

A NEW INDUSTRY FOR NEWFOUNDLAND

By J. W. McGrath.

During the session of the Newfoundland legislature held last spring a bill was passed conferring large and important concessions upon a corporation known as the "Newfoundland Products Co." The company has been incorporated under the laws of this colony, and its personnel consists of the following persons: Thomas L. Wilson, of Woodstock, Ontario, and the members of the Reid Newfoundland Co. Mr. Wilson is well and favorably known in the manufacturing and industrial life of Canada, but his reputation rests chiefly on his discovery of carbide. The Reid Newfoundland Co. is so well and favorably known not only in Canada and Newfoundland, but also in the United States and the United Kingdom, that anything I may say would be superfluous; suffice to add, the Reid Newfoundland Co. is a class of people any country may feel proud of. Being the builders, owners and operators of the Newfoundland railway system and the large fleet of steamships plying on the different bays and around the coast line of Newfoundland, and largely connected with the commercial, industrial and social life of the country, they have been very important factors in the great material progressive advance Newfoundland has made during the past twenty-five years. In the hands of such men then, there is no reason to doubt that the Newfoundland Produce Co. will grow and expand to rival all other industries except the fisheries.

The chief and primary object of the company is to manufacture ammonia phosphate which is a fertilizer, and in addition ammonia, cement, woodpulp and lumber. The company proposes to establish a plant at Bay of Islands—on the west coast of the island—at a cost of \$18,000,000, and the Newfoundland Government has leased to them for a period of 99 years the water powers in and upon Humber river and Junction brook together with an immense deposit of marble or limestone along the Humber river. To produce ammonium phosphate, five ingredients are necessary, namely,—phosphate rock, sand, coal, marble and pyrites—and it is assured that with the exception of phosphate rock, which at the beginning of operations will be imported from Florida, all the other elements can be produced in Newfoundland, and there is very just reason to think that deposits of phosphate rocks will also be found within the island. From the phosphate rock the sand and coke (the latter being made from coal), phosphoric acid is produced, and from the lime and coke a carbide is obtained, and this carbide with the nitrogen and pyrites produces ammonia, and the combination of the two, that is phosphoric acid and ammonia, produces the ammonium phosphate which is the fertilizer. From the pyrites, sulphur dioxide is produced, and the union of this with pulpwood produces woodpulp. The slag remaining from the finished product, ammonium phosphate, will be converted into cement.

In addition to the vast concessions in water powers, limestone and surface land granted by the Government, the Reid Newfoundland Co. have passed to the company vast areas of timber and pulp lands at Grand Lake, adjoining the location. The timber from these concessions will be utilized in the manufacture of sulphite pulp and sawn timber. The manufacture of phosphate of ammonia as a fertilizer in the manner as stated above is an entirely new process, and is covered by patents taken out by Mr. Wilson and secured to the company. The application of these patents renders the

manufacture of the fertilizer the most economical of any process known to the world. For over a year or more a corps of engineers have been making the necessary survey of the Humber river with its tributaries, valleys and drainage. The work of survey has been directed by the well known firm of Messrs. Joseph Wallace & Co., of New York and London, ably assisted by the Reid Newfoundland Co.'s staff of engineers.

The work to date has cost \$1,000,000, and has been most satisfactory; and reports show that a development of 120,000 horse power can be obtained on the Humber river. It is thought that it will take not less than three years from the beginning before the plant is established and at a cost of \$18,000,000 before a dollar's worth of product is shipped. What the establishing of such an industry will mean to this country is not an easy matter to grasp at present. To produce the industry contemplated, when the business is in full swing, will require 239,805 tons of phosphate rock annually, or 657 tons daily; 600 tons of coal daily, or 219,000 tons yearly; 411 tons limestone daily, or 150,015 tons yearly, and 29,200 tons of pyrites each year. This will produce 120,000 tons of phosphate of ammonia, the value of which is \$80 per ton, or \$9,600,000 per year.

The fertilizer used to-day is a mixed one of ammonia, phosphoric acid and potash, costing about \$40 per ton, but the fertilizer which will be produced by the Newfoundland Products Co. at their plant at Bay of Islands will be six times more valuable and will be sold to the Newfoundland fisherman-farmer at a rate which will not be more than one-half of the price he is now paying for fertilizer. In addition to the above, as a side line, the company will use 100,000 cords of spruce pulpwood yearly, from which will be produced 36,500 tons of sulphite pulp at a value of \$1,825,000. To carry on such a large undertaking as this, an army of 3,000 men, of all grades, will be continually employed upon the plant at various rates of wages, no man getting less than \$1.50 per day, even the most ordinary laborer. From the engineers' reports I gather the following facts as to the possible cost of establishing this plant:

Water power cost	\$6,440,300
General work	2,564,000
Industrial plant	3,745,000
Phosphoric acid plant	900,000
Ammonia plant	450,000
Working capital	2,000,000
Railway revision	250,000

Total \$16,349,300

The amounts as itemized for the various structural works, with supervision and capital, are as follows:

Ten dams, at a total cost of.....	\$1,597,500
Power houses	838,400
Penstocks, head gates and racks.....	771,200
Head gates	70,900
Wing dams	297,500
Storage dams	91,900
Water wheels	589,000
Electrical equipment	1,065,000
Miscellaneous.....	58,900
Transmission lines	612,800
Freight	59,500
Engineering and supervision	387,700

Total \$6,440,300