

ing mass are properly timed to bring about the increasing amplitudes.

The subject is treated analytically in the same journal by A. Hartwich, Vol. 17, 27, 1914. He arrives at an expression identical with that for Kepler's second law.

PAUL E. KLOPSTEG

PHILADELPHIA,
July 9, 1919

SCIENTIFIC BOOKS

Sewage Disposal. By LEONARD P. KINNICUTT, late Director Department of Chemistry, and Professor of Sanitary Chemistry in the Worcester Polytechnic Institute; C.-E. A. WINSLOW, Professor of Public Health in the Yale School of Medicine and Curator of Public Health in the American Museum of Natural History, New York, and R. WINTHROP PRATT, Consulting Engineer, M.Am. Soc.C.E. Second Edition, rewritten. New York, John Wiley & Sons, Inc.; London, Chapman & Hall, Ltd. Cloth; 6x9 in. Pp. 547. Illustrated. \$4.00.

The first edition of this book which was reviewed by the writer in SCIENCE, February 10, 1911, Volume XXXIII., page 222, has been a successful reference book for students studying the fundamental principles of this branch of municipal sanitation. The present edition has been thoroughly revised and increased in size by about one hundred pages.

Progress has been rapid during recent years in this branch of the field of municipal sanitation. The revision of this book is timely as it is generally recognized that activities along this line, retarded by the world war, will shortly be taken up again with renewed vigor.

The style of the book is attractive and it is well arranged for use in the class room. Fundamental principles are clearly stated and use is made liberally of practical illustrations drawn from various important documents and investigations not only in this country, but abroad.

In bringing the book up to date, attention has been paid in particular to the activated sludge process, the two-story tank for the

removal of suspended solids, with a comprehensive recital of advantages and disadvantages as now understood, and improvements in the fine screening of sewage, and progress in disposal of sewage sludge and the recovery of grease and fertilizing constituents from these waste products. Investigations conducted on a comprehensive scale at Cleveland, Chicago, Milwaukee and New Haven are described with summaries of results, as published. One of the merits of the book is that it is written from the viewpoints of the engineer, the chemist and the bacteriologist, thus bringing out for the consideration of the sanitarian and student the general principles of the subject from the angles stated, as is necessary in order to appreciate the practicability and efficiency of the respective methods.

The authors deserve commendation for their temperate statements on topics where current literature shows differences of opinion due presumably to variations in local conditions not as yet fully understood.

Little attempt has been made to set forth completely the most recent results obtained from the operation of plants most lately installed in this country. This may prove disappointing to some who devote themselves entirely to work in this particular field, but it is probably wise on the part of the authors to base a book for class room use on the broad historic background which as stated in the preface, forms the surest basis for real comprehension of the general principles of the subject as now understood. Teachers and students of this subject should welcome this new volume.

GEORGE W. FULLER

SPECIAL ARTICLES

THE POSSIBLE PRESENCE OF CORONIUM IN HELIUM FROM NATURAL GAS

ONE of us (Cady), with McFarland,¹ observed a number of lines in the spectra of samples of helium obtained from natural gas which did not belong in the spectra of helium,

¹ Kansas University Geological Survey, "The Composition of Natural Gas," p. 264.

² *Proc. Roy. Soc.*, 67, 467, 1901.