contain no mica, and the rock in their immediate proximity is also practically devoid of the mineral.

The source of the mica is, in all probability, a basic laccolite.

A similar mica is also found on lot 5, range II., of Bedford township, this occurrence being almost identical with the foregoing. In this case, however, the country rock is limestone, belonging to the Archæan formation, and is of the normal white, coarsely crystalline type.

The association with the mica of secondary minerals such as vesuvianite, actinolite, garnet, etc., at both the above-mentioned mines, is interesting, and will be further described in the full report.

Qualities of Mica.

With the exception of some half dozen, all the mines and prospects visited, numbering over 200, were concerned with phlogopite, or amber mica deposits. The colour of the mica was found to range from almost black, in which case the resemblance to biotite was very close, to almost colourless; the very dark and the very light-coloured varieties being, as a rule, the poorest splitters.

The suitability of mica for electrical purposes depends essentially on two factors: (1) its degree of cleavage, and (2) its non-conducting properties. Consumers of the mineral seem to vary in their opinions, some preferring a relatively dark mica of medium splitting quality, while others refuse to take any but the light-coloured variety — on account of its apparent freedom from iron — though its cleavage may be much inferior to that of the dark-coloured.

Brittleness also is an important consideration with consumers, this being a fault which affects both the dark and the light micas.

With the advent, however, of mica-board manufacturing, brittleness has ceased to prove such a detrimental factor, since even the most brittle mica is sufficiently flexible in very thin layers (½ to 1 mil.) to be used in the building up of mica plate.

Some manufacturers use both dark and light amber mica, and mix in a certain proportion of Indian white mica (muscovite) the resulting plate possessing, it is claimed, all the qualities necessary to the manufacture of electrical appliances.

Status of the Mica Industry.

The condition of the mica market, though inclined to show a slightly better tendency, towards the latter part of 1910, has not conduced to any great activity on the part of operators during the past few years. Some few of the larger owners are continuing to work, but practically all the smaller mines are idle.

A peculiar feature is, that while in the Quebec mica districts mining was declared to be unprofitable under present mining conditions, operators in Ontario, while admitting that prices were low, yet contrived to find a satisfactory enough market to enable them to continue working their properties, and even to consider the reopening of mines which have been idle for some years. The cause of this divergence of opinion is difficult to arrive at, since wages and general mining expenses are, if anything, lower in Quebec than in Ontario.

Owing to this inactivity amongst mica-miners, fully 80 per cent. of the mines visited were found to be idle, and the pits more or less full of water, and consequently inaccessible.

Although in the past, Canadian producers have, for the most part, seemed to be content with the market provided by the United States, shipments are now being made in increasing quantity to English consumers, and inquiries were often made during the past season as to names and addresses of buyers in the United Kingdom.

While appreciating the superiority of Canadian amber mica for electrical purposes, English and Continental manufacturers nevertheless still procure the greater part of the mica they require from India.

Subjoined are tables showing the amount of mica imported into the United Kingdom during the past five years from Canada and India respectively, and also the imports of Canadian mica into the United States for the same period.

TABLE 1.

Exports of Mica from Canada to Great Britain.*

Calendar Year.	Tons.	Value.	Average Value. per ton.
1905	179	$25,717	$143.07
1906	167	58,735	351.71
1907	80	43,913	548.91
1908	156	81,050	519.55
1909	30	24,316	810.53

*Compiled from Mines Branch statistics.

TABLE 2.

Imports of Mica into Great Britain from Canada.*

Calendar Year.	Tons.	Value.	Average Value. per ton.
1905	130	$24,349	$187.30
1906	209	51,618	246.98
1907	88	51,497	585.19
1908	122	74,362	609.52
1909	34	30,749	904.38

*Compiled from British Board of Trade Returns, 1910.

TABLE 3.

Imports of Mica into the United Kingdom from India.*

Calendar Year.	Tons.	Value.	Average Value. per ton.
1905	901	$369,506	$384.50
1906	1,845	782,397	423.15
1907	1,778	672,532	378.25
1908	1,369	415,773	303.71
1909	1,302	480,042	368.69

*Compiled from British Board of Trade Returns, 1910.

TABLE 4.

Imports of Mica into the United States from Canada.*

Calendar Year.	Tons.	Value.	Average Value. per Ton.
1905	253	$121,560	$480.47
1906	539	328,991	610.35
1907	767	596,321	777.47
1908	172	140,166	814.92
1909	107	132,941	796.05

*The Foreign Commerce and Navigation of the United States.

It will be seen that in 1905—the year in which the greatest quantity of mica during the quinquennial period in question was shipped from Canada to English consumers—this quantity was exceeded by the Indian shipments by more than five times; while in 1909,