insight into the character of the work, and to see that an empty place in our scientific literature has been discovered and satisfactorily filled. As was stated before, this book furnishes an excellent précis for anybody lecturing on general thermodynamics. If in addition there were in existence an elaborate treatise of three or four times the length following the same order of arrangement and amply supplied with physical applications and developments, the student of thermodynamics would scarcely have need of any lectures. As it is, both student and teacher are so much better off than they were a twelvemonth ago that it would be a bit ungracious already to ask for more — or would it be the highest expression of gratitude?

EDWIN BIDWELL WILSON.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Boston, September, 1907.

SHORTER NOTICES.

Funzioni poliedriche e modulari. By G. VIVANTI. Milan, Hoepli, 1906. viii + 437 pp.

THE object of this work cannot better be characterized than by the following quotation from the preface :

"The present volume has the modest scope of preparing the reader for the study of the classic lectures of Klein on the icosahedron and of the treatise on the elliptic modular functions by Klein and Fricke. The first of these, a model of elegance and a veritable mine of new and interesting ideas, is quite difficult to read both on account of the many concepts which are barely outlined and still more because, even after the various details have been understood, the connection which binds them, the guiding idea, is far from evident and comes to light only after a profound study and a thorough review of the entire material. The second work, on account of the mass and the multiformity of its contents, does not lend itself readily to an introductory study. On account of the lack of a suitable treatise for facilitating acquaintance with the theory of the polyhedral and modular functions, I believed it my duty to make available for others the work of elaboration which I have performed for my own use, thus saving them the repetition of this useful but laborious work.