

THE GENUS AGELLUS, GEN. NOV.

(HOMOPTERA, CICADELLIDAE.)

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In a recent number of the *Journal of Science*, January, 1933, the writers discussed the genus *Eugnathodus* (p. 55). A new name was suggested and description offered for the species which Baker apparently had in mind when he described the Genus *Eugnathodus*. At that time it was thought desirable to let the genus name stand if possible to prevent confusion in literature. But further study and consideration has revealed the fact that according to opinions 14 and 65 of the international code of Zoological Nomenclature, *E. abdominalis* V. D., must remain the type of the genus *Eugnathodus* since definite specimens were not designated although undoubtedly used.* *Eugnathodus* Baker consequently must be made a synonym of *Balclutha* Kirk and the name *Agellus* is here proposed for the genus previously designated *Eugnathodus* and which was described briefly in the paper cited above.

It is closely allied to *Balclutha*, but differs in the following respects: Vertex more broadly rounded and scarcely produced before the anterior margins of the eyes and anterior and posterior margins almost parallel, head slightly broader than pronotum, lateral posterior angles of pronotum not wider than vertex. General venation as in *Balclutha* with inner sector of elytra not forked, two ante-apical cells being produced. Oedagus of internal genitalia with dorsal, basal, protruding processes. In *Balclutha* the basal portion is enlarged and may extend dorsally but without finger processes.

Type of genus *Agellus neglecta* DeL. and Dav.

*This has recently been verified by P. W. Oman, Taxonomic Division, U. S. Bureau of Entomology, National Museum.

BOOK NOTICES.

Modern Alchemy.

There is a certain sentimental, yet pardonable, pride which we all feel in the family succession in the stage, law, business and even in science. This father and son joint contribution is something in which we may justly feel pride. The book is a review of modern developments in the field of chemistry. While a fundamental knowledge of chemistry is essential for the thorough understanding and appreciation of the book in its entirety, still, the average lay reader will find many enjoyable passages, and with a willingness to accept certain statements without going into the reasons for them should be able to appreciate the major portion of the book. A "popular" book in a scientific field must of necessity be either too complex or too elementary for many readers. The authors have attempted to follow an intermediate path which should appeal to both the professional scientist and the general reader. The book deals principally with the modern theoretical, rather than industrial, developments. Particular emphasis is placed on atomic structure and synthetic medicinals. A certain amount of emphasis is placed on the development and production of ideas and research from the University of Illinois, where the senior author was Director of the Chemical Laboratories for nearly a quarter of a century.

WALLACE R. BRODE.

Modern Alchemy, by W. A. NOYES AND W. A. NOYES, JR., 205 pp. Springfield, Charles C. Thomas, 1932.

The Triumph of Chemistry.

This is a popular book on a general theme of the importance of economic planning in chemistry. While the author discusses the rise and growth of chemistry in a historical sequence, he also takes numerous occasions to point out the influence of good and poor economic planning and to discuss the influence of the chemical industry on our present economic situations with regard to high tariff, farm relief, railroads, etc. The book is well written and, with the exception of two short chapters which the author suggests for a possible omission, the non-technical reader as well as the scientist should find the book to be well worth reading.

WALLACE R. BRODE.

Chemistry Triumphant, by WILLIAM J. HALE. 150 pp. Baltimore, Williams and Wilkins, 1932. (One of the Century of Progress Series.)

Fossils.

Those who have found Zittell's Textbook of Paleontology valuable will welcome this new revised edition of the second volume. The first edition in English was published in 1902, since that time much has been discovered and we are indebted to Dr. Smith Woodward for its inclusion in this new edition. The new edition contains 181 more pages and 160 additional illustrations, retaining, however, the same type of presentation and illustration that was preferred by Zittell. The classification has been carefully revised and is in keeping with the modern ideas on vertebrates. This volume covers from the earliest fish up to and including the birds.

W. BERRY.

Textbook of Paleontology (Zittell), translated by EASTMAN, revised by SIR ARTHUR S. WOODWARD. Vol. II, 464 pp. New York, The Macmillan Co., 1932.

Snakes and Kinkajous.

The well-known naturalist of the Bronx Park Zoo has added another to his books of adventure. Much of an informative nature is here, and many thrills and not a few laughs await the reader. The strictly scientific reader must close his eyes to many a teleological statement, such as, "A copperhead among dead leaves is a remarkable illustration of protective resemblance. The snake knows this, hence the quiet attitude of most copperheads and their lack of inclination to strike or bite, unless touched or stepped on," but there can be no questioning Dr. Ditmar's ability as a naturalist, nor his intense enthusiasm. The reader will share the thrills and enthusiasm to the fullest extent, and will emerge wiser in the ways of serpents and their poisons, not to mention other odd animals.

L. H. S.

Thrills of a Naturalist's Quest, by Raymond Ditmars. 268 pp. and 45 illustrations. New York, The Macmillan Co., 1932. \$3.50.

Crystals.

This book, while designed primarily for students of petrology, will be of service to students of chemistry and physics and especially to ceramic and metallurgical engineers who need to have the fundamentals of crystallography clearly set forth in a readily understandable fashion.

The text contains the conventional material as to the nature, classification and physical properties of crystals, together with two chapters, one on the optical properties of minerals, and one on the methods of investigation of optical properties of bodies in general.

As stated in the preface the author has touched rather lightly the fundamental topic of crystal structure and unit lattice as being a topic beyond the ability and training of the average student of geology. It is confidently predicted that the next generation of geology students will insist that these topics be amplified in future text-books of this sort.

The book is attractively edited, a thing that is true of anything the Cambridge Press turns out. It should find a ready sale among elementary students of the physical sciences, especially of mineralogy and geology.

F. C. BLAKE.

Form and Properties of Crystals, by A. B. Dale. 186 pp. New York, The Macmillan Co., 1933, (Cambridge, The University Press), \$1.60.

Dissection of the Cat.

This manual of practical directions for the dissection of the cat and the study of its anatomy represents a revision of the directions for dissection which were formerly included in Reighard and Jennings' **Anatomy of the Cat**, but here published as a separate manual. It includes a discussion of essential literature on this subject, the preparation and use of specimens, and directions for laboratory dissection by the "System Plan," taken from the former volume. These have been revised by Dr. Elliott, of Ohio University, who has also added his directions for dissection by the "Regional Plan," traditionally used by teachers of human anatomy. Both methods are thus made available to the student within the compass of a single manual of convenient size for laboratory use. Many page references are given to descriptions of structures in Reighard and Jennings' **Anatomy of the Cat** which this manual is written to accompany. A useful chart, summarizing the nerve supply to important muscles of the body, and a large diagram of the nervous system is given in the appendix. This is recommended for its concise arrangement, and its ready adaptability to laboratory work.

JOHN W. PRICE.

Dissection of the Cat, by JACOB REIGHARD AND H. S. JENNINGS. Revised, with the addition of **A Manual of Regional Dissection**, by RUSH ELLIOTT, vi + 106 pp., New York, Henry Holt and Co., 1932.

The Foraminifera.

After some years of consideration the author has published his ideas on the classification of the Foraminifera. Of the roughly 1,100 generic names that have been published, he considers 542 of them to be valid. The rest of them are either brought into the "valid genera" or are discarded as being invalid, unrecognizable, **Nomina nuda**, or else as not being foraminifera at all. Throughout the entire classification the rules of Zoological Nomenclature are rigidly followed, which procedure, although excellent, leads to the finding of some forgotten names. In this classification the author recognizes 35 families as against 10 by M. S. Schultz (1854), 21 by A. E. Reuss (1861), 10 by H. B. Brady (1884), and 45 by Cushman (1928). The present classification in use, is mainly Cushman's in this country, and Brady's in Europe, with some using Cushman's. The genera are all illustrated and in most cases are after the type figure. The illustrations are all line cuts and quite clear, though as must be expected in a work of this kind, limited in number for each genus. There is a good glossary and index.

W. BERRY.

A Manual of the Foraminifera, by J. J. GALLOWAY. 481 pp. Bloomington, Indiana, The Principia Press, 1933.

Atoms.

The University of Pittsburgh Physics Staff have recently given us a rather delightful book, the purpose of which is to acquaint the beginner in natural science with much of that which is occupying the minds of present day physicists.

The book begins with a short introduction which in reality is a summary of the status of physics at the beginning of the century. This is followed by three chapters devoted to the corpuscular nature of matter, electricity, and radiation. The middle portion, comprising seven chapters may be said to be devoted to atomic and molecular structure, beginning with a survey of spectroscopic methods, containing many clear and instructive plates and diagrams. The interpretation of line spectra and x-ray spectra in terms of Bohr models and subsequent vector models is treated at some length and is followed by a discussion of crystal structure as revealed by x-ray experiments. The subject matter, **waves and corpuscles**, is obviously difficult to treat in so brief a space and in so elementary a fashion and to the writer it appears that this chapter lacks some of the desired clarity. It seems that a very elementary problem (say that of the simple rotator, discussed but not actually carried out in Chapter XI) might have been inserted as an example of Schrodinger's theory. Chapter XI is devoted to the topic of molecular structure and molecular spectra, and gives to the layman quite a vivid and clear representation of that field of endeavor. Here again, it is felt that the pseudo quantum mechanical treatment of the rotator as given is unsatisfactory and that a more complete treatment as earlier suggested is much to be preferred.

The remaining chapters are devoted to nuclear physics, relativity, astrophysics, and related topics, closing with five very helpful and valuable appendices. A detail which ought not to go without commendation is the list of problems at the end of each chapter. The goal toward which the authors strive; namely, to place in the hands of the layman, reliable accounts of the teachings of physical science, is a most difficult one, and the writer feels that on the whole the authors are to be congratulated on their success. H. H. NIELSEN.

Atomic Physics, by members of the Physics Staff of the University of Pittsburgh. v + 335 pp. New York. John Wiley and Sons, 1933. \$3.50.

Disease and Insects.

Here is a practical and readable book written for students interested in medical entomology and public health service. The author is a public health surgeon. The first two-thirds of the book are devoted to the various groups of arthropods, their anatomy, taxonomy, life history, and control. There are many

workable keys, some good diagrammatic figures, and a few notes on technique. A discussion of a dozen or so diseases carried by arthropods follows, with especial reference to the causative agents, modes of transmission, epidemiology, and methods of control. It is a concise and authentic text, and although it lacks an extensive bibliography, should prove an excellent addition to the scientist's library.

J. HAUB.

Insects and Disease of Man, by Carroll Fox. xii+349 pp. Philadelphia, P. Blakiston's Son & Co.

A Billion Years.

This addition to the Century of Progress Series tells the story of geology in terms that are readily understood by the non-technical reader, but which will be equally appreciated by the scientist. The geologic history of the earth is first developed, followed by the record of living things. The story of the glaciers is interestingly told. A thoughtful discussion of the future from the standpoint of practical geology concludes the book.—L. H. S.

The Story of a Billion Years, by W. O. Hotchkiss. x + 137 pp. Baltimore, The Williams and Wilkins Co., 1933.

Earth Lore.

Professor Shand has written an extremely useful book for those who are interested in geology, but who lack the technical vocabulary to enjoy the laborious reading of texts. Geology is here considered under the following heads: Seeing things to scale, the face of the earth, earth sculpture, the sea floor, the book of the rocks, the creation saga, the age of the earth, what lies beneath the crust?, deeper and deeper, chimneys in the crust, the problem of mountains, rifts and ramps, how is the crust held up?, drifting continents.

Both the author and the publisher are to be congratulated on this book. It is very readable and well executed.—W. BERRY.

Earth Lore. Geology without Jargon, by S. T. Shand. 134 pp. London, Thomas Murby and Co., 1933.

Geological Vocabulary.

This little book should fill the long felt need of a vocabulary of French to English for the geologist. It is not burdened with the more common words but abounds with those words that are so hard to find in the common literary dictionaries. It is expected that it will find considerable use, especially among the student, and the more experienced persons of geology.—W. BERRY.

A French-English Vocabulary in Geology and Physical Geography, by G. M. Davies. 140 pp. London, Thomas Murby and Co., 1932.