	Cape Breton.	Pictou.	Cumberland.
Moisture,	0.75	1.19	1.46
Vol. combustible matter,	37.26	29.10	33.69
Fixed carbon,	58.74	60.63	59.35
Ash,	3.25	9.34	5.50

The fire-clays accompanying these coals have never been systematically tested as to their value for fire-brick. Some that have come under my notice are too high in alkali and iron, while others theoretically were of satisfactory composition. An investigation into the capabilities of the fire-clays of Nova Scotia would form an object worthy the attention of the Canadian Geological Survey. Beds of cannel and oil coal, and of bituminous shale, are frequently met, but are not at present of economic value.

Beds of clay iron-stone (in a few instances of the black band variety) up to a thickness of 12 inches are numerous. The following analyses made by me are of samples from the Pictou coal-field.

	Clay Iron-stone.	Black Band.
Moisture,	2.132	0.732
Iron protoxide,	45.361	36.000
Alumina,	16.962	3.180
Silicious residue,	0.780	16.546
Lime,	trace.	3.780
Magnesia,	1.655	0.783
Manganese,	trace.	4.450
Sulphur,	0.612	0.214
Phosphoric acid,	trace.	.586
Carbonaceous matter,	——	6.140
Carbonic acid,	——	27.589
Metallic iron,	35.00	28.000

Millstone Grit.—The dividing line "between the millstone grit and productive measures is not a fixed one, and consequently there are workable beds of coal in its upper part arbitrarily referred to this horizon, but practically belonging to the productive measures. Throughout this range of measures thin seams of coal occur at numerous points, but in the presence of the larger and better known beds they have not yet received attention. At the Joggins, Cumberland County, large quantities of excellent grindstones are made for local use, and for export, and numerous beds of quarry rock are known.

Marine Limestone.—This horizon is very strongly developed in Nova Scotia, and to its presence is due the fertility of the central and northern part of the province, for its gypsum, limestone, and marl