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CATEGORIES OF SPECIES NAMES IN ZOOLOGY

By Dr. HOBART M. SMITH

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IT is a remarkable fact that zoological taxonomists have persisted for many years in maintaining an oversimplified classification of names for animals, in spite of the diverse kinds of names revealed by the Rules and Opinions of the International Commission on Zoological Nomenclature. For nearly two hundred years taxonomists have commonly referred to species names, or subspecies names, or names not qualifying as either, with rare reference to the fact that these names can differ widely in the application of rules to them. Only one category of the several that exist has been popularly recognized (*nomina nuda*), yet it is clear that not all other names are on a par with each other. Some are valid, some invalid; they may be available or not; there are synonyms and homonyms; some are clearly diagnosed, others not. Names in these and other categories are not treated exactly alike by the rules; each may have a distinct procedure outlined for it. For instance, new names proposed with an acceptable but inadequate diagnosis are to be treated in an almost entirely different manner than names accompanied by adequate diagnoses. In spite of the existence of these several different categories, they have never been clearly defined or named. It is my belief that their clarification will greatly simplify the consideration of taxonomic problems. The present discussion suggests a possible scheme of classification.

plication to Civilian and Military Life," by Rinde, while written to the same specifications, is perhaps the most advanced text of this group, and it also contains many excellent diagrams and photographs. As indicated by its title, the main emphasis in this book is on electricity and its treatment of mechanics is very brief indeed although probably adequate for the purpose.

"Prepare Yourself," by Tuleen, Porter and Houston, is a little different from the others in that it is an elaborate laboratory manual. The various standard physics experiments, beginning with mechanics, heat, sound, light, magnetism and electricity are treated in a rather unconventional manner. The student is guided through a series of simple experiments, many with common household devices, and, by means of questions and suggestions in the text, he is asked to ascertain the physical facts. Space in the book is provided for filling in the answers. Consequently, when the student has gone through this book and performed most of the experiments, he might not have a knowledge of formal physics, but he will know as many facts and will probably have a better idea of what is really aimed at in laboratory work than many students who have gone through the more formal training. The level of this book is about that of the last year of high school or possibly junior college grade. Emphasis on the idea that experiments are made to find the facts is stressed throughout the book. This factor is all too frequently neglected, particularly in some high-school physics laboratories.

The last two books, which are in a different class from those mentioned, are: "Shop Job Sheets in Radio," books 1 and 2, by Auble, and "Practical Radio and Electronics Course," Volumes 1, 2 and 3, by Beitman. The first of these is again a laboratory manual of experiments in elementary electricity with emphasis on radio and, in the second, specific experiments on radio sets. The second book, "Practical Radio and Electronics Course," is a little more elaborate and is more of a text. The three volumes of this cover fundamentals of "Radio and Electronics"; "Receivers, Transmitters and Test Equipment," and "Applied Electronics and Radio Servicing." A large number of photographs of commercial equipment and service men's kinks are found in these books. The treatment, however, is primarily such as would be useful for a trade school in that no effort is made to present logical treatment considered essential to the student of any science. There are, however, many useful kinks described in these books so that even a professional physicist would no doubt find many ideas of use to him.

It is possible that after the war the books above described will go out of print and be no longer available. Nevertheless, there is a definite place for books of this character which should be useful for the individual who wishes to go on in electricity a little beyond the conventional high-school treatment but who would not care for some reason or other to study the more conventional treatment covered in the college-grade text-books. Authors of college-grade text-books would do well to look over these various books and use some of the ideas and illustrations to liven up their own texts, which often become rather dull reading because of the author's insistence on rigorous logical treatment. All too frequently when so-called practical ideas or applications are discussed, the treatment is in the nature of an apology.

While none of these books by itself would be suitable for a formal course in physics either in the elementary schools or advanced schools, they would all be very suitable to use as supplementary texts. The treatment, which is slightly more advanced than usual high-school treatment, would make it possible for the more intelligent high-school student to advance a little beyond conventional high-school treatment. Also, the books should assist the students of college grade in showing more practical illustrations than are usually given in a conventional college-grade text. In every case, the various authors are to be congratulated on having produced these books under what must have been considerable pressure to complete them in the shortest possible time. The style of writing in all of them is easy to read and follow. With the exception of the book by Morton Mott-Smith, the pages and type are well arranged for easy reading.

JOSEPH RAZEK

LLANERCH, PA.

BOOKS RECEIVED

BAILEY, ALTON E. *Industrial Oil and Fat Products.* Illustrated. Pp. x + 735. Interscience Publishers. $10.00. 1945.

GEORGIEV, ALEXANDER M. *The Electrolytic Capacitor.* Illustrated. Pp. xii + 191. Murray Hill Books, Inc. $3.00. 1945.

HERZBERG, GERHARD. *Infrared and Raman Spectra.* Illustrated. Pp. xiii + 632. D. Van Nostrand Company, Inc. $4.50. 1945.

KEENAN, JOSEPH H. and JOSEPH KAYE. *Thermodynamic Properties of Air.* Pp. iii + 73. John Wiley & Sons, Inc. $2.25. 1945.

SIMONDS, HERBERT R., M. H. BIGELOW and JOSEPH V. SHERMAN. *The New Plastics.* Illustrated. Pp. xii + 320. D. Van Nostrand Company, Inc. $4.50. 1945.

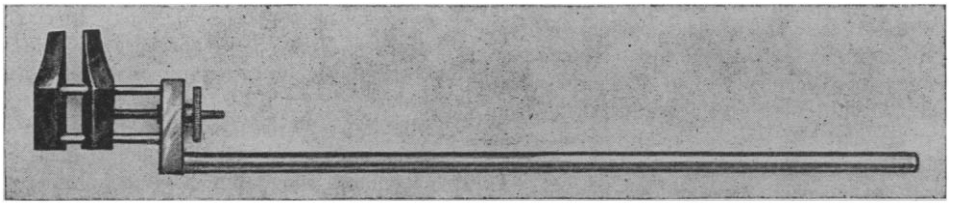
SMITH, JAMES G. and ACHESON J. DUNCAN. *Sampling Statistics and Applications.* Illustrated. Pp. xii + 498. McGraw-Hill Book Company. $4.00. 1945.

WILSON, CHARLES M. *New Crops for the New World.* Illustrated. Pp. viii + 294. The Macmillan Company. $3.50. 1945.

YOUNG, C. B. F. *Chemistry for Electroplaters.* Illustrated. Pp. vi + 205. Chemical Publishing Co., Inc. $4.00. 1945.

For the Physiological Laboratory

Gaskell Compression Clamp



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