

Science in Action. EDWARD R. WEIDLEIN and WILLIAM A. HAMOR, Mellon Institute of Industrial Research. McGraw-Hill Book Company, Inc., New York City, 1931. xiii — 310 pp. 32 illustrations (figures). vi tables. 15.5 x 23.5 cm. \$3.00.

The preface to this interesting and instructive book sets forth its scope and purpose in an accurate and precise manner. The result of the authors' effort is a sketch, "in clear language, of the methods and accomplishments of industrial research, that is, scientific investigation as applied to the production and merchandising problems of various branches of manufacture, and to the promotion of human welfare, especially in the United States." The treatise is intended primarily for the layman and it accomplishes its aim; for it is intelligible to an ordinary reader with no knowledge of science in particular, who desires to learn about the general procedures and results of scientific research particularly in this country.

While throughout the volume the spirit of industrial research methodology takes a prominent place, here and there bits of related history, appropriate philosophy and supporting literary gems are found; and at times the authors exhibit the zeal of a crusader of science. Quoting: "This applied science scintillates with splendid achievements; she exhibits her opportunities; she allures young specialists from the universities. But in the background is the pure science who feeds her, the mother whom she profoundly respects.

"Science, scientific management, and industrial research never stop moving, never relax; they are full of zest and eagerness and contemptuous of obstacles."

Following the groundwork of industrial research is a chapter on the development of industrial research in the United States in which is given a brief description of the successive stages by which our industries have expanded. After this comes a discussion of the present status of industrial research in this country, Germany and Great Britain. Here facts and figures are arrayed in a convincing and at times startling manner.

Of peculiar interest to the ordinary reader is that portion of the book dealing with the importance and contribution of scientific research to the necessities of life, its relation to modern medicine and such familiar industries as agriculture and its products.

The reviewer regrets that the authors have so little to say about research in pharmacy.

It is impossible in a brief space to enumerate all the progressive research and robotization of operations which, page after page, flashes before the eye; but we are unwilling to pass by in silence the two chapters dealing with exploits of science with plastics and new industries through chemical synthesis, respectively, without saying "well done."

The treatment of scientific management and rationalization is an excellent exposition of the philosophy and principles involved. Here, the authors are at their best. Here, is the masterpiece of their book. Here, they are no longer telling, but are teaching. Here, will be found a valuable discussion (1) of labor and its relation to automatic machinery improved manufacturing methods, and continuous processes; (2) of scientific research, management and banking; and (3) of the international aspect of industrial research.

A discussion of the industrial-research laboratory management and industrial-research workers concludes the main portion of the book. Then follows an index of the names of persons and organizations mentioned in the text, a subject index follows and concludes the book. This last list includes scientific, technical or commercial designations. In both indexes especially important page references are printed in bold-face type. An additional aid to the reader is the "Contents" on page xi. The type is clear; the paper good.

The book will be helpful to those desiring to improve their plant operations and practices as well as to young men who are thinking of scientific careers in industry.—TOWNES R. LEIGH.

Practical Physiological Chemistry. By P. B. HAWK and OLAF BERGHEIM; tenth edition, 1931. P. Blakiston's Son & Co., Inc., Philadelphia. Price \$6.50.

This is the tenth edition of one of the best-known American textbooks on physiological chemistry, comprising 930 pages with 280 illustrations and a number of colored plates. The present volume marks the twenty-fifth anniversary of the book since the appearance of the first edition, written by the senior author, Dr. P. B. Hawk. A comparison of the book before us with the first edition of the text strikingly emphasizes the enormous advances made in both the science of physiological chemistry and the teaching of that sub-