wave equation leads to the discrete energy levels for the hydrogen atom required by Bohr's theory of 1913, but here it is shown how group theory, when applied to angular momentum in connexion with the wave equation, leads to important conclusions as to the energy levels of more complicated systems. Quantum numbers appear in an almost magical manner.

The book may be warmly recommended to the theoretical physicist, but the experimenter may wonder whether the principles of symmetry which are involved in the group treatment could not be developed and applied with less elaborate mathematical apparatus. One is left with the feeling that considerable simplification may yet be effected in the presentation of these results, so that even a non-mathematical reader may be able to grasp the main issues. But, in the meantime, this small volume is likely to be of service to those seriously attacking the subject.

Vision and Colour Vision. By Dr. R. A. Houstoun. Pp. vii + 238. (London, New York and Toronto: Longmans, Green and Co., Ltd., 1932.) 15*s*. net.

DURING the past twenty years, Dr. Houstoun has carried out many researches at Glasgow on the subject of vision and colour vision, and it is indeed fortunate, in these days when so much attention is given to the advertising value of a research subject, that so able a physicist is willing to work in a subject of such poor advertising value. Many physicists are too absorbed in the complexities of the atom to pay attention to the physics of vision and it would be of interest to know how many psychologists and physiologists are able to tackle the mathematics involved.

On reading this volume, which includes not only Dr. Houstoun's but also all other important work on the subject, one can well see that the author's devotion is due to the fascination of the phenomena. Studies of vision, like those of hearing, are much complicated by the power of adaptation of the organ of perception. The same result is not obtained when a red and a blue lamp are matched on a photometer bench close up to the photometer and afterwards at a great distance from it. Intensity discrimination, dark adaptation, acuity of vision, colour, flicker and fatigue phenomena all receive full treatment. After demonstrating the inadequacy of the Young-Helmholtz theory of colour vision, the author's own theory is proposed.

Evolutionist and Missionary, John Thomas Gulick: Portrayed through Documents and Discussions. By Addison Gulick. Pp. xvi + 556 + 3 plates. (Chicago: University of Chicago Press; London: Cambridge University Press, 1932.) 22*s*. net.

THE Rev. J. T. Gulick, who died in 1923, was an American missionary who will be remembered for his researches on the land-shells of the Sandwich Islands. He made a large collection, and observed that there were numerous species and varieties of each genus, which were restricted not merely to the same island, but even to the same valley. He thus elaborated a theory of divergent evolution by isolation, which he discussed in papers to the Linnean Society of London and in four letters to NATURE. On this subject he corresponded with A. R. Wallace, and especially with G. J. Romanes, who gave Gulick's work a prominent place in the third volume of his "Darwin, and after Darwin" (1897).

An interesting biography of Mr. Gulick, based on his letters and papers, has now been published by his son. One chapter is devoted to his correspondence with Romanes, and another gives a general summary of his scientific work, illustrated by three beautiful plates of the land-snails of the Hawaiian Islands.

Intermediate Physics. By Dr. C. J. Smith. Pp. viii + 650. (London: Edward Arnold and Co., 1932.) 14*s*. net.

FROM the point of view of science teaching, a physics textbook of intermediate standard is of great importance because for so many students it represents the end of their acquaintance with physics, the basic experimental science. The present volume is carefully written and is well illustrated with clear diagrams and references to the applied sciences. In view of the general teaching of calculus in schools, the author has not hesitated to use the notation and occasionally the methods of the calculus. At the end of each chapter is a good selection of numerical and other examples to be worked by the student.

The author has not ventured into the controversial and difficult problem of combining a little instruction in scientific method with the instruction in physics, and the book forms a good straightforward and conventional treatment perhaps specially suitable for the student likely to continue his physics beyond the intermediate stage.

The Medical Value of Psychoanalysis. By Dr. Franz Alexander. Pp. 247. (London: George Allen and Unwin, Ltd., 1932.) 10*s*. 6*d*. net.

DR. FRANZ ALEXANDER has dedicated his book on the "Medical Value of Psychoanalysis" to his master, Sigmund Freud, and it must be admitted that the pupil has proved worthy of the master.

It is very often a thankless and difficult task to convince medical readers of the value of psychoanalytical theories and practices. The author has, however, made out a very strong case for the development and improvement of medical education by the addition of courses in medical psychology, two courses being provided for undergraduates and one for graduates.

So many behaviour problems as well as what are obviously neurotic reactions are made to appear simple by the application of psychoanalytical technique to their investigation that the great value of psychoanalysis to medicine can no longer be denied.