## PREFACE.

To prevent a possible misapprehension in scientific quarters, the author desires it understood that the present work is not designed either to instruct the professional investigator or to train the special student of astronomy. Its main object is to present the general reading public with a condensed view of the history, methods, and results of astronomical research, especially in those fields which are of most popular and philosophic interest at the present day, couched in such language as to be intelligible without mathematical study. He hopes that the earlier chapters will, for the most part, be readily understood by any one having clear geometrical ideas, and that the later ones will be intelligible to all. To diminish the difficulty which the reader may encounter from the unavoidable occasional use of technical terms, a Glossary has been added, including, it is believed, all that are used in the present work, as well as a number of others which may be met with elsewhere.

L. e. Jrans.

Respecting the general scope of the work, it may be said that the historic and philosophic sides of the subject have been treated with greater fulness than is usual in works of this character, while the purely technical side has been proportionately condensed. Of the four parts into which it is divided, the first two treat of the methods by which the mo-