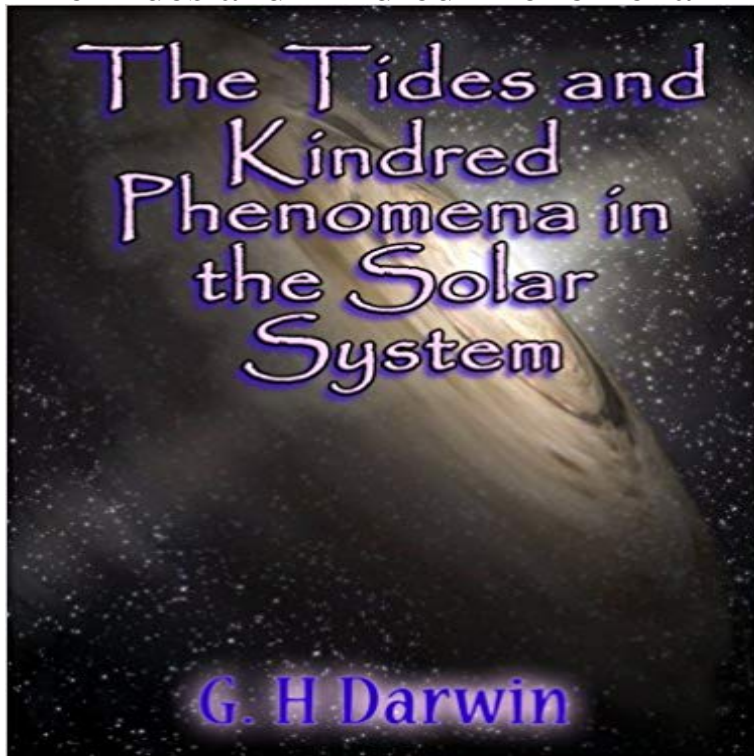


## The Tides and Kindred Phenomena in the Solar System (Illustrated)



A mathematical argument is, after all, only organized common sense, and it is well that men of science should not always expound their work to the few behind a veil of technical language, but should from time to time explain to a larger public the reasoning which lies behind their mathematical notation. To a man unversed in popular exposition it needs a great effort to shell away the apparatus of investigation and the technical mode of speech from the thing behind it, and I owe a debt of gratitude to Mr. Lowell, trustee of the Institute, for having afforded me the occasion for making that effort. It is not unlikely that the first remark of many who see my title will be that so small a subject as the Tides cannot demand a whole volume; but, in fact, the subject branches out in so many directions that the difficulty has been to attain to the requisite compression of my matter. Many popular works on astronomy devote a few pages to the Tides, but, as far as I know, none of these books contain explanations of the practical methods of observing and predicting the Tides, or give any details as to the degree of success attained by tidal predictions. If these matters are of interest, I invite my readers not to confine their reading to this preface. The later chapters of this book are devoted to the consideration of several branches of speculative Astronomy, with which the theory of the Tides has an intimate relationship. The problems involved in the origin and history of the solar and of other celestial systems have little bearing upon our life on the earth, yet these questions can hardly fail to be of interest to all those whose minds are in any degree permeated by the scientific spirit. I think that there are many who would like to understand the Tides, and will make the attempt to do so provided the exposition be sufficiently simple and clear; it is to such readers I address this volume. It is for them to say

how far I have succeeded in rendering these intricate subjects interesting and intelligible, but if I have failed it has not been for lack of pains. In conclusion, I wish to take this opportunity of thanking my American audience for the cordiality of their reception, and my many friends across the Atlantic for their abundant hospitality and kindness.

G. H. DARWIN

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