

nuclear fission, and finally a chapter on methods and apparatus, will be useful to the beginner as well as the research worker and teacher who wants a handy classified list of sources.

KARL LARK-HOROVITZ

Purdue University

Advances in catalysis and related subjects. W. G. Frankenburg, V. I. Komarewsky, and E. K. Rideal. (Eds.) New York: Academic Press, 1948. Pp. viii + 321. (Illustrated.) \$7.80.

This book is a collection of the following eight articles: "The Heterogeneity of Catalyst Surfaces for Chemisorption," by Hugh S. Taylor; "Alkylation of Isoparaffins," by V. N. Ipatieff and Louis Schmerling; "Surface Area Measurements. A New Tool for Studying Contact Catalysts," by P. H. Emmett; "The Geometrical Factor in Catalysis," by R. H. Griffith; "The Fischer-Tropsch and Related Processes for Synthesis of Hydrocarbons by Hydrogenation of Carbon Monoxide," by H. H. Storch; "The Catalytic Activation of Hydrogen," by D. D. Eley; "Isomerization of Alkanes," by Herman Pines; and "The Application of X-Ray Diffraction to the Study of Solid Catalysts," by M. H. Jellinek and I. Fankuchen.

All of the articles will be read with much interest. However, the time has not yet arrived when one specifies exact mechanisms for most catalyst reactions. Taylor presents interesting data which indicate hydrogen is chemisorbed on nickel-chromia catalysts, for example, in two different ways—one at a temperature below -78°C and the other above 0°C . He succeeds in adducing much evidence to show the nonuniformity of chemisorption on various surfaces. The other authors likewise provide much new information. Every chapter is written by a specialist in the particular field and the contents are ac-

curately indicated by the titles. A person concerned with catalysis should certainly consult this book.

HENRY EYRING

University of Utah

Detailed atlas of the head and neck. Raymond C. Truex and Carl E. Kellner. New York: Oxford Univ. Press, 1948. Pp. xiii + 162. \$15.00.

We find in this atlas an unusually complete coverage of the anatomy of the head and neck. Some eighty of the figures are of dissections and thirty of frontal or transverse sections. In all but a few plates of the skull and vertebrae, the artist has been painstaking and successful in representing by line and shade the finer structure of organs and the texture of tissues. Blood vessels and nerves are in colors. The figures are large, some of them over life size.

An atlas, a chart, or a model may lose much of its value by faulty labeling. This feature has been given careful consideration. Labels are abundant and this abundance is reflected in the extent of the index. The special problem of labeling the closely packed structures of some sections of the head is met by repeating the central part of the plate on the opposite page.

In any atlas that faithfully records anatomical preparations there are inevitable variations from the more usual anatomy. These misleading features are usually passed over in silence. Here they are commented on in the explanatory paragraphs accompanying the plates.

The volume will serve as a highly valuable addition to the working equipment of certain clinical specialists and anatomists. Its contents are too extensive for daily use by the first-year student but it should be made available to him for reference.

JOHN J. SHEININ

Chicago Medical School

Scientific Book Register

BENEDICT, MANSON, and WILLIAMS, CLARKE. (Eds.) *Engineering developments in the gaseous diffusion process.* New York: McGraw-Hill, 1949. Pp. xx + 129. (Illustrated.) \$1.25.

BENT, ARTHUR CLEVELAND. *Life histories of North American thrushes, kinglets, and their allies.* (U. S. National Museum Bull. 196.) Washington, D. C.: Supt. of Documents, U. S. Govt. Prntng. Office, 1949. Pp. viii + 454. (Illustrated.) \$1.50.

BURSTEIN, CHARLES L. *Fundamental considerations in anesthesia.* New York: Macmillan, 1949. Pp. x + 153. (Illustrated.) \$4.00.

DAVIES, OWEN L. (Ed.) *Statistical methods in research and production: with special reference to the chemical industry.* (2nd ed., rev.) New York (3): Stechert-Hafner; London and Edinburgh: Oliver & Boyd, 1949. Pp. xi + 292. 28/—.

EDGEHILL, GEORGE HAROLD. *The bee hunter.* Cambridge, Mass.: Harvard Univ. Press, 1949. Pp. 49. (Illustrated.) \$2.50.

EDMONDSON, CHARLES HOWARD. *Seashore treasures.* Palo Alto, Calif.: Pacific Books, 1949. (Illustrated.) Pp. 144. \$3.50.

GRASSE, PIERRE-P. (Ed.) *Traité de Zoologie: Anatomie, Systématique, Biologie: Onychophores, Tardigrades, Arthropodes, Trilobitomorpha, Chélicérates.* (Tome VI). Paris (VI^e): Masson et Cie, 1949. Pp. 979. (Illustrated.) 5000 fr.

WENTZEL, GREGOR. *Quantum theory of fields.* (Translated from the German by Charlotte Houtermans and J. M. Jauch.) New York, London: Interscience, 1949. Pp. ix + 224. \$6.00.

WISLER, C. O. and BRATER, E. F. *Hydrology.* New York: John Wiley, 1949. Pp. xi + 419. (Illustrated.) \$6.00.