

pilation of papers in this area may not appear again for many years.

The entire volume is well arranged and remarkably free from errors, in view of the number and geographical distribution of the contributors.

J. Kistemaker, the force behind the conference and in the preparation of these proceedings, has performed a valuable service for his colleagues.

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Progress in the Chemistry of Organic Natural Products. vol. XIV. L. Zechmeister, Ed. Springer, Vienna, Austria, 1957. viii + 377 pp. \$17.85.

In this most recent volume of the *Progress* series, Zechmeister has assembled seven chapters representative of fields of current interest; five of these deal with the chemistry of plant materials. Noteworthy is the steady increase in the amount of space devoted to biogenetic mechanisms—no longer an isolated area of fragile speculation.

"Acetylenverbindungen im Pflanzenreich," by F. Bohlmann and H. J. Mannhardt, reviews the methods of isolation, structure elucidation, and synthesis of a variety of acetylenes and polyacetylenes found in both higher and lower plants. The chapter closes with a detailed speculation on the biogenesis of this series and a description of the use of acetylene compounds as a guide in plant taxonomy.

In "Neuere Ergebnisse auf dem Gebiete der glykosidischen Herzgifte: Zucker und Glykoside," C. Tamm presents recent work on the chemistry of the cardiac-active glycosides. Physical properties of the sugars and aglycones, as well as botanical sources of the glycosides, are presented in extensive tables.

The chemistry of hypericin and related polycyclic quinones is set forth in a chapter by H. Brockmann, "Photodynamisch wirksame Pflanzenfarbstoffe." These plant coloring matters sensitize grazing animals to serious irritation by sunlight. The interesting hypothesis that such compounds catalyze the photooxidation of proteins is discussed briefly.

In "Biosynthetic relations of some natural phenolic and enolic compounds," A. J. Birch summarizes the evidence derived from labeling and other experiments which permits an elaboration of the pathway from two-carbon fragments to complex cyclic compounds. By making use of a few chemical reactions known to be within the realm of enzymes, Birch is able to correlate the structures and biosynthesis of a wide variety of natural products, including phenols, coumarins, anthocyanins, lignin precursors, terpenoids, and tropolones.

H. Sobotka, N. Barsel, and J. D. Chanley have reviewed the chemistry, physiology, and pharmacology of "The aminochromes." The oxidation products of phenylethylamines have long been of interest as precursors of melanin pigments. The current research activity on the metabolism of adrenalin and aromatic amino acids, and on the pharmacological properties of these unstable quinones themselves, renders the chapter particularly timely.

A portion of the complex and fascinating chemistry of vision is reviewed in "Visual pigments," by R. A. Morton and G. A. J. Pitt. In addition to describing the chemistry of retinenes and rhodopsin, the authors have enhanced the value of the review by including a comparative survey of the eye pigments of nonmammalian species.

A final chapter by H. Brown, "The carbon cycle in nature," discusses the possible origins and the quantities, rates, and mechanisms of turnover of biochemical carbon. A number of phenomena are explained by the assumption that the earth was born with a reducing atmosphere which was gradually transformed to the present oxidizing atmosphere.

The high calibre of writing traditional to this series is maintained in the present volume, as is the quality of the paper and printing.

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British Pharmacopoeia, 1958. Published under the direction of the General Medical Council. Pharmaceutical Press, London, for the Council, 1958 (order from Rittenhouse Bookstore, Philadelphia). xxvi + 1012 pp. £3 3s.

American readers familiar with the *United States Pharmacopeia (USP)*, volume XV, will be perfectly at home with the *British Pharmacopoeia, 1958 (BP)*. The two compendia are similar in scope, content, and format. Both consist of introductory notices and definitions, several hundred pages of monographs running from acacia to zinc undecylenate (including names, descriptions, identification and assay methods, and the like), and detailed appendices on methods and materials. In both books the material is assembled with the assistance of committees drawn from pharmacists and physicians from universities and industry; the English use about twice as many committees as do the Americans.

A few of the minor differences may be interesting to American readers. The *BP* eliminates the salt of a drug when

only one form is used; thus "Injection of neostigmine methylsulfate" becomes "Neostigmine injection." In expressing dosage the *BP* is somewhat less consistent than the *USP*. Some statements are brief, as for isoniazid: "0.1 to 0.3 g. daily in divided doses"; others are long, as for cyanocobalamin: "By intramuscular injection, controlling dose, 50 to 100 micrograms weekly, or more frequently if subacute combined degeneration of the spinal cord is present; maintenance dose, 50 to 100 micrograms every two or three weeks." In the *USP* the usual dose and the range of doses are given separately, with therapeutic directions uniformly brief. A more important difference is the inclusion of a categorizing name or statement in the *USP* which informs the reader of the general action or type of the drug, and thus helps to identify a drug when its name alone does not bring recognition.

Neither book is a therapeutic guide for physicians. Rather both are books of standards and sources of pharmaceutical directions which list officially those drugs preferred in good medical practice.

WINDSOR CUTTING

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New Books

Administrative Medicine. Transactions of the fifth conference, 28-30 October 1956, Princeton, N.J., George S. Stevenson, Ed. Josiah Macy, Jr. Foundation, New York, 1958. 197 pp. \$3.75.

Advances in Clinical Chemistry. vol. I. Harry Sobotka and C. P. Stewart. Academic Press, New York, 1958. 409 pp. \$12.

Adventures in the World of Science. Charles Greeley Abbot. Public Affairs Press, Washington, 1958. 159 pp. \$3.50.

Aircraft Communications Systems. J. H. H. Grover. Philosophical Library, New York, 1958. 135 pp. \$6.

Bacterial and Mycotic Infections of Man. Rene J. Dubos. Lippincott, Philadelphia, ed. 3, 1958. 832 pp. \$8.50.

The Biological Replication of Macromolecules. Symposia of the Society for Experimental Biology, No. XII. Academic Press, New York, 1958. 261 pp. \$9.50.

Buildings for Research. An architectural record book. F. W. Dodge Corp., New York, 1958. 224 pp. \$9.50.

Causes de la répartition des êtres vivants. Raymond Furon. Masson, Paris, 1958. 168 pp. Paper, F. 1000.

Clinical Neuroanatomy, Neurophysiology, and Neurology. With a method of brain reconstruction. Louis Hausman. Thomas, Springfield, Ill., 1958. 547 pp. \$9.75.

Coccidioidomycosis. Marshall J. Fiese. Thomas, Springfield, Ill., 1958. 253 pp. \$9.50.

Cosmic Electrodynamics. J. W. Dungey. Cambridge Univ. Press, New York, 1958. 192 pp. \$6.

Discussions on Child Development. A consideration of the biological, psycho-

logical, and cultural approaches to the understanding of human development and behavior. vol. 3. Proceedings of the third meeting of the World Health Organization Study Group on the Psychobiological Development of the Child, Geneva, 1955. J. M. Tanner and Bärbel Injelder, Eds. International Universities Press, New York, 1958. 223 pp. \$5.

Engineering Systems Analysis. Robert L. Sutherland. Addison-Wesley, Reading, Pa., 1958. 235 pp. \$7.50.

The Gang. A study in adolescent behavior. Herbert A. Bloch and Arthur Niederhoffer. Philosophical Library, New York, 1958. 246 pp. \$6.

Gas Chromatography. A symposium held under the auspices of the Analysis Instrumentation Division of the Instrument Society of America, August 1957. Vincent J. Coates, Henry J. Noebels, Irving S. Fageron, Eds. Academic Press, New York, ed. 2, 1958. 335 pp. \$10.

Getting Acquainted with Minerals. George Letchworth English and David E. Jensen. McGraw-Hill, New York, ed. 2, 1958. 372 pp. \$6.95.

Modern Geometrical Optics. Max Herzberger. Interscience, New York, 1958. 516 pp. \$15.

Numerical Mathematical Analysis. James B. Scarborough. Johns Hopkins Press, Baltimore; Oxford Univ. Press, London, ed. 4, 1958. 597 pp. \$6.

Peace without Victory. Woodrow Wilson and the British liberals. Laurence W. Martin. Yale Univ. Press, New Haven, Conn., 1958. 241 pp. \$4.50.

Perception and Communication. D. E. Broadbent. Pergamon, New York and London, 1958. 338 pp. \$8.50.

Pictorial History of Israel. Jacob A. Rubin and Meyer Barkai. Yoseloff, New York, 1958. 319 pp. \$7.50.

The Practical Use of the Microscope, Including Photomicrography. George Herbert Needham. Thomas, Springfield, Ill., 1958. 517 pp. \$15.50.

Radiation Protection. Carl B. Braestrup and Harold O. Wyckoff. Thomas, Springfield, Ill., 1958. 380 pp. \$10.50.

Recent Progress in Hormone Research. Proceedings of the Laurentian Hormone Conference 1957. vol. XIV. Gregory Pinus, Ed. Academic Press, New York, 1958. 590 pp. \$13.50.

Revelation through Reason. Religion in the light of science and philosophy. Errol E. Harris. Yale Univ. Press, New Haven, Conn., 1958. 170 pp. \$4.50.

Semimicro Experimental Organic Chemistry. A laboratory manual. Nicholas D. Cheronis. de Graff, New York, 1958. 416 pp. \$5.50.

Science and the Idea of God. C. A. Coulson. Cambridge Univ. Press, New York, 1958. 51 pp. \$0.90.

The Social History of Lighting. William T. O'Dea. Macmillan, New York, 1958. 267 pp. \$8.50.

Social Psychiatry in Action. A therapeutic community. Harry A. Wilmer. Thomas, Springfield, Ill., 1958. 396 pp. \$8.75.

Technical Education and Social Change. Stephen F. Cotgrove. Allen & Unwin, London; Essential Books, Fair Lawn, N.J., 1958. 220 pp. \$4.50.

Miscellaneous Publications

(Inquiries concerning these publications should be addressed, not to Science, but to the publisher or agency sponsoring the publication.)

Atomic Energy of Canada Limited, Annual Report, 1957-58. Atomic Energy of Canada Limited, Chalk River, Ontario, 1958. 28 pp.

European Organization for Nuclear Research, Annual Report, 1957. European Organization for Nuclear Research, Geneva, Switzerland, 1958. 86 pp.

Sistema fonémico del macoito. Lenguas indígenas de Venezuela, No. 1. Martha Hildebrandt. Comisión Indigenista, Ministerio de Justicia, Caracas, Venezuela, 1958. 99 pp.

L'Institut national pour l'étude agromique du Congo Belge. vol. VII, No. 2. L'Institut, rue Defacqz, 1, Brussels, Belgium, 1958. 61 pp.

Les Observations météorologiques en Terre Adélie 1950-1952. Analyse critique. Expéditions polaires françaises; expéditions Antarctiques, résultats scientifiques. André Prudhomme and Bernard Valtat. 1957. 180 pp.

Climatologie de Paris et de la région parisienne. Mémorial de la météorologie nationale. No. 45. H. Grisellet. 1958. 78 pp. Secrétariat Général à l'Aviation Civile et Commerciale, 1, Quai Branly, Paris.

Ceylon Association for the Advancement of Science. Thirteenth annual session, 19-21 December, 1957. *General Programme, Annual Reports*, 42 pp.; *Proceedings*, pts. 1 and 2, 230 pp. Ceylon Assoc. for the Advancement of Science, Univ. of Ceylon, Colombo 3.

An Alphabetical List of Plant Species Cultivated in the Hortus Botanicus Bogoriensis. Foundation for Nature Research, Botanic Gardens of Indonesia and Council for Sciences of Indonesia, Djakarta, Indonesia, 1958. 266 pp.

Anuario bibliográfico peruano de 1951-1952. Alberto Tauro. Ediciones de la Biblioteca Nacional, Lima, 1957. 436 pp.

The Determination of the ABO and Rh(D) Blood Groups for Transfusion. Medical Research Council Memorandum No. 36 (Revision of War Memorandum No. 9). Her Majesty's Stationery Office, London, 1958. 46 pp. 3s. 6d.

Proceedings of the Royal Institution of Great Britain. Containing accounts of the Friday evening discourses and other meetings. vol. 37, pt. 1, No. 165, 1958. Royal Institution, London, 1958. 118 pp. 8s. 6d.

The Mealy-Bugs (Pseudococcidae: Homoptera) Described by W. J. Hall, F. Laing and A. H. Strickland from the Ethiopian Region. Bulletin, Entomology, vol. 7, No. 1. D. J. Williams. British Museum (Natural History), London, 1958. 37 pp. 10s.

The Institute of Medical and Veterinary Science. Nineteenth Annual Report of the Council, July 1956-June 1957. The Institute, Adelaide, Australia, 1958. 79 pp.

Commonwealth Scientific and Industrial Research, Ninth Annual Report, 1956-57. Parliament of the Commonwealth of Australia, Canberra, Australia, 1958. 179 pp. 10s. 6d.

The Causes of Natural Durability in Timber. The role of toxic extractives in

the resistance of silvertop ash (*Eucalyptus sieberiana* F. Muell.) to decay. Div. of Forests Prod. Technol. Paper No. 1. P. Rudman and E. W. B. DaCosta. 8 pp.

The Correlation of Monthly Rainfall with Position and Altitude of Observing Stations in South Australia. Div. of Mathematical Statistics Tech. Paper No. 4. G. G. Coote and E. A. Cornish. 20 pp.

The Grazing Factor and the Maintenance of Catchment Values in the Australian Alps. Div. of Plant Industry Tech. Paper No. 10. A. B. Costin. 14 pp.

Laboratory Studies of Termite Resistance. pt. I, *The Anti-termite Value of Some Chlorinated Naphthalenes and Phenols*, F. J. Gay and A. H. Wetherly, 14 pp.; pt. II, *The Termite Resistance of Untreated and Treated Hardboards*, F. J. Gay and A. H. Wetherly, 13 pp.; pt. III, *A Comparative Study of the Anti-termite Value of Boric Acid, Zinc Chloride, and "Tanalith U,"* F. J. Gay, K. M. Harrow, A. H. Wetherly, 14 pp.

Div. of Entomol. Tech. Papers Nos. 2-4. *Studies in the Preservation of Shell Eggs.* pt. VIII, *The Effects of the Treatment of Shell Eggs with Oil.* Div. of Food Preservation and Transport Tech. Paper No. 7. F. S. Shenstone and J. R. Vickery. 23 pp.

Principles of Soil Distribution in the Griffith-Yenda District, New South Wales. Soil Publ. No. 11. D. C. van Dijk. 24 pp.

Commonwealth Scientific and Industrial Research Organization, Melbourne, Australia, 1958.

Deep-Sea Echinoderms of New Zealand. Zoology Publ. No. 24. H. Barraclough Fell. Victoria Univ., Wellington, New Zealand, 1958. 40 pp.

Notas de física, vol. III. No. 25, George W. Clark and Juan Hersil; No. 26, P. H. Fowler, P. S. Freier, E. P. Ney, S. J. St. Lorant, C. M. G. Lattes; No. 27, L. Marquez, N. L. Costa, I. G. Almeida; No. 28, G. Beck and H. M. Nussenzweig. 42 pp.

Solution of a Diffraction Problem. Notas de física, suplemento ao volume III, publicação previa, subvencionado pelo conselho nacional de pesquisas. Herch Moysés Nussenzweig. 219 pp. Centro Brasileiro de Pesquisas Físicas, Rio de Janeiro, 1957.

Oceanographic Papers in Japan. Annotated bibliography, 1939-1957. vol. II. 217 pp.

Records of Oceanographic Works in Japan. Spec. No. 2 for the Oceanographic Research Project by the Japanese National Commission for UNESCO. A continuation of the *Records of Oceanographic Works in Japan*, vol. 12, No. 2. Compiled by Pacific Science Liaison Committee of Science Council of Japan. 242 pp.

Japanese National Commission for UNESCO, 4-3 Kasumigaseki, Chiyoda-ku, Tokyo, Japan, 1958.

Safe Handling of Bodies Containing Radioactive Isotopes. A guide for surgeons, pathologists, and funeral directors. Handbook 65. National Bureau of Standards, Washington 25, 1958 (order from Supt. of Documents, GPO, Washington 25). 22 pp. \$0.15.

Tables of Transport Integrals. NBS Circular 595. William M. Rogers and Robert L. Powell. National Bureau of Standards, Washington, 1958 (order from Supt. of Documents, GPO, Washington, 25). 46 pp. \$0.40.