

PROVISIONAL PREFACE.

ON the return of the exploring voyage of H.M.S. CHALLENGER in the summer of the year 1876, I was instructed by Her Majesty's Government, in pursuance of the arrangement under which I had undertaken the direction of the Civilian Scientific Staff on board, to prepare a detailed Report on the scientific results of the expedition.

A complete report of a voyage such as that of the CHALLENGER must consist of two parts, which, although interdependent, are essentially distinct. The first of these includes the account of the whole mass of hydrographical details, and the magnetical, meteorological, and other physical observations which enter more or less fully into the routine of every surveying ship; with the exception of the determination of the specific gravity of sea-water, which was undertaken by Mr J. Y. Buchanan, M.A., F.R.S.E., the whole of the work under this head was carried on on board the CHALLENGER by the Naval Surveying Staff, and it was conducted with more than ordinary care and skill. A copy of the observations was taken daily during the voyage for the use of the civilians.

The second part consists of the record of the observations of the naturalists, the descriptions of the animal forms acquired which are new to science, the report of the special work of the geologist and of the analytical chemist,