

United States where it is applied to the preparation of chlorine used in the manufacture of bleaching powder, to decolorizing glass and other purposes. It is very free from iron and remarkably pure. An analysis of a sample from the Morrison mine afforded Mr. Adams* 91.84 per cent. of manganese dioxide, only 12 per cent. of ferric oxide and 2.91 per cent. of insoluble residue. Other analyses are given by Mr. Adams, but without mentioning from which mine the samples come, in the Report for 1879-80, page 17 H. Owing to the recent great rise in the price of manganese, these mines will, it is hoped, prove exceedingly remunerative; and it is not improbable that, associated with similar strata in other places, deposits equally rich will be discovered. Mining is conducted by open quarrying and tunneling, and it is the intention of Mr. Mosley to erect an engine for pumping and other purposes.

Samples of bog manganese from Big Harbor, Boulardrie Island, have been analyzed by Mr. Adams,† the best of which was found to contain 25.42 per cent. of manganese dioxide and 33.52 per cent. of water.

Galena.—As already remarked, many of the lower Carboniferous limestones hold traces of galena, but the attempts frequently made to develop some of the most promising have resulted only in disappointment. On the hill at D. Norman McVarish's, Southwest Margaree, one of these limestone strata is full of minute veins of calc spar and quartz, holding minute traces of galena. At Pleasant Bay, near the mouth of Mackenzie River, grey quartzose grit with patches of greenish and reddish fine sandstone, is associated with a dark-grey and brownish, highly bituminous, limestone, with calc spar veins. The veins hold galena, which is also disseminated in the limestone and grit. These rocks do not extend far inland, but are surrounded by the underlying gneiss. The galena occurs chiefly in two veins $5\frac{1}{2}$ and 3 feet thick respectively, and a shaft 15-20 feet deep has been sunk in each. The galena contains both silver and gold, and is associated with copper pyrites. At the mouth of the river copper pyrites and galena appear in specks with iron pyrites and fluorspar in the strings of white quartz which penetrate the syenite and granite. Professor How mentions bitumen also as found in the calcite of this locality. The "mine" has been known for many years and a large sum of money spent in exploring it.

In Cape Breton county, near the head of Loch Lomond, small pits have been sunk in massive grey limestone containing fossils. A minute quantity of galena is disseminated in it as small grains. In a large brook between this point and Mira River is a dark breccia,

* Report for 1881-82, page 12 H.

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