

REVIEWS

Physik der Sonne. Von E. PRINGSHEIM. Leipzig and Berlin: B. G. Teubner, 1910. 8vo, pp. 435, with 235 diagrams and 7 plates; cloth, M. 18.

Never in the history of astronomy has the interest in solar research been so great as at the present time. The perfection of the spectroscope, the invention of the spectroheliograph, the construction of great astrophysical observatories, and the activity of the International Union for Co-operation in Solar Research have all contributed largely toward this end. Great discoveries and new theories have followed each other so rapidly that it has been difficult to keep pace with them. Under these conditions any book on the subject must necessarily be somewhat out of date by the time it leaves the press. However, in the *Physik der Sonne* we find an excellent résumé of the status of the scientific knowledge of the sun down to the year 1909.

For many years Professor Pringsheim gave a course of lectures under the above title at the University of Berlin, and the book is the outcome of these lectures. They were open to students of all the faculties and were therefore popular in nature. The book likewise will appeal not only to astrophysicists and physicists, but to all who are interested in general science.

In the introduction the author deals with the sun as the source of all terrestrial energy and considers its influence upon the life on the earth. In successive chapters he discusses the distance, size, and mass of the sun; the photosphere; solar rotation and periodicity of solar activity; spectrum of the sun and its chemical composition; solar eclipses; chromosphere and prominences; solar theories; corona and solar atmosphere; flocculi, vortices, and Zeeman effect; and radiation and temperature of the sun.

For many readers the most interesting chapters of the book will be those that deal with the theories of the sun. "Die Theorien entstehen und vergehen wie die Blätter der Bäume und die Geschlechter der Menschen," as the author says. On account of their historic interest, several of the older theories are given in outline; e.g., the theories of Cossini, Wilson, Bode, Herschel, Kirchhoff, Zöllner, Respighi, and Lockyer; while the more modern theories of Young, Schmidt, Schwarz-