

grasp of his subject. It is needless to add that so valuable and useful a work must before long be accepted as the text-book on the mathematical theory of light, for the orderly manner in which the successive problems have been attacked and the clearness of the exposition cannot fail to appeal to all serious students of the subject. We wish the work the success it so much deserves.

The Analytical Theory of Light. By JAMES WALKER, M.A.,
Christ Church, Oxford, Demonstrator of Physics in the
Clarendon Laboratory, Oxford. Cambridge, 1904: Cam-
bridge University Press. 1 vol. in 8vo. 1p. 416. Price 15s.
net.

Lord Kelvin has rightly said that "*a phenomenon is well known only when it is possible to express it in numbers.*" In no branch of physics has the English student been at so great a disadvantage as in the theory of light. The average text-book is most careful to avoid entering into the more complicated mathematical theories, forgetful that the mathematical theory is, after all, the touchstone of scientific progress. The present work well supplies this long-felt want, as it will enable the student possessed of the necessary acquaintance with higher mathematics to follow the analytical development of the wave theory in its bearings upon the study of the higher branches of optics. It must, however, be remembered that this is no elementary horn-book intended for the beginner in physical optics, as the information on the descriptive side (experimental methods) is meagre; it is a treatise intended to advance the student already possessed of an adequate acquaintance with the fundamentals of the physical laboratory to a fuller knowledge and more masterful