British Columbia and the Steel Industry

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Objections that Hitherto Retarded Development Overcome —Time is Now Ripe for an Intelligent and Determined Start.

The subject of the establishment of a steel industry in British Columbia or on the Pacific Coast has occupied the thought and has been investigated by large steel interests in Great Britain and the United States as well as the independent for a great many years. Yet for one reason or other, or for a combination of reasons, no steps have been taken to initiate an attempt in this direction. The chief objections have hitherto taken three general lines. First—The ores found were either too limited in quantity, were unsuitable to blast furnaces or present methods of treatment, or were unavailable for economic handling. The second objection that has been advanced is that British Columbia turns out too poor a grade of coke for blast furnace purposes. The third objection gathers around the question of the small Provincial consumption or the consumption in territory immediately tributary thereto. The question of a high labor market in this province has also been advanced as militating against the establishment of an iron and steel industry. This objection cannot be treated seriously, as the steel industry is now so far advanced in its processes of manufacture that only skilled labor can be successfully employed, and this grade of labor draws as much in the centres of the industry as it does on the outskirts.

First, then, as to those objections that hinge about the raw materials and their availability for cheap transportation to an industrial centre, if it would be decided to establish an industry at Vancouver, Victoria, Prince Rupert, or at the sources of supply, and the availability for treatment into iron and steel, and the quantities necessary to ensure a steady supply of raw material.

On Gordon River, Port San Juan, west coast of Vancouver Island, there are located a number of claims known as the Bugaboo Claims, on which considerable development work has been done, which shows an amount of ore blocked out which totals several million tons of a high grade magnetite, which assays as high as 68% of metallic iron, suitable for the manufacture of tool steel. These are very accessible to a good harbor and the transportation problem is a very simple one.

At Sechart Bay on Barkley Sound, also on the west coast of Vancouver Island, there is probably one of the finest deposits of bessemer iron it is possible to find anywhere. A shipment of this ore was sent to Pittsburg in 1893, and Mr. Otto Wurth, probably one of the best authorities on iron at that time reported in part as follows: "Ore samples assayed as follows: Magnetic Oxide of Iron 91.13, Carbonate of Lime 4.61, Phosphoric Acid .007, Sulphur .060, Phosphorus .003, Metallic Iron 66.32. I have examined the best known bessemer ores and find these equal to any, and in phosphorus, the most important element, the ores are much better. So far as I know, there are no ores on this continent as low in Phosphorus."

These ore bodies are tracable on the surface for approximately two miles, situated only 1½ miles from salt water, where there is a magnificent harbor. The ore is at an elevation of 1080 feet. There is also good water power on the property. Considerable development work has been done on this property. The quality of ore is uniform and one claim of the group is estimated to contain 2,000,000 tons of ore from 62% to 70% of metallic iron, and well within the bessemer limit.

Another very valuable deposit of magnetite is found on Campbell Lake on the east coast of Vancouver Island. This property consists of 24 claims only 11 miles from a good harbor where there is a Government wharf, and a logging railway runs within two miles of the property. This ore assays 66.6% iron with only traces of sulphur and phosphorus and is absolutely free from titanium. Samples of this ore were submitted to iron experts in Sheffield, who reported that it was the best ore they had ever seen, and that it could be treated for 8 shillings per ton less than the best Norwegian ores owing to the low percentage of impurities and that it was suitable for making the highest quality of tool steel. The Campbell River Falls are close to these claims and 100,000 H.P. could be developed.

Further north on Vancouver Island there are large deposits of magnetic iron ore on Quinsim and Nimpkish Rivers and on the Queen Charlotte Islands; but little or no development work has been done in the district.

The ore deposits on Texada Island are famous. Over twenty years ago over 20,000 tons of this ore was shipped to the United States and were used in the construction of United States war vessels. Although this is a high grade magnetite it carries considerable sulphur, but not sufficient to preclude its commercial use. On Rodondo Island another large deposit of magnetite exists. Some of this ore was also sent to the United States for commercial treatment. On Philips Arm the Shoo Fly group of claims are found. Considerable work has been done on a deposit of magnetite which assays 66% of metallic iron with low sulphur and phosphorus content. They are located on a perfectly land-locked harbor and only about one half mile from tide water. These claims can be worked as a quarry proposition and the ore could be dumped practically from the mine to the steamer. The distance from Vancouver is only 112 miles, and is all water transportation.

There are large deposits of magnetite in Knight's Inlet, Smith's Arm, Deans Channel, and away into the headwaters of the Naas River, but there has been shown that there is sufficient high grade magnetite on Vancouver Island between Cumberland and Victoria all adjacent to the coal and coke supply to satisfy any reasonable company who desires to go into the business, and undoubtedly these ores are the very best that can be found for the manufacture of crucible, and tool steels; but unfortunately under the present methods of manufacturing steel, this class of ore does not commend itself to the steel manufacturer, and so far there have not been discovered on the coast any deposits of hematite worthy of very serious consideration.

On the northwest end of Vancouver Island there is a large deposit of bog iron or Limonite. This ore is high grade bog iron and runs from 48% to 52% metallic iron, and would if it could be used in blast furnaces, make excellent pig iron for either foundry or steel making purposes. So far this class of ore has caused all sorts of trouble to blast furnace men, and generally it has to be briqueted before it can be used commercially in the iron making industry. This was the basis of the ore reserves of the Western Steel Corporation which a few years ago failed.

In the Interior there are some well known deposits of hematite, and during the last two years very extensive deposits have been discovered in the Chilcotin district, and on the Copper River in the Skeena District there is a very extensive and valuable deposit of brown hematite, upon which considerable development work has been done. On Fenwick Mountain, in about 18 miles from Fort Steel, in the Kootenay district there are large deposits of micacious hematite known as the Bull River Iron Mines. Some work has been done on these claims and an average assay of several claims gave sulphur .076, phosphorus .029, and metallic iron 58.99. The distance of this ore from existing railway points does not preclude its use, while the proposed Kootenay Central Railway route will pass imediately below the claims at the foot of Fenwick Mountain, and will be within convenient reach of a tramway. This ore assays 64% metallic iron. It is within easy reach of coal and coke in the Crow's Nest, which makes it possible to erect blast furnaces and produce pig iron for distribution in the Middle West.

The Pacific & Great Eastern Railway will bring the recently discovered deposits of bog iron and hematites in the Green Lake district within reasonable transportation