Phalen seam, as they are so well known. Phalen coal is a rather friable, fat, bituminuous coal, with specific gravity of from 1.28 to 1.30. On account of its high heating value Phalen coal is in large demand for steam raising purposes, and it is a good coking coal, yielding a profitable return in bye-products when burnt in bye-product ovens.

We purpose dealing with each colliery in detail by itself, and will commence with No. 1, or as it is locally known, "Dominion."

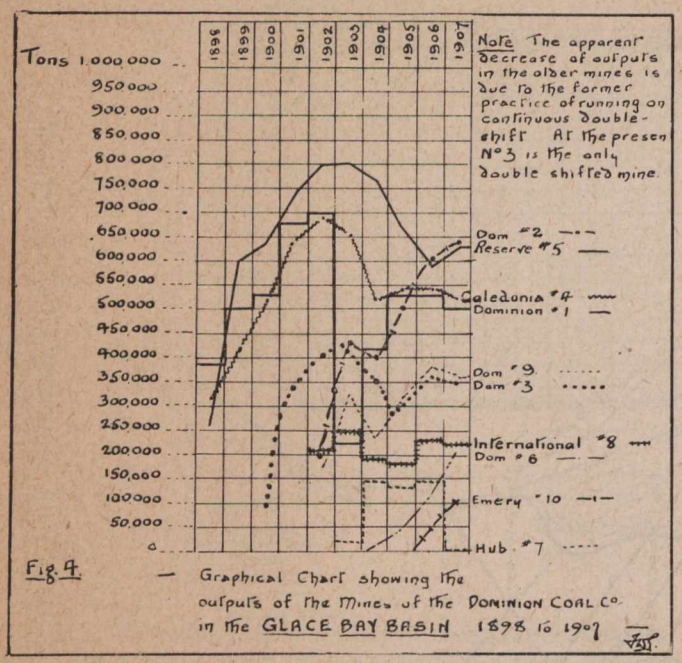

Fig. 4 — Graphical Chart showing the outputs of the Mines of the DOMINION COAL Co. in the GLACE BAY BASIN 1898 to 1907

Dominion No. 1 Colliery.

No. 1 colliery is the first mine that one meets in travelling over the Sydney & Louisburg Railway from Sydney to the colliery towns. It is in a district that saw the first beginnings of the Cape Breton coal trade, and is pleasantly situated overlooking Lingan Bar in the midst of a countryside that is a little more cultivated than the surrounding neighborhood. "Dominion"—not to make any invidious comparisons—has always been regarded more or less as the model colliery of the Dominion Coal Company, and its workmen, mostly life long residents of the neighborhood, are looked upon as men of light and leading, whose native conservatism is a little shocked at the crude modernity of "New Aberdeen."

The territory assigned to Dominion No. 1 was first worked at Old Bridgeport by the General Mining Association in 1830, the workings being largely confined to the crop area. The coal was shipped on the other side of Lingan Bay, being conveyed from the slopes by means of a railway that ran along the course of the Lingan sand bar. Trade proving bad the mine was abandoned by the General Mining Association in 1842, and the colliery was not operated again until 1886, when it was reopened by Mr. Henry Mitchell of Dominion, who continued to operate it under a sub-lease from the G. M. A., until his interests were absorbed by the Dominion Coal Company in 1893. The latter corporation continued mining operations at Old Bridgeport until 1898. They had erected a new bankhead at the time they took over the property, and produced from Old Bridgeport between 1893 and 1898 approximately 640,000 tons, at the end of which period they dismantled the mine.

In 1893 the Dominion Coal Company sunk the present shafts at Dominion No. 1, and equipped the colliery with modern machinery, since when Dominion has produced 5½ million tons of coal, and is at the present time hoisting between 50,000 and 52,000 tons per month on single shift.

There are three shafts, hoisting, material, and air shafts, the material shaft not being in use except for the conveyance of haulage ropes underground. The main hoisting shaft is divided into two compartments, one for hoisting coal and the other for men. It is 24 feet by 10 feet 6 inches inside the buntons, and is 158 feet deep. The cages are of the dumping type generally used by the Dominion Coal Company, running on the ordinary square wooden guides. The hoisting engine was made in Glasgow, and was installed in 1894. It is a horizontal hoist, 20 inches by 54 inches cylinders, having a drum 8 feet 9 inches in diameter with 5 feet 6 inches face. The hoisting rope is a six strand cast steel rope, 1⅜ inches in diameter, hoisting daily from 2,000 to 2,400 tons.

The man hoist was made by I. Matheson, of New Glasgow, and is a 16 inches by 32 inches horizontal engine with 6 feet drum.

The mine is ventilated through a circular air shaft 10 feet in diameter, connected with a Dixon fan of the Guibal type, 24 feet diameter with blades 6 feet 6 inches wide, 100 revolutions per minute, capacity 300,000 cubic feet per minute, at 2 WG., cased in brick and driven by a direct connected 18 inches by 28 inches "Buckeye" engine. The air shaft is used as a down-cast, and the hoisting shaft as the upcast. This is the

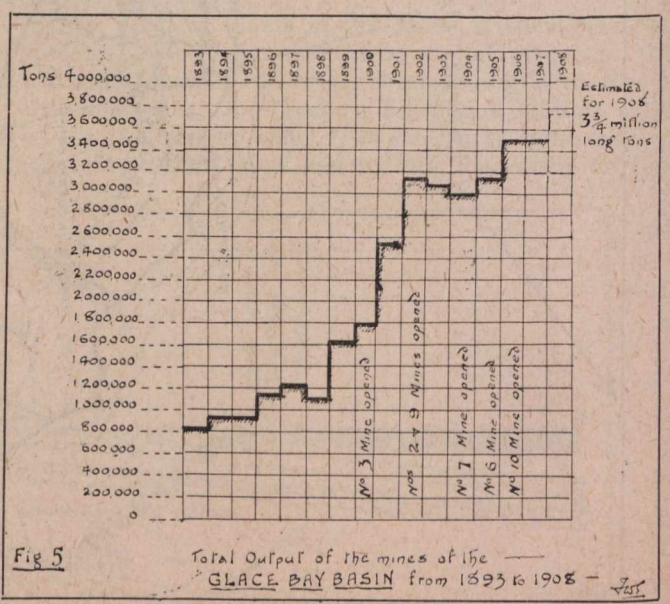

Fig 5 — Total Output of the mines of the GLACE BAY BASIN from 1893 to 1908

usual practice in Cape Breton, being so arranged in order to keep the pit mouth free from ice in the winter. The ventilation can be reversed at short notice if necessary. There are also two spare Murphy fans, 12 feet and 8 feet diameter respectively, which are not in use, but are reserved for emergencies.

The steam plant consists of seven Babcock & Wilcox boilers, having a total rated capacity of 1,696 horse power. There is one brick smoke stack 125 feet high, and one steel stack 74 feet high.