activity. Here again the influence of society is emphasized.

The feeling attitude is considered not only on the levels of sensation and of perception, but also now in connection with ideas. Ideational activity itself is said to possess feeling-tone; this is connected with the furtherance and obstruction of conation; furtherance, the working out of the activity, giving pleasure and its opposite, pain. It is to be noted that the three references to feeling, upon the three developmental planes, involve some ambiguity in the use of terms. Pleasure and pain, and pleasantness and unpleasantness are often confused. It would have aided the student if different terms had been used to denote simple affection, the feelings of the perceptual stage, and the more involved hedonic aspects of discursive thinking. As an example, pain is often used where simple unpleasantness is evidently meant; as in the checking of a 'conative activity.' The distinction between pain and 'pain-sensation' is also confusing.

Finally, in the last chapter, the reader comes within sight of what he has been looking for all the way through; some systematic explanation of conation and of conative development. The reviewer is inclined to think that, without a previous analysis of conation, and also of impulse and of attention, many steps in the author's argument would be incomplete. Perhaps the full treatment in the *Analytic Psychology* is sufficient. Still, considering the difference in the two audiences which the author reaches, it is, perhaps not demanding too much to ask for a more complete analysis of these terms which are used constantly throughout the book.

The author acknowledges a very great debt to Dr. Ward, and the influence of the master is prominent all through the work. Naturally, Professor James' general point of view is also approached; although in matters of special interpretation Stout dissents from his opinion more often than he accepts it. While the book is predominantly British in its mode of treatment, it comes nearer a compromise between English and German psychologies than does any book which we have yet had from a writer of the English school, excepting, perhaps, Professor Sully's psychology. When one considers the product in connection with the soil to which it is indigenous, one can but note the marked effects of fertilization from imported systems. Although the *Manual* will scarcely fulfil at present a textual function in the class-rooms of our colleges and universities, American psychologists will know it and will find it stimulating and helpful.

Finally, to revert to the query with which we set out, we shall have to say that the genetic standpoint is not maintained with the rigor which we were led to expect from the author's preliminary definition of it; but that where it has been adhered to, it is used with profound psychological wisdom and a keen insight into the dark vistas of mental development.

I. Madison Bentley.
Cornell University.

Matières odorantes artificielles. Georges-F. Jaubert. Docteur és Sciences, ancien Préparateur de Chimie á l'École Polytechnique. Petit in-8. Pages 190. (Encyclopédie scientifique des Aide-Mémoire.)

The title of this book is both misleading and vague. It is misleading because it does not cover the indicated field, but only discusses three classes of odorous substances, the remaining classes being reserved for the author's forthcoming volumes on 'Les Produits Aromatiques' and 'Les Parfums Comestibles,' the subject thus being distributed through the three volumes. Further, it is vague, in that it is not, as might be expected, a bird's-eye view of synthetic perfumes, for at least one-third of its space is taken up with compounds which have no interest whatever as perfumes, and which apparently are inserted, either from their chemical relationship to other substances in the tables, or because, although possessed of no valuable odor themselves, they happen to occur associated with some natural perfumes in certain essential oils. The reviewer is of the opinion that the author might better have confined himself to a tabulation of those synthetic organic compounds whose odor renders them of commercial value, or which are of scientific interest from their being identical with certain natural aromas.

The author proposes the terms 'odorophore' and 'odorogen,' to be used in a manner analogous to the 'chromophore' and 'chromogen' of the color chemists. Thus, he considers the phenolic OH as an odorophore, which becomes an odorogen when its H is replaced by an alkyl or acyl group; in support of which he cites the following examples:

$HOC.C_6H_4.OH$ (paraoxybenzaldehyde) = little odor.

$HOC.C_6H_4.OCH_3$ (anisic aldehyde) = odor.

$HOC.C_6H_3<^{OH}_{OH}$ (protocatechuic aldehyde) = little odor.

$HOC.C_6H_3<^{OCH_3}_{OH}$ (vanillin) = odor.

$HOC.C_6H_3<^{O}_{O}>CH_2$ (piperonal) = odor.

The work is divided into the following chapters:

I. Halogen and Nitro Compounds.—Includes the halogen derivatives of phenylethane, and of styrol; mirbane and Musc Baur.

II. Aldehydes, Dialdehydes and Oxyaldehydes.—Among the more important aldehydes listed are those of benzoic, phenylacetic, cuminic, cinnamic, salicylic, anisic and piperonylic acids. Vanillin, however, is reserved for the author's volume on 'Les Parfums Comestibles.'

III. Phenols and Phenolic Ethers.—Among others the following are discussed: thymol, carvacrol, anisol, diphenyl ether, anethol, betanaphthyl ethers, eugenol and safrol.

Each chapter begins with a few pages of explanatory text, followed by a tabular classification of the compounds belonging to that particular group. The column headings, for the tables are as follows: trade name; scientific name; formula, empiric and constitutional; method of preparation; literature and patents; properties and characteristic reactions. The references to the literature and patents are particularly valuable.

Although the compounds are well arranged in a logical chemical classification, an Index would nevertheless be a desirable addition.

MARSTON TAYLOR BOGERT.

BOOKS RECEIVED.

Elements de paléobotanique. R. ZEILLER. Paris, G. Carré and C. Naud, 1900. Pp. 421.

A Treatise on Zoology, edited by E. RAY LANKESTER. Part III.: Echinoderma, F. A. BATHER, J. W. GREGORY, E. S. GOODRICH. London, Adams and Charles Black, 1900. Pp. vi + 344.

First Book, Home Geography and the Earth as a Whole. RALPH S. TARR, FRANK M. MCMURRY. New York and London, The Macmillan Company, 1900. Pp. xv + 279.

Prantl's Lehrbuch der Botanik. FERDINAND PAX. Leipzig, Wilhelm Engelmann, 1900. Pp. viii + 455.

Reinhardt's Technic of Mechanical Drafting. CHARLES W. REINHARDT. New York, The Engineering News Co., 1900. Pp. 36. 10 Plates.

SOCIETIES AND ACADEMIES.

THE ACADEMY OF SCIENCE OF ST. LOUIS.

AT the meeting of the Academy of Science of St. Louis, on the evening of April 2, the following subjects were presented:

A paper by Dr. H. von Schrenk, entitled 'A Severe Sleet-storm,' and embodying the results of a study of the injury to trees and shrubs by an unusually severe recent sleet-storm, was presented by title.

Dr. W. H. Warren read a paper giving an outline of recent progress in the chemistry of perfumes. For the most part, these substances are high boiling oils. Formerly these oils, which are complex mixtures of several compounds, were obtained exclusively from flowers, but recently some of the essential principles have been produced by chemical means, whereas other artificial perfumes are mere imitations. With a few exceptions the essential principles, which give the perfumes their value, belong to a complex class of organic compounds known as the terpenes. The terpenes are reduction products of cymol. The molecule is characterized by the presence of an atomic linking such as is found in the hydrocarbon ethylene, and the determination of the exact location of these ethylene linkings constitutes a difficulty in studying the terpenes. It is found also that nearly every substance having the properties of a perfume has in its molecule certain atomic groups whose presence exerts a marked influence on the odor. Among the more important of these may be mentioned the aldehyde, ketone, ester, ether and alcohol