parison of the better known sesquiterpenes and discussion of possible constitution and synthesis; (4) the occurrence of sesquiterpenes in the vegetable kingdom. III, Special Part.—The classification based upon the "modern rational system" referred to above (II, 2) takes cognizance of the fact that the $C_{15}H_{24}$ hydrocarbons belong to the C_nH_{2n-6} class, and may, therefore, exist in the following structural forms: (1) Straight chain compounds with four unsaturations; (2) Monocyclic compounds with three unsaturations; (3) Dicyclic compounds with two unsaturations; (4) Tricyclic compounds with one unsaturation; (5) saturated tetracyclic compounds. It is then shown (II, 3) how the various sesquiterpenes may be marshaled under these five headings. The Special Part (100 pages) takes up the individual sesquiterpenes alphabetically and discusses them in detail. Full references to the literature are given and a good Index concludes the work.

The author has done a real service to organic chemists in the compilation of this monograph, and it should prove of special value to all interested in the chemistry of the essential oils.

M. T. BOGERT.

CHEMICAL STATICS AND DYNAMICS. BY J. W. MELLOR. Longmans, Green & Co. 1904. viii + 528 pp. Price, $2.00.

The book opens with a historical sketch, "from the beginning" to the year 1771, followed by illustrations of the meaning of "velocity "and an explanation of the use of mathematics in chemistry; the Introduction closes with 9 pages of energetics of the usual vague type.

The next four chapters are devoted to the rate of chemical change in homogeneous systems, including parallel, opposing and consecutive reactions; Chapter VI is "on the beginning of a chemical reaction," Chapter VII on "heterogeneous" reactions, and Chapter VIII on chemical equilibrium. The remainder of the book, rather more than half, contains chapters on Electrolytic dissociation, Catalysis and theory of chemical change, Fermentation, the Influence of temperature and pressure on rates and equilibrium, and Explosions.

The calculus is employed throughout, the best settings of various differential equations are discussed, and numerical examples are worked out in illustration ; but though evidently of the opinion that "ere long mathematics will be as useful to chemists as the

balance" the author emphasizes "the danger of bowing down and worshipping the mathematical fetish," and insists that a clear physical conception must precede the application of mathematics. A table of $\log_{10} \frac{1}{(1-x)}$ to four places is given as appendix.

More than 3,000 references are made to the literature, and in many cases the claims of English chemists are vindicated to honors hitherto held by foreigners. Schönbein's theory of autoxidation is "the Brodie-Schönbein theory"; Turner first discovered negative catalysis, and one of Ostwald's favorite illustrations is introduced as "Lieving's Switchback." American authors have not come off so well. van't Hoff and Planck get credit for formulas due to Gibbs; the "law of successive reactions" is Ostwald's law, while the useful distinction between "bimolecular" reactions and "reactions of the second degree," introduced by Noyes, is ignored.

More important is the question of nomenclature, on which the books of this series may exert a decisive influence. In the interest of clearness it is hoped that in the next edition "side reactions" may be replaced by "parallel" or "subsidiary" reactions, as the case may be; that "catalyst"—unpleasantly reminiscent of "typist" and "scientist"—may be dropped; and that "concentration" may be kept to its own meaning, and not be confounded with the wholly different conceptions of quantity and active mass.

In spite of these minor defects the book may be heartily recommended to all interested in chemical mechanics; for, although in many instances the standpoint of the author may not meet with general acceptance, all his readers will agree that the little volume is a real addition to chemical literature, and is in no sense a rehash of the standard German works. W. LASH MILLER.

CORRECTIONS.

In the March number of the Journal, page 312, line 27, should read: "N. D_{100} = density in amperes for *100* square centimeters."

In the article on "Radioactivity as an Atomic Property" in the April number, page 394, the parenthesis should be omitted from the equation given.