

INTRODUCTION.

The revelations of the microscope are perhaps not exceeded in importance by those of the telescope. While exciting our curiosity, our wonder and admiration, they have proved of infinite service in advancing our knowledge of things around us. The present work, founded on such revelations, I have attempted to prepare in a manner to render it easy of comprehension, with the view of promoting and encouraging a taste for microscopic investigation.

Dr. Carpenter, the eminent English physiologist and naturalist, in his treatise 'The Microscope and its Revelations', remarks that "it is a tendency common to all observers, and not by any means peculiar to microscopists, to describe what they *believe* and *infer*, rather than what they actually witness."

There are certainly peculiar difficulties in arriving at a faithful interpretation of microscopic observations, arising from many causes, of which a common one is the difficulty of handling minute objects, especially active living animals, so as to examine them from every point of view. While I have endeavored to describe things as they appeared to be, I am conscious of having been unable to avoid the usual proportion of errors, for which I beg indulgence, and which I leave for others who shall pursue the same path of investigation to correct.

What are Rhizopods? is a question that will be asked by perhaps most persons whose attention may be directed to the present work. They are the simplest or lowest forms of animal life, constituting the first class of the Protozoa (Greek, *protos*, primitive; *zoön*, animal).

The Rhizopoda (Gr. *rhiza*, root; *pous*, foot:—root-footed animals) are mostly microscopic beings, rarely just visible to the naked eye; though some are sufficiently large to appear as conspicuous objects. Their minuteness is amply compensated by their multitude and world-wide distribution;