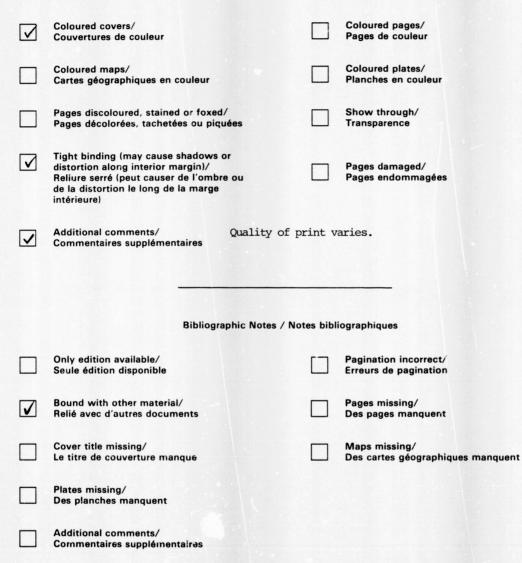


Technical Notes / Notes techniques

The Institute has attempted to obtain the best original copy available for filming. Physical features of this copy which may alter any of the images in the reproduction are checked below. L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Certains défauts susceptibles de nuire à la qualité de la reproduction sont notés ci-dessous.



The images possible co of the origin filming con

The last rec contain the or the symbol applies.

The original filmed with institution:

Maps or pla in one expo upper left h bottom, as following di aire tains de la The images appearing here are the best quality possible considering the condition and legibility of the original copy and in keeping with the filming contract specifications.

The last recorded frame on each microfiche shall contain the symbol \rightarrow (meaning CONTINUED"), or the symbol ∇ (meaning "END"), whichever applies.

The original copy was borrowed from, and filmed with, the kind consent of the following institution:

National Library of Canada

Maps or plates too large to be entirely included in one exposure are filmed beginning in the upper left hand corner, left to right and top to bottom, as many frames as required. The following diagrams illustrate the method: Les images suivantes ont été reproduites avec le plus grand soin, compte tenu de la condition et de la netteté de l'exemplaire filmé, et en conformité avec les conditions du contrat de filmage.

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

L'exemplaire filmé fut reproduit grâce à la générosité de l'établissement prêteur suivant :

Bibliothèque nationale du Canada

Les cartes ou les planches trop grandes pour être reproduites en un seul cliché sont filmées à partir de l'angle supérieure gauche, de gauche à droite et de haut en bas, en prenant le nombre d'images nécessaire. Le diagramme suivant illustre la méthode :

1	2	3
4	5	6

nt

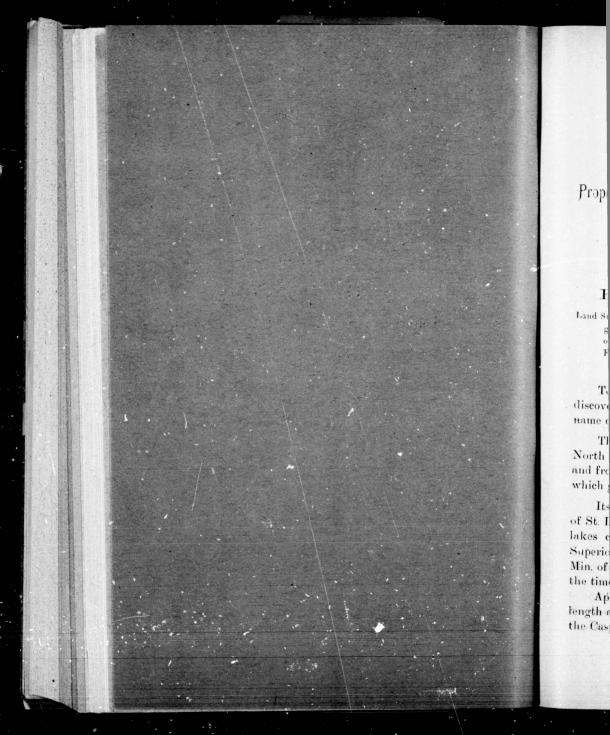


HUDSON BAY

Proposed utilization of its land and water resources.

A NEW COLONY - A RAILWAY TO REACH IT.

Read before the Literary and Historical Society of Quebec, 7th March, 1895, by C. Baillairgé.



F Land St

T discove name c TI North and fro which ; Its of St. I lakes c Superio

HUDSON BAY

Proposed utilization of its land and water resources.

A NEW COLONY - A RAILWAY TO REACH IT.

By C. BAILLAIRGÉ, A. M.

Land Surveyor, Engineer and Architect — Ex-president of the Quebec Geographical Society. — President of the Province of Quebec Association of Arets. — Member of the Canadian Association of Civil Engineers — Fellow of the Royal Society of Canada.

To the Northward of Quebec is a vast expanse of water discovered in 1610 by Henry Hudson, and it is called by the name of this intrepid navigator.

The bay extends from the 51st to the 63rd degree of North latitude, in which direction it measures 825 miles; and from the 78th to the 96th degree of West longitude, which gives it a breadth of abouth 630 miles.

Its area is 397,000 miles; say six times that of the Gulf of St. Lawrence; five times that of our great fresh water lakes combined: the Ontario, Erie, Michigan, Huron and Superior with Georgian bay in the burgain — see report of Min. of P. W. for 1883-87 page 14, by G. F. Baillargé esq., at the time deputy minister of the Dept.

Approximating to the size of the Gulf of Mexico in length and breadth, Hudson Bay is thre times the extent of the Caspian sea or of the Black Sea, twice that of the Red Sea, half that of the Mediterranean between Africa and Europe.

But may be you will have a more tangible, st iking proof of the vast extent of this inland sea, when I tell you that its area is 26,500 times greater than that of the harbor here between Quebec, Levis, Beauport and the Island ; and this is no way disparaging, since the Quebec Harbor is celebrated amongst those of the entire world.

Some thirty years ago, several of you are witness to the fact — no less than 1600 vsssels entered our harbor during a single season; of which 400 at a time, and had they been of an average length of 500 ft : or of that of our present ocean steamers, and to each of them a radius of 1100 ft, could have swung around together with the tide and had ample room to manipulate and lighter in.

This bay, Sirs, is vast, vast as is everything in this new world of ours — our lakes beside those of the older continent — our rivers, the Amazones, St-Lawrence, Mississippi in parallel with the streamlets Thames and Seine and Rhine of Europe ; vast as our Sierras, our Rockies beside the Pyrennees, the Alps ; the Muir glacier of Alaska vaster than all the old world glaciers put together ; as the Geysers of the Yellowstene, 50 ft in breadth and sphoting their boiling waters to two and three hundred ft in height, beside the Iceland tiny thermal springs ; as America itself beside the other continents ; Chicago's Columbian exposition compared with all those the world had seen till then.

And yet great as are our lakes, our estuary of the St. Lawrence; still when compared in size with Hudson Bay. they are but like the Saguenay with its majestic rocles towering to a hight of 1800 ft. compared with the Colorado, where three Capes. Trinity "three "Eternity" must be piled the one upon the other to reach the apex of the monstrous flanks of this stupendous canion, the mightiest work of God's tellin chain that

by al of an am he abroa featur in the these chitec that a the w

G

ture ti in the miniat old we the Bi from (bridge withou from e lance e we An over th catch t tent of or even and car if need or more

- 2 -

Africa and

iking proof you that its harbor here ; and this is ; celebrated

tness to the or during a they been our present 100 ft, could had ample

in this new er continent ssippi in pand Rhine of ϑ the Pyrenter than all ysers of the \cdot boiling wa- \cdot the Iceland te other conred with all

ry of the St. Hudson Bay, ajestic rocles the Colorado, nust be piled te monstrous est work of God's successive ages, and like Niagara on a smaller scale, telling how old the world is and by comparisons of mountain chains how older is this so calle 1 "new world" of ours, than that which falsely bears the name of being so.

But if every thing here is grand in scale, we must not, by allowing ourselves to be forestalled by the inhabitants of another Country, in the accomplishment of that which I am here this evening to propose, allow it to be said and go abroad that Canada, America while grand and great in features of the land, are less on those of their intelligence, in their inhabitants' conceptions of ways and means to utilize these God-given treasures in a way worthy of the great architect, the would be builder up of our fortunes, provided that as set forth in Holy Writ we put our own shoulders to the wheel.

God moulds men's minds on a par with the scale of nature they have to do with : compare our canals, the la gest in the world, with their locks and sluices to the tiny or mere miniature ones of Europe. See how we strive ahead of the old world in our gigantic bridges, the Niagura, the Victoria. the Brooklyn. The Firth of Forth of Scotland took a lesson from our cartilevers, and outstripped America in the finest bridge the world has ever seen: two spans of 1700 ft. built without scaffolding, by merely running the two halves out from each side of each pier and abutment, in a way to balance each the other, and until meeting at the centre; but we Americans will shortly take the lead again with a bridge over the Hudson of far greater span, and Europe shall not catch up to us in engineering entreprise, not having the extent of land or continent whereon to built a C. P. R., a G. T. R. or even an I. C. R.; and in the same way have we the talent and can we find the capital to reach Hudson Bay by rail, and if need be, build an iron road around it, be it even 5000 miles or more in circuit. But that will be for future generations to earry out; through nothing extraordinary, even if we had to buid it ourselves, since Russia is now building a railway through the very heart of Siberia, from Moscow to Vladivostok near Corea on the Pacific coast which F. G. Carpenter in a copy righted article in the *Montreal Daily Star* of the 2nd inst. — in an interesting and instructive description of this Trans-Siberian highway, of its objects and ressources, gives as over 7000 miles in length, while in fact it is but 5000 miles or thereabout, since it covers but 100 degrees of longitude in a latitude where the degree is barely 50 miles in-tead of the 69 which it is at the equator ; and when this road is terminated, let me say, en passant, and that which China has under way to meet it from Pekin, it will then be possible to travell all the way from Paris to Pekin by land.

What we are now concerned with, is merely to reach the bay, only 350 miles remote, built up a new colony at James Bay and exploit the riches of the waters and the land. The road would pass within 50 miles of Mistassini. Henry Fry in an issue of the Chronicle of the 18th ult., has shown how we can build cheap steel or iron vessels for the purpose. Hill is at the government with his promising scheme of turning the bay into a new Alaska of fur bearing seals. Low is about to issue his report on the mineral and other riches of Labrador, his discoveries of lakes larger far than Mistassini, of rivers with higher falls that those of Montmorency or Niagara, in fact an Eldorado for Quebec and God knows we want it badly. Some ninny ('citizen') under the heading of "A railway to the moon' had it in the Mercury a year ago or more that " a railway to Hudson Bay " was 50 years before its time; ignoring, as most men do who look not before they leap, that while he was thus writing himself down an unteliever, a railway was already partly built and under way from Parry Sound to Nipissing, Nipissi ing to Madawaska on the C. P. R., Madawaska to Temiscamingue and that the C. P. R. have now taken this road in

tow facto Hou prod and latel abou ever and of th supp Law report

of ma West by se or N for gr and le

and a 000.00 years charg at wh miles currer eries, t tenant straits years, and ex ven if we building a Moseow to F. G. Car-Daily Star e descrips and resin fact it is 00 degrees ly 50 miles when this that which ill then be r by land.

v to reach ew colony rs and the Mistassini. 18th ult. vessels for promising ur bearing ineral and larger far t those of or Quebec tizen') unl it in the dson Bay" ien do who us writing idy partly ng, Nipissa o Temisca+ is road in tow and will continue it to Abittibi an l thence to Moose factory on James Bay. Let us then not delay and get to Rupert House at the other corner of the bay, when, in exploiting the products of the fisheries, there will be ample work for both : and just think my hearers, of the magnificent discovery onlylately made that Ungava Bay at the mouth of Hudson strait abounds in the loveliest of salmon, the best the world has ever known of, because of the coldness of the water there ; and oh for a dash at them, they are there in thousands, ten of thousands, millions — I am not exagerating — the whole supply of the Frazer river in British Columbia, of the St. Lawrence and all its tributaries, is not to be compared, so the report goes, which has just reached us, to this we lth, not of the dead yellow metal, but of living gold.

For some years past, idealists have nursed the scheme of making Hudson Bay a high road for the products of the Western prairies on their way to Europe, by a route shorter by several hundred miles than the St. Lawrence, Portland or New-York routes now followed, and a better latitude for grain on an ocean voyage, due to a lower temperature and less danger of heating in the transit.

The Federal Government, impressed with the feasibility and advantages of the scheme has already expended \$122-000.00 in investigating and studying the project, during the years 1884, 5 & 6, when an expedition was sent out under charge of Lieut. Gordon, to survey and report upon the date at which the ice breaks up and forms again along the 500 miles of Hudson straits or narrows; on winds, and ice and currents both in the bay and straits, climate, geoloy, fisheries, and resources of the surrounding country. The Lieutenant had buildings or camps crected at points along the straits and partly around the bay and during the three years, the necessary studies were pursued most thoroughly and exhaustively.

- 5 -

A survey was made of Churchill harbor and of port Nelson where the then proposed Winipeg railway was to have is terminus. A report of the progress made by the expedition was each year sent to the Department of Marine and Fisheries and published in their yearly blue books. These are books Sirs and Ladies, which but few ever read, but which teem with, one would think sensational, situations of peril and anxiety, difficulties encountered and to be o ercome. It is in such books, published at great expense by Goverments and fully and beautifully illustrated, that one becomes initiated to the marvels, the withcheries of the Colorado, the gigantic petrifactions and precious stones of Arizona, the Yosamite valley, now the so calle I United States National Park, the land of giants of this new world so called. It is through reports such as these that we have learnt of - and only since the last forty years -- the giant trees of the Maripoza valley, 300 ft. in height, 3000 years in age; but I am wandering from my subject.

The first year's expedition was on board the "Neptune" belonging to Mr. Job of Newfoundland. It was mann'd by a corps of expert mariners including a geologist, a doctor, observers, a photographer, 2 carpenters, and 12 caretakers of the several camps and observatories. It is with this expedition that our poor friend Ashe of the Quebec observatory, went out and was a year or more away at Ashe inlet which was called after him and still bears his name.

The 85 and 86 expeditions were on board the "Alert' of some 700 tons, built for Sir George Nares for his arctic voyage of 1876. The total hands were 52 including the editor of the Winnipeg Times, and 43 respectively, a meteorologist and the other scientists required on such a mission.

The meteorological observations taken on board the Neptune in 1884 at Nacvack bay, 100 miles short or south of

the 1 cape 49º 8 the l impo the s temp wate mont incre hone itis upon the s they wate: Augu youn to 71 at the with ness. enorm barrie

E ed to t small for an utmos

and th

T secutiv d of port iv was to le by the of Marine ue books. ever read, situations o be o erspense by that one ies of the stones of ited States world so we have the giant 10 years in

Neptune" mann'd by a doctor, caretakers h this exbee obserit Ashe inname. ie "Alert" his arctic the editor

teorologist 1.

board the or south of the mouth of Hudson Strait, show a mean temperature at cape Chudleigh of 39° for August, 33° for September, and 49° and 43° respectively at Belle-Isl°, or of 10 degrees below the latter. The mean temperature leaves no doubt as to the impossibility of navigating the straits in April. During May, the strait is covered with large fields of ice, and as the mean temperature is 25° or 5½ below the freezing point of sa't water, the breaking up does not commence during that month. During June and July when the temperature has increased to 3° ° and 40° (all Farenheit) the ice becomes honey-combed and melts rapidly, though, from all accounts, it is only from the midd'e half of July that one can count upon a possibility of finding clear enough water to navigate the strait for commercial purposes.

- 7 --

There are icebergs at all seasons in the straits, where they have been found grounded in 80 and 100 fathoms of water, showing a thickness of f. om 500 to 700 ft., but less in August and September than at any other season; while the young or azure ice of the season attains a thickness from 4 to $7\frac{1}{2}$ ft. from the western end of the strait to Marble Island at the opposite or western side of the bay.

About the beginning of July great quan ities are met with of arctic ice several years old and 40 to 50 ft. in thickness. The quantity of ice crossing the mouth of the strait is enormous: it sometimes, in the spring, forms an impenetrable barrier of from 50 to 100 miles in extent, between the mouth and the free waters of the ocean.

During ordinary years the period of navigation is limited to the 3 months from July 15 to Oct. 15, while vessels of small draft and with small propellers might possibly continue for another two or four weeks, together 4 months at the utmost.

The mean date of arrival at York Factory of 116 consecutive voyages of the Hudson Bay Company's vessels, was

E

the 4th of Sept., of which 48 during August and ranging from Aug. 6 to Oct. 7 and in such cases the vessels had to winter in the bay.

- 8 ---

But while the strait is thus navigable only during 3 to 4 months at most, not so of the Bay itself, where the waters are not so cold, the mean temperature of the bay being some 7° warmer than in the strait, 500 miles North of the contre of the bay, and due also to the fact that large bodies of deep water are tempered as well from the heat of the underlying bottom as from the fact that so soon as the surface is frozen over, it imprisons the contained heat and prevents it from escaping into the atmosphere.

During the voyage of the Neptune, it was observed that while the surface temperature of the strait water was 32° to 33° or close to the freezing point of salt water; that of the bay itself was as high as 41° , at Churchill 37.7° at 100 miles North East of York factory 39.4° , at marble Island 36° .

The Bay itself is now known to be navigable early in June, and the Churchill factor declares that never does the ice extend far enough from shore for clear water not to be seen beyond, and, that this distance is inconsiderable, say only a mile or less, you have often been in a position to see for yourselves while travelling over the ice bridge between Quebec and the Island.

The 3 to 6 knot currents in the strait, notably increase the dangers of navigation; and, says Lieut Gordon, these dangers are enhanced by the perturbations the magnetic needle is subject to, in this not far vicinity from the maggretic pole, supposed to be in latitude 82° or thereabout, according to sir John Ross; the vertical attraction becoming so great, that while the dip is but 67° in Englan I, it increases to 87° or by 20° in the distance to Digges Island at the North end bein

igh coun ft. g. blub whi bay. Chu each as 20 catel tures stret nodo of bl lengi more flock Marl Chui down 1884 speci thou meat huts. whie whic wher attac which in No d ranging sels had to

luring 3 to the waters being some the contre ies of deep anderlying e is frozen ts it from

erved that was 32° to hat of the 100 miles 1 36°.

le early in er does the not to be e, say only to see for between

y increase lon, these magnetic the magabout, acbecoming t increases the North end of the Bay, the only way of safely navigating the strait, being by the constant use of the sounding line.

The fish and mammalia of commerce are the so called right whale "bilena mysticetus", the most prize I on account of the high price of its whale-bone. A fish 50 to 60 ft. gives, say one ton of bone and 20 to 40 tons of oil, the blubber varying from 6" to 18" in thickness. The white while "begula catodon" or porpoise, the most prolific of the bay, schools of which are at every tide seen to enter the Churchill, York and Nelson rivers. They are worth \$1 0 each as an average. In 1883 the Co. killed as many of them as 200 during a single tide at Churchill; say a \$20,000.00 catch. They are made to ground on the fore shore or battures and prevented from returning by powerful netting; stretched across, until the tide subsides. The Narwall "monodon monoceros" or unicorn, which gives a large amount of blubber for its size; the task of the male being often of a length of 5 ft. and which, of ivory is highly valued. The morse or sea horse "trichecus rosmarinus" which is found in flocks at no great distance from the shore, to the North of Marble Island, where the Company send every year from Churchill, two vessels returning within a few weeks loaded down to their full capacity with oil and skins and ivory : In 1884, \$7,000.00 worth. Again there is the sea lion of several species "phocae" but not so numerous as on the Nfid. banks ; though the Esquimaults kill a great many utilizing their meat for food, their hides for vestments, canoes "kavoks" huts. Now there is the polar bear "ursus maritinus" which venture out upon the floating ice in quest of seals which they capture while as leep. There is no known case where, 1 otwithstanding their natural ferocity, they have attacked man. Of fishes, there are the salmon and trout only which are exported, though excellent white fish are captured in Nelson river aul other water courses where they delight

- 9 -

in brackish waters or where the salt water meets the field. As to cod which is abundant in the strait East of Ungava bay, there does not appear to be any in the Bay.

Whale fishing is looked after, and has been for the last 40 years, by our neighbors of Massachussets and Connecticut, who generally leave New Bedford and New London in July, arriving at Marble Island in September where they winter until the following june They then saw themselves out of the surrounding ice, cruise in the bay during July whence they return in September with the incargoes of blubber and whale-bone, the value of which for the last 25 years has been estimated at a million dollars.

According to the United States Commissioners of fisheries for 1875-76, their whalers made at least 50 trips to Hudson Bay, bringing home cargoes worth \$1,371,000 00 or of an average value of \$27,240.00 per trip per vessel during the eleven years prior to 1874.

The total value of the oil alone obtained and exported from the Bay by the H. Bay Co. and United States fishermen in 1883 is estimated at \$150.000.00 and at \$1,50,000 for the 10 years. Gordon's estimate — see his report of 1886 — is that in the 30 years from 1346 to 1876, the number of whalers from the New-England States to Hudson Bay and Northum! erland Iniet, was 113 : 14.3 barrels of sperm oil, on an average, per trip per vessel, 496 barrels whale oil, 7965 lbs of whalebone. The mean value of each cargo says Gordon, at present prices would be \$47,200.00.

During the 70 years there were but 30 wrecks, but if it be considered that their tonnage barely reached 240 tons it will be seen how great the profits were.

In addition to the whaling industry, these whalers treat, without permit, with the natives, the Esquimaux for muskox anl o ment

Г

son St accom or doc His re show t Hudso most e iron, 1 gold, g petrol apatite blower shelly paving with s tific in

M

tained which, richest

Ar

lar bea hare al birds, t swan, t

In sprout s the fiesh. of Ungava

for the last and Conew London where they themselves uring July res of blubst 25 years

ers of fisheips to Hud-00 or of an during the

d exported ates fisher-\$1,50),000 report of i, the numudson Bay ls of sperm s whale oil, cargo says

cs, but if it 240 tons it

alers treat, for muskox an l other pelt, while the Company pay license to the Government of Canada, and had so paid \$22,000.00 in 1885.

The mineral resources and natural history of the Hudson Straits and bay are set forth in the report of Dr Bell who accompanied the expeditions and filled the post of physician or doctor and of geologist during each of the three voyages. His reports are annexed to those of Lieutenant Gordon and show that while gneiss predominates along the Straits, the Hudson bay region is mostly Huronian, a formation in which most economic materials are found. His report of 1888 says : iron, ferrous clay, coppe; lead, zinc, molybdenum, silver, gold, gypsum, salt, hematite or soapstone, lignite, anthracite, petroleum, asphalt, mica, graphite, asbestos, chromate of iron, apatite, iron pyrites, hydraulic lime, building stone, glass blower's sand, refractory clays, brick clays, molding sand, shelly marl for manuring or fertilizing purposes, ochre, turf, paving stones, roofing slate and other substances, together with stones for ornamental purposes and minerals of scientific interest.

M. Bell is of opinion that judging from information obtained up to 1887, the N. W. region of Hudson bay is that which, of as yet unexplored lands, gives promise of the richest field in materials of economic value.

Among the terrestrial fauna: the principal are the polar bear, the white, black, red and grey fox, rein-deer, wolf, hare along the strait and to the North of the bay. Amongst birds, the most abundant species are the wild goose, the swan, the duck and ptarmagan.

In report (? 1886 of as istant Payne, he says the plan's sprout about the 20th to the 27th May, leave during June, blossom in July, ripen their seeds in August and begin to die off bout the 2 th of that month and up to Sept. 15th.

The forest essences are white and red spruce or tamarack, balsam, white birch, aspen and poplar in the interior and North of the Labrador region, while white spruce and tamarack are found along the western shores of the Bay.

The tides at Churchill, it appears, rise some 8 to 15 ft. and the port is well suited as a terminus for the Winnipeg and Hudson Bay railway which will be 650 miles in length, and is subsidized in lands to the extent of 6,880,000 acres – see 49 Vict., chap. 73 – 1886 and order in Council of May 11, 1885.

We have now seen a rapid sketch of the Bay and its resources, its size, its climate, the difficulties of reaching it by water; that already there are two projected railways under way, one from Winnipeg to port Nelson, the other 350 miles from North Bay on the Ottawa river to Nipissing, Temiscamingue, Abittibi and Moose Factory at James Bay, one of the most southern points of Hudson Bay. The North West and Ontario are interested in these lines: while Quebec, more interested than either, in getting there, has done nothing as yet, except that, to be sure, the lake St John Railway is in the right direction to reach Rapert House, or where Mistassini by the Rupert River, larger than the Siguenay, flows into James bay at a point just opposite Moose Factory where the Temiscamingue route is to have its terminus, though 120 miles therefrom.

It has been said that a straigh line from lake St John to Rupert House would leave great lake Mistassini — a hundred miles in length — some 50 miles Eastward, and and though the distance should be thus increased by say 30 miles, it probably would be well to touch at Mistassini on the way, thus affor ling an issue for its resources and those of the r day r runni

succe: Anne lines that . gers, i veye ing of year pect 1 least other Legis back to the nation schem quick Bay v where as it i time : in Hu the de supre presu poises that n such water which vessel

begin to ot. 15th.

or tamarne interior pruce and ne Bay.

to 15 ft. Winnipeg in length, 00 acres – il of May

ay and its eaching it d railways e other 350 Nipissing, James Bay, The North nile Quebec, done nothhn Railway . or where Siguenay, se Factory s terminus,

ke St. John stassini — a tward, and l by say 30 istassini on and those of the region round about it, (and whence the road could some day reach the Labrador Coast en route for Europe) and then running along Rupert River to its outlet into the Bay.

Fortunately now we have a Beemer with us and after successfully running to lake St-John, Chicoutimi and St-Anne, and when he shall have completed our electric ci y lines; let us hope, for he is still young and hale and hearty that with Hoare as engineer Scott and Cresman as mana gers, it may not be many years ere we shall see this road surveyel and the first rail laid not later than at the very begining of the 20th century of this Christian era, and before the year 1900 is out, I will venture to surmise. We cannot expect much from the Federal Government though it must at least do as much for us as it has already done for the two other lines alluded to; but it will indeed behove our Local Legislature to step in and do the needful to give Quebec that back country so much required for its welfare; for in ad lition to the economic features of the enterprise, and now that all nations are fighting for the Alaska seal ; let us carry out Hills' scheme of -natching this lovely mammal from persecution and quick destruction, by transplanting a colony thereof to Hudson Bay where the waters are just of a temperature to suit; and where the poor thing, the ladies dote on, shall not be hounded as it is at present, but left to our parental care. When, some time ago, Hill lectured here on this subject of the Alaska seal in Hudson Bay, the query was raised, so I am told, as to how the defenceless amphibian would hold out against the other suprosed to be vo acious monters of the deep ; but no fear, I presume, need be anticipated on this head, as whales and porpoises feed on smaller fry than seals; and to proof, the fact that many varieties of the seal and so called sea-lion-though such a mismoner cannot well be conceived-abound in the waters of the bay and only fall a prey to the polar bear, which, when the bay is peopled round about its shores and vessels constantly cruising there, the bear will have to make tracks further North and leave the seal to be exploited for more us ful purposes.

And shall we thus continue to allow poaching in our waters by our American Cousins, amiable though they be. See how our gulf fisheries of the St. Luwrence have in a few years dwindled to almost nothing, when, before we allowed our neighbours of beyond the line of 40 to wade in our waters, some ten to twelve vessels yearly made such a good thing out of the whaling industry, and might be doing so still, but for our apathy in looking after our own interests.

If, says Gordon, we are to allow american whalers to continue their depredations in Canadian waters, Canada should receive a fair equivalent and this should be seen to in any future treatise of reciprocity between the two nations; and without a large compensation for the right to do so, Govt. should reserve the right to enact laws to prevent the continued destruction of the mammals and their disappearence from our seas

And that there may be no doubt as to what I have said about the road to Moose factory by the way of lake Temiscamingue, being under contract and already partly built or completed may be by this time to Abittibi, here is what Hon. N. Nantel, minister of Public Works of the Prov. of Quebec, says in relation thereto in his report for 1894, 1 age V: The Montreal Occidental Railway, will be next year built as far as "La chute aux Iroquois," reaching the new parishes founded by curé Labelle. The Company proposes to push on to lake Nominingue and thence to Temiscamingue, where it will join the Temiscamingue colonisation 10ad, of which the works will be completed next year, as per information received to that effect from the C. P. R. authorities. If this scheme is realized, the North side of the Ottawa valley will be traversed by a railway in its richest districts, if considered und

Jam son Que Janu who ming some from miles bay miles read soil s and o empt the C is in quant ripen its vie will UCCas

and a raspb the or tario, quant fruit o for a loited for

ing in our h they be. 'e in a few ve allowed de in our ich a good e doing so interests.

ers to conada should a to in any tions; and o so, Govt. at the conappearence

have said ke Temisy built or what Hon. of Quebec, ge V: The built as far v parishes to push on v, where it which the mation res. If this valley will considered under the triple head of mines and minerals, forests and agriculture.

It behaves me now to say something more special about James Bay, which is merely a narrower portion of the Hudson Bay and at the Southern extremity thereof or nearest to Queb c This we glean from surveyor Ogilvie's report of January 1891 to the Hble. Minister of the Interior, Ottawa, by whom Ogilvie had been instructed to survey the Temiscamingue and Ab ttibi route to Moose factory. This Bay is some 160 miles in width from East to West and 260 miles from South to North and therefore of an area of 40,000 miles or 2660 times as vast as the harbor of Quebec. In this bay there are islands, one of which Agooniska is some 70 miles in length. Between Moose and Rupert, 120 miles as already stated, the shore is high and of uniform level, the soil sandy with a growth of timber which becomes intensified and of larger size along the rivers Rupert and Abittibi which empty into the bay. At Moose and Rupert says Ogilvie the Company has gardens where it raises all the potatoes it is in need of. Other vegetables are grown in sufficient quantities; but melon:, tomatoes and cucumbers will not ripen; and as for that, as is well known, even in Quebec and its vicinity, there are many places where melons and tomatoes will not come to absolute maturity, nor tobacco either on occasions of early frosts.

Currants, continues Ogylvie, "thrive well at both places and are good in size and quality and wild strawberries and raspbe ries, gooseberries are to be found all along the bay; the only difference being that they ripen later than in Ontario, or about the end of August. Blueberries are found in quantities all around the bay, and as well known, this is a fruit of great value, as at a low temperature, it keeps well for a very long time. At every port around the bay there are horned cattle in abundance, of heavy stature and in no way inferior in appharance to cattle in Ontario. At East main, some 56 miles North of Rupert, cattle are raised and sheep, and distributed as required to the several posts, including milch cows, sheep, etc. The cows feed on a breach grass or hay flooded at every tide and which is housed or stacked between tides for winter use. The wood around the bay is not of large diameter; but for all purposes of construction, there is an abundance of it; while mill sites are plentiful on the Rupert and rivers discharging into it and into the bay, with fuel wood for years to come.

On the Rupert, or call it our side of the bay, and betwe en it and East main, is a most valuable stone, called red rock, which can be taken out of almost any size for building purposes and would afford when cut and polished, an ornamental stone of much beauty.

Of course the James Bay fisheries alone are not of such extent, though ample for all food purposes of a colony there if there were on, as to warrant a road being built merely for their utilization; neither is this the idea, in any way; but from James Bay to reach the Hudson waters and put them to contribution, utilizing the railway as well for colonisation purposes as for the shipment of all Bay produce to and through Quebec to foreign ports; since as has been said, navigation through the straits could hardly be depended on even during the 3 months stated, when the sound has almost constantly to be used to feel your way and keep out of danger.

Again, as shown, an outside whaler could but make, as at present, one trip in two years; whereas by the scheme I propose, the required fleet of vessels should be built here or in the Province of Quebec, fully equipped, sent out to enter the Bay by Hudson Strait and once there, to remain there; maki doing winte board up th could deper requi cows ing th found

E 8 wha

£1,634 with a land. during each w T It is an iron ba the floe ble of . has eig diture an aux length, thoms a at the l duty in it may

ed cattle in rior in apne 56 miles distributed ows, sheep, ed at every s for winter diameter; oundance of and rivers od for years

ay, and bettone, called any size for nd polished.

not of such colony there puilt merely in any way : cers and put vell for coloy produce to as been said, depended on d has almost keep out of

out make, as the scheme I ouilt here or out to enter emain there; making, not one haul in two years, b t two hauls a year or doing 4 times the business in an equal interval. They would winter in James Bay where the man would, while living on board during the first winter, utilize their time in putting up the buildings required for themselves and families and could amply provide for their own subsistence and of those depending on them, by raising the vegetables and fruits required and providing themselves with oxen for horses, cows for milk, sheep, etc, with all the meat required, varying there fare with some of the wild goose or duck which are found, as already said, in great abundance about the bay.

WHALE FISHING

England in the 27 years from 1860 to 1887 with only 8 whalers or whaling vessels engaged in the catch, made $\pounds 1,634,624$ stg. = \$8,173,120 or a yearly average of \$302,710; with an average of only 8 whales from the coast of Greenland, and of 82 from Davis straits, a total of 2478 whales during the 27 years, and a mean value of \$3330.00 for each whale.

The english whaler is generally a 400 to 500 ton vessel. It is armor plated along the water line with what is called iron bark: an Australian wood of extreme hardness. Under the flooring of the hold are placed some 50 iron tanks capable of containing from 250 to 300 tons of oil. Each whaler has eight boats and from 50 to 60 men, the monthly expenditure say \$2500.00. Average cost of whaler \$87,500 with an auxiliary engine of 75 H. P. The boat is some 27 ft. in length, 6 in width, 2½ in depth. To each boat 6 to 800 fathoms of $\frac{7}{8}$ " line or rope. On a raised platform or jack deck at the bow of the boat is a small gun sometimes made to do duty in throwing the harpoon. The gun is swivelled so that it may be pointed in any required direction.

When from the "crow's nest" (a mere barrel attached to the mast head of the vessel) a whale is signalled, one of the ship's boats puts off immediately in pursuit, but ca eful not to heave in sight of the whale's radius of vision. At 25 feet, if by hand, 75 feet where the gun is used, the harpoon is thrown; it penetrates the monster's flank and being barbed, cannot be withdrawn. To the shank of the harpoon which is of 1" iron and some 6 feet in length, is attached one end of the 600 fathom line already mentioned, the line being wound on a drum in a way to allow of its free and unobstructed delivery as it spins along with the retiring whale, which as soon as speared, is off with the rapidity of an arrow. It dives towards the bottom of the sea, against which, if only from 400 to 500 fithoms off, the whale sometimes strikes and breaks its jaws. After an interval of 30 to 40 minutes it rises again to breadth or blow as it is called.

During the interval, other boats have put off from the wha'er, ready to harpoon it when it reappears. Off it goes a second time, but now with less speed, for being weakened from loss of blood; nor does it go so far, when, on returning a second time, sometimes a third, its slower motion allows of the boats getting near enough to spear at the heart or lungs, after which it is killed and brought alongside the whaler. Ropes from the deck are then passed under it, with the return end passed through sheaves, which as the blubber, from one to two feet thick, is cut from the mammal's flanks and haule I on deck, to be cut and boiled or melted and made oil of, allow of rotating the whale in a way to present successively every portion of its body to the process of robbing it of its coating. And now for the whale bone of which there are generally as many quintals as there are tons of oil, and of equal, sometimes greater value.

Whaling, always sensational and exciting is sometimes dangerous. Salmon fishing is a miniature of this, for as soon as struck the sulmon goes and comes and goes again until so weak hour requi vive a power br ak into in an ho or it c minut there else t their i

D of oil Brit in 80 cts day, tl which the po A

museu drive a made u a large brushe duced i present on it a \$7500 i

Th from tl rel attached illed, one of but ca eful ion. At 25 the harpoon eing barbed, poon which I one end of being wound structed dele, which as row. It dives if only from strikes and) minutes it

off from the Off it goes ig weakened on returning on allows of art or lungs, the whaler. with the relubber, from 's flanks and ind made oil sent successof robbing it which there is of oil, and

is sometimes , for as soon gain until so weakened as to allow of being c ptured : the work of half an hour or thereabout; whereas to secure the whale, an hour is required, sometimes close on two, and one must be on the qui vive and know how to approach it, for with a stroke of its powerful tail, it has been known to stave in a boat, or br ak it in twain, launching its occupants into mid air, if not into internity. Its speed is said to be as much as 5) miles an hour; twice that of one our so called ocean grey-hounds, or it could keep pace with a locomotive flying at a mile a minute, which makes it necessary, so to reel the rope that there may be no hitch in the unreeling or paying out; or else the rope will snap and lose the whale, or the boat may be hauled with it below the surface and its occupants lose their lives.

During the 27 years of which I have spoken, the value of oil has varied, says the last edition of the Encyclopedia Britannica, from 5 to 11 cts a pound and of whale bone, from 80 cts to \$4.91. This last has become so expensive now a day, that it is no more used in umbrellas and corsets, for which steel is used in stead, and the whale bone reserved for the polishing of silk and other uses.

A pair of jaw bones of the whale is to be seen in the museum of Laval University, more than ample in size to drive a carriage and pair through. The bone, as a whole, is made up of some 500 blades having parallel fibres, of which a large consumption is made for industrial purposes, as brushes, brooms and the like. When the bone was introduced in 1708 it sold for \$3,500 a ton, while during the present century the price went down to as low at \$120. Later on it again rose in value to \$1000 and now sells as high at \$7500 for greenland bone.

There are three species of bone, that which is obtained from the right or Greenland whale—whale bone — that from southern seas or from the so called black whale "balaena australis," and that from the Pacific whale "balaena Japonica." To prepare the bone for commerce the blades are boiled 12 hours or until the subtance has become quite soft, and it is then it can be separated into ribbon-like strips and of the required breadth and thickness, and even into filaments of the tenuity of hair, according to the usage to be made of it.

The cachalot or sperm whale is that from which spermaceti is obtained. It is hunted all the year round in tropical seas. Before the war of independence of the United States or in 1774, a fleet of as many as 370 vessels used to engage in the chase and capture, and up to 1846 the number of whalers had increased to 735 vessels, with and average tonnage of 315.

The head of the cachalot which is an 'odontaceti' or toothed mammal, is sometimes as much as 12 to 1+ ft., or one third the length of the fish. It is very high and stumpy truncated in front, due to an accumulation of a singularly modified fatty substance which overlies and fills the cavity above the upper base of the cranium. The oil contained in the cells of this enormus cavity, after refining it by biling, produces the substance called spermaceti or whale sperm, blanc de baleine as we say in french ; while the thick coatin; of blubber which on all sides covers and surrounds the fish, or mammal I should say, for whales as porpoises, seals and dolphins are not fish, truly speaking, they being viviparous, or bringing forth their young alive as other or terrestrial mammals do; the thick coating, I say, of blubber which encases the animal on all sides gives the sperm oil worth 12 cts a pound or \$1.20 the gallon.

The lower jaw of this whale has on each side of it, some 20 to 25 large teeth which are of ivory of a valued quality. The now intes Webs the s made cepha

300 t the e have nomi is the it str el wi a gun bore (powd H P anlk are it wich Norw year 1 boats. ves-el

A pose ;

Canac

the pr for, to it is to but pr " balaena aena Japoblades are quite soft, like strips even into isage to be

ich spermin tropical ited States to engage number of ad average

odontaceti to 1+ ft., or and stumpy singularly s the cavity ontained in by boilinghale sperm, thick coatrrounds the ses, seals and ing vivipaor terrestrial r which enil worth 12

e of it, some ued quality. The substance 'ambergris' formerly used, in medicine an l now in perfumery, is a morbid secretion from the animuls' intestine, and which is found floating — in masses, says Webster, of from 60 to 125 lbs. weight — on the surface of the sea frequented by this whale. Its origin and purity are made known by the presence of the horny man libula of the cephalopods on which the cachalot fee ls.

The American whaler is, as stated, a vessel of only some 300 tons, and crew of 30; instead of the 400 to 500 tons of the english whaler and its crew of 40 to 50 hands; but I have yet to tell you of the Norwegian whaler, the most economical of all. The most marked trait of norwegian whaling is their use of the explosive harpoon which kills the fish as it strikes it. The harpoon which weighs 123 lbs, and is loadel with a cartridge containing $\frac{3}{4}$ of a lb, of powder, is fired by a gun of some $4\frac{1}{2}$ inches aperture at the muzzle an l of 3 inch bore or caliber. The gun weighs 15 cwis, and the charge of powder is one pound.

The whaling vess l is a steamer of some 80 tons and 30 H P. The boat is not only used to bear the gun, and pursue and kill the whale, but also to tow it ashore, where, not only are its oil & whalebone utilized; but also the flesh, the bones which are made manure of, and nothing lost. In 1885 the Norwegians killed 1300 whales and during the following year more than 1700 and this with a fleet of only some 30 boats, equal to from 43 to 56 whales per season for each vessel, and what the Norwegian does at home, so can the Canadian likewise do in Hudson Bby.

All these data, ladies and gentlemen, are for no idle purpose; but to lay down some firm, some reliable basis on which the profits of whale fishing in the bay may be predicated; for, to demonstrate the necessity of a railway to Hudson bay, it is to be shown, not only that there are profits to be realized, but profits large enough to pay interest on capital, management. interest on cost of building the railway and to cover yearly working expenses of every description; but sufficient, in addition, to pay a good fat dividend to shareholders venturing on the concern, and such as to make it worth their while to start on such a venture.

Now, as already shown, the average profits on a 25 yrs. business by our neighbours of the United States, has been \$47,000.00 per trip or \$ 3,500 per annum as per report of the United States Commissionners of Fisheries who were not likely to overvalue the advantages for fear of creating competition on the part of Canada.

But these whalers from New Bedford and New London and which for 40 years or more have frequented the waters of Hudson Bay; make but one trip or voyage, as I have said, in two years; wintering at Marble Island to the Westward of the bay and doing all their killing during the ensueing spring, in a way to return home before the straits become packed again with ice of the following fall and winter; and, given all the untoward circumstances, the delays and dangers of an arctic voyage, the go and come through a strait not les; than 500 miles in length, packed with ice nearly the whole year round, and open only 3 to 4 months out of twelve, and where the needle is altogether unreliable, and constant sounding has to be resorted to and relied on-it is evident that with such retardatory influences, no more than one trip in two years could ever be attempted with any promise of success.

Now I am here to-night to solve the problem of not only doubling, but of possibly quadrupling the profits I have told you of; by, as I have already hinted, a flotilla of say 100 vessels of from 300 to 350 tons each: equipping them with all necessary implements for the chase, including boats on the english system, or some of them, as a trial, on the Nor-

wegi two t all, b and n cargo the s

with of wi sione thous There my f: Wom where must tram of the the sl and t magis which colleg parso

I

James the ne therec the fle Quebe

In manag Bell tl l to cover sufficient, ders venorth their

a 25 yrs. has been report of were not ting com-

v London he waters have said, istward of ng spring, ie packed nd, given langers of it not less the whole velve, and constant is evident n one trip promise of

of not only its I have lla of say ping them ding boats on the Norwegian plan, with provisions as for an arctic voyage of from two to three years. These vessels to reach the bay, once for all, by the Hudson straits, of course; and then to remain there and not return, thus putting them in the way, not only of one cargo every year, but of two; there being the fall as well as the spring whaling season.

But such would be too lonesome, too monotonous a life without someting to while away the long and dreary nights of winter. There must be the minister, the curé, the missioner if you like, the village church ; and even that, the curé though jolly he might be and amiab e, would not suffice. There must be something more : you have already guessed it. my fair hearers, God had guessed it after he created Adam. Woman must be there and she is ever b ave enough to be where she can minister unto the wants of man. The crew must have their wives and families with them, by them : the tramp of the little ones' feet must be heard, and the music of their voices; an I there must be the butcher and the baker the shoemaker and the tin smith and so on, and a post office; and the girls' school and the boys', a justice of the peace, a magistrate or mayor, may be a few notaries and lawyers of which we have lots to spare and of doctors too; later on, a college, a hospital, an asylum: in fact a village with the parson's house or presb tery or both.

It will be shown that the climate, the temperature of James bay, where this new colony would be installed, at this the nearest or southernmost end of it, of course—and in face thereof, the docks or basins for the housing or wintering of the fleet — is in no respect inferior to that of Rimouski or Quebec.

In support of this view, Mr. Scott, the worthy and active manager of the lake St. John railway, informs me that Mr. Bell the geologist who passed a whole and long season at

- 23 -

James bay, told him he had bathed in the bay, on every day without exception of his sojourn in the locality, from June to September inclusively; and you may have noticed in the Ontario papers and Montreal gazette of the 25th of February 1893 that on the occasion of the funeral of bishop Horden, missionary to Moose factory, "the weather was warm and spring-like."

Here now are extracts from a letter of Rvd. father Nedelec, who has been so much among the indians and travelled the country over. I shall club and condense the citations to refrain from keeping you too long.

He says: The country generally is habitable with the exception of a few places to the Eastward where, notwithstanding, fish is plentiful. All kinds of grain are grown there excepting wheat and buckwheat, while vegetables and fruits thrive well on the soil. Space there is for millions. Extreme heat 100°, maximum cold 50° as at Manitoba Mean temperature of January only 3° (below zero I presume) in some places the climate is superior to that of the North of Germany, of Poland, Norway, the North of Scotland, of Lake St. John and Newfoundland. As a general rule the bay resembles Quebec and the Lake St. John district. The country is vast and more habitable by far than any one can conceive. Fur-bearing animals, birds and fish are found in quantities. Snow not excessive. And he adds : what was Cinada 200 years ago, what were the Unit d States. In my opinion says the missionary, it would be a good thing for the Province of Quebec to take possession of such portion of Hudson bay as belongs to it.

Dr Bell, geologist to the expedition, in his report, says: a considerable portion of the territory South of James Bay is adapted to colonisation. The summer and winter temperatures are those of Rimouski. The summers are not so hot,

nor t of sne other spont word, grow. White the m or tan popla A James trout. water S James

Necountr

A boat

of Jan

Canad from r

for have the sult to color all veg is there of then sions. supply. coast (conly 30 in the (every day n June to ed in the February p Horden, warm and

vd. father lians and idense the

with the , notwithtre grown ables and · millions. oba Mean esume) in North of id, of Lake e the bay he country can confound in what was es. In my ng for the portion of

> port, says: mes Bay is er tempenot so hot,

nor the winters so cold as those of Winnipeg. Mean depth of snow 3 ft, says he, or less than at Quebec. Potatoes and other vegetables are plentiful. Hay grows luxuriantly and spontaneously; barley and oats are good crops and in a word, the country produces everything which Rimouski can grow. The region is also well adapted to rai-ing cattle. White and red pine are to be found near moose factory, but the most abundant growth is white, black and red spruce or tamarack, white cedar, white or soft birch, balsam and poplar with some elm and ash.

Among the fish, says Bell, which are to be found in James Bay is a fine white fish, Lake Superior trout, sea trout, salmon, rock cod, caplan, etc, besides the strictly fresh water fish as trout, pickerel and the like.

Says Dr Bell — if a railway were built from Quebec to James Bay, we should strike for the mouth of Rupert river. A boat which from there would cruise along the East shore of James Bay, would in summer have its attractions for Canadian and United States tourists. I declare this, says he, from my own experience.

Now let us see what Rvd. father Lacasse says of the country about the bay. With him we are better acquainted, for having often seen him here and attended his lectures on the subject: The country, says he, is extremely well adapted to colonization, and the soil of good quality. Potatoes and all veg tables thrive there. Beef is excellent. Native hay is there in abundance. Ducks and wild geese abound, 36,000 of them being killed every year for the Company's provisions. Such is the number the Indians are called on to supply. Stargeon is plentiful in the rivers and on the East coast (our side) porpoises are found in great abundance at only 30 miles from shore, and all other fish to be met with in the Gulf of St. Lawrence. I do not hesitate a moment, says the Rvd. Gentleman, to recommend the construction of a railway from Quebec to James Bay. Indians also say that the land around Mistasini is level and argillaceous. The country may be compared to Germany in Europe. The climate is that of Kamouraska with the same flowers and native fruits: as raspberries, strawberries, gooseberries, cranberries, juniper and other berries.

The bay is navigable from 5th to 17th of May and closes about the 20th November. The highest tide rises 10 ft.

Returning to my scheme : say that of 3000 men - 30 men to each of 100 whalers - 1000 are married, to each of whom a suit of 3 to 5 rooms according to requirements, an out house for storage of fire wood or fuel, etc., a stable for the cow, a vegetable garden, a potatoe plat; and starting from the first rise in the Rupert, an aqueduct, and a soft water tap for each and every family.

The other 2000 men comfortably house l, either in their vessels, properly docked for winter, and close at hand; or in buildings put up for the purpose, where they could club, 10 to 20 together, and instead of, as here, lolling away their time at playing dice and dominos and checkers, could better utilize it at, first, quarrying the red sand stone or granite already mentioned, to build themselves their foundations with, and their chimnies and their baking ovens; and when that were done, get out stone for exportation by the railway — erecting also mills, line kilns, forges, and the like; and, in the bay, the dock- required to shut in the fleet and prevent any shove of ice from injuring them during their time of inactivity.

Methinks, that if I did but possess the imagery of words, I should paint you such a prettry picture of this little colong that on every side we would hear the cry reiterated : all aboard for Mistassini and Hudson Bay.

F

James per mi no me telegra 20 stat to 19 loca Cars of an Add fo ca

Annual \$5, Salary the ers me 10 men anc Cistern 50 hand Fuel for Conting Annual

Anc 000.00 instead c twice a y Jentleman, Quebec to Mistasini ompared to amouraska ries, strawr berries.

May and tide rises

1 — 30 men h of whom its, an out ole for the rting from t water tap

her in their hand; or in ld club, 10 r their time etter utilize ite already s with, and n that were ay — erectind, in the revent any ne of inac-

ry of words, is little coreiterated :

- 27 -

NOW THEN FOR THE COST OF IT.

From lake St-John to Mistassini 173 m	iles, thence to	
James Bay 207 miles - together 380 miles wh	ich at \$12,000-	
per mile, (for the country between the lake	and bay is by	
no means as hilly as the Lourentians) inclu		
telegraph line etc		
20 stations, one at every 20 miles and enough		
to begin with	10,000 00	
19 locomotives at \$10,000.00	190,000.00	
Cars of all kinds including passenger, vans	100,000.00	
and platform cars	57,000.00	
Add for work shops, cisterns, turn tables, hand	51, 00.00	
cars, f. eight sheds, stores, etc	183,000.00	
cars, r. eight sheas, stores, etc		
	\$5,000,000.00	
Annual cost of road — interest at 5 % on \$5,000,000.00	250,000.00	
Salary or wages of telegraph operators along the line or at each station, station keep-		
the line or at each station, station keep- ers, engineers, stokers, conductors, brakes- men	<u>39,000.00</u>	
the line or at each station, station keep- ers, engineers, stokers, conductors, brakes- men	39,000.00 40,000.00	
 the line or at each station, station keepers, engineers, stokers, conductors, brakesmen 10 men per section of 20 miles to repair track and keep it clear of snow. 	40,000.00	
 the line or at each station, station keepers, engineers, stokers, conductors, brakesmen 10 men per section of 20 miles to repair track and keep it clear of snow	40,000.00 4,´00.00	
 the line or at each station, station keepers, engineers, stokers, conductors, brakesmen 10 men per section of 20 miles to repair track and keep it clear of snow	40,000.00 4, 00.00 15,000.00	
 the line or at each station, station keepers, engineers, stokers, conductors, brakesmen 10 men per section of 20 miles to repair track and keep it clear of snow	40,000.00 4,´00.00	

And on this \$440,00 .00 it is likely we might save \$40,-000.00 - \$25,000.00 of which by getting money at \$4½ % instead of 5 % and in running trains in winber only once or twice a week between December and March of each year.

- 28 -	
INSTALLATION OF THE COLONY AND WHA	LERS.
100 vessels fully equipped with fishing tackle, boats, &c., - 300 tons at \$100 — \$30,000 each Houses for 1000 families, 10 families per	\$3,000,000.00
house at \$1000 Houses or camps for the other 2000 men (un- married) say 20 men per camp, 100 of	100,000.00
them at \$500 Crib work and stone filling for docks for win- tering vessels in a basin, with 100 ft all round the dock walls, to allow the ice free play with the tide along the jetties. Wharves say 30 ft. wide, 25 ft. high, basin 1000 \times 1000 ft. (1,000,000 ft. sup.) or for each vessel a space of 150 ft. \times 40 = 6000 ft. per vessel \times 100 = 600,000 ft.,	50,000.00
adding the 100 ft. space all around or $4,0.00$ ft. lin. perimeter by $100 = 400,000$ ft	
144,444 cubic yards at \$1.25	143,000.00
00 stables, wood sheds at \$100.00 cores and utensils and furniture for 200 tene-	20,000.00
ments at \$100,00	20,000.00
queduct, say	100,000.00
hapel and presbitery	10,000.00
seen	57,000.00
	\$3,500,000 00
nterest at 5 % on cost of installation 3000 men at \$20.00 per month, 661 cts per	\$175,000.00
diem or \$240.00 per annum 100 vessels for fuel say 30 cords each — 3000	720,000.00
cords at \$2.00	6,000.00

*

200 1

300 d

Fod I

Add i Annu

Annu F Annu c

Add 1 o

Total

W cargo basis,

g t as by the report Ra 500.00 surance

surance cargoes cluding the ver 000,000.00

S.

100,000.00

50,000.00

143,000.00 20,000.00

20,000.00 100,000.00 10,000.00

57.000.00

3,500,000 00

\$175,000.00

720,000.00

6,000.00

	200 houses for fuel at 25 cords each, and 25
15,000.00	cords each for 100 camps — 7,500 cords at \$2
10,000,000	300 oxen, one per 10 men for laboring pur-
9,000.00	poses at \$30.00
	700 cows, of which 200 for the men at 1 per 10 men, 500 for the 2000 families or 1
21,00 .00	for 2 families at \$30
	Fod ler for 10 cows and 300 oxen, 1000 at
25,000.00	\$25 cost of gathering
29,000 00	Add for insurances and repairs
\$1,000,000.0)	Annual cost of Colony
	SYNOPSIS.
\$500,000.00	Annual cost of Roe l including interest on ca- pital say
1,000,000.00	Annual cost of Colory including interest on cost of installation
\$1,500,000.00	
850,000.00	Add 10 % dividen 1 on \$3,500,000 capital cost of installation

We have seen that Goslon, at current prices, values each cargo at an average of \$4.50,000; but to start on a surer basis, let us only take the loss figure of \$27,400.0) which we get as an average of the \$1,37,000.00 on dividing that figure by the 50 cargoes during the strain years prior to 1874 as per report of the United States fishing commission.

Reducing this again, to deal in round numbers, to \$23, 500.00 by striking of \$3,920.00 ar unforeseen losses, insurances, etc., this reduced sum of the self, into 100 vessels or cargoes, gives us the \$2,35,000.00 of annual expenses including interest at 5% on capital and a 10% dividend on the venture.

But since there will or may be, two fishing seasons per annum, spring and fall, and therefore 2 cargoes per whater per annum; the profits, will be thereby doubled and the shareholders receive, not 10 but 25 to 30 °/_o or more on their meney, since the doubl ng of the profits in no way increases the sum to be paid for interest on capital.

M. Light, consulting engineer, to the Government of the Province of Quebec, assures me that he toll Honble. M. Garneau some 20 years ago, when the latter was minister of P. W., that he Light was of opinion that the future of Quebec lie in the direction of Hudson Bay, and says he is still altogether of that opinion.

Mr Scott, manager of Q. L. St. J. Rly., also favors a road to Hudson Bay; but would reach it at Moose factory, the opposite conner to Rupert house, and 120 miles from it; but of course by varying the line which he would continue from River à Pierre to lake Temiscaningue and thence by Abittibi to James Bay, in company with Outurio, which — and he has this, he says, from Bailey of Toronto — is desirous of joining Quebec in carrying out the enterprise.

This road as projected by the Lake St. John company, has its great advantages, no doubt : it will pass through a country rich in resources capable of paying interest and profit on cost of additional length of road, in thus opening up the interior of the country, the whole valley of the Ottawa. This route by Temi-camingue and Chapleau would shorten by 180 miles the distance between the great lakes and the sea, and the shortening would be increased to 300 miles by Chicoutimi, St. Alphonse the Saguenay and Lake St. John, if the road were made to run direct from the latter to Abittibi and thence to Lake Superior; and as you know, the farther North we go, the farther we recede from our summer temperatures, the better would the grain, the cereals from the North West, behave under this colder temperature, and

short have bay. Quel whie. there be fu oil pe produ the sl the da a nati flagra ploye if we the co tion, i as doe throw compa all ad in the Y report plorers such s aging : way th even if not, be glance tude of gland, so, and than Q

seasons roes per bled and or more t no way

nt of the onble. M. nister of f Quebec still alto-

rs a road r, the opt; but of nue from r Abittibi d he h is rf joining

company, hrough a grest and opening f the Otin would lakes and) miles by St. John, latter to inow, the r summer eals from ture, and shorter route; but for the present, let us stick to our last and have our own road to ourselves, and on our own side of the bay, the shortest and most direct route possible between Quebec, Lake St John, Mistassini and James Bay, and which can in no way interfere with the Parry Sound route; there being room for both; since the road I propose would be fully occupied in the transportation of some 59,00) tons of oil per annum in addition to fish, furs, and other economic products.

Why, Sics and Ladies, have we always to this day, had the shivers when we read of Hud-on Bay? How is it that all the data which I have supplie I you with this evening, and of a nature so favorable to the colonisation of James by, are so flagrantly at variance with the reports made by the employees of the company. We need in no way wonder at this, if we will but consider for a moment, the immense interest the company has, and of course has always had, in dissimulation, in disseminating error, doubt and darkness all around ; as does a certain fish which when pressed by its ennemies, throws forth a fluid so black as to render itself invisible The company, however it may feign to deny the fact, discourages all advances towards its gaming grounds, all participation in the rich spoils of its immense territ ry.

Yes, I too felt half frozen when reading the Company's reports, on this pretended glacial country, until our own explorers, our missionnaries came in and gave the lie to all such statements, well calculated as they were to be discouraging and destructive of all zealous endeavours to work our way thitter; and a moments consideration suffices to show, even if no favora' le reports existed as to climate, that it can not, be as painted by the Company; since, if you will but glance at the map, you will be surprised to see that the latitude of James Bay is precisely that of the British Isles : England, Ireland, Scotland; that of Paris, even, or very nearly so, and if these seem more favored, in respect to temperature than Quebec, Rimouski and the country about the bay; it is due, as we all know, to the fact that a river whose waters are warmer than those of the surrounding ocean, a river within an ocean, the so called gulf stream, is poured out of that boi.ing cauldron, the gulf of Mexico, where a tropical sun heats and expands its waters upwards — and, as molasses in a heated cauldron, are seen to swell or overflow from the centre towards the sides — so do the waters of the gulf run out and cross the ocean until they strike the Western coast of Europe, carrying with them a corre-ponding stream, of heated atmosphere or air which tempers France and England, Spain, &c.; precisely as on a smaller scale, of a hot summer's day, one can feel the deliciously cooled current of air which caresses one's cheek, after the mere transitory contact of it with the ice van which distributes that luxury about the city.

Frenchmen ignored their country until in 1870 the Germans taught them their own geography. We are unacquainted with our own domain. Let us not wait then till the enemy make it known to us. Sir Edmund Head called us the inferior race and it is now or never to be seen if we merit this opprobrium. Let us be in haste, I have told you that Upper Canada, Ontario, has already commenced a road which from Nipissing at Parry Sound makes for lake Huron by Georgian bay and which by way of Temiscamingue and Abittibi will now soon reach James bay at Moose Factory, en route for the Hudson fisheries. We have but the same distance to go as they to reach there.

And now my hearties shall we not put our shoulders to the wheel. The people are all mighty. It is for we to impose our willing on Parliament, where our deputies are met to execute our wishes. It is several years since the roads already mentioned from Winnipeg and Nipissing to Hudson and James bays have been subsidized in money and in lands, and both by the local and the federal governments. Then why not ours.

Morn

talent all ac volun publis and or very our pi which O perous where, patriat done in

carry i — Sir] valets, proud c behind poach in

Le it is ' no is worth and I sh labor w! said the Denis A deeds. (brow. M vote to n maining can thus imparting subject a Aters are er within it of that pical sun i molasses low from f the gulf Western ng stream, e and Ene, of a hot current of itory conat luxury

> 1870 the are unact then till ead called seen if we e told you zed a road ake Huron ingue and se Factory, . the same

to impose are met to the roads to Hudson id in lands, nts. Then The former of these roads is alluded to in the issue of the Morning Chronicle of the 3rd inst.

While Mr Alphonse Gagnon, a young man, with whose talent and aptitude for patient and laborious research we are all acquainted, has among other subjects in a neat little volume of "Archeological studies and varieties," lately published, given us from Loudon's report on lake Mistassini and on his journey there and back from Lake St. John, a very interesting description of both, as surveyed also by our pioneer of the forest Mr. J. Bignell, and by Mr. Low, which you should all read and would certainly enjoy.

Ontario I have said, is richer than Quebec, more prosperous, and less in need than we are of seeking fortune elsewhere. It is for you to say if we shall continue thus to expatriate ourselves each year, and as thousands have already done in permanence, to go and puddle our neighbor's clay, carry it to them on our shoulders, black their boots for them — Sir Edmund Head was right : in one word become their valets, their domestics, while they of over the line of 45, proud of their superior intelligence and goaheadism, leave us behind or unlooked at while they pass us by on their way to poach in our waters and rob us of our God-given patrimony.

Let us labor, gentlemen. God has said pray, 't'is true, but it is 'not of that contemplative outpouring which like faith, is worthless without deeds. God has said : aid yourselves and I shall aid or abet you; it is therefore the prayer of labor which is meant, the most efficacious of all Mgr. Paquet said the other day at the universitary meeting of the St-Denis Academy : labor leaves no leisures for unavowable deeds. God has said " earn your living at the sweat of your trow. My prayer is one of 18 hours a day, 14 of which I devote to my civic duties, though only paid for 7; the four remaining are my compensating ones, my recompense when I can thus utilize them, in writing up such a subject, and then imparting it to an audience like this appreciative of the subject and of my time and trouble.

