

Progress in Medicinal Chemistry

Vol. 3. Edited by Dr. G. P. Ellis and Dr. G. B. West. Pp. x+407. (London: Butterworth and Co. (Publishers), Ltd., 1963.) 80s.

VOLUME 3 of *Progress in Medicinal Chemistry* considers seven topics. These are: some chemical aspects of neuromuscular block, by J. B. Stenlake, which is complementary to a chapter on the pharmacology of neuromuscular transmission that appeared in the preceding volume; the chemotherapy of trypanosomiasis, by L. P. Walls; antitussive drugs, by C. I. Chappel and C. Von Seeman; the chemistry and pharmacology of the *Rauwolfia* alkaloids, by R. A. Lucas; statistics as applied to pharmacological and toxicological screening, by G. A. Stewart and P. A. Young; anticonvulsant drugs, by A. Spinks and W. S. Waring; local anaesthetics, by S. Wiedling and C. Tognér.

In a book which brings together such diverse subjects it would be invidious to make comparisons, and it may suffice to say that these reviews are competently written and contain a vast amount of factual information documented by nearly 2,500 references. It is also indicative of where the greatest interest is shown in medicinal chemistry at the present time that the authors of six of the seven chapters are employed in industrial pharmaceutical research establishments. Several authors conclude their chapters on a note of regret that there is so little in the way of fundamental biological knowledge to guide the painstaking search for new and better drugs, and discussion centres largely around structure-activity relationships that have been established empirically. This is still unfortunately so, and it is to be hoped that molecular biologists, when they have solved their present fashionable problems, may turn to the structure-activity relationships of drugs, and so help to prepare the blueprints for the drugs of the future and to explain satisfactorily how those we already have really function.

There is material of interest for organic chemists, biochemists, pharmacologists, and clinicians in this volume.

J. WALKER

Inorganic Complexes

By Chr. Klixbüll Jørgensen. Pp. v+220. (London and New York: Academic Press, 1963.) 42s.

THE appearance of a new book by Dr. Jørgensen is always a matter of interest to inorganic chemists, and *Inorganic Complexes* is no exception. The book is intended to survey recent progress in the understanding of chemical bonding and to review the preparation of new inorganic complexes. The discussion is based essentially on the absorption spectra of complexes treated within the framework of molecular orbital theory. The compounds are classified according to the concept of 'inorganic chromophores'. Thus, following a short introduction (which includes two pages of corrections to one of the author's earlier books), the chapters are arranged according to the ligand atoms attached to the metal. For example, separate chapters are devoted to aqua hydroxo and oxo complexes, halo complexes, nitrogen-donor ligands, sulphur-donor ligands, ligands of low electronegativity (including hydrogen, phosphorus, arsenic, selenium and tellurium donor ligands), and finally there is an interesting chapter on intermetallic bonding and co-operative effects. An immense amount of data is referred to in this book (there are nearly 1,200 references, the latest of which appeared about June 1963), but I feel that this division of chapters is indeed a useful one. The material is interspersed with data on formation constants and it also includes a discussion of the rare-gas compounds.

The book is well produced, and very usefully indexed, there being separate indexes based on "General Subjects", "Central Atoms", and "Ligands". In fact, it would appear that the extensive referencing and indexing are

the most valuable features of the book to research workers in inorganic chemistry. The English has a tendency to be stilted, and in some cases the comments are too brief to be very useful; for example, it is not of much assistance to say only that "X wrote a review on a certain subject", without at least saying whether it is a good or bad review.

The text appears to be relatively free of errors, but the discussion of the diamagnetism of ReH_9^{2-} on p. 147 is now irrelevant, because the ion has been shown by neutron diffraction experiments to be ReH_9^{2-} (ref. 1). The discussion of the diarsine on pp. 161-63 does not mention one of its more surprising properties—that of stabilization of the co-ordination number eight with titanium and vanadium. On p. 126, $\text{Co}(\text{CO})_4\text{NO}$ is written instead of $\text{Co}(\text{CO})_5\text{NO}$, and on p. 150 the statement that "the stretching frequencies found in the infrared spectra of these complexes ($\text{M}(\text{CO})_5\text{X}$) are comparable to those observed for MX_4^{2-} " is meaningless without an indication that the comparison is pertinent only to the metal-halogen stretching vibrations. Ref. 96 should read "(1963), p. 861".

Thus, while this book is rather too condensed for easy reading, it should prove to be a valuable asset to inorganic chemists as a reference book and for Dr. Jørgensen's interesting comments on many aspects of the subject.

R. J. H. CLARK

¹ Abrahams, S. C., Ginsberg, A. P., and Knox, K., *Inorg. Chem.*, 3, 558 (1964).

Introduction to Dynamic Morphology

By Edmund Mayer. Pp. x+545. (New York and London: Academic Press, 1963.) 114s. 6d.

THIS book is quite unlike any other. It is the product of many years of interaction between the author, an erudite pathologist, and representatives of the many varieties of scientist now engaged in biological and paramedical research. An increasing number of these have no knowledge of the morphological background that is second nature to the biologist who has graduated from within the subject. Dr. Mayer's book explains for such welcome immigrants to biology the nature of this indigenous culture. His material is the anatomy, histology and fine structure of animals, considered functionally and developmentally; but he casts it into a form quite different from that of a systematic text-book. He organizes knowledge of morphology in terms of how structure is described and interpreted, in terms, that is, both of basic techniques and of basic ideas; and this leads him to many unexpected associations. The field he surveys is naturally enormous: we meet in fact the collected thoughts of an immensely experienced biologist who has thought a great deal about his experiences. He sets out his comprehensive knowledge with meticulous exactness and detail. His conclusions are not usually eye-openers for the graduate in biology, but they are supremely sensible. The total effect of the book may be a little overwhelming in its solidity and thoroughness, but it leaves a feeling of great respect for its author.

M. ABERCROMBIE

Paediatric Aspects of Cerebral Palsy

By T. T. S. Ingram. Pp. xii+515. (Edinburgh and London: E. and S. Livingstone, Ltd., 1964.) 84s. net.

THIS new book contains the results of a survey of Edinburgh children with cerebral palsy, a sequent study of the problems they encountered in later life, and an account of the aetiology and clinical features of cerebral palsy in all its forms. Each major syndrome is described in detail and the relevant literature reviewed with particular emphasis on the work of nineteenth-century writers. Despite the title, paediatric care and management are not dealt with, and it is less a text-book than a personal treatise on cerebral palsy, expounding Dr. Ingram's own views, which have become well known through his