

has trebled in tonnage and in value in the last ten years. The production for each year since 1900 is shown by the following table from the report of the Superintendent of Mines, Mr. Theo. Denis:

Year	Tons.	Value.
1900.....	21,408.....	\$ 719,416
1901.....	33,466.....	1,274,315
1902.....	30,634.....	1,161,970
1903.....	29,261.....	916,970
1904.....	35,479.....	1,186,970
1905.....	48,960.....	1,476,450
1906.....	61,675.....	2,143,653
1907.....	61,985.....	2,455,919
1908.....	65,157.....	2,551,596
1909.....	63,965.....	2,296,584
1910.....	80,605.....	2,667,829
1911.....	102,224.....	3,026,306
1912.....	111,175.....	3,059,084

The early history of the industry is well told by Mr. Fritz Cirkel in a monograph published by the Department of Mines, Canada. Mr. Cirkel says:

"The first modern attempt to exploit asbestos deposits was made in the Aosta valley of the Italian Alps by a London syndicate, for the pur-

several parties secured areas both at Thetford and Black Lake in Coleraine Township, close to the line of the Quebec Central Railway, which, for some miles, runs through a belt of serpentine. Large fires having swept over the country, destroying all forests, the discovery of veins was facilitated by the weathering of the mineral on the surface.

"Mining operations on a small scale commenced in 1878, and in this year fifty tons were produced; but it was difficult to find a market. The quality of the fibre mined was excellent, and the width of the veins everything that could be desired, being from  $\frac{1}{2}$  inch up to 2 inches, 3 inches and sometimes 4 inches. This justified the expectation that large deposits of the mineral might exist in that locality, though their true importance and value were not ascertained for several years later. Shipments of the better grades to London created quite a sensation in the British market; hence extensive tests and investigations were made, with the result that, on account of its exceptional spinning qualities, high prices were soon established, and the race for the acquisition of additional areas likely to contain the valuable mineral began. The land upon which the asbestos was found was consid-



Bell Asbestos Mine, Thetford, P.Q. Geological Congress Visitors Inspecting Mine

pose of experimenting on a large scale; and almost simultaneously with the exploitation in Italy asbestos was discovered in the Des Plantes River region, between St. Joseph and St. Francis villages, Province of Quebec. At the exhibition in London, in 1862, a specimen of fine silky-fibred asbestos from the above locality was exhibited. The extension of the belt of serpentine rocks in which the mineral was known to occur had been traced with some care from the Vermont boundary in the township of Potton, to and beyond the Chaudiere River; but the deposits of asbestos discovered were comparatively limited. All attempts to work them profitably failed, and during the next fifteen years nothing was done in the way of exploitation or exploration.

"In 1877, however, asbestos was found in another district in Quebec; this time in the serpentine hills of Thetford and Coleraine. The credit of this discovery is claimed by Mr. Robert Ward; although by others it is stated that the first find was made by a French-Canadian named Fecteau. Following closely upon this discovery

ered of very little practical value, either for agricultural or any other purposes, and mining operations were rapidly extended. The principal areas in which the asbestos-bearing serpentine was found to occur were lots 26 27 and 28, near the line between ranges V. and VI. of Thetford, and in the township of Coleraine near Black Lake station, four miles southwest of Thetford station, in an area previously unsurveyed; but adjoining, on the south-west, range B, also on lots 27 and 28, range B; and on lot 32, range C. All these areas were speedily secured, as well as most of the serpentine-bearing ground extending south-eastward from the Quebec Central Railway towards Caribou Lake and for several miles along the Poudrier road.

"During the next twelve years a rapid development of the asbestos industry was witnessed. The mines were operated on a large scale; while prospectors were busy exploring the hills of the surrounding country for new deposits of the mineral. Villages sprang up in the vicinity of the mines as if by magic, although the country—physically speaking—was sterile and very rough.