

tions of the 'application, the extraction, and the treatment of the minerals themselves.' In my opinion this is so.

"Thirdly, Whether the work should be done in connection with the Geological Survey or by a separate and independent department. From what I have stated my reply would only bear upon the first of your questions. It seems to me desirable that there should be kept up a connection between any department for collecting mineral statistics and the Geological Survey, because the officers of the staff may have frequent opportunities of procuring such statistics and of forwarding them to the central office; at the same time, there should be one head of this department, who would be responsible directly to the Director of the Geological Survey and through him to the Government.

"I have the honour to be, Sir, your obedient servant,

"EDWARD HULL,

"*Director of the Geological Surveyor of Ireland.*"

"ROBERT N. HALL, Esq.,

"Chairman of Committee, House of Commons, Ottawa."

"UNITED STATES GEOLOGICAL SURVEY,

"WASHINGTON, D.C., 12th April, 1884.

"SIR,—I have the honor to acknowledge your favor of the 13th ult., in which you requested to be furnished a list of records of mineral statistics published by the United States Government, and in which other questions relating to the collection and publication of mineral statistics are propounded. In reply thereto I beg permission to make the following statement:

"The reports of the United States Mining Commissioners began in 1866 with that of Mr. J. Ross Browne. In 1868 Mr. Browne was succeeded by Dr. Rossiter W. Raymond, who continued the publication of this series till 1876, in which year the appropriation was withheld. These reports, however, were limited in scope to the territory west of the Rocky Mountains and to the subject of gold and silver mining, with merely incidental reference to the working of quicksilver, argentiferous lead and copper deposits.

"In 1876 a series of statistical and descriptive papers were prepared by the American Commissioners at the Centennial Exhibition in Philadelphia.

"In 1878 Mr. James D. Hague was appointed a Commissioner to visit the Paris Exposition, and he subsequently published a short report on foreign mining industries—his monograph being included in the 'Reports of the United States Commissioners at the Paris Exposition.'

"In 1880 Mr. Horatio C. Burchard, Director of the Mint, began the publication of annual reports on the production of gold and silver in the United States. These are dated for the callendar years 1880, 1881 and 1882. One will be published for 1883 also.

"At the Sensus of 1880 a detailed examination of the mines was attempted under the direction of officers of the Geological Survey. The final reports are still in press, but I take pleasure in sending you a bulletin on the production statistics, issued in 1881.

"In 1882 the Geological Survey was authorized by Congress to collect and publish statistics of mines other than those of gold and silver. I send you our first report, entitled, "The Mineral Resources of the United States," prepared by Mr. Albert Williams, jun. As this includes a short chapter on gold and silver, it is the first comprehensive exhibit of the kind issued by Government.

"Referring now to the questions with which your letter concludes, I have the honor to make the following suggestions:—

"1. As to the desirability of procuring and preserving mineral statistics."