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RESOURCES

British North America

NEWFOUNDLAND

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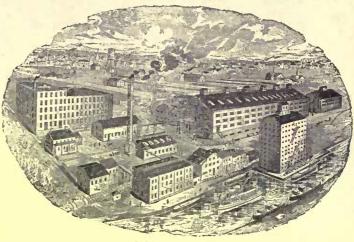
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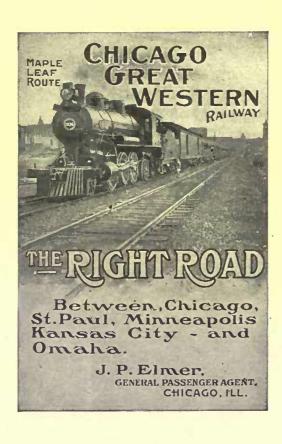


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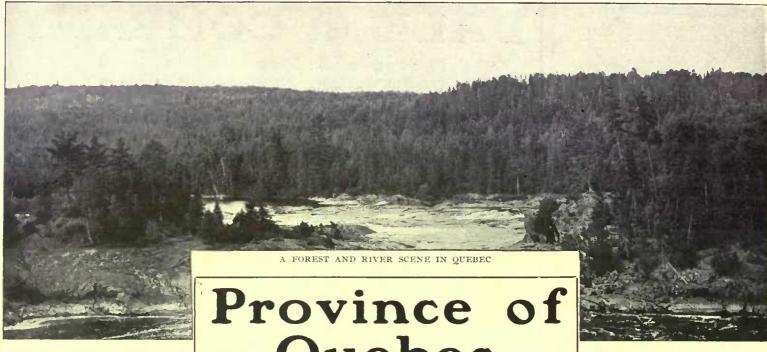
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OF THE PROVINCE COVER OVER

225,000 Square Miles

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FOR SALE

Forty-three powers have been surveyed during the last two years. Power available ranges from 500 to 100,000 horse-power. Send for maps and other particulars.

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SALMON MOOSE TROUT CARIBOU OUANANICHE DEER MASKINONGE ETC.

Hunting territories (not over 400 square miles to one person) can be secured at from \$1.00 per square mile a year.

For location of hunting and fishing districts apply to this department.

Quebec



THE Province of Quebec is, above all, an agricultural country, a country for colonization, and is particularly well favored with forests, mountains, lakes, rivers, splendid waterfalls, innumerable water-powers, fertile islands and rich pastures. The soil of the Province, and, in particular, that of the great colonization centres which have yet to be opened up and peopled with hardy settlers, is of superior quality and eminently adapted for cultivation of all kinds. The forests, which stretch endlessly in all directions, and contain the most valuable woods, have been for years the object of constant and active operations. The rivers and lakes, which have long remained unknown, now attract hundreds of sportsmen from all parts of America, who find both pleasure and profit in fishing for salmon, ouananiche, trout, pike, etc.



HARVEST SCENE ON THE FARM OF J. B. HUDON AT ST. JEROME

FOR FURTHER INFORMATION APPLY TO

HON. A. TURGEON,

Minister of Lands, Mines and Fisheries Parliament Buildings, Quebec, Can,

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OVER 7,000,000 ACRES HAVE BEEN SURVEYED AND DIVIDED INTO

FARMS

PRICE FROM 20 CENTS TO 40 CENTS PER ACRE

ACCORDING TO DISTRICT

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The attention of Miners and Capitalists in the United States and Europe is invited to the mineral territory open for investment in the province.

GOLD

SILVER COPPER IRON ASBESTOS MICA PLUMBAGO CHROMIC IRON GALENA, Etc.

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CANADA'S OPEN DOOR

LANDS OPENING UP

WESTERN CANADA'S WHEAT SPEAKS Free Homesteads
Bountiful Harvests
Stream of Settlers
Good Railway Facilities
Vast Herds

Are You Looking for a Home?

Canada offers 160 Acres free

Western Canada possesses the last Free Grant Land to be had on the North American Continent ANADA will have in the summer of 1905 nearly four times as many acres under wheat as there will be in the whole of Great Britain.

—Commissioner of Immigration, Winnipeg.

THERE is room in Western Canada for all the people that can be sent from the British Isles to grow wheat to feed the British people.

Prosperity Follows Settlement in Western Canada! More Than Half a Million Have Started their Homes There! There are Vast Areas Still Waiting to be Tilled!

ETTERS pour in from contented settlers, from some of which the following extracts are made:—"From the first we had faith in the country and in eventual success, and we have not been disappointed. Two members of our family are farming on their own account, and both doing well. Two younger sons are farming together. We own sixty head of horses, seventy-five head of cattle and sixty-eight pigs. We had two hundred acres under crop last year, and hope this year to have nearly two hundred more. We are well equipped with all necessary farming implements. We have good railway accommodation, and elevators and markets for our produce. We have an excellent school situated in the centre of the township, also a post office within a mile and a half. We have been able to bring out and settle six English families all within a few miles of us, and we may say 'Still there is room to follow.' We can safely recommend Western Canada to any man with 'Push, Tact and Principle.' Such can soon surround themselves with not only the comforts of life but more.''

Again, "The quality of the soil leaves nothing to be desired—the luxuriant growth is a proof of this. We have grown vegetables this year that I have not seen equalled in England."

this year that I have not seen equalled in England."

Still another says, "It has not cost me a cent for fnel of any kind. I have plenty of firewood on my place, plenty of fencing and building material, and coal a few miles away by paying a few cents for a permit to mine it myself."

RICH REWARDS for INDUSTRIOUS FARMERS PLENTY OF ROOM

"To breathe the wind on the ranges, the scent of the upturned sod."

Manitoba alone has an area of 47,188,480 acres. For farming purposes 25,000,000 are available.

EVEN this is but a fraction—600 miles from north to south and twice that distance from east to west within the limits of Manitoba, and in the adjoining Western Provinces is an area of 372,112 square miles, of which 135,000,000 acres are good farm land, and of this less than 3,500,000 is as yet under cultivation. A tract of fertile country more than three times greater than the total area of the British Isles.

Information and advice can be freely obtained from the following: W. W. CORY, Deputy Minister of the Interior, Ottawa, Canada; W. D. SCOTT, Superintendent of Immigration, Ottawa, Canada; W. T. R. PRESTON, Commissioner of Immigration, 11 and 12 Charing Cross, London, England.



A PRIMARY CLASSROOM IN A CONSOLIDATED SCHOOL

THERE HAVE BEEN MANY PICTURES IN THESE PAGES ILLUSTRATIVE OF THE MATERIAL, RESOURCES OF CANADA—OF THE NATURAL RICHES WITH WHICH OUR VAST COUNTRY IS FILLED. BUT OUR HUMAN RESOURCES—THE WEALTH IN VIRILE MEN AND WOMEN, THE GREATEST OF ALL NATIONAL ASSETS—FAR EXCEED THEM IN VALUE. TO A RECENT INTELLIGENT OBSERVER OF THE DOMINION—MR. J. A. HOBSON—THE FAITH AND CONFIDENCE WHICH INSPIRE THE PEOPLE OF CANADA WERE MORE REMARKABLE THAN THE SIGNS OF MATERIAL PROSPERITY. THE ABOVE PICTURE AFFORDS AN INTERESTING STUDY OF "YOUNG CANADA," OF THE ONCOMING GENERATION. IT IS A PICTURE WHICH MAY WELL FILL CANADIANS WITH PRIDE AND CONFIDENCE. A BRIGHTER, STURDIER SET OF CHILDREN IT WOULD BE HARD TO FIND ANYWHERE.

RESOURCES

DEVELOPED AND UNDEVELOPED OF BRITISH NORTH AMERICA

Vol. III.

Montreal, Canada, December, 1905

No. 12



THE MAGNIFICENT MACDONALD INSTITUTE, GUELPH, WHERE MANUAL TRAINING, DOMESTIC SCIENCE, ETC., ARE TAUGHT

'YOUNG CANADA' IN THE MAKING

A New Idea In Canadian Schools

NE of the most interesting and most important experiments in connection with the Canadian educational system has as its purpose to give the country family as good school advantages as the family in town. It takes for granted that there is no reason why the farm boy, for instance, should not be equally deserving of an education, and equally capable of receiving it, as his town cousin. But the fact remains that despite the improvements of recent years, rural school advantages in most parts of Canada, as elsewhere, are not what they might be; they are often superior to the average conditions in the Old Country, but in progressive Canada nothing but the best can continue to be sufficient.

The question thus arose: How could these better school advantages be obtained? One of the men who first became interested in the matter was Sir William Macdonald, who promptly called to his assistance some expert educational advice. It was found, after careful investigation, that the average country school was inadequately equipped, indifferently attended, and none too well taught. A half-dozen of such schools, united, would make but one good-proportioned school, and probably a better managed one. If consolidation is desirable and profitable in business; why should it not be so in school management as well? Thus was developed the consolidated school system, which is now

in operation in a number of Canadian rural communities. The experiment thus far has been very successful and in its general plan and methods is adaptable to the average country district in any of our provinces.

In principle it is very much the same as consolidation of any kind. Three or four business firms combine to save expense of operation and to increase efficiency: a number of small school sections unite to support one main institution which, though it may increase expense, immeasurably increases the efficiency and thus gives better returns for the expenditure.

The experiment was begun something more than two years ago in Nova Scotia, the first consolidated school in Canada being established in a rich farming district with the town of Middleton as its centre. Four hundred pupils were quickly enrolled from an area of about eighty square miles. There had formerly been eight school sections within these limits, all of which now closed their school buildings and gave their support to the central institution. One consolidated school, with a staff of eleven teachers, thus took the place of eight small schools, with one or two teachers in each. By this centralization it has been made possible to specialize the instruction and to introduce such departments as manual training, nature study, and domestic science, which had not been within the reach of the old system.

There is a school garden in connection, and a kitchen department provides food for the noon-day lunch. Vegetables grown in the garden are used for this lunch, which comprises a bowl of soup and milk and bread for each child, at a cost of three



A GROUP OF WOMEN STUDENTS AT THE MACDONALD INSTITUTE, GUELPH

cents per head per meal. This is paid by the parents and meets the entire expense of providing the meals.

Perhaps the most novel part of the system is the way the pupils reach the school. The outlying portions of the district are from five to seven miles from the town, and the children from these and from all but the central section are brought to the school every morning in large vans, and in the same way taken home at night. Twelve of these vans, each carrying twenty-four children, are in charge of trusty drivers, and cover different routes converging from all sides to the school. The children like it. It is a novel way of going to school, and withal comfortable,



CONSOLIDATED SCHOOL AT GUELPH, ONTARIO

while it has had the effect of securing regular attendance. On only two or three days in the year are the waggous or sleighs unable to make their trips on account of the weather.

Similar schools are now in operation in New Brunswick,

Prince Edward Island and Ontario. For the latter province the centre chosen was Guelph, which has special advantages as the seat of the Ontario Agricultural College. The consolidated school was built on the college grounds and has the benefits of close

relation with the larger institution.

Since these schools owe their existence to the practical interest of Sir William Macdonald, who offered to defray the cost of the experiment for three years, they very rightly bear the name of Macdonald Consolidated Schools. It is the aim of Sir William and his efficient lieutenant, Professor Robertson, to have several hundred of these united and systematically organized schools established throughout the Dominion. The public are not yet unanimous in approval of the system, but wherever it has been adopted it has been a success.

The advantages of school consolidation may be summarized as follows: (1) The children are properly graded according to their several ages and abilities. (2) Each teacher has a particular class of work to do throughout the whole day. (3) The classes are uniform and are, therefore, enabled to accomplish much more in a given time. (4)

Specialists are provided in the different branches of the work. Vans are sent out for the children in the outlying districts and they are brought to the door dryshod. (6) The teacher in every instance is able to give more individual attention to the pupils than was possible under the system of several classes and several ages in the one room.

In a word, the farmer's children have been given the advantages of the high school.

As President Creelman, of the Outario Agricultural College, has pointed out, the system undoubtedly is, from a standpoint of dollars and cents, more expensive, for the first few years at least;

but the rural ratepayer has it to decide for himself whether he would rather pay five dollars more per year and secure for his boy or girl such increased benefits as the consolidated school can give, or leave them in the hands of an inexperienced girl-teacher who perhaps does her best in a little one-roomed school, without facilities of demonstration of any kind.

One of the most important features of these schools is the school garden, where practical farm science is taught in a practical way. Such gardens are not, however, confined to the consolidated schools but are now being kept in connection with a number of the more progressive district schools in various parts of the country. They are usually from two to three acres in area, divided into experimental and individual plots for each of the pupils, ranging in size from six feet square to six by ten or even twenty.

The general plan of laying out each garden involves (1) a belt of native trees and shrubs surrounding the grounds; (2) a halfacre playfield for the boys; (3) a lawn bordered with shade trees for the girls; (4) a

shaded walk each for boys and girls, about a hundred yards long; (5) an attractive approach to the school, consisting chiefly of a piece of open lawn, with shrubs and flowers on either side; (6) a snitable reservation for individual and class plots; (7) an

orchard plot or border; (8) a forest plot in which the chief native trees are grown from the seed.

The ordinary range of vegetables and a selection of flowering plants are grown in these gardens, the pupils themselves furnishing the necessary work. In the largest schools two hours each week are found sufficient for the garden work, and one hour in

the smaller, in both cases under the supervision of the teacher or a special instructor. The school garden serves a double purpose, since it not only provides the most practical form of nature study but acts as a valuable incentive in the general school work. It is no uncommon sight during the summer season to see a public school in session out-of-doors, not with slate and peneil but with hoe or shovel. The pupils thoroughly enjoy it. They are allowed the proceeds of their plots as their own property



A TYPICAL SCHOOL GARDEN

and in addition may take home the plants left over from thinning out. The class plots are reserved as a source of revenue for the school and as a supply, in some cases, for the school lunches. These larger plots are for experimental purposes and sometimes yield particularly fine crops. Not a few of the prizes at some of the county fairs have been won by the exhibits from school gardens.

An impetus to higher rural education of this kind is given by the agricultural colleges. The Ontario Agricultural College is one of the finest in the world, and in this too Sir William Macdonald is practically interested. Some three years ago he submitted plans to the Ontario Government for the establishment of courses of instruction in domestic science at the Guelph institutions, and for this purpose supplied funds of \$175,000. With this amount two handsome buildings were erected: the Macdonald Institute, where classes in home science, manual training, etc., are held, and the Women's Residence, where the women

students live while attending the classes. The country girl is to have the same advantages as her brother. Courses of study covering three months, a year and two years are provided, with the facilities of work-rooms and practical demonstrations. These classes have been largely attended from the first.

The agricultural school now being built at Montreal is to be an even larger institution and will embody some quite new departures in Canadian education. Nova Scotia has an agricul-

tural college well established and Manitoba has one nearly ready for opening.

Writing of the new methods in rural education, one of the leading Canadian professors says: "For several years there will be many decriers of the movement. Some will object on account of the additional expenses which may be necessary in some instances; some may laugh at the new 'fads and frills,' but the new movement is making rapid headway and the net result will be an improvement in the character of the teaching done in our schools."



F there is one belief which is general in these days amongst civilized peoples it is that knowledge is power. It is power to beat enemies in battle, to gain wealth in commercial competition—it ought to be power to live happier, fuller lives. With this thought in mind one turns with interest to statistics to see what Canada is doing in the educational battle. In 1891 there were over twenty out of every hundred Canadians over five years old who could not read, who to all intents and purposes were blind in the presence of printed knowledge. In 1901, after ten years of public education, there were only something over fourteen in every hundred of the same age thus handicapped in the race of life. The increase in literacy of non-infantile persons had been 6.5 per cent. Let us look at some of the provinces seperately. In 1891 far more than half the people in the North-West Territories could not read—the facilities for schooling being in many cases entirely non-existent. In 1901 a great improvement had taken place, nearly fifty-five persons out of every hundred being then classed as literate. (These figures include infants.) To-day the figures are better still and it is only a question of a few years until the West will show as high a percentage of educated men and women as Eastern Canada. The Province of

Quebee is often charged with illiteracy—how does this stand under the test of statistics? In 1891 there were a little more than twenty-six out of every hundred inhabitants, over five years of age, in the Province of Quebee, to whom the invention of printing meant nothing, who had no more ability to educate themselves than the rude English of Caxton's day. In 1901 there were only 15 who, having eyes, saw not. Ontario in that year could show the fewest people per hundred without the rudiments of acquired knowledge, there being but eighteen persons over five years of age unable to read the daily paper. Suppose we had the total population of Canada in a big field and divided them into groups of 10,000. There would be 583 groups to represent the population of 1901. Each of these groups would contain 7,535 persons able to read and 2,463 not able to read. These 2,463 could be divided into two sub-groups (a) children under five years of age, 1,196, (b) all others unable to read, 1,267. Similar groups (483) of 10,000 in 1891 would have 7,001 persons able to read and 2,999 not able, the latter being subdivided into (a) children under five years of age, 1,249, (b) all others, 1,750. During the past five years the number of illiterates all over Canada has still further decreased.



THE BUSY HARBOR FRONT OF OUR NATIONAL PORT-MONTREAL

THE YEAR'S TRADE

The Fine Record Of 1905

HE last ocean going steamship, the Lake Michigan, for the season of navigation of 1905, has now passed out of the Port of Montreal (on Nov. 30th—an unusually late date) and already the docks are commencing to assume their forsaken, winter appearance.

The season just closed must be regarded as one of the most successful in the history of the port. This statement is very significant, for, situated as Montreal is, during the season of navigation, at the neck of the Canadian bottle, the volume of its exports is a near indication of that of the whole country. There is evidence, enough and to spare, irrespective of that afforded by this port, of Canada's progress during the year now drawing to a close; but more of that later. Meantime, a comparison of the shipments through Montreal during the entire season of navigation of 1904, with those, not yet fully compiled, for the present season, but brought up to Nov. 25, is unusually satisfactory. The figures immediately following the name of the product show the quantity shipped during the season of 1904, those mentioned secondly being the quantity shipped this season, up to the date specified above:

	1904.	1905.
Wheat	7,507,266 bush.	8,583,000 bush.
Corn	3,721,000 "	5,866,000 "
Oats	, ,	2,506,000 ''
Barley	816,882 ''	2,137,000 ''

	1904	1905
Rye	2,105 bush.	121,000 bush.
Buckwheat	113,000 "	44,000 ''
Flour	840,000 brls.	448,000 brls.
Meal	125,000 "	43,500 ''
Eggs	80,000 cases	56,000 cases
Butter	485,458 pkgs.	554,241 pkgs.
Cheese	2,112,398 bxs.	2,119,920 bxs.
Meats, etc	221,000 pkgs.	311,000 pkgs.
Lard	417,000 brls.	407,000 brls.
Apples	348,000 ''	408,878 ''
Cattle	112,611 head	118,296 head
Sheep	48,075 "	21,085 "
Horses	315 "	626 ''

The above are the principal exports and are mostly taken from the Board of Trade returns. Although all the shipments for this season have not yet been included, in most instances they already largely exceed those of last season.

Of these shipments those of most importance to Eastern Canada are probably butter and cheese. It is most gratifying to find that not only are the shipments of these, this season, largely ahead of those of last season, but the average price, per pound, has been much greater. Last season the average price per pound of cheese was in the vicinity of 8c, making the total sum paid to factorymen to amount to about \$13,519,347, while this season the average price has been in the vicinity of 10½c, making

Resources

a total of about \$17,383,344, or, in round figures, \$3,850,000 more. This is fully 25 per cent. more than last season. For butter, there was paid last season an average of around 181/4c per lb., or a total of \$4,961,339, while, this season, there was paid an average of about 21c, or \$6,517,874, an increase of \$1,550,000 in round figures—say 30 per cent. more.

It is not till the eye is turned to the great North West, however, that the real prosperity of the country can be guaged. Here has been raised a crop of wheat which has heretofore never been approached in Canada. Final estimates cannot yet be given, but 90,000,000 bushels has been frequently mentioned as the probable crop. Even if we say 85,000,000, we have still 25,000,000 or 30,000,000 more than in 1904. This, and the other large crops of grain in the new country, estimated at 66,000,000 bushels oats, 13,000,000 bushels barley, and 467,000 flax, have literally choked the transportation facilities. Cargoes of 350,000 have been shipped out of Fort William, and every railway car and every inland vessel, as well as every bushel of elevator capacity, have been requisitioned without satisfying the trade. So neglected have the local grain men, particularly of Ontario, as well as the milling industries, felt, that the Railway Commission was called upon to look into the matter. Grain men in Montreal have stated that they have had to wait a month and more on a few cars of grain from about 500 miles away. Yet both the large railways have been doing their utmost to keep the freight moving and each has moved enormously more than ever before during the corresponding period. The ranches of the West have also sent out 70,000 head of cattle, 50,000 being for export, this season, and the East, mainly Ontario, has shipped out 408,878 barrels of apples, or about 60,000 more than last season. The price received for the apples has been high, in the main, that for cattle being only fair. Crop reports issued by both Ontario and Quebec Governments also lend their testimony to the general prosperity of the country.

This enormous freight movement, together with the marketing of the crops, and other commercial transactions, naturally called for a large amount of cash, and we find that the bank notes in circulation at one time in October exceeded \$75,000,000, and came within about \$5,000,000 of the legal limit.

It is worthy of remark that the number of ships and the total tonnage, visiting the Port of Montreal, this season, was larger than ever before, there being 833 ships, with a tonnage of 1,940,000, against 796 ships and 1,853,853 in 1904.

During the past year the industries of Canada have thrived as never before. The improvement has been particularly noticeable in textiles and in iron and steel. The amalgamation of the various cotton mills under one management has apparently accomplished its object, in more economical operation. The amalgamation is thoroughly awake to the advantages to be obtained from a thorough control of the output, and many efforts

have been made, and probably are still being made, to induce the only successful independent company to join the combination. Whatever the cause, the cotton industry in Canada is certainly flourishing; and the mills are kept busy supplying the needs of the country. Although the same cannot be said of the cloth mills, the situation is certainly more promising than it has been for a long time past. It is claimed that it is next thing to impossible to operate these mills successfully at the present state of the development of the country. This may be true, but it is worthy of note that there are several mills now operating which have been paying good dividends, and that some of the less successful mills have lately been reported to be doing well. As to the knitting mills, they are as busy as they can be and are turning out goods which defy competition from any other country.

The iron and steel industries are also booming. The steel rail mills of the Dominion Iron and Steel Co. and the Lake Superior Corporation are employed to their full capacity and have more work ahead than they can attend to for months to come—possibly for years to come.

The machine shops are also employed to their full capacity, the Angus shops, the Canada Car Co., Locomotive Co., and in fact every other institution of this nature being employed to its full capacity.

The rail mills were naturally not enthusiastic over the action of the Government—which, however, may have been more or less anticipated—in passing an Order-in-Council, during the summer, by which the bounty of \$3 per ton was cancelled. As the two rail mills were at the time turning out about 850 tons per day, between them, their profits would be considerably affected. It may be remarked, however, that the Government never intended that this bounty should be paid, and it was due to a technical error that the mills were ever able to claim it.

Another bounty which has recently been lowered is that on lead. This was reduced to 22½c per 100 lbs., from 75c, in accordance with the provision that the bounty should decline in certain proportion as the selling price of pig lead, in London, rose above £12 10s per ton.

Other important trade occurrences of the year were the sitting of the Tariff Commission, not yet completed, the commencement of the exposure regarding the alleged trusts, the opposition from all over the country to the Quebec Commercial Travellers' Tax, and last, but not least, the beginning of the Grand Trunk Pacific. The construction of this transcontinental line, alone, assures industrial activity in Canada for years to come, and when to this is added the extensions to the other large roads and the expansion which must naturally take place in numberless other directions, the conviction is thrust home that Canada starts fair to become the country of the twentieth century.



EVERYTHING in Canada is big. The old provinces are enormous. Quebec is ten times as big as Indiana. Ontario, just over the way above the Great Lakes, is bigger than France or Germany. It is bigger than all New England, with the addition of New York, Pennsylvania and Virginia. Manitoba is about as large as Missouri, and, the Canadians claim, almost as rich. The new provinces of Saskatchewan and Alberta, which have just been created, are empires in themselves. Each of them has an area something like that of France or Germany, and parts of them will raise more wheat than either of those

countries. They are crossed by the Canadian Pacific Railway, and other railroads will soon open up their northern sections. Those provinces are being rapidly colonized by American farmers, and I am told that an American Canada is growing up right across the border. British Columbia, the mighty province of the far west, is another empire through which the new railroads will go. Its western portion has a climate somewhat like that of Washington or Oregon, and the mountains are said to be rich in gold, copper and other minerals.—Fredk, G. Carpenter in Chicago Record-Herald.

WHALING IN THE ST. LAWRENCE

THE IMMENSE HEAD OF ONE OF THE WHALES CAUGHT IN THE

ST, LAWRENCE, SHOWING THE WHALEBONE

PROBABLY many of our readers are not aware that whales abound in the St. Lawrence river many miles inland of Anticosti island. A correspondent sends us the following interesting account of successful whale fishing off Seven Islands' Bay, which will be found marked on any large map of the Province of Quebec: "In Kelly's Cove, on the west side of this bay, are situated the reduction works of the Quebec Steam Whaling Company. These works are capable of reducing to oil, fertilizer and bone two whales a day. A steamer, built in Nor-

way, with a Norwegian crew of experts, goes outside the bay and returns-so plentiful are the great fish-in three or four hours with a whale. The steamer gets up to within 30 or 40 feet of a whale and from a cannon fixed on a pivot in the bow fires a harpoon into the whale. To the shank of the harpoon is attached a short length of Manilla rope which lies nicely coiled in front of and below the cannon. This piece of rope pays out smoothly, and to its inner end is attached a very pliable steel rope which is coiled round double cones on a powerful steam winch. The head of the harpoon is of cast iron, screwed on to the steel body of the harpoon, and at the first pull of the line a percussion cap is fired in the charge of powder with which the cast iron head is loaded, bursting the head of and killing the whale, which is then hauled alongside,

made fast, and towed to the works. The body is hauled up an incline of heavy plank, the blubber stripped off and the tongue

cut out, these being cut up fine and boiled in waterjacketed kettles, and the oil-No. 1 Whale - is then taken off. The body is cut up and steam boiled thoroughly in wooden vats, the little oil that is in the body being taken of in the form of No. 2 whale oil. and the bones taken out. The residue is put through a dryer and comes out in the form of a dry brown powder which is used as guano, the bones

going to make bone

and the 12th of October, only one being lost.

Newfoundland, that great natural breakwater at the mouth of the St. Lawrence, has long been the seat of the whaling industry. Judge Prowse in his excellent "Guide to Newfoundland says: "A very successful whale-fishery was carried on in Newfoundland over half a century ago. The fish were captured from the shore in whaleboats. Our fishermen were very bold and expert whalemen. Owing to the failure of the 'right' whale the business came to an end about 1850. The revival of the industry is due to the invention of a harpoon-gun by a Norwegian seaman. This kills the whale on nearly all occasions, and does away with the old dangers and difficulties attendant on this

of those who know these waters that a dozen whales could be

caught if the work could handle them." Although operations

only commenced this June, 68 whales were caught between then

wegian seaman. This kills the whale on nearly all occasions, and does away with the old dangers and difficulties attendant on this perilous business. The pioneers in this industry in Newfoundland were the late Adolph Nielsen and the Hon. A. W. Harvey, and their first factory was erected by the Newfoundland Steam Whaling Co., Limited, at Reubens Harbor, and another at Rose à Rue. Others followed, and there are now fourteen in operation and others building. The capital invested represents

\$750,000. Professor Rismuller, by

his patent process, manufactures the

carcasses into a fine guano, and utilises all the bye-products, thus adding over \$100,000 to this industry.

Far away, north of the apex of the Labrador triangle, at the settlement of Blacklead in the Cumberland Gulf, in the bleak, lone land marked Cumberland in the vast ex panse of Baffin's land, there is another whaling settlement of which the world knows little. In Mr. A. P. Low's report to the Dominion Government on the ex-Neptune to these northerly parts in



pedition of the SS. FULL CARCASE OF WHALE CAUGHT OFF SEVEN

Neptune to these
ISLANDS BAY, SHOWING EXTENT AS COMPARED WITH AN AVERAGE-SIZED MAN.

1903 there is this account of the isolated Blacklead station. "The settlement, consisting of some dozen small buildings, is situated



BARRELS OF WHALE OIL WAITING TO BE SHIPPED FROM KELLY'S COVE, SEVEN ISLANDS' BAY. TWO KINDS OF WHALE OIL ARE MADE, NO. 1 AND NO. 2.

black for the sugar refiners. Nothing is lost. It is the opinion

Resources II

on a high, barren, rocky island, about five miles from the mainland. There is a fairly safe anchorage, protected by reefs, in a small bay, at the south-east end. The settlement consists of a small whaling and trading post, belonging to Noble Bros., of Dundee, Scotland, and is the headquarters of the Church Mission Society on Cumberland gulf.

"The whale fishery is earried on at Cumberland gulf in whale boats manned by Eskimos, who are employed by the whalers for that purpose at Blacklead and Kikkerton stations. Each boat has a crew of five natives. The fishery starts about the 1st of October and continues until the gulf freezes solid, generally in December. It is renewed again as soon as the ice be-

gins to move, which is usually in February or the beginning of March. The fishery is not very profitable as whales are not taken every year. Happily for the natives, two whales were captured in the spring of 1903, and later 3,000 seals were killed; this has put new life into the trade and has prevented the abandonment of the station, which had been seriously contemplated. There are about 450 persons of Eskimo blood living about Cumberland gulf, and all are more or less dependent on the whaling stations for a living; so were the stations abandoned there would be great hardship among them, and a number would probably perish if outside help were not afforded. Two rivers on the north side of the gulf and one at its head are well stocked with salmon."



ABOUT PEOPLE

N the Hon. J. C. McCorkill, Treasurer of the Province of Quebec, the Northern hinterland, or the New Quebec, as it is sometimes called, has found a warm friend and able advocate. He has visited several sections of the North country

and what he has seen has convinced him that in its latent resources it possesses the means of sustaining a large and a prosperous population. Quebee will grow northward, and by so doing not only extend her own inhabited area but deepen Canada at a place where greater depth is most required. Mr. McCorkill is qualified to form a pretty fair estimate of the agricultural possibilities of any part of Eastern Canada. He was born in the country, practically all of his public career has been passed there, and he is the owner of considerable farm property situated in the County of Missisquoi, not far from his native place, the town of Farnham.

From the country academy Mr. McCorkill passed to the McGill Normal School, Montreal, from which he graduated as a teacher, and for a time was employed in the schools of that city. He completed his education at McGill University, taking the degree of he practised his profession for several years in

Montreal, and while he was making his way at the Bar he was also becoming known and making himself felt in the field of politics, in which he advocated with energy the cause of the Liberal party. That cause was then almost a forlorn one, for its opponents were most securely entrenched both at Ottawa and at Quebec.

When the general provincial election came on in 1886, the Liberals of his native county, Missisquoi, offered Mr. McCorkill their leadership in an uphill fight. He accepted but was defeated by a majority of 105. Owing to the election being annulled by the court there was another contest two years later, but again Mr. McCorkill was at the foot of the poll, but this time the majority was only 91.

The future treasurer had to bide his time, and having taken up his residence at Cowansville, near the chef-lieu of the District of Bedford, he devoted himself to the duties of his profession. The turning of the tide came in 1897. At the general elections of May of that year the Liberals swept the Province and Mr. Me-Corkill carried Missisquoi by a majority of over 400, being the largest ever secured by a Liberal in that county.

In 1898 he resigned from the Assembly and was appointed

Legislative Conneillor for the District of Bedford, and he continued to sit in the Upper Chamber until 1904, when shortly after the death of the Hon. H. T. Duffy, Provincial Treasurer, he was appointed to the vacant portfolio and was elected to the Assembly for Brome, the constituency that the Hon. S. A. Fisher represents in the House of Commons.

In comparison with the other portfolios of the Executive of the Province of Quebec, that of treasurer is a difficult one to fill. The other departments spend while that of treasurer must provide; and it is harder to get than to spend. And besides it has usually been an exceedingly difficult task to make the getting and the spending balance in Quebec. It is somewhat remarkable that this task has generally been assigned to a representative of the English-speaking minority. During the 38 years that have passed since Confederation fifteen different men have occupied the posi-Bachelor of Civil Law. Admitted to the Bar Treasurer of the province of Quebec tion of Provincial Treasurer, of whom eleven were minority representatives. Of the fifteen,

five are still living, but only one holds a seat in the Legislature, namely, the Hon. J. C. McCorkill. During the past few months Mr. McCorkill has been much in the public eye by reason of the tax imposed by his Government upon outside commercial travellers and upon transactions on the Stock Exchange.

Ability to speak well both in English and French is essential to success in public life in the Province of Quebec, and this Mr. McCorkill possesses in a high degree. He began public speaking early in life, and practice and study, coupled with natural aptitude, have made him one of the most effective platform orators and readiest debaters in the provincial field.

His public career as well as his private life as an advocate and a citizen have been honorable and frank. Although he has been through many a hard fought political battle and has never spared his enemies, he has always fought in the open, winning not only the admiration and devotion of his political friends, but the respect of his opponents.



HON. I. C. MCCORKILL

OUR POINT OF VIEW

T was in the month of June, 1903, that the first issue of RESOURCES came into the world and it has been our custom on each anniversary of our birthday to tell our readers something of the progress and prospects of the magazine. In June, 1904, when RESOURCES was entering upon its second year the following editorial remark appeared under the heading "Our Point of View":

"RESOURCES from its first number has aimed at being a national magazine. Our point of view has been and is that of the whole Dominion, not of any province or party within it. It is our boast that we are not under obligation to any single person or corporation or party. And being independent we will speak out fully in the general interest. The measure of success with which we have met during our first year makes us confident that there is a place for RESOURCES. It is to the Canadian people that we look for support—for it is Canada as a nation that we wish to serve."

This was at the end of our first year,

In June, 1905, when our second year of existence had been completed we were able to report progress and possibilities even more gratifying. From our editorial column of that month's issue we take the following:

"In June, 1903, without advertisement and with a capital sum of which by far the largest part was made up of faith in the usefulness of such a paper to Canada, a modest sheet was published, unillustrated and of crude make-up After five months of life the support received had been sufficiently encourage ing to lead to the introduction of illustrations. From the beginning the people of Canada had been generous in their appreciation and by June, 1904, a subscription list representative of Canada from the Atlantic to the Pacific had become a valuable asset and augury of success. During the past twelve months "RESOURCES" has doubled its circulation and obtained readers all over Great Britain and the United States, and as far afield as Australia and Cape Colony. The opening of a London office has enabled us to get our paper amongst the class of people who are interested in Canada either as a field for capital or as a home. . . . During the coming year we hope to improve the magazine greatly. It is only once a twelvemonth that we allow ourselves to speak of ourselves, and we would take this opportunity to thank our thousands of readers and well-wishers for their support and sympathy."

When these latter words were written, five months ago, it was our hope and expectation that in June, 1906, we might be able to record their fulfilment. But events have moved more quickly than we anticipated. We have spoken above of the spread of our Canadian readers from Atlantic to Pacific and of the great increase in circulation outside Canada. Now almost from the first issue of RESOURCES we perceived a desire upon the part of our readers for what we might term a supplementary feature to RESOURSES, viz., some fuller account of the life of the country within which these boundless resources were contained. Our "Bureau of Information" has shown how general was this desire on the part of our readers outside Canada. And it will easily be believed that to our Canadian readers the introduction of an illustrated picture, month by month, of Canadian life in its varied aspects would prove very acceptable. We were fully conscious of this desire but one important consideration prevented us putting it into force. RESOURCES has had a very successful but a strenuous career. We have had no hidden stores of wealth to draw from-the capitalists who wanted subservient organs found RESOURCES of little use to them and passed us by -the politicians knew our attitude of independence and their campaign coffers were not drawn upon by us. We have had to win out as a publication pure and simple. And we have done it. To-day we can make these improvements out of our own finances. The January issue will, therefore, see important new

features in Resources. The wider sphere which lies before us necessitates a change in our title. Henceforth the magazine you have known and so generously supported as Resources will appear as CANADIAN LIFE AND RESOURCES. The new title explains itself. We shall endeavor to live up to it by presenting month by month, not only as heretofore an illustrated description of the immense resources of Canada and the opportunities for the employment of capital and labor, but also in addition a picture of the surroundings in which these resources are situated and of the kind of people amongst whom this capital and labor will be invested. Our object it will be conceded is ambitious and we do not expect to carry it out to our satisfaction immediately. We shall go slowly. The success of RESOURCES is the record of steady growth, step by step-not a great plunge and then a drawback. The course of Canadian Life and Resources will be along exactly the same lines. Above all the independent, national policy which has been the bed-rock of our upbuilding will be rigidly adhered to. To our old readers who have been so firm in their allegiance to the paper—we may say that 73 per cent. renew their subscriptions—we know these improvements will be welcome. To the reading public generally we would only say "Give us a trial."

N

N our October issue we gave some statistics showing the world's total production of wheat, the six countries which during the last few years have grown the largest crop of that cereal and also the quantity of it imported by Great Britain. The surprise of these figures appears to have been contained in the size of the crops grown by some of the old-world countries. Most people are familiar with the United States, Russia and India as enormous wheat producers, but only those conversant with the close cultivation of France, Italy and Hungary were prepared for the relatively heavy crops grown by these comparatively small countries. France in 1903 grew 336 million bushels of wheat, Hungary 173 million bushels and Italy 160 million bushels. Canada in the same year produced nearly 82 million bushels. But the country which is, perhaps, of most interest to Canadians as a wheat producer—because conditions there are most nearly analogous to those of the Dominion—is the Argentine Republic. The development of this vast country, with an area computed at 1,319,247 square miles (the area of France is only 204,082 miles) of which, however, not much more than half is organized or settled, and a population in 1900 of 4,794,149 people, has been even more rapid than our own. There is a broad similarity between the vast plains or pampas of the Argentine and the prairies of our own West. The following figures will give an idea of the progress of the Argentine and Canada as wheat growers:

 1900
 1901
 1902
 1903

 Bushels.
 Bushels.
 Bushels.
 Bushels.

 Argentine Republic
 68,000,000
 56,000,000
 100,000,000
 128,000,000

 Canada
 51,183,000
 88,620,000
 96,884,000
 81,810,000

Between 1856-92 1,355,000 immigrants entered the country direct from Europe, of whom 60 per cent. were Italians, 18 per cent. Spaniards, 10 per cent. French and 2.3 per cent. British. The one drawback to the commercial expansion of this great South American Republic has been the instability of the Government—revolutions up to within a very short period having been far more common there than general elections with us. It is, of course, British capital which has been the chief factor in developing the

country and when one considers the obstacles in the form of language, unstable rule and climate which had to be contended with, the well-nigh phenomenal growth of the commerce of the Argentine is a striking tribute to the energy and enterprise of

modern Great Britain.

THE trade between Canada and the Argentine is not, as yet, of great volume. In 1904 that country imported from us goods to the value of \$1,-119,317. It is of interest

Diagram illustrating Canada's ability as a wheat producer. The whole of the squares represent the available wheat area. The shaded square represents the area—II 1-2 million acres—required to grow 200,000,000 bushels of wheat.

to see which of the resources of Canada have found an entrance into the markets of this growing South-world republic. The Argentine took in the year mentioned from out our forest wealth \$862,296 in the form of planks and boards, \$28,791 in joists and scantlings and \$57,346 of other wood and the manufactures of it. Of our unrivalled agricultural implements we sent to the far-flung pampas \$138,283 and in this branch we think there is a field for

the enterprise of our manufacturers; paper to the value of \$8,428 and wine and spirits worth \$2,400 also went down South, and of other metals, minerals and manufactured articles of the same, we disposed of \$5,232. In return the Argentine sent us \$498,915 worth of the products of their main industry, the pasturage of live stock, in the shape of hides and skins \$435,-629 and wool \$60,556. The mineral resources of the country are comparatively undeveloped. The country in general enjoys an equable, temperate and healthy climate. The people of the country are mostly Spanish in their language and descent, but as we have said there are many Italian, French and other European immigrants. Buenos Ayres, "the Paris of the Southern hemisphere," with a population of just about a million, is the capital of the country and one of the most progressive and beautiful eities in the world.

ITHERTO British capitalists have fought somewhat shy of Canada as a field for investment but this phase is fast passing away. No country in the world has scored a greater advance in reputation amongst the financial and commercial circles of Great Britain during the last two or three years than Canada. And it is not alone the solid achievement of the past decade but the far more brilliant promise of the future which is

tempting the capitalists of London, New York, Paris and Berlin main arteries of traffic to the seaboard. to place money here. Only those who have been in the West and have left the railway track can realize the comparatively small area of the country which has even now been reclaimed from its virgin state. Human memories are short-particularly

for statistics—so we make no apologies for reproducing here a simple diagram by means of which Mr. George Johnson, the statistician for the Dominion Government, endeavored to convey an idea of the immensity of the wheat area of Canada. There

are 67 squares in the above diagram and each square represents 111/2 million acres of land or a sufficient area to grow 200,000,000 bushels of wheat (which is the amount Mr. Johnson reekons as required from outside sources by Great Britain each year.) The

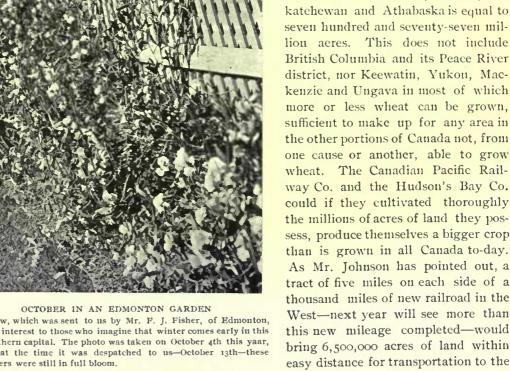
whole of the 67 squares represent something less than the total area in Canada eapable of producing wheat, viz., 770,500,000 acres. It is well-known that even in this bumper year we have not produced much more than half of the 200,000,000 bushel erop necessary for Great Britain's needs. Conservative experts reekon that if the present rate of immigration continues and by all tokens it will increase, Canada ought to produce a 200,000,000

bushel erop inside of ten years from now. When this result is achieved Canada will still have, according to her most distinguished statistician, 66 times as much land still available as was

necessary to grow this crop.

THE land area of the three provinces of Quebee, Ontario and Manitoba and what-under the old divisions in the North-West previous to the creation of the two new provinces of Alberta and Saskatchewan-were the four southerly territories of Assiniboia, Alberta, Saskatehewan and Athabaska is equal to seven hundred and seventy-seven million aeres. This does not include British Columbia and its Peace River district, nor Keewatin, Yukon, Mackenzie and Ungava in most of which more or less wheat can be grown, sufficient to make up for any area in the other portions of Canada not, from one cause or another, able to grow wheat. The Canadian Pacific Railway Co. and the Hudson's Bay Co. could if they cultivated thoroughly the millions of acres of land they possess, produce themselves a bigger crop than is grown in all Canada to-day. As Mr. Johnson has pointed out, a tract of five miles on each side of a thousand miles of new railroad in the West-next year will see more than this new mileage completed-would bring 6,500,000 acres of land within

OCTOBER IN AN EDMONTON GARDEN This view, which was sent to us by Mr. F. J. Fisher, of Edmonton, is of interest to those who imagine that winter comes early in this Northern capital. The photo was taken on October 4th this yaar, but at the time it was despatched to us-October 13th-these flowers were still in full bloom



HINGS seen are mightier than things heard, and it is only those who have been through the West, who have seen how small a part of its vastness has been won over even

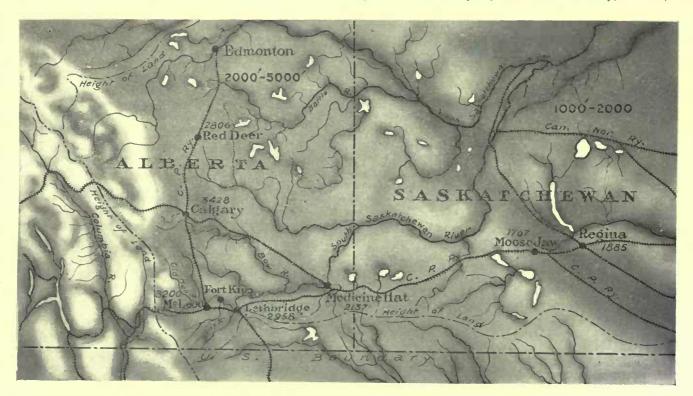
by the wonderful progress of the past two or three years—it is only the intelligent men who have measured up the size of things Canadian by comparison with some standard which they know thoroughly in their own path in life-that the meaning of these figures we have set out can be understood. The progress of Canada up to the present has been great, but it is as a drop in _occurred in Illinois, Wisconsin and Iowa. And the President of the ocean to the possibilities which lie before us.

HE idea which we outlined in our last issue that in the West of Canada is about to be witnessed a repetition of the development and growth of the Western United States is gaining ground. Sir Thomas Shaughnessy in a recent interview said that the same rise in values will take place in Western Canada as the C. P. R. knowing both countries is a reliable prophet.



GENERAL NOTES

T is our intention in a coming issue to devote an article to the great irrigation project which has been carried out in the Lethbridge district of Southern Alberta by what is now known as the Alberta Railway and Irrigation Company. As our readers are aware the Canadian Pacific Railway is also now engaged upon an irrigation scheme of vast proportions near Calgary, some photographs of work upon which we published in our November issue, and at a later date we hope to give some account the Bow both lose themselves in the South Saskatchewan, which moves on a great bend northeastward until it receives the Red Deer river that drains a great part of Central Alberta. These particulars are specified solely to establish a basis for indicating the irrigation proposition in this province. Macleod is about 3,200 feet above sea level; Calgary, on Bow River, about 100 miles north and 30 west of Macleod, is about 3,428 feet in altitude; Red Deer, 123 miles nearly due north of Calgary, is of 2,806 feet altitude. Now, Medicine Hat, on the South Saskatchewan, about 160 miles east of a straight line drawn between Macleod and Calgary, is but 2,137 feet in altitude. These figures indicate the rapidity with which the Belly, the Bow, and the Red



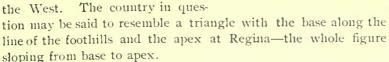
THIS MAP, SHOWING THE ALTITUDES IN THE SOUTHERN PART OF THE WEST, WILL ENPLAIN THE POSSIBILITY OF A LARGE PART OF THIS COUNTRY BEING AVAILABLE FOR IRRIGATION

of this important project too. Meantime, as a preliminary to the clearer understanding of these particular irrigation schemes and also to some comprehension of the possibilities for the extension of this system to far greater areas, we quote the following extract from a recent article by that vivid writer, Mr. E. W. Thomson, whose descriptions of Western progress and possibilities are amongst the most interesting that we ever see:

" Macleod, formerly headquarters of the North-West Mounted Police, and still occupied by a considerable force, is about 3,200 feet above sea level. It is a gravelly place of some 800 people, on the Old Man river, a tributary of the Belly, which it joins at Fort Kipp, about 17 miles slightly north of east from here, as the crow flies. which he does not seem to do often in this region. The Belly flows rapidly on through or near Lethbridge, 26 miles straight east, thence to a junction with the Bow river at the Grand Forks, some 55 miles east and 17 miles north of Lethbridge. There the Belly and Deer systems descend on their eastward courses. The fall from Macleod is more than 1,000 feet in 160 miles easting of the Old Man water. The Bow river water, after passing Calgary, descends more than 1,200 feet in the same easting; the Red Deer similarly falls some 640 feet. As the waters descend so, speaking by and large, does the plateau fall eastward. Hence, by leading the high level water through canals gradually up to the neighboring plateau levels, it is established quickly in channels so high above the more easterly and lower plateau, that it can be distributed over the latter in subsidiary canals and lateral ditches. This is being done on a great scale about Lethbridge and about Calgary, to say nothing of minor irrigation works. It is believed by the irrigation engineers that the South Saskatchewan can be largely diverted over the neighboring plateau as far eastward as Regina, 500 miles east of Calgary, with the effect of highly fertilizing much country now too arid for cultivation. No close approximation to the area that would thus be brought under the plough can be made in the present lack of thorough contour or topographical surveys, a work urgently requiring attention by the Dominion government."

Railway and Irrigation Company, who knows the country described as well as any living man, and was the engineer for the Lethbridge irrigation scheme considers even the enormous Saskatchewan as a possible supply of water for irrigation. He be-

lieves that this river can be spread by canals and ditches over thousands of square miles of country now occasionally arid. He considers the Dominion Government should at once enquire into this idea and make elaborate contour maps of the whole district so as to furnish irrigation engineers with reliable data. If Mr. Magrath is right Alberta and Saskatchewan stand to become incomparably richer than even their enthusiastic inhabitants now dream. The accompanying map which is part of a large relief map made by that eminent geographer, Mr. James White, will show at a glance the various altitudes of this part of



VISITORS from the West relate stories which to the Easterner seem almost beyond belief of the development that is taking place in the country beyond Lake Superior, but in the opinion of a prominent Westerner who was a visitor to Montreal recently, the most astonishing feature in the development of the West was the growth of winter wheat. Two years ago the yield was only 80,000 bushels, while the yield for the present year exceeded 2,000,000 bushels, an increase of 2,400 per cent. An increase of 100 per cent. per annum, he pointed out, would mean a crop of 64,000,000 bushels in 1910. There were good reasons, he said, for believing that winter wheat could be grown over practically the whole tillable area in Alberta, over at least two-thirds of the tillable area in Saskatchewan, and over at least one-third of the tillable area in Manitoba; that was the portion lying northward. An Empire was thus furnished for the growth of winter wheat in a region where half a dozen years ago its successful growth was looked upon as an im-

possibility. He stated that men had persisted in saying that this section and that would never be anything, but a ranching country, and while the echoes of their statements might linger, men were coming in and breaking up the ranch and growing crops. The only permanent ranching country in the West were portions that were underlaid with gravel, or that consisted of sandy soil. The other areas were going to be tilled, he

declared, even in the dry sections.

He thought that Professor Shaw was quite within the mark when, in an interview a short time since, he declared that the first foot of soil in Manitoba, Saskatchewan and Alberta was

R. MAGRATH, the Land Commissioner for the Alberta worth more than all the mines in the mountains from Alaska to Mexico, and more than all the forests from the United States boundary to the Arctic Sea, vast as those were. The Empire's greatest asset was the soil of those three provinces.



HERD OF CATTLE GRAZING ON IRRIGATED LAND NEAR LETH-BRIDGE, ALBERTA. THE IRRIGATION CANAL CAN BE SEEN IN THE MIDDLE OF THE PICTURE

N connection with what we wrote last month in "Our Point of View" about the value of C.P.R. and Hudson's Bay stock, the following letter from Mr. Jefferson Levy, which appeared recently in the Montreal Star, is of interest:

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"Sir,—I am quite pleased that your paper takes notice of my appreciation of the Canadian Pacific and Hudson's Bay shares, as I think they are the backbone of the prosperity of Canada. The Canadian Pacific Railroad, I feel confident, will, in the near future, advance away beyond the expectations of the present holders, first,

tion may be said to resemble a triangle with the base along the on account of its enormous land holdings; second, upon its enormous earning powers, and third, upon its splendid management.

> If we consider for one minute the situation of the Great Northern Railroad, controlled by Mr. Hill, which in no way has assets compared to the Canadian Pacific, with its rights selling at over \$300.00 a share, and Northern Pacific selling at over \$200.00 a share, I cannot help thinking that Canadian Pacific onght to sell for double the price of Great Northern.

> I feel quite confident that the citizens of Canada have no conception of the value of C. P. R. stock.

> There is a large holding at the present time in this country: I think some is controlled by the Boston and Maine Railroad interests

> The stock brokers and speculators in London are short, in my estimation, of the stock, but the investing public in England are continually absorbing it. Berlin and Vienna for the past six months have been buying considerable stock.

> As for Hudson's Bay, there is very little stock affoat in London. It has been absorbed in small amounts by the public, and a few hundred shares one way or the other affects the

> > quotations of the stock. The value of Hudson's Bay depends entirely upon the prosperity of Canada, which I consider limitless.

> > I have predicted that Hudson's Bay in the next five years will sell for \$2,500 a

> > I do not think my view is wrong, for if you consider the enormous holding of lands of the Hudson's Bay Company (in fact they do not know exactly how much they do own), and the holding of town lots in the different towns and

GRAIN TANKS IN CANADIAN NORTHERN ELEVATOR AT PORT ARTHUR

cities of the Northwest, which appreciate in value every day, and the extensive business which the company transacts, the present price is far below the intrinsic value of the stock.— Yours, with esteem, Jefferson M. Levy, 30 Pine St., New York."

FINANCIAL REVIEW

"There are few ways in which a man can be more innocently employed than in getting money."--Dr. Johnson.

F the objections urged against the Grand Trunk Pacific project the most forcible were those based on the great cost and doubtful prospects of the long stretch of line required to cover the territory between Winnipeg and Quebec city. A great deal of this territory was unknown, some of it was known to be barren and rocky. Opponents of the scheme declared that this part of the road would never pay and that losses

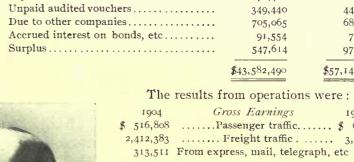
thus incurred would offset the profits admitted to be waiting for the more promising section—that running from Winnipeg westward across the rich prairies. More recent discoveries have shown that the unknown lands are full of resources which will undoubtedly yield wealth and produce traffic.

The most captious critic of the Canadian Northern Railway cannot urge against it that a large part of its mileage runs through doubtful or barren territory. The very reverse is true. The system has been built and developed almost exclusively in rich and profitable districts. Each section so far has become selfsupporting almost directly after it was built or acquired. All has not been easy sailing. Messrs. Mackenzie & Mann, the builders, did not have the Federal Government at their backs to guarantee them, subsidize them, and help them in other ways. What they have done has been accomplished chiefly by their own energy and determination, by their own knowledge, their own credit. They have had, to be sure, the backing of a powerful Canadian bank, but this would not have been theirs but for the fact that their past record had inspired the bank with the highest confidence in their ability and judgment. They have had to finance their cherished undertaking through bad weather as well as good. Money had to be raised during the troublous times of 1902-3, when the world's markets were all but closed to new capital flotations. That they succeeded in getting the necessary funds for

development and extension during this trying period is a great feather in their caps; it shows how favorably they are regarded in the big financial markets.

The annual report of the company for 1905 has just been issued. By comparing the figures with previous exhibits an excellent notion of the remarkable progress can be gathered. The balance sheet is as follows:

Assets	30th June, 1904.	30th June, 190
Cost of railway and equipment	\$40,339,489	\$53,533,853
Securities at cost	1,946,666	1,946,666
Material and supplies on hand	402,886	1,287,059
Due from agents and companies	893,449	374,816
	\$43,582,490	\$57,142,394
Liabititics		
Capital stock	\$25,750,000	\$30,750,000
4% Consolidated Debenture stock	1,946,666	4,866,666
Mortgage bonds	10,841,313	15,450,552



Car trust obligations

Pay rolls.....

1904 \$ 516,808	Gross EarningsPassenger traffic	1905 \$ 663,936
2,412,383	Freight traffic From express, mail, telegraph, e	3,061,530 etc 464,745
\$3,242,702	,,,	\$4,190,211
2,120,772	Less working expenses	2,644,729
\$1,121,930 805,528	Net earnings	1,545,482 1,128,779
\$ 316,402	Surplus	416,703

3,180,357

170,481

3,678,363

214,204

443,614

683,124

77,269

978,602

\$57,142,394

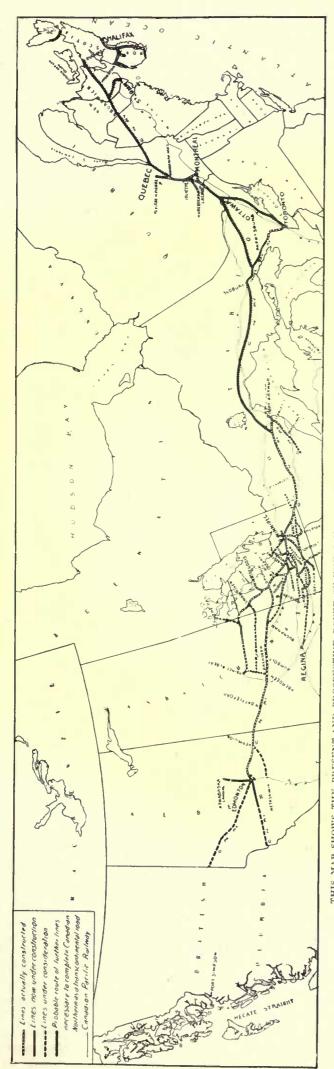
This is a very satisfactory showing. Gross earnings increased \$947,509, or 29.22 per cent; net earnings increased \$423,552, or 37.75 per cent. Operating expenses took up 63.12 per cent. of gross earnings, as compared with 65.40 per cent. last year, thus scoring a good reduction even after making allowance for the extra cost of operating last year on account of the severe winter.

An interesting paragraph in the president's address sheds some light on the prospects for the future. He says: "A careful inspection of the country adjacent to the lines referred to (to Edmonton and Prince Albert) has recently been made under the direction of your directors, and the report received not only sustains previous reports in respect to the high quality and extent of land from which your railway will draw profitable traffic when settled upon, but confirms the information that the number of settlers already located on lands tributary to the lines is very large, that they are of a superior class, and that the number is

increasing daily." One of the most fascinating problems about the Canadian Northern is the question of its future expansion. Important as are their achievements, it is well known that Messrs. Mackenzie & Mann have no mind to rest on their laurels. Their ambition is, according to good authority, to gradually expand and develop their system till they make it another great transcontinental line rivalling the Canadian Pacific and the Grand Trunk Pacific. Already construction is completed from Port Arthur to Edmonton, lines are proposed to the eastern borders of British Columbia, and it is only a question of time when the Pacific will be reached. In the East the problem is more difficult. But they have constructed a line from Toronto to Parry Sound on Georgian Bay, and construction is being pushed on to Sudbury, from whence connection is later on to be made with the main system in the West. Then in Quebec province, and in Nova Scotia, lines have been acquired, which, though isolated



Like so many wealthy Canadians, Mr. Mackenzie laid the foundation of his career as a contractor on the Canadian Pacific Railway when he was twenty-six years old. He joined Mr. Mann soon after and the young firm advancing step by step became the wealthiest private rail-road huilders in Canada, Besides his Canadian Northern interests Mr, Mackenzie is the princi pal shareholder in the Toronto, Montreal and Winnipeg Street Railway Companies and is also interested in railways in Cuba, street railways in England and waterworks companies in Brazil and Mexico.



AND MANN, HAVE JOINED ATLANTIC AND SE LINKS IN THE STERL CHAIN WILL BE SHVERAL LONG STRETCHES REMARKABLE MEN MESSRS, MACKENZIE RECORD STILL TO BE COVERED BEFORE THOSE QUIET, PERSISTENT, INAGINATIVE BUILDERS, MESSI PACIFIC WITH, WHAT WE MAY CALL, THE FIRST PRIVATE CANADIAN TRANSCONTINENTAL, SLOWLY BUT SURELY FORGED IS THE FIRM BELIEF OF THOSE WHO ARE FAMILIAR WITH THE CANADIAN AND PRESENT MAP SHOWS

as yet, will no doubt be duly brought into connection with the other links in the chain.

Here is a wonderful tale in the making. That it has been carried to its present length so successfully compels the admiration of Canadians. In thus forwarding their own interests through the construction of this system Messrs. Mackenzie & Mann have done a great work in assisting to build up the Dominion, a work which entitles them to mention along with the other great builders before them. The Canadian Northern as well as its two great rivals has the hearty good wishes of the people in this its growing hour.

1/4º

I T was recently announced by a high official of the Canadian Northern that the next link to be added to their transcontinental chain would be that section of the road between Port Arthur and Montreal. It is said that this line will probably be located between the Canadian Pacific and the Grand Trunk Pacific, so that when all these roads are completed the danger of grain blockades after harvest will have disappeared. The general feeling in Canada about the builders of this great pioneer road was well expressed the other day by the Montreal Herald, in an editorial comment upon the news that the last spike had been driven into the section of the Canadian Northern which united Edmonton with the rest of that system:

"William Mackenzie and Dan Mann have every right to feel proud of the work which was crowned the other day by the driving of a silver spike at Edmonton. Mackenzie and Mann are big men, or they would not have undertaken and succeeded at the work they have now carried to the completion of its first stage. It seems only the other day that the two men, in their quiet way, announced their intention of building a line direct from Winnipeg to Edmonton. There has not been much noise about it since, and now the work is done. A vast area has been opened up for settlement, another vast area, already sparsely settled, has been provided with facilities for the transportation of products. Incidentally, a road has been constructed from Winnipeg eastward to Lake Superior, where, at Port Arthur, their company is preparing to handle not only the wheat of the Edmonton district, but vast quantities of westward-moving coal and westward-moving iron ore. Such a work as that they have done entitles the partners to rank with the big railway strategists of our day. Their claim to that rank will be still further made manifest when later developments make evident, as they are bound to, the quality of the foresight they have displayed at Port Arthur, Winnipeg and Edmonton."

The coffers of this progressive company have lately been well replenished. Mr. Mackenzie during his recent visit to London superintended the issue of some six million dollars (£1,240,-000) worth of new stock in the form of 4 per cent. Perpetual Debentures. This will rank pari passu with the existing stock. The price of issue was 99 and the proceeds are to be applied to the general purposes of the company and more especially to the equipment and maintenance and extensions recently made or now in course of construction. In the prospectus announcing the issue-which we understand was well taken up-it was set out that the mileage in operation on June 30th, 1905, was 1,876 miles, which has since been increased to 2,099 miles. Followers of this stock may be interested to know that the trust deed provides that the total amount of debenture stock shall not exceed £2,000 per mile of line for the time being open and operated, and an amount not exceeding the cost price of securities of independent corporations from time to time deposited with the trustees, but the company cannot issue any debenture stock against such securities without the consent of the trustees.

NOTES OF THE WEST

AND

NEWFOUNDLAND

Some months ago we printed the interesting speculation of a correspondent to the Trade Review of St. John's, Newfoundland, upon the object of Mrs. Hubbard and Dillon Wallace in their reputedly rival expeditions into the interior of Labrador. Both travellers have been heard from during the past month. Mrs. Leonidas Hubbard, Jr., as to whose safety some alarming despatches were recently sent out from St. Johns, telegraphed on Nov. 8th, from Chateau Bay, Quebec, that she had been successful in her expedition into the interior of Labrador. On Nov. 21st. she arrived on the Steamship King Edward from Hamilton Inlet. A correspondent pictures her as a "frail, sorrowful looking woman, wearing a buckskin jacket, and emblems of mourning, and accompanied by a party of Indian guides."

"I have been to finish the work which my husband set out to do," she remarked to the newspaper representative who met the steamer upon its arrival, "and I have been quite successful."

George Elson, the Lake Superior Indian guide, who was with her husband on his fatal journey, was one of her attendants, and with the assistance of this man to point out the route taken in 1903, so far as the present expedition followed it, and the point where the trails diverge, it was not difficult to discover the secret of Hubbard's

verge, it was not diffi- haymarket square, st. johns, newfoundland—the capital of the oldest colony was fully crossed Labracult to discover the

THE STARTING AND RETURNING POINT FOR THESE EXPEDITIONS INTO THE

WILDS OF LABRADOR

WILDS OF LABRADOR

failure and subsequent death. He had not been aware of the fact that two large streams, instead of one, empty themselves into the head of Grand Lake, where both expeditions entered upon the unknown interior of the Labrador peninsula, and he, instead of ascending the Nascapes River, which would have led him to the great Lake Michikamow, of which he was in search, took, by mistake, the Susan River, which comes into the lake near the other and by a discharge which is much more plainly visible, and in scaling its difficult stream, pressed on into the heart of the inhospitable country in which he found his death.

She declined to talk of her journey, saying that she was going to sell the story of her experiences to the press of New York. Referring to the route she followed, she said she went to the northeast river, thence up to the Nascoupee to Michikamou, and from there to the height of land, reached the head of the George River, and went down it to Ungava Bay, her destination. The country was, very sparcely populated, and she met only two bands of Indians, who were encamped in tents. She would give

no further information about them. She saw game, but it was not plentiful. When asked about the gold, for which she was said to be hunting, she replied that there was absolutely no foundation for the report. Mrs. Hubbard claims that her journey has proved the cause of her husband's death to have been the false maps which he followed.

On Sept. 4th a telegram was received by Captain Whitney, New York, from St. John's, announcing that Dillon Wallace also was well and had penetrated the country where Leondas Hubbard, Jr., had lost his life. The despatch read:

LAKE MICMACAU, Sept. 4.—Proceeding with Easton to Ungava. Return in winter. Richards homeward bound, bearing letters. All well.—DILLON WALLACE.

This despatch was sent by James Richards, a member of Wallace's party who has returned to St. John's on his way to New York.

Mr. Whitney states that the party must have reached Ungava, and that if they are to return in winter they are probably now making the journey on snowshoes.

On November 22nd, letters were received at St. John's Newfoundland, from Dillon Wallace, which contained the news that he had successfully crossed Labrador, being therefore the first white man

who has ever crossed Labrador without either guides or Indian assistants. With the lawyer was his companion, named Easton. The letters said that both were well and had plenty of provisions when they reached the province of Ungava on October 16.

Although the most perilous part of the New York lawyer's trip is completed he still has before him a winter of travel by snowshoes before he reaches civilization. He and Mr. Easton, at the time when the letters were written, were planning to start westward through Ungava for the Georges River post and thence to reach Fort Chimo, which is one of the most northerly points on the mainland of North America. Here the two will wait until the coast waterways are frozen over. Then they intend to start southward toward Quebec on the frozen rivers, travelling with dog sleds and snowshoes. Mr. Wallace said that he expected to reach Quebec in April.

Dillon Wallace was with Hubbard on the expedition of 1903 and himself narrowly escaped perishing, and there have been stories that the widow blamed him for what she is said to

consider a desertion of her husband. For this reason, it is said, Mrs. Hubbard and Wallace, who came back and wrote a book, "The Lure of the Labrador Wild," are estranged. At any rate they set out last summer on separate expeditions into the same

country. On July 21st a report was received that his expedition was on Lake Nipposish, and that he had reported that Mrs. Hubbard's party had passed him and had taken another trail. Last August Indians came into an inland lumber camp and reported that Mrs. Hubbard's expedition was returning to the coast.

Of Wallace's party, which left the coast June 3rd last, James Richards and Peter Stevens, the former a student in the school of mines at Columbia, brought news to St. John recently. They report-

ed that the party had suffered for want of food. They left the expedition in September and had suffered severely on their return journey to the coast.

There ought to be some interesting reading when these travellers get back to their writing desks.

UR Lethbridge correspondent writes that conditions generally are very flourishing in that locality. The crops have been good, wheat yielding in some cases as much as 60 bushels to the acre. Alfalfa in particular has done splendidly. A great deal of land has been sold this year. One block of nearly 8,000 acres some six miles outside the town was taken up by a party of English capitalists in July and since then sales by the Alberta Railway and Irrigation Company, who own almost the whole of the land around, have been numerous. The price for their land to the individual settler which was \$15 an acre at the beginning of the year has been raised to \$20.

The first shipment of fall wheat left Lethbridge on August 12th. The first frost came on September 30th but the weather lately has been ideal and summer clothing was worn until late in October.

URING the past month much progress has been made in the building and planning of railways in the West. Work has been pushed ahead rapidly on the western route of the Grand Trunk Pacific. Mr. B. B. Kelliher, the Chief Engineer of the road, who recently returned from a horseback ride of nearly 800 miles, from Portage la Prairie to Edmonton, reported that Messrs. McMillan and McDonald were

pushing on their contract work, on the section from Portage la Prairie to Touchwood Hills with great despatch. From Saskatoon to Edmonton —a distance of 450 miles—little or no engineering difficulties will be encountered. The location of the section from Touchwood Hills to Edmonton is completed and approved, and in all probability tenders for the construction of the road will be

Whilst the Grand Trunk Pacific officials are laying their plans for getting the new transcontinental into

called for next month.

Alberta's capital, the Canadian Northern have been celebrating the entrance of their line into that progressive city. On Nov. 24th thousands of citizens braved the elements to go out and see the last spike—a silver one—driven into the track which directly unites them with Winnipeg and the East. Business places closed at noon for the celebration, and early in the afternoon thousands throughd the station grounds, crowded the platforms

and roof of the station building and cheered lustily as the steel gang laid the few remaining rods to the station, where Lieutenant-Governor Bulyea performed the official ceremony of driving the silver spike.

Eloquent tributes were paid to Messrs. Mackenzie and Mann for their energy and enterprise which had resulted in their successful termination of a great work. During the past nine years they have seen the railway track under their control grow from a short length of one hundred miles between Gladstone and Dauphin, built in 1898, into a vast system covering 2,500 miles. This work has been carried on in so systematic a manner and

has been so well planned that every section of the road has been made self-supporting practically as soon as it was turned over to the operating department. We have devoted our *I-inancial Review* this month to a survey of the latest balance sheet of this successful company—illustrating which is an up-to-date map of their lines built, building and under consideration. It was announced by a Montreal paper recently that the Canadian Northern



THE WORLD FAMOUS "CROW'S NEST" MOUNTAIN, SITUATED ON THE CROW'S NEST RAILWAY IN SOUTHERN ALBERTA, 16 MILES NORTH-WEST OF THE TOWN OF COLEMAN AND ABOUT 12 MILES STRAIGHT NORTH FROM A POINT ON THE CANADIAN PACIFIC RAILWAY KNOWN AS SENTINEL. IT HAS AN ELEVATION OF OVER 9,800 FEET WITH A MOST IMPOSING APPEARANCE AND CAN BE EASILY SEEN FOR MILES BEFORE ONE REACHES THE CROW'S NEST LAKE, INTO WHICH EMPTY THE WATERS FROM THE FAMOUS CAVE.



THE GENERAL HOSPITAL AT MEDICINE HAT, ONE OF THE FINEST HOSPITALS IN THE NORTH-WEST

will begin the construction early next summer of that section of their transcontinental line between Port Arthur and Montreal, and that within three years at least the commercial metropolis will be connected with the Saskatchewan river by three distinct railway systems, all of which, except about 60 miles, will be through Canadian territory.

Mr. William Mackenzie, President of the Canadian Northern, has cabled from London that the company's recent financial operation, by which they secured \$6,000,000, was quite satisfactory.

It is stated that a part of this money will be devoted to the section between Montreal and Port Arthur. Three years ago Messrs. Mackenzie and Mann put engineers in the field to make a preliminary survey of their contemplated line north of Lake Superior, and it is known that a great deal of valuable information was then obtained. Now it is announced that the Canadian Northern has again placed men in that section, and that the surveys are pretty well advanced. The work of construction will be commenced at several points next year.

A NY new information from a reliable source as to the conditions for navigation in Hudson's Bay receives close attention not only from the shipping and railroad inter-

ests in this country but from the public generally. The importance of ascertaining the period of open water in the bay and straits has been widely recognized ever since the Hudson's Bay route was first proposed as a possible short cut between Liverpool and the West of Canada. It is well-known that several railways have been projected from the wheat fields up to the nearest point on the coast of the bay, and that at present two roads are in contemplation thither. The latest report on conditions in these northern waters comes from Major Moo-

die of the North-West Mounted Police who has lately had two years' experience in this great inland sea. Setting out in the spring of 1904, Major Moodie's mission was to gather information as to the navigation in these parts and also to establish mounted police posts at suitable places on the bay and enforce the jurisdiction of the Dominion over the various whaling and allied trading industries carried on there. The winter of 1905 was spent at Cape Fullerton on the north-west coast of Hudson's Bay, and in the spring in the steamer Arctic he began a cruise around the bay which lasted well into the summer. Returning through the straits he met the Neptune on the Labrador coast late in September and returned in her to Hudson's Bay to superintend the landing and distribution of stores for the newly-established police posts. We are not concerned here with the mishaps which befell the Neptune in the work of distributing these supplies. Incidentally may be mentioned the trying task allotted to two Ottawa men, Messrs. Caldwell and Calderon, who were landed at Fullerton, where they will remain through the present winter until March when they

will attempt the arduous journey from Hudson's Bay overland to

the Mackenzie river—a trip of nearly 800 miles. The return journey of the *Neptune* was uneventful. It is the opinion of Major Moodie that for four months, at least, Hudson's strait is absolutely safe so far as freedom from ice is concerned.

In July when Major Moodie went through in the Arctic there was no ice in Hudson Strait, and at the end of October when the Neptune passed out on her homeward trip the passage was still free. Joined with his previous experience this convinced Major Moodie that for four months in the year the Hudson's Bay route is open to ordinary navigation. But, he says, to make it safe for commercial shipping it will be necessary to establish coal depots as well as wharves, together with lighthouses and other aids to navigation.

OHN WILLIAMS, formerly of Pittsford, N.Y., now of Alberta, passed through Montreal at the end of November en route for Boston and New York. Mr. Williams is one of the invading army of Americans who have taken up land in this country. He states that he will never regret the step.

"My experience in Western Canada read like a dream," he remarked to a correspondent whilst in Montreal.

"I came here four years ago, and when I arrived in Winni-

peg I had little or nothing beyond my implements and stock.

"For one year I worked a farm on shares, and with the proceeds was able to make the first payment on an unimproved farm.

"With good crops since then I have become independent, and have strongly urged a number a my neighbors and friends to follow in my footsteps."

"Why do American farmers come here? Well I'll tell you.

"Down in the States land is worth anything from \$90 to \$100 per Low PRICE IN THE GROWING TOWN WHICH buy land for his sons as they grow up.
"Down in the States land is worth anything from \$90 to \$100 per acre. A farmer with a family cannot afford to Here in Canada one pays

\$15 for land just as good, and very often his first crop clears him."

In continuing, Mr. Williams stated that the schools in the West, if anything, were superior to those in the States. The railways were more convenient for the vast majority of farmers, and as a result the farmer found it easier to market his crops. He praised the judicial system here, for Mr. Williams has a very poor opinion of the elective system for judges. The laws, he thinks, are all in favor of the farmers also.

"With the extension of the boundaries of Manitoba north to Hudson's Bay and the building of a railway through to that body of water you will see the prosperity of the West trebled," he remarked.

The Hudson's Bay route to Europe is some 1,600 miles shorter than the one in use at the present time.

"Directly this railway is an assured thing, I am certain that thousands of Americans will flock in and take up land, for the land thus opened up should be the best wheat-growing territory in the world."



THE KAKABEKA FALLS ON TEE KAMINISTIQUIA RIVER, NEAR FORT WILLIAM. THEY ARE 127 FEET IN HEIGHT AND MORE THAN 30,000 HORSE-POWER WILL SHORTLY BE OBTAINED FROM THEM TO BE SOLD AT A LOW PRICE IN THE GROWING TOWN WHICH THE GRAND TRUNK PACIFIC HAVE MADE THEIR LAKE PORT AND TERMINUS.

Resources

HE successful growth of alfalfa in Southern Alberta promises yet another fruitful harvest for that country of immense possibilities. Mr. Elliot T. Galt in his speech to the shareholders of the Alberta Railway and Irrigation Company in London lately, said that it was with alfalfa that the company expected to achieve, perhaps, their best results. The following extract from the last report of the Department of Agriculture of the North-West Territories is of interest in this connection:

"Of all the clovers, possibly the most valuable for a dry country is the well-known lucerne or alfalfa, Medicago Sativa. Its value as a fodder plant is so well-known that it is not necessary to dwell upon its many qualities, but could it be grown successfully in the Territories it would add immensely to the wealth of the country. The fact that it has been found to stay in the soil and withstand our severe winters for periods varying from 1 to 15 winters is ample proof that it will withstand our climate. At the Experimental Farm at Indian Head alfalfa sown 15 years ago is growing well in a place covered each winter by a snow bank. The same thing is true on the farm of Dixon Bros. at Maple Creek. Sheltered by a bluff of trees which causes it to be covered with a bank of snow during the winter, alfalfa has flourished for fifteen years and is gradually spreading. Could seed be procured from such plants it should prove much hardier than any imported variety. On the farm of Mr. J. B. Hawkes, M.L.A., Balgonie, a plot of alfalfa has flourished for nearly twenty years, and other examples are to be found in almost every district throughout the West. In Southern Alberta alfalfa has taken firm hold, and Mr. W. H. Fairfield of Lethbridge reports having about 35 acres of it. This year he was fortunate in securing about 200 pounds of seed grown on his own farm. The results

obtained from sowing with this seed will be watched with great interest.

"During the previous year the department had secured from Russian Turkestan a quantity of seed of a hardy alfalfa growing on the high dry uplands where the winter colds are intense and where alfalfa is depended upon for forage both summer and winter. In the States immediately south of the line this variety of afalfa has proven very hardy. This seed was sent out to experimenters and along with it seed grown upon the high lands of Utah, also an equal quantity of common alfalfa. The plots as a whole have done well, a good stand being obtained, and many of them went into the winter in an excellent condition. Experimenters were instructed to mow the plots if weeds were prevalent and to leave a good stand for winter protection. There was one quarter of an acre in each plot.

"A good deal has been said and written about the value of inoculating the alfalfa with a bacterium which acts upon the roots causing little swellings or nodules. It has been found that the bacteria working in these nodules are able to abstract free nitrogen from the air and add to the plant and soil, thus explaining why all leguminous plants such as clovers, peas, beans, etc., leave the soil richer in nitrogen after a crop has been taken off than it was before. It has also been found that when these bacteria are absent the plants do not do as well, they are sickly in appearance and never make a great growth. Mr. Fairfield, at Lethbridge, found his plants getting yellow and having all the appearance of dying, and so sent to Wyoming for soil from an old alfalfa field, sowed it on his alfalfa, and thus inoculated his soil. The result was a great change in his plants. They gradually lost their yellow, sickly appearance and assumed a luxuriant green. Believing the absence of this bacterium from the soil

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N.B.—The first nine covers will be worth this sum alone. They will contain, month by month, a large colored half-tone reproduction of the famous paintings by Paul Wickson, representing striking scenes in Western life. The first one to appear—in the January issue—will be

The March of Civilization

a whole story in itself. It will be necessary to order early to get the January issue and thus make sure of the complete series.

Resources

might be the cause of numerous failures to grow alfalfa, a quantity of soil from his alfalfa field was obtained from Mr. Fairfield and sent to each experimenter to be sown on part of each plot as a check to ascertain what effect it would have on the plots. The full results of this experiment cannot be obtained until next season, but the following is the report of Mr. Angus Mackay of Indian Head to whom seed for this experiment was sent:

"Three varieties of alfalfa were sown, common on May 28th, Utah and Turkestan on May 30th. A good catch resulted in each case. The inoculated soil received from Lethbridge was scattered on a portion of each plot and this part made a more vigorous growth than the rest of the plot in each variety, the difference being most

marked in the Turkestan alfalfa. On plants being dug up, nodules were found on the roots to a larger extent on the treated portions, though towards the end of the season the bacteria had begun to be fairly evenly distributed over the entire plots and were found on nearly all strong plants that were examined. The height attained in the fall by common alfalfa was 20 inches; Turkestan, 18 inches, and Utah, 17 inches. Nature of soil clay loam: cultivation summer fallow.

"On the 22nd of September the writer (Mr. George Harcourt) visited these plots on the Experimental Farm at Indian Head and found the work of the bacteria as Mr. Mackay had stated. He also dug up several plants following the roots to a depth of four feet where they were broken off.

"Before closing, reference should be made to the eight acre plot sown by Mr. J. A. Macdonald of Qu'Appelle. He secured Turkestan alfalfa as well as seed from other sources and sowed all together with a special press drill for seeding grasses. The result was that he obtained a beautiful stand, every seed apparently growing because put down to moisture by the single disc with which it was sown. When visited this field showed a remarkably strong growth which should stand the winter well. He also secured a shipment of inoculated soil from Lethbridge, and the bacteria were at work all over his field. The more I study the growth of this plant the more am I convinced that it will yet be generally grown throughout the West and successfully too. The experiment is being continued."

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We want photos

The winning picture and the name of the sender will be printed in the first number of "Canadian Life and Resources" issued after each contest.

"Resources"

is widely known as the publication which gives the best picture of Canada and Cana-

dian life. It does this, largely, by means of its illustrations. Now we want to increase the number of these in Canadian Life and Resources—we want to show life scenes in every part of the Dominion—but we cannot have staff photographers all over our immense country. Hence, we are trying to enlist the aid of all who have cameras, from Halifax to the Yukon. Every man or woman with a camera has, probably, some scene daily under his or her eyes which would be of interest to people abroad or at the other end of Canada. To get them to send us pictures we are offering

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to the photographer, whether amateur or professional, who sends in the best original pictures of any scenes typical of life in Canada.

The only conditions attached to entry are:

- (1) That the management of CANADIAN LIFE AND RESOURCES are to be the sole judges of the merits of the photographs sent in.
- (2) That all the photographs received become their property, to be used by them in any way they think fit.
- (3) That a short description shall accompany each photograph, telling what it represents.
- (4) That all photos shall be sent in unmounted.
- N.B.—As "Solio" prints give the best results for half-tones, pictures on this paper will be preferred.

We pay a fair price for all pictures used, whether winners or not.

Address all enquiries to "Photo Competition," "Canadian Life and Resources"

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"Resources" Bureau of Information

THIS department of the paper was started in 1903 to deal with the numerous enquiries received at the office as soon as the first issue of the paper was published. For a small sum, to cover outlay, we send to any enquirer the following:

- (1) Official reports of the Federal or Provincial Governments, including maps and reports of the Geological Survey:
- (2) Information about the mineral agricultural, timber, fishing, water-power and other resources of the country;

(3) Advice as to sporting and fishing locations.

WE make a special feature of information to intending settlers about the suitability of different locations for a homestead, also upon railway routes and rates to any part of Canada. We have a mass of information in this office which cannot easily be printed in the magazine. We answer all letters with promptitude addressed to Bureau of Information,

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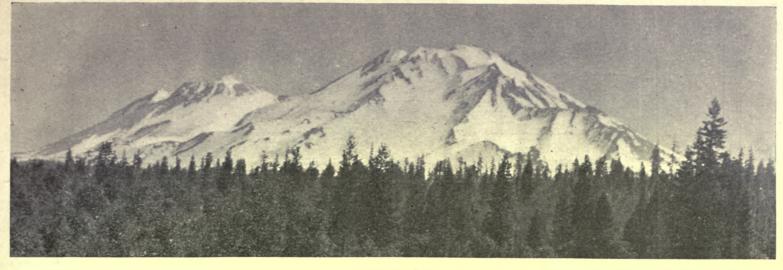
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Personal enquirers can often be given more explicit information, as they can state their requirements more clearly in an interview than by letter. In either case Resources can usually give, at all events, the preliminary facts required.

To Contributors

THE editor will be glad to receive articles and photographs depicting the life and resources of Canada. Articles must not be more than 1,000 words in length, and should if possible be accompanied by original photographs. It is absolutely necessary that a description of every picture and the name and address of the sender should be written plainly upon the back. Fair prices will be paid for all material used, and everything sent in will be returned if desired. The name and address of the author must appear upon every article submitted.

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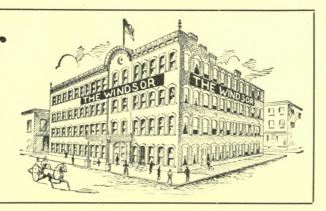
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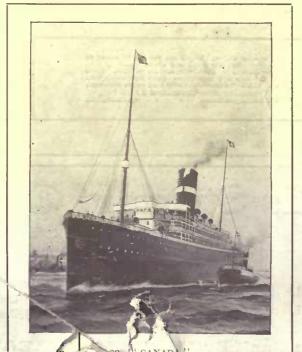
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(Extract from Montreal Gazette, Aug 13, 1903.)

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