

To Professor Perrier and Monsieur Poirier of the Museum of Natural History, Paris; to Dr. de Mann, late of the Leyden Museum, and to Professor von Martens of the University of Berlin, I am indebted not only for every assistance while engaged in the examination of the collections under their charge, but also for much personal kindness.

To Mr. R. Etheridge, sen., F.R.S., to Professor P. Martin Duncan, F.R.S., and especially to Mr. S. O. Ridley, M.A., I am indebted for much information and assistance on various points; while to Professor Moseley I am under obligation not only for suggestions of different kinds, but for assistance which I have derived from his published Notes by a Naturalist on the Challenger, in giving an account, where possible, of the conditions under which the Corals flourished on the reefs.

The plates have been drawn under my constant supervision, and I should like to make a special acknowledgment of the great pains which the artist, Mr. Gawan, has taken with them, and of the skill which he has brought to bear on them.

## TABLE OF CONTENTS.

	PAGE
PREFACE, . . . . .	1
INTRODUCTION, . . . . .	3
On the Reef-Corals described, . . . . .	3
On Distribution, . . . . .	5
On Classification, . . . . .	7
On the Literature, . . . . .	8
DISTRIBUTION, . . . . .	9
Atlantic Region, . . . . .	9
Pacific Region, . . . . .	14
GENERAL RESULTS OF DISTRIBUTION.	
Tabular view of the number of Genera and Species obtained, with their Localities, . . . . .	33
Distributional areas, . . . . .	34
Bathymetrical limits to distribution, . . . . .	35
Thermal limits to distribution, . . . . .	35
Peculiar cases of distribution, . . . . .	36
CLASSIFICATION, . . . . .	37
Tabular view of the Families and Genera in the collection, . . . . .	45
DESCRIPTIONS OF GENERA AND SPECIES.	
Family Oculinidæ, . . . . .	47
" Pocilloporidæ, . . . . .	57
" Astreidæ, . . . . .	70
" Cyathophyllidæ, . . . . .	110
" Plesiofungidæ, . . . . .	113
" Cycloseridæ, . . . . .	119
" Fungidæ, . . . . .	130
" Eupsammidæ, . . . . .	145
" Madreporidæ, . . . . .	147
" Poritidæ, . . . . .	178
" Milleporidæ, . . . . .	190
INDEX, . . . . .	195