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## "Official Announcement"

© There are official announcements and official announcements. One kind of an official announcement was that published in the Vancouver press a month or two ago that the terminal elevators of the Canadian Pacific Railway for the Pacific Coast would be located at a certain point on Burrard Inlet. About the only thing official about this announcement, on close reading, was found to be the unsupported assertion that it was an "official announcement."

> The real official announcement with the right name behind it came on Saturday, Jan. 25, when Mr. George J. Bury, Vice-president and General Manager of the Canadian Pacific Railway, then in Vancouver, gave to the newspapermen, with the prestige of his name behind it, the statement that it was the intention of the railway company to locate its elevators at Coquitlam.
(T) The only qualification of this announcement was the statement that some improvements of navigation on the Pitt and Fraser Rivers was necessary.

1 That improvement is now being made, so the question of terminal elevators for the Pacific Coast, so far as the C. P. R. is concerned, is settled. They are to be at Coquitlam.
di This is one more evidence that we knew what we were talking about when we called the attention of the investing public to the advantages of Coquitlam. All the other good things we have predicted for Coquitlam will come in time. It is the most promising new city on the Lower Mainland of British Columbia today. The recent history of Coquitlam bristles with things done and doing. Coquitlam is no dream - it is an actual and great city in the process of making. You make no mistake when you invest in Coquitlam. Clip the coupon and mail it at once.

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FRANK BUFFINGTON VROOMAN EDITOR

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Vol. IX CONTENTS FOR MARCH, 1913 ..... No. 3
Ballade of the Times, Ernest McGaffey Reverse Frontispicee
Port Edward - - Frontispicce
Prince Rupert's Right Hand C. L. Armstrong ..... 129
The Coal Situation in British Columbia Parker Williams, M.P.P. 135
The All-British Pacific Cable Danvers Osborn ..... 139
Charles Hill-Tout, Anthropologist Alfred Buckley, M.A. ..... 144
The Central Valley in British Columbia Henry Schuster - ..... 148
Sea-hotter Nigel Wynter ..... 154
Vancouver as a Grain Port Thomas McKec - ..... $1(10)$
Japan's Aims in the Pacific David Starr Jordan ..... 172
The Burden of the Pacific; Article II A. N. St. John Mildmay ..... 174
World Politics-
Pacific League ..... 177
Development Section ..... 181

[^2][^3]
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## Ballade of the Times

These are the days of the Age of Gold, Of lust, and lying, and warring crocds. The conscience-pulse of the race is cold, And Honor cowers in widow's wecds.
The mad world on in a jumble spectls, Whirling about like a flying whecl, While swift evolves from our sordid grecels A soul of iron, a heart of steel.

In vain to its mammon-master sold The stunted spectre of childhood pleads;
In vain with the marlyrs are enrolled The noble docrs of nobler deeds.
A worm at the core of the nalions fects When men at the shrine of Midas knecl, And this is all that the present heeds:

A soul of irQn, a heart of stecl.
However the tragic years unfold
The tide of the spirit slow recedes, And only the vigilant and bold

May keep their place as the stornor brechs.
For many will break like river-recels
However their lives were pure and leal,
Since this must serve who the vanguard leads:
A soul of iron, a heart of slecl.

## ENVOY

Prince! while a Christ on Calvary bleeds The money-changers resume their zcal, And he who faces the fulure nects
$A$ soul of iron, a heart of slcel.
-Ernest McGaffey



Vol. IX
MARCH, 1913
No. 3

## Prince Rupert's Right Hand

THE INTERESTING DEVELOPMENT OF PORT EDWARD, B. C.

By C. L. Armstrong

"Look! you see that smoke rising from the shore away in there? - That's Port ldward."

The speaker was pointing, and I looked away along his extended arm and saw smoke spirals rising straight up. I rememher that it brought over me in a flash the wonder of this great West. I had heard much about Port Edward, about what this new industrial centre would accomplish, and about the part it would play in the husiness of Western Canada. And to think that those columns of smoke rising from the brush-wood fires in the clearings represented Port Edward! And yet in a few lars-scarce time for cliild to grow to manhood-sane, shrewd men expected the brushwood smoke to give way to the black rect of factory chimneys mingling with the Thuds from locomotive stack and steamer :amel. Had not the miracle been worked many times before in the history of the Wist I could not have believed it possible.
This was many months ago, and some of ?we who were with us knew little or noth$\cdots$ about Port Edward. Since that time :anch has been written and read about this Rw townsite. Port Edward is Prince Kupert's Industrial Annex, and that derimion fills the bill. Prince Rupert may " said to date from May, 1909, when
property there was first offered to the public. Today it has a population in excess of 6,000 , with a remarkably well-developed business district and a residential district that is growing with much rapidity.

Prince Rupert is, of course, the western terminus of the Grand Trunk Pacific Railway, but its wonderfully rapid growth and solid foundation is due to more than that fact. It is the most northerly terminal port in the Dominion; it provides the shortest available route to the ()rient, and it holds a commanding position as central distributing point, not only for the innmensely rich northern interior of Britial Columbia, but for the entire coast coment of the Yukon and even Maska.

Were Prince Rupert dependent upon its superiority as regards the route to the Orient alone its future would be assured. The following facts emplasi\%e this statement. The distance goods must travel 10 go from Prince Rupert to Vokohama is about 3,800 miles. 'These same goods must travel $4,28.3$ miles, or 48.3 miles farther, 11 reach Yokohama from Vancouver. From Prince Rupert to Hong Kong is a distance of about 5,400 miles. After the completion of the Panama Camal, the New York shipper, desiring to ship to the ()rient by water, will have to send his wares over $10,(\mathrm{ox})$

sOUTH I:ND OF TOWNSITE OF PORT EDWARD FROM HARBOR
miles to reach Yokohama, and over 11,600 to get to Hong Kong. Shipments from Pastern Canada ports will have to travel the same distance twice, plus whatever distance the Canadian port may be from the pert of New lork. Furthermore, ports on whe eastem coast of the continent, even after the P'anam: Comal is completed, will reguire as long a time and as great ocean mamsortation cost to reach the markets of Ssiat for the single trip as Prince Rupert and the other North l'acific ports for the round trip.

Prince Rupert is admitably placed in relation to the vast natural wealth of the morthern interior of the prosince. In the vallers of the Bulkley and its tributaries himudreds of spuare miles of coal hands have Feon taken ulp. 'The district drained be the Copper River contains immense deposits of gold, silver and copper. Great allusial deposits of gold are found in the ()minesa mining region. The Babine Rames comanss silser and lead of almost mumeasurable value. At the confluence of the Skerna and Backwater Rivers, one humdred and fifty miles north of Hazelton, are bound the great anthacite coal fields of the Cromothog basin. Coming to the coast, valuable copper and gold deposits have been found on Queen Charlote

Islands, and copper, silver and gold is being developed in large quantities on Observatory Inlet and on the Portland Canal. At Observatory Inlet, in fact, are found the mines of the Granby Consolidated Mining, Smelting and Power Co., a $\$ 15,000,000$ corporation which has already expended close to $\$ 1,000,000$ on development work and which has just now definitely decided to erect a smelter at Granby, at a cost of $\$ 1,500,000$. This company furnishes employment at the present time to about four hundred and fifty men. The great placer fields of the Canadian Yukon also stand ready to send forth their gold to Prince Rupert for shipment to all parts of the world.

Large areas of most valuable timberland. containing mile upon mile of good spruce. hemlock and cedar, are contained in :he district behind Prince Rupert. These forests are awaiting the development of :he coast cities they are intended to serve, and it is salfe to say that the force withi: a radius of one hundred miles of Prise Rupert will produce timber sufficient to supply twenty-five mills with all they an cut and market for the next twenty yents to come. At Swanson Bay, about anc hundred miles from Prince Rupert, is incated a pulp mill, representing an invict-


MAIN LINE OF GRAND TRUNK P.ICIFIC, THROUGIL PORT EDWBRD TOWASHE
ment of $\$ 1,000,000$ and employing hundreds of people. At Occan Falls, about whe hundred and eighty miles away, another very large pulp and saw mill has been constructed. Industries of this type as they come to be built will seek distributing yards on the coast, and will naturally look to Prince Rupert and its environs for this purpose.

The most valuable asset Prince Rupert daims is the fish which abounds in the waters within a few miles of its harbor. (ircat halibut banks, yielding at present millions of pounds every year, for shipment is 1 :ancouver and Seattle, are found within a radius of twenty miles. Twelve miles romth of Prince Rupert lies the Skeena Ricer, one of the greatest salmon rivers i: the entire world. Even now this river alds hundreds of thousands of cases per anem to the value of considerably over a Hion dollars, and this salmon industry ". "e. although in its infancy, gives employ'it to over 5,000 people during the ming season.
$)_{\text {arring winter months large schools of }}$ Ains abound in the waters in and around $\therefore$ nee Rupert harbor. Two whaling sta-A- are found on the Queen Charlotte l.ideds, and their catch during the past $\cdots \cdots$ was in excess of four hundred. Ex-
perts hold that more whakes abound in these waters than in any other part of the world. On the Queen (harlotte Istands are also fisheries.

On Dighy Island, on the west coast of Prince Rupert harbor, the Dominion gorermment has erected a splendid modern marine station, quarantine station and wireless station.

It would be possible to comtinue for pages the enumeration of the natural resources that assure the growth and prowperity of the city of Prime Rupert, But enough has been said to show the ponibilitics of making Prince Rupert one of the greatest export citics on the comtinem.

The guestion now arises maturally, why does Prince Rupert require an industral complement? Why, with all the allvantages emmerated above, is P'rime Rupert not able to decelop without the assistance of another townsite? 'The answer is, that with all its great adrantages of location and resouress, there is not sufficient waterfrontage available in the townsite of Prince Rupert for the upluilding of industrial enterprises, and for the construction of those warchouses, elevators, and other industrial units that are absolutely essential to the ultimate success of any great commercial port. That the need


CENTRIL PORTION OF PORT EDWARD TOWNSITE, FROM HARBOR
of an industrial annex is appreciated by the city of Prince Rupert itself is evident by a quotation from the 1912 report of the Prince Rupert Board of Trade, reading as follows: "A wagon road should be built to Porpoise Harbor at the carliest possible moment. The necessity for this is apparent, secing that this point will undoubtedly be an industrial site."

Port Pidward affords Prince Rupert the waterfront industrial sites that will be required. The G. T. P. railroad main line runs along the waterfrontage of Port lidward. A hard and fast agrecment with the railroad company stipulates that they shall erect a station, provide adequate sidings, permit grade crossings, and furnish all accommoditions required as the traffic of Port lidward grows. The entire policy of the Corand Trunk Pacific Railway would, however, assure to Port Edward all of these things as traflic demands it, without any areement whatsocier, for no railroad system has shown a greater desire to assist in the development of communities along its right-of-way than the G. T. P.

The Wominion government, recognizing the Eacilities offered by Porpoise Harbor (on which Port Edward fronts), has thoroughly sounded and buoyed the harbor and its contrancer, and has issued plans and charts showing the general characteristics of the
harbor and coast line. Porpoise Harbor, on which Port Edward is situated, is formed by Kaien Island on the north, the mainland of the Tsimpsean Peninsula on the east and south, and Ridley Island on the west. It is practically landlocked, and is sheltered from high winds and seas. The entrance is between Ridley Island and Lelu Istand.

An cxamination of the charts prepared by the Dominion government from somendings made by the Dominion Govermment Hydrographic Department and the G. T. P., shows that the whole harbor has been thoroughly sounded, includines the cutrance. From the outside there are wo cutrances, one on a straight line from (iren Top Island to the mouth of the hathor, thence directly into the inside harbor, this range having a minimum depth of $3^{3}$ 年 fathoms ( 22 fect) at low water, or firi icet decper than Victoria inner harbor talay. The range, as shown on the chart, has two turns. This entrance has a minimum lepth of seven fathoms ( 42 fect) or a $\mathrm{a}^{\text {th }}$ amply sufficient to accommodate the draught of any type of vessel afoat. The minimum width of the harbor entrance between the six-fathom line at low water is 550 feet. At the north end or head at the harbor is found a turning basin $\mathrm{I}, 80$, to 2,000 feet wide, amply sufficient to permit


ENTRANCE TO PORT EDWARD TOWNSITE FROM THE NORTH
the turning of any type of vessel. The maximum tidal currents obtained from current meter measurements in various points of the harbor in no place exceed two miles per hour. This seems a particularly good feature when we compare Porpoise Harbor with Vancouver Harbor, which has a tidal current of seven miles per hour at the Narrows, or San Francisco, which has a tidal current of seven miles per hour at the Golden Gate. When the proposel lock is put in at Zanardi Rapids, there will be practically no currents in Porpoise Harbor.

The depth of water close to the highwater mark in the Prince Rupert harbor along the shore of the present townsite makes it impossible, except in a few instances, to build pier wharves, unless the piers are constructed by a combination of int and fill, entailing a very heavy expense. 'I his is not the case at Port Edward. The Wure line of the east side of Porpoise Harhor is such that piers at an angle of 45 wrees to the general direction of the we line may be constructed out to a - th of 600 feet, and these piers will have $\therefore$ werage depth at the outer end of 36 fect $\because$ hw water. They will require but little $\therefore$ living at the inner end to give an average $\therefore$ '...th of 26 feet at low water, and may be 1. deepened to a further depth of 30 $\therefore$ at low water. Eleven of these piers
are available with a combined docking length of 14,320 feet.

There is also available on the waterfront at Port Edward a site for a quay wharf 2,640 feet in length, giving a total docking length of 16,960 feet. The whares have been projected according to modern harbor practice to serve the needs of an industrial townsite.

One pier has already been secured by the principal hydro-electric company. The Prince Rupert Hydro-Flectric Co. is a $\$ 5,000,000$ corporation financed by the same group of Montreal capitalists who are so successfully operating the Western Canada Power Company in lancouser at present. The P. R. II. E. Co. own the most valuable power rights in the vicinity of Prince Rupert and have secured water powers aggregating a possible development of 80,000 horse power. This company has already commenced development of the Falls River power (located about 37 miles from Port Edward) and confidently expect to have the first unit in operation by the fall of 1913. 'They have purchased two industrial blocks in Port Didward, and are at present installing a Diescl oil engine plant of 1,500 h.p. capacity, from which they will sell power until their water power is in operation; then this Diesel plant will be utilized as a stand-by plant. When the

Falls River plant is in operation cheap power will be obtainable in Port Edward, the company having already entered into an agrecment with the townsite company stipulating that power shall be furnished Port Edward at no greater rate than that charged Prince Rupert.

The industrial sites will all have trackage to scrve their needs, as will the six warchouse blocks. The warehouse blocks are laid out to have trackage on the front and road facilities on the rear. Goodo coming in by rail can be handled from cars to the first floor, then by elevator to the second or third floor, whence they can be transferred by trucks to wagons for delivery throughout the townsite. Industrial sites have also been laid out along the tide flats between Watson Island and the mainland. These will require but little fill to raise them above high-tide level, or if desired the buildings may be erected upon piles or piers. Further industrial sites have been laid out on the Lake Wainwright waterfront. These will become very valuable when the locks on the Zanardi Rapids are constructed, and the Zanardi Rapids bridge opened up. There are in all fifty-five industrial sites, aggregating a total of one hundred and fifty-one acres.

Throughout the planning of this harbor and townsite the aim has been to supply a want which has been keenly felt at Prince Rupert and, in fact, all along the entire north coast of British Columbia, namely, industrial sites with the most economical means of serving them with water and rail tramsportation, and the townsite to serve the needs of those employed in the industries. 'To this end, the industrial sites have been laid out to utilize all the available wateriront, and the streets and lots have been laid out to provide for inexpensive
and attractive homesites by taking advantage of the exceptionally easy lay of the ground and by minimizing the cost of such grading as may become necessary.

It is only a question of a few months until the G. T. P. will have a daily train service on their main line, and it is believed that the fifteen-minute run between Prince Rupert and Port Edward will not prevent those working in Prince Rupert from making their home at Port Edward if they find that they can obtain a homesite there with every advantage more cheaply than they can in Prince Rupert.

Mr. R. H. Thomson, A.M.Ph.D., member of the American Society of Civil Engineers, for twenty years city engineer of Seattle, and now chief engineer of Strathcona Park for the British Columbia government, was engaged as consulting engineer and all preliminary plans of the harbor and townsite were submitted to him for alteration and approval.

Port Edward, located as it is in the midst of a hilly country, is favored by especially easy grades. It is situated on a harbor second to none on the Pacific coast, and one which offers every convenience required by modern shipping. It offers facilities for shipment east to the Atlantic coast over a railway built on easier grades and with fewer summits than any other transcontinental railway system on this continent. In short, it is a particularly fine location for industries that expect to send forth their wares cither east or west, and it offers such exceptional facilities for the handling and transhipping of materials, and for the housing of the men engaged in the development of industries located on its shores, that its rapid and prosperous growth and development may be confidently looked forward : 1 .


# The Coal Situation in British Columbia 

By Parker Williams, M.P.P.

The matter of coal shortage in the coast cities of British Columbia is a subject for the thought of someone with both more time and knowledge than the writer will claim to possess.

The only reason which I can offer for accepting the British Columbia Magazine's invitation to discuss the matter is that to the present time practically everyone taking up the subject has been, or is, more or less adversely affected by the shortage, and has therefore predicted a non-existing principle, i.r., that the public has a right to secure coal.

If the public has a right to secure coal, why does it not exercise that right? If it camot do so, then would not some weaker or more humble term than "a right" fit the condition better?

If, again, the owners of coal lands have a right recognized in law, to mine, or not to mine, to sell, or not to sell, coal, which of these two "rights" is likely to prevail? In a recent trial one of the British C'olumbia Appeal Court judges is quoted as saying, "I am here to administer law, wit commonsense."

As I understand it, it is a dual problem "ith which we have to deal-a shortage ii the amount of coal available, and what held to be an exorbitant price charged inrefor. Any solution of this problem ill surgest consequences in other direcon: which to many will be fully as
ianteful as the coal situation itself is.
lle ownership of coal lands in British - Ambia imposes no obligation to produce. wal is produced, it is because the "er"s personal interests are best served by siong. If he chooses to producc-or . A .r to permit miners to producc-coal, may ship it to Vancouver or to Mexico. : $\because$ : in his wisdom, has the sole determinSin of this point again. The price he w! charge therefor is also a little matter
regarding which he has himself to consult. According to the umwritten laws of commerce, he is entitled to change therefor all that the market will permit ; if there is a shortage of coal he may put the price up to the highest figure that the public will pay rather than forego the comfore of its use. A careful variation of the price in accordance with this principle would promptly relieve any coal shortage; for in reality this shortage was, and is, only relative to the price at which it was sold. Had the price been raised, say, to $\$ 20.00$ it is quite likely that the amount on hand would have been sullicient to meet the demands.

This may seem a brutal form of reasoning. All that I can reply is, that until we are prepared to look the sitmation squarely in the face we need claim no desire to understand it.

In recent years land in the coast cities has increased in price many hundred fold.... coal has not doubled itself in the same period. As far as 1 have beco able "" observe it, it is right, and just, and in fant an unfailing carmark of public-spirited citizenship to force up the price of land. Is land less essential to life than coal? If not, then by what feat of mental jugeting does the person who assents to the increase in the price of the former comblem the far less increase in price of the latter?

Jgnoring this same set of conditions in connection with esery commodity which we purchase, and assuming that the coal trade alone must be disciplined, I would say that the situation lends itself to two methods of arriving at the same solution. Either the State must limit the rights of the mine owner to do as lie wills with his own property, i.ce, compel him to produce an amount of coal, place it in our cities, and at a certain price; or, as an alternative, the State must operate the
mines. The first proposal would be a violent breach in the rights of private property which would very quickly, and with equal logic, be applied to many other industries. As to the second proposal, State competition with private industry would only be an indirect method of doing all that the first proposal would do directly. Both proposals gallop towards State Socialism. In detail this scheme may admit of many variations, but to have any elements of permanency the State must very materially limit the right of private property. Any imposition of conditions favorable to the consumer, in the title on which coal lands should be acquired, is not possible, for the reason that, notwithstanding the vast coal-fields in reach of coast cities, the Government has very successfully divested itsclf of its ownership thereto.
It might, or possibly has, been suggested to give the local market a preference by means of an export or some other form of tax. This would create problens as large as those it would solve. Among other troubles, a variable market having first call on the output would be likely to accent the present variable demand for labor in the mines; and, again, this would not touch the gurstion of price.
Regardless of the lack of justification in the matter of coal any more than any other daily necessity, 1 ann well aware that the point thase interested desire to be informed upen is that of the cost of production. Expericnce in and around coal mines does not grant any knowledge on this subject, the miners receive about 70 c for :uywhere from $2.24^{2}$ to $3,000 \mathrm{llhs}$., which for some unknown reason is called a "ton." After leaving the miner's hand this coal is pushed a distime by human power, then pulled by mule power, next by compressed air, clectric winch or main and tail rope, then by electric motor, afterwards the perpendicular lift up the shaft. As to the cost of these processes the miners can know nothing. The tipple separates the dross or slack from lump. The latter is reduced by rock picked out on the cnilless belts, and the hormer suffers a reduction in "washing." That this work may go on during the day, a large force of men is employed during the might who produce no coal whatever. Taken as a whole, the processes are so numerous and varied before the coal
reaches the wharf that to quote the price paid the miner for digging a ton means absolutely nothing.

A critical examination of the relations of liquids to solids in the capitalization, in every case would probably show that much money is used up to pay interest on money that was not used to develop the mine. But again, this sum, if divided over the output for the year, is an insignificant amount on each ton. The writer is convinced that any examination as to the costs of production will result in very trifing, if any, comfort to the consumer.

Dealing with this matter as a temporary condition, the shortage during the present season has been caused by the close of the Canadian Collieries, owing to a strike, or lockout, which has resulted in reducing the amount of fuel available by from 2,000 to 3,000 tons daily. The responsibility for whatever suffering has been caused as a consequence of this reduction must be shared by the parliamentary representatives of the cities of Vancouver and Victoria. Briefly, the mine-workers believe that the question of their own safety while in the mine was at stake. In as many ways as possible they asked the government to make an inquiry, so that the truth or otherwise of their fears might be disclosed, but were refused. During the early weeks of February, when Vancouver was robed in white, and the Arctic winds fanned the lone streets of Victoria, a commission was asked for in the legislature. It was pointed out that if the miners' fears were found to be groundless the occasion of the disppute would vanish, and immediately sufficient additional coal would be produced to meet requirements. The representatives named voted against this. Their reasons for so doing have not yet been disclosed.
This compels me to say that, althou;h I have endeavored to be both just and withful in this review of the situation, I iw not pretend to be any more anxious regar iling the welfare of that portion of the pi:blic called the coal-consumer than that. mm segment of the public is regarding the welfare of the miner. Fifteen years w.thl ing the former and working with the it tter causes me to say that the public of Bertish Columbia is wholly indifferent to the :oofrequent processions from the mine tw the morgue, and from the morgue to the we-
lard. Only when hell breaks loose in the mine and the black crape swings from every third door of the mining town does the "public" awake, and cven then to no more logical purpose than a maudling sympathy, barren of any preventative re-
sults. I might add that there is even a suspicion that the reason why the public. through its representatives, refuse to stand for greater safety in the mines, is the belief that such might tend to increase the price of coal.

in the fraser valley



# The All-British Pacific Cable 

By Danvers Osborn<br>Author of "The Value of All-British Cables"

Bampield, British Coluabia, is the actual terminus of the imperial all-British Pacific cable, which was laid in 1902, and has never suffered interruptions in any of its sections through any cause-a phenomenal record, unsurpassed in the annals of submarine telegraphy:

The cost of the cable was defrayed by joint contributions from the Imperial, Canadian, Australian and New Zealand (iovermments. The capital sum advanced by the treasury for the completion of the project is gradually being extinguished br proportionate amounts paid annually by the sereral partners.
A glance at the accounts published at the end of each "official" year shows large traffic increases in the number of international and intercolonial messages; the single hond of indebtedness referred to will thortly be com:letely wiped out, and the

Empire, besides possessing an admiabble strategic cable and an alternative route w India, may be inspired to put down the much-needed state-owned Atlantic cable. and, in a not far-off future, to extend the system to the British posiessions in the Far last.

The return to the tappayer of the birat charges on the cable is, in one semence, a platonic and practical demonstation of sentimental and substamial patriotisma amd. moreover, pass tribute to the high order of intelligence of the administratioe oflicials who have succeded in making a finamial success of an imperial undertaking in the face of many obstacles.

A modern dreadnought costs more ${ }^{\prime \prime}$ launch than the entire sum expended in laying the all-British Pacific cable a deade ago.

The former, within ten lears, is withi:


[^4]
G.ANDAK SHORE EAD SYDAEY-AUCKIAND CIBLAE FIRST BOAT TO LAND ON BONDI BEACH. S.S. SIINERTOWN IN DISTANCE





FIRSE END OF CMBLE COMANC ASHORE
meaturable distance of the scrap-heap, whereas the latter is not only in the zenith of dialy prosperity, but, in the event of war, this thin red line not only greatly serves, hut maybe shall save the Empire in the direst hour of extreme peril; for, after all. tis the silent forces that count.

The Pacific cable system consists of a thain of stations commencing at Bamfield. thence to Fanning Island, Suva (Fiji), durfolk lsand, at which point a section hiturcates, with terminus at Southport (2neensland), and the main cable continlas in Auckland, which centre has recently tewn comnected by cable with Sydney; $\therefore$ inmalia.

ITw alministration of the system is conSasel by The Pacific Cable Board, with ma imaters in London. The practical adII Marion is directed from Sydner (N. S. II. We the manager in the Pacific. Cradu$\because \quad$ :te sytem is extending its ramifica: amongst others the working and $i$ of a direct landline between Bam; inl Montreal. The board maintains $\therefore$ in Vancouver, cquipped with all $\therefore \quad \cdots$ high-speed signalling instruments. it the cable steamer Silvertown al the laying of a cable between $\because$. (N.S. WV.) and Auckland, New $\therefore \therefore$ which will augment and guarantee $\because \because$ ater speed and accuracy.

At a dinner (given by the baral) in Sydney to inamgate the new section, the governor-general, lord Chelonsford, and some one hundred and fifty distinguished Anstralians were present. In the specthe deliecred on that ocasaion one nomes the trend of mamimons opinion, dedarines in havo of the immediate extension of the board's system by the laying of a sate owned cable betwern (:anada and Finsland.

The statement may come at a mexation to the man in the street, how today there is not a single British calle ansone the Athantic. The bulk of the cable are ownol and controlled by wo Smerican woma tions, one of which threatem to beomure a "merger," and aradually to atherlo in it grasp the entire eromp of calles. "Were watd the comse of Pimpire" las locome : misnomer, as har as Britan is comerned. in the serions mater of wathipe and cable for western watlers.

The Pacific Coble Buad hav provided an admirable service, reducher rates and atford ing the eremal pmblic the alvantae of sendine cablerams, under certain combitions. at an almost vanshine fiemere. Controlline its own Alantic cable, this truls Imperial service woud specdily demomatrab to Canadians the urility and need (which today (xists) for a rapid, acomate, and


MR. HICIERS GSBORS IT BMMFIEID. HOMIE IMID THE FLOWERS
cheaper service beween the Dominion and the Mother Comutrs.

When we take into consideration the serious fact that all the existing Atlantic cable companiss are controlled by aliens inimical th the real interests of the Fimpire. it passeh ordinary understanding to imarine how such a erosis dercliction of mational meeds and newled of the demands of lmureral onodination exer came about.

The Pempires stratequic conditions have -haned. We must strike out resolutelyace trom he limpires entere "Westward. the coure of bompire" is a modern truism. se its lines are mumaded! We, in British Cilumbia, durelling on the shores of the Parific ()ecan, the Buture sock-pit of the miseres, mamain that an alternative route IW India via Comata and the l'acific, supplemented be waships and cables. should be rearded as an immediane and imperative satemaral. Military and naval experts, toFether with civilian spectalists, point proudI to the Mederemanam route, with its torified intervals and replemishing depots ar (ibraltar, Malta and dion. But our tenure in Pespt though doubtess conberringe ereal henclits on that countre, is ahays traugh with danger. amd lable to collapse. The sinking of one iron ship in
the Sue\% Canal would imperil communication with the Far East. It occurred in 1882 owing to the insignificant revolt of the populace under Arabi Pasha. The then existing submarinc cable route to India presented itself as insecure and unreliable to the authoritics, and ultimately the allBritish Imperial cable across the Pacific was laid as a strategic alternative.

Canada, Australia and New Zealand. therefore, are united in demanding that a united lempire lose no time in fortifing the Pacific route to India by strengetheme all the links in the chain, and adrocate shat Fispumalt, Fanning Island and Suva (! ii) be fortified and maintained as coal deress with little or no delay.

This valuable Imperial asset, the IBritish Pacific cable, with its intermes " stations and staffs of highly-trained ofiwould be rendered inoperative in the e it of an enemy's successful coup de main. :n the Pacific, whereas, guaranteed immus ' from hostile interference, it can truthon be said that the modern cable either the first shot or upsets the plans of plotters against the Empire's peace.

The Pacific cable has performed pre: gies-record messages have been exchan : between Sydney and London in under:
:antes. Its stations are always on the an: $t$. never closing the whole year round, The public demand that it be "all-British" A:mmout its entire present route from the Impire's capital to its terminus in Ausmalia, and when the public proclaims its med the necessary concessions cannot long Ir delayed. An Imperial cable is an Immrial asset at the outset, and performs valuable and enomous service, and is cypally at the disposal of the official in

Downing street and the humblest taxpayer drelling in the meanest purliens.

Three men can be mentioned as sponsors: for the Pacific cable who have made it a veritable thinge in being. They are sir Sandford Fleming, the "father" of the project, Mr. John Mihard, the active administrator of the system. with healquarters in Sydueg. Australiat and Sir Henry Primrose, the chaiman of the Pacific C'able Bearal in Lombon.


# Charles Hill-Tout, Anthropologist 

By Alfred Buckley, M.A.

In following the history of colonial settlements in modern times two well-marked epochs may usually be discerned. First, there is the time of struggle for the bare necessities of life which is commonly rewarded in the course of time by accumulation and superabundance of these necessities. The superabundance is exchanged for currency and this we call wealth.

Next there comes a period when material needs cease to satisfy the human spirit and the longing for books, music, social converse and scientific knowledge manifests itself. This is the first sign of what we call culture, and the presence or absence of this spiritual awakening is the test of the maturity of a new civilization. It would be casy to illustrate this by recalling the history of Eastern Canada, America and Australia, or by taking for specific example some such centre of light and leading as Boston.

It would seem now as though Vancouver had finished its time of sturm und drang, its logging days. All the stumps have been cleared from Hastings Street and colestial buildings have taken their places. A sufficient number of people have made cnough money to make it safe to burn their overalls and turn their attention to the things that really matter ; that is, of course, looks, pictures, music and other spiritual joys.

Our maturity will naturally carry with $i_{i}$ a growing sentiment of self-dependence and pardonable pride in the products of our own hands and brains. For many of the necessities of life we have long sent away "back East"; but the creative spirit is awake, and our manufacturers, like TubalCain of old, are "rushing to labor with plastic real" and catching nature's forces in prisoned servitude. By and by fewer of the prime necessities of life will come from "back East."

But, best of all, we are ambitious to
make, not only our own pots and pans, but also our own students and thinkers. Carlyle's magnificent tribute to the two great classes of workers swings into memory:
"Two men I honor and no third. First the toil-worn craftsman that with earth-made implements laboriously conquers the earth, and makes her man's. Venerable to me is the hard hand; crooked, coarse; wherein, nothwithstanding, lies a cunning virtue, indefeasibly royal, as of the sceptre of this planet. Venerable, too, is the rugged face, all weather-tanned, besoiled, with its rude intelligence; for it is the face of a Man, living manlike. . . . A second man I honor, and still more highly: him who is seen toiling for the spiritually indispensable: not daily bread, but the bread of life. . . . If the poor and humble toil that we have food, must not the high and glorious toil for him in return, that he have light, have guidance? . . . These two in all their degrees I honor; all else is chaff and dust, which let the wind blow whither it listeth."
For a time we may have to send "back East" even for our students and thinkers, but, please God, not for all time, unless we wish to illustrate that bitter saying: "A prophet hath honor save in his own country."

One thing, however, we cannoi get "back East," even if we send, and that is, knowledge of our own country; oi the history that lies buried beneath the st of British Columbia, beneath the iurial cairns and kitchen middens of extinc: or moribund races. This knowledge is. like other treasures of our country, to be dug up on the spot; and even then it is no use unless it is dug up with a trained in:clligence behind the spade, accustomed by long years of patient investigation to catch the secret that is uncovered. To the Peter Bell of Wordsworth's poem

A primrose by the river's brim
A yellow primrose was to him
And it was nothing more.
To the average logger on the shores of Burrard Inlet, False Creek, Stanley Park and the banks of the lower Fraser River, digging in the kitchen midden of an Indian tribe, the domestic utensils of a vanished people would have little more significance than the tin can of an abandoned logging camp; but to Charles Hill-Tout, anthropologist, they were treasures of inestimable value and became the data for his "Native Races of British North America" and for a pilc of monographs and reports that have made his name better known in London and New York than in his own town. We are gradually awaking to the fact that the rast riches of our province in land and mincral are being appropriated by strangers. It is the same story in this matter of prehistoric remains. A little time ago Mr. Hill-Tout wrote:
"The monuments of the past left us by the old-time Indians are of several kinds. The most important of these are their tumuli or burial cairns, their totem poles and commemorative columns, and their kitchen middens. The last named are formed from the ashes and other debris of camp life. Some of these heaps are of enormous dimensions, covering acres of land and having a depth of from one to twenty feet! The vicinity of Vancouver is particularly rich in these vestiges of earlier aboriginal life. The shores of Burrard Inlet, Stanley Park, False Creck, and the banks of the Lower Fraser abound in them. But almost in every locality they will be found to be of two classes, namely, modern formations and more ancient formations. The more ancient heaps are readily disringuished from the modern. They are invariably covered with vegetation and have some of the largest and oldest trees in the district growing upon them, phainly showing their age and their long abandonment. The writer's early inrestigations among these middens revealed the important fact that at the time of their formation a race physically different from the present Salish tribes had its home here. What has happened fo this race we cannot say. It has been
displaced, amihilated, or absorbed by the intrusive Salish.
"These old midden piles are doubly interesting to us from the fact that they are now practically the only source left from which we may gather specimens of the tools, implements and weapons cmployed by the natives in pre-trading day:Extensive investigations have been carried on among thesic heaps by the leading muscum authoritics of the Eastern States, and thousands of dollars have been spent upon this work since the writer first drew attention to the archizological riches of this province, some eight years ago. Our own provincial muscum possesses some good specimens of mative technology, but the finest collections of the kind are to be found in the Natural History Muscum of New York and the Field-Columbian Museum of Chicago. It is to be regretted that the people of this province have allowed outsiders to carry away from our midst so many interesting relics of the past, and been so lax in securing them for ourselves. The day is not far distant when they will be wholly unobtainable."
It is now nearly a quarter of a century since Charles Hill-Tout (pronounced HillToo, by the way) came to this province with little to call his own except the scliolarly endowment that Oxford had given him. While others were buildine up their fortunes he was grubling among midden heaps and cemeteries, sharing the life of Indian tribes; methodizing their language from grumts and monnsyllables: making literature of their unwritten traditions, Iending his mind out, as Browning's Fra Lippo has it, that the coming race of students in British Columbia should have light and guidance concerning the first dwellers in this wonderful western land.
Now if we are to be a great civilization and to have a model miversity we shall have to recognize the value of the pionecr scholar, the pathfinder in knowledge, and see to it that the results of his work are not wasted or cast as rulbish to the void and that the scholars of British Columbia shall have first and best homor in their own country. Anyone can be an arm-chair student. All he needs to do is to pile up the work done by other men and pick : morsel here and a morsel there, and, by
a process of synthesis known to every student, fuse the fragments into new combinations. Andrew Lang, whose reputation as an anthropologist is world wide, used to recognize this on every possible occasion, and to deplore the fact that circumstances would not allow him to be a field-man, as he desired. But to the fieldman, and especially to Charles Hill-Tout, he paid most generous tribute. To him Hill-'lout was the author of that "American view of 'lotemism" which has modified so considerably the views of European students on the subject, and the chief authority on the family organization of the aboriginal tribes of British Columbia. Mr. Lang even withheld from publication his "Seceret of the 'Totem" until he had added a lengthy and important appendix dealing with the views expressed in a recent publication by Chates Hill-Tout.

In 1805 the Royal Society published Mr. Hill-'lont's monograph on the archatology of British Collumbia under the title of "Later Prehistoric Man in British Columbia." This was the first published accoment of the archawhogical riches of British Columbia and led to the extensive investigations carried out later by the Jesup Rexploration Fund of New York. The societe also published a paper by him on "The Cosmogony of the Squamish," a paper on" "The Ocramic Allinities of the Sallish "rribes of British Cohumbia"-which was very highly praised by linguistic schulats in all parts of the world-and two monegraphs on Totemism, the more important of which put Mr. Hill-'Tout at once into the foremost ranks of students of Cotemism.

Following Dr. (idorge Datason in the whtice of ()rganizing Secretary of the Phasologial Surver Committer, appointed In the B. A. A. S., he medertook a series of incestigations into the life-history of the Salish tribes of British Cohumbia, which necessitated his spending lengthe periods of time among the natives and which resulted in the publication of some dozen "reports." printed verbation by the B. A. A. S. at the first, and later by the Royal Anthropological Institute of Great Britain and lreland. These reports are now regarded as indispensable to anthropological students and their contents have been widely quoted by anthropological writers, notably by Dr. Frazer in his monumental work on
"Totemism and Exogamy," many scores of references to Hill-Tout's publications being found in Dr. Frazer's four volumes, and in any volume on anthropology which aims at being authoritative now published, HillTout's name will be found among the leading authorities. The new Encyclopredia Britannica contains scores of references to his publications. In addition to these works he has written numerous articles for popular and learned magazines in America and Europe. He was also chosen to write the North American volume of "The Native Races of the British Empire Series," published by Constable of London. This volume was everywhere favorably received and highly praised and is now regarded as a classic upon the subjects of which it treats.
As far back as 1900 Mr. Hill-Tout was made a Corresponding Fellow of the Royal Anthropological Institute of Great Britain and Ireland. He was elected a Fellow of the American Ethnological Society in 1908; a vice-president of the Canadian Department of the Archrological Institute of America in 191I, and also a member of the exceutive of the Institute in 1912. He is also a member of about a dozen other learned societies in America and Europe.

There never was such a field as ours for the pioneer scholar. Our school text-books on the fauna and flora of Canada, as cerery teacher knows to his sorrow, come from the east, where the climatic conditions and the phenomena are so different from our own that eastern text-books become useless and positively misleading. If any student would give our teachers a simple and trustworthy text-book on the flora of British Columbia the teachers would carry him shoulder hishth. and if the student were a lady they would make her May Queen. Some capable an:l enthusiastic nature student like Mr. Henshaw or Miss Abercrombie, late of the Normal School, Vancouver, should be con:imissioned by the Government to spend a year in the compilation of an authoritati, text-book on the flowers of Greater Va!? couver and Vancouver Island. It is no lis? telling our children to look for sprib: flowers that grow in Nova Scotia but (i) not grow in Vancouver. Five years ago read that the hepatica was the first Cal. adian flower of the spring. I have ber looking for the hepatica ever since, but havi never found it, and expect to be told aftei
this confession that it does not grow here at all, but may be found in New Brunswick. And yet I have said so often, "Dear children, look for the hepatica, I can't find it."
"Oh, oh," breaks out Fra Lippo, the painter:

It makes me mad to see what men shall do
And we in our graves!
and the research possibilities of British Columbia are enough to make any student wish that his rich uncle would go to heaven forthwith without any more unseemly delay that his dear nephew might drop his eastern text-books and get to the woods to tell the story of the West.

This article is a plea for an anthropological department in the new university and generally for the endowment of original research in our own province. At ()xford, Cambridge, and almost all the American universities there is an anthropological deparment, the students of which carry on investigations in the field. It is written without knowledge of Government plans, and may be a work of supercrogation, but it is written with distinct knowledge of the needs of the teaching protession of this province and of the unfortunate results in other countries due to a lalse coonomy on the part of the Government concerning this guestion of the endowment of original research.



# The Central Valleys in British Columbia 

By Henry Schuster

Tine workers on the Grand Trunk Pacific Railway in their last great task of spamming the Canadian sub-continent with a rib of stecl, are approaching each other from cast and west in the central parallels of British Columbia. Sometime before the end of next year, it is expected, the two parties will meet, and in doing so they will complete a main attery for the commerce of that fertile portion of our wonderful province. Report says that trains will be rumning from the Atlantic to the Pacific on the Grand Trunk line before the end of 1914 . What this will mean for Central British Columbia-the Fort George country, the Nechaco Valley, the Bulkley Valley, and the Skeena Valleycan hardly be computed; but of one thing there can be no doubt: these portions of British Columbia are all waiting to give a rich reward to those who will go in and possess the land.
In the four valleys mentioned there is excellent agricultural land which can very profitably be brought under cultivation. Most of it is lighthy timbered with small poplar, pine and spruce, and in places with alder and willow, but with many open patchess of from one to fifty acres in extent. There is plenty of timber available for buildings, and in some sections, where the charing is heavy, merchantable timber should prove a considerable source of revenue.
At preserent the priucipal crops are oats, hay, barley, rye, timothy, red clover, potatoes, turnips, cablages, betts, etc.; in bact, fince crops can be produced of ali cerrals, grasese and resectables that can be grown in the temperate zone. Some wheat is grown, and the cuantity will assuredly. increase year by year. this cereal having been little cultivated owing to the complete alsentece of flour mills in the district.
The rank growth of natural grasses,
vetch, peavine and wax-bean prove the natural fertility of the soil. These grasses attain a height of six feet and upwards in many localities, and the great variety and profusion of wild berries indicates that small fruits can be successfully cultivated. At Hazelton, indeed, strawberries and other small fruits of excellent quality and large size can be grown. The government of the province has appointed experts to report as to the varieties suitable for the different districts. Should the land prove to be adapted to the growing of sugar beets a large area would quickly be planted, and refineries would follow.
In summer the usual temperature is 70 to 75 , occasionally rising to 88 or 90 in the slade. The rainfall varies slightly in the different sections, averaging about 25 to 30 inches, though this quantity is exceeded in the Skeena River valley. There are showers in the growing season, when moisture is needed, and the winters are clear and dry. About 15 to 24 inches of snow may generally be expected, and this


FAKM ON THE G. T. P., CENTRAL BRITISH COLUMBI:


THRESHING BY HORSE-POWER IN CENTRAL BRITISH COLUMHIA
quantity again is exceeded in the Skecna Salley, owing to its proximity to the coast. Stock must be fed for seven or cight weeks during the average winter, but the feeding period has been known to be much shorter in duration. The prospect of a good market for farm produce is very good, owing to the development of the country which may be expected after the completion of the Grand Trunk Railway.

Not only the Grand Trunk, but also the Canadian Northern Railway is building several lines in British Columbia, and these will be connected up with lines already completed in the prairie country and in Eastern Canada. Other companies have obtained charters and practically every a a ailable route has been surveged, thus affording the promise of ample railroad facilities in all directions from Central British Columbia.
fort georgil mistrict
What is known as the fort (Beorge district is sometimes called the Upper Fraser Valley, and includes the Salmon River \alley. The altitude of Fort (beorge is about 1,800 feet. At present it must be reached be road and river-the river steamers on the Fraser-from Asheroft, but this state of things will be remedied, probably in the latter portion of this year, when mains will be rumning through from bidmonton. Numerous roads and trails lead from lort (ieorge in all directions, and at certain periods the Nechaco as well as the Fraser is navigalle for river steamers. Canoes can be used on all the larger rivers and crecks throughout the summer.

The soil in this district is a hack or beown loam in the bottoms, and lighter sandy loan on the benches, with a clay subsoil. There is a large ferre in operation



OAT-PIEID IN NECHACO VALLEY
across the Praser River at South Fort (ieores, and another across the Nechaco Riser at fort (econge. They are in commission at all time's of the day and night, and take orer wagons, teams and foot pascongers.

As showing the agricaltural possibilities of the nevightertood. it may be recalled that the tirst agricultural tair of Central British Columbia was held there in September last. It was attended by Mr. (iridale, of the Domimion Departmeat of
 mem an the high guality of the grain, fruit and westables whibited. The exhibits induded ripened tomatoes, peas, beans, letmire pmopkins, patatoss and other garden product, as well ats all grain in sheaf and sack.

## THE NECHMCO VAMABE

Fob the west of fort beorge and ahone the Nechaco and Luper Nichaco Risers lies the Nechaten Yalley, the largest continuous trate of argicultural land in Central British Columbia. Its altitude is about 2, sou beet, and the whole valley is provided hy mumerous lakes and streams with water that is pure and free from alkali. The
warm summer weather promotes the rapid growth of vegetation, while during the winter there is very little wind and the sk! is clear. The snowfall averages fifteen to twenty inches and cattle are fed from about Christmas to March. Already a large number of settlers are scattered through the valley and are engaged mainly in the wrow th of wheat, oats, barley, rye, timothy. dover, turnips, potatoes and all the commoner regetables.

Of this valley the government repor: alys: "All reports go to show that the Xechaco is one of the finest agriculturai districts in the interior. The Nechaco with its level valleys and rich white silts offer special inducements to farmers. Its a!!. rantages are many; the land is level, the soil is rich and to a great extent open, the dimate is milder, the principal crops cani be grown without trouble, and tha seneral altitude is much lower than that of the surrounding country. Although th: ground is generally covered with thickets o: small trees, patches of prairie often occur. These are always level and are covere: with the greatest variety of nutritiou: grasses. The soil almost everywhere is of





marIey in central rritish columbia
the richest quality. It is composed of a fine white silt with a clay subsoil. Not only is the grass very luxuriant in the open patches, but even in the wooded portions peavines and retches of different species grow to such a height as to render traveling very difficult."

## THE BULKLLEY VALIEEY

In the Bulkley Valley district is inchuded all the land along the Bulkley River from Hazelton to Bulkley Lake. The natural vegetation is most luxuriant, wild berries of many kinds being extremely plentiful. In the open patches graseses often grow to a height of five feet, and excellent grazing for cattle is found in among the timber. The soil is senerally a rich sandy lom with clay subsoil.
"In other words," silys the government report. "the country is a farming rather than a cattle grazing district. At Round Lake, a few miles above Telkwa, and in the main ralley. Mr. Lacroix has one of the most adsanced settements of the district, and he has a small but excellent herd of dairy catele in splendid condition. The dairs, under the management of his wife. turns out excellent butter sufficient 'to kep the pot boiling.' The regetable garden was seen filled with the more usual vegetables, such as beets, carrots, turnips,
cabbage, tomatoes, peas, beans, cucumbers and such like, all ripening and doing well."

The crops in this valley comprise oats, wheat, rye, barley, timothy, clover, turnips, potatoes, and all vegetables. The rainfall is from 30 to 35 inches and the snow from 15 to 20 inches. In summer the days are long and warm, and the nights cool, while in winter clear and dry conditions prevail. At Tolkwa, in this valley, the altitude is 1,700 fect.

In the adjacent Telkwa, Babine and Hudson Bay mountains the mineral deposits are believed to be immensely rich, copper, gold, silver and lead having been found. Hundreds of claims have been staked in recent years, but there is still an immense territory to be prospected. Becis of coal have also been discovered.

All roads and trails throughout the Bulkley Valley meet at Telkwa, which on the arrival of the grand Trunk Railwa probably sometime this year, will be $i$ : direct communication by rail with Princ: Rupert, 235 miles away. Telkwa ha: already made more than a beginnin. towards establishing its position as an iniportant town. Situated as it is at the junctions of the Bulkley and Telkw:i Rivers, in the midst of a country rich it. agricultural lands, mines and coal areas, it* future is assured.

"CRUISI:RS" EXAMINING THE I.IND
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## THE SKEENA VALLEY

The Skeena Valley is nearer to the coast than the other valleys which have been mentioned, and is probably better known, the Grand Trunk Railway from Prince Rupert already rumning through it for a considerable distance. Compared with the interior valleys the climate is milder in the winter, the rainfall heavier, and the altitude lower. For the rest, let the government report speak:
"There are several hundred thousand acres of the finest kind of land eminently adapted for agricultural and horticultural purposes; the soil for the most part being a rich sandy loam with a gravel subsoil in the higher benches, and a clay subsoil on the lower-lying ground. The timber on the land is principally spruce, hemlock, willow and cedar, with cottonwood on the lower-lying ground. There is practically no underbrush except devil club, and wherever that occurs the land is of the very finest quality. . . . A great number of the settlers have already planted out a considerable number of trees which are doing exceedingly well. In the orchards of Mr. David Stuart and Mr. Thornhill, who are the pioneers of the district, are apple,
pear, cherry, plum and prune trees, which have been bearing for some gears. The fruit on these trees was of excellent quality, the color and size good, and fredom from blemishes was very marked. Potatoes and all garden produce grow to great periection. I think that the Upper Skeena will become one of the garden spots of British Columbia."

In the various districts described above a large number of setters have already made homes for themselves, and in some cases where farms have been under cultivation for several years the owners are wealthy men. Besides rich agricultural lands, the valleys contain mineral deposits of every description, and immense coal areas. l'robably, also, the estahlishment of a thriving logging industry is only a matter of time. There are many waterfalls capable of developing practically unlimited power for electricity supply and manufactures. Another clement in the outlook of the country is its attractiveness for the visitor. Its secmic grandeur, and the fact that all kinds of gatue are to be foumd within easy reach, render it certain that this will be one of the popular resorts for the wealthy and leisured trateler of the future.


# Sea-hotter 

By Nigel Wynter

His Majesty's very grood ship "Clearwater," with a grunt, rattle, splash and row from for'arel, came to anchor off San Quentin on the Pacific coast of Mexico.

Fiergboly, of course, has heard of San Qumbin; the place where a large colonization company, after experimenting with the soil, and spending three years ascertaining the mean rainfall, decided that the land adjacent thereto was the finest for wheatgrowing in the world, and how, after purchasing thousands of acres, and advertising its wonderful possibilities throughout the length and breadth of three continents, they were annosed by the fact that not a single drop of rain fell for seven years.

The town itself lics about cight miles inland, on a small stream too shallow for natigation by anything larger than a rowboan, and has a population of fifty, which deses not include Padre Seloastian's lame as, nor, inderd, the halt dozen or so goats hedonginge 10 old Tia Christina, the proprietress of the only inn. La Posada del Ninhe (aliconte.

From the seat the country looks anythins hut imvitus. The sround appears ver uncorn and somewhat sandy, with here and there boulders of cerery size and shapersewn about. Parched and desolate. the ouly vesetation visible is sparse patehes of strub actus.

I smalls, when the boaswam's shrill pipe ralls awa the "liberty" boat, there is not the diehtes difliculty experienced in crow ding it whith whelted and enthusiastic bluebathets, coser and thankfol for the chance (1) 20 ashore.

Jack, when ashore, as a rule finds excitement or finn with sameely an effort, but, although there had been no libery for nearly a month, even the most optimistic of the "Clearwaters" "watch below." after a casual glatme shormands. decided in bavor of "make and men" or fishing, and there was a subdued snicker when it was whered that, besides the Commander, only
the Chief Engineer and Gunner were availing themselves of the opportunity to land.

Not that there was anything ludicrous about the Commander's going-he might have to be doing it as a matter of duty; but the other two, who seldom missed going ashore, no matter where, were a source of constant amusement to the ship's company, on account of the variety and number of escapades-usually ridiculous-they were continually experiencing. There was one in which they were mixed up with a Kodiak bear in Alaska. That is another story, however.
"'Ell-of-a-nole," murmured the enginecr to his friend, in a tone of disgust, one shoe full of sea water through miscalculating the distance when jumping from the bow of the boat. "Think I'll go back on board. Iy bloomin' rheumatics will come on if I walk about all day with a wet foot."

The Gunner laughed unsympathetically. "Never mind, that won't 'urt yer; it'll soon dry in this weather. Come on, the Old Man's waiting for us," and taking his reluctant friend's arm, hurried him, with unnecessary haste in the Engincer's opinion. up the slightly sloping beach.

Bearing away to the left upon reachin: the top of the bank, they skirted the bas: of a small hill until they came to the stream, where they found a rough trai which followed its winding course. Whe: they had been trudging along it for ovir an hour, and were beginning to feel hot and uncomfortable, being tormented by i:? numerable sand hlies, they suddenly came upon, owing to a sharp bend in the trait. a large, well-built bungalow, with wis. verandals on three of its sides, and a tria: garden in the front.

As they were approaching it, a small $f$ u terrier ran out and began to bark furious! at them, and a moment later a tall, lea! man of about forty, of a distinctly military appeanance, attired in riding breeches anci leggings and tweed coat, appeared and, re-
moving a huge briar pipe from between his teeth, called sharply to the dog to be quiet.
"Hallo, Carruthers!" hailed the Commander.
"Why; Bunny!" exclaimed the other, his face lighting up with pleasure, and hurrying forward to shake hands. "I hope you've brought orders for me to move."

The Engineer dug the Gumer sharply in the ribs with his clbow and whispered hoarsely:
"Be 'anged if they don't know each other."
"Well, you don't suppose the old man dragged all the way up ere just for a bleseed constitootional, do jou?" replied the Gunner in an agrrieved tone.
"Might 'a done-," began the other, hut became silent upon the Commander beckoning them forward and introducing them to Major Carruthers.

In a few minutes they were all comfortably ensconced in wicker chairs on thic cool verandah, and a swarthy peon woman hovered about them with refreshments. For perhaps an hour they chatted on topics principally concerning the outside word, when the conversation turned on to the locality they were in.

Replying to a question put by the Gumner, concerning the habits of the people, their host answered in his quiet drawl:
"Lays hegrats? Rather! If they would only take the trouble to dig a lew ditches they could all of them raise enough stulf he irreating to lise fairly comfortahly. Instead of which, a large proportion of them are half starred a great deal of the time. Then there are other ways in which they might make some money. At a certain season of the year quite a number of seaonter appear on the coast hereabouts. Seseral times I have tried to impress upon the men the emportance of this fact. No grod, though, they simply will not bestir themselves." Major Carruthers paused to light a fresh cigar, then continued:
"Sea-otter, as you are undoubtedly aware. are extremely valuable on account of the beauty of their fur and the fact that they are fast becoming extinct. I am not guite sure, but I believe that in the States good skins sometimes fetch as high as six thousand dollars apiece. When I was in San Francisco last I was telling a chap whom I met there about the large number, considering their scarcity, that have been
known to appear here, and a few months later a sealing schooner belonging to Victoria ran in here and took anay no less than sixteen in one day. Not a bad haml. What? And here are these begears leading worse than a dog's life."
"H'm! 'They bloomin' well deserve to, I think!" remarked the Engineer, and Major Carruthers, rising, excused himselt for a moment, and disappeared into the bungalow.
"I suppose, sir, you'll be wanting to ane a chat with the Major by yourself. Nic may as well take a walk round and then make our way back on hoard," said the Engineer to the Commander.
"hes! All right. Take carre of yourselves," answered the Commander, with a short laugh.
"()h! Theress not much danger about "ere, sir, that 1 can sere" and rising as Major Carruthers reappeared, the bingineer and Cummer, atter thankine him tor his hospitality, and dedining his imptaton to stop to dimuer, bade him good-bye.
"Rummy pair." remarked the lajor, as they disappeared romed the beod in the trail.
"They are rather. bïst-rane men, though. Engemers one of the ohd shool. No better man in the angine-rom in the service," repliced the Commander.
"Fumer hap, the Major," remarked the Pingineer, when they were out of canhout of the bumalow. "Woren"t san mush atom "imestt and what "ex dhine iere, in this ( imwdionaken ide. Whan diom make "1 "in!"'
 1. 1). Dombl guite we what hered 'ane 'im down "ere tor, thomeh." :matered the other. and a momemt later added:
"Look! 'Therces a bit of a mail lead un wer the 'ill. I.ce's take it an' look rommd the commers a bin."

Arrised at the smmit, ther fomed sere cral small hill, in from of them, and further on a much larger mere which it would be necesary to climb before the could hope to gain a really good view of the surmomding comers.

Nothing daunted they started off, to find that where they had homght to reach it within an hour it took ower three.
"Why, there's the sea," remarked the Fingineer in surprise sitting down on a
large rock and beginning to fill a disreput-able-looking old clay pipe.
"What I thought, from the lay of the land when we walked up with the Old Man to the Major's," answered the Gunner, knocking out his pipe and borrowing his friend's tobacco pouch.

After resting a few minutes they went on down the hill. Topping a knoll as they began to near the water they paused a moment to look round.

Suddenly the Engineer grasped the Gunncr's arm and cried excitedly: "Crikey! Look!" and pointed down to a small cove a short distance away, where, bobbing up and down in the water, were a number of objects somewhat resembling a man's head when he is swimming.

The same thought struck them both, and they gasped simultancously: "Sea-hotter!"
"There must be at least a dozen there!" exclaimed the Engincer, "and he said they sell for as 'igh as six thousand dollars apiece. Oh, why didn't we bring a rifle. P'raps we could 'it some of them with rocks though," he ended hopefully.
"Rock's nothing," answered the Gunner in disgust. "You'd 'ave growled if I'd wanted you to bring a rifle along. Throw rocks at them, and you'll bloomin' well frighten 'em all away. The best thing we call do is to come back 'ere tomorrer with the dingly, and a couple of rifles."
"All right! Let's go down an' 'ave a look at 'cm."
"No, I don't think we'd better let 'em see us, they might get nervous and clear off. Let's go back the way we came."

Reluctantly they began to retrace their steps, tortured between fear that the seaotter would be gone by the morrow, and hone that they would still be there, and that some of them might be bagged.

Arrived back on board the "Clearwater," tired, footsore and dusty, the two friends, in their anxiety not to betray the secret of their find, told such divergent stories, in their respective messes, of their adventures ashore, that grave doubts arose in the minds of their shipmates as to their veracity, and cominced one and all that there was something in the wind.

When this was confirmed the following morning by the Engineer and Gumner starting off in the dinghy with a rifle apiece, and declining with unnecessary vigor all offers
of assistance, the ship's company was thrown into a high degree of excitement and began to look forward with a liyely interest to their return, and many and varied were the speculations as to the nature of the game they were seeking.

After a long pull they beached the dinghy a short distance from the cove where they had seen the sea-otter the previous day, and landing took the rifles and proceeded to stalk their prey in the most approved manner.

Stealthily they moved forward, almost afraid to breathe for fear of making the slightest noise.

They were wearing light canvas shoes, and the jagged stones of the beach hurt their feet somewhat.

The Engineer suddenly stubbed his toe against a sharp rock, and swore roundly.
"'Sh!' D'you want to scare 'em out o' their wits?" muttered the Gunner in a fierce whisper.
"Well, 'ow would you like to break your-toe?" wailed his friend.
"Should look where you're going," was the unsympathetic rejoinder.

The last hundred yards or so they lay flat on the ground, and with many grunts and weird nautical curses wriggled painfully forward.

At last, reaching a point where they could see the whole of the cove, they scanned it anxiously, and a gasp of disappointment escaped them. Not a speck of anything could be seen on the water, much less sea-otter.
"Your blooming fault for making a row," growled the Gunner, with annoyance.
"'Ow d'yer know? P'raps they don't show up till later in the day," his companion answered, feeling guilty nevertheless.
"All right! Let's find a good plaie where we can pot 'em from, without then sceing us," and they took up their position behind a large rock, lying down and takins turns watching.

The sun began to get very warm, ans ${ }^{3}$ what with the swarms of sand flies ana! other insects, the two friends were anything but comfortable. When they hai: been waiting a little over six hours, ani: doubts were beginning to rise in their mind as to whether the sea-otter would appear, : sudden exclamation from the Enginee:
brought his companion instantly on the qui vive.
"Look, Tubby! 'Ere they come!"
Hastily getting their rifles ready they took up comfortable positions for firing.
"Don't shoot until they get close in, unless they turn and start to go out to sea again," cautioned the Gunner.
"Righto! Oh, Chief!" answered the Engineer jubilantly, striving to be facetious.

With exasperating slowness the hairy heads of their prey approached nearer and nearer. There were at least a dozen heads bobbing gently up and down in the water, several of them disappearing altogether at times, as their owners dived beneath the surface in search of food.

At last, satisfied that they were near enough, the Gunner gave the word, and two shots rang out simultaneously.

The animals dived, and for a moment not a thing could be seen on the water, and the friends waited anxiously to see whether they had hit anything. Then two carcasses floated to the surface, and with a shout the Engineer and Gunner, leaving the rifles, bounded down to the water's edge, and wading out brought them ashore.

Very much excited they examined their game, and the Engineer slapped his friend on the back vigorously and exclaimed enthusiastically:
"Twelve thousand dollars, Tubby, ol' boy! We'll be rich. Think I'll buy the missis that imitation marble clock, an' angora rug she's been worrying me for these five years."

The Gunner eyed the carcasses criticially and said doubtfully:
"'Anged if I can see why they're worth all that money though. Seen lots better stuff to my way of thinking."
"Pooh!" answered the Engincer, in a very off-hand and superior manner. "There's two of the finest sea-hotter skins ever been got."
"Fat lot you know about it, I expect," said the Gunner, eyeing the other with slight suspicion.
"Huh! Don't you think I know seahotter when I see 'em? They're sea-hotter, my lad, and damn good ones, too." As a matter of fact, he had never heard of seaotter until the cay previous, but as he could not think what else they might be, he felt quite safe in making the assertion.

The Gumer, after a glance across the water, and finding no sign of the rest of the sea-otter, started off to bring the dinghy round into the cove.

In a few moments he reappeared, concern written large on his ruddy countenance.
"Say, Moke!" he shouted, "the blinding dinghy's gone. Drifted clean away. Not a blessed sight of 'er anywheres."
"Are you shore!" enquired the other, aghast at the news.
"Shore? Course I am. Ain't blind."
Nevertheless the Engineer walked round to where the boat had been beached to satisty himself.

There was no doubt about it, however. The tide had risen to high-water and, in receding, had taken the boat with it.
"Well, we're a fine pair of landlubbers. We shan't 'ear the last of this. Never mind though; we've got two sea-hotter, and a dinghy don't cost much when you've got twelve thousand dollars. Does it, 'Yubby?"
"No! Not when you've got it," the Gunner answered gloomily.
"Well, we've as good as got it, or, at any rate, even if those sea-hotter skins should be poor ones, and I know they're not, we shall casily clear more than enough to pay for an old dinghy," and the Engineer proceeded to fill his pipe with the utmost composure.
"I suppose we'd better walk to where we landed yesterday and hail for a boat. What'll we do with the sea-hotter; 'ide 'em and send the gig to fetch 'em on hoard?"
"No bloomin' fear," the Engineer answered hastily, "some o' those मreasers might 'appen along an' pinch 'em. We'll 'ave to 'unt round an' find a pole to sling 'em on, and then we can casy carry 'em between us.

Searching among the driftwood along the shore, they succeeded in finding what had evidently once been the trunk of a small sapling, about twelve feet long, and two and a half inches in diameter. 'Tying the bodies of the two animals togeti, er with a piece of spun yarn, which the Gunner found in his pocket, they slung them over the middle of the pole, and taking ann end of it apiece, and hoisting the load to their right shoulders, with the Engineer in the lead, they commenced the journey back to the "Clearwater."
"Not very 'eavy, is it, Tubby?" said the Engineer cheerfully, "'Ow much d'yer think they weigh apiece?"
"'Eavy enough by the time we get aboard. They must weigh at least a 'undred pounds each," the Gunner replied with slight heat, folding his pocket-handkerchicf and placing it between his shoulder and the pole.

In spite of the weight of their load, and the rather stiff climbing they encountered at first, the Eingineer's spirits mounted higher and higher, and he began to build castles in the air, and under his genial in:lluence the Gunner regained his good humor, and they vied with one another in plaming what they should do with the money to be procured from the sale of the sea-otter.

There was hardly a breath of wind, and they began to perspire profusely. Occasionall! a sharp stone cut into their feet through the light canvas shoes. Their ankles became imbedded with numberless thorus from the prickly cactus against which they stumbled. Great swarms of flies, attracted by the carcasses they were carrying, afforded the two friends considerable amorance. Cursing cheerfully, they plodided on, longing for a drink.

As they were fored to stop and rest every little while, owing to the increasing werght of their load, the day was drawing to a close when they reached the place where, the previous day, they had branched off from the trail which followed the stream. Wishing to get back on board before dark if possible, they did not go up the trail to Major Carruthers' place, but atter a shout rest continued on down tewards the coast. They began to get very footsore and weary, and became silent, the last mile or so secming about as long as the whole of the balance of their walk. After what seemed an eternity, and when they were heginning to feel as though they were experiencing a nightmare of trudging with an elephant on their shoulders, they came suddenly onto the beach.
$\therefore$ ight had fallen, and a slight mist hung wer the water.

They dropped their burden with a sigh of relief, and glamed out across the water preparatory to hailing for a boat, and a gasp of astonishment escaped them.
"Why! The bloomin' ol' tub's gone,

Moke!" Disappointment and a vague note of alarm were blended in the Gunner's voice, and he sat down stiffly on the bank.
"Oh! She's only just shifted 'er moorin's a bit, I fancy," the Engineer answered, striving to appear unconcerned, "and on account of the mist we can't make 'er out."
"May 'a shifted two or three miles for all we know," the Gunner said with gloomy pessimism.

They began to hail lustily, but the only return they got was the echo of their own voices from the hill behind them. The Gunner, after resting for a short time, walked for about a mile along the beach to the left, but returned without having sighted the lights of the "Clearwater." On account of the stream they could not go in the opposite direction. Gathering a heap of dry driftwood, they prepared to light a fire, only to find that they had used up all the matches for smoking.
"A nice mess for a sub-lieutenant and a warrant officer to get into, isn't it, Tubby?" The Engineer enquired with a grin which had little merriment in it.

They began to feel sharp pangs of hunger. The lunch they had brought with them had been left in the dinghy, and they had had nothing to eat since early morning.
"The only thing we can do, Moke, is to lie down and wait till daybreak."

Making themselves as comfortable as possible under the circumstances, they prepared to try and sleep.

Suddenly, quite close, a blood-curdling wail broke the stillness, and almost caused their hair to stand on end. They sprang up in alarm and seized the rifles. All became quiet again, and then another crr, but much farther off, came to their cars.
"Coyotes!" exclaimed the Gunner. "I don't think they'll bother us though; still one of us had better keep awake."

They settled themselves again, but iolt small inclination to sleep, the incessant wailing of the coyotes sending icy shivers through them.

Towards morning they fell asleep, :nd were still slecping when the crew of the cutter, that had been sent away to book for them, found them some hours late:

Although somewhat stiff from lying :n the ground all night, the two friends. as they were being rowed off to the "Cler rwater." with the prospect of a good bre: i -
fast when they got on board, and the knowledge that they had safely brought their valuable game to where there would be little risk of losing it, felt their spirits rising, and were in an exceptionally good humor when they arrived proudly at the top of the gangway, with a couple of bluejackets following them bearing their spoil.

The officer of the watch-a young second-lieutenant with a good-natured but somewhat boyish face, on which the assumption of dignity befitting his rank sat rather oddly-approached the Engineer and Gunner as they stepped on board, and, eyeing their dishevelled appearance with mild disapproval, listened coldly when they reported the loss of the dinghy whilst away shooting.
"H'm. What is that you've shot?" he enquired, endeavoring to disguise the interest he felt.

The Engineer and Gunner bent forward eagerly, and whispered in a confidential manner:
"Sea-hotter, sir!"
"Sea what?" cjaculated the lieutenant in mild perplexity.
"Sea-hotter, sir," they repeated.
"Oh! I see, yes," a light dawned on the Lieutenant, and he glanced towards the break of the quarter-deck, where a swarm of bluc-jackets formed a semi-circle about the two carcasses, which had been laid down on the deck.
"Sea-otter, eh," the licutenant remarked, then suddenly biting his lower lip, took out his pocket handkerchief and buried his face in it, and a faint smile played about the lips of the Commander, who had approached unnoticed.

The crowd of blue-jackets parted a little, and an old stoker who had spent a number of years scaling before entering the navy, pushed his way to the front.
"Wonder if ol' Jerry knows wot they are," said the Engineer, and moved across to where the carcasses were lying, followed by the Gunner and Lieutenant.

The blue-jackets had been arguing excitedly as to the nature of the animals, but became silent as the old sealer, who was a recognized authority on marine life, came forward.

Jerry removed an exceedingly short and very black clay pipe from between his teeth. The Engineer and gunner stood with bated
breath. After scarcely a glance at the carcasses, Jerry remarked calmly:
"Hair seal, ch?" He spoke as though everyone present was as well informed as himself on the subject.
"Wot's that?" said the Engineer, in faint alarm.
"Jerry glanced at him in mild surprise.
"Why, hair seal, sir."
" 'Avn't they got another name, Jerry?" Hope struggled with fear in the Engincer's voice.
"Not that I knows of, sir." The bluejackets all stared at the Engincer expectantly.

An overwhelming sense of disappointment swept over the Enginecr and Gumer, and they glanced at one another solemuly.

Then the former, hoping against hope, inquired, striving to appear unconcerned:
"Their skins good for anything, Jerry?"
The old sealer pondered for a moment, then answered briefly:
"Well, they're not bad for making baccy pooches out of, sir."

The Engineer and Gunner turned away with a feeling of disgust, which was reflected in their faces, and made their way slowly towards the companion ladder. Neither of them had fully realized until this moment how much they had built upon the fact that they might possibly become the possessors of a fairly respectable sum of money from the sale of their game.

All their fine castles were dashed rudely to the ground, and not alone that, but besides, they had spent a most uncomfortable twenty-four hours, without a bite to eat, and had lost one of the ship's boats, which they would have to pay for.

The Gunner thought of their long, weary walk with the worthless carcasses of the hair-seal, and rubbec his chafed shoulder ruefully, muttering imprecations with whole-hearted vigor, and, as they reached the bottom of the companion ladder and were about to part in order to go to their respective messes, he quoted with bitter sarcasm:
"'There's two of the finest sea-hotter skins ever been got.'"

The Engineer glared resentfully at his friend, then growled savagely as he turned away:
"Yougo to 'ell!"

# Vancouver as a Grain Port 

By Thomas McKee


#### Abstract

Emror's Note:-In its western prairie provinces Canada possesses, potentially, the greatest grain-producing belt of territory in the world. As the opening up of that territory proceeds from year to year, the problem of transporting the grain to the world's markets will become more and more urgent. The following article is the work of one who for years has made a close study of this highly important question.


"And he commanded the multitude to sit down on the grass, and took up the five loaves and the two fishes, and looking up to Heaven, He blessed and brake, and gave the loaves to his disciples, and the disciples to the multitude--and they did all eat and were filled-and they took up of the fragments that remained tweloe baskets full."

After the Western Canadian farmers and the commonity living in Saskatchewan adad Nlberta have eaten of the crops produced in these two provinces, there remains sulficient to feed a multitude. What happens to tive tawher baskets full? How much of it does Vancourer handle?
is study of the conditions under which this surplus grain moves to the principal consuming markets of the world is not only interesting, but instructive.

To begin with, moture has created the Great Lakes, the St. Lawrence River, also the Hudson Bay Straits; and for about five monthes every year nature closes these routes to successful navigation, resulting in the cutice country being placed upon one means of transportation-rail.

Nature also created the vast expanse of the western prairies, represented by Saskatchewan and Alberta, through which the River Saskatchewan flows.

In British Columbia she was generous in gifts of "rimber"-the prairies received largely agricultural lands.

On the Pacific coast of Canada the tidewaters contrast with those referred to on the Atlantic coast, especially during the winter months, when the latter are frostbound and must await the "opening of navigation' in the spring.

The Pacific ports are not compelled to wait by nature for the coming of spring"thair next stason is tomorrow morning."

Shippers via the Great Lakes and St. Lawrence routes must make twelve months' interest on their investments very largely in seven, whereas in the west interest can be made every working day of the year, so far as ocean navigation is concerned.

Throughout these provinces in the past fifteen or twenty years homesteads, farms and settlements, towns and homes have sprung up, creating a demand for building materials, of which lumber, the principal commodity required, is supplied largely from British Columbia.

## RAIL AND OCEAN TRANSPORT

Next think about the construction of any railroad, with its application for charter, its surveying expenses, the initial construction, the finished railroad bed, the lines of steel, telegraph poles and wires, the siding, the county shipping depot, the round houses, bridges, the switching yards, the divisional point-in other words, the fixed charges, etc. Each mile of line must bear these expenses somehow, and each ton of freight must help to pay for it.

Then turn to the sea and the expenses of navigation per knot or per mile, compared with the same distance, even on an eflicient up-to-date railroad.

In ocean transportation we have the steamer or ship, the capital investment, paint, oil and rope, port dues, pilotage, wear and tear, the wages of the captain and officers and crew-broadly speaking, that is about all.

Look at Alberta and Saskatchewan upon the map and locate Moose Jaw. The distance from Moose Jaw to Liverpool via St. John on the Atlantic coast is about 4,987 miles. Out of this about 46 per cent. is railroad haul and 54 per cent. water haul -this is by shipment eastward.

Turning west, we find that from Moose Jaw to Liverpool via Vancouver and Panama Canal will be about 11,076 miles. Out of this total mileage some 10 per cent. is rail haul and 90 per cent. water.

Moose Jaw is situated 2,296 miles from St. John, against 1,080 miles from Vancouver. In other words, it is about 1,216 miles nearer the Canadian Pacific coast than the Canadian Atlantic cuast, and this markedly as far as transportation is concerned, for about five months each year.

The question of rates and other interesting features will now be gone into-as the twelve baskets full of surplus grain will move in the direction of least resistance cconomically.

## AGRICULTURAL FOUNDATIONS

The following extracts from an address given before the London Chamber of Commerce by F. B. Vrooman, B.Sc., Ph.D., F.R.G.S., covers the ground admirably:
"Some time ago I made a carcful study of the cconomic geography of Canada north and west. I travelled many thousands of miles beyond the last railroad or steamboat through the upper waters of the Yukon and Sackenzie basin and elsewhere, and later supplemented this by an extended reading in the libraries on both sides of the water, oficial and otherwise. I have come to some startling conclusions which I should like to outline more fully, especially by way of concrete illustration, about those e:armous, cmpty, and arable spaces known as the Mackenzic basin, which are fully capable of supporting a population of ten millions of the British stock, but when I travelled through them for a distance of something like three thousand miles I found not a dozen white settlers in two-thirds of that whole journey. Here is a vast connomic hinterland which is not only destined to support British investment but British population. It contains enormous resources of minerals and timber, with unparalleled agricultural possibilities as regards both climate and soil, for there are a hundred million acres of good land in what is generally known as the Peace River country, which had, to begin with, a better climate than the Saskatchewan country had thirty years ago. I do not hesitate to assert that when settlers have moved into this country in any considerable numbers they will change the climate as the climate
of the whole prairie country has been changed by the plough. It is likely that the Peace River climate will be as temperate as that of the northern states of the Mississippi basin.
"This reconstruction, as it were, of the climate of a third of a million square miles is one of the most interesting studies in the economic geography of the British Empire. A gencration ago the farmers lived on the narrowest margin of salety from summer frosts. When in any considerable areas the prairie was broken up, instead of a green there was a black surface to absorb the heat as well as a powdered soil instead of a toughened sod. This powdered soil became a heat stomge warehouse and, being able to soak in the rain, which before had fallen away, it absorbed further heat in this process. At night, therefore, when it grew cold, the heat from this warehouse, improvised by the solar heat of the long summer day, wats radiated into the cooling air, keeping it at a temperature above the frost line. The consequences of this simple but important iact have resulted in a change of the climate of Manitoba, Saskatchewan and Alberta, and the frost line has been pushed northward at an average width of about a tounship a year.
"Other things being equal, there are important clements also which help to make up the difference of the matter of mere latitude. In the frist place, the further north we go we find a decrease in the altitude of ahout five feet to the mile on a pretty general average from Calgary to the Arctic Ocean. This in and of itself gives advantage to the country further north. Again, the further north we go the longer the days are in the summer; in other words, the greater the number of hours in the day affected by the solar heat in the summer with fewer in the winter. But inasmuch as nothing is grown or attempted in the winter time, that point is negligible, and the great summer advantages may be illustrated by the fact that wheat grown on the Canadian Pacific Railway at Indian Head takes one hundred and twenty-eight days to mature, while that in the neighborhood of Lake Athabasca matures in from eighty-six to ninety days. This means that the summer season required without frost is about forty days less around the lower

Peace River than that along the line of the Canadian Pacific Railway."

## ACREAGE

In Alberta it is estimated that there are 96,453,000 acres of good agricultural land, while only about $3,066,048$ acres were under crop in 1911, which is roughly about $31 / 2$ per cent. of the total.
In Saskatchewan the estimated total of available land suitable for raising grain is $86,826,240$ acres, while the total acreage under the plough in 1911 for wheat, oats, barley and flax was 7,951 ,o19 acres, or say about io per cent. of the total available acreage.
In Alberta the acreage has increased during the last five years from 576,821 acres to $3,066,048$ acres, or on an average about 61 per cent. per annum. The total crop increased from 14,588,852 bushels in 1907 to $98,795,000$ bushels in 1911, or an average increase in yield per annum of 106 per cent.

In Saskatchewan the total acreage in 1907 was $3,057,401$ acres, while in 1911 it had grown to 7,95 I,OI9 acres, an in-
crease of about 30 per cent. per annum. The total harvest in 1907 was $53,731,485$ bushels. In I9II it was estimated at $211,760,000$, or about 52 per cent. increase per annum.

## POPULATION

According to the census report of January 25, 1912, the following population was reported:

| Saskatchewan | 49 |
| :---: | :---: |
| Alberta | 374,663 |
| British Columbia | 392,480 |
| Yukon | 8,512 |
| Total | 268,187 |

For the above-mentioned provinces this is a rate of increase of about 89,000 per annum since 1901. It is reasonable to suppose that by the end of 1913 there will be about $1,500,000$ people in these provinces.
The following specially compiled tables illustrate the rapid increase in acreage and yield. They are prepared from government reports:

## ALBERTA-SPRING WHEAT

|  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1907... | 123,935 | ...... |  | 2,261,610 |  |  |  |  | 18.25 |
| 1908.... | 212,677 | 88,742 | 71 | 4,001,504 | 1,739,894 | 76 |  |  | 18.85 |
| 1909.... | 324,472 | 111,795 | 52 | 6,155,455 | 2,153,951 | 53 |  |  | 18.97 |
| 1910.... | 450,493 | 126,021 | 38 | 5,697,956 |  |  | 457,499 | 7 | 12.65 |
| 1911.... | 1,299,989 | 849,496 | 188 | 28,132,000 |  |  | 457,499 | 7. | 21.64 |
| Average | 482,313 | 294,013 | 87 | Net Aver. | $22,434,044$ $6,467,597$ | $\begin{aligned} & 393 \\ & 128 \end{aligned}$ | 12 yrs. ave | about | 21.64 17.50 |


| 1907... $\$_{3,965}$ |  |  | 1,932,925 |  |  |  |  | 20.66 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1908.... 104,956 | 20,99 1 | 2.4 | 3,093,422 |  | 60 |  |  |  |
| 1909.... 102,167 |  | 24 | 3,312,344 | 1,160,497 | 60 |  |  | 29.47 |
| 1910.... 142, 667 | 40,300 | 39 | $2,312,344$ $2,206,564$ |  | $\cdots$ | 781,078 | 25 | 22.63 |
| 1911.... 316,910 | 174,4+3 | 122 | S,O1I,000 |  |  | 105,780 | 4 | 15.48 |
| Net Average | 5S,236 | 45 | Net Aver. | $5,80+436$ $1,519,518$ | 263 73 | 8 yrs. aver. about |  | 25.28 21.00 |
| Alberta-OATS |  |  |  |  |  |  |  |  |
| 1907.... 307,093 |  |  |  |  |  |  |  |  |
| 1908.... 431,145 | 124,052 |  | $\begin{array}{r}\text { 9,2, } \\ 15,922,97+ \\ \hline\end{array}$ |  | 72 |  |  |  |
| $1909 . .$. $1910 .$. | 262,756 | 60 | - $24,819,661$ | $6,675,060$ $8,896,687$ | 72 62 |  |  | 36.93 35.76 |
| $\begin{array}{rrr}1910 \ldots . . & 492,589 \\ 1911 . . . \\ 1,178,410\end{array}$ |  | $\ldots$ | 12,158,530 | 3,896,687 | 62 | 12,661, 3 3 | 51 | 35.76 24.68 |
| Net Average | $685 . S 21$ $21-S 29$ | 139 | ${ }^{56,96+, 000}$ | 44,So5,470 | 368 | 2,661,13. |  | 48.34 |
|  | 21,1529 | 52 | Net Aver. | 11,929,02I | 112 | 12 yrs av |  | 33.00 |


| Vancouver as a Grain Port |  |  |  |  |  |  |  | 163 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ALBERTA－BARLEY |  |  |  |  |  |  |  |  |
|  |  |  |  | $\begin{gathered} \frac{1}{0} \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ \hline \end{gathered}$ |  |  | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |  |
| 1907．．．．54，698 |  | ． | 1，082，460 |  | ． |  |  | 19.78 |
| $1908 \ldots .$. | 23，178 | 42 | 1，9＋9，16＋ | S66，704 | So | ．．．．．． | ． | 25.03 |
| 1909．．．．107，764 | 29，888 | 38 | 3，310，332 | 1，36r，168 | 69 |  |  | 30.72 |
| 1910．．．．90，901 | ．．．．．． |  | 1，889，509 |  | ． | 1，420，823 | 42 | 20.79 |
| 1911．．．．156，418 | 65，517 | 72 | 4，151，000 | 2，261，491 | 119 |  |  | 26.54 |
| Net Average | 25，430 | 34 | Net Aver． | 767，135 | 56 | $12 \mathrm{rrs.aver}$ | about | 25.5 |
| ALBERTA－FLAX |  |  |  |  |  |  |  |  |
| $1907 \ldots . .6,488$ | ．．．．．． | ． | 50，002 |  | ． | ．．．．．． | ． | 7.87 |
| 1908．．．．9，262 | 2，774 | 42 | 73，762 | 23，760 | 47 | ．$\cdot$. | ． | 7.96 |
| 1909．．．．12，479 | 3，217 | 34 | 131,531 | 57，769 | 73 |  |  | 10.54 |
| 1910．．．．15，271 | 2，792 | 22 | 46，155 |  |  | 85，376 | 64 | 3.02 |
| 1911．．．．93，662 | 78，391 | 513 | 973，000 | 926，3，4 | 2003 |  |  | 10.39 |
| Net Average | 21，793 | 152 | Net Aver． | 230，749 | 517 | $9 \mathrm{yrs}$. aver | about | 7.00 |
| SASKATCHEWAN－WHEAT |  |  |  |  |  |  |  |  |
| 1907．．．．2，047，724 |  | $\cdots$ | 27，691，601 | ．．．．．．． | $\cdots$ | ．．．．．． | ． | 13.52 |
| 1908．．．．3，703，563 | 1，655，839 | 80 | 50，654，629 | 22，963，028 | 82 |  | ． | 13.68 |
| 1909．．．．4，085，000 | 381，437 | 10 | 90，215，000 | 39，560，37x | 78 | ．．．．．． | $\cdots$ | 22.1 |
| 1910．．．．4，664，834 | 579，834 | 14 | 72，666，399 |  | ． | 17，548，601 | 19 | 15.68 |
| 1911．．．．4，704，660 | 39，826 | $3 / 4$ of 1 | 97，665，000 | 24，998，601 | 34 | ．．．．．． | ． | 20.75 |
| Net Aver．3，8＋1，156 | 664，241 | 26 | Net Aver． | 17，493，349 | 43 | 8 yrs．aver | about | 18.50 |

SASKATCHEWAN－OATS

| 1907．．．Sor， 810 |  |  | 23，324，903 |  |  |  |  | 29.09 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1908．．．．1，772，976 | 971，166 | 121 | 48，379，938 | 25，054，935 | 107 |  |  | 27.29 |
| 1909．．．．2，2，40，000 | 467，024 | 26 | 105，465，000 | 57，085，162 | 117 |  |  | 47.10 |
| 1910．．．．2，082，607 |  |  | 63，315，295 |  | ． | 42，149，705 | 39 | 30.40 |
| 1911．．．．2，124，057 | 41，450 | I | 97，962，000 | $3+, 6+6,705$ | 54 |  |  | 46.12 |
| Net Average | 330，561 | 35 | Net Aver． | 18，659，274 | 59 | 8 yrs ave | out | 36.00 |


| 1907．．．．79，339 |  |  | 1，350，265 | ．．．．．． | ． | ．．．．．．．． | 17.02 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1908．．．．229，574 | I50，235 | 189 | 3，965，724 | 2，615，459 | 193 | ．．．．．．．． | 17.28 |
| 1909．．．．24，${ }^{2+400}$ | 14，426 | 6 | 7，833，000 | 3，867，276 | 97 | ． | 32.1 |
| 1910．．．．238，394 |  |  | 5，859，018 |  |  | 1，973，982 25 | 2.158 |
| 1911．．．．172，253 |  |  | 5，445，000 |  |  | $4 \mathrm{H}, \mathrm{OI} 87$ | 31.61 |
| Net Average | 23，228 | 41 | Net Aver． | 1，023，933 | 64 | 8 yrs aver．about | 2.880 |
| SASKATCHEWAN－FLAX |  |  |  |  |  |  |  |
| 1907．．．．128，528 |  |  | 1，364，716 |  |  | ．．．．．．．． | 10.62 |
| 190S．．．．264，728 | 136，200 | 105 | 2，599，352 | 1，224，636 | 89 | ．．．．．．－． | 9.78 |
| 1909．．．．319，100 | 54，372 | 20 | 4，448，700 | 1，859，3＋8 | 71 | ．．．．．．－ | 13.9 |
| 1910．．．．396，230 | 77，130 | 24 | 3，044，138 |  | $\cdots$ | 1，404，562 31 | 7.68 |
| 1911．．．．950，049 | 553，819 | 139 | 10，688，000 | 6，6＋3，862 | 218 | ．．．．．．．． | 11.25 |
| Net Average | 205，380 | 72 | Net Aver． | 2，080，821 | 86 | 6 yrs．aver．about | 10.00 |

## ESTIMATED HARVEST 1913

Based upon the average per cent. of increase in acreage during the past five years as shown in the above tables, and for the sake of conservatism using 25 per cent. less than the averages there shown the estimated harvest of 1913 is given below, from which the possible surplus available for westhound shipment may be arrived at:

## ALBERTA





## SASKATCHEWAN

| Crain | Vear | Ac |
| :---: | :---: | :---: |
| Whintit | 1911 | 4,704,660 |
| Add increase in acreage, 26 per cent. less 25 fer cent. equals 20 per cent. |  | 940,932 |
| Add increase, 20 per cen |  | 5,6.45,592 |
|  |  | 1,129,riS |
| Vader crop 1913 |  | 6,774.710 |
| 6.774 .750 actes at as!? hushels per acte ....................... $125,332,1$ |  |  |

Applying the same process of calculation to other crops, the following result is given:


Spring Wheat-Sask. ....125,332,135
Spring Wheat-Alberta.. 62,689,340
Winter Wheat-Alberta.. $11,949,903$
199,971,378
Grand total, say about
435,570,000

## ESTIMATED DISTRIBUTION OF WHEAT CROPS, HARVEST 1913

Bushels

| Spring wheat, A | 62,689, |
| :---: | :---: |
| Winter wheat, Alberta ............. $11,949,903$ |  |
| Wheat, Saskatchewan |  |
| Estimated total in round figures...200,000,000 |  |
| Of this crop, let us allow in the first place for the quantity consumed locally by a population of $1,500,000$. |  |
|  |  |
|  |  |


| Annual consumption of one barrel of flour per head per annum-basis, $41 / 2$ bushels of wheat per barrel.. |  |
| :---: | :---: |
| Chicken feed, pig feed, etc., in Saskatchewan, Alberta and British Columbia |  |
| Shipped East before the close of navigation r9r3, 50 per cent. of crop |  |
| Reserve supplies for seed season, 1914: $11 / 2$ bushels per acre for 14,838,700 acres |  |
| Surplus available for export West via Pacific as wheat and flour.... |  |

Total . . . . . . . . . . . . . . . . . . . . . . . . . 200,000,000
This surplus of $63,492,000$ bushels is nearly 32 per cent. of the total estimated wheat harvest of Saskatchewan and Alberta. If a percentage of 25 per cent. is taken as a basis to estimate the surplus available for shipment via the Pacific of barley, oats and flax out of a total of 235,600,000 bushels, there would be 58,900,000 bushels available of coarse grains for shipment west, or a total of all grains of about 122,000.000 bushels.

From the latest statistics to hand for seven months ended March 31, 1912, the Grand Trunk Pacific apparently handled during this period, judging from the quantitics in bushels and the total number of cars inspected at Winnipeg and other points in the west, about 8 per cent. of the harvest, while the Canadian Northern secured about 30 per cent. and the C. P. R. 56 per cent., the balance going to American roads.

The Canadian Northern and the C. P. R. combined, then, handled roughly about 86 per cent. of the crop during this period.

Now, assuming that Greater Vancouver secures, say, 66 per cent. of the $63,000,000$ bushcls of wheat available for export via the Pacific-that is, allowing as much as 34 per cent. for Prince Rupert for the first few years-then the total amount of wheat which possibly might be handled through Vancouver from the harvest of 1913 would be about $41,904,720$ bushels. If the same proportion is used for the other grains, the total of barley, oats and flax would amount to, say, $37,000,000$ bushels, or a combined total of wheat and coarse grains of about $79,000,000$ bushels.

## DISTANCES

A study of the distances between the points shown in the following tables will emplasize the position which Vancouver occupies compared with the Atlantic coast, especially, be it noted, during the winter months, when the water transportation in the cast is closed on account of frost and cold weather, and also at about the expiration of the period when the "wheat" has gone through the natural sweat, and is therefore in the best of condition for shipping.

| From | To <br> St. John miles | To Vanc'ver miles | Mileage in favor of Vancouver |
| :---: | :---: | :---: | :---: |
| Fort IVilliam | 1477 | 1900 |  |
| Wimnipeg | 1897 | 1480 | 417 |
| Fleming | 2109 | 1268 | $8{ }^{1}$ |
| Regina | $22+8$ | 1122 | 1126 |
| Monse Jaw | 2296 | 1080 | 216 |
| Swift Current. | $2+05$ | 970 | 1435 |
| Medicine Hat. | 2557 | 822 | 1735 |
| Calgary | 2737 | 6.2 | 2095 |
| Lethbridge | 2655 | 782 | 1873 |
| Straticona ... |  |  | 18 |
| Edmonton .... | $\}^{2928}$ | 83+ | 2094 |

## MARKETING CROPS

It it interesting to note that about 70 per cent. of the leading grain crops of Canada are grown west of Winnipeg. Winnipeg is about 400 miles nearer the Pacific than the Atlantic-therefore 70 per cent. of Canadian grain is 400 miles nearer Vancouver than St. John. With the extensive railroad mileage which is being created throughout the west, undoubtedly this percentage will remain in favor of the Pacific.

The Pacific or the west is the natural outlet for Alberta and Saskatchewan. Calgary is about 2,095 miles nearer the Pacific than the Atlantic. It is also about 100 per
cent. nearer Vancouver than Fort William, that is, about 618 miles nearer the Pacific than the lake heads.

## CROP MONEMENT

Investigation will show that from August 31 to November 30 the aggregate amount of grain shipped from Port Srehur and Fort William for 1910 was $44,396,000$ bushels. About December 5th the lakes, canals, rivers and other water transportation in the cast freezes up. When this occurs the relative positions occupied by St. Johns and Vancouver are forcibly brought out. If it is possible to move out this quantity before the close of navigation, it would seem that, especially as far as Alberta is concerned, with Cabgary as a basing point, about d 0 per cent, nearer the Pacific than to Fort William, the railroads could not only move out an equal quantity, but perhaps twice as much, on aciount of being only half the distance auray from the torminal. If this is so, cnormous inroads into the Saskatchewan crop ought to be made by the Pacific exporters betore the opening of the seaton of navigation in the spring on the great lakes.

## SHIPPING

According to the Department of Costoms for the year ended March 31,19 , 1 , the total number of British and foreign ships that entered and cleared at the port of Vancouver was 2.5.35, havin! a combined tomage of $2,520,10,3$ toms. Against this the total inward and outward clearances from Montral were 836 vessels, representing $3,270,707$ tons. This is the condition in Vancouver with only one Canadian railroad comenction in the west. What will it be when there are three transcontinental lines and sereral provincial branch lines all pouring freight into its harbor?

## EASTBOL:ND IUWBER

Broadly speaking, the prairie provinces have not much timber. Therefore every farmer, in fact every hambet or town on the prairic (Alberta, Sakkatchewan and Manitoba), creates a demand for lumber, this being one of British Columhia's natural products. A demand is created for lumber to move castward into the grain-growing section. According to the report of Mr. E. F. Stephenson, Inspector of Crown Timber Agencies for the Dominion Gor-
ernment, the total amount of lumber marketed in the three western prairie provinces during the fiscal year ended March 31, 1911, amounted to 1,017,524,202 fect, of which the lumber mills of British Columbia contributed $620,000,000$ feet, or slightly over 60 per cent., being four times as much as was shipped in from Ontario, four times as much as was manufactured within the three prairie provinces, and over five times as much as was imported from the United States.
On the basis of about 1,000 feet to the ton ( 2,000 pounds) this would equal an casthound movement from British Columbia into the grain-growing sections of, say, roughly 620,000 tons.

## westround gran, flour, hay, etc.

Now turn to the westbound movement; this appears to total at present about 250,000 tons. 'There is, therefore, an accommodation or difference in favor of western shipment between the eastern lumber movement and the western grain and flour movenent at present of about 370,oon tons each year, or, say, some $12,250,000$ bushels of wheat. In other words, the railroad has to provide a sufficient supply of cars to move west into British Columbia to take care of the eastbound lumber business. As these cars are destined chiefly to the rapidly-growing prairic section, it can readily be ssen that the most natural way to send these cars west is to send them loulted acith grain.

Another factor not to be lost sight of is the possibility that in the course of a few years Canada may be called upon to supply some of the wheat required by California and the other Pacific states. A glance at the annual report of the Merchants' Exchange of San Francisco is the best illustration of the gradual decline of the California wheat crop and the stealy grow th of wheat imports from Oregon and Washington. In addition to imports from Oregon and Washington, a percentage of strong wheat is secured every year from Kansas by the Califormian and Arizona mills.
New York, under the present conditions during the last few years, has been able to huy California barley, and the Central States of America on more than one occasion lave been compelled, on account of high prices, to buy wheat on the Pacific coast. This indicates, therefore, the possibility of
the United States Pacific coast being compelled to turn to Canada in the event of shortage in their own country, and the writer is of the opinion that it may result in the American government reducing the duty on grain imported from Canada into the United States, which at present, in a general way, is 58 per cent. higher than the duty on American grain entering Canada.

## EAST VERSUS WEST

On the supposition that a railroad train would move on an average of, say, 100 miles per day, and that a steamer would average about 12 knots per hour, the following will be about the time consumed on the journey from Moose Jaw to Liverpool:
Eastbound:

| Rail . <br> Water | ${ }^{23} 8$ days |
| :---: | :---: |
|  | - |
| Total | 31 days |
| Westbound |  |
| Rail | 11 days |
| Water |  |
| Total | 41 days |

Rates - Eastbound, winter months, Moose Jaw to Liverpool:

Total-Moose Jaw to Liv-
erpool .................

Rates-Westbound, Moose Jaw to Livcrpool:

Last season Pacific Ocean steamers' freight rates were about 30 shillings per ton, or, at $\$ 4.82$ exchange, about 19.35 cents per bushel. The distance when the canal is finished will be reduced by about 37 per cent., and therefore it is natural to suppose that freight rates will be correspondingly reduced, which would make the ocean freight about $121 / 4$ cents per bushel.
According to press despatches, the United States government has decided to charge
$\$ 1.20$ per 100 cubic feet measurement, which will equal about 50 cents per ton ( $2,000 \mathrm{lbs}$.) weight for bulk wheat, or, say, about $11 / 2$ cents per bushel for canal tolls. After deducting all other charges the railroad freight balance is arrived at as shown below:

|  | Per bush. |
| :---: | :---: |
| Pacific Ocean freight, 30s. less 37 per cent. | 12.25 cents |
| Canal dues as above | 1.50 |
| Transfer Vancouver | 0.75 |
| Marine insurance | 0.50 |
| Exchange, freight, br | 0.50 |
| Interest | 0.50 |
| Extra interest compared with East. | 0.20 |
| Balance for railroad freight. | 17.35 |

The railroad freight of 17.35 cents per bushel of 60 lbs . is equal to 28.91 cents per 100 lbs .

The present export wheat rate from Moose Jaw to Vancouver is $283 / 4$ cents per 100 lbs., while the rate from Fleming, Saskatchewan, which is on the Manitoba and Saskatchewan border, is 32 cents per 100 lbs . to Vancouver, which seems to prove the argument.

## THE PRESENT RATE SITUATION

An aunalysis of the present freight tariffs in connection with the grain and flour rates in Western Canada is interesting. A standard $60,000 \mathrm{lb}$. capacity car must be loaded with wheat to the marked capacity, $60,000 \mathrm{lbs}$. The same size car loaded with flour, mill stuffs, or oatmeal, however, may contain a minimum of $40,000 \mathrm{lbs}$.

In cars of $60,000 \mathrm{lbs}$. capacity for local British Columbia business four is transported at the same freight rate as wheat, although the actual weight on which the revemie is credited to the company is about one-third less per car. The transportation service, however, is fully equal that given to wheat.
Who gets the benefit? Does the Vancouver miller, or the eastern miller?
Turning to the export trade, if the western export spccial flour tariffs are referred to, it will be found that the minimum weight of flour for a $60,000 \mathrm{lbs}$. capacity car is $56,000 \mathrm{lbs}$. In the 80,000 lbs. capacity cars $74,000 \mathrm{lbs}$. may be loaded. This is about 6.6 per cent. and 7 per cent. difference against milling in Vancouver, and in favor of eastern manufacturers in direct competition with the Pacific markets, the
most natural market for export which the British Columbia miller possesses.

## WINNIPEG AND CALGARY

Some time ago certain interests in Winmipeg applied for rates on tlour between Wimipeg and Calgary equal to the rate on Hour between Calgary and Wimipeg. It was admitted that there appeared no reason why the rate between these two points in either direction on the same commodity should not be the same. This establishes the principle that between any two points the rate should be the same, on the same commodity, irrespective of whether the movement is cast or west.
Now apply this principle to Vameouver and note the results.
From a point named Fleming, Saskatchewan, to Fort William, the rate casthound on wheat is 16 cents per 100) Ibs., and this rate is the same, whether the wheat is to be exported to Great Britain, or consumed locally in Eastern Camadi. The distance between these points is alhout 0.32 miles.
Now, if it were desired to export wheat from Fleming via Vancouver, which is a distance of about 1,268 miles, the present rate is 32 cents per 100 lls .
Contrast this with the rate of 24 cents per 100 lbs . from Calgary castward to Fort William, a distance of $1,2(0)$ miles.
In other words, there is a differentiation of about 8 cents in favor of the castward trade for practically the same distance.
But supposing the Vamcouver flour miller wishes to ship to Ilong Kong, China, after manufacturing the wheat in British Columbia. What happens, so far as tariffs are concerned, as between wheat milling in British Columbia and flour milling at, say, Fort Willian or Keewatin, ()ntario. The tariffs on flour permit a rate begiming at Fort William to Hong Kong of $47 / 2$ cents per too lls., via Vancourer.
The rail haul to Vancouver is about 1,900 miles, then the flour is transferred to steaners and sent across the Pacific. Now, during the past three or four years, the general export flour rates from the chicf Pacific coast tidewater flour-exporting shipping ports have been from $\$ 2.00$ to $\$ 4.00$ per ton, while at present they are about $\$ 5.50$-say, an average of $\$ 3.00$ per ton, which is 15 cents per 100 lbs .
If the ocean proportion of 15 c per 100 lbs. as shown above is deducted from the
through rate from Fort William to Hong Kong of $47^{1 / 2}$ cents per 100 lbs . the balance represents what the railway earns-i.e., $321 / 2$ cents per 100 lbs .-for 1,900 miles' haul between Fort William and Vancouver.

The Pacific Occan rate cited is made by transpacific steamers on a waterway open to the competition of the entire slipping world. Thercforc the rates are facts, not theory, and the Ealance carned by the railroad must be also a fact.
This is on export flour manufactured in the cast. Now let us examine the figures relating to the most casterly place from which wheat may be exported at presentthis point is Fleming, Sask. Be it remembered, however, that flour (not wheat) may he exported by the westerly route from Fort William, which is 632 miles further cast than Fleming. An analysis of the tariff for flour shows the proportion from Fort William to Fleming to be only onehalf cent per 100 lbs ., assuming that the cost of hauling flour from Ficming to Vancouver is 32 cents per too lbs. - the charge actually made under the export wheat tariffs.

Kenora and Kecwatin are about 1,609 miles from Vaticouver. The proportion on flour manufactured at these points would be 3 oc per 100 lbs ., which would be 2 cents per tee ths. liss than the whereat rate from Fleming, although Fleming is some $3+1$ milss nearer Vancouver. But the Fleming rate is a wheat rate, whereas the Fort William, kewora or Keewation rates are spectial tlour rates framed to favor plants operated hy castern manufacturers in competition for ()riental trade with the Vancourer miller!

The kind of export tlour which would probaldy move under these special tariffs is low-grade flour, which must be made by all millers in producing their best grades. If the castern millers camot dispose of their low grades they would cither have to charge more for the high grades or curtail their output: but if they have special low flour export tarifts, then they can sell their high-grade Hour in the markets of the British Colhumbia miller more advantageously on accoume of the rates enalling them to run their plants on an average longer than the \anconver miller.

Dues this seem right? Are the millers in the cast entited to concessions which work to the disaduantage of British Col-
umbia millers? Added to the above are the further concessions already cited of minimum loading of flour against wheat, say $61 / 2$ per cent. for their export flours and 33 per cent. for the high grades consumed locally in British Columbia.

Now, if the admitted principle of the same rate between two points, whether the movement is east or west, is considered and applied to Fort William, Keewatin and Fleming, what happens?
Eastbound wheat moves from Fleming for 16 cents for 632 miles, while westbound the special export flour tariffs would permit of flour moving 632 miles for $1 / 2$ cent per 100 lbs . in one case, and 341 niles in the other for a discount of 2 cents! Can the Vancouver people be blamed for feeling they are discriminated against? Should not a raw product move at least more cheaply than a manufactured product? Where is the most natural place from which the western surplus grain should be exported, either as grain or flour, thaia on the Pacific seaboard?

The export wheat rate from Fleming to Vancouver is 32 cents. If it is reduced, as this argument shows it should be, to 16 cents per 100 lbs ., what about the rate from Calgary to Vancouver, at present $191 / 2$ cents per 100 lbs . from a point about 626 miles nearer Vancouver. Should not this also come down. But how much? Let us sec.
The present export flour rates from Alberta to Hong Kong is 35 cents per 100 lbs., while the present transpacific ocean rate is about $\$ 5.50$ per ton, or, say, 25 cents per too lbs., which leaves the railway company a proportion for their rail haul from Aiberta to Vancouver of just 10 cents per soo lbs. Now, what is the export wheat rate from Alberta to Vancouver? We find it averages $22 \frac{1}{2}$ cents per 100 lbs . --in other words, just about $121 / 2$ cents per too lls. ouer the railroad proportion of the export flour rate, or 125 per cent. higher than wheat for Vancouver.

Now, it must be pointed out that China takes principally "low-grade flours"-but there are other Pacific coast markets which consume high-grade flours, to which the Vancouver miller might export-i/ he had frcight rates which would permit him to cater for this neglected trade!

And are there not also some foreign mills located on the Pacific coast which
might buy Canadian grain if the f. o. b value at Vancouver was not above that of the principal markets of the world? Incidentally, why should the present rates, known as the local grain and flour rates from Alberta to Vancouver, remain at $321 / 2$ cents per 100 lbs . for British Columbia consumption, when grain moving castward to the lake heads takes one rate, not twothat is, the same rate for the Eastern Canadian markets as for Great Britain or other export points? No wonder the west is interested! Is British Columbia to be taxed to support the east?

The consideration of rates again becomes interesting from another standpoint, using Moose Jaw, as before, as the point from which to make the deductions. From Moose Jan to Fort William the wheat rate is 18 cents per 100 lbs . and the all-rail rate from Fort William to St. John 30 cents per 100 lbs ., a total of 48 cents per 100 lbs., which is equal to $\$+.18$ per thousand tons per mile.

The rates on wheat prevailing on the Atlantic vary, of course; but, at the time these were looked into they were about 1s. 6 d . to 2 s . per quarter ( 48 olbs .) for 2,691 miles. For argument's sake, let us say a rate of is. $6 d$. One thousand tons, therefore, costs $\$ \mathrm{I}, 250$ to move from St . Johns to Liverpool, which is about $+6 \frac{1}{2}$ cents per mile per 1,000 tons, or about 900 per cent. cheaper than the railroad rate per mile.

The rate for moving wheat from Moose Jaw to Vancouver is $283 / 4$ cents per 100 lhs., which is equal to $\$ 5.32$ per 1,000 tons per mile. This shows a difference against the west, as compared with the east, of $\$ \mathrm{I}$ It per i,000 tons per mile, or about 27 per cent. over castern rates, and when the Fort William to St. John rate is cut, as it sometimes is to move traffic to meet the conditions of the world's markets, this percentage is greater.

Now Moose Jaw is about 1,216 miles nearer Vancouver than St. John. At the same rate per mile the west would be able to do some business in export grain, as only to per ceint. of the total mileage to Liverpool westbound is rail haul, and 90 per cent. water. With ocean rates, say, 500 per cent. lower than rail rates, and 36 per cent. of rail haul in favor of the west, is it not natural to expect that something will
happen in Vancouser when the forees of economy assert themselves.

The Almighty has furmished by far the most important avenue of transportationour waterways-which are abundant and varied, and are constant, ceaseless, everlasting competitors of every artificial form of transportation.

It has been shown that, out of the total distance to Liverpool westbound via Vancouser from Moose Jaw go per cent. of the distance consists of this cerolasting competitor-this constant, ceascless, cheapest form of transportation--which ranges from 500 to 900 per cent. less per mile than rail transportation.

Commeree, like water, secks the lowest level-it rebels at umatural restrictions. Temporary obstructions may be put in its way, just as one may dam a stream, but sooner or later ower the dam or throngh its ruins, the stricim will find ifs nutural channcl.

It might be well to point out that the tables in which Moose Jaw has been taken as a central point for the sake of amoment show Pacific Ocean freights at sus. Since these were compiled, however, freight rates on the Pacific ()ecan, as on all other ocean routes, have risen very materially, those for the present seasm being, say, ahout 47 s. od. per ton on an aterage, which is equivalent to about 23 cents per bushel. If, therefore, the difference in distance which the completion of the Pamama Camal will make is deducted-- 37 per cent...a rate of ahout $1+\frac{1}{2}$ cents per bushed from Yancouver to liverpool is ohtained, which is $2 \frac{1}{4}$ cents per bustiol, or 0.375 per mox lbs. higher than rates shown in table illustrating the movement east and west from Monse Jaw. To permit of wheat shipments via the Pacific with such high occan rates it will be necessary for the railroad companies to reduce their rates from the prairies by this difference, 3.75 cents per 100 lbs., which would make the average export wheat rate from all Alberta points about $18: 1$ cents per 10 on lis. int stead of about $221 / 2$ cents ats at present.

Now, if a standad freight locomotive can haul about 1,750 tons on a fourtenths of a per cent. grade-the grade the Canadian Northern Pacific hope to obtainthen on a 1 per cent. grade it would only haul about $\mathrm{I}, \mathrm{OO}$ toms.

If we use the average export wheat rate
from Alberta, viz., $221 / 2$ cents per 100 lbs ., as a basis, the gross revenue received from 1,000 tons would be $\$ 4,500$. By dividing the quantity moved over four-tenths of one per cent.-1,750 tons-into this amount, we find that a rate of about 12.85 cents per 100 lbs . could be obtained, all other things being equal, and the same gross revenue received. The difference is about $91 / 2$ cents per 100 lbs . No attempt has been made to take into consideration such matters as curvatures, condition of cars, wind or weather, coal consumption, or other items which enter into the question from an engineering standpoint.

To meet the expected situation which will obtain in the west,, the C. P. R., according to newspaper reports, will revise its grades, and also double-track between Vancouver and Calgary. This is by far the most important announcement in connection with the west that the C. P. R. have made during the last five years.

The broad facts speak for themselves. Competition between railroads bears most strongly on those things in which the community has the greatest interest. This results from the natural lav of trade. The forces of competition which tend to reduce the rates of transportation co-operate in producing discrimination in favor of those things ahich are mozed in the largest quantitics. Conditions are superior to men, and while carriers are sometimes loth to recognize it, they are made aware of the fact by their inability to maintain a rate inconsistent therewith.

Herein lies the protection of a community from acts of injustice on the part of railroads-from anything more than temporary hardships. Carriers could not, if they would, combine among themselves to do all unjust thing. To combine to maintain an minair rate would be to combine to destroy their traffic.

It is amounced that the "Milwauke" will electrify its main line from Spokane through to the coast as soon as the +50 mile electric stretch in the rockies is operating smoothly. This company is a strong United States competitor for the Oriental silk trade for New York and Europe. What will happen in Western Canada? Will the Canadian railroads sit still? I don't think so. Therefore the port of
Vancouver will gain as a result.

## PUBLIC STATEMENTS

The following statements made by eminent public men bear out the general argument in connection with Vancouver. Mr. James J. Hill, president of the Great Northern Railway, says: "In growth and commercial activity Vancouver has no equal on the Pacific coast today. Burrard Inlet (Vancouver's harbor) will be the greatest commercial port on the Pacific. I would venture all I own that its population will exceed 500,000 within fifteen years. I see a day coming when half a score of lines from Northern British Columbia will converge on Burrard Inlet."

Mr. A. D. Farrell, pure food commissioner of the United States, says: "Vancouver has grown to over 100,000 people in the last twenty-five years. In the next twenty-five years it will reach $1,000,000$. It is the world's natural gateway for the commerce that will yet arise between the empires centring around the Great Lakes and the Orient. The Saskatchewan Valley, Yellow Head Pass, and the Fraser River have made this as certain as that the sun will rise tomorrow."

Mr. A. D. McRae, who represents Mackenzie and Mann in Vancouver, says: "A realization of the possibilities of the traffic movement prompted the management to make all sorts of provisions for future requirements. The grades secured by the Canadian Northern between the Pacific coast and the Rockies at Yellowhead Pass are the lowest yet obtained by any transcontinental railway. This will insure, especially after the opening of the Panama Canal, an enormous volume of export grain business. The gradients referred to are water gradients, that will enable one engine to haul loaded freight trains of sixty cars each in cither direction between the coast terminal and the summit without cutting the train in two."

The late Mr. C. M. Hays, president of the Grand Trunk Pacific, is reported to have stated that they were preparing to handle $100,000,000$ bushels of grain annually, most of which is likely to pass through the Panama Canal.

## GUARANTEE

The agreement which the British Columbian Government made with the Canadian Northern Pacific Railway Company when they guaranteed their bonds-that is,
that the government of the province should have control of the freight rates effecting British Columbia-was strengthened by one of the late rulings of the Canadian Railroad Commission-the effect being that the control of rates in British Columbia is in the hands of the British Columbian Government, through their agreement with the railroad company, the intention of Sir Richard McBride's government being that the Pacific shall secure a reasonable share of the business of the Dominion.

## IMPORTS

Attention is particularly drawn to the fact that, when the Pacific secures equitable freight rates, enabling it to distribute its imports into Western Canada in competition with the Atlantic, an unbounded opportunity is presented to Vancouver as a distributing point on completion of the Canadian Northern, Grand Trunk and the Panama Canal. This is worthy of the most carnest consideration. Attention is particularly drawn to the fact that, speaking in a general way, there is no parallel between these new towns that are springing up and what prevails in settled districts, and any business organization that is prepared to grasp the opportunity presented will undoubtedly secure a large and growing business in the course of a few years.

MONIES EXPENDED
Expenditures for railroad construction during the past three years and also during
the next few years in Saskatchewan and Alberta have been and will be heavyrunning into the millions.

Apart from railroads in Alberta, it is reported that the C. P. R. will spend in irrigation works in Alberta $\$ 8,500,000$. In British Columbia the estimates are:

| Canadian Pacific | 0 |
| :---: | :---: |
| Pacific Great Eastern Railway | \$0,000,000 |
| Canadian Nordiern Pacific Railway | 10,000,000 |
| Grand Trunk Pacific Railway,.... | 30,00,000 |
| Vancouver, Victoria $\underset{\text { i Eastern Ry }}{ }$ | 25,000,000 |
| Canadian Pacitic Steamers | 5,000,000 |

When $\quad$ 240,000,000
When we add to the above-mentioned figures the estimated cost of the Pamama Canal, say $\$ 375,000,000$, we get a grand total of \$615,000,000.

How will the interest on the above expenditure be paid except by a large volume of business in the " 'ret?' And how can a large volume be done if the freight rates remain high ?

In conclusion, I hope I have made clear to the reader how the "twelve baskets full" of Western Canadian grain will eventually reach the multitude, as represented by the principal consuming markets of the world. In these articles the greatest possible care has been excreised to avoid any mistakes, misrepresentations or crrors from creeping in, and so far as possible all statements or bases used were adopted from a conservative standpoint.


## Japan's Aims in the Pacific

To the Editor, British Columbia Magazine.
Sir: In your issue of January I ran across the phrase, "the lonely and appalling isolation of New Zealand," and I looked twice at this to see if I had read correctly. A charm of these lovely islands lies in their remotencss. But who had thought of it as appailing? New Zealand lies, as we all kiow, 1,200 miles from her closest kin, and not an encmy nearer than the planet Mars. But the people of New Zealand seem to me very far from lonely, and if their isolation were really "appalling," it would be very casy for them to pick up and go home. Having never borne the burdens of war, of war's destruction of the strong, of the grinding taxes of war preparation, there are no poor in Neiv Zealand. The people there live in New Zealand because they would rather be there than anywhere else in the world. They are like the peeple of British Columbia in this respect.

But I read on and leatrned that the "appalling isolation" is due to the fact that New Zealand is in the open sea, where her enemies can get at her from every side, but especially from the side ncarest Japan. But to me the ocean about New Zealand was the great all-mblracing, all-protecting sea, the highnay of the commerce of the world. If it had been Servia, which is about as large as New Zealand and equal in resources, I could have understood. In Servia's isolation, surrounded thrice-deep by cager friends, there is enough that is appalling. But aroumd New Zealand are the fores of nature alone.

It was no friend of Hawaii who introduced the mosiquito there, and no friend of New Zealand brought there the war scare of Japan.
i know Japan and Japanese purposes pretty thoroughly. I know that not one man in a million there has ever thought of New Zealand as an outlet for Japan, and this one only from some chance contact with a Syducy or Vancouver newspaper. Japan has no designs on anything occupied by English-speaking people; she could not
have them if she would: she would not if she could. Since 1907, she has not allowed a laborer of hers to enter Canada, the United States, or Mexico. Above all else, she would avoid friction with any parts of the "Greater Britain," to which you and we belong. The war with Russia left her with a crushing debt of $\$ 1,325,000,000$. She has seven times the population of Canada, but no greater wealth, and four times Canada's debt. But hers is dead debt for past war. That of Canada, mostly for railway extension, pays living interest.
Japan has her hands more than full with her occupation of Korea. For fifty years Korea will hold all the colonists she can spare. But Japanese will not go to Korea nor even to the half-occupied northern island of Japan, as colonists. They are not pioneers by nature. They like to stay at home, where "our customs fit us like a garment." It is only the homeless riceficld hand and the "promoter" who secks new regions, not to live there, but to get real wages.
The common laborer is over-numerous in Japan. His wages are eighteen cents a day. But he is no colonist. He cannot get a start, and those who have resources will not budge from home. Japan must fill Korea, but colonizing Japanese will not go there, and 125,000 or so of laborers and adventurers who went there at first have had to return home. Then Japaia has taken costly obligations in Manchuria. She has gone just as far as she can in the matter of national expense. There are no wagon roads in Japan; Her State railways need to be made broad gauge, and need new rolling stock. It will be a hundred years at least before she will look with envious cyes on anything connected with Great Britain or America.

The Japan of the "control of the Pacific" is onily a bogey conjured up by the promoters of coast fortresses and of big ships.

Turning the page, I rub my eyes again to read that "the greatest expert on strategy this generation has produced" was "the late General Homer Lea."

> Japan's Aims in the Pacific

Homer Lea was an interesting boy, with most clever skill in cool impersonation. His title of general was given by himself-in a sort of "play." He was a sophomore in Stanford University, and when he wrote on the "Valor of Ignorance" he knew nothing of soldiers, of war, or of Japan's purposes and power save what he had read in books.

Now if my Canadian friends will pardon me, I have an unprejudiced word to say about the Canadian navy.

In the first place, a navy is a very costly thing. Our navy in the United States costs us more than all the universitics and technical colleges of the world, and yet our naval experts tell us that it is a very feeble thing, quite inadequate for all the duties of their "ship of dreams."

These may be two good reasons for a Canadian navy, and there is certainly one bad one.

Canada may wish to help out the mother country in a costly and trying situation. She may wish to use a navy as a factor in imperial federation, or she may actually demand it for self-defense. As to the first, 1 believe that the present Anglo-German strain is but temporary. I am sure that it will not end in war, and that for many good reasons. And neither nation will ever be responsible for an attack which might ruin all Europe.

As to the second, I can say nothing, for that is purely Canada's business. As to
defense, I can speak with certainty of conviction. Neither Canada nor Australia nor New Zealand stands in the slightest danger of attack from any quarter, navy or no navy. The land-hungry nations are hungry only for exploitable territorics, not for land occupied in civilization by civilized colonists. These are not subject lands. They are not to be "owned" and are not exploitable. Great Britain may own Hong Kong or Jamaica, but she does not own, and no mation can ever own, Canada or New Zealand. Just in so far as England onns Canada, so does Camada own England. Besides, these colonial dommions of the English race have very alert and very influential blood relations, who would be heard from in any real crisis.

Now, in Japan's period of grinding taxation, the results of the Russian war, Canada is, with or without army or navy, her military equal in every way. Military efficiency depends not on Heets or soldiers, but on the reserve power back of them.

The weak spots in the series is North Australia. No people will enter these hot forests by force of arms, but some day there will be a pressure from China and India, for which Australia may do well to prepare. Not by means of army or navy, but by that statesmanship which foresecs a crisis and which turns it into success.

> David Starr Jordan

Stanford University, Califormia,
Feb. 11, 1913.


# The Burden of the Pacific 

By A. N. St. John Mildmay

ARTICLE II

I HAD originally written, in the title of this series of sea letters, the word "Cana-dian"-so that it should stand as "The Burden of the Canadian Pacific," but I foresaw that transcontinental associations, connected with such conjunction of words, might side-track the train of thought in which I wished to safely conduct the readers of the British Columbia Magazine to a definite, or rather to an infinite, terminus, namely the sea itself.
lt would be an impertinence and an injustice to describe the Canadian Pacific Railway Company as a "burden." It would indeed in Vancouver be a kind of parricide. For that valiant young company, the C. P. R., was the "truly begotten father" of Gas-town, afterwards Granville, afterwards Vancouver. Perhaps, like Aencas, pious Vancouver has too long carried its progenitor upon its back. Fortunately for Aencas the time came when Anchises, his father, rode no more upon his back, but was promoted to the Isles of the Blest.

Now that the valiant "young company" has become old-established and very opulent, indeed by far the richest Company, Limited, upon earth, neither our interest nor our filial piety require us, its youngest child, to follow slavishly, as hobby-horse or pick-a-back, in the exact course of its tremendous enterprises.

Vancouver should be content to leave the mighty railroad-landlord company to possess the earth, while she herself moves forward deliberately and not without impudence to possess the seven seas, or such part of their immeasurable commerce as our position at the finger-tips of the Empire warrant us in claming for our own. That new-found realm of ocean which is potentially Canada's (and therefore mediately l'ancouncr's also), but actually and at present Japan's, is no mean part of the
whole world: it may not improperly be called the world's "third hemisphere," or, to be less Irish, the watery hemisphere, the Pacific.

The Pacific is an island-strewn sea of savages. True. But it is not so very long ago since our province, which may now be called "Canada Felix," was not unjustly described as a "sea of mountains." It does not take much imagination to see in every one of those thousands of Polynesian, Hawaiian or Aleutian islands of this vast watery hemisphere, strategic points for civilization and commerce, the future's immediate jewels in the girdle of empirejewels of inestimable value and romantic possibilities.

For the progress of time has annihilated ocean distances. The sea no longer sunders Victoria from Bombay, or Vancouver from Capetown, Canada from Australia, or America from China and Japan - it connects.

The rapid ocean communication of today makes the Pacific Ocean the directest, safest, most neighborly of highways between the nations; a highway soon to be tapestried with a dense web of new steamship routes, east and west, at:d north-cast and south-west, and round-about and back again. The gradual engineering conquest of the sea, which no Titanic or Antarctic Polar disasters can permanently arrest, is making all the difference to the meaning and the possibilities of a maritime position. This and that other engineering feat, the alnost completed Isthmian Canal.

No one who recognizes the splendid stamina and the immediate pluck and genius which the United States, as a government and as a working people, have shown in the prosecution of that enterprise can doubt for a moment that San Francisco, and Washington behind San Francisco, will
lie just as alive as we are to the possibilities which it opens up and down the Pacific.

In the race for the Pacific Japan, China, Australia, Hindustan, Mexico, Chili (with much European capital invested at Valparaiso), California (U. S. A.), Canada, and even British East Africa and British South Africa, have a direct interest. Of all these only Japan has a place in the betting today. Certainly no state or country of America, North or South, would be in it with Japan if it were not for the fact of the sea-going and sea-mastering traditions which our British race has to fall back upon.

That congenital advantage, coupled with our well-known British capacity for muddling through successfully at the last moment, may yet countervail our dilatoriness and unpreparedness in this year of grace or disgrace 1913.

But it will only be by recognizing, as Japan has recognized now for forty-four years, that in order to get there first or get there at all the nation which is to own the Pacific in the immediate future must in thic immediate present begin by emptying thicir whole gold reserve into the sea and throiaing half their national credit after it.

If Mackenzie and Mann and the Hudson's Bay Co. and the Canadian Pacific Railuay pooled their assets and drained their amalgamated treasuries (from which combination Heaven defend us!) to buy and build merchant vessels of over one thousand tons for immediate commission on these coasts, Canada might save its British Cohumbian heritage of the Pacific trade. ()therwise only Ottawa can save the situation. And when, in all its history, has the Canadian Parliament had a more shrious opportunity of proving its place among the great ones?

Here is what Japan has done for her perple in this regard. "In 1869 and 1870 ," alys one of the annual reports of her Minithr of Commerce, "the government repeatedly announced that ship-owners would enjoy the special protection of the wormment in the conduct of their shipping ":crprises." Then follows a list of steamhin lines floated by state-aided companies is "hy special orders of the government," ampanied by a list of the subsidies paid, ane in all, between the years 1827 and : ", $\%$. "Thus," it sums up, "besides new
coasting lines, vessels flying the Japancse flag were for the first time to be seen on the four great routes to America, Auseralia, Bombay and Europe." . . . "Turning next," continues the report, "to the shipbuilding industry, a shipbuilding encouragement law was followed by shipbuilding regulations in 1896 . Under these laws bounties are granted for the construction of iron and steel vessels of not less than 700 tons gross. . . . The encouragement given by the government has been so great that between 1896 and 1905 there were altogether two hundred and sixteen private shipyards and forty-two private docks brought into operation."

The next point treated of is the action of the government of Japan in establishing a government sted foundry to obviate the necessity of importing the materials for steel shipbuilding from abroad.
"With respect to harbor work," the report goes on, "large extensions at three principal ports were plamed, alter a careful consideration of the actual condition of harbor works in the various comeries of Europe and America."

Between 1889 and 1905 the following stupendous harbor works are reported as actually accomplished by the govermment at these three principal points, lokohama, Kobe and ()saka:

Stone breakwaters, aggrequting $35.0(x)$ feet in length.

Iron piers, aggregate surface moasurement $1,125,000$ square feet of iron.

Acreage of reclamed foreshore, $1,3+5$ acres.

Stone qualy walls, aggregate lengrh 16,127 fect.

Acreage of newly-acouired safe anchor-age-in all 450 acres.

Each of these ports were, during the sixteen-sear perios named, equipped with from a quarter to half a mile of iron sheds, parallel with the sea-walls.

The conditions of Canadian freedom are very different from those under a limited despotism, such as that of the Mikado. These figures from the blue book of 1907 , the critical year in the forward movement of Japanese commerce since the war with Russia, give some idea of what a far from affluent people felt to be vitally necessary in capital expenditure and subsidies for the saving of her shipping.

There is no Camadian city, there are no ten Canadian cities, whose combined mumicipal credit could put Vancouver's merchant marine future on the footing inmediately required if we are to become actually, as well as just scenically, a supreme Pacific port.
Are we then asking a paternal Ottawa to "give orders forthwith" for the building mod operation of four or five lines of steamships, for the establishment of a British Collumbia steel foundry, and the provision of twenty miles of sea walls with tidy and indestructible iron wharfage sheds to match?
Y's, uilcess our paternal government not only sattisfies itself that this is going to be done speedily on our own initiative but also shows itsclf to be ready with substantial government aid to all and each of such enterprises.

In that casc, and only in that case, will the railways which are looking to Vancouver to command the Pacific highways of commerre be saved from grievous disappointment.
The railhails themselves should be kept strictly to railway business. The excitement which certain city fathers in Vancouser have shown over the offer of the Camadian Northern Railway to build and operate its own docks and steamship lines must have been amusing to those business men who ate familiar with the story of the woll and little pig.
"Little pig, little pis, let me come in" is always the cry of the railroad man, who knowing that sea-haulage costs one-minth to ome-sisternth of the cost of railwayhaulage. is maturally anxious to gay a young seapurt before he offers to serve it.
Exen now, if the sea was alive with Yancouverergistered ships, we could get
our kitchen stoves and pianofortes, our steel and iron and brass and other of the heavier necessaries of life at about twofifths of the price we have been paying during the whole of the overland epoch.

Conservation of resources indeed! Who can estimate the amount of steam coal, and railroad wages, and wear and tear of stecl and woodwork and human life that has been wantonly and needlessly wasted in supplying Vancouver with fat-irons alone -think of them, in hundreds of thousands of tons, being dragged over the Rocky Mountains week by week and year by year from Nova Scotia or Ontario, when they might have come more cheaply from any, even the most distant foundry in the world, by way of the sea, because that method of transportation is from nine to sixteen times easier of accomplishment.

How is it then, a casual reader will ask, that all maritime places are not many times richer than those less fortunately situated inland?

The answer is only to be found by looking at the history of the world and its commerce, especially that of the modern world. The answer is that the harnessing of the sea costs much in thought and moncy. Most people and all backward governments and municipalities think that a little ready money is better than a great deal to come. Therefore because the sea costs money, and the looking ahead so :s to secure much wealth to come costs alittle ready money, the ships are unbuilt. the foreshores are unutilized, and the appar tus for wharves is unprovided, and all our spare change goes comfortably into : ho pockets of the prudent railroad man.
Fellows in arms, and my most living fr: Bruis'd underneath the yoke of tyranny.


# World Politics 

## Pacific Leağue

I Prominent citizen of Melbourne writes as follows to the Editor of the Briftish Ciolumbia diagazine, and encloses a clipping from the Melbourne Mcrald of !amary 16, 1913.

Dr. F. B. Yrooman, B.Sc.
British Columbia Magazine, l'ancouver, B. C.
Dear Sir: The enclosed cutting from tonights Herald impets me to write and offer ron my services to help in forming your Pacific Leagne. I have been several times through (anada and the United States of America and in China and Japan, and believe such a sodality is vitally necessary, because the Pacific is bound to be the batterground of the wentieth century, as was the Mediterrancan in the nineteenth.

Please tell me how 1 can help, as 1 have had plenty of experience in formung political societies here in my native land. Yours faithfully,
$\qquad$
F.R.Col.Inst.; F.R.C.s.

## PACIFIC LEAGUE

## KEEP THE FLAG FIMING-DR. VROOMIN'S IDE:S <br> (From our London Office)

92 Fleet Serect, December ig.
1)r. Vrooman, now back in Vanconver, after a period of rery incisive talking int this citc, is busy forming a Pacific League, in respect to which he hopes much from Australia. some particulars are given by the Standard as follows:

Blany acute students of Imperial affairs hold that the great theatre of future Bribsh decolopment will prove to be the Empire's Pacific fromtier: that Imperial gateway which faces the crowded world we call the Far East. The importance of our lacific fromior is accemuated, of course, by its relation to Australia and New Zealand.

This is a matter which, during the past few years, has been given close and earmest maly by Dr. F. B. Vrooman, B.Sc., the editor of the Briaish Columbia Magazime, who has now returned to Vancouver after a visit to the Mother Countrs, in which he rraals extended his rircle of influence among Imperial students who are thinkers in Britain. Just now Dr. lroman's studies and work are taking definite shape in the form of an organiration to be kmon at the Pacific League.

The ohject of this organization is the carying on of an active propaganda for creatint a vereater British naval defence force in the Pacific, to be maimaned and ditected joints f. Camada, Australia and New Zealand. It is hoped hat brameles of this league may be $\because$ dished throughout the three Dominions named, as well as in the Mother commors.
1)r. Vroman and those associated with him in his movemen mosi heartils emdorse I madas fine action in the matter of helping the Empires naval defence, and womblike $\because$ oreigethen that action by securing predominance for the flag in the Pacitic recosnizing r... tern necessity which exists at present for naval concentration in Emopean waters
lhis movement is one which should be certain of warm support in Austalia and New $\%$ and. Its Imperial value from the defence standpoint is too obvious wropuire clurdation. ?: : monher aspect of it upon which we would like to lay some stron is the influence it $\therefore$ necessarily exercise in the direction of creating and stremethening lateral homd of $i \cdots ;$ mion between Canada, Australia and New Zealand.
! fe ideal of a Greater British fleet linking up the Pacific outposts of the Fimpite is a $\because \quad, \quad n$ and stirring one, and we sincerely hope that success may attem he patronic elforts $\because \quad \because$ roman and his associates in the formation of this Pacilic leacur-Mellomrne ! : : $\because!$

Fiscent despatches from London reveal an unusual activity ammer the statesmen
!: Empire, numbers of whom seem to be adopting the same idea, since the:
anze the same situation.
ilithout comment we publish two despatches published in the Neme-ddertiser Geouver, February 26), both on the same day:

## NAVAL DEFENCE OF THE PACIFIC

## AUs'rralian minis'rer suggests thit the empire conference should be held in vancouver DURING THIS YEAR

Melbourne, Feb. 25.-The Minister for Defence, Senator Pearce, has made the following statement with regard to the commonwealth's suggestion for the holding of a subsidiary conference between the governments of the different parts of the empire in regard to naval defence:
"First of all, I would like to say that during the Imperial conference in igir the ministers of the self-governing dominions who were there were invited to attend, and did attend, a meeting of the Imperial Defence Committee, so that the presence of the Canadian minister on the defence committee is not a new thing nor in any way an innovation. The precedent was established in 191r, when Mr. Fisher, Mr. Batchelor and myself, and other Dominion ministers were present. As to the position of the defence committee on the question of foreign policy I may point out that the defence committee is essentially an advisory body. It is a semi-political body, in that the prime minister, the minister of state for war, the first lord of the admiralty, and the chancellor of the exchequer are members of it. But it also has naval and military experts connected with it, such as chief of the imperial staff and the first sea lord of the admiralty. It does not, and it cannot, formulate a foreign policy. It can only advise on naval and military matters as they affect, or are affected by, the foreign policy.
"The question to be decided, it seems to me, is essentially one of policy, that is, a method by which the dominions shall assist in the naval and military defence of the empire and the form in which such assistance shall be given. It has to be remembered that these dominions have had conferred upon them full powers of self-government in relation to naval and military defence. Obviously, if they are to co-operate with one another, and with the United Kingdom, for the common protection for all, that is a matter of policy which can only be decided by the respective governments or their representatives. Such a conference was held in 1909, at which three different schemes of naval co-operation were drawn up as between the governments of Canada, New Zealand, Australia and the government of the United Kingdom. These schemes varied in each case. In regard to Australia it was the provision of a flect unit in the Pa ific, owned and controlled by the Australian government. A somewhat similar scheme was adopted for Canada, with a slight variation, and for New Zealand it was arranged that the dominion should contribute a Dreadnought to the admiralty, and an annual subsidy. In return for such the admiralty undertook to keep certain ships on the New Zealand coast, and send the Dreadnought on an annual cruise there.
"The Australian agrecment is the only one that has been carried out. If co-operation is to be ensured, therefore, it becomes necessary for Canada and New Zealand either to carry out its schemes of the 1909 conference or propose some other to take their places. Australia, as I have said, is not in the same position. Its scheme is being carried out. There is, therefore, an essential difference between the position of Australia at the present juncture and the position of both Canada and New Zealand.
"We have not been given any hint either by the British government or the admiralty that they have changed their minds in regard to the wisdom of the agreement with Australia. That agrecment, I may say, originated with the admiralty, and was proposed to the conference in 1909 by the admiralty. The scheme for the fleet unit did not originate with the Australian govermment of that day, nor with the representatives at the conference, as the records of the conference will show.
"Iaving reached this position, the Australian government is of opinion that it would be adramageous if Canada and New Zealand could see their way to come to an agreement as to the defence of British interests in the Pacific.
"Following the announcement of the visit of the Canadian minister to England and his attendance at the defence committec, this government received an invitation to send a minister also. We thought it desirable to suggest that, in order to get a complete understanding on the question of co-operation in naval defence, a subsidiary conference should be held in Australia carly this year, and if that were not practicable, we were prepared to attend a conference in Vancouver, and accordingly intimated this to the Imperial government. We have received information that it is impossible to hold a general naval confereare at the places and time suggested, and the question will be allowed to be revived at a later period of the year.
"l think what l have said will show there is no necessity at the present juncture to an Australian minister on the defence committee. Our policy is known, and it has the approval of the admiraloy, and it can be adjusted to meet any development that may take place in the Canadian and New Zealand naval policies. We are hopeful that these countries will yet fall into line.
"I think there can be no question that the United Kingdom could build as many shijis as are likely to be required. The question that will arise if the present building programine goes on will be-Can she find the ofticers and men? The Australian naval policy ditters from that of any of the other dominions, in that it makes provision for the training of bith oflicers and men to man the ships we provide."

Referring to the above statement the Sydney Morning Herald editorially says: "The surgestion of the commonwealth government, that a conference should take place early this vear has not been adopted by the Imperial government, but it should not be long postponed. It may still be possible to hold such meeting at Vancouver toward the middle of the year and every effort ought to be made by the British admiralty to summon it without delay:"

## UNITY OF NAVAL ACTION DESIRED

MLSRALIAN MINISTER HOPES THAT CANADA, NEW ZEALAND AND AUSTRALAA MAY IE: BIENI NAVAL POLICIES
London, Feb. 26.-The Commonwealth authorities in London issued this moming the text of an important statement made recently by Senator Pearce, Australian Minister of Defence, on the question of lmperial naval defence.

Mr. Pearce explains the Australian government attaches no importance to being represented upon the lmperial Defence Committee because of its purely advisory capacity. Australians were concerned in questions of policy rather than administration.

The minister then refers to the decisions arrived at at the last lmperial Conference, when Canada and Australia adopted the Heet unit scheme, and says the Australian agreement is the only one that has been carried out, as co-operation had been assured. If therefore becomes necessary for Canada and New Zealand to either carry out the scheme adopted by the conference or propose some other to take its place.
"W'e have not been given any hint either by the British government or the admirally that they have changed their minds in regard to the wisdom of the agrecment wilh Australia. 'That agreement, I may say, originated with the admiralty; the scheme for a fleet unit did not originate with the Australian government of the day or with the representatives at the conference."

The importance of this scheme is found in the fact that it would seem to refute the allegation that both the Canadian and Australian governments of four years ago preferred building and maintaining their own navies than contribute, in ships or subsidies, to the lmperial navy, and that the admiralty had to accept such moral assistance as Canada and Australia were willing to offer.

The Commonwealth Minister of Defence concludes by saying his government was of the opinion it would be advantageous to the Empire as a whole if Australia, Canada and New Zealand could see their way clear to come to an agreement as to the defence of British interests in the Pacific.
"Our policy is known and has the approval of the admiralty. It can be adjusted to meet any developments in Canadian and New Zealand naval policies. We hope these three countries may yet fall into line for the purpose of promoting this unity of action on the part of Canada, Australia and New Zealand."

The Vancouver Naval Conference is being considered by the lmperial authorities..
The following is from The Standard (London, Feb. 6, 191,3), in which the Defence Minister of New Zealand adopts the plan advocated last summer in London by the Editor of the British Columbia Magazine.

## PACIFIC DEFENCE

## HON. J. ALLAN IN JONDON

Culonel the Hon. James Allan, who holds the portfolios of Finance, Defence, and Educa: in in the New Zealand Cabinet, arrived in London last week on a mission which is panty financial and partly in connection with the naval policy of the Dominion.
'Io a representative of the Standard of Empire Colonel Allan spoke of the project of a Pacific fleet, supported by all the British countries bordering on lhat ocean, an idea which he hopes to see translated into action at some not too distant date. "The idea of such a llect is that the young British nationalities bordering on the Pacific must of themselves make provision for the defence of the Pacific, and for keeping open the trade routes across the occan which washes their shores," he said. "The problem of control must work itself out if: the ordinary process of evolution. Unless more or less direct control is exercised by the bititsh nations which support such a fleet, however, it may be dillicult to get them to take suflicient interest in the idea to carry it through. Eventually they must not onle construct the ships but man them, though not immediately, of course. W'e can't expect the Mother conentry to find ships and men to defend our seas. I hope to have an opportunity of consutting with the admiralty on the naval question during my visit.
"It the present time we are in process of organizing an expeditionary land force which would be ready to go to any part of the Empire where it might be needed. I am desirous of finding out while I am in this country what form will fit best into Imperial and Australian ¿cfence schemes.
"We are very anxious to encourage in every way trade between Great Britain and

New Zealand, and will do anything to help that trade. We are also anxious to get more closely into touch with manufacturers here, so that they will know our wants, and be in a most favorable position to supply them. We have given a preference to British goods, and it is our policy to continue it. Any alteration in the future would probably be in the direction of strengthening that preference.
"To my mind, New Zealand offers more excellent opportunities than any other country: for certain classes of immigrants. Farmers and farm laborers who are industrious and ambitious, and wish to better their position, have a splendid opportunity in New Zealand, Girls who are willing to go into domestic service, and are ambitious and eager to get on, have also splendid chances. We are encouraging those kinds of immigrants, and we are going to continue to do so. We want them to work the lands that are now being left uncultivated because of the lack of labor of this type. We assist them in the matter of passages, and we shall probably make some alterations in our methods so as to bring the conditions in New Zealand more prominently before those classes of people in England."

The despatches from New Zealand, of February 28, report a strong speech of the Premier of New Zealand to the effect that while he is satisfied with the progress of the defence movement so far as the land forces are concerned, he was not satisfied with naval matters. The Balkan war had shown clearly the consequences of preparedness. New Zealand stood straight out for a British Pacific fleet, purely British and under Imperial control. It must be strong enough so that there should be no possible question as to the supremacy of British naval forces in the Pacific when the first shot was fired.



## New Railways for British Columbia

Bu.t.s to provide for further provincial aid (1) enable the Canadian Northern Pacific and the Pacific Great Eastern Railway companies to carry their respective undertakings to a speedy and successful consummation have been presented to the Provincial Legislature of British Columbia by Sir Richard McBride.

The additional measure of assistance in the ase of the P. G. E. line now building. to. give Vancouver direct rail connection with the Grand Trunk Pacific at Fort (romese is neressitated by the present everral tightness of the money market. resultan primarily from the situation created by the Balkan war.

In the case of the Canadian Northern Patific is is proposed, in the first instance, that the province guarantee both principal and interest of and on the bonds, debenturs. wock or other securities of the compimy isurd in respect and to cover the cos of terminals at Port Mann, New Wisminster, Vancouver, including the tumed, and the Victoria, Steveston and Injo Bay to an amount not exceeding Sい: : 5 ,00), payable on April 2, 1950, and hearne interest payable half-yearly at $41 / 2$ per ent. per annum, one-half per cent. hicu:- than the already guaranteed bonds it : $\because$ company covering construction of it: : : line and operations in chief in Br:- Columbia.
10 regard to extensions of the Canad: Vorthern Pacific system not previousIf aned for, it is proposed, by a second me: $\because$ to guarantee both principal and inters the later at $41 / 2$ per cent. per annar:, of the company's securities to an an:" not exceeding $\$ 35,000$ per mile in: . following short lines of railway,
which the company is authorized and cmpowered to construct, maintain and operate:

A line from the north end of Westminster bridge to the city of $V$ :ancouver. cleven miles.

A line from the north and of 1 iestminster bridge to Stereston, liftern miles, prior authorization of constraction of which is legislatively appored.

A line from near Victoria on the authori\%ed line in a generally northerly direction to the Vancouser lsland ierry terminal at Union Bay, Saamich district, cightern mikes and over.

Neither the terminals nor line extension enterprise may proced until an indenmification agreement satisfactory to the province has been duly executed by the railwa company.

Construction of rach of the new shent lines is to begin within six months of the passage of the legistation now before Parliament and be completed on or betore July $1,191+$ unless an extension of time for cause shall have been previously gramed by the Lientenant-Governor-in-Comet

With reference to the $P$. (i. K... it is proposed to authorize the building of the road from the Squamish River in a general northerly diecetion, by the mest feasible route, instead of, as provided in the dat of 1912, northeasterly to Lillooct, on the Fraser River, and thence along the bank of the Fraser River, north to a junction with the Grand Trunk Pacific Railway.

The obligation upon the company to carry its main line through Lillooct is also abrogated, or rather varied to the extent that a point, in the vicinity of Lillooet, may be touched instead; these variations are regarded as having been proved necessary by the preliminary surveys of the company engineers and to cover a selection of route which will enable construction to
be more economically carried to completion, and at the same time open new areas, not otherwise served by a railway, and thus increase the colonization value to British Columbia of the Pacific Great Eastern.

## To Bridge the Pitt River

The Provincial Government is to expend $\$ 200,000$ in the construction of the substructure of the Pitt River bridge, just north of the present C. P. R. bridge. The structure is to be a combined railway and traffic bridge, and by the time it is completed in 1915 will represent an expenditure of some $\$ 700,000$. The Burrard, Westminster, Boundary Railway and Navigation Company have agreed to start work this spring on about twenty miles of railway between the works of the Western C:anada Power Company at Stave River to the Pitt River bridge. The remainder of this company's proposed line, according to the agreement entered into with the Provincial Government, will be built from Mission City along the north bank of the Fraser River to Vancouver as soon as the Pitt River bridge is open for traffic

## Our Growing Needs

With the development of British Columbia, and the constant increase of its activities in every direction, comes the growth of its expenditure on the various public services. The Provincial Minister of Finance, the Hon. Price Ellison, in his budget for 1913 amomed that the expenditure for 1913 will be the largest on record. Thus, the civil service vote has been increased from $\$ 899,852$ to $\$ 1,-$ $+12,660$. The largeness of the increase is to a considerable measure accounted for by the fact that only the salaries of the lands branch were chargeable to the lands department. Three other branches-sur-reyor-general's, forestry and water-were formerly paid out of a lump appropriation, but are now included under this head. These alone make a difference of $\$ 230,000$.

The balance of $\$ 293,000$ of increase is the allowamce made by the government to the civil service on account of the higher cost of living, and also includes the statutory increase and the salarics of new
officials. Among the last named are those of the government agency at Vancouver, which was established last year.

Public institutions (maintenance), has been increased from $\$ 406,700$ to $\$ 496,020$, due principally to the increased requirements and the mental hospitals at New Westminster and Essendale and the colony farm at the latter place. The voted sums for hospitals and charities have been increased from $\$ 426,200$ to $\$ 704,000$.

Under the head of public works the expenditure has been increased from $\$ 8,236$, 363 to $\$ 9,657,600$, an increase of nearly one million dollars and a half. It is explained that the rapid development of the province everywhere, and especially in the parts being opened by the Grand Trunk Pacific and the Canadian Northern, is making unusual demands on the treasury. In order to have settlement there must be works and buildings, roads, streets, bridges and wharves; subsidies to steamboats, ferries and bridges and many unusual contingencies. It will be noted that there is provision for erecting provincial government buildings in London, England, for which there is a vote of $\$ 250,000$.
The appropriation for roads, strects, bridges and wharves is greater by $\$ 900,000$ than last year, the total sum being $\$ 5$, 961,500 . This sum includes $\$ 150,000$ for the development of Strathcona Park, which is destined to be one of the great pleasure resorts of America. Railway developunent is affecting the expenditure in such districts at Cariboo, Comox, Cranbrook, Lillooct and Skeena, in all of which large new requirements are being created.
The various royal commissions-laloor. agricultural, better terms, etc., which are undertaking most important investigations, liave been provided for to the extent of $\$ 150,000$.

## Vancouver Leads

The figures relating to building permits in Vancouver for the first two months of 1913 are worthy of more than passing notice. The total of these returns is $\$ 2,995,2,48$. For the first month of the year Vancouver swept all Canadian cities aside in her unward race for supremacy and was ca-ily first with a total of $\$ 1,950,0+4$. Toronto came second with $\$ \mathrm{l}, 276,084$, Montre:
third with $\$ 458,600$, and Winnipeg fourth with $\$ 382$, 100 .
Not content with outstripping her rival Canadian cities, Vancouver during the first month of the year came sixth among the great cities of the continent. Of the cities along the Pacific coast she issued permits for buildings greater than the combined building operations of Portland, Seattle, Tacoma and Spokane.

Among the permits for February in Vancouver are included the following: dwelling houses, 140 ; apartment and rooming houses, II; factories and warehouses, $1+$; offices and store buildings, 34 .
Returns from the other municipalities immediately surrounding Vancouver give South Vancouver a total for February of $\$ 103,000$ in 130 permits, as compared with $\$ 223,387$ in a total of 206 permits for the same month last year. Point Grey shows an increase for the month over the same period of last year. The total for February, 1913, is placed at $\$ 130,000$, while last year it was $\$ 108,900$. In New Westminster the permits for the month just closed amounted to \$191,735; in February of last year they were $\$ 112,650$.

## Mining Claims Near New Hazelton

Atrextion has been directed recently to the several groups of claims on Rocher de Boule Mountain, near to New Hazelton, or more correctly speaking, New Hazelton Heights.
There are the Daily West, which is only 700 feet from the boundary of New Hazelton Heights, the Ingeneca group, the Colin $M$ unro and Dempsey group adjoining, Gervais group, and the Reservoir group owned by Halleron and Thompson. All these groups are within a mile and a half of the railway at New Hazelton and every one of them can land their ore at the railuay hy tram.
In the Daily West group there are four claims with good big veins carrying highyrade copper. Munro has samples taken from the surface which run $\$ 70$, including $\$ 8$ in cold. This ore is the same as found on Rocher de Boule group on the other side of the momentain and farther west.

In the Ingeneca group there are nine clains, and considerable work has been
done on them. This group was located two years ago, and it will be worked rather extensively this summer and early spring. There are seven distinct leads that have been uncovered. The main lead is fifty feet wide and the average assay gives a return of $\$ 17.43$ per ton with about $\$ 5$ in silver and 80 cents in gold. Another five-foot lead gives assays of $\$ 24.46$ with over $\$ 8$ in silver.

When this property was first located the surface outcrop gave a return of only $\$ 1.20$, but it was traced over the length of two claims. It will average five feet in width.

Then west of the Daily West group and adjoining New Hazelton Heights is the group owned by McIntagert and Ryan. On this property some very high assays were taken. There is a good showing of grey copper.

All the properties are easily reached and situated in an excellent position for shipping or for concentrators or smelters. Many mining men are coming into New Hazelton this year.

## Records in Ore Production

For the week ending February 25 the ore production in the Kootenay and Boundary districts totalled 52,707 tons, a record for the year, and the Consolidated Mining and Smelting Co.'s smelter at Trail treated 9,098 tons, which is also a record for the year and one of the largest weekly totals ever handled by the company.

A third new record established during the week was by the Queen Victoria mine, near Nelson, which shipped i,o60 tons of low grade copper ore to the British Columbia Copper Co.'s smelter at Greenwood. This property's previous high record was 999 tons, produced a few weeks ago.

## Dredging Plant for the Fraser

The New Westminster district is to receive an important industry by the advent on the banks of the Fraser of the Pacific Dredging Company, which is putting down an initial dredging plant to cost in the neighborhood of half a million dollars. This will be increased as business warrants. The company has purchased nine acres of land on the Pitt River adjoining the

Coquitlam Shipbuilding and Marine Co. It will there build marine shops, marine slip and office buildings. An immediate dredging plant of three large dredges is already available.

The powerful hydraulic dredge Beaver is the first of the company's fleet of dredges to arrive on the Fraser. This big machine has a capacity of 100,000 to 150,000 yards per month. One of the first contracts to be undertaken will be the dredging of the bar at the junction of the Fraser and Pitt Rivers.

## Pottery Clay in Fraser Valley

An expert from the Anerly district of Staffordshire, the centre of the English potteries, recently arrived from England, and it is understood that efforts are being made by Mr. C. H. Stuart-Wade, publicity commissioner of New Westminster, to induce him to organize a local company and establish pottery works to develop and utilize the clay deposits of the Fraser Valley.

Some time ago Mr. Wade had some of this clay cast in the cast, but without success. The expert who recently came to the city, however, unhesitatingly states this report to be erroncous, giving his opinion that the clay is of excellent quality and well adapted for modelling and baking.

Several extensive deposits of suitable clay are known to exist in the district, together with an abundance of suitable sand and aluminum.

## A Big Herring Catch

UP To the end of Pebruary the herring catch for the season at Nanamo was reported to be one of the greatest in the history of the fishing industry on the British Cohumbia coast and prospects of bait being plentiful for the halibut fishermen of British Columbia are excellent. The atch up to date represented 12,000 tons of herring, valued at $\$ 300,000$.

This condition in the affairs of the fishing industry shows a marked improvement over the past two years. The greatest number of seines in operation this year is fourteen, and the most successful of the two companies has taken 2,000 tons of fish. The
run of herring at Cowichan Gap has been very good this season, and at Nanoose during the early part of the season large catches were taken. Big catches were also secured off the entrance to Nanaimo harbor.

The quality of herring taken this season is exceptionally good, and they are much larger than in previous years. There will be no closed season for herring in 1913, but fishing within the spawning arca will be prohibited.

## Dominion Trust Company

A Highly satisfactory record of progress is shown by the Dominion Trust Company, Limited, in its statement covering the year 1912. During the twelve months the total assets of the company increased from $\$ 3,004,341$ to $\$ 4,973,161$; the paid-up capital from $\$ 1,500,188$ to $\$ 2,000,000$; and the reserve from $\$ 550,000$ to $\$ 800,000$. Apart from these figures, the company is handling funds under will or investing the moneys of individuals to the extent of $\$ 6,217,983$, and is acting as trustee for tondholders to the amount of $\$ 25,308,000$.

## Site of Lillooet's Depot

The people of Lillooet are much elated as a result of an arrangement with the Pacific Great Eastern Railway respccting the location of a station for the town. A committee of the citizens, accompaniel by Chief Engineer Calaghan of the railway, recently went over the survey, and selected a site for a depot a few minutes' distance from the centre of the town.

## New Post Offices

Seven new post offices were establisha: in the province of British Columbia du:ing the month of February. They are: Cuitus Lake, which will be served from Sarona every Friday; East Arrow Park, wiich will be served from R. \& A. R. P. O. North on Mondays and Thursdays; Ki tle Valley, which will be served from Midtay and Rock Creek daily except Sunculy; Newtonia, which will be served from Tiail on Tuesdays, Thursdays and Saturdes; Squilax, which will be served from $C$ :
V. R. P. O. train 3, daily including Sundays: Tatla Lake, which will be served from Alexis Creek monthly; Waconda, which will be served from Coquitlam daily except Sunday. The office at Pitt River has been reopened and will be served from C. © V. R. P. O. trains $72+$ and $1+$, daily including Sundays.

Three post offices have been closed. These are: Falkland, closed from March I, matter to be sent to Armstrong; Hullcar, dosed from March I, matter to be sent to Armstrong; Reiswig, closed February 7, matter to be sent to Lumby. As from March I, the name of the post office Slahaltkan is to be known as Falkland.

## City-building in Canada

Som: interesting facts about city-building in Western Canada are thus tersely put hy the Hon. Robert Rogers, Minister of the Interior for the Dominion:
"Two or three hundred towns have come into existence during the past two or three years, and many more during the mast year.
"The station house, the blacksmith shop, the boarding house, the store of April are dwarfed in August by a hundred or more dwellings, by large hotels, by splendid stores, and a half-dozen implement warehumses, not forgetting the two or three hurches and the excellent public school huilding; and in a few years there is a twon with well-paved and electric-lighted wrets, market, and all modern equipment.
"Mhere are cities of from ten to fifteen themand people where five or six years (i:i) there was but the bare prairie and the bame section post.
"The change of the Canadian Wiest during the past cight or ten years has been marvellous; and it is no idle tale to sat that the development in number and growth of the cities, towns and villages there in the past decade has eclipsed anything in the history of the building of a new country."

## Conserving Water Power

A Good example of what can be done in developing and, at the same time, conserving water power resources is given by the Jordan River plant of the British Columbia Electric Railway Co., on Vancouver Island. Although the average precipitation over its watershed reaches the excessive figure of eighty inches, the Jordan River, like the majority of our streams, has a wide variation between summer and winter flow. The company has had the flow of this river systematically gauged since 1907 and the results obtained justified the building of large storage reservoirs for the purpose of impounding waters which would otherwise go to waste. The total capacity of these reservoirs, of which there are five, is 1,500,000,000 cubic feet, and they provide ample storage, within reasonable cost, for an ultimate maximum plant output of 24,000 h.p. to 36,000 h.p.

Preparathons are well moder way at the present time for the protection of the forests in the coming fire seatom. It is able that the season will be one of the most difficult yet encountered, as colonization without adequate fire protection is erin!

## Own a Farm in Matsqui, British Columbia THE LOWER FRASER VALLEY

Perie land ready for the plough. Healthful climate. Fertile soil. An abundance oi water. Good roads. Excellent transportation facilities. Thirty-cight miles somthat of lancouver. For maps, price list and detailed information apply:

JOHN J. BANFIELD

$\therefore$ Seymour Street
(established 1891)
VANCOUVER, B. C.
ahead at a phenomenal rate throughout the length and breadth of the province, and the wetness of the past season caused a particularly luxuriant growth of grass, weeds and shrubs, which, being dry during the coming months, will constitute a dangcrous fire hazard.

According to Mr. J. T. Bealby, owner of a commercial orchard on Kootenay Lake, cherries are coming to be the most profitable product in the fruit-growing industry, although involving possibly the most labor. Mr. Bealby's cherry orchards show a gross production of from $\$ 1,200$ to $\$ 1,500$ per acre. After the first four years merely ordinary care is required, with a little spraying and trimming. Apples give an average return of $\$ 250$ per acre gross.

The Provincial Department of Agriculture has sent a circular letter to all the boards of trade and similar organizations throughout the province, notifying them that space can be rented in the Van-
couver Progress Club's chambers for $\$ 2$ per foot. A recently-concluded arrangement between the Provincial Government and the club has made this low price possible. It is expected that many cities will avail themselves of the opportunity to advertise by means of exhibits the agricultural, lumbering and mineral possibilities of the districts in which they are located.

Messrs. A. S. Rankin and J. W. Schneider have erected a box factory in Mission City. They will enlarge the plant later in order to manufacture sashes and doors and all kinds of Mission furniture.

The American Can Co. will immediately start the erection of a four-storey factory in Vancouver for the manufacture of all kinds of cans, including salmon, fruit, coffee, spice, milk and baking cans. The company, which is incorporated in British Columbia for $\$ 250,000$, has taken over the business of the Western Canadian Can Co.

[^5]In response to numerous applications for information

# ฮe <br> British Columbia Magazine 


#### Abstract

will, in connection with its development department, maintain A FREE BUREAU OF INFORMATION for intending settlers in British Columbia. All enquiries must be plainly written and addressed to the Development Editor, British Columbia Jlagazine $\infty$


and will manufacture no less than 18 ,000,000 salmon cans in the next six months in its temporary factories at Vancouver and New IVestminster. The company employs between 125 and 150 men.

The bank clearing returns for Canadian cities for the month of February include the following: Vancouver $\$ 50,64 \mathrm{I}, 407$; Victoria, \$13,950,000; New Westminster, $\$ 2,170,915$. The corresponding figures for February, 1912, in Vancouver and Victoria were respectively $\$ 45,351$, 107 and $\$ 12,610,627$.

Dr. Filiotet S. Rowe, commissioner of the Vancouver Progress Club, has received many conquiries recently as to the possihilitics of establishing industries in Vancouver. One in particular asks about the consumption of cement in British Columbia and the number of firms engaged in its manufacture, and goes on to state that a firm is contemplating the erection of a larse plant, which will employ severa? hunised men.

The Empress Manufacturing Co., Ltd., of Vancouver, has purchased a site in Mission City, on which they will erect a building for the manufacture of all kinds of jams, jellies, pickles, ctc. The building will be completed by June ist.

In is expected that a daily steamer service between New Westminster and Victoria will be inaugurated within a few weeks and that regular freight and passenger service will be maintained.


## Port Alberni, B. C.

Anyone who is at all familiar with the history of British Columbia can readily see that an investment in Port Alberni property now, whether city or suburban, will net him handsome returns before any great length of time. Manufacturing sites with the most excellent facilities may be had, there being a very large potential water-power in the falls of the Somass River, close to the harbor. On the waterfront splendid sites are also procurable at reasonable prices, these offering every advantage in the way of trackage and shipping. The C. P. R. has a fine modern depot in the town, and trains connect each day with Victoria, and thence by boat to Vancouver. Port Alberni lies at the head of the Alberni Canal, a long indentation on the west coast of Vancouver Island and at the mouth of the Somass Kiver. It is backed and flanked by Copper and Arrowsmith Mountains, which, however, offer no impediment to entering railroads. The site of the town is a gradual slope from the waterfront, opening into the magnificent Alberni Valley, which is already extensively farmed and is one of the best districts on the Island. A short distance from the townsite are Buttles, Cameron and Sproat Lakes, some of the most beautiful bodies of inland waters in the province. These lakes offer splendid opportunities for hotels and resorts for the tourist, and the Canadian Pacific has already constructed some chalets in close proximity to the lakes and mountains. On the ocean, and but a short distance from Port Alberni, stretches twer.ty miles of magnificent sandy beach, the famous I.ong Beach, which is the resort and delight of thousands of tourists every summer. It is the intention of the C. P. R. to erect a chalet here, which alone will be a distinct advantage to the town. It is the gateway to a paradise for the hunter, fisherman and tourist, in addition to being one of the most advantageous sites for a great city ever laid out. Excellent motor roads now reach every part of the Island, and there is no difficulte in reaching the Port in a short time from Victoria over the famous Pacific Highway, for which this town is the terminus.

As on climate: The rainfall is less here than in Vancouver, which is less than in manv parts of the castern provinces. Severe winters are unknown on account of the proximity of


STANDING TIMBER, PORT ALBERNI DISTRICT
the Japan current, and the summers are i..Jescribably delightful. In summing up the advantages of Port Alberni, it is seen that it has the natural advantages of a harbor unexcelled, a townsite of ideal location, excellent water-power resources of incalculable value behind it for which it is the natural port; a busy, progressive administration which is engrossed in making it one of the most attractive towns to the homeseeker and manufacturer, as well as investor, in this fast-growing country; banks, schools, business houses, hotels, wharees. factories, railroad, shipping facilities, and in fact every component of a manufacturing and shipping centre. There can be no doubt but that for every dollar invested in Port Alberni the investor will gain manifold in the next tell years.

## On Vancouver Island

In the Alberni. Nanonse and Neweastle Districte, splendid farming land at

## $\$ 35$ per Acre

in 10, 20, or 40 acre tracts, on terms of one-fifth cash and one-fifth each year.
This is Your Golden Opportunity

Get some land on Vancouver Island, with its delightful mild climate, productive soil, and the best market in the world for farm and gard:n products, and you will certainly be independent.
Good land at $\$ 35.00$ per acre will soon be a thing of the past.
Write for further particulars and information regarding this land.

## Cranbrook, B. C.

Population, now close to 5,000 , is rapidly inereasing

CRANBROOK is a divisional point of the C. P. R., whose payroll is over $\$ 75,000$ a month.
Railways: From east and west, the C. P. R., and from middle and eastern States and Pacific coast point, the Soo-Spokane-Portland.

Great Northern, via Lethbridge, Alta., or Elko, B. C., connects with British Columbia Southern (known as Crows Nest Branch of the C. P. R.).

Kootenay Central Branch of the C.P.R. connects with all points north. And the North Star branch of the C. P. R. reaches Kimberly and Marys-
 ville districts.

In the vicinity are twenty-five sawmills, five planing-mills, three sash and door factories, mining camps and many other industries, employing a large number of men the year around.

The climate of CRANBROOK approaches the ideal as near as may be found in Canada. The scenery is unsurpassed in variety and grandeur. Large and small game is found in abundance. It is the centre of a district 100 miles square, rich in timber, minerals, etc. From an agricultural standnoint the land in general is well suited to mixed farming.

The fruit-raising industry is as yet in its infancy owing to the fact that up to the last few years the chief attention was given to mining and lumbering. However, experiments have proven so satisfactory, and the markets are so great, that land is rapidly increasing in value.

The different points in the district are connected by first-class roads, in fact the roads
are so good that Thomas N. Wilby, while here on his pathfinding trip from coast to coast, said: "The roads out of this city look as if they had been gone over with a flat-iron, they are so smooth."

This city has a municipal hall, new $\$ 75,000$ post office, six churches, three banks, three theatres. large hospital, two rinks, several places of amusement, five schools, large Y. M. C. A. building, Masonic Temple, I. O. O. F. and K . of P . halls, and eight hotels with excellent accommodation. Also electric lighting, gravity water and sewer systems. Magnificent natural power facilities await development. Large mercantile establishments and wholesale houses meet the needs of a rapidly growing community.

The C.P.R.'s new transcontinental line from Winnipeg to Vancouver will go via CRANBROOK and the Crows Nest Pass.

## Fruit and Vegetable Land

Near the big markets, in a delightful climate, a mile and a half from the prosperous, growing CRANBROOK, B. C., is what the sensible farmer is looking for.
There is a 3,000 -acre tract at APPLELAND that is just waiting to grow the best fruits
and vegetables in British Columbia. All perishable products can be disposed of readily. Your product picked at noon is eaten by the consumer for supper.
Ask us about the 5 -acre tracts for $\$ 500.00$; one-quarter down.

## Creston, B. C.



EIGHT-YEAR-OLD BLACK WALNUT TREE, CRESTON, B. C.

CRESTON is a new town in the heart of Kootenay Valley, commonly known as "Creston Fruit District," and comprising that portion of Aand lyine between Kootenay Lake and the International boundary line.

The valley is twelve miles wide and covers an area of over one-fifth of the genuine fruit dands of British Columbia. One of the most pleasing features of the valley-especially to old residents of the province who have visited Creston for the first time-is the mild climatic conditions in winter and summer. Kootenay Lake never freezes up, wild fowl can be seen on the water all winter, and there are no damaging winds or summer frosts.

The fruit-growers are cheerful and appear satisfied that they have located the home of all
homes in the valley. Besides having a cheerful home, they have also a cheerful revenue from berries, tomatoes (that ripen in the open fields from July to late in October), apples, pears, peaches, apricots, nectarines, plums, prunes and vegetables.

While not one per cent. of this great block of land is under cultivation, yet we can easily see where Creston farmers are sure to win, being especially favored with a mild climate, rich soil, no irrigation required, the production of high-class fruit and vegetables, favorable transportation facilities, and one day nearer the great market than any other fruit districtin the province.

The present population consists principally of Anglo-Saxon origin.

## INVESTMENTS AND HOMES IN CRESTON FRUIT DISTRICT

## Are Safe, and Sure to Increase in Value

R. LAMONT, CRESTON, B. C.

Buys and sells Creston Fruit Land in large or small blocks
Reference: Canadian Bank of Commerce, Creston, B. C.

## Grand Forks, B. C.



GRAND FORKS' FRUIT EXHIBIT

WITH seven separate lines of three railways, each built and in operation, radiating from this city, Grand Forks has already held an unrivalled position on the railway map of British Columbia. With further assured railway importance in its creation as divisional point and joint terminal by the Canadian Pacific and Kettle Valley Railways, Grand Forks is not only on the eve of great development but will continue to hold in an unmistakable way the premier position in the interior of the province from a railway standpoint, and is destined to be one of the hubs of the West.

In consideration of the concessions granted by the city of Grand Forks, the Canadian Pacific and Kettle Valley Railway Companies agree to:
Make Grand Forks a joint passenger terminal and divisional point for the Canadian Pacific and Kettle Valley Railways.

Commence construction forthwith, within the city limits, of a round-house of at least a tenstall capacity, a machine shop and all other necessary buildings and plant for maintenance of same; and maintain same for a period of ten years.

Establish a joint passenger station on site of present Kettle Valley Railway depot, on Third street, and make necessary additions thereto to properly care for transportation business. Maintain such depot for a period of ten years.

Run all passenger trains through the city over the present route of the Kettle Valley Railway for a period of ten years.

Establish an industrial spur for delivery of carload freight at convenient point within a quarter of a mile of the Kettle Valley depot.

The by-law further requires that actual construction work be commenced within three months and be completed within one year.

INVESTMENTS: Sound, safe, profitable INVESTMENTS. Grand Forks, Central Interior point of British Columbia, and Kettle Valley, the ideal fruit and agricultural district, afford exceptional opportunities to investors. FRUIT LANDS, TOWN LOTS, MORTGAGE LOANS, TIMBER, MINES. Enquiries solicited.

## Boundary Trust \& Investment Co.Ltd.

Established 1901

GRAND FORKS, B. C.

## Kamloops, B. C.



BRIDGE OVER THOMPSON RIVER AT KAMLOOPS

## SOME FACTS

KAMLOOPS was started one hundred years ago as a fur trading post.

Kamloops has a mayor and six aldermen. Kamloops was incorporated in 1893.
Kamloops is recognized as one of the best kept cities in the West.

The derivation of the word Kamloops is from the Indian language, meaning "Meeting of the waters."

Eight years ago no man thought Calgary, Edmonton, Lethbridge, Saskatoon, or Regina would become large cities. Their location favored them, and they are among the leading cities of Western Canada today. Kamloops
was nicely chosen as a location, being the centre of a number of fertile valleys branching out in various directions, with roads running north, south, east and west, and steamboats running east, west and north. For these reasons Kamloops will surprise the most sanguine of today.

Kamloops is conceded to have as fine a climate as can be found.

Kamloops' streets are carefully looked after both in the business and residential districts, and in consequence are always in a sanitary condition.

Kamloops is recognized as the commercial centre of southern British Columbia.

## Kelowna, Okanagan Valley, B. C.



Not onty does Kelowna grow the best apples in British Columbia, but we also produce that whole-hearted enjoyment of outdoor life, assisted by our surroundings, as depicted above. This makes for the best that is in mankind.

All of these things we are anxious to share with thousands of others. Washington and ()regon fruit lands are three and
four times as expensive as ours. This year's net result to their growers has been far less than ours have received. In open competition with American apple exhibits, Kelowna has taken the best prizes.

Come and see for yourself. For any information or illustrated booklet write: G. A. Fisher, Secretary Publicity Department, Board of Trade, Kelowna, B. C.

## BELG0-CANADIAN FRUIT LANDS CO.

## First-class Fruit Lands in the Kelowna

District for Sale

KELOWNA
B. C.

290 Garry Street WINNIPEG

11 Place Leopold ANTWERP

## Vernon, B. C.



BIRD'S-EYE VIEW OF VERNON

VERNON is the principal city and centre of the Okanagan Valley, with a population of over 3.000 people, and is located about 45 miles south of Sicamous Junction on the Canadian Pacific Railway, with which there is daily train communication. Fruit-growing, mixed farming, dairying and poultry-raising are the principal industries of the district.

The average net profits of an apple orchard in this district are about $\$ 200$ per acre. The cost of a ten-acre orchard, with the land purchased at $\$ 250$ per acre, will amount to about $\$ 4,500$ at the end of five years, and thereafter paying returns may be reasonably expected.

Vernon is equipped with all the necessities of modern life. There are six hotels, a modern lighting system, an ample supply of pure water and an excellent public school system. The

Canadian Northern Railway has practically completed the surveys and will shortly start the construction of a branch line from Kamloops, on their main transcontinental line, to Vernon, Lumby and Kelowna, and accordine to charter it will be completed on the first of July, 1914; and have also acquired the waterpower rights from the Couteau River and will also be in a position to supply electric power in a year or so.

The present post office and customs house are jointly located in a fine new building erected at a cost of over $\$ 50,000$ on the main street.

A new court house and government offices are also in course of construction at a cost of about $\$ 200,000$ and when erected will be one of the finest buildings in the interior of British Columbia.

## R. FITZMAURICE

Fruit and Farm Lands in Vernon
District, Okanagan Valley; also
Vernon City Property

Real Estate
Notary Public
Firc. Life. Accilent and Automobile Insurance Guarantec Bonds

Cable Address: "Fitzmaurice"


## "KODAK"

Is our Registered and common-law Trade Mark and cannot be rightfully applied except to goods of our manufacture.

If a dealer trics to sell you a camera or films, or other goods not of our manufacture, under the Kodak name, you can be sure that he has an inferior article that he is trying to market on the Kodak reputation.

If it isn't an Eastman it isn't a Kodak

CHASE 8 SANBORN MONTREAL \& \& \&

CANADIAN KODAK CO. I.matei)

Toronto, Canada


# Victoria, British Columbia, Canada 

The Leading Port in the Dominion

THE City of Victoria, 13. C., Canada, the Capital City of the province of British Columbia, is the first port in the Dominion of Canada. That is one reason why the Dominion Government is equipping it with the present-designed splendid outer harbor. When it is recorded that during the six months of the first fiscal year ending September 30, 1912, a total of 5,747 ressels, foreign and coastwise, in and out, came and went from local wharves, the magnitude of the shipping trade from Victoria is impressed upon even the most unthinking.

Not one of the eastern ports an show anything like the record of shipping as does Victoria. And the increase in the shipping grows steadily and surely. Examine these figures.
1909.10-Total number of ships arriving and departing, 7,254; total tonnage, 4,826,769.

1910-11-Total number of ships arriving and departing, 8,475 ; total tonnage, $5,673,697$.

1911-12-Total number of ships arriving and departing, 9,778 ; total tonnage, $7,207,274$.

While the coastwise trade is adva:icing rapidly, it is in the foreign trade that the greatest advances are being made. Last year the foreign trade of Montreal, inward and outward, totalled 845 vessels, with $3,385,951$ tons, as compared with 2,834 vessels with $3,522,851$ tons at Victoria. At St. John the foreign shipping inward and outward in the same time was 2,442 vessels, with $2,012,425$ tons; while Halifax had 2,344 vessels in and out, foreign, with 3, 111,535 tons. Freight landed by foreign vessels at Victoria has trebled in the last three years.

TAKE NOTICE, MANUFACTURERS, IN. VESTORS, RAILWAYS, STEAMSHIP LINES, SHIP-BUILDERS AND CAPITAL-ISTS-ALL ROADS AND ALL PORTS IEAD TO AND CONNECT WITH VICTORIA.

For free booklet, fully illustrated, on Canada's Greatest Port, address Vancouver Island Development League, Victoria, ij. C. Room 44.

## Shoal Harbor, Saanich Peninsula

WE have several cight to twelve-acre pieces on this beautiful harbor, cleared and in orchard, all ready for that summer home. Splendid view. Ideas boating, fishing and hunting. Safe anchorage and sandy beach. The lovelies: spot on Vancouver Island. The price and size of the plots and natural location make this an exclusive summer home colony. There are only fourteen plot: and two of these have been sold to wealthy residents.
Western Duminion Land and Investment Company, Limited Fort and Broad Streets, VICTORIA, B. C.


## rayloris JNFANTS DELIGHT TOLLET SOAP

Filtered oils of cocoanut and olive - these form the basis of Infants-Delight Toilet Sorap.
Can you imagine anything purer, more delightfully cleansing, or better for a delicate skin?
Even the perfume is antiscptic and healing. Ask your dealer for a cakc - it's Ioc. everywhre.

## JUAN TAYLOR \& Co. Limited Toronto

[^6]
## COMOX VALLEY

## Vancouver Island

The Valley of Opportunities The Oldest and Best Farming District on the lsland

## For the Settler

IMIPROV: lands, hush lands, sea and river fromage, small tracts suitable for fruit and poultry, on casy terms. Good climate. Good markets.

## For the Investor

TOWN lots, business chances. The C. P. R. and C. N. R. build. ing here; the two largest ceal and lumber companies in British Columbia spending millions in development work. Get in line with them and make their money make you money.

We want your enquiries. Write us now.

CAMERON \& ALLAN
The Comox Valley Specialists COURTENAY, B. C.

## The Key Note of the Mutual Life of Canada

For Forty-two Years
HAS BI:I:N FAIR DEAIING WITII ITS POLICYHOLDERS, ITS AGINTS ANO THE CANADIAN PUBIIC.

PAST NCCOMDIISHMIENTS AND NOT FUTURE PROMMSES HAVE MEEN ITS SURE PASSIORT TO POPUL,AR FAMOR.

## ASSETS $\$_{1} 8,750,0(0)$

CONSUITR YOUR OWN MEST INTIERESTS MY CAIIIING ON OR WRITING:

## WILLIAM J. TWISS, Manager

$31 \%$-3ay Rogers Building VANCOUVER, B. C.

## The PEACHCLIFF FRUIT FARMS



## Okanagan Falls British Columbla

offer the investor the very best opportunity to get the choicest fruit land, in the healthiest climate in Canada, at the lowest price, before the railway arrives.
The Great Northern Railway is surveyed by it, and the station will be within three-quarters of a mile. There is a daily boat and mail service at present. There are about 800 acres for sale, in lots from one to ten acres, or would prefer selling in block. Land is irrigated. Good water records.
Price from $\$ 10$ to $\$ 150$ an acre for unplanted land, and $\$ 250$ up for planted land. Part is planted, and some of it bearing. Two houses on it.
A. J. SMYTH
976 Seventh Avenue W.
Vancouver, B.C.

## NOTICE

Patrons of the Pantages and Orphemen Theatres will be presented with a popular song hit every week free of charge.

At considerable expense we have contracted with Harry L. Stone, composer of "Yancourer "lown," the latest song hit, to furnish us with the latest song and instrumental music every week. Watch Pantages and Orpheum programmes. If you don't attend these playhouses, write us enclosing two-cent stamp for free coply.

## Theatrical Printing and Publishing Company

Phones: Seymour 410 S and S24
409 Dunsmuir Street

## Forty-third Financial Statement

OF THE

## mUTUAL LIFE OF CANADA

Head Office

WATERLOO, ONTARI()

For the year ended 31st December, 1912
CASH ACCOUNT

| Income |  | Disbursements |  |
| :---: | :---: | :---: | :---: |
| Net Ledger Assets, 31s |  | Death Claims .......... i.410, 153.96 |  |
| Premiums ( NeO ) | 2,692,199.27 | Surrenderced Policios .... 212,530.57 |  |
| Interest and Rent | 1,007,311.31 | Surphus . . . . . . . . . . . . . 277 27,631.29 |  |
| Suspense Account, ctc. | 1,054.43 |  | 5,964.4 |
|  |  | Expenses. Taxes, etc. | 615,333.68 |
|  |  |  | 19,110,5.32.72 |
|  | 21,002,252.84 |  | \$21,002,252.8.1 |

BALANCE SHEET'


Audited and found correct.
J. M. SCCLT.Y, F.C.A.
Waterloo, Tanuary $28,1913 . \quad$ Auditor
Fitcrloo, January 28. 1913.



WHITE ROCK BEACH

## Read This Over Carefully Then Call On Us

Greatest offer ever made in Canada. Building lots $33 \times 124$ feet free for your subscription to the British Columbia Magazine for one year, and small fee to cover cost of deed, etc.

> LET US EXPLAIN THIS
> GRAND OFFER TO YOU

The British Columbia Magazine is looking for more circulation, and we feel sure this grand premium lot offer will secure us many hundreds of new subscribers. 'That's all we want.

## WHITE ROCK HEIGHTS 哭

A place where YOU and PLEASURE and PROFIT can meet. This beautiful summer resort-on Great Northern Railway-only sixty brief minutes away-Sea Beach, Bathing, Boating, Fishing, Hunting, Woods and Streams.

## British Columbia Magazine

PREMIUM DEPARTMENT
525 Pacific Building 744 Hastings St. W.
Vancouver, B. C.

```
British Columbia Magazine,
    Premium Dept., 525 Pacific Bldg.
        Vancouver, B. C.
    I read your offer of free lots in White
Rock Heights in the British Columbia
Magazine. Let me know more of yoar
offer, without obligating myself in any
way.
    Name
    Address
Name . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
```


## Our Line of Pianos

Is
Hard
To

Beat



Is
Hard
To
Beat

【 You can take your choice of any of these Pianos or Player-Pianos and be positively certain of getting the best value for your money in the country. Here they are:

| Steinway \& Sons | Pianos |
| :--- | ---: |
| Mason \& Hamlin | Pianos |
| Brinsmead | Pianos |
| Nordheimer | Pianos |
| New Scale Williams | Pianos |
| Kohler \& Campbell | Pianos |
| Autopianos |  |

# M. W. Waitt \& Company Ltd. 

Vancouver, B. C.
The Oldest Music House in British Columbia


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# Vancouver Island, B. C. Canada 

## Its Principal Cities Outside of Victoria

In all the various districts of Vancouver Island the tokens of development and progress continue to multiply. Railway activities and the steady work of extending and improving the island roads and highways have a great deal to do with this, and the constant influx of settlers to the country communities, the towns and the cities continues to widen the sphere of action both as to urban and agricultural potentialities.


#### Abstract

The Alberni District, with the promising and energetic little cities of Port Alberni and Alberni, is progressing with sure strides, and the incoming of the Canadian Northern Railway into the neighborhood is the latest move which is adding impetus to the already live condition of affairs. Not the least important feature of this district's future is the coming opening of Strathcona Park and its world-heralded beauties. That thousands of visitors will come through in this way to reach the park is assured, and that numbers of them will fall in love with the district and remain there is also an undisputed fact.

Nanaimo is fast coming to the front because of its geographical position, fine harbor, and vast natural resources. It has always been a great coal-mining centre, and yet this is in reality only one of its commercial factors. The lumbering and fishing industries, and more lately, manufacturing, promise to rival the mining interests in time to come, for year by year the trend of capital to Nanaimo and the signs of the financial zodiac point to very large industrial developments at this point. Nanaimo is now and has for some years past been agitating for a tramway system. That this will be installed does not admit of a doubt, and it will go far towards metropolitanizing the city. Its harbor is a splendid one, and its shipping trade considerable. A few years hence and this centrally located and thriving place will have gained greatly in population and commercial importance.

Cumberland and Ladysmith are both up-to-date, virile and go-ahead little cities, remarkable for their civic spirit and systems of municipal government. Each has rivalled the other in the matter of enthusiasm for the betterment of existing conditions, and the result has been of the greatest possible benefit to the citizens. Both are in the heart of the coal measures of their districts, and Ladysmith has a fine harbor, thus affording rail as well as sail transportation for its mining output, her situation on the main line of the E. \& N. Railway giving through connection with all island points on this line. Cumberland connects by rail to Union Bay, and is moving energetically for further rail service by way of the Canadian Northern Railway. Their future is a bright one, and founded on solid advantages.


Duncan and Sidney are centres for agricultural districts, Duncan being especially favored as the trading metropolis of the famous Cowichan Valley. This recently incorporated little city has one of the finest general stores in Canada, a fourishing Creamery and Egg Association, and its reputation for the finest of butter and eggs is so firmly fixed that the highest prices are realized for its product. Sidney, at the terminus of the Victoria and Sidney Railway, may yet become an important terminal manufacturing point as well as an agricultural centre. All of these cities have their boards of trade, which are busy in forwarding the interests of their communities in
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In addition to the university the Anglican, taln denominational tain denominattonal schools for theologlcal students, and McGill University College gives instruction in the first three years in arts and $t$ :vo years in sclence along the lines pursued at McGill University in Montreal.
There are ten private schools for boys and girls where special attention is paid to music languages, and matriculation subjects prescribed by the leading unlversities of Canada, Great Britain and the United States.
The School Board of Vancouver has jurisdiction over a normal school, a model school, two high scioen public manual training schools, and twentyseven public schools. In addition there are flve public school and four manual training school tion for 1913 . tion for 1913.

During 1912 there were enrolled 12,393 puplls
in the schools of the city, exclusive of private schools, and 340 teachers assisted by 67 special instructors were employed. One of the important departments of school work in Vancouver is the night school system. During 1912, 1,972 pupils and 62 instructors were in attendance in this work, and a vast number of technical and scientific subjects were included in the curriculum.
By midsummer accommodation will have been provided for class-room and teaching purposes aggregating an attendance of 20,000 . The chief difficulty that has confronted the Vancouver School Board In past years has been the problem of providing adequate accommodation for the rapidly increasing enrolment of city children of school age.
Vancouver's population has been increasing at the rate of 10.000 a year for the better part of a decade, a fact to which the increasing demand for educational facilities bears striking testimony. There are many obvlous reasons for this remarkable growth. May we send you fuller particulars under separate cover? Write Department C.


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