

On the western shore of Cape Breton, at Mabou and Broad Cove it is found quite close to the coal beds, but this is evidently caused by faulting, and affords no key to its proper position in the limestone formation. A similar association occurs in the sections of the Little River coal-field of Richmond county.

In Newfoundland, Mr. Murray (Report of Progress, 1873, p. 15), places the leading exposures of gypsum in the lower part of the limestone formation, division B, and states that they are underlaid by over 1,000 feet of conglomerates corresponding to those already mentioned as occurring at the base of the Sydney Carboniferous. The associated strata are similar to those found in Cape Breton; the limestones being in many cases crowded with characteristic fossils. At a higher horizon, a short interval below measures which represent the Millstone Grit of Cape Breton, Mr. Murray found smaller deposits of gypsum associated with magnesian limestones, marls, and calcareous or dolomitic sandstones.

#### VARIETIES OF THE GYPSUM.

The gypsum in this great series of deposits presents every variety of colour and state of aggregation, and a corresponding difference in its composition.

On the Tobique river, in New Brunswick, it may be characterised as an impure earthy gypsum of a red and greenish colour seamed with layers of pure white and crystalline gypsum, and holding nodules of limestone in the red coloured portions.

At Hillsboro it forms generally a pure white snowy alabaster; other portions are cream-coloured, or with a shade of blue, and are translucent. At the works of the Albert Manufacturing Company there is a quarry face composed of the last-mentioned varieties, 400 feet long and from 25 to 75 feet high. Selenite, though met in veins and small crystals, is rare. The anhydrite occurs here in beds underlying the gypsum, and is of unknown dimensions.

At Sussex, New Brunswick, selenite occurs as single and grouped crystals containing symmetrically disseminated sand, and the process of formation seems to be still going on.

In the Windsor district, three ranges of gypsum are worked, the most northerly of which runs in an almost unbroken line to Maitland, 30 miles distant. From the quarry in the town of Windsor, considerably over a million of tons have been extracted, and the deposit shows no signs of exhaustion. Here the gypsum is white and blue with large quantities of selenite; in some quarries small beds of limestone and anhydrite are found in the gypsum. At some points in the district large deposits of