

nisms, catalysts, their preparation, poisoning, and reaction conditions are included.

The catalytic synthesis of ammonia is taken up in the next two chapters, which comprise a third of the volume. W. G. Frankenburg takes the reader through the entire story of this most important and interesting synthesis. From initial laboratory experiments to the technical problems, reaction conditions and handling problems and catalyst studies are covered. The second chapter, on ammonia by several Dutch authors, describes the work done since 1940, by which time surface area measurements could adequately be made. The still unsettled problem of a priori heterogeneity of the catalyst surface is debated.

The synthesis of methanol and the hydrogenation of glyceride oils are followed by a final chapter on catalytic dehydrogenation. All the information on these reactions appears to have been carefully summarized by the various authors, but these chapters are written in a more technical vein.

The editor is to be commended for bringing together such an excellent group of contributors. The practical information and experimental details are certain to prove invaluable to workers who follow. Typography and freedom from errors remain highly commendable.

A. C. ZETTEMAYER

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The Mammalian Fetus: Physiological Aspects of Development. Cold Spring Harbor Symposia on Quantitative Biology, vol. XIX. Biological Laboratory, Cold Spring Harbor, New York, 1954. xii + 225 pp. Illus. \$8.

One hundred and thirty-eight biologists and physicians assembled at Cold Spring Harbor from 7 to 14 June 1954, to hear and discuss the 27 papers (32 authors) on fetal physiology that were presented there. Grants from several sources made possible the participation of 20 Europeans from countries in which much of the pioneering work in this rapidly developing field of research has been initiated (Great Britain, 14; Sweden, 2; and Belgium, Finland, France, and Norway, 1 each). The remaining 12 participants were from the United States.

The papers can be roughly grouped in the following categories. (i) General and summarizing (S. R. M. Reynolds, F. P. Chinard, A. St. G. Huggett, Clement A. Smith). (ii) Endocrine system (A. S. Parkes, Alfred Jost, Joseph P. Holt). (iii) Uterine relations and placental physiology (Bent G. Böving, Finn Bøe, J. C. McClure Brown, F. W. Rogers

Brambell, A. St. G. Huggett, Donald H. Barron and Giacoma Meschia). (iv) Growth (J. S. Nicholas). (v) Genetics (Salome Gluecksohn-Waelsch, Liane B. Russell and William L. Russell). (vi) Fetal circulation and circulatory changes at birth (G. V. R. Born, G. S. Dawes, J. C. Mott and J. G. Widdicomb, John Lind and Cargl Wegelius). (vii) Respiratory control and asphyxia (K. W. Cross, J. A. Miller, Jr.). (viii) Biochemistry and metabolism (E. F. McCarthy; James Walker; C. E. Riihä; R. A. McCance and E. M. Widdowson, 2 papers; Claude A. Villee; G. Popjak).

There is a certain amount of repetition, an unavoidable result of assembling a group of independent papers under one cover. A few errors were noted: "full filled" for "fulfilled" (p. 24), "hypothe-cate" for "hypothesize" (p. 38), and "un-usually" for "unusual" (p. 215). The practice of printing discussions only when they were submitted to the editor in manuscript form has had two curious results. The participants are represented as making verbal exchanges in highly technical language that would rarely be spoken and, if spoken, not easily understood; several of the discussions are essentially short papers illustrated with one or more graphs (pp. 39-40, pp. 91-92, pp. 165-166).

The book as a whole is a worth-while addition to the literature of embryology and physiology and gives an up-to-date impression of most lines of research in what has been until recently a neglected field. Immunoembryology and the large field of experimental embryology are touched on in only one paper, that by Salome Glueckson-Waelsch, and fetal behavior and the nervous system are neglected entirely.—G. DUS.

New Books

Steels for the User. R. T. Rolfe. Philosophical Library, New York, rev. ed. 3, 1956. 399 pp. \$10.

Structure Reports for 1942-1944. vol. 9. A. J. C. Wilson, Ed.; N. C. Baenziger, J. M. Bijvoet, and J. Monteath Robertson, Section Eds. Oosthoek's Uitgevers MIJ (for the International Union of Crystallography), Utrecht, Netherlands, 1955. 448 pp. Fl. 65.

Recent Studies in Avian Biology. Albert Wolfson, Ed. Published under the sponsorship of the American Ornithologists' Union. University of Illinois Press, Urbana, 1955. 479 pp. \$7.50.

Advanced Analytical Chemistry. Walter Wagner, Clarence J. Hull, and Gerald E. Markle. Reinhold, New York; Chapman & Hall, London, 1956. 282 pp. \$6.

Nellie Landblom's Copybook for Beginners in Research Work. Nellie Thompson Landblom. The author, P. O. Box 248, Fort Collins, Colo., 1955. 118 pp. Paper, \$2.95.

Through the Mathescope. C. Stanley Ogilvy. Oxford University Press, New York, 1956. 162 pp. \$4.

Advances in Protein Chemistry. vol. X. M. L. Anson, Kenneth Bailey, and John T. Edsall, Eds. Academic Press, New York, 1955. 425 pp. \$9.

Annual Review of Entomology. vol. I. Edward A. Steinhaus and Ray F. Smith, Eds. Annual Reviews, Stanford, Calif., 1956. 466 pp. \$7.

The United States Patent System. Legal and economic conflicts in American patent history. Floyd L. Vaughan. University of Oklahoma Press, Norman, 1956. 355 pp. \$8.50.

By Sea on the Tonquin. The dramatic account of the voyage and building of Fort Astoria and of the establishment of the interior fur trade. Cecil Dryden. Caxton, Caldwell, Idaho, 1956. 289 pp. \$4.50.

Thermodynamics and Statistical Mechanics. vol. V of *Lectures on Theoretical Physics.* Arnold Sommerfeld. F. Bopp and J. Meixner, Eds. J. Kestin, trans. Academic Press, New York, 1956. 401 pp. \$7.

Guide Pratique de Mycologie Médicale. A l'usage des médecins, des laboratoires et des botanistes précédé d'un tableau d'orientation diagnostique et thérapeutique. Jean Coudert. Masson, Paris, 1955. 364 pp. Paper, F. 5200; cloth, F. 6000.

Psychology of Industrial Conflict. Ross Stagner. Wiley, New York; Chapman & Hall, London, 1956. 550 pp. \$8.

Remington's Practice of Pharmacy. A textbook and reference guide for pharmacists, physicians, and other medical scientists. Eric W. Martin and E. Fullerton Cook, Eds. Mack, Easton, Pa., ed. 11, 1956. 1707 pp. \$18.

The Psychology of Human Differences. Leona E. Tyler. Appleton-Century-Crofts, New York, ed. 2, 1956. 562 pp. \$6.

Ergebnisse der Medizinischen Grundlagenforschung. K. Fr. Bauer. Thieme, Stuttgart, Germany, 1956 (order from Intercontinental Medical Book, New York 16). 855 pp. \$30.75.

Éléments d'Immunologie Générale. P. Gastinel, R. Fasquelle, and P. Barbier. Masson, Paris, 1955. 335 pp. F. 2000.

Jaarboek der Koninklijke Nederlandse Akademie van Wetenschappen, 1954-1955. N. V. Noord-Hollandse Uitgevers Maatschappij, Amsterdam, 1955. 349 pp.

Supplemental Drawings for Embryology. Graham DuShane. University of Chicago Press, Chicago, 1955. 44 pp. \$1.50.

*The Mycology of the Whooping Crane, *Grus americana*.* Illinois Biological Monogr. vol. XXIV, No. 2. Harvey I. Fisher and Donald C. Goodman. University of Illinois Press, Urbana, 1955. 127 pp. Cloth, \$3.50; paper, \$2.50.

Progress in Biophysics and Biophysical Chemistry. vol. 6. J. A. V. Butler, Ed. Pergamon, London, 1956. 274 pp. \$9.50.

The Torment of Secrecy. The background and consequences of American security policies. Free Press, Glencoe, Ill., 1956. 238 pp.

Common Sense in Research and Development Management. George W. Howard. Vantage Press, New York, 1955. 104 pp. \$2.75.