

THE
VOYAGE OF H.M.S. CHALLENGER.

BOTANY.

REPORT on the DIATOMACEÆ collected by H.M.S. CHALLENGER during the
Years 1873-76. By Conte Abate FRANCESCO CASTRACANE DEGLI
ANTELMINELLI.

P R E F A C E.

ALTHOUGH the group of the Diatomaceæ was almost unknown until within the last half century, the activity that has been exhibited in this very attractive department of research has of recent years been so great that many hundreds of different species have been already recorded. Two branches of the study, however, possess perhaps a more than ordinary amount of interest. Among the numerous types that occur in the more superficial waters of the ocean, or that have sunk to the bottom and now form part of the oozes of the ocean bed, many unusual forms which are the representatives of several of the most elegant of known genera have been met with, while many geological deposits of marine or lacustrine origin, and occurring in various parts of Italy and in Sicily, as well as several other regions of the globe, not unfrequently present rare and superb frustules.

Having for several years occupied myself with the careful study of many marine soundings and with the examination of various geological deposits, and having taken pains to procure frustules from various parts of the world for comparison with those found in such deposits by communicating with other well-known micrographers, I lost no time on the return of H.M.S. Challenger in expressing to the naturalists at the head of the Commission the desire that I might procure from them spare materials for the purpose of facilitating my work. The courteous assurance that this request would in due time be attended to afforded me great satisfaction, and this was still further increased when, after writing to Dr Radford of the importance of instituting a comparison between the Italian deposits and the Antarctic diatomaceous banks first made known by Sir J. D.