

h.p. at a head of 400 feet, and a third whereby 20,000 h.p. at a head of 115 feet can be secured. The report shows that the power plant will be located 16 miles from tide-water and two routes are open for the transmission line to Vancouver, one along the eastern shore of Howe Sound and northern shore of the English Bay and the Inlet to the Second Narrows, and the other via the valley of Seymour Creek to the Second Narrows. The distance is 61 and 47 miles respectively. It is proposed to transmit at 50,000 volts.

Messrs. Jonas & Colver, Limited, Sheffield, England, have put on the market "Intra" steel, a new feature in steel for tools, which bids fair to obtain a standing in the mechanical world. This company are also makers of the famous "Novo" steel. William Abbott, 334 St. James St., Montreal, is the Canadian representative.

#### RAILWAY ACTIVITY AT SMITH'S FALLS.

A roundhouse of immense size, is being constructed at Smith's Falls by the Canadian Pacific Railway under the supervision of a well known architect. Great care was taken with the plans to make the building one of the finest and complete in the country.

It is of cement foundation, reinforced in the weak places by stone. The inner steel structure is enclosed in cement to insure it against fire.

The circumference of the building is 550 feet and its capacity is 22 of the Canadian Pacific Railway's largest engines. The roundhouse is one story high. In addition to the roundhouse a machine shop the dimensions of which are 90 47 x feet, is being built, and a shunting yard acquired to accommodate the ever increasing requirements of Canadian Pacific Railway patrons.

#### MANUFACTURERS MEET.

The annual meeting of the Toronto branch of the Canadian Manufacturers Association was held on July 11, the feature of which was the address of the retiring president, Mr. John Firstbrook.

Referring to the great commercial expansion of the country he pointed out that in nine months the imports had increased \$47,506,476, or 23½ per cent, while the exports for the same period had increased but 2½ per cent. The increase in the domestic trade during the past short term had been 48 per cent. The condition and the value of the home markets might be realized from the fact that our manufactured products represented \$712,664,835, and out of this only \$142,917,250 or 20 per cent. was exported.

"Skilled help," he said, "is even more difficult to obtain now than a year ago, and the situation is indeed acute, vitally concerning the welfare of our city and province and Dominion as a whole. Factories have expanded beyond the increase of this number of available mechanics. Notwithstanding repeated agitations the government persists in confining its efforts to the encouragement of the immigration of agriculturists and railroad labor, while the importation of skilled labor and factory hands is left to private initiative. This policy is deeply regretted by all who have the development of Canadian industry at heart. So great was the suffering from this one sided

policy of the government, which will inevitably throw the splendid markets of our rapidly developing North-West into the hands of United States manufacturers, that the Canadian Manufacturers' Association on February 1 last, opened a labor department in London, England. In five months through the efforts of the association, 800 skilled workmen had made contracts to come to Canada, and 300 of these have arrived to date. From investigation carried on by the local branch it has been ascertained that in Ontario 25,000 additional girls could secure employment in the industrial establishments and 10,000 of these could easily be put to work in Toronto.

#### ANOTHER INDUSTRY FOR WELLAND.

Bemiss Bros. Bag Co., Boston, Mass., have secured a site of eighty acres in Welland, Ont., on which they will erect a large factory. They will import raw cotton and from it will manufacture all kinds of bags, such as grain bags, etc. They will start with a plant costing \$400,000 and employ 500 hands the first year. Three years will be required to build the entire plant, the total cost of which will be \$1,500,000, employing 1,500 hands. The mill will contain 15,000 spindles.

From Welland the company will require only sewerage and water. They agree to pay for all the water they use at 6c per 1,000 gallons. From the township of Crowland they ask a fixed assessment of \$20,000. They also require a free site of 25 acres. An agreement has been given in writing offering the company the site they require absolutely free of charge. This site is on the Hilsle farm in Crowland, immediately adjoining Welland, east of the Grand Trunk Railway and north of the Michigan Central Railroad track.

Besides the twenty-five acres required for the plant, the company now hold under option 55 acres more, which includes every foot of land to the Michigan Central Railway tracks.

### PUBLICATIONS.

**TESTING FOR SAFETY.**—A booklet describes the strenuous test grinding wheels must undergo before leaving the factory of the Norton Co., Worcester, Mass. Every wheel is tested at a peripheral speed of 9,000 feet per minute, giving a stress of not less than 250 pounds per square inch. It will be new to most readers to learn that a complete record of all the wheels tested in one day is brought before a justice of the peace on the following day and the testor makes oath that he has tested each wheel at the number of revolutions indicated against it.

**A WESTERN SUNSET.**—Starting out in rather an ambitious manner the Saturday Sunset, of Vancouver, B.C., has reached its fourth issue, maintaining its high initial standard. It is modelled from the Toronto Saturday Night and already has the appearance, judging from the generous advertising support, of an old established journal. The editor is John P. McConnell, whose editorials are sane and thoughtful while breathing of the throbbing spirit of optimism so noticeable from Winnipeg to the coast. This paper should have a successful future ahead of it.

**GRINDING MACHINES.**—The Norton Co., of Worcester, Mass., are sending out a new 146 page catalogue describing Norton grinding wheels and machinery. The wheels are all made of alundum, the various shapes and sizes being shown by sectional views. Norton grinding machines are also illustrated and prices and descriptions given.

### PERSONALS.

Mr. R. McGregor, of the McGregor-Gourlay Co., Galt, Ont., is at present in Europe. He, with his daughter, left some months ago for a trip around the world and has already visited many of the principal countries in Asia. When last heard from he was in England but intended visiting Germany, France and Italy before returning in November.

Mr. F. O. Wells, of Wells Bros. Co., Greenfield, Mass., recently paid a visit to the company's Canadian branch, the Canadian Tap & Die Co., Galt, Ont. Mr. Wells states that his firm are very busy, large additions to their Greenfield plant being under construction, while the Canadian plant is now in full operation.

Mr. E. D. MacKenzie, who has for many years been connected with the traffic department of the Pennsylvania Railroad and since 1901 Canadian freight agent with headquarters at Toronto, has resigned his position to settle in business for himself in Oil City, Pa. He has been succeeded by Mr. W. A. Willis, formerly special agent traffic department P.R.R. Pittsburg, who has been with the company fourteen years, having had valuable experience in Washington, Philadelphia, Baltimore and Pittsburg.

#### SIX AND A HALF MILLIONS IS CANADA'S POPULATION.

If Canada keeps on growing at her present rate, in one century the population will be 114,492,085 inhabitants. This figure is far in advance of the United States' present population which started to grow just 107 years ago.

Canada's total population just now is estimated at 6,504,900 inhabitants, a growth of 1,133,585 over the census of 1901.

Since April 1, 1907, 100,000 immigrants have entered Canada.

#### NEW ENGINEERING BUILDING.

Plans have been completed for the construction of the new engineering building at McGill University, to take the place of the one destroyed by fire in April. The building permit was granted to the McGill authorities recently. The new structure, which will be one of the finest of the kind on the continent, will be fire-proof, and it is estimated that the cost will be in the vicinity of \$275,000. The architect is Prof. Percy E. Nobbs, professor of architecture at the university, and the contractors are Messrs. Byers & Anglin of this city. Construction will be started just as soon as the necessary materials can be obtained. The new building will, in every way, be up-to-date, and nothing will be spared in the way of expense to make it as well equipped as possible for the purpose. The new engineering building will be somewhat larger than the one destroyed.