

at Fredericton; near Harvey, Albert county; Bull Moose Hill, Kings county; Moore's Mills, Charlotte county and other places.

MANAGANES.
New
Brunswick.

As to the probable origin and mode of formation of the deposits of wad or bog manganese, Dr. Chalmers* assigns it to the action of springs.

In the case of the Dawson Settlement deposit, the bed of wad lies in a valley at the northern base of a hill, and springs are trickling down the hillside; doubtless the process of formation of bog manganese is still going on. Dr. Bailey on the same subject writes as follows:

"An interesting question in connection with these deposits is that of their probable origin. Upon this point the locality throws very little light, there being absolutely no exposures of rocks anywhere in the vicinity or any visible source from which the manganese may have come. The nearest rocks are indeed those of the millstone grit, though these are doubtless underlain as at Hillsborough and about the Albert mines by Lower Carboniferous rocks, including limestones. None of these however, are markedly manganiiferous. It is also a little singular that the deposit should have such a decided slope instead of being, as usual with bog ores, nearly horizontal. Finally, the abruptness with which the deposits end along the line of the brook referred to above, towards which it inclines while no such material is to be found on the opposite slope, is also remarkable, and seems to suggest that the ores are the result of deposition from springs originating on the one slope but wanting on the other, while the brook has carried off the excess of the solvent water. In support of this view it may be observed that the hillside on which the ore beds rest, is remarkable for the number of springs which issue from its surface, in the waters of which both iron and manganese may be readily detected.

QUEBEC

Quebec

In this province the only occurrences of crystalline manganese ore are those of the Magdalen islands in the Gulf of St. Lawrence. From an examination of these islands Mr. Jas. Richardson in the report of the Geological Survey for 1879-80 writes as follows: "Immediately under Demoiselle hill, on Auherst island, numerous blocks charged with peroxide of manganese or pyrolusite, occur among the debris of the fallen cliffs. They are in pieces varying from one pound to ten or fifteen pounds in weight. There can be little doubt that they are derived from a deposit more or less regular in the hill side, but which