

THE
VOYAGE OF H.M.S. CHALLENGER.

ZOOLOGY.

REPORT on the HEXACTINELLIDA collected by H.M.S. Challenger during the Years 1873-76. By Dr. F. E. SCHULZE, Professor of Zoology in the University of Berlin.

PREFACE AND HISTORY OF THE WORK.

IN December 1879, I was asked by Sir Wyville Thomson to examine some specimens of *Euplectella aspergillum*, which had been procured on the Challenger Expedition, and which had been preserved with special care for histological purposes. The results of my investigation were to be published as part of the Report of the Challenger Expedition. Though at that time engaged in the study of the Adriatic Sponges I did not hesitate to concur with the request, as I was strongly attracted by the prospect of being able to study the hitherto almost unknown soft structure of the Hexactinellida. I soon received, from the Challenger office in Edinburgh, an entire specimen of *Euplectella aspergillum* (from off Zebu), preserved with its soft parts in methylated spirit, and six bottles containing fragments of the same species preserved in absolute alcohol, or in other preservative media, such as chromic acid, picric acid, acetate of potash, glycerine, &c.

After the results of my investigation of this, in part, well preserved material had been published in the Transactions of the Royal Society of Edinburgh (1880, vol. xxix. p. 661, Tab. A), Sir Wyville Thomson asked me to work over with him all the Hexactinellida obtained during the expedition. He was to undertake the study of the skeletal structures, while the investigation of the soft parts was to be entrusted to me. To this I readily agreed, and began at once with the examination of some samples, which had been previously sent to me at Graz.