School Trustee.*

L. C. Act,
No. 47.

Foreign Books—Religious Instruction.

XIV. And be it enacted, (B) That no foreign books in the English branches of education shall be used in any model or common school, without the express permission of the Council of Public Instruction; (C) nor shall any pupil in any such school be required to read or study in or from any religious book, or join in any exercise of devotion or religion, which shall be objected to by his or her parents or guardians; Provided always, that within this limitation, pupils shall be allowed to receive such religious instruction as their parents and guardians shall desire, according to the general regulations which shall be provided according to law.

L. C. Act,
No. 45.

L. C. Act,
No. 46.

Authorized Text Books.

XXIX. And be it enacted, That it shall be the duty of each County Board of Public Instruction:

Thirdly. (D) To select (if deemed expedient), from a list of text-books recommended or authorized by the Council of Public Instruction, such books as they shall think best adapted for the use of the Common Schools of such county or circuit; and to ascertain and recommend the best facilities for procuring such books: †

L. C. Act,
No. 45.

* By the fourteenth section of the Supplementary Act, no Local Superintendent can be a Trustee in a school section; and by the sixth proviso in the fourth section of the same Act, supporters of separate schools are ineligible as Trustees of public common schools.

† The authorized text-books are those published under the direction of the Commissioners of National Education in Ireland—prepared by practical and experienced Masters.—See L. C. Cir., No. 48.

**DEPARTMENTAL REGULATIONS ON THE SUBJECT OF
ROMAN CATHOLIC SEPARATE SCHOOLS.**

- L. C. Cir.,
No. 52.
- L. C. Cir.,
No. 52.
- L. C. Cir.,
No. 57.
- L. C. Act,
No. 15.
1. When a Roman Catholic Separate School is established, as provided in the R. C. Separate School Act of 1855, 18 Vict., chap. 131, it will be necessary for the trustees to transmit the notice of its establishment, having the certificate and endorsement of the Reeve of the township, or of the Chairman of the Board of School Trustees of the city, town or village, to the Chief Superintendent of Schools, so that the Department may be apprized of the legal existence of the school, and be enabled to transmit to the trustees the necessary blanks, and also reserve a portion of the Legislative school grant for the school.
 2. When the separate schools in the wards of a city or town become united under one Board, as provided in the 7th section of the said Act, the Board of Trustees should send a copy of the newspaper containing such notice to the Chief Superintendent of Schools.
 3. The Educational Department will not be able to recognize any Roman Catholic separate school neglecting to comply with the foregoing regulations in regard to the establishment and union of such schools.
 4. Nor will any such separate school be entitled to share in the Legislative school grant, unless the half-yearly returns, required by the 14th section of the said Act, be transmitted to the Chief Superintendent of Schools within a month after the expiration of the half year to which they refer.

**CIRCULAR FROM THE CHIEF SUPERINTENDENT OF
SCHOOLS TO TRUSTEES OF ROMAN CATHOLIC
SEPARATE SCHOOLS IN UPPER CANADA.**

Dated the 18th June, 1855.

- 18 V., c. 131.
- 18 & 14 Vic.,
c. 48, § xix.
- U. C. Com.
School Act,
§ xiv, B & C.
- U. C. Act,
sec. xiv.
- GENTLEMEN,—You will herewith receive a copy of “An Act to amend the Laws relating to Roman Catholic Separate Schools in Upper Canada.” For the provisions of this Act, I am not entitled to either praise or blame, as I never saw it until it appeared in print, after its introduction into the Legislature. I have ever believed and maintained that the provisions of the law as previously existing in respect to separate schools, were conceived in a kindly feeling, and were equitable and liberal. I am so persuaded still. But these provisions of the law having been complained of by Bishops of the Roman Catholic Church, the new Separate School Act is the result—an Act, which, while it maintains our public school system inviolate, and even places it upon a firmer and broader foundation than that upon which it rested before, yet confers upon members of the Roman Catholic persuasion powers and distinctions which are not possessed by any class of Protestants in Upper Canada, and which their own Representatives would never consent to confer upon them.
2. While in our public schools, the religious rights and faith of pupils of all persuasions are equally protected, and while I am persuaded of the superior advantages of those schools in respect to both economy and all the appliances of instruction, I shall, on this very account, in addition to my obligations of official duty, do all in my power to lessen the disadvantages of those who prefer separate schools, and secure to them every right and advantage which the Separate School Act confers.
 3. I have prepared blank forms of semi-annual returns, which you are to make to me, and on the receipt of which I will determine and pay half

yearly the sums from the Legislative school grant to Roman Catholic separate schools. To enable me to do so the more readily, it will be necessary for you to appoint some person in this city to receive and give duplicate receipts for the sums payable to your school according to law. The blank power of attorney enclosed in duplicate can therefore be filled up and presented by your agent to this Department. The enclosed semi-annual returns for Roman Catholic separate schools are precisely the same as those required of the trustees of our public schools. The annual reports required from trustees of Roman Catholic separate schools, are also the same as those required from trustees of public schools.

18 Vic. c. 85,
sec. 7.
13 & 14 Vic.,
ch. 49, § xii,
cl. 19.

4. On application, I will furnish you with school registers, and herewith transmit to you also, blank returns for the first six months of the current year. I will also supply your school with maps, apparatus and libraries upon the same terms as the public schools; that is, I will add one hundred per cent. to whatever sum or sums you may forward for such maps, apparatus, or library books as you may select from the descriptions and general catalogues of the department.

5. The several clauses of the Separate School Act are clearly and simply expressed; but should any doubts arise as to your duties or proceedings, I shall be happy to give you every information in my power.

6. As the 14th section of the Act referred to, requires me to base the apportionment of each six months, upon the semi-annual returns of the previous year, and as I am anxious to ensure the utmost correctness in making the apportionment for the current year, I will thank you to have the kindness to fill up and return, to this Department, the enclosed blank return, relative to school attendance of last year. The information is not in the possession of this Department, but it can be easily compiled from the school records in your possession.

U. C. Act,
sec. xiv.

The Law relating to Dissident Schools in Lower Canada.

(Taken from the School Acts.)

9TH VICTORIA, CHAPTER 27.

How to establish Dissident Schools.

XXVI. And be it enacted, (1) That when in any [Sch.] municipality the regulations and arrangements made by the School Commissioners for the conduct of any school, shall not be agreeable to any number whatever of the inhabitants professing a religious faith different from that of the majority of the inhabitants of such municipality, the inhabitants so dissentient may collectively signify such dissent in writing to the Chairman of the said Commissioners, (2) and give in the names of three Trustees, chosen by them for the purposes of this Act; (3) and such Trustees shall have the same powers and be subject to the same duties as School Commissioners; (4) but for the management of those schools only which shall be under their control; (5) and such dissentient inhabitants may, by the intervention of such trustees, establish in the manner provided with regard to other schools, one or more schools, (6) which shall be subject to the same provisions, duties and supervision; (7) and they shall be entitled to receive from the Superintendent (a) or from the School Commissioners, such sum out of the general (b) or local school fund as shall be proportionate to the dissentient population they represent; (8) Provided always, that whenever the majority of the children attending any school now in

References to
Upper Canada
Acts, Circulars
& Instructions.

1 and 2 not in
U. C. Act.

3, 4, 5, and
part of 6 in U.
C. Act, § viii.

Supervision,
(6) not in U.
C. Act.

7 (in part) and
8, not in U. C.
Act.

9 in U. C.
Act, § xiv.

10 in U. C. Act,
§ xiii.

operation, and the school-house, shall belong to or be occupied by such dissentients, the said school-house shall be continued to be occupied by them so long as the number of children taught in such school shall amount to the number required by this act to form a School District (9) and the entire amount of moneys raised by assessment on such dissentients shall be paid to the trustees of such school, together with a due proportion of the building fund.

9 in U. C. Act § viii, power to tax vested in R. C. Trustees.

Conditions of receiving aid.

10 in U. C. Act, § xiii.

XXVII. And be it enacted, (10) That to entitle any school to its allowance out of the general or local school fund, it shall be requisite and sufficient that such school has been under the management of School Commissioners or [Dissentient] Trustees appointed in the manner provided by the next preceding section, (11) that it has been in actual operation during at least eight calendar months, (12) that it has been attended by at least fifteen children (periods of epidemic or contagious diseases excepted), (13) that the returns have been certified to the School Commissioners or Trustees, (14) that a public examination of the schools has taken place, (15) that a report signed by the majority of the School Commissioners or Trustees, and by the master, has been transmitted to the Superintendent of Schools, according to the form prescribed by him for that purpose, every six months, that is to say, before the first day of July, and the first day of January, in each year, (16) and finally, that a sum equal to the allowance made by the Legislature for the Municipality has been raised as hereinbefore provided.

11 not in U. C. Act.

12 in U. C. Act, § xiii.

13 & 14 not in U. C. Act.

15 in U. C. Act, § xiv.

16 not in U. C. Act.

Penalties for false returns.

17 in U. C. Act, § xii.

XXVIII. And be it enacted, (17) That if any School Commissioner or [Dissentient] Trustee, or other person, shall make any false certificate or return, by means of which he may have fraudulently obtained or sought fraudulently to obtain money from the public school fund, such commissioner, trustee or other person, shall not only restore the money so obtained, but shall also incur a penalty not exceeding ten pounds currency, nor less than two pounds ten shillings, which shall go to the local school fund, and which shall be recoverable at the suit of any person having an interest in the right administration of the common schools, on the oath of one credible witness, and before any Justice of the Peace; (18) and if such penalty be not paid within ten days after judgment, it shall be levied, with the cost of suit and of sale, by seizure and sale of the goods and chattels of the defendant under the warrant of such Justice of the Peace, and in default of sufficient goods and chattels, the defendant may be committed to the common gaol, and detained therein one day for each three shillings of the amount of the fine and costs, or of the balance which may be due.

18 not in U. C. Act.

Election restrictions—Children from other districts.

19 & 20 not in U. C. Act. See § ix.

21 in U. C. Act, § x.

22 not in U. C. Act.

23 in U. C. Act, § xvi.

XXIX. And be it enacted, (19) That the trustees of dissentient minorities shall also be elected for three years, (20) except that at the end of each of the two first years one of the Trustees shall retire and be replaced or re-elected by such dissentients; (21) children from other school districts, of the same faith as the dissentients for whom the school was established, may attend the same whenever such dissentients shall not be sufficiently numerous in any district to support a school alone; (22) Provided that the individuals of the dissentient minority shall not be elected nor serve as School Commissioners, (23) nor vote at the election of the School

Commissioners; (24) and that in like manner the individuals of the 24 & 25 in U majority shall not be elected nor serve as School Trustees, (25) nor vote C. Common at their election. School Act.

Restriction as to Visitors.

XXXIII. (26) No Priest, Minister, or Ecclesiastic shall be entitled to 26 in U. C. visit any school belonging to any inhabitants not of his own persuasion, Com. School except with the consent of the Commissioners or Trustees of such school. Act by Depart. Construction.

School Corporations in Quebec and Montreal.

XLII. And be it enacted, (27) That in Quebec and Montreal the 27 not in U. C. corporation shall appoint twelve School Commissioners (if they have not Act, but § vii already been named under the authority of the Act passed in the last authorizes City Boards. Session of the Provincial Parliament concerning Elementary Education), six of whom shall be Roman Catholics and six Protestants; and such Commissioners shall form two separate and distinct corporations, the one for Roman Catholics and the other for the Protestants, and one-half of each of the said corporations shall be renewed annually by the said corporation.

Examiners in Québec and Montreal for granting Certificates.

L. And be it enacted, (28) That there shall be in each of the cities of 28 not in U. C. Quebec and Montreal, a Board of Examiners composed of fourteen persons Act, but § xi. chosen in as fair and equitable a manner as possible from among the authorizes li- different religious denominations, the members of which Board shall be censing of appointed by the Governor in Council through the Superintendent of teachers. Schools, and of whom one-half shall consist of Roman Catholics, and one-half of Protestants, and who shall compose a Board of Examiners, (29) to 29 in U. C. examine teachers, and to deliver or refuse to each, as the case may require, Act, § xi. a license or certificate of qualification, after due examination; (30) and 30 not in U. C. the said board shall be divided into two divisions, one of which shall be Act, but provi- composed of seven Roman Catholics, and the other of seven Protestants, ded for in § xi. each of which division shall separately perform the duties hereinafter imposed upon them: (31) Provided nevertheless, that every Priest, § 1 not in U. C. Minister, Ecclesiastic, or other person forming part of a religious com- Act, but such munity instituted for Educational purposes, and every person of the examination may be dis- female sex, shall be in every case exempt from undergoing an examina- pensed with tion before any of the said Boards; and provided also, that neither the under § xi. possession of a certificate of examination before one of the said Board, nor any exemption from examination, shall oblige the School Commis- sioners or Trustees to accept a teacher who does not suit them. [These Boards have been since increased.]

12TH VICTORIA, CHAPTER 50.

Assessment for Dissident Schools, Fees, Grant, &c.

XVIII. And be it enacted, That any thing in the twenty-sixth section of the said above cited Act, or in any other part of the said Act contained to the contrary notwithstanding, (32) whenever the Trustees of Dissident 32 not in U. C. Schools shall have been chosen and shall have established one or more Act, but vir- dissentient schools, in any School Municipality, and the said Trustees tually provi- shall not be satisfied with the arrangements antecedently made by the VIII, and XII. School Commissioners of the said Municipality relative to the recovery and the distribution of the assessment, they may, by a written declaration § xii points out to that effect, address to the President of the School Commissioners, at how R. Catho-

- lics can be exempted from Com. School rates which by § viii, the R. O. Trustee can collect.
- 83 in U. C. Com. School Act, and by § viii applicable to R. Catholic Sep. Sch. Act.
- 84 included in U. C. Act § viii.
- 85 in U. C. Act, § viii.
- 86 in U. C. Act, § vi.
- 87 in U. C. Act, § xiv.
- No Building Fund in U. C.
- 88 not in U. C. Act.
- 89 in U. C. Act, § viii.
- 40 not in U. C. Act.
- 41 not in U. C. Act, but § viii authorises necessary rates to be levied by R. C. trustees.
- 42 in U. C. Act, § xiv. Repealed by 18 Vic, c 14, § v.
- No Building Fund in U. C.
- least one month before the first day of January or July, in any year, acquire the right of receiving themselves, for the following and all future years during which they shall continue to be such Trustees of dissentient schools, according to law, the assessment levied on the inhabitants so dissentient, who shall have signified their dissent in writing conformably to the said above cited Acts, or who shall hereafter signify the same at the times and in the manner hereinbefore provided, (33) and the said Trustees shall in such case be entitled to obtain a copy of the assessment in force, of the list of children capable of attending school, and of other documents in the hands of the School Commissioners or of the Secretary-Treasurer, and connected with the future government of dissentient schools; (34) the said Trustees may and shall also receive the amount of the monthly fees, payable in respect of the children of such dissentient parent or masters, (35) and may institute all suits or prosecutions, and do all other things necessary for the recovery of the said assessments and monthly fees; and they, (36) the said Trustees, shall be a corporation for the purposes of their own dissentient schools and School District, (37) and shall be entitled to receive from the Superintendent shares of the General School Fund bearing the same proportion to the whole sums allotted from time to time in such Municipality as the number of children attending such dissentient schools bears to the entire of children attending school in such Municipality, at the same time, and a similar share of the Building Fund; (38) and the said Trustees shall have the right to constitute their own School Districts independently of the School Districts established by the Commissioners aforesaid, (39) and shall have the same rights and shall be subject to the same duties and penalties as the said School Commissioners, in respect of the collection and application of the moneys by them received, of the rendering and examination of their accounts, and of all other matters whatever in reference thereto, (40) and may be removed and others appointed by the Governor in Council, or by the Superintendent of Schools in all those cases in which School Commissioners are liable to be so dealt with; (41) Provided always, that if after such declaration of separate management, there should be no subsisting assessment, or if the assessment should not appear to them a proper one, the said Trustees may, in the months of July and August of each year, proceed to make such assessment for the future, conformably to the said Act upon the inhabitants so dissentient as aforesaid; (42) And provided also, that the said Trustees shall be, and they are hereby held to furnish to the Superintendent a written statement, *under the oath of at least two of them*, of the number of children attending such dissentient schools at least one month previous to the said first days of January and July, to enable the said Superintendent to make the proper apportionment of the said General and Building Funds.

13 & 14 VICTORIA, CHAPTER 97.

Government Inspectors of Schools.

- III. That it shall be lawful for the Governor to appoint, from time to time, and for such period as he shall deem necessary, in each of the districts of Lower Canada, one or more competent persons as Inspectors of Common Schools therein, whose duty it shall be to visit each school municipality in the district or section of a district for which he shall be appointed, (43) to examine the schools, school teachers and school houses therein,—to
- III. not in U. C. Act. See L. C. Instructions, Nos. 58 and 60. 43 not in U. C. Act.

inspect the accounts of the Secretary-Treasurer and the Register of the School Commissioners of every such municipality,—and generally to ascertain whether the provisions of the existing school laws are there carried out and obeyed.

Municipal aid to Schools in Quebec and Montreal.

IX. (44) That in the cities of Quebec and Montreal no rate shall be imposed or levied for the purpose of common schools, but that the City Treasurer of each of the said cities shall, out of the moneys in his hands forming part of the funds of the Corporation of such city, from whatever source such moneys are derived, (all laws or rules or by-laws of the Council of such Corporation to the contrary notwithstanding,) pay to the respective Boards of School Commissioners of such city, and in proportion to the population of the religious persuasion represented by such Boards respectively, a sum equal in amount to that apportioned to such city out of the Common School Fund, to be employed by and for the purposes of the common schools, under the direction of such Boards of School Commissioners respectively.

⁴⁴ not in U. C. Act. The power of collecting rates is vested in the R. C. Trustees, § xiii.

9TH VICTORIA, CHAPTER 27.

Text Books—Religious Instruction.

XXI. And be it enacted, That it shall be the duty of the School Commissioners in each municipality—

Fifthly. (45) To regulate the course of study to be followed in each school,—to provide that no other books be used in the schools under their jurisdiction but those approved and recommended by the Board of Examiners hereinafter established,—and to establish general rules for the management of the schools, and to communicate them in writing to the respective teachers,—to fix the time of the annual public examination, and to attend at the same; (46) Provided that the curé, priest, or officiating minister shall have the exclusive right of selecting the books having reference to religion or morals, for the use of the schools for children of his own religious faith.

⁴⁵ in U. C. Com. Sch. Act, sec. xiv. at B.

⁴⁶ not in U. C. Act, but Sect. xiv. Com. Sch. Act at C includes it.

12TH VICTORIA, CHAPTER 50.

Eligibility of Clergymen as Commissioners.

VI. And be it enacted, (47) That the clergymen of all religious denominations in each school municipality shall be eligible to be such Commissioners without any property qualification; any law or statute to the contrary notwithstanding.

⁴⁷ not in U. C. Act, but Sect. vi. places no restriction on the choice of the electors.

CIRCULAR OF THE SUPERINTENDENT OF EDUCATION FOR LOWER CANADA.

Dated the 15th June, 1856.

(48) In those localities where a difference of religious belief exists, it is of importance that the books employed for the purpose of inculcating principles of morality and religion, should contain nothing having relation to any faith in particular. I conceive it, therefore, my duty to recommend the adoption for the use of schools of the books which, under similar circumstances are employed in the schools in Ireland. These are certainly according to general belief the best books that could be used in the common schools for the purpose of imparting to children of different religions the requisite degree of instruction.

⁴⁸ provided for in U. C. Com. Sch. Act. Sect. xxix, at D.

U. C. Cir. 2.

- 49 in U. C. Act, § xiv. (49) It must be understood that dissentient schools are only entitled to a share of the school grant proportionate to the number of children between the ages of 5 and 16 years, who have attended to school and belonged to dissentient inhabitants within the scholastic municipality. See 18th clause of the Act 12 Vic. ch. 50.
- 50 in U. C. Act, § iii. (50) Dissentient schools should be in all cases governed by three trustees named for the purpose by the dissentient inhabitants, as was done under the last Act. There ought to be but one body of trustees for all the dissentient schools in each scholastic municipality.
- 51 in U. C. Act, § viii. (51) The trustees of the dissentient schools have the same duties to fulfil and the same powers to exercise as the Commissioners for the government of schools under their control. See 26th clause of the Act 9 Vict. ch. 27, and the 18th of the Act 12 Vict. ch. 50.
- 52 in U. C. Dep. Reg. 1. (52) They ought to report to this office respecting the schools under their control at the same period as is designated by law for the performance of that duty by the School Commissioners.
- 53 included in U. C. Act, § viii. (53) They ought also to render an account of the manner in which they have expended that part of the Government grant placed at their disposal.
- 54 included in U. C. Act, § viii. (54) They should exact from the teachers the keeping of a journal similar to that required from the teachers of schools under the control of the Commissioners.
- 55 same in U. C. Act. (55) It will be observed, however, that the 21st clause of the Act 9 Vict. ch. 27, placing at the disposition of School Commissioners all the lands and school houses acquired, given to, or erected under the authority of former Education Acts or of the present Act, gives no power or right to the trustees of dissentient schools to demand the use or possession of the like property, unless they were in possession of the same at the time of the passing of this Act.
- 56 not in U. C. Act. (56) The present Act authorizes the establishment of dissentient schools only upon the ground of religious difference, and to the inhabitants only forming the minority.
- 57 in U. C. Dep. Reg. (57) In all their communications with this office, the trustees of dissentient schools will be governed by the same rules as the School Commissioners.

Instructions to Inspectors of Schools.

- 50 not in U. C. Act. (58) The School Inspectors, according to the true intent of the Act 14 and 15 Vict., cap. 97, will visit all the schools in operation in the school municipalities within the limits of their respective jurisdiction.
- 59 not in U. C. Act. 3. (59) The Inspectors will also specify whether the schools are held under the control of the School Commissioners, or under that of the dissenting trustees, if they are common schools frequented by children both of Catholic and Protestant parentage, if they are mixed schools, frequented by children of both sexes, without distinction either of origin or religion.
- 60 not in U. C. Act. 17. (60) The Inspectors will visit all the school houses built under the control of the Commissioners of Schools, or of the dissenting trustees, as well as the lands upon which they are situated, &c.

J. G. H.,
D'y. Supt.

The following is from the 19th Vict., chap. 14, (L. C.):

- 61 in U. C. Act, § viii. See No. 33. "V. After the first day of July, 1856, the trustees of dissentient schools shall alone have the right of fixing and collecting the assessments to be levied on the inhabitants so dissentient." (61.)

EDUCATION OFFICE, Toronto, March, 1858.

APPENDIX B.

STATEMENT of the gross amount appropriated by Municipalities and School Sections and apportioned from the Legislative Grant for School Libraries, and of the value and number of the volumes supplied, from 1853 to 1857 inclusive.

Year.	Appropriated by Municipalities.	Legislative Grant.	Value of the Books dispatched.*	Number of Volumes.
	£ s. d.	£ s. d.	£ s. d.	
1853 and 1854.....	6420 14 10	6515 14 10	12844 1 2	100164
1855.....	1217 12 10	1217 12 10	2486 15 9	16578
1856.....	920 5 4	920 5 4	1818 19 1	13701
1857.....	2057 10 4	2057 10 4	4115 0 8	29833
Total.....	£10,616 3 4	10,711 3 4	21,264 16 8	160,296

* Exclusive of the text and prize books, Mechanics' Institutes, &c.

NOTE.—The amount apportioned from the Legislative Grant exceeds that appropriated by Municipalities by £95. This sum is composed of special grants to Ramsay (£70) and Harwick (£25) in consideration of the amount previously raised by the former Township for library purposes, and to assist the latter in replacing a library supplied by the Department, but destroyed by fire.

The local appropriations amount to	£10,616 3 4
Legislative appropriation	10,711 3 4
	£21,327 6 8
Value of Books dispatched	21,264 16 8
	£62 10 0

APPENDIX C.

STATEMENT of the Maps and Apparatus supplied to Public Schools in Upper Canada, during the years 1855, 1856, and 1857 respectively.

	Moneys.		Maps.										Apparatus.							Sheets of Object and Tablet Lessons.			Miscellaneous.							
	Local Contribution.	Legislative Appropriation.	Total.	World.	E. or W. Hemispheres.	Europe.	Asia.	Africa.	America.	Canada.	British Isles.	Classical and Scripture.	Other Maps and Mounted Charts.	Globes of various sizes.	Complete sets of Hobbes's Apparatus.	Orrites.	Tellurians and Lunarians.	Numeral Frames.	Geometrical Forms and Solids.	Other Sch ^l Apparatus *	Meteorological Apparatus.	Natural History and Phenomena.	Scriptural History.	Other Object Lessons.	National Tablet Lessons.	Other Tablet Lessons.	Prints & Rules. (Sheets).	Number of Volumes of Prize Books.	Various articles.*	
1855.....	£ s. d.	£ s. d.	£ s. d.	5 16	672	545	662	595	704	814	806	449	1545	412	66	35	40	161	1152	502	7	sets.	16035	6398	2346	16666	2927	4447	2557	1492
1856.....	11 65	2 11 65	2 23 80	4 136	267	266	201	185	222	277	196	78	192	103	14	10	15	40	81	141	.....	5046	1480	316	4726	941	791	.....	959
1857.....	2864	15 8 1/2	2864 15 8 1/2	5 245	405	487	333	316	376	421	515	830	866	271	38	20	17	95	1057	3287	sets.	6899	3818	2002	7240	1686	3396	2557	331	
Total for 3 years	4011 16 8 1/2	4011 16 8 1/2	8023 13 5	516	672	545	662	595	704	814	806	449	1545	412	66	35	40	161	1152	502	7	sets.	16035	6398	2346	16666	2927	4447	2557	1492

* Philosophical Apparatus, and other articles not enumerated.

† A set of Meteorological Instruments, &c., consists of—
 1 Self-Registering Maximum Thermometer,
 1 Minimum Thermometer,
 1 Standard Barometer,
 1 Hygrometer,

Bain Gauge,
 Register Meteorology,
 Glaisher's Hygrometrical Tables,
 Record Book,
 Book of Instructions,
 Abstract Book
 Plan of Stars, &c.

APPENDIX D.

PETITION OF CERTAIN BOOKSELLERS, STATIONERS, AND NEWSPAPER VENDERS IN UPPER CANADA, AGAINST THE EDUCATIONAL DEPOSITORY, WITH REMARKS IN REPLY TO THEIR STATEMENTS.

“ To the Honorable the Legislative Assembly of the Province of Canada, in Provincial Parliament assembled :

“ The Petition of the undersigned Booksellers of the Province of Canada,

“ HUMBLY SHEWETH,—

“ 1. That their lawful trade is seriously injured by the interference of your Chief Superintendent of Education with many of its principal branches, through his manner of working the Educational Depository attached to his department by the law, and that the injury threatens to increase indefinitely in the future.

“ 2. That the said Chief Superintendent does not confine himself even to the sales sanctioned by law, but seeks, on his own authority, to engross the supply of all libraries, of whatever kind, in the province; and also of the school book trade generally, for private as well as public schools, having no power by statute to do so.

“ 3. That there exists in no other country such a monopoly, nor are there such fetters set on any other trade in this province.

“ 4. That our trade throughout the province is perfectly competent to supply the public wants in our department of commerce, and that therefore the Depository is a useless burden on the public purse, besides being confessedly a violation of the fundamental principles of political economy and of the social compact.

“ 5. That the growth of the book trade is of vital importance to the development of any people; and that, therefore, whatever unjustly or unnecessarily depresses and cramps it, is an injury to the State, at once in its intellect and heart.

“ 6. That while the Chief Superintendent professes to furnish libraries at a great saving to the public, they are not sold lower than your petitioners continually supply similar wholesale orders, though they live by the profits, and have to pay rents, salaries, and taxes; while the Chief Superintendent has no profit to make and no burdens to bear.

“ 7. That on these grounds, among others, affecting at once the economical use of the public money, the literary progress of Canada, and the great rights of commerce, your petitioners would humbly pray that it may seem good to your Honorable House to cause an inquiry to be made into the scheme and operations of the said Educational Depository in all its branches.

“ And your petitioners, as in duty bound, will ever pray.

“ Thompson & Co., Andrew H. Armour & Co., John C. Geikie, Magnus Shewan, Eastwood, Woodall & Co., James Bain, Henry Rowsell, T. Maclear, Charles Fletcher, Patrick Doyle, Wyman & Co., Wm. G. F. Smart, A. W. Bostwick, John Edward, Toronto; W. Warwick, J. W. Sherwood, Woodstock; Thos. Pritchard, Norwich; J. McMullen, Henderson & Wylie, Brockville; R. & W. Reid, Taylor & Wilson, James Gillean, London; John Duff, John Creighton, T. W. Robinson, Kingston; D. Howell, J. Chapman, W. March, D. Hume, Galt; James C. Ansley, Morice Hay, Port Hope; Henry Allan, Jas. Pringle, Cobourg; P. C. Allan, Guelph; R. & H. O'Hara, J. & M. Climie, G. Stoughton, J. Strachan, Bowmanville; Holt & Angell, J. & S. Kneeshaw & Co., Richard R. Donnelly, D. McLellan, Gentry & Brown, Gillespie & Robertson, Geo. Barnes & Co., James Buntin & Co., Hamilton; Michael Brown, Thomas Evans, Andrew Hudson, Brantford.”

Remarks on the foregoing Petition.

After the Secretary of a Toronto Booksellers' Association, has canvassed Upper Canada, it appears that the names of forty-eight booksellers, stationers and newspaper venders (for such appear in the above list) out of the names of some three or four times as many persons engaged in the same branches of business in Upper Canada, have been induced to sign a petition, the truth of the statements in which most of the signers could know nothing, and which statements are contradicted by another memorial, signed by some of the largest booksellers in Toronto (see page 46), who are equally alive to their own rights and just interests as the signers of the above memorial; but who have also regard to interests beyond their own. But, I will notice the statements of the memorial in the order of the paragraphs, which I have numbered for reference.

1. How far there is any truth in the first paragraph of the petition, the pages of the preceding report will show.

2. The different statements in the 2nd paragraph may be noticed separately. It is alleged that I "seek to engross the supply of all libraries, of whatever kind, in the Province." This is not true. I have declined supplying private libraries, as well as private individuals, with books. To no other libraries whatever, except those of the Municipalities and School Sections, have I made any apportionment of the Legislative Library appropriation; but I have supplied library books to those institutions which are aided by Parliamentary grants, such as Mechanics' Institutes; but to these I have made no apportionment. I have simply allowed them, on their own application, to get books for their libraries from the Depository of the Public School Department, because Parliament has recognized them as public institutions, by granting them aid out of the public revenue to procure books. It remains to be seen whether Mechanics' Institutes have not a right to procure books for their libraries at a public department with public money, or whether I would be justified in refusing them that privilege, and subject them to individual speculation in the expenditure of money granted by Parliament.

But if the managers of these valuable institutes, which have become a part and parcel of the public institutions of the country, could obtain the books they desire of these complaining booksellers, at the low prices alleged in the petition, would they come for that purpose to the Department of Public Instruction, which makes no appropriation or abatement of prices to "engross" the supply of their libraries? The petitioners assert also that I seek to "engross the *School Book Trade generally*, for Private as well as Public Schools." Now, the preceding (18-33) pages of this report shew, that instead of there being any truth in this statement of the petitioners, I have desired to have nothing to do with the "*School Book Trade generally*," but have procured for private Canadian publishers the privilege of reprinting the books recommended for the Schools generally, have encouraged them to provide these books for the schools, — which is done by them throughout the length and breadth of the land. What is not a little remarkable is, to see attached to this petition the names of firms, in which large sums have been annually realized from the printing and sale of books for the "*school book trade generally*," the right to print which I had procured for them, and the standard copies after which to print I had furnished to them. The extent of my seeking to "engross the school book trade *generally*" has been, in addition to aiding and encouraging the reprint and sale by Canadian Publishers and Booksellers of the National series of Text-books, to secure School Trustees and parents of pupils against reprints of inferior quality and at exorbitant prices; and this I did by publishing the prices at which and the means by which the original editions of the Irish National Books could be imported from Dublin. The effect of such notices and publications was, to secure good re-

* A list of the Mechanics' Institutes supplied with books from the Public Library Depository, will be found on page 70.

prints of the National books and at moderate prices. A specimen of the inferior quality and errors of school books which some of the signers of this petition used to sell "to the School Book Trade generally" and to parents of School children in particular, and the high prices at which they sold them, in comparison of the quality and correctness and prices of the same books published and sold by these same firms now-a-days, would be ample to explain the cause of their zeal in getting up this petition, and in soliciting others to sign it, while it would show some of the advantages which the country at large has derived from proceedings on my part for which I am assailed in this petition. As to my having sought to "engross the supply of private Schools with books," it is also a mistake, though I have allowed the heads of private Ladies' Schools to procure, at full prices, Maps, Globes and apparatus for their schools, and that for the reasons that such schools had not been provided for in the School Law, though of the greatest importance to the community,—that such articles could not be procured elsewhere, and that they were designed for whole classes at School, and not for the mere benefit of individuals. But I do not permit pupils of either private or public Schools or Colleges to procure Text-books at the Public Depository, except under the written declaration that they cannot obtain them in the city. In regard to the Grammar Schools of the country, the necessity of being able to supply the Text-books recommended to be used in them, and required by the regulations, was even stronger than that for being able to supply copies of the Dublin editions of the National School books on their first recommendation for use in the Common Schools; but the sales by the Educational Department of that class of these books from which certain signers of this petition have stated in the newspapers to be the principal source of their profit, as stated in a note on the 47th page of the preceding report, amounted for the year 1857 to the sum of £197 19s. 3d.,—a fact sufficiently illustrative itself of the truth and reason of the statements and complaints of these parties.

3. The third paragraph of the petition is amply refuted by what has been shown in the preceding report, pp. 27-33, to have been done, and to be still doing, in Great Britain and Ireland, and in several of the neighboring States.

4 & 5. The preceding Report, pp. 41-49, shows how far and in what manner the public wants of Municipalities and School Sections in regard to Libraries are supplied by the ordinary book trade in the State of New York, as also how such wants would have been or would be supplied in Upper Canada without the Department of Public Instruction; and likewise to how great and unprecedented an extent the book trade has been developed since the operation, if not largely through the instrumentality, of the Educational Department.

On the important questions of "political economy and the social compact," I may remark that in Great Britain, and in several of the American States, where Government has gone further to supply public libraries than in Upper Canada, "the fundamental principles of political economy and of the social compact" are quite as well understood as among the newspaper venders, stationers, and booksellers whose names are attached to this petition. It is probably the first time in Canada, or in any other country, that forty eight men, professedly learned in the science of government and of the rights of man, discovered "the fundamental principles of political economy and of the social compact," which deny to a public school corporation or municipality, or government itself, the right to buy a book except from a private bookseller, and that at his price and convenience! According to this new article of the "social compact" and this new doctrine of "political economy," the bookseller is supreme, and the body politic—whether of a school section, or a township, or a town, or a city, or a country—is his humble servant! To others than these forty-eight petitioners it might seem an essential principle of the social compact that government exists to promote the interests and happiness of the greatest number, and not merely of a bookseller at the expense of the community; and that it is a sound principle of political economy that School Corpora-

tions and Municipalities, any more than private individuals, should not pay two dollars to one man for a book when they can get it at a dollar and a half of another man; that they should provide the instruments of instruction and of intellectual improvement for their constituencies in the cheapest and best manner possible, and that Government should enable them to do so. This is the whole theory of the library and school-map and apparatus Depository in connexion with the Department of Public Instruction for Upper Canada.

6. In the sixth paragraph of the petition it is said, "That while the Chief Superintendent professes to furnish libraries at a great saving to the public, they are not sold lower than your petitioners continually supply similar wholesale orders." This statement, though without proof, does not admit of so easy a refutation as some others contained in the petition, because none of the petitioners has a fourth of the books recommended and provided for public libraries, others of them have few or none of those books, and not one of them furnishes the public with a printed catalogue of his books and their "wholesale" prices; whereas the Educational Department has given the utmost publicity to the prices as well as titles of the public library books. But I have to offer the following remarks in reply to this statement. The same number of the *Globe* newspaper which publishes this petition, contains book advertisements from two of the signers of the petition and the sole getters up of it, and those advertisements give the titles and *their* prices of several books contained in the Public Library Catalogue. One book advertised by them at \$3.50 per copy, is furnished to the school and Municipal Corporations for a public library at \$2.90 per copy, and another edition of the same work at two dollars per copy. A series of books advertised by them at \$1 per volume, is furnished by the Educational Department for public libraries at 70 cts. per volume; and another series, advertised at \$1.50 per volume, is furnished for public libraries at \$1 per volume. Such booksellers may very well seek to abolish the public library Depository! They may now and then sell an auction-bought or trade-sale book at a very low price; or to attract business, or answer a particular purpose, they may offer certain well-known books at very low prices; but their own printed advertisements (as they publish no catalogues) are the only sure, though, of course, for them, the most favorable rule of judging as to the truth of this statement of their own petition; for it may be fairly presumed that the books, the prices of which they do not publish, are not lower—more probably higher—than those which they do publish. It will not be pretended that books are sold cheaper in the interior towns of Canada than at Toronto, nor that the authors of this petition will reduce the prices of their books *one third* when selling fifty, twenty, or ten pounds' worth for a library, and pack the books, furnish the paper to cover them, and library labels, &c., and deliver them at the railway station free of charge, as does the Educational Department, and that to the poorest and most remote school section which sends five dollars, upon the same terms and in the same manner as to the municipality sending five hundred dollars.

2. My second remark is, a comparison of catalogues will show that the books are supplied by the Educational Department for public libraries in Upper Canada at considerably lower prices than they are sold to the public where they are published, either in Europe or America.

3. As stated on the 41st page of the preceding Report, the prices at which the Superintendent of Public Instruction in the State of Indiana reports his having bought at New York at one time books to the value of upwards of \$150,000 for 690 Township Libraries in that State—each Library consisting of 321 volumes, and of the same books; so that there were purchased 690 copies of each book. The bill of one bookseller amounted to \$115,986.53. Books purchased in such quantities each, and to such an amount at one time, should be procured at very low prices. Yet the prices at which these books are reported to have been pur-

chased by wholesale in New York, are on the average higher than the catalogue prices at which the same books are supplied in the smallest quantities by the Educational Department to the most remote School Sections in Upper Canada.

4. My fourth remark is, that I have no other interest or wish different from that of School and Municipal Corporations which procure the libraries; I cannot derive any personal advantage from the dearness or cheapness of the books; my only interest as well as my ambition is to procure for the Public Libraries a variety of the best books at the lowest prices possible. But I may add, that though the cheapness of books for the Public Libraries is an important consideration, it is still more important to provide for the careful selection of good books, and to provide against the imposition upon local School Sections of pernicious or worthless books. This cannot be done without an official selection of books, the publication of an official catalogue of them, provisions for supplying them, and for preventing the expenditure of the public money for the purchase of other than the books included in the catalogue. In the State of New York, where a selection of library books was recommended by State authority, but no similar State provision made to give effect to that recommendation, the public money has been largely diverted and misapplied, as stated by the State Superintendent in his last Annual Report, quoted on the 42nd page of the preceding report, and the library system there has proportionably declined and fallen into disrepute. I have been informed by a person of much practical knowledge of the book trade in the State of New York, that it is quite a business there with many booksellers to rid themselves of their unsaleable books by getting them bought for the school libraries. This they do through their agents in different ways. Sometimes they impose upon trustees who have not the information or the means of informing themselves as to the nature and real value of such books. At other times, copies of certain books are presented to the agent of the trustees, or to individual trustees themselves, on the condition of, and as an inducement to, their purchasing the books offered for their school district library,—the same as the Annual School Reports show how the agents of school book publishers get their books adopted and introduced into Schools by presenting some of them to the teacher or principal, or allowing him a certain per centage on the amount of their books sold for the use of the School. It is wonderful to what an extent this system of book-selling is carried on in the neighboring States; and it would probably aid some of the Toronto and other signers of this petition to reduce, if not “clear off” the “dead stock” of their school and other books at the expense of School Sections and Municipalities, did corresponding facilities for doing so exist in Upper Canada as in the State of New York. Hence their attacks upon the Educational Department for the protection as well as assistance it affords to Municipalities and School Sections against such a system of imposition and extortion.

7. But while I feel it my duty thus to expose the statements and objects of this petition, I entirely agree in its prayer, that the Legislative Assembly would “cause an enquiry to be made into the scheme and operations of the Educational “Depository in all its branches,”—desirous as I am to remedy any defects, and to make any improvements which may be discovered or suggested by the most careful investigation of disinterested parties,—convinced as I am that I have been too reluctant, rather than too willing, to meet cases of private schools in regard to certain articles which never have been and never would be otherwise accessible to them; and satisfied as I am, from the experiments and examples of other educational states and countries, as well as from the nature of the work, either that nothing at all should be done by Government in reference to the introduction into the schools and municipalities of school-maps, apparatus, and libraries, or provision must be made to supply them similar to or in advance of that which has been established by the Educational Department of Upper Canada.