

tions of the subject, with wide experience of the needs of the pupil and above all with a rare mathematical tact which here is a *sine qua non*, Professor Tanner has written a work which has afforded us a very sincere pleasure in reading and which seems to us superior to any elementary English or American book on this subject which we have yet seen.

What strikes one most noticeably is the thoroughly scientific spirit of its author, the seriousness of his purpose and the simplicity and clearness of his exposition. We believe it must be a dull pupil who is not interested by the author's quiet but fascinating style. The work is indeed a veritable little classic in this respect. The usual course of the author is to begin each new topic with an introduction which gives the reader an idea of the discussion to follow. The new notions are then presented as simply as possible and illustrated with well chosen examples. By this means the reader is put in position to see the principles involved which are now stated precisely and accompanied by correct demonstrations. Problems are abundant and frequent recapitulations and review questions emphasize the main results acquired, and serve to retain them in his memory. Scattered through the book are a goodly number of notes touching on the nicer points and which no doubt will stimulate bright students to further thought and perhaps help the teacher over some hard places.

JAMES PIERPONT.

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In a long notice "Explication élémentaire des Marées," M. Hatt continues his article on the tides. The first part, printed in the *Annuaire* for 1904, consisted of an account of the forces producing the phenomena and the general effects produced. In the present part, the specialized effects, time and height of the tide at any particular place, are set forth with much detail. After explaining the "forced" periods of the various lunar and solar tides, the writer goes into the methods of harmonic analysis and synthesis, especially those of Darwin, by which the tide at any particular spot can be found. Although M. Hatt has not sacrificed clearness of exposition to brevity, there are pages here and there which the reader not previously instructed in the subject (and it is for such a reader that the