THE GIANT SEQUOIA

APROPOS the current discussion in SCIENCE of taxonomists concerning the generic segregation and proper generic name of our western Sequoia they might reasonably be asked to shed some light on the following: Presl, in describing certain fossil cones from Bohemia, had what are undoubtedly the fossil cones of Sequoia. To these he gave the generic name Steinhauera in 1838, or nearly a quarter of a century before our western "big tree" was named. The citation is Presl in Sternberg's "Flora der Vorwelt," Band 2, Heft 8, p. 202, published at Prague. Sometimes it reminds one of the old printing adage that a compositor should follow copy even if it blew out of the window of the composing room.

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SCIENTIFIC BOOKS

ORGANIC CHEMISTRY

Organic Chemistry. By C. W. PORTER and T. D. STEWART. 6 × 9 in. 577 pp. Bound in dark blue cloth, with cover lettering in red. The Athenaeum Press. Boston, New York, etc.: Ginn and Company. 1943. $4.00.

As the authors explain in their preface, this book is an outgrowth and further development of their previous text, "The Carbon Compounds," which was used by them for many years in the University of California as an elementary outline of the subject and passed through a number of revisions. Organic chemistry has expanded recently so rapidly and in so many important directions that they decided to write an entirely new book rather than to prepare a further revision of the older one. The result is an excellent one-year elementary course, which gives a good bird's-eye view of the field as a whole, discusses clearly and competently fundamental concepts and theories in the light of our present knowledge, and the important contributions of organic chemistry to our understanding of biological processes and to the rapid expansion of chemical industries. The authors emphasize throughout the book the rapidly growing correlation of organic with inorganic and physical chemistry.

The book can be used not only for a full-year course in the subject, but also, as is the case at the University of California, for a half-year sophomore course taken by students in chemistry, agriculture, medicine, dentistry and home economics, by the omission of certain portions of the text.

The arrangement of the material follows in the main the usual lines of aliphatic, alicyclic, aromatic and heterocyclic chemistry, except that "Proteins and Amino Acids" and "Optical Isomerism" are placed between the chapter on "Aromatic Acids and their Derivatives" and that on "Natural and Synthetic Dyes." The "Terpenes" follow the "Heterocyclic Compounds," as do the "Sterols" also, the latter being grouped with the "Vitamins and Hormones."

One of the features which appeals strongly to this reviewer is the amount of space devoted to the hydrocarbons, particularly those of the aliphatic group (50 pp.), for, after all, the hydrocarbons constitute the steel framework upon which the whole vast, multifarious and intricate structures of organic compounds are erected. Further, the chemical developments of the last few years have already ushered in an era of aliphatic chemistry, which seems destined to rival or surpass the great era of aromatic chemistry of recent decades. Fifteen years ago, as reported recently by Dr. H. B. McClure, only about a dozen aliphatic compounds were manufactured on a commercial scale. To-day, the Carbide and Carbon Chemicals Corporation alone is shipping at least 160 different ones, approximately 40 of which require tank car transportation.

A generalized preview of the field is provided in the introductory chapter and is followed by 25 chapters covering the major classes of organic compounds. Under the heading of "Supplementary Notes," further discussions are given of "Acids and Bases," "Catalysis by Acids and Bases," "Chemical Reactivity" and "Asymmetric Change." An appendix deals with the determination of formulas from the analytical results, of "Molecular Weights" from the properties of gases or of solutions, with "Vapor Pressure," "Boiling Point and Freezing Point," "Osmotic Pressure," "Bond Distances" and "Atomic Radii." A separate section (43 pp.) is devoted to "Questions and Problems," so arranged as to accompany the individual chapters of the text, and the volume closes with a good general index.

The book is heartily recommended, not only to beginners, but also to those older organic chemists who have not had the time to familiarize themselves with the various ways in which the concepts of physical chemistry have fundamentally altered many of the older interpretations of the physical and chemical behavior of the compounds of carbon. A perusal of even the introductory chapter will make this clear.

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