

a fine collection of named Jurassic fossils, in which 598 species are represented by about 1,800 specimens—in all, upwards of 15,000 specimens, for the very moderate sum of \$2,000. About 3,000 species are now temporarily arranged in trays, in the Museum, preparatory to their being permanently mounted and labelled. The other collection referred to is one of Canadian birds and mammals, the property of Dr. Bell. It represents thirty species of birds, and thirteen species of mammals, and consists of fifty-six specimens. This collection is mounted and exhibited, and was purchased for \$719. In connection with it, and with the considerable collection of birds' skins, already made by Professor Macoun, and now in the Museum in drawers, and in view of further additions to the recent natural history collection, the services of an efficient taxidermist are greatly needed. I would also, in this connection, again call attention to the necessity of taking some steps to provide additional accommodation, either in the manner suggested in my Report last year, or in any other which may be deemed more desirable.

CHEMICAL AND MINERALOGICAL.

The work in this branch of the Survey during the past year has, apart from the analysis of one or two minerals possessing chiefly a scientific interest, consisted almost exclusively in the examination and analysis or assay of minerals of economic importance, including gold, silver, copper, lead, iron, manganese, and plumbago; also, the testing of certain clays in regard to their adaptability to brick making, and the partial quantitative analysis of some lake and river waters.

A series of analyses of the North-West lignite coals has been commenced, and is now in progress. This, when completed, will probably show, in a very interesting and conclusive manner, the intimate connection which apparently exists between the economic value of the seams and their proximity to areas which have been, either locally or generally, affected by movements of upheaval or depression producing heat and pressure.

Rather more than two hundred mineral specimens have been received for identification, or for an opinion of their economic value. In all cases the information asked for has been given, either personally or by letter.

The defective supply of gas in the laboratory mentioned in my last Report has been remedied by the means then suggested, and no further difficulty in that respect has been experienced; and, with the exception of the apparatus for procuring distilled water, the fittings in the laboratory and in the assay room are now satisfactorily completed.

In 1881 Mr. Adams obtained, on my recommendation, six months leave, to visit Europe for the purpose of studying lithology, and acquainting himself with the latest and best methods in use for the microscopic examination of rocks. Since his return, in September, 1881, his time has been about equally divided between chemical work and micro-lithology; and he has examined and determined by this method a large number of the interesting crystalline rocks of the "Quebec Group," the character and geological relations of which could not be otherwise ascertained with certainty.

Mr. Hoffmann's time and attention has also been devoted to superintending the arranging, classifying, and labelling of the mineralogical and stratigraphical collections, work which has been ably and industriously carried out by Messrs. Willmott and Broadbent; to complete this undertaking, however, a considerable amount of labour is still required.

Twenty names have been entered as having presented specimens to the mineralogical collections during the year. All such specimens, when in the Museum, are labelled with the name of the donor.

Four papers were prepared by officers of the Survey and read at the meeting of the Royal Society of Canada in the Geological Section—by Dr. Bell, on "The Present Condition of the Mining Industry in Canada," and on "The Discovery of Zinc Blende on the north side of Lake Superior;" by Dr. G. M. Dawson, "Descriptive Notes of a general