SUMMARY.

The present Report opens with a synopsis of all the recent species of Cephalopods; no pains have been spared to ensure accuracy and completeness in this part of the work, and it is hoped that it will enable the memoir to serve to some extent as a monograph of the group, for though the space available precluded the possibility of adding diagnoses of genera and species, references have been given to the works where these may be obtained.

A list of the species contained in the Challenger collection occupies the next section of the Report, diagnoses of the new ones being given and such remarks as seemed necessary on those previously known. The Challenger collection contains 72 species, disposed in 30 genera, of which 32 species and 4 genera are described as new to science; it has only been found necessary, however, to create one new family (Amphitretidæ).

The "Porcupine," "Knight Errant," "Triton," and "Valorous" collections, which, as explained in the Introduction, are included in this memoir, contain 8 additional species, none of which are new, and 3 additional genera, making a total of 80 species and 33 genera recorded.

It is a matter for surprise that so few pelagic Cephalopods should have been captured on an expedition which spent so much time on the open ocean, and made such constant and systematic use of the townet. The explanation probably lies in the enormous activity of these animals, which is so great that they can only be captured when the vessel is moving rapidly, a condition which renders the use of the townet difficult if not impossible.

A most important means of obtaining them is by the examination of the stomachs of predaceous birds, fish and Cetacea, of whose food they form a large part; on the Challenger Expedition, for example, several specimens of *Ommastrephes oualaniensis* were taken from the stomach of a bird which alighted on the ship; and one of the most remarkable items in the collection, the large pen described on p. 178, was taken from the stomach of a shark. The value of the results which would accrue to science if whalers and those engaged in the capture of sea-fowl would preserve the contents of the stomachs in spirit, can hardly be exaggerated.

Some disappointment may be felt at there being no specimen, even fragmentary, of one of those giant squids (Architeuthus), which have been found, attaining sometimes a