Advances in Catalysis and Related Subjects. vol. IX. Proceedings of the International Congress on Catalysis, Philadelphia, Pennsylvania, 1956. Adalbert Farkas, Ed. Academic Press, New York, 1957. xviii + 847 pp. Illus. $16.

Every effort was made to get the world leaders in catalysis to participate in this conference, and with marked success. Sir Hugh Taylor, whose ideas on active points and activated adsorption have guided research through the years, highlights the past advances and looks to the future. It is particularly appropriate that Sir Eric Rideal should join again with Taylor in a common enterprise and discuss surfaces in the light of his wide experience.

One hundred and forty-seven contributors have prepared 83 papers for this volume; these are presented in four major symposia. First, the "Chemistry and Physics of Solid Catalysts" includes hydrogenation and hydrogen exchange reactions, physical properties of catalysts, electronic properties, and catalytic activity. Next, "Homogeneous Catalysis and Related Effects" is followed by "Surface Chemistry and Its Relation to Catalysis." Finally, "Techniques and Technology of Catalysis" includes consideration of catalytic reactions of hydrocarbons, tracer and other techniques, and various catalytic reactions.

In a book where nearly every chapter is excellent, it is difficult to single out the high spots. Notable are the magnetic studies by Selwood of structure and electron density in a functioning catalyst. Turkevich and his associates find a sharp magnetic reasonance in a charcoal which has been heated and then evacuated. De Boer gives a useful discussion of the structure and texture of catalysts. Garner's discussion of electron transfer and catalysis reflects his wide experience. Eley takes an interesting look at mechanism, and Emmet surveys tracer and adsorption techniques in catalysis. Houdry highlights the practical approach, while Schwab presents the modern solid-state aspect of catalysis. Every catalytic chemist will want to read this excellent book.

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Palmer's Fieldbook of Mammals. E. Laurence Palmer. Dutton, New York, 1957. 321 pp. $3.75.

By concentrating on mammals, Palmer has been able to include in this pocket-sized book a fuller coverage of native North American varieties than was the case in his larger *Fieldbook of Natural History*. As before, however, the contents include wild types from this continent, pets and domesticated forms from the whole world, and a well-chosen selection of species popular in literature and zoos. About a third of the present book concerns domesticated and semi-domesticated mammals, with many helpful notes and a wealth of detailed information useful to farmer, housewife, parent, and junior naturalist.

Clear illustrations and specifications concerning geographic range, dental features, size and age and color range, breeding habits, growth rate, pulse, body temperature, and the like will be helpful to the technical zoologist, while notes on tracks and scats will aid the outdoor naturalist and conservationist.

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Die Bluteiweisskoerper des Menschen. Untersuchungsmethoden und deren klinisch praktische Bedeutung. Ferdinand Wuhrmann and Charlie Wunderly. Schwabe, Basel, 1957 (order from Intercontinental Medical Book Corporation, New York). 499 pp. Illus. $13.

The new edition of this well-known textbook is, like the previous ones, divided into seven chapters. (i) "Chemistry of plasmaproteins" classifies the plasma proteins according to their electrophoretically separable components; discusses their chemical, physicochemical, and immunological properties, and treats the atypical proteins ("para-proteins") similarly. (ii) "Protein reactions" gives a selection of qualitative and quantitative methods for protein determination. (iii) "Test-methods" describes salt and alcohol fractionation, electrophoresis, and ultracentrifugation, with special emphasis on paper electrophoresis as a routine clinical method, and includes the new technique of immunoelectrophoresis. (iv) "Clinical-chemical methods" presents some laboratory tests for determining plasmaprotein alterations. (v) "Clinical significance of the plasmaproteins" classifies certain disease groups involving "para- and dys-proteinemias" into nine *"Reaktionskonstellationen."* This is followed by a helpful reveiew of the relative values of the different laboratory methods and a thorough survey of the changes in blood proteins in specific diseases. A table summarizes, for purposes of differential diagnosis, the blood protein picture of obscure diseases. (vi) "Clinical considerations of dysproteinemias and paraproteinemias" deals with disease patterns resulting directly from severe and lasting changes in the different plasma protein components. The section on macroglobulinemia (Waldenstroem) has been considerably enlarged, while there are new sections on purpura hyperglobulinemia (Waldenstroem), gamma-globulin deficiency and the recently discovered analbuminemia (Bennhold). (vii) "Origin and formation of blood proteins" offers some speculations, mainly from the clinical point of view.

As the authors point out in their preface, no attempt is made to discuss hemoglobin, blood-clotting, and lipoproteins. Extensive references to the international literature are given throughout the book. The clinician will again welcome the schematic and lucid diagrams, which facilitate the recognition of the most important changes in each of the abnormalities discussed. Many of the terms, such as *para-* and *dys-proteinemia*, as well as some of the clinical laboratory methods, well known elsewhere, are not common in this country. This limits the value of the book to the American physician to some extent, and it will be interesting to see whether the English edition that has been announced will receive as wide an acclaim among clinicians here as the German edition has received in German-speaking countries.

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Science and the Creative Spirit. Essays on humanistic aspects of science. Karl V. Deutsch, F. E. L. Priestley, Harcourt Brown, and David Hawkins. Harcourt Brown, Ed. University of Toronto Press, Toronto, Canada, 1958. xxviii + 165 pp. $4.50.

The title of this collection of four essays by humanistic scholars is, as the editor confesses in his introduction, somewhat paradoxical and ambiguous. The difficulty lies in the subject, which cannot be labelled more precisely until it is better understood. Many scientists would maintain that science does have its humanistic aspects and would deplore the fact that only scientists, and perhaps few of them, can explain what these aspects are. Others would argue that the humanistic aspects of science, if it has any, are accidental and unintentional; accordingly the study of them might well be left to humanists who presumably have nothing better to do.

The history of science, which might have dealt with this field, has become a specialized discipline. The authors of these essays regard themselves as ama-

teurs and in a sense as pioneers, looking at science and its relations with other branches of knowledge sympathetically, and with more interest in learning than in judging or proclaiming. But what do they look at?

David Hawkins, author of the fourth essay, gives an answer: "The essential humanistic aspects of science are to be found, not in the method of science if there be such a thing, and not in the results of science as they appear in the text books, and not in the external influences of science on industry or on politics or on poetry or painting, but in the life of science as an expression of human capacities and limitations." To be sure, two of Hawkins' collaborators, F. E. L. Priestley and Harcourt Brown, both professors of literature, do survey wide areas of English and French literature for signs of interplay between scientific thought and imaginative works in various times and places. Karl Deutsch, in the first essay, tackles the formidable subject of "Scientific and humanistic knowledge in the growth of civilization," which includes industry, politics, technology, and the arts. But their several essays may be considered "converging statements" on the area specified by Hawkins.

The enterprise which resulted in this volume was conceived by Charles Odegaard and involved participation by a number of others over a period of five years. It is a good beginning.

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The Clinical Application of Antibiotics. M. E. Florey. vol. III, *Chloramphenicol and the Tetracyclines.* Oxford University Press, London, 1957. ix + 393 pp. Illus. + plates. $19.50.

This book is a sequel to the author's earlier work *The Application of Antibiotics: Penicillin,* published in 1952, and will shortly be followed by another volume dealing with more recently discovered antibiotics of proved clinical value. The author's announced aim is to furnish a critical evaluation of the data and to elucidate the general principles upon which the clinical use of antibiotics is founded.

Chloramphenicol and the three tetracyclines are discussed in separate sections under the following headings: "General considerations" (this includes origin, properties, complications of therapy, and so on), "The treatment of diseases due to specific organisms," and "The treatment of diseases considered by systems, age groups or sex."

For each antibiotic, laboratory data are included on in vitro sensitivity tests, antibacterial spectrum, animal trials, stability, and the levels obtained in blood and certain tissues by various routes of administration. Summaries of this material and illustrations and summaries of pertinent clinical data are presented in easily understood tables and charts. The coverage of toxicity studies and complications of therapy, in particular, is excellent.

In general, the earlier clinical reports on each antibiotic receive full treatment and critical analysis. Many later reports, regarded as containing confirmatory data, are omitted. Some of the clinical reports cited are of questionable validity, due to the use of noncritical diagnostic criteria by certain workers. It is understandable that in a work of this scope the author could not become sufficiently familiar with the reliability of each report to avoid such citations. In occasional instances, because of these two factors, a too optimistic view is presented of the effectiveness of these antibiotics in certain diseases.

In dealing with some diseases not currently presumed to respond to antibiotic therapy and with conditions due to mixed infections, or of unknown etiology, where citations of clinical trials are few, the author has refrained from critical comment. One not familiar with the subsequent clinical experience and current clinical views in these areas might be misled by this treatment.

Notwithstanding these few criticisms, the author has done a creditable job of sifting the fine from the dross. The result is a volume of immediate utility to, and deserving of a place on the bookshelf of, all scientists concerned with antibiotics and all clinicians who prescribe them. It should further serve as a useful reference work for years to come. The book is clearly written, well indexed, and notably free of typographical errors.

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Directory of Geological Material in North America. J. V. Howell and A. I. Levorsen. Revised with the assistance of Robert H. Dott and Jane W. Wilds. American Geological Institute, Washington, D.C., ed. 2, 1957. vi + 208 pp. $3.

The first 30 pages of this book list "Sources national and continental in scope," ranging from the Academy of Natural Sciences of Philadelphia to Fred S. Young of Oregon, who supplies diamond-saw blades. These listings carry brief explanations, not just addresses. The final 178 pages are entitled "Sources provincial and state in scope." Canada is covered in 19 pages, Central America in 1 page, Mexico in 1 page, the West Indies in 6 pages, territories of the United States in 6 pages, and the United States in 143 pages. Listings for these areas are given by province, state, or smaller region, and the contributor is given at the beginning of each section but, beyond, the name, is not identified. It would increase the value of the directory if the contributors were identified and also if a current list of geologists, by province and state, were included.

This is a very handy book, 6¾ by 9½ inches. The information that it contains about where geological materials are available, who has well logs, where mineral collections are located, and so on, make it a "must."

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New Books

Television in Science and Industry. V. K. Zworykin, E. G. Rambert, L. E. Flory. Wiley, New York; Chapman & Hall, London, 1958. 312 pp. $10.

The Story of Albert Einstein. The scientist who searched out the secrets of the universe. Mae Blacker Freeman. Random House, New York, 1958. 178 pp. $2.95.

Dr. W. C. Röntgen. Otto Glasser. Thomas, Springfield, Ill., ed. 2, 1958. 176 pp. $4.50.

The Chemical Industry in Europe. 4th report. Organisation for European Economic Co-operation, Paris, 1957. 199 pp. $3.

An Introduction to Experimental Surgical Studies. W. J. Dempster. Thomas, Springfield, Ill., 1957. 463 pp.

Encyclopedia of Chemical Reactions. vol. VII. Strontium, sulfur, tantalum, technetium, tellurium, terbium, thallium, thorium, thulium, tin, titanium. Compiled by C. A. Jacobson. Clifford A. Hampel, Ed. Reinhold, New York; Chapman & Hall, London, 1958. 486 pp. $12.75.

Chronic Schizophrenia. Thomas Freeman, John L. Cameron, Andrew McGhie. International Universities Press, New York, 1958. 168 pp. $4.

Handbuch der Physik. vol. XXXIV, pt. II, *Corpuscles and Radiation in Matter.* S. Flügge, Ed. Springer, Berlin, 1958. 324 pp. DM. 78.

Flora of the British Isles. pt. I, *Pteridophyta-Papilionaceae.* Drawings by Sybil J. Roles. Cambridge Univ. Press, New York, 1958. 144 pp. $5.

Chemical Calculations. A systematic presentation of the solution of type problems, with 1000 chemical problems arranged progressively according to lesson assignments. Bernard Jaffe. World Book, Yonkers-on-Hudson, N.Y., ed. 3, 1958. 192 pp.