CIHM Microfiche Series (Monographs)

ICMH
Collection de
microfiches
(monographies)



Canadian lustitute for Historical Microreproductions / Institut canadien de microreproductions historiques

(C) 1996

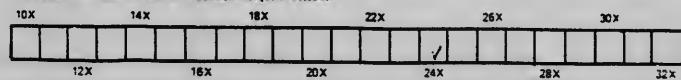
#### Technical and Bibliographic Notes / Notes technique et bibliographiques

The institute has ettempted to obtain the best original copy evailable for filming. Features of this copy which may be bibliographically unique, which may elter eny of the images in the reproduction, or which mey significantly change the usual method of filming ere checked below.

L'Institut a microfiimé le meilieur exemplaire qu'il lui a été possible de se procurer. Les déteils de cet exemplaire qui sont peut-être uniques du point de vue bibliographically change the usual method of filming ere checked below.

17	Coloured covere /		Coloured pages ( Dansa do acute
V	Couverture de couleur		Coloured pages / Peges de couleur
	Covers damaged /		Pages damaged / Peges endommagées
	Couverture endommegée		
	Convertore endominagee		Pages restored and/or laminated /
	Covers restored and/or laminated /		Peges restaurées et/ou pelliculées
نـــا	Couverture restaurée et/ou pelliculée	ব	Peges discoloured, stalned or foxed /
[]	Cover title missing / Le titre de couverture manque		Pages décolorées, tachetées ou piquées
		L-3/	Pages detached / Pages détachées
	Coloured maps / Cartes géographiques en couleur	N N	
	Coloured ink (i.e. other than blue or black) /	$\square$	Showthrough / Transparence
_	Encre de couleur (i.e. eutre que bleue ou noire)		Quality of print varies /
			Qualité inégale de l'impression
П	Coloured pletes and/or illustrations /		
_	Planches et/ou illustretions en couleur		includes supplementary material /
	Bound with other material /		Comprend du matériel supplémentaire
	Relié avec d'autres documents	_	But the same of th
	Tions area a gades documents		Peges wholly or partially obscured by errata
	Only edition available /	_	slips, tissues, etc., heve been refilmed to
	Seule édition disponible		ensure the best poseible image / Les pages
	Serie edition disponible		totalement ou partiellement obscurcies per un
	Tight hinding man anna abadana an distanta-		feuillet d'errata, une pelure, etc., ont été filmées
	Tight binding mey cause shadows or distortion		à nouveau de façon à obtenir le mellieure
	along Interior mergin / La reflure serrée peut		Imege possible.
	causer de l'ombre ou de la distorsion le long de		
	la marge intérieure.		Opposing pages with verying colouration or
			discolouretlons are filmed twice to ensure the
	Blank leaves added during restorations may appear		best possible image / Les pagee e'opposant
	within the text. Whenever possible, these have		ayant dee colorations variables ou des décol-
	been omitted from filming / II se peut que certaines		orations eont filmées deux fols afin d'obtenir la
	pages blanches ajoutées lors d'une restauration		meilleur Image possible.
	apparaissent dans le texte, mais, lorsque cela était		montes in age possible.
	possible, ces pages n'ont pas été filmées.		
	Administra		
	Additional comments /		
	Commentaires supplémentaires:		

This item is filmed at the reduction ratio checked below/ Ce document est filmé au taux de réduction indiqué ci-dessous.



The copy filmed here has been reproduced thanks to the generosity of:

National Library of Canada

The images appearing here ere the best queity possible considering the condition and legibility of the original copy and in keeping with the filming contract specifications.

Original copies in printed paper covers are filmed beginning with the front cover and ending on the last page with a printed or illustrated impression, or the back cover when appropriate. All other original copies are filmed beginning on the first page with a printed or illustrated impression, and anding on the last page with a printed or illustrated impression.

The last recorded freme on each microfiche ehall contain the symbol — (meaning "CONTINUED"), or the symbol V imaging "END"), whichever epolies.

Maps, piates, charts, atc., may be filmed at different reduction retios. Those too lerge to be entirely included in one exposure ere filmed beginning in the upper left hend corner, left to right and top to bottom, as many frames as required. The following diagrams illustrate the method:

L'axamplaire filmé fut reproduit grâce à le générosité de:

Bibliothèque nationale du Canada

Las images suiventes ont été reproduites avac is pius grand soin, compte tanu de le condition et de la nettaté de l'exampleire filmé, et en conformité avac les conditions du contrat de filmage.

Lee exempleires originaux dont la couverture en pepier ast imprimée sont filmés en commençant par le pramier plet et an tarminent soit per la darnière paga qui comporte una emprainte d'imprassion ou d'iliustration, soit par la second plat, saion is cas. Tous les eutres axampleires origineux sont filmés an commençant per la pramière page qui comporte une emprainta d'impression ou d'iliustretion at an tarminant par la darnière page qui comporte une taile empreinte.

Un des symboles suivants apparaîtra sur la darnière image de chaque microfiche, selon la cas: la symbole — signifia "A SUIVRE", le symbole V signifie "FIN".

Les certes, pienches, tabieaux, atc., pauvant êtra filmés é des taux de réduction différents.
Lorsque le document est trop grand pour âtra raproduit an un seul cliché, il est filmé à partir de l'angle supérieur geuche, de gauche à droite, at de heut en bas, en prenent le nombre d'imegas nécesseire. Les diagremmes suivants illustrant le méthode.

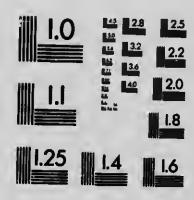
1 2 3	1	2	3	
-------	---	---	---	--

1
2
3

1	2	3
4	5	6

#### MICROCOPY RESOLUTION TEST CHART

(ANSI and ISO TEST CHART No. 2)

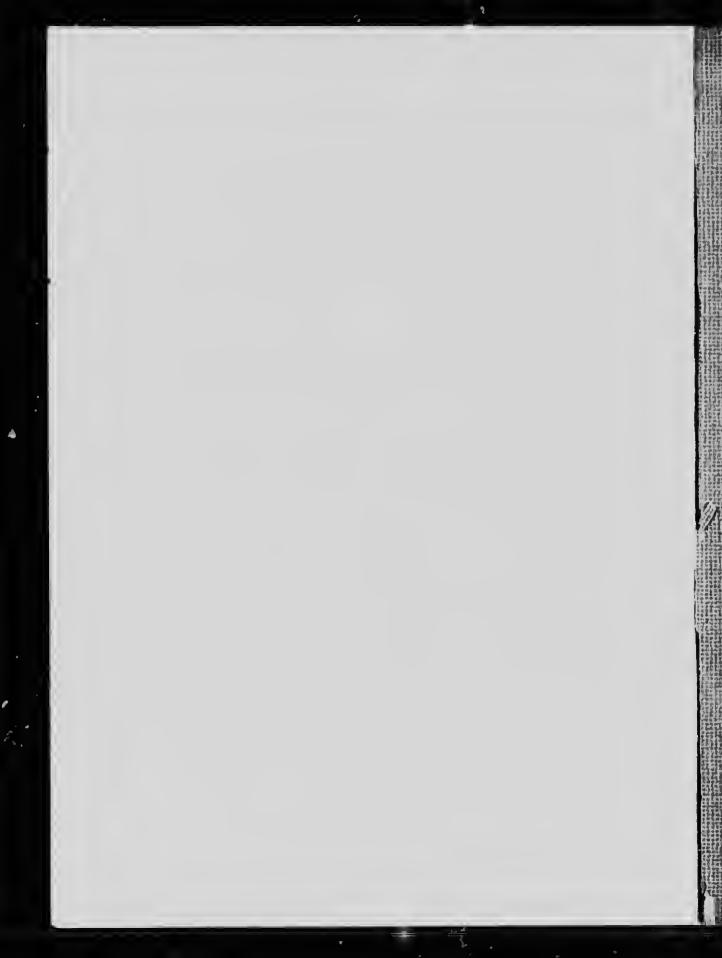




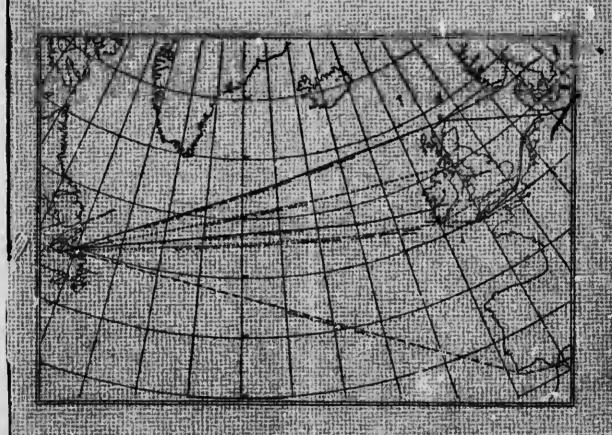
All Barmonia

#### APPLIED IMAGE IN

1653 East Main Street Rochester, New York 14609 USA (718) 482 - 0300 - Phone (716) 288 - 5989 - Fax



## NEWFOUNDLAND TRANSATLANTIC ROUTE



QUICKEST AIND SAFEST OCEAN PASSAGE BETWEED EUROPE AND AMERICA





# PLAN OF PROPOSED NEWFOUNDLAND "SHORT LINE" R. GREEN BAY TO BONNE BAY.



AY.

F PROPOSED "RAILWAY SHORT LINE" RAILWAY TO BONNE BAY.



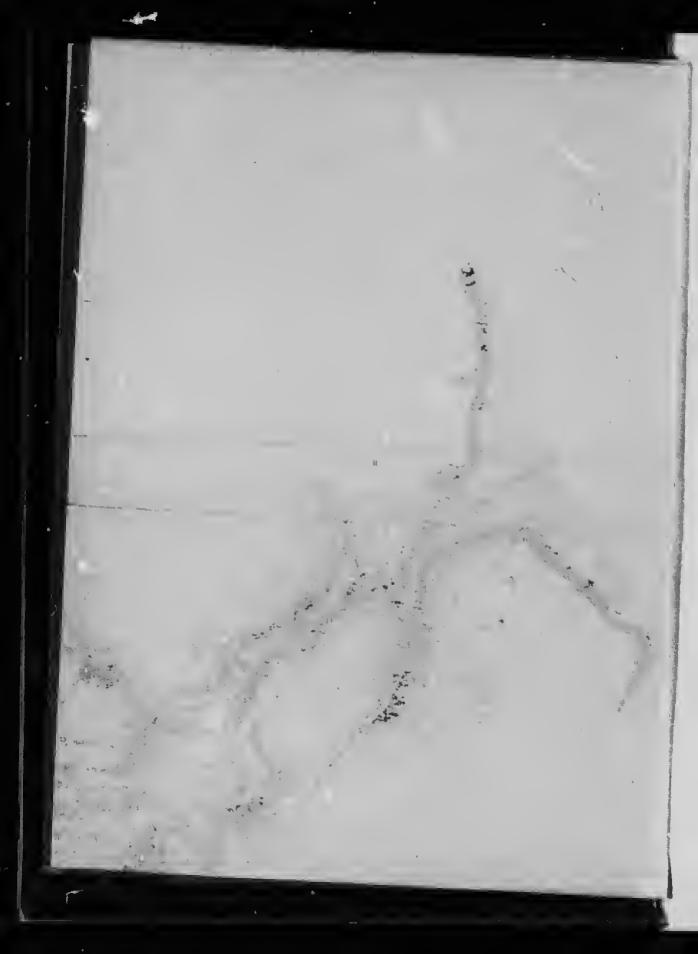
ONNE Humbug Pond S. E. Pond 911 1 Beaver Ponds 981 Ft MAINIM Fox Pond 1091 fi Angly Fond. 1116 ft Bonne Bay Pond 700 ft MINIMINATION WAS TO SEE THE PROPERTY OF THE PR Smelt Pond 1181 ft Hind's Plains Willow Steady

To all day





P. Stitt Copper



## NEWFOUNDLAND TRANS-ATLANTIC ROUTE.

### QUICKEST AND SAFEST OCEAN PASSAGE BETWEEN

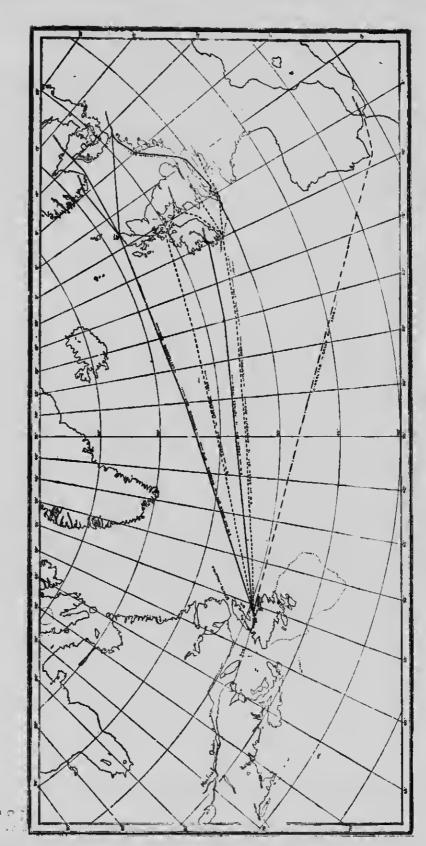
#### EUROPE AND AMERICA.

#### The following would be

#### A POSSIBLE AND PRACTICABLE TIME-TABLE:

WITH STEAMERS OF SAME SPEED AS	WITH STEAMERS OF SPEED OF
THE "MAURETANIA."	21-KNOTS.
Leave London 8.45 a.m Wednesday.  Arrive Foynes 9,30 p.m  Leave , 1f ,  Arrive Green Bay 4 , Saturday.  Leave , 6 ,  Arrive Bonne Bay 8 ,  Leave , 9 ,  Arrive Gaspe 6.30 a.m Sunday.  Leave , 8 ,	Leave London 8.45 a.m Wednesday.  Arrive Foynes 9.30 p.m "  Leave " 11 " "  Arrive Green Bay 7 a.m Sunday.  Leave " 9 " "  Arrive Bonne Bay 11 " "  Leave " 12 (noon) "  Arrive Gaspe 9 30 p.m.
Arrive Montreal 12 p.m	Leave Gaspe 11
Arrive New York 10 a.m Monday, (via Portland and Boston)	Arrive New York 12 p.m Monday.
Arrive Chicago 11 p.m Monday, (via Montreal),	Arrive Chicago 4 p.m Tuesday.

In other words, the mails could be delivered in Chicago by a 21-knot boat via Green Bay as quickly as by a 24-knot boat to New York direct, and at very much less cost. Moreover, the above times could be considerably reduced should a really fast train service be established from Gaspé through Canada and Maine.



ZEN BAY, NEWFOUNDLAND, AND THROUGH IT TO GASPE, IN THE PROVINCE OF QUEBEC. DISTANCES FROM THE 'ARIOUS PORTS IN GREAT BRITAIN AND EUROPE TO

#### NEWFOUNDLAND TRANS-ATLANTIC ROUTE.

GLANCE at the map on the opposite page will make clear at once the meaning of the name Newfoundland Trans-Atlantic Route.

It will be seen that Newfoundland, the furthermost portion of land to the east of the American Continent, forms a natural connecting link in all Northern Trans-Atlantic travel; that it is the stepping stone, the alighting place as it were, between Europe and America; and that through America it provides the shortest highway to New Zealand, Australia and the Far East, by a route which is essentially inter-Continental in character rather than merely inter-Colonial.

The establishment of this route is no new idea. For years its desirability has been discussed, and its advantages recognised.

So far back as 1873, a Select Committee of the Canadian Legislature, appointed to enquire into the best and most direct route for mails and passengers between Europe and America, found in favour of the route through Newfoundland; and the Government of that Colony in consequence, in 1875, caused a railway survey to be made through the 'sland under the direction of Mr. (now Sir) Sandford Fleming (who had reported to the Canadian Committee, strongly recommending the Newfoundland Route), from St. John's on the east coast to St. George's Bay on the west coast; the connecting ports suggested, in Canada and Ireland respectively, being Shippigan and Valentia.

On the completion of this survey, the Newfoundland Legislature passed a series of resolutions authorising the building of the railway, and sanctioning a land grant, and the payment of an annual subsidy of \$120,000 in connection therewith; and the Government, thereupon, in 1878, notified the Colonial Office that they proposed to invite tenders for the construction of the line, and issued a memorandum setting forth what was desired, and stating that the plans of the survey were open to inspection.

The Memorandum contained the following interesting passage, curiously similar in expression to the language used now in advocacy of the All-Red Route:—

"It has been urged on behalf of the Newfoundland Railway that whilst it "would form an essential part of a British chain of communication "(another name for the All-Red Route) to the northern half of America, "to British Columbia, to New Zealand, to the Australian Colonies and to India, it would, during a portion of the year, undoubtedly establish "the shortest possible nean route between Europe and America, and in "consequence might be assumed to command a very large share of "the mail, express and passenger traffic hetween the two Continents."

The Resolutions passed by the Legislature are equally worth recalling; they all assume that, by the construction of the railway, Newfoundland words become the necessary link in an improved means of communication between Europe and America.

#### Route proposed in 1878.

Take the following; substituting Green Bay for St. John's, it exactly describes the route now contemplated:—

"Whereas it is of the highest importance that a system of steam com-"munication by the shortest route should be established between

"Great Britain and America, and whereas great saving of time may

"be effected by adopting a route from a port on the west coast of "Ireland to St. John's, thence across Newfoundland hy railway to a

"port on the west coast, and from the latter place to a port in the

"Dominion, in the Gulf of St. Lawrence, connecting with the railway

" system of North America."

Resolved—"That it is incumbent upon the Colony to aid an enterprise "fraught with such eminently important advantages as well to Britain "as to America, in which the Colony would to a minor extent "participate in the opening up of large tracts of agricultural, timber "and mineral lands."

And the Memorandum, in calling for tenders, states that :-

"the railway grade of 4-ft. 81-ins. is favoured; that without

"involving too heavy cor in construction, the curves and gradients should he such as will admit of rapid transit in view of the

"object to be attained by the railway."

Unfortunately this enterprise, so promising in its inception, came to an untimely end. The British Government forbade it to be proceeded with pecause of its possible interference with the French fishing rights then in

riously
All-Red

hilst it nication merica, ies and establish and in pare of

they become e and

nents."

cribes

comtween e may ast of to a n the ilway

rprise ritain xtent mber

hout ients the

an with existence on the west coast of Newfoundland; and so the whole proposal had to be deferred. Had it been carried out, at a time when steamship travel was still almost in its infancy, there can be no doubt that it would have drawn to itself a large portion of the growing Atlantic trade.

The injury inflicted on Newfoundland was very great, and that injury would be accentuated now if the Colony were to be excluded from participation in the All-Red Route.

Moreover, owing to the Anglo-Japanese Alliance, and to the construction of the Grand Trunk Pacific Railway, the salient fact underlying the project—that a line through Newfoundland gives the shortest and speediest access through America to the Far East—has become even more important and insistent now than it was then.

Shippigan and Valentia are both too small and too difficult of entry for the vastly larger ships of the present day, but either Gaspé, in the Province of Quehec, or Chatham, in that of New Brunswick, would make a suitable port in Canada, whilst in Ireland, the choice would be between Blacksod Bay, Galway, Killary and Foynes, whichever might be deemed most desirable for Irish interests; they all have strong advocates, and they are all good ports.

Green Bay, on the north-east coast of Newfoundland (the line from which will connect at Howley with the railway to St. John's), has been chosen as the Atlantic port in Newfoundland, instead of St. John's, partly hecause, being further north, the ocean route to it is shorter, but chiefly because, being situated well to the north of the Grand Banks, the approach to it is much more free from fog than is the approach to St. John's; a most important consideration in the selection of a rapid mail route.

On the other side of the Island, Bonne. Bay has been taken for the St. Lawrence port, because it is the nearest harbour on the west coast to Green Bay (the located line being ninety-five miles), and about the same distance from Gaspe as St. George's Bay is from Shippigan. Otherwise the route at present proposed is substantially the same as that put forward in 1878.

#### The Shortest Ocean Passage.

Quite apart from any question of Imperial sentiment, there are many reasons for the confident belief that Green Bay is destined to become an impo factor in he world's commerce. These reasons may be stated briefly as fo.

(1). Lying, as it does, upon practically the same parallel as both Plymouth and Winnipeg, it provides the shortest route between Great Britain and Canada; the distance from Green Bay to Plymouth being 1,984 miles, to Liverpool 1,983 miles, and to the west coast of Ireland a little over 1,700 miles.

By the north of Scotland it also provides the shortest possible route from the Scandinnvian countries, Norway, Sweden and Denmark, Russia and the whole of northern Europe—not merely to Canada, but through Montreal and Chicago to the Western and Southern States of America, as well as to Mexico; and through Mexicn to the Pacific seaboard of Central and South America. A brief inspection of the map will show that this is so.

Hamburg, by the north of Scotland (the route taken by the boats of the Scandinavia-America Line from Copenhagen to New York), is only 2,416 miles from Green Bay, as against 3,590 to New York by way of the English Channel; whilst from Green Bay to Gottenhorg is 2,372 miles, and to Stavanger only 2,164 miles.

Follow it through on a globe, and it will be found that it is almost a direct line from the north of Scotland, through Green Bay, Montreal and Chicago, to Topolobampo Bay on the Gulf of California, and heyond that again to Mazntlan and Manzauillo, ports further down the Pacific Coast of Mexico, where connection can be made with all the important steamship lines trading in the South Pacific.

Consequently, by the adoption of this route there would be an immense saving in the time taken by the German and Scandinavian mails to all South American Pacific Ports.

#### The Question of Transhipment.

(2). The objection was raised in 1878 that the necessity of transhipment would prove an insuperable obstacle to the commercial success of the Green Bay route, and to its ever being used for freight. But there is reason to helieve that, on the contrary, it will provide the quickent and best route for rapid freight and express goods as well as for mails.

The same objection has been raised now. Indeed, it is mainly upon this ground that the exclusion both of Ireland and of Newfoundland from the All-Red Route is urged by those who desire that line to proceed directly from an English to a Canadian port.

Now, so far as passengers are concerned, it may be observed that transhipments have never interfered with the successful working of a mail route if the gain in time and regularity of service be commensurate. They have never interfered with the mail route via Brindisi to India and the East, although that involves three transhipments—at Dover, Brindisi and Alexandria. In all probability most passengers would look forward with pleasure to the crossing of Newfoundland by train as a pleasant relief to the monotony of the voyage. Most certainly the majority of them would welcome it as a means of escape from the fog through which they would otherwise have to pass.

the whole
Chicago
d through
inspection

nts of the oly 2,416 English and to

is almost treal and ond that Coast of steamship

immense

shipment Green sason to or rapid

on this
on the
directly

ipments
ne gain
terfered
nvolves
y most
indland
ertainly
he fog

#### Freight Train Ferries.

The objection is a stronger one with recard to freight; the necessity of breaking bulk, and the cost of re-handling, being a very serious matter; but this necessity could be largely obviated by making use of freight train ferries such as have been successfully worked for many years in various parts of the world, more particularly in America. They are in constant use on the Baltic, between Germany and Denmark, and between Germany and Sweden, upon Lake Baikal, in the Straits

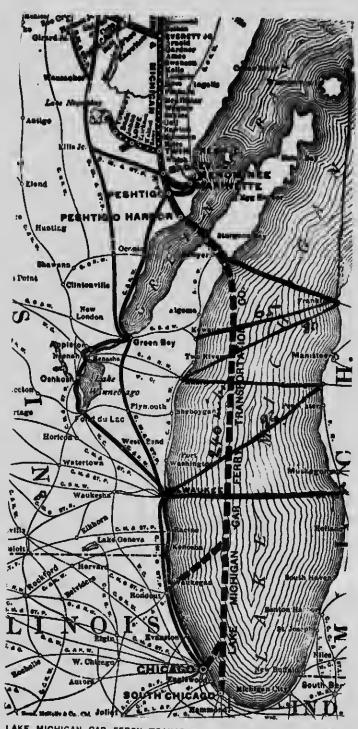


PÈRE MARQUETTE STEAMSHIP COMPANY STEAMER TAKINO CARS ON BOARO.

of Messina, and on more than eighty different routes in and around the United States. Sir Charles Rivers Wilson in a letter published some little time ago, urging their establishment on the English Channel, showed how great an advantage has been found to accrue from their use.

"My own experience," he wrote, "is principally with America, and more "particularly with Canada, and I can speak with confidence as to the "enormous advantages obtained by a system which is now worked all "over the Continent of North America as an important element in railway transportation. The Grand Trunk Railway of Canada, with which I am connected, runs a great ferry hoat across Lake "Michigan, a distance of eighty-five miles. The boat has four rail tracks and a capacity of thirty cars, with a speed of seventeen miles. "The service has been so satisfactory that a second boat will shortly be added. I may say that in certain seasons of the year weather as tempestuous and waves as formidable as any on the English Channel are encountered on Lake Michigan. We have also, "quite as a matter of ordinary business, established a similar service of two big ferry boats across the widest part of Lake Ontario."

Some further details about these Lake Ontario ferries are enabled to be given through the kindness of the Grand Trunk Railway Company.



LAKE MICHIGAN CAR FERRY TRANSPORTATION COMPANY AND VARIOUS OTHER TRAIN-FERRY ROUTES ON LAKE MICHIGAN.

They run from Cobourg, Ontario, to Charlotte, N.Y., and are twin-screw boats, with triple expansion engines, used chiefly for carrying coal. They are 316-ft. long, with n 54-ft. heam, and the cars are 31-ft. in length, and 10-ft. in width. Each ferry has n carrying capacity of 28 loaded cars, on a loaded draught of 15-ft., hut as a rule it takes only 26 cars with a capacity of 102,000-lbs, per car, equalling a total load of 1,334 short tons.

These figures show how completely the problem has been mastered of the transportation of heavy freight hy boat without re-handling.

Quite as interesting are the following particulars, for which, together with the photograph of one of their boats, acknowledgment must be made to the courtesy of the Père Marquette Steamship Company.

That Company operates six steel car ferries of 30-car capacity each, giving a constant moving capacity of 180 standard freight cars, so scheduled as to permit transit of 500 cars per day, 15,000 cars per month, and 180,000 cars per year.

These hoats make uninterrupted trips every day in the year, the most serious conditions of navigation presenting no obstacle which they do not successfully overcome. Year by year the fleet has grown until now it comprises six steel ferries, aggregating two million dollars in value.

What has been done on the Great Lakes could be done quite as easily and efficiently on the St. Lawrence, if it were deemed worth while, not merely as an accessory to a fast route, but for the ordinary handling of merchandise.

#### Gulf of St. Lawrence a sheltered sea.

It will be said that the distance from Bonne Bay to Gaspé—240 miles—is too great for safety, but the Lake Michigan Car Ferry Transportation Company (of whose kindness acknowledgment must also he made, for the use of the map showing their car ferry system), have for years run a freight ferry for exactly that distance, 240 miles, right up the centre of Lake Michigan, and have never had a single mishap, although the gales on Lake Michigan are worse than those met with on the Gulf of St. Lawrence, which, on the whole, is singularly exempt from violent weather. All the Canadian Steamship Companies concur in laying stress upon this,

- "The last two days of the voyage are passed on the placid waters of "the St. Lawrence."—Canadian Pacific Railway.
- "The remainder of the journey from the Newfoundland Coast, occupying about two days and a half, is made on the comparatively smooth waters of the Gulf and River."—Allan Line.

- "For about nine hundred miles the waters are landlocked, and the "sailing smooth. . . . This sail through the quiet waters of "the St. Lawrence is n feature of the voyage which most people "appreciate, and is perhaps the supreme advantage from the stand-"point of comfort which the St. Lawrence route possesses above "all others."—Doualdson Linc.
- "The voyage extends over a thousand miles through the placid waters of the Lower St. Lawrence and Gulf,"—Quebec Steamship Company.

The St. Lawrence Pilot, an Admiralty publication, in large measure confirms these statements:-

"It is unusual for a very heavy gale of wind to occur in the Gulf "and River St. Lawrence from May to October, although fresh to "strong breezes are common. There are however years the "character of which are decidedly stormy; gales of wind of "considerable strength then follow each other in quick succession, "and from opposite quarters."—St. Lawrence Pilot. 7th Edit., 1906, page 23.

But the following tabulated statement shows more conclusively than any expression of opinion how free from storms the Gulf usually is:—

"TABLE SHOWING AVERAGE NUMBER OF GALES MONTHLY DURING THE NAVIGABLE SEASON IN THE CULF AND RIVER ST. LAWRENCE.

PLACE.	APRIL.	MAY.	JUNE.	Juan.	Aug.	SEPT.	Oct.	Nov.
Father Point	8.0	7.2	6.7	4.5	4.9	6.9	9.3	13.2
Cape Magdalen	<b>3.</b> 6	4.1	3.3	1.8	3-4	4.3	6.1	6.5
West Point, Anticosti	2,6	3.6	2.0	1.4	2.6	3.5	4.5	7.8
South West Point, do.	3.4	2.0	1.2	1.0	1.5	3.9	4.8	8,2
Heath Point do.	4.9	2,2	1.7	1.3	2.4	3.1	5-1	5.0
Bird Rock	4.1	2.9	1.4	1.4	1.8	4.1	6.0	3.4
Rich Point, Newfoundlan	d 2.4	0.9	3.2	2.3	4.3	7.0	5-5	5.5
Cape Norman do.	4.1	1.4	2.4	2.0	2.2	5.2	6.3	6.3
Belle Isle	3.1	1.0	3.7	1.7	1.9	3.8	3.6	3.3

"These numbers represent winds blowing at a rate of over 30 miles an "hour, and are the means of ten or eleven years' observations."—

St. Lawrence Pilot, page 25.

The proportion of wind, it will be noted, all over the Gulf is small, but it will be remarked that in the centre of the Gulf, between Anticosti and the Bird Rocks, through which the course from Bonne Bay to Gaspé lies, there is less wind than anywhere else.

#### Train Ferries regular Sea-going boats.

Still, even if the Gulf were stormier than it is, train ferries could be operated without risk, for they are now so constructed as to be able to encounter any weather, however rough. They are in fact regular sea-going ships, and in several countries are used on the open sea quite as successfully as they are on the Great Lakes of America. They are in use, as after 'y mentioned, on the Baltic, and in the Straits of Messina, and they are very shortly to be put into operation on the hurricane swept stretch of sea which lies between Key West and Havana.

"As the distance from Key West to Havana is but ninety miles, the trans"portation of freight cars is entirely practicable, and the trip can
"be made in about six hours,"—Flerida East Coast Railway.

The following details have been published about the new passenger ferry boat, running between Sassnitz, in Germany, and Trelleborg, in Sweden, a



PERE MARQUETTE STEAMSHIP COMPANY-THE RAILROAD ON THE LAKES.

distance of 68 knots. It has been designed hoth for safety and for steadiness, with large hilge keels and trinning tanks, and an arrangement of ring plates and screws, to screw the cars firmly to the deck, and spring buffers to prevent them from moving endways. Besides carrying the train, the boat is provided with cabins, and is fitted with a bow as well as a stern rudder to enable her to enter and leave port more easily. She is a twin-screw boat, with triple expansion engines, and with a speed of sixteen knots; 370-ft. in length with a 51 ft. beam and a draught of 16-ft. 4 ins. Her safety is assured by water tight compartments and Stone-Lloyd bulkhead doors. A boat like this would take fifteen hours to do the run between Gaspé and Bonne Bay, and the saving of time effected by running the train on board would be very considerable. If, however, Newfoundland were included in the All-Red Route it would probably be found preferable to put on a quick 25-knot boat, such as the Ben-my-Chree,

the rs of cople

thove

tand-

aters bany'.

firms Gulf

sh to the d of ssion,

1906, апу

ABLE

Nov.

6.3 7.8 8.2

5.0 3.4 5.5

6.3

3·3 les an

l, but i and i lies, aow running between Liverpool and the Isle of Man. She is 2,651 toas, with 14,000 horse power, and is arranged to carry 2,550 passengers. A hoat such as this would do the passage between Bonne Bny and Gaspé in ten hours.

One grent obstacle in the way of establishing train ferries across the English Channel is practically absent in the Gulf of St. Lawrence. It is that caused by the difference in sea-level between high and low tides. With regard to this, Sir Charles Rivers-Wilson, in the letter above referred to, wrote as follows:-

- " A favourite criticism is that the rise and fall of the tide in the English " Channel differentiates the case from those mentioned, but spart from "the fact that the difficulty has been entirely met and overcome by " the eminent experts who are ndvising the Channel Ferries Company,
  - "an almost exact parallel is to be found in the case of the railway
  - " ferry recently established across the Mississippi at New Orleans,
  - "where the fluctuations of the level due to the freshets-some 23-ft.,

"I believe-are almost exactly the same as in the Channel."

In the Gulf of St. Lawrence the rise and fall of the tide is so small that it will cause no difficulty whatever.

- "It is high water, full and change, in Gaspé Basin at 2 h. 40m.; springs "rise 5-ft., neaps 3-ft.; extraordinary springs rise ; ft " St. Lawrence , Pilot, 7th Edit., page 90.
- Bonne Bay. "It is high water, full and change, in Norris' Cove, at " 10 h. 40 m.; springs rise 6-ft., neaps 41-ft."--Newfoundland Pilot, 4th Edit., 1907, page 552.

#### Cost of operating Steamers would be less.

3. The distance being so short, it is obvious that a rapid Trans-Atlantic service could be operated to Green Bay at greatly less cost than to either New York or Montreal. Only half the number of boats would be required, and those of much smaller size, for they would only have to carry half the amount of coal and of provisions.

#### Boats of less speed could be used.

4. From Ha: burg, the mails could be delivered in New York in not much longer time, (and in Chicago in the same time), if sent via Green Bay by a 17-knot boat, than if sent by a 24-knot boat to New York direct, and the difference in cost would be immense.

The time now taken from Hamburg to New York by the fastest 24-knot German stemmers is about seven days, and the mails are delivered in Chicago in about eight days. The time via Green Bay by a 17-knot steamer would be as follows:—

Hamburg to G Green Bny to	Bonne	Bay	•		 for	Houns.
delay in ti	anshipn	nent		 		4
Bonne Bay to	Gaspé	•••		 •••		10
Gaspé to New	York			 		26
						182
		_				

as against seven days by a 24-knot boat, and 10½ days by a 17-knot boat from Hamburg to New York direct.

OR 7 DAYS, 14 HOURS

To Chlcago the gain in time would be even more marked:-

Hamburg to Gaspé		Bay		••	•••	Hoves. 156
Gaspé to Chicago		• • •		•••	•••	40
						196
	or 8 Days	s, 4 H	ours			

as against 8 days via New York by a 24-knot boat, and 11½ days by a 17-knot boat. The distance would be shortened, and the time proportionntely lessened, if the Forth and Clyde Canal should eventually be constructed.

It must be horne in mind, too, that the train service in Canada and the New England States is every day being nccelerated, and that it is easier and less costly to increase the speed of a train than to increase the speed of a steamer.

#### Route Safest as well as Shortest.

- 5. The route via Green Bay, besides being the shortest and speediest, is also the safest of all Trans-Atlantic routes.
  - (A). It is far removed from the congested ocean trade-ways, below of the south and to the north of it; the danger of collision is therefore less.
  - (a). It passes well to the north of the Grand Banks, so another element of danger is eliminated, which every North Atlantic traveller knows and dreads—that of running down the boats fishing on the Banks. This danger is every day becoming greater, owing to the increasing speed of the steamers passing over the Banks.

mall

ith

38

lish sed his,

rom by any,

way

ans,

3-ſt.,

rings

, at , 4th

lantic either uired, If the

much by a id the

- (c). A further element of safety arises from the fact that the Green Bay route follows the line of least occurrence of fog; passing to the north of the Grand Bank, where the fog is almost perpetual, and to the south of the dense fog which so often envelopes the Straits of Belle Isle during the summer months (for information regarding the distribution of fog see Appendix). The least dangerous part of the voyage between Europe and America is that between Ireland and Newfoundland; for in that part there is an open sea all the way, absolutely unobstructed by islands, rocks or shoals. The most dangerous portions are, first in the English or Irish Channel, and then, after Newfoundland has been passed, along the American coast from Cape Race to New York, or along the south coast of Newfoundland to the St. Lawrence.
- "The south coast of Newfoundland eastward of Cape Ray is broken, rocky and dangerous. There is often a strong indraught towards the land and the tidal streams are influenced by the wind; while southerly and easterly winds, and often also south-westerly winds, bring a thick fog, which is most dense near the lee shore."—St. Lawrence Pilot, page 42.

#### Insurance Rates therefore less.

By the Green Bay route the Insurance rates would consequently be considerably less than by the St. Lawrence route; so much so that it is believed they would almost counterbalance the increase in railway charges due to the longer haulage. It is well known to all shippers that the Ir. surance rates for boats engaged in the St. Lawrence trade are exceptionally heavy.

#### Attractions of Newfoundland.

6. The route is sure to attract a great number of tourists and sportsmen; the beauty of Newfoundland, and the facilities it affords for sport, being too well known to require further comment. It should, however, be mentioned that the railway line passes through the finest scenery in the island.

The agricultural and mining future of the Colony is as yet uncertain, but Newfoundland, as it becomes opened up, is being found to have greater possibilities in both these directions than it was at one time thought to have. A great development of wood pulp manufacture has taken place within the last few years, and it is believed that a similar development may take place in other industries.

#### Relation to the All-Red Route.

7. Newfoundland has been fittingly styled "The Gatekeeper of the St. Lawrence," the island absolutely controlling the approach to Canada. It would be an easy matter to blockade both the Straits of Belle Isle (which are only 9½ miles in width at the narrowest part) and the Cabot Straits (which are 57 miles in width),

and so to shut off all access to, or egress from, the St. Lawrence, and thereby to deprive the British Isles of the greater portion of their food supply, but it would be impossible to blockade the whole of the eastern and north-eastern coast of Newfoundland. The trength of a chain is but the strength of its weakest link, and the long line of 3,000 miles of communication through Canada will be of little value if the means of approach to it be left in jeopardy. Moreover, the distance between Ireland and approach to it be left in jeopardy. Moreover, the distance fetween Ireland and approach to it be materially diminished. If, therefore, any scheme of Imperial inter-communication between Great Britain and the Colonies should eventually be established, such as is contemplated by the All-Red Route, the route via Newfoundland could hardly fail to be selected to form an integral part of it; the more so that it would impose a less onerous burden on the British tax-payer, for it would necessitate a much smaller subsidy than if it were to go direct from an English to a Canadian port.

#### Isolation of Newfoundland.

Bay

the

to

elle

dis-

age

nd-

ely

ons

and

ew

cky

and

and fog,

+2.

ıbly

ould

age.

the

ien;

well

the

tain,

eater

ave.

last

other

St

d be

niles

dth),

e.

8. The proposed route would lead to an increased trade, and to closer relations between Newfoundland and Canada. At present it takes from three-and-a-half to four days to go from St. John's to Montreal. By the Green Bay route the time would be reduced to less than two days. Sir Joseph Ward has laid stress on the isolation of New Zealand, and has declared that it must be broken down; but Newfoundland is a great deal more isolated; the shipping of both hemispheres sweeps by her shores, within a mile or two of Cape Race, but hardly any of it calls at St. John's. More than thirty years have passed since it was written, yet in these days when the naval supremacy of Great Britain is a matter of such earnest consideration, it may not be amiss to recall a portion of the eloquent passage with which Sir Sandford Fleming concluded his report:—

"The route which favours increased security from sea-risks, and which is "the shortest in point of time, must eventually become the cheapest and "in consequence the most frequented. If then the route proposed across "Newfoundland and Ireland avoids many of the dangers of existing routes "and reduces the ocean passage proper to 100 hours (now about seventy); "would not the current of travel naturally seek this route in preference to others, especially when time would be saved thereby . . . These are purely commercial considerations, and however important they may he as such, the statesman will readily perceive in the project advantages of another kind. It may be of some consequence to extend to Newfoundland, as well as to the other Provinces of North America, the benefits of rapid inter-communication. It must surely be important to the Empire to secure in perpetuity the control of the Great Highway between the two Continents."

Ireland and Newfoundland are financially weak, but stragetically strong; exclude either of them from the All-Red Route, and it will lose its Imperial significance, and much of its Imperial value.

FOG AND MIST.

THE YEAR PERCENTAGES OF FREQUENCY DURING THE PERIOD 1892-1906 FROM SHIPS' LOOS

50° 50°	58*	57*	56"	55*	34-	53*	520	51*	50°
		17		-	0	-	-	-	-
-5-		39	8	63	- 0	-	0	0 0	15 9
			25000	0 3 °	10 0	16 2 e3	28 12 60	23.	16
	John Re	22 No.	A P	7-1-7 - Je	0 8.		17 G	3 e 8	- - a
المراقع موا	14 7	136	- P. C.	2 25 50	-	0	-	38	17 33
4	- 4	s °	in Co	700	The s	°	5e	-	83 0
	25- NF	>				رمونه رمونه	10	18 G	23 23
16 6	13	0 °	Jue 2	word	19 ) m29	ido (	31 17 15	21	27 
133 22	24	23 7	14	20 13	19 8	: 33	)   17   7	31	43 15
13 8	110	7 8	13	10	18 16	21	18	14	8
AS 259	177	(47	154	2	5 23	5 24	330	21 54 58 West	73 51° L=09

Campbell Nefworth

Marine Superintendent, Meteorological Office, London.

The values are given for areas comprising 1° of Latitude and 1° of Longitude. The upper figures in each square relate to fog, the lower figures to mist: the figures in right lower cerner of the equare are the number of ebservations upon which the percentages are based. When the number of observations is email the results cannot be considered reliable. Entries for Tilt Ceve relate to day's observations 1905-1907.

#### APPENDIX.

#### FREEDOM FROM FOG OF THE NORTH-EASTERN COAST OF NEWFOUNDLAND.

"Everything turns on the existence of the fog-free zone, and both the British and the Canadian Governments may be trusted in view of the stragetical and commercial importance of the issues involved to take the necessary steps to satisfy themselves as to the validity of the claim advanced by the Newfoundland Government."

The Times, 28th May, 1907.

METEOROLOGICAL OFFICE,
63, VICTORIA STREET,
LONDON, S.W., 19th July, 1907.

#### Enclosing Information relating to Fog Frequency.

"I am instr. by the Director to send the enclosed charts in manuscript, showing the perconof Fog and Mist Frequency over an area embraced by the 45th and 55th mailels of North latitude, and the 50th and 60th meridians of West longitude, during the period 1892-1906.

"The values are given for each month of the year, in areas comprising 1° of latitude, and 1° of longitude, and the number of observations upon which the percentages are based are also given. A chart showing percentages of Fog and Mist Frequency for the year has heen added." (See page 16).

(Signed) CAMPBELL HEPWORTH,

Marine Superintendent.

Speech in the Newfoundland House of Assembly, 28th February, 1907.

don.

"Mr. Reid put forward an even more important consideration than the advantage which would be gained by a shortening of the journey. The Newfoundland route, he pointed out, would, curiously enough, be free of the greatest impediment which now besets ocean liners taking a more southerly course. At present, the route lies through the region of fog, where the cold Arctic Currents meet the warm Gulf Stream. The proposed new route, though more northerly, would be well clear of the fog region which now causes so many delays."

Interview with Sir R. G. Reid in "Canada," September 15th, 1906.

A. J. HARVEY, Esq.,

Vice-President Cabot Whaling Co., Ltd., St. John's.

"In reply to your inquiry about fog on the northern part c: the east coast of Newfoundland, I have now been in command of s.s. 'Cabot,' belonging to your Company, for eight years, and have constantly patrolled the waters of Green Bay during some of the summer months in pursuit of the whale fishery, and my experience has been that from Quirpon south to Fogo there is a belt that is almost entirely free from fog. I have never seen fog in that belt, except when there was bad weather with easterly winds, and then it has prevailed for a very brief time, and I may say that this belt is practice iy free from fog."

HJALMAR BULL, August 29th, 1906.

"The sky, towards the northern and western parts of the island, is generally clear and serene, whilst the eastern and southern parts, on the shore and in soundings, are more subject to rains and fogs, on account of their proximity to the Banks." Anspach (1819).

"The summers are warm, often hot, and a fog hangs on the eastern and southern coast for months, as it does also on the coasts of Nova Scotia and New Brunswick; but to the north of Bonavista Bay, and to the west of Cape Ray, fog is seldom seen." " Newfoundland and its Missionaries" (1866).

Rev. W. WILSON.

"Northward of Cape Bonavista, fogs are of very rare occurrence, and throughout the great interior, north of the aforesaid line, they may he said, as a rule, to be absent altogether."

ALEX. MURRAY, Geographical Survey of Newfoundland, 1877.

"In Newfoundland the sea fog prevails only on the eastern and southern shores, and then only during the summer months I do not remember to have seen more than two or three foggy days in a year in Conception Bay, and none on the south shore of Bonavista Bay."

Rev. PHILIP TOEQUE. "Newfoundland as it was, and as it is in 1877."

"In Bonavista Bay, and along the northern shore of Newfoundland, there is comparatively little fog, the only wind that brings it being a north-eas.erly, or a very strong easterly wind."

"Excursions in and about N.wfoundland." J. B. JUKES,

Geological Survey of Newfoundland.

"Fogs are confined to the south-eastern shore, the northern and western shores being almost entirely free from them."

"This Newfoundland of ours."
Rev. M. HARVEY.

"The summer here is remarkable for fog, on the southern and south-western coast especially, not on the northern or eastern side; the reason of this is the more northerly set of the Gulf Stream in summer. During the winter months the northern or Arctic Current is stronger, and pushes the equatorial to the south, consequently, as we have very little intermingling of warm water with our gelid sea, we have little or no fog. But in summer the water is not so cold; the Gulf Stream pushes its warm current over the banks, and throws a supply to the south and south-west of the Island."

"Two Lectures on Newfoundland,"

The Right Rev. Dr. MULLOCK.

"The southern shore is frequently enveloped in fog, and the eastern, although not subject to that visitation to an equal extent, as the banks of fog more generally keep at some distance from it, yet does an easterly wind almost always bring to the eastern shore cold and disagreeable weather. On the western shore fog is rarely seen."

Surveyor General's Report, 1847.

#### " Messrs. A. HARVEY & Co.

ŧ

ır

y y

is

n

ry

6.

is

he

of

nd

ıııd

of

66).

and

aid,

7.

ıern

to

зау,

here

and?"

nd.

"The statement re fog between Fogo and Hare Bay, strange as it seems, is quite correct. The same thing happens on the west coast between Cape Auguila and Point Rich. During the summer season in the early morning the top of the high lands about Cape John would be nearly always partially covered with haze, which disappears with the sun rising, or a light breeze coming."

John D. Taylor, Captain s.s. "Home," September 30th, 1906.

#### " Messrs. A. Harvey & Co.

"I may say that the coast between the points named (Cape Ray to Bonne Bay) is practically free from fog. During the time I was on the coastal service, extending over a period of thirteen years, I never was detained during the daytime by fog on that part of the coast."

F. DELANEY,
Captain, s.s. "Bruce," August 27th, 1906.

