In 1850, Dr. Ryerson, while in England, made preliminary arrangements for establishing the Library, and Map and Apparatus Depository in connection with his Department; and in 1855 he established Meteorological Stations in connection with the County Grammar Schools. In this he was aided by Colonel (now General) Lefroy, R.E., for many years Director of the Provincial Magnetical Observatory at Toronto. Sets of suitable instruments (which were duly tested at the Kew Observatory) were obtained, and shortly afterwards a few of these stations were established. In 1855, the law on the subject having been amended, twelve stations were selected and put into efficient working order. In 1857 he made his third educational tour in Europe, where he procured at Antwerp, Brussels, Florence, Rome, Paris, and London an admirable collection of copies of paintings by the old masters; statues, busts, etc., besides various articles for an Educational Museum in connection with the Department. In 1858-60, Dr. Ryerson took a leading part in the discussion in the newspapers, and before a committee of the legislature, in favour of grants to the various outlying universities in Ontario. He maintained that "they did the State good service," and that their claims should be substantially recognized as colleges of a central university. He deprecated the multiplication of universities in the province, which he predicted would be (as has been the case) the result of a rejection of his scheme. In consideration of his able services in this contest, the University of Victoria College conferred upon him the degree of LL.D. in 1861.

In 1867 he made his fourth educational tour in England and the United States. On his return, in 1868, he submitted to the Government a highly valuable "special report on the systems and state of popular education in the several countries of Europe and the United States of America, with practical suggestions for the improvement of public instruction in Upper Canada." He also made a separate and extensive "Report on Institutions for the Deaf and Dumb and Blind in Various Countries."

For many years Dr. Ryerson had felt that our new political condition required a change in the management of the Education Department. He, therefore, in 1869 and 1872, urged upon the Government the desirability of relieving him of his arduous duties, and of appointing a Minister of Education in his place. Early in 1876 his recommendations were acted upon, and he