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BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE,

MONTREAL MEETING,

August 27th to September 3rd, 1884.

P80 9

REPORT
ON CONVEYANCE.

[FOR EUROPEAN CIRCULATION.]

MONTREAL:

PRINTED BY THE GAZETTE PRINTING COMPANY.

1884.

(See pp. 20-64)

P80-

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(77)

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

MONTREAL MEETING, Aug. 27th to Sept. 3rd, 1884.

CITIZENS' COMMITTEE.

MR. THOS. WHITE, M.P., Chairman.	|	MR. E. J. BARBEAU, Treasurer.
MR. S. C. STEVENSON, Rec. Secy.	|	DR. B. J. HARRINGTON, Cor. Secy.

EXECUTIVE COMMITTEE.

MR. HUGH McLENNAN, Chairman. | MR. J. D. CRAWFORD, Gen. Secy.

OFFICES OF THE CITIZENS' EXECUTIVE COMMITTEE.

MOLSONS BANK CHAMBERS,
198 ST. JAMES STREET, MONTREAL.

All communications for Canada should be addressed to

MR. J. D. CRAWFORD,

GENERAL SECRETARY,

MONTREAL, CANADA.

POST OFFICE BOX 147.

INTRODUCTORY NOTE.

The substance of pages 5-19 has already been communicated to members through the medium of the Council's circular issued from the London office of the Association in February last, and which was compiled from information furnished by the Special Committee on Conveyance. This matter is re-printed, with additions and maps, for the use of members while on their outward journey, and more particularly for those who may choose the Halifax route. The Guide Book to the Dominion will be ready for distribution to members on their arrival in Montreal.

It is recommended by the Conveyance Committee that visiting members should reach Canada in July or early in August, taking their long excursions prior to the meeting and thereby more fully availing themselves of the liberal offers of free conveyance over the Canadian Pacific and Dominion railways.

The Halifax route is strongly recommended together with a leisurely excursion, while *en voyage* to Montreal, through the Acadian provinces of the Dominion.

Rimouski station on the Intercolonial Railway, 190 miles below Quebec, is the summer port-of-call of the Canadian Royal Mail Steamships from Liverpool to the St. Lawrence. Here the mails are landed, and passengers by this route may disembark to journey eastward through the Acadian provinces, or westward towards Montreal. Seventy-five miles distant by rail in a westerly direction is Rivière-du-Loup station, a well-known sea-side resort, and a stopping place for the Saguenay steamers.

The American Travelling Certificate, which has been issued to members from the London office of the Association, will suffice for use on the Intercolonial Railway.

It is the wish of the officers of the Canadian Pacific Railway that the special excursion to the Rocky Mountains should start as soon as possible after the close of the meeting. It is therefore intended that those who take part in it shall leave Montreal on Wednesday night or Thursday morning, spending the rest of the week in Ontario, and joining the steamer at Owen Sound on Saturday evening, September 6th, for the voyage through lakes Huron and Superior to Port Arthur. Here the special train will be in readiness to convey the members to the Rocky Mountains and back.

For those members, who may be unable to re-visit Toronto on the return journey, parts of Thursday and Saturday may be devoted to that city; and, perhaps, Friday to an excursion to Niagara Falls, which has been arranged for by the Local Committee organized in Toronto.

It is the intention of the Montreal Committee, should the number of tourists warrant the carrying out of the arrangement, to despatch from Montreal at intervals of one or two weeks, during the six weeks, July 1st to August 12th, several excursion parties to the Rocky Mountains, each of which may probably be accompanied by one or more local members as conductors.

While the meeting is in progress excursions will be organized to places of interest in the neighborhood of Montreal, some of which are mentioned on pages 14-15. One or more members of the Local Committee will also accompany each of these as conductors.

At the close of the meeting, arrangements will be made to convey those members, who may desire to attend the meeting of the American Association, to and from Philadelphia at reduced rates of railway fare.

TRAVELLING ARRANGEMENTS.

A.—OCEAN STEAMERS.

The various steamship companies will make reductions in their rates of ocean-passage to *all members* (whether life, annual, or associate) of the British Association who may desire to attend the Montreal meeting, as follows :—

CANADIAN LINES.

Allan Line of Steamships.—*Address : Messrs. Allan Bros. & Co., James Street, Liverpool.*—This line will make an abatement of *three guineas* from the ordinary fares, so that the return-rates (*exclusive* of the government grant), between Liverpool and Quebec, will be nineteen (19), twenty-two (22), and twenty-seven (27) guineas, according to the accommodation. The return-rates between Liverpool and Halifax will be practically the same.

Holders of return-tickets, will have the privilege of sailing from any of the United States or Canadian ports, at which the mail steamers of this line call.

Single tickets, outwards, will be charged at the full ordinary rates, viz., from twelve (12) to twenty-one (21) guineas (*exclusive* of the government grant), but should the holders of such tickets return by an Allan steamer, they will be entitled, on application to Messrs. H. & A. Allan, Montreal, to a homeward cabin-passage at the reduced rate of £12 10s.

The mail steamers of this line leave Liverpool every Thursday for Quebec, and on alternate Tuesdays for Halifax ; but in all probability, should the applications

for passages be sufficiently numerous, the company will send one of their newest and most powerful vessels as a special steamer.

The sailing days from Canada are every Saturday from Quebec, and alternate Mondays from Halifax. The outward Halifax steamers proceed to Baltimore, and leave that port, for return to Halifax and Liverpool, on alternate Tuesdays.

The Allan company also maintains a weekly service of steamers between Glasgow and Quebec, leaving the former port every Wednesday. These steamers do not take passengers from America.

RAILWAY CONNECTIONS.—The distance from Quebec to Montreal is 172 miles by rail, 160 miles by water ; the time is about six hours by rail, and eleven hours (night) by water ; the fare for the *double* journey is about $14\frac{1}{3}$ by rail, and $10\frac{1}{2}$ by water.

The distance from Halifax to Quebec is 686 miles ; the time is about twenty-six hours ; the fare *free*. On this route, the passenger may visit St. John, New Brunswick, *via* Moncton. The distance from Moncton to St. John is 90 miles, the time about three hours, and the fare *free*. (See government railways below.)

Passengers disembark at the wharves at Quebec and Halifax, and are transferred to the railway cars, without cost.

Dominion Line of Steamships.—*Address : Messrs. Flinn, Main & Montgomery, 24 James Street, Liverpool.*—The return-rates (*exclusive* of the government grant), by any of the regular steamers of this line, from Liverpool to Quebec, will be seventeen or twenty-one pounds (£17 or £21), according as the accommodation is in a three- or in a two-berth cabin.

In all probability this company, providing the applications are sufficiently numerous, will send out one of their best and newest vessels as a special steamer, in

which case the return-rates (*exclusive* of the government grant), will be twenty and twenty-four pounds (£20 and £24) per passenger, in the three- and two-berth cabins, respectively.

The "Sarnia" and "Oregon" of this line, carry neither cattle nor sheep. The company's steamers leave Liverpool every Thursday, and on the return-voyages, leave Quebec every Saturday.

RAILWAY CONNECTIONS.—The same as those specified for the Allan line from Quebec.

Canada Shipping Company.—*Address : Mr. R. W. Roberts, Manager, 21 Water Street, Liverpool.*—The return-rates (*exclusive* of the government grant), by any of the ordinary steamers of this line, from Liverpool to Montreal, will be eighteen pounds (£18).

The steamers leave Liverpool every Thursday, and on the return-voyage leave Montreal every Wednesday.

Cattle and sheep are usually carried on the return-voyage.

RAILWAY CONNECTIONS.—The passengers have the option of disembarking at Montreal or Quebec ; in the latter case, the railway connections are the same as those specified for the Allan line.

UNITED STATES LINES.

The White Star Line of Steamships.—*Address : Messrs. Ismay, Imrie & Co., 10 Water Street, Liverpool.*—The return-rates from Liverpool to New York, by any of the ordinary steamers of this line, will be from thirty to thirty-five (30 to 35 guineas, according to the accommodation.

The company express an intention, if the applications for passages are sufficiently numerous, of sending a special steamer to New York, during the first or second week of August, by which the return-rates, will be twenty-two, twenty-five and thirty pounds (£22, £25 and £30) according to the accomoda-

tions. The company, however, reserve to themselves the right, if the vessel is not full a few weeks before the date of sailing, of filling her up with other passengers.

The mail steamers of this line leave Liverpool every Tuesday or Thursday, and on the return-voyages leave New York every Tuesday or Saturday, and sometimes on both days.

RAILWAY CONNECTIONS.—(See details of railway arrangements). The distance from New York to Montreal is from 380 to 400 miles by different routes; the time is about 14 hours; the fare for the double journey 45/2, the cost of transfer from the wharves to the railway depôt about 5/-.

The Cunard Line of Steamships.—*Address: The Cunard Steamship Co., Limited, 8 Water Street, Liverpool.*—The ordinary return-rates, by the steamers of this line, from Liverpool to New York or Boston, are thirty (30) guineas, thirty-five (35) guineas, and forty-five pounds (£45), according to the accommodation; but to members of the British Association, the forty-five pound berths will be given for thirty-five guineas, and the thirty-five guinea berths for thirty guineas.

The mail steamers of this line leave Liverpool every Saturday for New York, and every Wednesday for Boston; on the return-voyages, they leave New York every Wednesday, and Boston every Saturday.

RAILWAY CONNECTIONS.—(See details of railway arrangements). Those from New York to Montreal are the same as specified for the White Star line.

The distance from Boston to Montreal is from 350 to 400 miles, by the various routes; the time from 11 to 13 hours; the fare for the double journey about 37/-; the cost of transfer from the wharves to the railway depôt about 5/-.

Guion Line of Steamships.—*Address: Messrs. Guion & Co., 11 Rumford Place, Liverpool.*—The return-rates, from Liverpool to New York will be twenty-two, twenty-five, and thirty pounds (£22, £25, and £30) according to the accommodation, by any of the steamers of this line in which there may be room when applications for passages are made.

The mail steamers leave Liverpool every Saturday, and on the return-voyage, leave New York every Thursday.

RAILWAY CONNECTIONS.—The same as those specified for the White Star line.

Anchor Line of Steamships.—*Address: Messrs. Henderson Bros., 17 Water Street, Liverpool.*—The return-rates, (*exclusive* of the government grant), from Liverpool to New York by the steamers of this line, will be twenty-five (25) and thirty (30) guineas per passenger according to accomodation.

The service between Liverpool and New York is tri-monthly, and the dates of sailing are duly advertised. This company also maintains a weekly service between Glasgow and New York, leaving the former port every Friday, and the latter every Saturday.

RAILWAY CONNECTIONS.—The same as those specified for the White Star line.

The Monarch Steamship Line.—*Address: Messrs. John Paton & Co., Fenchurch Avenue, London, E.C.*—The return-rates, (*exclusive* of the government grant), from London to New York by the steamers of this line will be twenty-one pounds (£21) to a limited number of the members of the British Association.

The dates of sailing may be obtained at the above address.

RAILWAY CONNECTIONS.—The same as those specified for the White Star line.

American Line of Steamships.—*Address : Messrs. Richardson, Spence & Co., 19 Water Street, Liverpool.*—The rates from Liverpool to Philadelphia and return will be twenty (20), twenty-five (25), and thirty (30) guineas, according to the accommodation. The steamers of this line sail from Liverpool every Wednesday, and on alternate Saturdays ; and from Philadelphia every Saturday, and on alternate Wednesdays.

RAILWAY CONNECTIONS.—Members taking the Philadelphia route, will be conveyed by rail between Philadelphia and New York (90 miles, time two hours) at the reduced fare of 10/4. From New York to Montreal, the arrangements will be the same as specified for the White Star Line.

Other Steamship Lines.—The Inman and National lines have each a weekly service between Liverpool and New York, and the latter a service between London and New York, full particulars of which may be obtained from their respective agents.

N. B.—The privilege of reduced fares will be granted on presentation of a Travelling Certificate, which may be procured from the Secretary of the Association, the Rev. Prof. T. G. Bonney, 22 Albemarle St., London, W.

These reduced fares will be available to members over the Canadian lines of railway from the first of July, and over the United States lines from the first of August, and will remain in force up to the end of September, in both cases.

A list of places where the railway tickets may be purchased is given on pages 15-16.

Members may obtain definite and reliable information regarding American railways on application at any of the Tourist offices of Messrs. Thomas Cook & Son. The New York office of this firm is also freely open to them on their arrival in that city ; it is No. 261 Broadway.

B.—RAILWAYS.

The Government Railways.—The Hon. Sir Charles Tupper, High Commissioner of Canada and Minister of Railways and Canals, has authorized the Committee to state that members of the British Association, with their families, will be conveyed over the government railways throughout the Dominion free of charge, on presentation of their tickets of membership. This privilege will be especially valuable to those members who may desire to proceed to Montreal *via* Halifax; which is the Atlantic terminus of the Intercolonial Railway. From Halifax, the railway extends eastward, *via* Truro, to Pictou, and westward, *via* Moncton, to Quebec; with a branch-line from Moncton to St. John, N.B. Members desirous of visiting Prince Edward Island, may travel by this railway from Halifax to Pictou, (44 miles), and thence by steamer to Charlottetown, P.E.I.; a further journey of about four hours. The Island railways are also government property, and are free to members. The return-journey may be varied by taking the ferry steamer from Summerside to Shediac, and thence proceeding by rail, *via* Moncton, to Quebec or to St. John, N.B.

Guide Books of the Intercolonial Railway may be obtained at the office of the High Commissioner, 9 Victoria Chambers, Westminster, London, S. W.

The Canadian Pacific Railway Co. will, from the 1st of July, up to the date of the departure of the special free excursion to the Rocky Mountains, grant to visiting-members, free passes over its lines to the Northwest (Rocky Mountains, Lake Superior, etc.) and intermediate points. Meals may be obtained *en route*, at a rate not exceeding 2/- (50 cents), and sleeping-berths at the usual rates.

This company also offers to one hundred and fifty (150) members of the British Association, a free special excursion to the Rocky Mountains, by way of Georgian Bay, Thunder Bay and Winnipeg. Those places passed during the night on the outward journey, will be re-passed during the day on returning. The company will provide the necessary sleeping-cars, and undertakes that meals shall be obtainable at a rate not exceeding 2/- (50 cents). The excursion will leave Montreal as soon after the close of the meeting as may be found convenient, and will require about twelve days for its accomplishment. Members who desire to take part in the excursion should communicate with Mr. Crawford as soon as possible.

At an early date, the company will have in operation two lines to the Northwest—one *via* Ottawa, Pembroke and Callender, to Algoma (situate at the north-west end of Lake Huron, and distant from Montreal about 540 miles)—the other *via* Ottawa, Perth and Peterborough to Toronto, and thence by the Toronto, Grey & Bruce branch, to Owen Sound (situate on Lake Huron at the south end of Georgian Bay). From Owen Sound and Algoma, the lake service will be performed by the company's new Clyde-built steamships, passing through Georgian Bay and Lake Superior to Port Arthur, at the western end of the latter lake; the duration of the voyage from Owen Sound being about forty hours. It is intended that the excursionists should go west by the latter route, which passes through some of the longest settled and best known districts of the province of Ontario. Arrangements will be made for trips and excursions from Toronto, across Lake Ontario to Niagara, under the direction of local committees to be formed in both places; giving to all members an opportunity of visiting the Falls. From Port Arthur westward, the railway passes through the towns of Winnipeg, Brandon, Regina, Medicine Hat and Calgary, before

reaching Stephen (the summit-level of the Rocky Mountains), the entire distance being about fourteen hundred miles. The running time from Port Arthur to Winnipeg is about twenty hours, and about forty from Winnipeg to Stephen. On the return-journey, members may vary their route, by passing from Winnipeg over the company's line to Emerson and St. Vincent, and thence southward through the United States, *via* St. Paul and Chicago; the cost and mileage of this return-route is given on another page. One of the Canadian Pacific Railway maps will accompany this report, and members may obtain all further information from the company's general emigration-agent, Mr. Alexander Begg, 88 Cannon street, London, E. C.

The company will also arrange for excursions from Montreal to Brockville, by way of Ottawa; thereby giving members an opportunity of visiting the Thousand Islands, and returning by steamer through the Long Sault, Coteau, Cedar, Cascade and Lachine Rapids.

The Canada Atlantic Railway Co. offers to members of the British Association and their families free excursions to Coteau and Ottawa, returning by the rapids; and also free-passes, by any of the ordinary trains, over the same route. This railway extends from Montreal to Coteau, 37 miles, over the Grand Trunk line, and thence to the city of Ottawa, 78 miles. The time from Montreal to Ottawa is about three hours.

The Grand Trunk Railway Co. has made favourable arrangements with its connecting railways, under which, those members who may wish to proceed to Montreal *via* New York, Boston, or Philadelphia, will be conveyed to and from Montreal at about one-half the usual rates. A wide choice of routes will be afforded, with opportunities of seeing the River Hudson, Saratoga, Lake George, Lake Champlain, etc., when on the way from New York.

This company has also made arrangements, which will enable those members who may desire it, to vary their return-journey from the Northwest, by leaving the Canadian Pacific Railway at Winnipeg, and returning to Montreal *via* St. Vincent, St. Paul, Minneapolis, Chicago, and Niagara Falls, the fares being about one-half the usual rates.

The company has also offered, on the same liberal terms, an excursion to Chicago *via* the great lakes, and one to Niagara Falls.

Members may obtain time-tables, maps, and all other information, at the Company's London office, Dashwood House, 9 New Broad Street, E. C.

The North Shore Railway extends from Montreal to Quebec, on the north side of the River St. Lawrence ; distance 172 miles, time about five hours. This company will give an excursion to Quebec by special trains, at 10/6 for the double journey, and passages to members on the regular trains, at reduced rates. An excursion will also be arranged to Three Rivers (74 miles), and thence by a branch to Grand-Piles (30 miles)—a large lumbering and forest region, near to which are the Shawenegan Falls.

The Central Vermont Railroad connects with the Grand Trunk Railway at St. Johns, 27 miles south from Montreal, and reaches, with its connections, all the important points in New England lying between the cities of New York and Boston. An excursion to Lake Champlain, Waterbury and the Green Mountains of Vermont, will be arranged over this railway.

The South Eastern Railway, which, with its connections, is called the Montreal and Boston Air Line, affords communication with all important New England points between Boston and Portland, including the White Mountains. An excursion will be arranged, by this

railway, to Newport, Vermont (distance 100 miles, time about four hours), and thence by steamer to the outlet of Lake Memphremagog, returning to Montreal by the same route.

The Delaware and Hudson Canal Co.'s railways connect with the Grand Trunk Railway at Rouses Point, 50 miles south of Montreal, and extend thence along the west shore of Lake Champlain, into the states of New York and Pennsylvania. An excursion will be arranged from Montreal to Plattsburg on Lake Champlain, and thence to Au-Sable Chasm in the Adirondacks, returning by the same route.

The Richelieu and Ontario Co. has a steamer leaving Montreal for Quebec every week-day at 7 o'clock p.m.; also another leaving every week-day at noon for Toronto, Hamilton, and Niagara. Reduced fares will be arranged for, and also one or two excursions.

Through Tickets, in accordance with the above arrangements, may, on presentation of a certificate to be obtained from Prof. T. G. Bonney, be procured as follows:—In *England*, at the offices of the various steamship companies; in *Montreal* and *Quebec*, at the Grand Trunk Railway stations; in *New York*, at the New York Central Railway, Grand Central dépôt, 42nd street, and at the New York, West Shore and Buffalo dépôt; in *Boston*, at the Boston and Lowell dépôt, either for the Central Vermont, or for the Montreal and Boston Air Line; in *Philadelphia*, at the Pennsylvania Railway dépôt; in *Chicago*, at the Chicago and Grand Trunk dépôt, corner of 4th Avenue and Polk streets; in *St. Paul*, at the Union dépôt, for the Chicago, Rock Island and Pacific, the Chicago and Northwestern, and the Chicago, Milwaukee and St. Paul Railways.

N.B.—All the railway-companies, referred to herein, grant the privilege of breaking the journey at points of interest.

Sleeping-berths in cars average about 8/- a night, and seats in day palace-cars about 6/3 a day for each passenger. Meals in dining-cars and refreshment-rooms are charged for at the rate of from 2/- to 3/-.

Hotel rates throughout Canada seldom exceed three to four dollars per diem. A list of hotels and of special rates will be given in a special circular.

Money.—The sovereign is a legal tender throughout Canada for four dollars and eighty-six and two-third cents (\$4.86 $\frac{2}{3}$). Bankers' letters-of-credit, circular-notes and marginal-bills, as also Bank of England notes, are easily negotiable at the rate of about four dollars and eighty cents to the pound sterling (\$4.80=£1).

Local Committees will be organized in the various Canadian cities to be visited,—as Halifax, St. John, Quebec, Ottawa, Kingston, Toronto, Hamilton, London, Winnipeg, etc., etc.—to receive excursionists and visiting-members, and to care for them during their stay. Dr. George Lawson, Vice-President of Section D, is a leading member of the Halifax committee. In St. John the Mayor of the City, Dr. Botsford and Mr. F. G. Matthew occupy similar positions ; and in Quebec Col. Rhodes, the Abbé Laflamme and Mr. J. M. Lemoine.

Telegraphs.—Through the liberality of the Great Northwestern and Western Union telegraph companies, telegraphic messages from members of the Association will, during the meeting, be sent from Montreal to all parts of Canada and the United States, free of charge ; and further the Associated Atlantic Cable Companies have agreed together to pass during the meeting, without charge, social messages, to and from the delegates, and their families, under arrangements and restrictions to be hereafter detailed.

TABLE SHEWING THE TOTAL AVERAGE COST (*Exclusive of Government Grant*) OF THE
THROUGH RETURN-JOURNEY BETWEEN LIVERPOOL AND MONTREAL.

	COST OF OCEAN STEAMER RETURN-PASSAGE			AVERAGE COST OF DOUBLE RAIL- WAY JOURNEY.	TOTAL AVERAGE COST.
	CABINS, WITH 3 OR MORE BERTHS.	CABINS WITH 2 BERTHS.	BETTER CABINS.		
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Via Allan Line and Quebec (Regular).....	19 19 0	23 2 0	28 7 0	0 14 7	22 16 7
" Allan Line and Halifax (Regular).....	Same.	Same.	Same.	Same.	Same.
" Allan Line and Quebec (Special).....	Same.	Same.	Same.	Same.	Same.
" Dominion Line and Quebec (Regular).....	17 0 0	21 0 0	.....	0 14 7	21 14 7
" Dominion Line and Quebec (Special).....	20 0 0	24 0 0	.....	0 14 7	24 14 7
" Beaver Line (Can. S. Co's.) and Quebec.....	18 0 0	.....	.....	0 14 7	18 14 7
" Beaver Line (Can. S. Co's.) and Montreal.....	18 0 0	.....	.....	.....	18 0 0
" White Star Line and New York (Regular).....	22 0 0	25 0 0	30 0 0	2 5 10	27 5 10
" Cunard Line and New York (Special).....	31 10 0	31 10 0	36 15 0	2 5 10	33 15 10
" Cunard Line and Boston.....	31 10 0	31 10 0	36 15 0	1 15 5	33 5 5
" Guion Line and New York.....	22 0 0	25 0 0	30 0 0	2 5 10	27 5 10
" Anchor Line and New York.....	.....	26 5 0	31 10 0	2 5 10	28 10 10
" Monarch Line (sails from London) and New York	21 0 0	.....	.....	2 5 10	23 5 10

TABLE OF ROUTES, DISTANCES AND FARES.

TERMINI.	RAILWAYS, ROUTE, ETC.	DISTANCE.	RATE FOR ROUND TRIP.
	<i>Miles.</i>		
MONTREAL AND NEW YORK	Via G. T., D. & H. C. C., N. Y. W. S. & B. Railroads	383	\$11.00 = £2 5s. 10d.
	" G. T., D. & H. C. C., N. Y. C. & H. R. Railroads	383	11.00 = 2 5s. 10d.
	" G. T., D. & H. C. C., and People's Line of Steamers (night) between Albany and New York	383	10.20 = 2 2s. 6d.
	" G. T., D. & H. C. C., and Day Line of Steamers between Albany and New York	383	10.70 = 2 4s. 7d.
	" G. T., D. & H. C. C., and Lake Champlain by Steamer, and by any of the above routes between Albany and New York	396	11.00 = 2 5s. 10d.
	" G. I., D. & H. C. C., and Lakes Champlain and George by Steamer, and by any of the above routes between Albany and New York	396	13.55 = 2 16s. 4d.
PHILADELPHIA AND NEW YORK	" G. T., C. V., B. & R., T. & B., N. Y. C. & H. R. Railroads. Pennsylvania Ry.	452	11.00 = 2 5s. 10d.
MONTREAL AND BOSTON	" G. T., C. V., N. C., B. & L. Railroads	90	4.00 = 0 16s. 8d.
	" "Montreal & Boston Air Line" (S. E., P., B. C. & M., &c.) G. T., C. V., Cheshire, and Fit. Rys.	335	9.00 = 1 17s. 6d.
	" G. T., C. V., Cheshire, and Fit. Rys.	337	9.00 = 1 17s. 6d.
	" G. T., C. V., Cheshire, and Fit. Rys.	345	9.00 = 1 17s. 6d.
	" G. T. R. to Portland, and thence to Boston by B. & M. Ry. G. T. R. to Portland, and thence to Boston by Eastern Ry. G. T. R. to Portland, and thence to Boston by Portland Steamship Co.	413	8.50 = 1 15s. 5d.
	" G. T. R. to Portland, and thence to Boston by Portland Steamship Co.	405	8.50 = 1 15s. 5d.
MONTREAL AND QUEBEC	" Grand Trunk Ry.	417	8.00 = 1 13s. 4d.
	" North Shore Ry.	172	3.50 = 0 14s. 7d.
	" By water route by the Richelieu & Ontario Nav. Co.	172	3.50 = 0 14s. 7d.
MONTREAL AND OTTAWA	" G. T. and Can. Atl. Rys.	180	2.50 = 0 10s. 5d.
	" G. T. Ry. and Ottawa Riv. Nav. Co. (<i>Return by Rapids</i>) ..	115	3.50 = 0 14s. 7d.
MONTREAL AND COTEAU	" G. T. Ry. and return by Steamer over Rapids	130	4.00 = 0 16s. 8d.
MONTREAL AND CORNWALL	" ditto. "	74	0.95 = 0 4s. 0d.
	" ditto. "	134	1.70 = 0 7s. 1d.

TABLE OF ROUTES, DISTANCES AND FARES (Continued).

ACADIA.

[NOTE.—The following pages are taken from advance sheets of a Guide Book to the Dominion, which is under preparation by Mr. S. E. Dawson, a member of the Citizens' Committee, and they are here reprinted for the information and guidance of those visiting members who may choose the Halifax route for their outward voyage.]

L'Acadie is the euphonious French name for the Maritime Provinces of Canada, now called Nova Scotia, New Brunswick and Prince Edward Island. The word is derived from a Micmac word *Cadie*, signifying a place of abundance, and, as used by the Indians, was always qualified by another word expressing the thing which there abounded. *Quoddy*, a word frequently met with in localities on the Bay of Fundy, is a Malicete form of the same word. In the charter for the settlement of the country, granted by Henry IV. to deMonts, it is styled *La Cadie*, and this name is not only historically proper, but conveniently applicable to all these provinces for they are similar in climate, soil, productions and people. Such subtle differences in manner and appearance as may exist among the people can be distinguished only by one long resident in the country. Acadia is, in the true fitness of things, the proper place in the New World at which an Englishman should land. Nova Scotia, especially, is mildly American; and the transatlantic mind may there collect itself, after the sea voyage, before encountering the oppressive superiority of Boston, the cosmopolitan indifference of New York, or the exuberant metaphors of the irrepressible West.

The track across the ocean, which a steamship from Liverpool to Halifax follows, has been a highway for many centuries. Before William the Norman landed in England, while Canute the Dane was king, the ships of the Norsemen of Iceland and Greenland visited the waters of Acadia and coasted its shores. It was in the year 1000 that Leif Erikson landed in

Nova Scotia, (Markland he called it), probably near Cape Sable. After him, came Thorvald Erikson and Thorstein Erikson with his wife Gudrid; and then followed Gudrid again with her second husband Thorfinn, and Freydis; and in A. D. 1121 Bishop Erik Upsi and others, until, in 1347, the "Black Death" scourged the North and almost depopulated Norway, Iceland and Greenland. Thenceforth they ceased to be swarming hives of adventurous freebooters. But the geographical knowledge acquired was not lost; and when, in 1477, Columbus visited Iceland, the sagas still extant, in which the deeds of the old Norse sailors are recorded, had been written; and the traditions of Helluland, Markland and Vinland were in the memories of the older men.

The restless maritime energy of the Norsemen passed into the Normans of Dieppe and the Bretons of St. Malo; and especially into the Basques of Bayonne, St. Jean de Luz and St. Sebastian. These latter were the whalers of the fifteenth and sixteenth centuries and, in following the whales as they became scarce in the Bay of Biscay, out into their far ocean haunts, they came upon the Banks of Newfoundland, then as now teeming with fish. Jacques Cartier on his first voyage found a vessel from Rochelle on the coast of Newfoundland. She was looking for the harbour of Brest, a place then well known on the coast of Labrador at which Cartier also called. He found the coast named already until he came to Anticosti. Cabot, who first coasted the mainland of America in 1497, may well have been ante-dated by some of those daring whalers and fishermen who as early as 1504 are known to have thronged the harbours of Newfoundland and Labrador. Therefore, on the very earliest maps Newfoundland (supposed to be a group of islands) was called Baccalaos, the word for cod-fish in the Basque tongue, from whence it passed into Spanish, Portuguese and Italian.

Early in the 16th century the English took up the whale fishery; but they had to employ Basques as harpooners, until they themselves acquired the requisite skill. They spent their energies in the Northern Seas, and named all the shores of Hudson's Bay and Davis' Straits and northwards with English names, in their vain endeavours to find a north-west passage to the Indies. Other Englishmen became great freebooters, like Drake, Hawkins and Cavendish, and fought the Spaniards in peace or war wherever they found them, in the West Indies or in the great South

Sea. But the Spaniards and French chiefly worked the fisheries in these early days, and French and Spanish Basques caught whales in the Gulf of St. Lawrence as far up as Tadousac, and traded for furs long before Champlain's time, probably as far up the river as Hochelaga. Basque and French memories linger all round the coast, and bear witness to the present day to the maritime enterprisc of cities whose glories have departed, and whose silent quays and empty warehouses tell of nations who were not equal to their opportunities.

In history it is the improbable which happens. The philosophy of history has many attractions. It is so easy to look backwards and demonstrate how everything necessarily happened just as it did. To look forward, however, and verify the philosophy by successful prophecy, is the true test of a science. He would have been a bold prophet who in the seventeenth century could have looked at a map of North America and prophesied that in 200 years it would be the greatest Anglo-Saxon country in the world. All Canada and Acadia were French. The French posts occupied all the Ohio valley. The Spaniards occupied Florida and claimed the Carolinas. The Dutch occupied New York. The Swedes occupied the Delaware. Only in Virginia and New England had the English race a footing. But they did the work which lay before them manfully, steadily and quietly, for if there were political weather prophets then their vaticinations have not been preserved.

Acadia was colonised by the French. Before Champlain founded Quebec, he, or rather his companion Poutrincourt, founded Port Royal, now Annapolis, in Nova Scotia. The expedition sailed from Havre in 1604 under the command of deMonts, to whom Henry IV. had granted the privilege of trade. Champlain sailed with him—a brave and experienced captain, who had spent two years and a half in the West Indies and in Mexico, and had made a voyage to Tadousac and gone up the St. Lawrence as far as the present Montreal—who was indeed an acquisition to the expedition. They made land at Le Hève, which still bears that name, and coasted along touching at Port Mouton, Cape Sable, St. Mary's Bay, Long Island, all names still clinging to these places. Then deMonts separated to explore another part of the Bay, and Champlain continued coasting until he entered the harbour, now Annapolis Basin. He called

it Port Royal, for it was "one of the finest harbours he had seen in these lands." It was not until the following year they settled there. The winter of 1604 was passed at St. Croix, an island a few miles above St. Andrew's, near the junction of the river of that name with the sea. In 1605 they crossed the Bay, settled at Port Royal and Poutrincourt, founded the first permanent settlement of Europeans on the Western Continent north of the Spanish fort at St. Augustine in Florida. Nova Scotia then is the elder sister of the Canadian Confederation.

The romantic history of the French settlement cannot be given here in detail. Nor can we do more than allude to the remarkable characters who figure in this interesting though little known history of a remote colony, to Memberton the great sachem, to Poutrincourt, to d'Aulnay Charnissay, to La Tour and his heroic wife, to the Baron de St. Castine, the brilliant young officer who left his regiment in Canada and married the daughter of Madockawando and became a great Indian sachem on the Bay of Fundy. Nor can we stop to relate how the English repeatedly plundered and sacked Port Royal; and how they claimed Acadia, sometimes as a part of Virginia, and sometimes as a part of Massachusetts. No matter what went on in Europe, there was seldom peace in America in those days. The kings of England, France and Spain granted charters and commissions, and made claims, which overlapped each other by many hundreds of miles. Nothing but confusion could follow, and the French and English and Indians harried each other without cessation. The French were still settled in different parts of Nova Scotia when James I. granted in 1621 the whole of Acadia to Sir William Alexander, in which charter the name Nova Scotia first appears. In 1625, Charles I. confirmed the grant, and added with impartial ignorance Anticosti, Nantucket, Martha's Vineyard, and parts of Canada. The only traces of his royal bounty now remaining are the Baronets of Nova Scotia and the claims of imaginary Earls of Sterling. This order of Knights Bannerets still exists in Old Scotland, a heritage of certain noble families. It possesses an escutcheon, motto, insignia and dress, but no land; and Nova Scotia knows nothing of them.

The English had taken Acadia and Quebec in 1629 but in 1632, by the treaty of St. Germain en Laye, both were restored to France. But in 1654, in a time of peace, the English Commonwealth, ruled by Crom-

well, and the Massachusetts Commonwealth, again seized Acadia. Cromwell as Lord Protector granted it to Sir Thomas Temple and two others, but again it was restored to France by the treaty of Breda in 1667. In 1690, Sir William Phipps conquered it and Massachusetts claimed it under a charter of King William III.; then follows a confused and turbulent history of border feuds until in 1713 the whole of Acadia with the exception of Cape Breton was ceded by France to England. An English governor took up his residence at Port Royal which thenceforth became Annapolis. Not long after, commenced the dispute as to the boundaries of Acadia, followed by the struggle for the Ohio valley, finally leading up to the conquest of Canada.

After the cession of Acadia in 1713 Cape Breton, or Isle Royale as it was then called, became of vital importance to France as the key of the Gulf of St. Lawrence, and consequently of Canada. Therefore Louisburg was founded upon a magnificent harbour, and a fortress of the first class was erected there. The French monarchy devoted what strength it had to spare from its European schemes to Canada, Cape Breton and Louisiana. The English colonies, on the other hand, were very little thought of by their monarchs; but they possessed free self-governing legislatures, containing within themselves all the possibilities of growth. Thirty years later came the inevitable collision, and now the Islands of St. Pierre and Miquelon alone remain of all the magnificent empire of France in America.

The subsequent history of Acadia will be alluded to in the sketches of the several provinces. The name Nova Scotia now superseded the old French name. New Brunswick was the county of Sunbury, until 1784, when it was erected into a province under its present name. Cape Breton, in the same year was made a separate government, and in 1820 it was re-annexed. In 1784 also the Island of St. John was separated from Nova Scotia, and in 1799 the name was changed to Prince Edward Island, after the Duke of Kent who was much beloved by the settlers. There were several places called St. John in British America and much confusion resulted therefrom. The Acadian provinces from that period remained separated until united into the Dominion of Canada. After this sketch of the general history of Acadia it will be convenient to consider it under its four natu-

ral divisions, viz., Nova Scotia, Cape Breton, Prince Edward Island, and New Brunswick.

NOVA SCOTIA.

The peninsula of Nova Scotia is 275 miles long by 100 miles in breadth at its broadest part; but, to the length of the Province 100 miles must be added for the island of Cape Breton which belongs to it politically. The area of the entire province is 20,907 square miles. It presents to the ocean a bold and rocky front, studded with islands, and abounding with excellent harbours. Dividing the peninsula by the line of watershed running through its whole length at the centre, the south-eastern half, looking towards the Atlantic, is composed of Cambrian rocks, with intrusions of granite at Halifax, Shelburne and Musquodoboit; while the north-western half consists of Silurian and carboniferous strata edged on the shore of the Bay of Fundy by a bold and lofty ridge of trap rock 600 feet in height, on the inner side of which flows the Annapolis river. This remarkable border of protecting rock is called the North Mountain. On the opposite side of the river is the South Mountain running parallel. The portion of the peninsula which connects it with the rest of Acadia is divided by the Cobequid Mountains 1,100 feet high which separate the streams flowing into the Basin of Minas from those flowing into Northumberland Straits. The coast line is deeply indented with inlets so that no part of the province is distant more than 30 miles from the sea.

Soil.—The interior of the province along the dividing ridge is a broken country, and the south-eastern part, as a rule, is not adapted for farming although it contains much good land. On the south-west side, however, the land is very rich. The valley of the Annapolis River and the land around the Basin of Minas is proverbial for its fertility. The high tides of the Bay of Fundy have produced marsh soils of inexhaustible richness; for they bear with them an alluvium which renders manuring unnecessary. The land also on the Gulf of St. Lawrence side is good. The province abounds in lakes, none of them large, where good fishing is to be had. The Cobequid Mountains are clothed with forests which produce abundance of excellent timber. The energies of the Nova Scotians have always been directed rather to

ship-building, fishing and mining, than to farming; although, from the western part of the province, there has always been a large export of agricultural products of all kinds.

Climate.—The climate of Nova Scotia is very congenial to old country settlers. It is not so cold in winter, or so warm in summer, as the rest of the Dominion. It is changeable according as the winds blow from the continent or from the sea. The wind from the south often comes loaded with vapour from the warm waters of the gulf stream, which condenses into fog along the coasts of the Atlantic and the Bay of Fundy. These fogs are not enjoyed by the Canadians of the inland provinces, but the fresh complexions of the Acadians bear witness that they are conducive to health. Ponce-de-Leon, instead of searching for the fountain of youth among the lean and wrinkled alligators of the tepid morasses of Florida, should have looked further north. A dip into a cool fog in the summer and a diet of succulent oysters, pugnacious lobsters and nutritious codfish, is the nearest thing which the world affords to the fountain of rejuvenescence. There is more rain in the Acadian provinces than in Canada owing to the proximity of the ocean. In the south-western part of the Province sheep are pastured out all the winter.

Minerals.—Nova Scotia abounds in valuable minerals. In the Cambrian, all along the Atlantic coast, gold is found in considerable quantity. During the last year the export of gold from Nova Scotia mines amounted to \$279,735. Gypsum is largely mined. The export last year to the United States amounted to 138,081 tons. Iron is abundant and the ores are of superior quality.

Coal.—The coal fields of Pictou and Cumberland are very well known. In the latter section the Springhill coal mine is reached by the Intercolonial Railway. The coal field of the Pictou district has been long and extensively worked. The two main seams of the Acadia mines give a thickness of 18 feet and 11 feet respectively of good coal. At the Albion mines a section of the main seam gave 36 $\frac{3}{4}$ feet of coal including a thickness of twenty three inches of interstratified beds of ironstone, and a section of the deep seam gave 18 $\frac{1}{4}$ feet of good coal. The larger portion of the coal raised is consumed in the Dominion.

During the year ending June 30, 1883, however, the exports to foreign countries amounted to 216,805 tons from the whole province of Nova Scotia, including Cape Breton. The known productive coal fields of Nova Scotia cover an area of 685 square miles. The Nova Scotia coals are much esteemed for gas purposes and were it not for the heavy tariff would be (as they were formerly) used in the United States to a very much greater extent.

The whole of the mines of the province were in 1826 leased by the Crown to the Duke of York, who transferred the lease the following year to the General Mining Association of London. This corporation worked the coal mines of Pictou and Cape Breton for many years, but disputes arose between it and the Provincials until at last, in 1857, the Association gave up its claims to all unopened mines upon receiving an undisputed title to certain areas in the coal fields of Cape Breton, Pictou and Cumberland. New companies were then organised who work the mines, now under Provincial laws. All the coal of Nova Scotia is bituminous. Further particulars of these coal areas will be found under the notices of the respective localities. There are things to be seen in the mines of this province which cannot be seen elsewhere in the world. Sir Charles Lyell crossed the sea twice mainly for the purpose of visiting them, and in his "Student's Elements of Geology," chapters 23 and 24 show what an important position the coal measures of Nova Scotia hold in the domain of science.

Gold.—That half of the Peninsula of Nova Scotia which faces to the Atlantic is, as has been stated, Cambrian with large areas of granite. In this section, throughout its whole area of about 6,500 square miles, numerous lodes of gold-bearing rocks have been found. The gold occurs in quartz veins in the Cambrian strata. When the auriferous nature of the rocks was discovered in 1860 there was great excitement which calmed down in time to a steady industry. As a general thing, however, this is not carried on by the most approved methods. The largest yield in any single year was in 1867, when 27,314 oz. of gold were extracted. Since then the product has varied. In 1883, it was 15,446 oz. Work is now carried on in about twenty different localities. The average yield per man per day was \$2.84 to the whole of the mines worked during that year.

Iron.—Iron occurs in many places, but it is worked only at Londonderry. There it is found in an immense vein of ankerite 30 to 150 feet wide, holding brown hematite and extending for many miles. Last year the Steel Company took out 52,410 tons of ore.

Fisheries.—At the last census 24,636 men were employed in the fisheries in 755 vessels and 13,214 boats. The fish caught are cod, mackerel, herrings, salmon, halibut, haddock. The product of canned lobsters for that year is given at 3,841,476 lbs. The value of the fisheries of the province was estimated for the year ending June, 1883, at \$7,621,500.

Population.—The population of the entire province, including Cape Breton, is 440,572. Of this number 117,487 are Roman Catholics, 60,255 are Church of England, 112,477 are Presbyterian and 50,780 are Methodist. There are 41,219 Acadian French in the province and 40,065 of German descent; these are mostly in Lunenburg county. The Scottish element preponderates in the remaining part of the population. Immigration to Nova Scotia has been very scanty, therefore of the total population 414,647 are colonial born.

Education.—Dalhousie College, at Halifax, is the chief institution of the province. Acadia College, at Horton, is connected with the Baptist denomination; King's College, at Windsor, is in connection with the Church of England. The Normal School is at Truro. The public schools are free. The number of public schools in operation last year was 1943, with 2011 teachers and 81,863 pupils, or 1 in 5 of the population.

HALIFAX.

The drum-beat of Britain, which, to adapt the eloquent words of Daniel Webster, once followed the morning round the world, ceases its proud roll at this city—the portal of the Dominion of Canada. For here is the last English garrison upon the Western Continent—kept here, we are carefully assured, not out of regard for any antiquated colonial prejudices, but solely because of the importance of Halifax to England as a naval station and a coaling depot. Let the English visitor, then, listen to the morning drum-beat and take a last look at the uniform of his country's soldiers, for he will not hear the one or see the other

again, if he follows the morning for very many thousands of miles, across the continent, and over the broad southern ocean, until he arrives at the island of Hong-Kong. At Halifax, however, he will be thoroughly at home. From the citadel, as on the Queen's ships of war in the harbour, the British flag still flies without the escutcheon of the younger Britain emblazoned upon it. The familiar uniforms will be seen on the streets and on the wharves. The people will not seem strange, and if, as is frequently the case, that favorite Haligonian dissipation, a regatta, is going on, he will see that, though colonial born, they have all the nautical instincts of the British race.

The city of Halifax was founded in 1749. It was the first permanent settlement of Englishmen in Nova Scotia; for, although there had been an English governor and an English garrison at Annapolis since 1713, and English fishermen frequented the coast and assembled in the harbours, there had been no serious attempt to colonise the country. The seat of government was then transferred to Halifax, and Governor Cornwallis, who came out in command with the first settlers, again called upon the Acadians to take the oath of allegiance to the British Government. The Acadians were very uneasy at the arrival of the English, and their deputies brought to Cornwallis an address, from 1000 persons, containing this very remarkable sentence, "What causes us all very great pain, is the fact that the English wish to live amongst us. This is the general sentiment of the undersigned inhabitants." Seeing that the province had been an English possession for thirty-six years, such a sentiment, expressed to a British governor, did not promise a peaceful time for the new settlers. The Indians fully sympathised with the Acadians, and, as the English settlements spread along the coast to Lunenburg and Liverpool, the tomahawks and scalping knives of the savages found constant employment, thus provoking an exasperation which resulted in the Acadian deportation and the punishment of the innocent with the guilty among the French inhabitants.

During the war which followed, Halifax grew rapidly. Here Wolfe's fleet assembled for the subjugation of Louisburg and for the capture of Quebec. Then followed the American revolution, and troops and war-ships crowded the streets and harbour. When Howe was compelled to evacuate Boston in 1776 it was to Halifax he retired. His fleet and army made the little town very lively for a while.

During the war of 1812-15 Halifax was again a centre of naval activity and, until recently, there were old residents who could remember the excitement when the Shannon towed the Chesapeake into the harbour as a prize, and broke the spell of success which seemed until then to attend the United States navy. Such times as these have happily passed away; but the dockyard, and the forts, and the citadel tell of the former years of bitterness and warfare.

The population of Halifax, inclusive of Dartmouth, is 40,340. It is essentially a maritime and commercial city, doing a large trade in the export mainly of products of the fisheries, of gypsum, coal, and lumber, and carrying on, by the ships owned there, a considerable foreign trade. In the year ending June, 1883, the imports were \$7,206,885 and the exports \$5,002,929. Since the completion of the Intercolonial Railway it has become the winter port of the Dominion. Manufactures are now springing up and, lately, a large sugar refinery has been established there. The city contains a large proportion of wealthy people. It is not so progressive as some of the other cities of the Dominion, for the fact of its being so important a military and naval station in past years has not been an unmixed advantage. Large expenditures for military purposes do not confer the lasting benefits which permanent productive investments, and the attention of youth is apt to be drawn away from commercial enterprise.

The harbour is justly celebrated for its safety and commodiousness. Lying close to the great ocean highway, between Europe and America, it is admirably adapted for a port of call or a port of refuge. The inlet extends fifteen miles into the land. In front of the town the harbour is one mile across, and, beyond the narrows, Bedford Basin expands into a sheet of water ten square miles in extent where the largest ship may lie close to the shore. There is no bar at the mouth of the harbour. The average depth of water is eight to ten fathoms, and in its very shoalest part it is 24 feet deep at low water. The tide rises six feet, and the largest vessels can lie afloat at the wharves. It is accessible at all seasons of the year. The Cunard line, the first line of ocean steamers, was projected by a Haligonian, Sir Samuel Cunard, and here all the steamers touched during the early years of the enterprise. Regular lines of steamers sail for Bermuda and St. Thomas, connecting at the latter port with all the West Indian lines. Steamships of the Allan line

for Liverpool and St. John's, Newfoundland, call here *en route* for Baltimore, Md., and Norfolk, Va. The Anchor line connects with St. John, N.F., and Glasgow. Then there are steamers for Boston and New York; for Sydney, Cape Breton; Canseau, N.S.; and Charlottetown, P.E.I.

The entrance to Halifax harbour upon a clear day is very striking. On the right is McNab's Island, and beyond it the eastern passage, not available for large vessels, guarded by Fort Clarence on the Dartmouth shore; on the left is a bold shore surmounted by York redoubt and the telegraph station. Then Point Pleasant with its charming park, the seaward point of the peninsula upon which the city is built, is seen in front. To the left of it runs the north-west arm and to the right is the harbour, with George's Island armed to the teeth in the centre of it, raking the entrance. Above the city, which is built upon a rocky declivity sloping somewhat steeply down to the water's edge, is the citadel. Far up the harbour are the Narrows hiding the beautiful Bedford Basin, which suddenly expands its tranquil surface, securely land-locked and deep enough for men-of-war close to its shores.

Visitors from the United States always inspect the citadel; from the old world, where citadels are plentiful, visitors are not so curious in that direction. The view, however, from the citadel, taking in as it does all the environs of Halifax, is well worth the attention of strangers. A drive round by the park at Point Pleasant and along the Northwest Arm should be taken. This is one of the most picturesque sheets of water in the Dominion. The villas on its shore and Melville island in a pretty bay at the head add to the general effect and make the drive very enjoyable.

Halifax is full of memories of the Duke of Kent, father of Queen Victoria. The Prince's lodge on Bedford Basin, though sadly dilapidated, is still pointed out; and he it was who laid the first stone of the citadel. The town is resonant with military and naval names; the Queen's Dockyard, the Admiral's House, the Artillery Barracks, the Ordnance Wharf, the Wellington Barracks, and the forts which protect the harbour give a martial character to Halifax which no other Canadian city besides Quebec possesses—but we can never forget that in Quebec the morning drum-beat of the Imperial isle is heard no more.

Dalhousie University is an important institution. It is unconnected with any religious body. There are

seven professors in the faculty of arts and thirteen in that of medicine.

The Province Building is a handsome building containing the chambers of the Legislature, the library and the archives of the Province. The new Provincial Building contains a museum where may be found a valuable collection to illustrate the resources and natural history of the Province. The Post Office is in the same building.

Halifax abounds in charitable institutions of all kinds and in churches, notable among which are St. Paul's church and St. Mary's cathedral. Here also are the seats of the Anglican Bishop and the Roman Archbishop of the Province.

Among the sights of Halifax must be counted the

Fish Market, where an idea of the wealth of the Nova Scotia fisheries can be formed.

Beautiful drives and walks abound at Halifax. The Public Gardens on Spring Garden road are very well kept and are a pleasant refuge in summer from the heat. The Park at Point Pleasant possesses a singularly attractive site. The old Martello tower is a picturesque object.

Hotels.—The chief is the Halifax hotel in Hollis street. Near it is the International hotel. The Waverley hotel is an exceedingly good semi-private hotel but it is not large. It is very pleasantly situated.

Clubs.—The Halifax Club has a very well appointed club-house on Hollis street.

EXCURSIONS.

From Halifax by railway the traveller may proceed in four directions. 1st. To Windsor on the Basin of Minas, and down the Annapolis river to Yarmouth on the south-west; 2nd. To Truro, and thence to Pictou on Northumberland Strait, whence he may cross to Prince Edward Island; 3rd. By the same route as far as New Glasgow, whence he may branch off, on the Eastern Extension Road, to the Gut of Canso, *en route* for Cape Breton; or 4th. Directly along the main line of the Intercolonial through New Brunswick to Que-

bec. On this route he may diverge at Moncton to St John.

TO YARMOUTH VIA WINDSOR.

The trains of the Windsor and Annapolis Railway leave the Intercolonial Railway Depôt. This line commences properly at Windsor Junction where the traveller will see for a little distance a piece of country, the hump of Nova Scotia, which will give an idea of what the world might have looked like after some great wash-out in primordial times. After ten miles of such land the country improves a little and the train passes near the Uniacke gold mines. At Newport large quarries of gypsum exist, and the annual export hence, mainly to the United States, is the chief business of the inhabitants. At last, after an uninteresting drive of 45 miles, the traveller arrives at .

Windsor, a town of 3,019 inhabitants upon the Avon river. This is a beautiful place, or the contrary, according to the state of the tide; for here the visitor will meet the remarkable tides of the Bay of Fundy. He will have, if the tide is out, a thoroughly satisfying view of an amazing area of red fertilizing slime; and, if the tide is in, he will see one of the prettiest pieces of water in the country. He will realise here with Charles Dudley Warner how important water is in the make up of a river.

Still Windsor is a pretty town and the country around it is fertile. It exports also much fertility to other soils in the gypsum which abounds in the neighbourhood. Here was born, and here died, Judge Haliburton, better known as "Sam Slick the Clock-maker," the author of many humorous books. Here is situated the first college founded in the Province—King's College, with six professors, founded in 1788, under the patronage of the Archbishop of Canterbury. The professors must belong to the Anglican Church but no religious tests are required of the students.

The country around Windsor was settled very early by the French, but after the Acadian deportation their vacant lands were filled up by a population from Massachusetts and Rhode Island. Immediately around Windsor the land was granted to British officers and fortifications were erected which have crumbled away.

After leaving Windsor the train crosses the Avon upon a bridge, very costly on account of the stupend-

ous tides of the river. For some distance the bank of the Avon is followed through a rich country abounding in gypsum and freestone. Falmouth and Hantsport are prosperous villages where shipbuilding is carried on to a considerable extent. After passing Horton the train crosses the Gaspereaux river and arrives at

Grand Pré.—This is the classic land of Evangeline—

“ In the Acadian land, on the shores of the Basin of Minas,
Distant, secluded, still, the little village of Grand Pré
Lay in the fruitful valley. Vast meadows stretched to the
eastward,
Giving the village its name, and pasture to flocks without
number.
Dykes, that the hands of the farmers had raised with
labour incessant,
Shut out the turbulent tides, but at certain seasons the
flood-gates
Opened, and welcomed the sea to wander at will o'er the
meadows.
West and south there were fields of flax, and orchards, and
cornfields
Spreading afar and unfenced o'er the plain, and away to
the northward
Blomidon rose.”

The traveller may now verify the accuracy of the word-painting.

THE ACADIANS.

The object of the Poet's art is not so much to relate the exact truth as to tell a touching and beautiful story. Mr. Longfellow's "Evangeline" is an illustration of Bacon's adage that "the mixture of a lie doth always add pleasure." And so the dealings of the British Government with the Acadians have been exhibited to the world as a wanton and utterly unjustifiable outrage. To those Nova Scotians, of English descent, who have heard at their grandmothers' knee the story of the first settlers at Halifax and Dartmouth, the matter appears in a totally different light, as a stern and bitter necessity of a cruel war. Into this question we cannot enter, tempting though it be, and we would refer those who may wish to follow it up, to a volume published by the Nova Scotia Government in 1869. It is entitled "Selections from the Public Documents of the Province of Nova Scotia," by Thomas B. Aikens. In this excellently edited volume the documents themselves are allowed to tell

the story. The notes are few and merely explanatory—mostly biographical. The poem of "Evangeline" is, however, a very beautiful one, and the descriptions of scenery are true to nature. The Acadians were very deeply attached to the soil of Nova Scotia, and many who were expatriated returned after their wanderings. Some of them settled in Gaspé, in Canada. The settlers who came from France to Canada were mostly Norman or Breton; but the Acadians were from the south-west—from Saintonge, Rochelle and adjacent places. In 1719 there were about 500 families in the province. In 1755 there were probably 8000 or 9000 Acadian French, of whom not more than 3000 were expatriated by the British Government. At present there are in Nova Scotia 41,219, in New Brunswick 56,635, and in Prince Edward Island 10,751 persons of French descent. They form a most valuable portion of the population. Cheerful, contented, polite, and laborious, they are everywhere respected. They do not intermarry with the English, and, at some places such as Chezzetcook, they had until lately retained the peculiar dress of the peasantry of Old France. A study of some of these settlements, in the middle of an English community but with curé and notary of the old days and with manners, customs and religion so different, is interesting to a speculative politician. There is nothing in conservatism like it on this continent. The Acadians were strongly attached to the Roman Catholic Church, as they still are. They came of the same stock which, as Huguenots, so obstinately resisted the dragonnades of Louis XIV. But no question of religion caused the deportation by the English, for the Acadians enjoyed the most absolute freedom of worship. It was not in Acadia as in Canada. There were no schools nor colleges of any kind, and the people were very ignorant and entirely in the hands of their political leaders. Many of them were peaceable and harmless, but many would not even sell supplies to the English. At Grand Pré 1900 persons were collected by Colonel Winslow, a Massachusetts officer, who was in command. He burned the village—houses and barns, church and grist mills—and broke down the dykes. The troops on this service were all Massachusetts men of hard Puritan stock. They belonged to a regiment raised for special service in America: The men of the Acadians were collected separately and ordered to embark. This they refused to do without their families, but they were driven on board at the point of the bayonet

in the sight of the weeping women and children. The women and children followed in other transports, and no care was taken that the families should be reunited. For this there could be no pretext of excuse.

That was in 1755. Twenty years later and the whole family of Winslow were hunted out of Massachusetts. Proscribed royalists, they shared the fate of the Acadian loyalists. Their own property was confiscated or destroyed, and they had to make new homes upon the rocky shores of the St. John. The Winslow stock was the oldest and staunchest of the original Plymouth Rock settlement and had filled the highest offices in the Commonwealth. Many of them were rewarded by the British Government with grants and some with pensions, but the poor Acadians, scattered homeless and penniless through the English colonies among a race of alien tongue, found no sympathy from their heartless monarch or his frivolous courtiers. Every American loyalist had in King George III. a personal, sympathetic friend. If any one in the American colonies is at any time heard to speak slightly of King George, he will turn out not to be colonial born.

Wolfville.—After leaving Grand Pré the train passes through Wolfville, where is situated the University of Acadia College, founded and supported by the Baptist denomination. Then the valley of the Cornwallis River is reached through a beautiful country. From Windsor, up the Cornwallis and down the Annapolis valleys, is the garden of Nova Scotia—rich in soil and mild in climate. The road now continues in the depression between the South and North Mountains, referred to elsewhere. At Kentville is a flourishing town of 3000 inhabitants, and a succession of pretty villages is passed until Bridgetown, on the Annapolis River, is reached, which is a place of some importance as the head of steamboat navigation on the river. If the tide is out the tourist will not see any river. The water may be away down the bay, but it will come and make the valley look charming in its setting of parallel, hilly ranges; and, what is better, will float any vessels which may be sitting up waiting for it. One of the oddest sights to a stranger is to see a little steamer sitting up in the mud, blowing off steam and whistling with haste to get her freight aboard, as if she were going straightway overland, while there is not water enough to float a chip. But in five minutes.

up it comes, and she is off. Passing down the left bank of the river the train arrives at

Annapolis, the ancient and venerable capital of Acadia—the oldest town [north of Florida] in America, and it would be difficult to find one prettier. The beauty and security of the situation struck the eye of Champlain—the clearest-headed Frenchman who ever trod the shores of the New World. It is the quietest, the most restful place which can be imagined—a very sanatorium for a shattered nervous system—quieter now than even 150 years ago when there was a garrison, sometimes French and sometimes English; and when the English were always burning out the French, excepting when the French were entrapping the English and the Micmacs were scalping them—quieter even than in the winter of 1606-07, when the clever, light-hearted Parisian lawyer, Lescarbot, and the Baron de Poutrincourt, and Hébert, the apothecary, who represented science, and Champlain, who organised the "*ordre de bon temps*," and their friends, Catholic and Huguenot, had such an excellent time in this Acadian "Forest of Arden." There was no scurvy there, for game was abundant, and the lively Frenchmen exhausted their culinary skill upon it—before the Cavaliers had founded Jamestown or the Puritan Fathers had set up their ecclesiastical tyranny, called by a vivid metaphor a "theocracy," at Salem. Then was "*le bon vieux temps*" of Henry IV., before the revocation of the Edict of Nantes had set Frenchmen at each others' throats in France. In Acadia, as in Canada, no man was ever molested in the name of religion. It was not quite upon the site of the town, however, that the first fort was built; it was on the opposite side, a little further down the Basin.

The town of Annapolis Royal contains 2,833 inhabitants. It is almost surrounded by water, for it is built on a peninsula projecting into the basin which lies tranquil among the hills protected from all winds. The water is deep and the shores bold. The North Mountain range protects it from the fog and wind of the Bay of Fundy, and the opposing range protects it on the east. The fortifications still remain, picturesque and ruinous. Far up the valley are seen the dyked meadow-lands of the Acadians, and down, towards the south, the high lands round Digby are hazy in the distance.

The railway ends at Annapolis. It is to be contin-

ned round the Basin, 20 miles, to meet the Western Counties Railway at Digby, but meantime the traveller must take the steamer which makes a daily trip to that town. From Annapolis there is a regular steamer leaving for St. John, New Brunswick, upon alternate days (distance 45 miles). It is a very pleasant route. A weekly steamer leaves also for Boston. The short trip down the Basin is enjoyable.

Digby.—A town of 1,879 inhabitants, occupying a picturesque site opposite Digby Gut, which is the name of the narrow opening in the precipitous trap-cliffs through which the tides rush in and out from the Bay of Fundy. It is a favourite summer resort, being free from fog and sheltered by the hills. This town has given its name to the celebrated Digby herrings.

The Western Counties Railway to Yarmouth runs along the coast of St. Mary's Bay through the township of Clare. This township is settled by Acadians who returned after their exile, and, finding their old locations on the Basin of Minas occupied, took up land here. It is a most characteristic community. Longfellow's description, in "Evangeline," will apply to them to-day as fully as it does to the Acadians of 120 years ago. This unchangeable conservatism is a phenomenon in the western world. After a run of 67 miles the train arrives at Yarmouth—the jumping-off place of Nova Scotia. The interior of the country is a hunting and fishing region—wild and studded with lakes. It is broken and unfit for farming.

Yarmouth is a city of 6,200 inhabitants—the most maritime town perhaps in the world; for it is doubtful whether a single person can be found there who is not, directly or indirectly, interested in a vessel. The instinct for maritime enterprise here amounts to genius, for, though the harbour is poor, the soil rocky and sterile, and there is no back country to depend upon, the people are rich and thriving by their foreign commerce. The tonnage owned in this small place amounts to 118,922 tons. There are 3,469 persons who are owners of shipping. Retired sea captains find here a paradise, for the proximity of the Gulf stream makes the weather very changeable, and speculation upon that subject is always in order.

FROM HALIFAX TO PICTOU

Travellers take the Intercolonial Railway, and at Truro the Pictou branch diverges from the main line. If all parts of Nova Scotia were as charming as the North West Arm or the Annapolis valley the effect would be too monotonous, and so, in going to Pictou, the æsthetic sense is allowed a short period of repose. There is nothing specially to remark upon until the train arrives at

Stellarton, forty miles from Truro. The Albion coal mines are reached at this station. The population of the place is 1,881, all connected in some way with the mines. Two miles further on is

New Glasgow. Population 2,595—engaged in manufacturing and shipbuilding. A Siemens' furnace, belonging to the Nova Scotia Steel Company, is at work here making steel plates. There are also rolling mills and glass-works. The Nova Scotia Railway (formerly the Halifax and Cape Breton Railway) branches off here for Antigonish and the Gut of Canso. The train now continues along the East river (8 miles) until Pictou Landing is reached, from whence by ferry the traveller crosses to the opposite side of the harbour to the town of

Pictou. Population 3,403, is situated upon an inlet of Northumberland Strait into which three rivers—the East, the Middle, and the West rivers fall. It has by far the best harbour on the northern shore of Nova Scotia, sheltered and commodious—from five to nine fathoms deep and with 20 feet of water over the bar at low tide. Unlike the harbours of Halifax and St. John it freezes over in the winter. The coast is low, but the scenery up the valleys of the rivers is pretty, and the bathing on the beaches is good. There is much good farming land in the vicinity but, as the meadow lands on the opposite coast of the Province, were more inviting, the French never made any settlement here. It was first settled in 1767 by six families from Philadelphia, but the immigration which stamped a peculiar character on this part of the Province was the band of Highland Scotch which arrived in 1773. They landed in full highland array in kilts and with bagpipes in full blast. Never had the like been heard in Acadia. The Micmacs, who had previously been hanging round for scalps, fled, terror-struck at the sound, and from thenceforth gave no

trouble to the settlers in those parts. The "medicine of the bag-pipe subdued them. The immigration continued from Scotland and the great majority of the people are Scotch and Presbyterian. This energetic stock has made Pictou county one of the most productive farming counties in Nova Scotia. The town has made great progress in manufacturing, and does a coasting trade by vessels built and owned there. Education is very carefully looked after, and with academy and schools and museum, and library and newspapers, the people of Pictou are admirably provided with educational facilities.

Steamers leave Pictou regularly for Charlottetown, P.E.I., for Port Hood in Cape Breton, and for the Magdalen Islands. The Gulf Port line of steamers to Quebec leave from here, touching at all the principal ports in the Gulf of St. Lawrence. Pictou is, however, chiefly remarkable as the outlet of one of the most important coal fields of Nova Scotia.

Pictou Coal Mines.—These mines first began to be worked in the year 1807. As explained elsewhere, in 1825 all the mines in the Province passed into the hands of the General Mining Association of London, which commenced in 1827 to raise coal on a large scale and with scientific appliances. This monopoly continued until 1856, when the Company abandoned all their claims and were allowed to select four square miles where they pleased. They chose the locality known as the Albion Mines at Stellarton, and eventually sold out to a new company called the Halifax Company.

The area of the coal field at Pictou is 35 miles, but the beds are so thick and so accessible that their importance is out of proportion to the area. At the Albion Mines there is a section of 2,450 feet of coal measures holding 100 feet of coal. The thickness of the seams of the lower group are as follows in order of depth:—34 ft. 7 in., 22 ft. 11 in., 5 ft. 7 in., 3 ft. 6 in., 3 ft. 3 in., 12 ft., 5 ft., 11 ft., 10 ft. There are sixteen seams known but these are the chief. It is the main seam of 34 feet which is generally worked. The total sales of coals last year from the Pictou mines were 461,809 tons, of which 260,980 tons were consumed in the Dominion.

NEW GLASGOW TO THE GUT OF CANSO.

This is the usual route to Cape Breton. A train leaves New Glasgow on the arrival of the train from

Halifax. The country is uninteresting, and has been only recently cleared. At Merigomish are mines of coal and iron. Forty-one miles from New Glasgow is

Antigonish, a thriving town of 3,500 inhabitants, nearly all Highland Scotch in nationality and Roman Catholic in religion. Here the tourist may enjoy the novelty of hearing sermons in Gaelic from the cathedral pulpit. Many of the older people speak no other language. Tall, strong people they are, and their village is one of the prettiest in Eastern Nova Scotia. The streets are clean and planted with shade-trees. The houses are tidy and bright. This town is a bishop's see, and all the saints who have it under charge are good old Scotch saints, without any Saxon mixture—St. Ninian, St. Columba and St. Margaret, Queen of Scotland. The large college is named after St. Francis Xavier, perhaps because the older saints were not so strong in scholarship as in the more useful arts of clearing up land and reducing a wilderness to order and civilization. The country around is an unfailing resort for hunting and fishing. The high land of Antigonish Mountain gives it variety. The harbour is shallow and at a distance from the village. Cattle, butter and gypsum are exported from this place. The road continues on through a thinly settled country to

Tracadie, an Acadian French village, situated in a fertile district. There is a monastery of fifty Trappist monks here, who are expert farmers. At 39 miles from Antigonish is

Mulgrave Wharf, on the Gut of Canso. Here is the ferry to the Island of Cape Breton.

HALIFAX TO QUEBEC BY THE INTERCOLONIAL RAILWAY.

For nine miles after leaving Halifax the railway skirts the shores of Bedford Basin. Completely landlocked and hidden from any but the most careful search it was, in old times, a noted haunt of buccaneers; and, to this day, it would not surprise any resident on its shores if Capt. Kidd's hidden treasure were dug up. This treasure is in several other harbours also on the coast. It is one of the myths cherished by this otherwise practical people. At Bedford the road turns inward to

Windsor Junction.—Here diverges the Windsor & Annapolis Railway. At

Shubenacadie, the river of that name is reached. In the early days of Halifax a canal was projected to connect this river, which falls into the Basin of Minas, with the Atlantic at Halifax. A very feasible scheme, if the cost had been provided for, because of the many intervening lakes; but it fell through. To the east is a broken country frequented by moose-hunters and anglers. The road continues through a good farming country, although from the cars it may seem rough, until it reaches

Truro.—Here the branch for Pictou diverges. This was an old Acadian settlement, and the dykes in the meadows date from the French times. It is the centre of a rich district, and possesses the attraction of being an educational centre as well, for the Provincial, Normal and Model schools are here. There are also many manufactures carried on, and these, added to the exceeding beauty of the site, make Truro the most important place after Halifax in the province. The town has a population of 3,463. It is situated at the head of Cobequid Bay, a part of the Basin of Minas. It is 62 miles from Halifax.

After leaving Truro the train begins the ascent of the Cobequid Mountains, following up the valley of the Folly River, which it crosses on a viaduct 600 feet long and 82 feet above the river, until the summit is reached at Folly Lake, 607 feet above the sea. At

Londonderry is a railway to the Acadia Iron Mines, where are situated the works of the Canada Steel Company, who have blast furnaces at work and who manufacture pig-iron, sheet-iron and nail-plates; also railway axles and wheels. There are several varieties of ore found, but that worked is chiefly *limonite*. From this point to

Folly Lake, or Folleyh (if there is time to spell it so), are the heaviest grades of the line. Long snow-sheds testify to the severe winter storms upon the mountains. The rock cuttings and the curves are numerous, but many glimpses of picturesque scenery may be had from the train. The Cobequid Mountains are 100 miles long and 10 miles wide. They rise to a height of 1,100 feet. The train now descends the northern slope. At

Springhill Junction branches off the road of the Cumberland Coal and Railway Company to Parrsboro', on the Basin of Minas. The mines are distant about five miles from the Intercolonial Railway. Three separate seams are being worked, and the present output is 1,200 tons a day. In the year 1883 the total output was 200,000 tons. The operations of the company have of late been largely extended. The three seams now being worked are of 13 feet, 11 feet and 11 feet respectively. In a width of 1,018 feet there are eight seams and an aggregate thickness of 62 feet of good workable coal. The analysis of the 13-foot seam is as follows:—Carbon, 78.51; hydrogen, 5.19; oxygen and nitrogen, 5.98; sulphur, 1.12; ash, 5.20. The coal used on the Intercolonial Railway is from this mine. The owners are enlarging the works so as to attain an output of 2,000 tons a day. The area of the Cumberland coal field is 300 square miles.

From this point an excursion can be made to visit the celebrated Joggins section of the carboniferous series of rocks. The railway runs from Springhill Station to Parrsboro', on the Basin of Minas. There a party could easily arrange for a steamer to go along the coast, and the Intercolonial Railway could be reached again at Amherst without turning back upon the route to Quebec.*

The South Joggins.—Sir Charles Lyell says the finest example in the world of a succession of fossil forests of the Carboniferous period laid open to view on a natural section, is that seen on the lofty cliffs called the South Joggins, bordering the Chiegnecto channel. Sir Charles visited them twice. They are abundantly illustrated in all his works and in Dr. Dawson's *Acadian Geology*. There is a continuous exposed section ten miles in length. Sir Charles counted nineteen seams of coal and he saw seventeen trees in an upright position, chiefly *Sigillaria*, occurring at ten distinct levels, one above the other. The usual height of the trees was six to eight feet, but one trunk was twenty-five feet high. The action of the tides exposes new fossil trees from year to year and a continuous interest thus attaches to the locality. The whole ground is

* The Halifax Local Committee, with the kind assistance of Mr. R. Leckie, of the Cumberland Coal Company, will endeavour to arrange for an excursion to the Joggins, some time in August, should a sufficient number of members be able to join in it. The route will be by railway from Springhill to Parrsboro', and from thence along the coast by steamer to Amherst, where the Intercolonial Railway is again reached and the journey towards Quebec resumed.

classic to geological science; and it would be as unpardonable in a geologist to omit a visit to the South Joggins as for an Egyptologist to go to Cairo without seeing the Pyramids.

Parrsboro', the terminus of the branch road, is a beautiful place. The scenery is most diversified. In the rear is the bold mountain country and to the south east is the Basin of Minas, bordered with beautiful meadows, and set in a distant circle of hills. Opposite is the bold cliff of Cape Blomidon, the northern end of the barrier of trap rock which skirts the western shore of Nova Scotia—columnar trap resting on new red sandstone, itself worth a visit. Then the bold points of Cape Split and Cape d'Or—all contributing to form in one locality a total of geological attractions unequalled in the world.

Returning to the Intercolonial route; after leaving Springhill the train passes one station and arrives at

Maccan.—From this point stages run to the Chignecto coal mines and to the South Joggins. Travelers who wish to visit these places may reach them conveniently from this point. This is the usual point of stoppage for that purpose when a party is not made made up. Eight miles further is

Amherst.—A flourishing town of 4,457 inhabitants, depending upon a rich farming country for its trade. The tourist who is fond of colonial history stops here to visit the ruins of Fort Cumberland and trace out the localities of many deeds of daring in the old days of struggle in the French and Indian wars.

Five miles after leaving Amherst the train crosses the little river Missiguash, the boundary between Nova Scotia and New Brunswick—a little stream very important in old colonial history and about which the French and English wrangled for thirty years. At the treaty of Utrecht, France ceded to England "that all Nova Scotia or Acadia comprehended within its ancient boundaries." The English expected and claimed L'Acadie as known in the French maps and books; but the French insisted that the peninsula of Nova Scotia alone was meant, and claimed this little river as the boundary of Canada. Commissioners had been appointed, under the treaty, to settle these boundary questions; but they did nothing but produce documents and write memoirs, and, at last, in 1750, M. de la Jonquière, the new Governor of Cana-

da, sent down the Chevalier de la Corne with a detachment who arrived in time to prevent from landing Major Lawrence, who had been sent with a detachment to occupy the head of the Bay. La Corne informed Lawrence that the Missiguash was the boundary, and, as war had not been declared, Lawrence landed south of the river and subsequently Fort Lawrence was built by him at the village of Beaubassin. The Abbé Laloutre, who was the evil genius of the Acadians, set fire to the church as the English entered the village. He had come down on his errand of mischief to lead the Acadians to their ruin, and he took this measure to force them to abandon their lands on the English side. La Corne erected Fort Beauséjour on his side and from that point as a centre, regardless of the reproaches of the Bishop of Quebec, the insubordinate and unscrupulous Laloutre carried on his political plots until he brought upon the Acadians their cruel fate. The ruins of these forts still exist. Fort Beausejour was an important work built for a garrison of 800 men and armed with 30 guns. The French had a continuous chain of forts from here to the St. John river. The English maintained a garrison of 600 men at Fort Lawrence until 1755, when they captured Fort Beausejour. A few miles further on, the railway crosses a wide extent of rich marsh-land which, fertilized by the muddy tides of the Bay, produces enormous crops of hay. The first important station in New Brunswick is

Sackville.—This is a town of 4,882 inhabitants. Mount Alison College, a Wesleyan institution, with 200 students, is one of the most important educational establishments in the Province. Near here will be the outlet of the Bay Verte Canal, projected only as yet, to unite the Bay of Fundy with the Gulf of St. Lawrence. When it is remembered that the tides in the Gulf are ordinary ocean tides while those of the Bay rise sixty feet, the difficulty of the undertaking will suggest itself. A railway to Cape Tormentine, to connect with a short ferry across Northumberland Straits, is nearly completed. The next station is Dorchester, an important town. Then follows

Memramcook—containing the large Roman Catholic College of St. Joseph, with 100 students, among a flourishing population of over 1,000 Acadian French. The next station is

Painsec Junction.—From here the tourist may go to St. John, to Quebec, or to Shediac. At Shediac the Gulf Ports steamers call, connecting with Pietou, N. S., with Miramichi and the Bay Chaleur ports, and with Quebec. There is also a daily steamer to Prince Edward Island. The next station is

Moncton.—This is the centre of the Intercolonial Railway system. It contains 5,032 inhabitants. A sugar refinery and a cotton mill with other factories are located here. These and the machine-shops of the railway are the life of the town. This is the place to witness the great tidal wave of the Bay of Fundy. At low tide nothing can be less interesting than the wide expanse of slippery red mud with a little stream trickling down, far off in the middle, which marks the bed of the Petitcodiac river. The tide comes in with a "bore," six feet high, and speedily rises to a height of seventy feet. Then, when the water comes, and the vessels which were lying over on their sides are straightened up and the banks are full, the river is a pretty sight enough; although one is always afraid that the water will suddenly run away again.

The tides of the Bay of Fundy are very remarkable. The tidal wave sweeping along the American coast to the north-east is caught in the broad funnel-shaped entrance to the Bay and compressed. As the opposite coasts draw together it increases in height and speed all the way up to the remotest points of Chignecto and Cobequid Bays. It attains a speed of six miles an hour and a height of seventy feet. Into the narrows of the estuaries it rushes with a "bore" or foaming wave sweeping along with it a flood turbid with red mud.

From Moncton the road passes through a very uninteresting country until the Miramichi is reached. The coast is low and although large streams are crossed the road has been taken well inland to avoid bridging them at their estuaries. The Richibucto is an important river with a flourishing town at its mouth. The settlements are all upon the shore, and, although the land is good, the country from the train seems uninviting. Land requires to be more than good to tempt a New Brunswicker away from the charms of ships and saw-logs. They are a maritime people and love the water, of the sea first, and, failing that, of the rivers. At Chatham Junction there is a branch road to Chatham, but the main line goes to Newcastle, where it crosses the

Miramachi River, for there is no town or place called by this euphonious name. Miramichi is a generic name for the settlements upon the river. The road crosses the river above the forks. The length of each bridge is 1,200 feet. After crossing the north-west branch, the road turns off the main line by a siding into Newcastle. The two chief towns on the river are Newcastle and Chatham, between which a very active rivalry exists. Newcastle is a town of 4,209 inhabitants, it is at the head of deep water navigation. Chatham is the older settlement, it is on the opposite (south) side of the river six miles lower down. It has a population of 5,672. The business carried on is the same at all the towns of this coast. Lumbering, ship-building and fishing. Canning lobsters and salmon is an important industry.

The Miramichi River is 225 miles long. It falls into a wide bay—a very favourite fishing ground. The low coast extends out in spits of sandy soil, densely wooded. It was at Miramachi Bay that Jacques Cartier first landed on Canadian soil, and the locality was a favourite one in early French times. In 1642 Basques were settled on the river, but they quarrelled with the Indians and were succeeded by French. An extensive concession was granted there to Nicholas Denys, Governor of Acadia, and he had his chief post on the Miramichi, with forts at Miscou and on the Gulf of Canseau. The first establishment at Miscou was made in 1610.

This region became celebrated by the immense fire which raged over it in 1825. Newcastle was destroyed and a large number of the inhabitants ruined. Above 200 persons were supposed to have perished in the flames. Such a fire was never known before nor since. Over 8,000 square miles of forest were destroyed and \$1,000,000 worth of property. The fire swept rapidly on, cracking and roaring along a blazing line of one hundred miles front. Many ran to the river and plunged to the neck in the water. Others sought refuge on rafts and logs. The roaring of the flames—the screams of the perishing—the cries of the animals—the volumes of smoke and sparks contributed to make up a scene of horror which no eye-witness could ever forget. The lumber from this region was exceedingly good. Masts and spars for the Royal Navy were exported thence in large numbers.

Chatham is the seat of a Roman Catholic bishop, and a large pile of ecclesiastical buildings form a leading feature of the town.

The Miramichi is the gateway to the sportsman's paradise—the forest wilderness of New Brunswick. From the fringe of settlement on the coast to the St. John River extends an immense unsettled territory permeated with streams and lakes, and everywhere, by short portages, accessible to light birch canoes. Beaver, moose, cariboo, lynx, sable, mink and bears inhabit this primitive wilderness, and the streams are full of fish and abound with salmon in their season. The land in the valleys, when cleared, is exceedingly good farming land.

After passing three stations the train arrives at

Bathurst, a flourishing town of 4,806 inhabitants, formerly called Nepisiguit, a name still borne by one of the four streams which fall into the basin. This place was first settled by a Basque named Enault, who married an Indian woman, but, after clearing the land and raising cattle and starting a fishing and lumbering establishment, he was impolitic enough to have a misunderstanding with the lady's brother, who tomahawked him incontinently. There is a good business done at Bathurst, and the farmers around it are prosperous. The great falls of the Nepisiguit, 105 feet high, are distant 25 miles. This is a good place for boating, for bathing and for fishing. Altogether the most desirable spot for summer sport along the coast.

Miscou Island, the extreme north part of the province, was much dreaded in the adventurous old days before science exploded all the monsters, because of a female demon who resided there, up to whose waist the mast of a ship would scarcely reach, and which was a pocket a stray Indian or Frenchman for an occasional meal; besides rendering the place unpleasing with terrific roaring. Is it not so written in the books of the early voyagers?

But a demon worse than the Scylla of Miscou lurks not far from here on the desolate sandy shore of Tracadie—a demon who baffles the power of nineteenth century science—

“The nightmare life in death is she
That thickens men's blood with cold”—

the demon of leprosy—the true leprosy of the white-shining spot and decaying limbs. Its origin is obscure, but it would seem to have originated about 1758 when a French vessel, which had been in the Levant trade, was stranded near the Miramichi. The

sailors were hospitably treated by the poor fishermen, and shortly after this dreadful plague appeared. Many died, and the people fled to other places along the coast. In process of time the disease appeared at Caraquet, Tracadie and elsewhere, until, in 1817, the death of Marie Landry drew the attention of the government to the subject. But it was not until 1844 that a law was enacted under which all the unfortunate lepers were collected at one place, Sheldrake Island, at the mouth of the Miramichi. From thence the establishment was moved to Tracadie. Everyone found touched with this fell disease was sent there. Forcibly separated from house and home, from parent, wife, or child, what horrible anguish must have torn many a heart on joining that loathsome band of human beings in the lazaretto? And for many years they were uncared for—objects of terror to their fellow creatures—separated and accursed. At last, in 1858, application was made to the nuns of the Hotel-Dieu of Montreal. True spiritual daughters of Jeanne Mance, these devoted women feared nothing and shrank from nothing. They took charge of these poor desolate souls, they brought order and cleanliness into the lazaretto, they separated the sexes, they washed the bandages, they dressed the dropping limbs, and kindly and patiently, without a shudder of disgust, they laboured to solace these weary souls with the consolations of religion as well as by the kind offices of the hospital. The lazaretto is under the care of a superior and eight nuns. A visitor in 1873 counted 23 patients, and it is beyond doubt that the disease is disappearing. All the inmates are French, and no doubt the practice of continually marrying in and in, necessary in such small and separated communities, would intensify any disease which happened to take root among them.

At Bathurst the traveller comes out upon the Baie des Chaleur, so called by Jacques Cartier on account of the excessive heat he experienced there. The road now runs along the bay, which is 100 miles long, with a breadth of 20 to 30 miles. Charlevoix says that in the very earliest days it was called the "Baye des Espagnols," probably from the Basques who first "exploited" its finny treasures.

Leaving Bathurst, the train crosses several large streams and passes five stations until it reaches

Dalhousie, a beautiful town of 2,353 inhabitants, situated on a commanding point overlooking the

estuary of the Restigouche River. The harbour is excellent. It was in this estuary that Admiral Byron, in 1760, destroyed the French squadron which came out too late to relieve Quebec. The next station is

Campbellton, on the Restigouche River. Here the traveller will take leave of New Brunswick, for that river is the boundary of the Province of Quebec. It is the head of navigation on the Bay Chaleur, and here the steamers call from Quebec, Gaspé and the Bay Chaleur ports. It is very central for shooting excursions, is near many important salmon rivers, and is pleasant for driving or boating, or sailing or bathing. In short, it is a delightful summer resort, abounding in beautiful scenery.

Leaving Campbellton the train follows up the Restigouche until opposite the mouth of the Metapedia, when it crosses to follow the valley of the latter in its course through the mountains. The Restigouche is a noble stream, broad and deep—famous for salmon; draining an area of 6,000 square miles, with bold shores, and navigable for 130 miles further. It is crossed by a skew bridge over 1,000 feet long. The scenery at the junction of the river is very pretty. After crossing the bridge the train arrives at

Metapedia Station.—This is headquarters for salmon. Here is Fraser's. What salmon-fisher has not heard of him? And there are pools known to that great authority where guests, who cannot afford to lease a whole river, may try their luck. The road follows up the valley of the Metapedia to the summit of the divide of the St. Lawrence. Several streams fall into the Metapedia, notably the Assametquaghan and the Causapschal, and, as Fluellen would say, "there are salmons in all"—for was it not at the mouth of the latter euphoniously named river where H.R.H. the Princess Louise caught the 40-lb. salmon? No doubt the dinner earned that day by the quick eye and steady hand of the Royal lady surpassed the sumptuous feasts of Kensington Palace, for camping out in the clear mountain air, and exercise, and pretty scenery give a sauce not to be had from Crosse & Blackwell. Here also abideth the mosquito, no respecter of persons, a creature whose providential function it is to dwell at such places and become the one sole cause why the better-disposed Americans do not take to the woods permanently. The *raison d'être* of this mean sneak of a fly is to drive mankind into the thorny paths of

civilization. The winding river, with its hundreds of rapids and falls; the beauty of the placid lake, which is its source near the summit; the abundance of fish; and the wildness of the scenery make this region a very paradise even if it be not quite cleared up. After leaving the banks of Lake Metapedia the road still rises until Lake Malfait is reached, which is at the summit, 750 feet above the St. Lawrence. Then the traveller will begin to see spread out before him the sea-like expanses of the River St. Lawrence, his ears will thenceforth be greeted with the sound of the French tongue, and the names of the stations will commemorate so many saints that the *Acta Sanctorum* of the Bollandists in 54 volumes folio, with a continuation to date, would be required to enlighten an inquisitive stranger as to their merits.

The remaining stations of the road, until Quebec is reached, will be noticed in another place in the description of the Lower St. Lawrence.

Principal Dawson has prepared the following geological itinerary of the whole route, which could not well be distributed over the topographical description.

NOTES ON THE GEOLOGY OF THE COUNTRY FROM HALIFAX TO MONTREAL.

At Halifax the geologist lands on the quartzites and slates of the Coast series or Gold series of Nova Scotia, believed to be of Lower Cambrian age. In the vicinity of Halifax it contains auriferous quartz mines, which are situated at Montagu and Waverley. At North West Arm and other places may be seen granite, which traverses these beds as thick dykes or intrusive masses, and produces contact metamorphism. At Waverley Mine, the obscure fossils named *Astropolithon* may be found in the quartzite.

At Windsor Junction, the branch to that place diverges (about forty miles). Windsor has excellent exposures of the fossiliferous Lower Carboniferous limestones, and of the great beds of gypsum, characteristic of that formation in Nova Scotia.

Beyond Gay's River, the railway enters into the carboniferous country, and in some places quarries in the Lower Carboniferous limestone may be seen near the road.

At and beyond Truro the railway traverses a portion of the Triassic red sandstone of Cobequid Bay. The sandstone may be seen in the cuttings, and the red colour of the soil is characteristic.

In approaching the Cobequid Hills, a more broken country and beds of grey sandstone and conglomerate indicate the Carboniferous beds, which here reappear from under the red sandstone.

At Londonderry Station the road enters on a belt of highly inclined slates of olive-grey and dark colours, which, at a little distance west of the line of railway, contain the large and productive veins of iron ore worked by the Steel Company of Canada. This vein or aggregation of veins is primarily of carbonate of iron and ankerite, with some specular iron, but has been changed in many places to a great depth into limonite, which is the ore principally worked.

Beyond this place the slates are seen to be pierced by great intrusive masses of red syenite and by dykes of diorite and diabase. At Wentworth Station these rocks are overlaid by dark-coloured shaly beds, holding fossils of the age of the Clinton or older part of the Upper Silurian. The grey slates holding the iron ore are obviously of greater age than this, but how much greater is uncertain. For reasons stated in "Acadian Geology," they are regarded by Dr. Dawson as Lower Silurian.

Crossing the Cobequid Hills, conglomerates are seen belonging to the southern edge of the Cumberland coal-field, on which the road now enters. At Springhill Station is a branch road leading to the mines of that name, the most important coal mines on the line of this railway.

At Maccan Station conveyances may be had to the celebrated South Joggins Section, on the shore of Chiegnecto Bay, about 12 miles distant. To see this satisfactorily, the geologist should lodge at the Joggins Mines and spend two or three days on the shore. Details of the section will be found in "Acadian Geology."

From Maccan Station to Moncton the railway passes over carboniferous rocks, mostly of the lower members of that series. Near Dorchester there are good sections of the Millstone Grit formation, and at the Albert Mines, Hillsboro', the remarkable bituminous shales of the Lower Carboniferous, holding albertite and remains of fishes. This part of the railway also passes over some fine examples of the alluvial deposits of the Bay of Fundy, more especially the great marshes of Amherst and Sackville.

At Moncton, the railways from St. John on the one hand and Shediac on the other join the main line. By the first the traveller may visit the Huronian, Cam-

brian and Devonian rocks of St. John, and by the second and steamers from Pointe du Chêne, may reach the Permian and Triassic rocks of Prince Edward Island.

From Moncton to near Bathurst the railway passes over the low Carboniferous plain of Northern New Brunswick, showing scarcely anything of the underlying rocks.

Beyond Bathurst is the varied and interesting country of the Baie des Chaleurs and the Restigouche and Metapedia Rivers, of which it is possible only to note some of the more interesting features.

By stopping over at Dalhousie or Campbellton, or at the one place and proceeding to the other, the following localities may be visited:—At Cape Bon Ami, near Dalhousie, is a fine section of Upper Silurian shale and limestone, abounding in fossils, and alternating with very thick beds of dark-coloured dolerite. Apparently resting on these are beds of red porphyry and breccia, forming the base of the Erian or Devonian beds. On these, a little west of Campbellton, rest agglomerate and shale, rich in remains of fishes (*Cephalaspis*, *Coccosteus*, etc.) and traversed by dykes of trap. Immediately above these are conglomerates and dark, hard shales, the latter full of remains of *Psilophyton* and *Arthrostroma*,—and at a sandstone quarry on the opposite side of the Restigouche are similar plants and great silicified trunks of *Prototaxites*. All these beds are Lower Erian.

At Scaumenac Bay, opposite Dalhousie, are magnificent cliffs of red conglomerate of the Lower Carboniferous, and, appearing from under these, are grey sandstones and shales of Upper Erian age. They contain many fossil fishes, especially of the genus *Pterichthys*, and also fossil ferns of the genera *Archæopteris* and *Cyclopteris* and of species characteristic elsewhere of the Upper Erian.

Beyond Campbellton and on the Metapedia River, the rocks exposed are principally slates or shales with marked slaty structure, and of Upper Silurian age. Fine exposures of these are seen in the cuttings on the Metapedia. Fossils occur in calcareous bands associated with these slates.

Passing Lake Metapedia, at the head of the river of that name, the railway cuts through some limestone, probably of Hudson River age, and then passes into Lower Silurian, and probably in part Cambrian, shales, sandstones and conglomerates, of which the greater part are referred to the Quebec group. Crossing over

these, the railway passes at a high level from the valley of the Metapedia to the River St. Lawrence, here 30 miles wide, and which breaks upon the view suddenly after leaving the Metis Station, the cuttings near which are in slates of the Quebec group. From this point the railway follows the strike of the Quebec group all the way to Levis, opposite Quebec.

On this line the conglomerates near Bic are especially worthy of notice, and are well seen in the cuttings. At Levis there are cuttings for a new connecting line of road near the village of Levis, and about a mile from the railway station, which expose some of the beds holding *Graptolites*. The citadel of Quebec affords a fine exposure of the Quebec group rocks, though without fossils, and a traveller who can stay over will find instructive sections at the Island of Orleans.

The Falls of Montmorenci, near Quebec, are of great beauty, and show in the gorges Utica shale resting on Laurentian gneiss, which at the Natural Steps above the falls is overlaid by Trenton limestone.

Half way between the city and the falls, at a mill in the village of Beauport, is a bank of shining boulder clay, overlaid by fossiliferous sand and gravel (*Saxicava* sand) rich in *Saxicava rugosa* and other shells. Clays with a somewhat richer fauna (Upper Leda Clay) occur in the bank of a brook a little farther from the road to the north.

From Quebec to Montreal, both the Grand Trunk Railway and the North Shore Railway pass for the most part over a flat Lower Silurian country, with no exposures of importance. But the traveller who ascends the river by steamboat may see, after leaving Quebec, fine sections of the Quebec group, overlaid by Trenton limestone and this by Utica shale, which in many places forms high banks overlooking the river.

J. W. D.

[NOTE.—The island of Cape Breton will be treated at length in the Guide Book.]

PRINCE EDWARD ISLAND.

This beautiful island may be called the garden of the Dominion. It is settled throughout, and is nearly all cleared and under cultivation. In this respect it is in striking contrast to the other provinces of Canada.

Although it has been asserted that Cabot discovered the island in 1497, the English never laid claim to it; and, in early times, it formed part of the government of New France. In 1663 the Company of New France granted it to the Sieur Doublet, a captain in the French Navy, but no settlements were made and the grant was revoked. Very little notice was taken of the island by the French until after the treaty of Utrecht. Then, having lost Nova Scotia, they concentrated their energies upon Cape Breton, and the fertility of Isle St. Jean, as they called it, soon came into use for the supply of the garrison at Louisbourg. In 1719 it was granted *en seigneurie* to the Comte de St. Pierre, who formed a trading company and spent considerable sums in establishing fisheries, but without much success, for the grant was again revoked.

After the treaty of Utrecht many Acadians retired to this island, and their number was largely increased by refugees when the English captured the French forts on the Bay of Fundy. It afforded two-thirds of the supplies used by the garrison of Louisbourg in 1758, and was under a governor appointed from thence. The only fort the French had was a small work with a few guns at Charlottetown, which they called Port la Joie from its beauty and security.

The island was surrendered at the capitulation of Louisbourg, and in 1758 Lord Rollo was sent to take possession. Many of the Acadians were deported with those from Nova Scotia and scattered through the English colonies; but many escaped by hiding in the woods and eventually returned to their land, where they were unmolested afterwards. In 1763, at the peace, the island was annexed to the government of Nova Scotia and various schemes for its settlement were mooted. At last it was divided into townships and granted, by means of a lottery, to a number of persons, many of them officers of the army and navy who had served in the war. There were conditions attached to these grants of quit-rent and of reservations for churches and wharves, but especially conditions of settlement. The report upon the fertility of the island was so favourable that it was expected all the land would be taken up at once.

The grantees, however, for the most part, had no intention of settling. Many sold their grants, and the lands in the island gradually fell into the hands of a few people who did nothing to improve them, but remained in England, waiting to profit by the labour of the actual settlers. Properly, these grants should

have been cancelled for non-fulfilment of the conditions, but they were not. In 1769 the island was erected into a separate government, and it remained separate until 1873, when it became part of the Dominion of Canada.

The fertility of the island attracted settlers from all sides, and soon it was very generally under cultivation, but, as the leases ran out, the absentee landlords raised the rents. Whereupon arose disturbances without number—the stalwart pioneers who had brought the wilderness into cultivation not being able to understand the correct principles of property and land tenure. Among other settlers were eight hundred Highlanders, brought out by the Earl of Selkirk, who became prosperous farmers in a very short time.

The land question still smouldered; occasionally breaking out into flame until the government, in 1860, appointed a commission, which valued the rights of the absentee proprietors and recommended their purchase by the government, with a view to reselling to the tenantry. A bill was founded on the report, but was disallowed by the British Government. Shortly afterwards another bill was passed and allowed, under which the government acquired the proprietors' rights and thus put an end to further agitation. The government acquired 843,981 acres, and in 1882 only 142,011 acres remained not taken up. Of this 67,000 was indifferent forest land, so that only 75,000 acres remained under lease to tenants who had not purchased. In this manner was Prince Edward Island converted into a country of proprietors from a country of tenant farmers.

Census.—The island has a population of 108,891; of these 47,115 are Roman Catholics. There are 10,751 of French Acadian descent and 48,993 are of Scotch descent. The inclination of the people is altogether towards agriculture, although the island is in a very advantageous position for conducting fisheries. The area of the province is 2,133 square miles, or 1,365,400 acres. Of this, 1,126,653 acres are occupied and 596,731 acres are actually under crop or in pastures or gardens. So much country cleared up gives the province the air of an English rural district—an idea which the tidiness of the farming tends to confirm. Land can, however, be bought cheaply, for, to the colonist, the West is ever the land of promise, and the English-speaking people have not the deep-seated attachment to the soil of the Canadian and

Acadian French. Consequently, land is offered freely, and an immigrant who does not care to face a pioneer life may easily find here a home in a settled and organized community.

Soil.—The country is level, but slightly rolling. About the North and West rivers it rises into picturesque hills, none exceeding five hundred feet in height. It is deeply indented by the sea, and affords much really lovely and quiet scenery after the European type of picturesque beauty. The soil is a bright red loam of uniform character throughout, varying from a stiff red clay to a sandy loam, and everywhere free from stones or boulders.

Climate.—The climate of the island is modified by the sea. In winter, as compared with Canada, it is warmer, but it is colder than some parts of Nova Scotia, being less influenced by the winds from the Gulf stream. It is less changeable, and there is not the fog in the summer months which is met with in Nova Scotia and some parts of New Brunswick. The island is becoming a very favourite summer resort for Canadians. All along the north shore are long, level sandy beaches, formed by the unbroken roll of the sea, admirably adapted for bathing, and here many resort who love quiet and seek for healthful recreation.

Prince Edward Island is an Arcadian province without manufactures—the ideal country of Mr. Ruskin, where no tall chimneys vomit soot and blacken the herbage. The green grass is always bright upon the red soil. It is not a province of towns and cities, but of farm houses in continuous succession on the roads and streams. One drawback, however, there is, and that is the difficulty of regular communication with the mainland during three months in winter. The field-ice in the strait renders steam navigation uncertain. Communication is kept up by boats across a ferry of nine miles to the nearest point of New Brunswick.

Geology.—The geological formation of the island is New Red Sandstone. It is beyond doubt underlain by coal measures, the continuation of the adjoining carboniferous systems of Nova Scotia and Cape Breton, but at so great a depth that they could not be profitably opened up in competition.

Railways.—There is but one railway—the Prince Edward Island Railway, built by the Provincial Gov-

ernment and worked at a considerable annual loss by the Dominion Government since confederation. It runs everywhere upon the island from end to end, and branches to every town, so one such railway is amply sufficient for any country.

Trade.—The exports consist chiefly of farm and cattle products. They are increasing rapidly, for, whereas in 1871 the total exports amounted to \$1,478,645, in 1883 they amounted to \$3,000,000.

Education.—This province contains one college, one normal school and 423 public schools, all under the administration of a government board with superintendent and inspectors. Forty-two per cent. of the annual provincial revenue is expended upon education.

TOWNS.

Charlottetown, the capital (population, 11,485), is a pleasant town situated on a point where three small streams fall into a safe and commodious harbour. Steamers ply between it and Pictou. Another line connects it with Shediac, and there is a weekly line for Canso, Halifax and Boston.

Summerside, a town of 2,853 inhabitants, on Bedeque Bay, 40 miles west of Charlottetown, celebrated for most delicious oysters—neither too large like Saddle-rocks, nor too small like Blue Points, but just the size which right reason calls for; of good flavour, and tasting as if they had lived in salt water.

Alberton, 40 miles further west; much frequented by fishing vessels.

Tignish, almost at the extreme western end—a fishing village.

Georgetown, 30 miles east of Charlottetown, on a very good harbour, which remains open nearly all the winter. Steamers connect it with Pictou and the Magdalen Islands.

NEW BRUNSWICK.

Physical Features.—The area of this province is 27,174 square miles. From north to south its greatest length is 230 miles, and its greatest breadth is 190 miles. The coast upon the Bay of Fundy is rocky and

sterile until the head of the bay is approached, when the rich Acadian marsh lands are met with. Along the shores of the Gulf of St. Lawrence the coast is low and sandy. The surface of the country is rolling. Nowhere does it attain any considerable elevation. In the interior, a few miles back of the coast, the soil is good and well adapted for farming. In this respect the province has never had justice. There is less really bad land in New Brunswick than in any other province, except Prince Edward Island. The geological formation of the country is mainly carboniferous. A strip of Silurian and of granite runs along the southern coast, and the northwestern corner is also Silurian and granite.

Rivers.—New Brunswick is singularly endowed with streams. As before stated, the surface of the country is rolling and the valleys of the streams are very wide. The spring freshets flood these wide valleys and produce what is called "intervale" land of great fertility, by the annual deposit of the swollen rivers. The River St. John is 500 miles long. It is navigable for large steamers to Fredericton, 90 miles,—and for 230 miles more for small steamers as far as Grand Falls. Above the falls there is another stretch of 80 miles of navigable water. The tributaries of the St. John are, many of them, large streams, such as the Nashwak, Oromocto, Tobique, Aroostook. The St. Croix, Miramichi and Restigouche are large rivers, as also are the Nepiseguit and the Richibucto. These chief arteries and their tributaries interlace their head waters and intersect the province in every direction.

Minerals.—At Grand Lake, on the St. John, coal is mined to a small extent. The seam is thin, and, in competition with the mines of Nova Scotia, will not pay to work excepting for local consumption. It is near the surface, and is found on many farms in the neighbourhood. What further seams may exist deeper down is not known. Albertite is a very remarkable substance found at the head of the Bay of Fundy. It is a sort of asphalt or solid hydrocarbon. Unfortunately the present supply is exhausted, and no new veins have yet been struck. A costly litigation was carried on to determine whether this was, or was not, coal, and scientific men, in equal number, were ranged on both sides.

Climate.—The climate on the Bay of Fundy coast is like that of Nova Scotia, with perhaps more fog in

summer. The shores of the Gulf are free from fog. In the interior, about Fredericton, the climate is bright and cold in winter and warm in summer, as in Canada.

Population.—The population of the province is 321,233. The genius of the people is maritime, as might be supposed from their origin. Building and owning ships is a passion. It is doubtful whether there is any port in the world where at least one New Brunswick ship cannot at any time be found, and their capacity for managing this kind of property amounts almost to instinct. The introduction of iron into ship-building has injured their trade in ships, but 76 vessels were built last year in the province. The fisheries employ a large number of vessels and men. But the New Brunswickers are also born lumbermen, and two-thirds of the total value of their exports last year were products of the forest. The energies of the people are of late turning towards manufacturing, for which, owing to the proximity of coal, they have great facilities.

Railways.—The Intercolonial Railway has been referred to in another place. In addition, the Grand Southern, along the south shore, connects St. John with St. Stephen, on the St. Croix River. The New Brunswick Railway is a system of amalgamated interior lines from St. John to Fredericton—to the Maine frontier, connecting with the New England roads—to Edmonton, on the Upper St. John—and to Woodstock.

Education.—The chief educational centre of the province is Fredericton, the capital. The University of New Brunswick is there, and the Normal School. The public schools of the province are free. Last year there were 1,447 schools in operation, attended by 66,775 pupils, or one in five of the population. Owing to a change in the time of making up the accounts, the last statement extends over eighteen months. During that period \$236,137 was expended on public education.

ST. JOHN.

The city of St. John was founded in 1783 by a body of exiled loyalists, chiefly from the Eastern States. Among its founders were Chief Justice Ludlow, of the Supreme Court of New York; Judge Upham, who had

been a colonel of dragoons; Judge Allen, who had been colonel of an infantry regiment; Beverley Robinson, who had possessed large estates on the Hudson. All of the founders of St. John had been important men in the colonies. They had obtained grants in what was then called Nova Scotia. The city of Boston, with only one dissentient vote, passed a resolution in 1783, which formulated the feeling prevalent, to the effect "that this town will at all times, as they have done to the utmost of their power, oppose every enemy to the just rights and liberties of mankind, and that, after so wicked a conspiracy against those rights and liberties by certain ingrates, most of them natives of these states, and who have been refugees and declared traitors to their country, it is the opinion of this town that they ought never to be suffered to return, but to be excluded from having lot or portion among us." Naturally, therefore, the settlers at St. John were poor, for their estates were confiscated and any debts due them had been cancelled by law. They began the world again, and others gathered round them, on this rocky coast, until their city became wealthy and populous; when one night in June, 1877, a great conflagration, for fire is too weak a word, swept away 1,600 houses, extending along nine miles of streets, and covering 200 acres of ground. This was in the very heart of the business part of the city. Twenty to thirty millions of dollars in value was destroyed in one night; it was a night long to be remembered by those who witnessed it. But this indomitable people were not dismayed, for the ashes were scarcely cool before they commenced their business again in extemporized shanties—in vaults—under every conceivable kind of shelter which the ingenious shiftiness of Acadian versatility could suggest. This was only seven years ago, and now St. John is rebuilt with many handsome buildings, but, with the exception of the Court House and the monuments of the exiled loyalists in the graveyard, everything of historic association has been swept away.

The harbour of St. John is open all the year round, and, by a breakwater and Partridge Island at its mouth, is perfectly sheltered. The tide rises 23 feet, but at the lowest tide there is 18 feet of water on the bar. The river St. John falls into it and around the estuary is clustered an aggregate population of 41,363. In St. John and Carleton, a suburb on the opposite side of the harbour, are 26,127 persons, and in Portland, a separate municipality, 15,226.

Prince William street and King street are the chief thoroughfares of St. John. The Post Office, Custom House, Bank of New Brunswick and Savings Bank are handsome and substantial buildings. The Roman Catholic Cathedral in Waterloo street is a large Gothic building in sandstone and marble, simple and severe in style, with a handsome spire and adorned with rich stained glass.

A short distance from the city, the St. John river is spanned by a suspension bridge. This is stretched over the falls, which possess the eccentricity of falling both ways. When the tide is out the water falls 15 feet into the harbour below, and when the tide runs in, it falls 15 feet into the river. Consequently, vessels can enter the river only at half tide. The bridge is 70 feet above the highest tide and crosses by a span of 640 feet. At Carleton, La Tour built his fort, and some traces of it yet remain. There it was that in 1645, Lady de la Tour, in her husband's absence, defended herself against a largely superior force, led by his rival Charnissay, repulsing them at the head of her men. She at last surrendered on honourable terms, but Charnissay broke his solemn pledge, and hanged all the garrison—English and French—but one, whom he compelled to act as hangman, and he also compelled Madame de la Tour, with a halter round her own neck, to be a witness to the murder of her husband's retainers. Thus, says Hannay the historian of Acadia, "Her great heart was broken. She was severed from the husband to whose fortunes she had been so faithful, and could scarcely hope to see his face again, except as a captive like herself. She felt her work in life was done, for she was not born for captivity. So she faded day by day until her heroic soul left its earthly tenement, and in three weeks from the time she witnessed the capture of her fort, she was laid to rest by the banks of the St. John which she loved so well, and where she had lived for so many years." Evidently the Acadians were very serious persons in those days.

From St. John all parts of New Brunswick can be reached by rail. Steamers also leave daily for Eastport and Boston, connecting at the former place with steamers on the St. Croix to St. Andrews and St. Stephens. Steamers also connect with Digby and with Moncton. During last year 1,699 vessels, with an aggregate tonnage of 515,359 tons, departed from St. John. The imports for the same period were \$5,304,873, and the exports \$4,247,648.

The Intercolonial Railway from St. John to the main

line at Moncton, passes through Sussex Valley, the choicest farming land in the Province. This region is justly famed for its rural beauty as well as for its fertility.

ST. JOHN TO FREDERICTON BY RIVER.

The distance is ninety miles, and it is a very pleasant trip by day. The steamer leaves from Indian-town, above the bridge. The shores of the river at first are rocky. The river has the appearance of a succession of lakes with steep shores, but it changes as the farming land of the province is reached. The banks become lower, and some of the fertile intervale lands, which the province is so proud of, may be seen from the deck. After passing Gagetown the Jemseg river, which is the outlet of Grand Lake, falls in. Here, in 1640, the French erected a fort, which in 1654 attracted the attention of Oliver Cromwell, who understood colonial questions exceedingly well. He sent an expedition to take it, and it was taken and held until 1670. At the conquest of Canada the Marquis de Vaudreuil was Seigneur, and 116 settlers held lands from him.

The Oromocto is the next important river passed, and close to it is Mangerville, a village settled before the revolution, whose inhabitants, in 1776, were Whigs, and passed resolutions of sympathy with Congress. At last the city of

Fredericton is reached. One of the prettiest cities in the Dominion—built on level grass-land among gardens, with a gentle sloping, garden-like acclivity as a back-ground. The river makes a bend here, and at one point is the Cathedral and at the other is the Government House—for this is the capital of the Province, where, undisturbed by the noise and bustle of the outer world, legislation may be matured in peace.

Fredericton has a population of 6,218. The Parliament Building is a handsome edifice, containing the chambers of the Legislative Council, Legislative Assembly and Supreme Court. The library contains 15,000 volumes. It is a fire-proof building. The gem of New Brunswick is the Cathedral which, though small, is one of the most perfect pieces of early English Gothic in America. The Cathedral of Christ Church at Montreal was designed after it by the same architect.

Fredericton is at the outlet of a lumbering district, and large establishments are located opposite at the

mouth of the Nashwaak River. It is a centre of supplies for the upper St. John. It is also a centre convenient for sportsmen, for it is close to the best hunting and fishing regions in America. There are good hotels there, and pleasant cultivated society. In the old days, when British troops were in Canada, no place was more popular as a station than the quiet pretty capital of New Brunswick.

[From Fredericton there is a railway along the St. John river to the Grand Falls and Edmonton, where the Madawaska falls into the St. John. Up the Madawaska and through lake Temiscouata was the old route to Canada, and there is still a portage from the lake to the streams which fall into the St. Lawrence. This route is often taken by sportsmen and tourists. From the lake to the town of Rivière-du-Loup, on the river St. Lawrence and a station of the Intercolonial Railway, there is a well built post-road, over which Her Majesty's troops journeyed from New Brunswick to Quebec, at the time of the "Trent" difficulty with the United States.

A few miles east from Rivière-du-Loup is Cacouna, the principal sea-side resort of the province, where there is an excellent hotel and numerous comfortable boarding houses.

The influence of the northern current, which flows into the Gulf of St. Lawrence through the Strait of Belleisle, is manifested even here, in the cold, bracing sea water of the river and in the arctic and sub-arctic character of its marine fauna and flora. The land flora is also sub-arctic, and includes many rare northern plants. The moist fissures of the cliffs of the Quebec group rocks hereabouts, afford shelter to some interesting ferns—as *Pellaea gracilis*, with its long running, slender and cord-like rootstock and its delicate stipes and fronds; *Asplenium viride*, local and rare in America; *Woodsia hyperborea* and *glabella*, also local and rare, and *Ilvensis*, abundant and widespread; *Polystichum fragrans*, deemed by Sir William Hooker to be the most beautiful of all ferns, remarkable for the persistence of its dead fronds and for its strong aromatic odour; the ubiquitous *Cystea fragilis* in many of its protean forms, the purely American *C. bulbifera*, and perhaps also the rare and beautiful *C. montana*. Members who are botanically inclined might do worse than spend a few days in this neighbourhood and on the river Saguenay.]



