

detailed record of the many experiments undertaken in California. This State, it may be added, was the first to apply biological control on a commercial scale. Chap. vii., on insecticides, describes their history and methods of application, and will interest those specially concerned with this branch of insect control. The longest chapter in the book is Chap. ix., "Biography", which runs to just over 270 pages. It includes biographies of most North American leaders in entomology, besides a fair number of Europeans. The latter, however, form rather an odd assortment of names, and their sole connexion with California is often on the strength of having described species that occur within the confines of its territory.

The final chapter (Chap. x.) is a tabular chronological series of dates showing the development and progress of entomology in relation to history and other sciences. Commencing with the birth of Columbus (1446 ?), it carries us finally into the year 1929. A great deal of painstaking research must have been involved in ascertaining and correlating all the dates and events that are recorded. It is, however, often difficult to discriminate in these tables between events and incidents of obviously different values, and many seem to be of rather local interest. In conclusion, it may be said that the scope of this volume embraces much of North American applied entomology. We think that its chief value will be as a reference book, which economic workers will need often to consult, since it is a veritable mine of information difficult to obtain elsewhere.

A. D. I.

Short Reviews.

The Poetic Impression of Natural Scenery. By Dr. Vaughan Cornish. Pp. vii+90+4 plates. (London: Sifton Praed and Co., Ltd., 1931.) 6s. net.

IN this little volume, dedicated to the Earl of Crawford and Balcarres, president of the Council for the Preservation of Rural England, Dr. Vaughan Cornish treats us to a succession of word pictures of homeland and foreign scenes, arranged in three chapters: i. Watching the Seasons; ii. To the Hills; iii. Across the Ocean. There are four beautiful photographs: The Breaking Wave; Bad Weather among the Mountains; The Rushing Torrent; The Placid Lake. The spirit of the book may best be given in the fine words of the author's preface: "The physical features of the landscape are but the warp of the garment of beauty in which the world is clad, the weft is woven by the changing light which sweeps o'er hill and dale. I have watched these varied incidents in many lands, and as the years roll on,

the beauty of the Natural Scene makes an ever-deepening impression on my mind, until in later life the transient harmonies of light and landscape are not only the revelation but the image of eternal values."

Here Dr. Vaughan Cornish, a scientific observer, comes prominently to the fore as a poet and nature-mystic, a dual capacity which is happily becoming easier to adopt in these days when the old hard and fast distinctions between the different spheres of reality are tending to break down. At any rate, we strongly recommend the book to all who feel that there is more in a landscape with all its moods and expressions than can be reduced to purely physical terms; to all who if they were told that the difference between the mountains, let us say, when they have withdrawn into themselves asleep in the tranquil haze of fair weather, and the mountains when they are looming forth, glaring at one another in a stormy light, belonged entirely to the 'subjective' realm, would answer with calm assurance that this only begged the question, shifting it further back.

L. C. W. B.

Dixième Conférence de l'Union Internationale de Chimie, Liège, 14-20 septembre 1930. Rapports sur les hydrates de carbone (glucides). Pp. 287. (Paris: Union Internationale de Chimie; London: Hachette and Co.; H. K. Lewis and Co., Ltd.; David Nutt, 1931.) 50 francs; 9s.

THIS publication affords in a convenient form a really valuable collection of eleven papers dealing with various aspects of the chemistry of carbohydrates. These were read at a discussion which took place at Liège, in September 1930, during the tenth conference of the Union Internationale de Chimie. The wide range of the field of chemistry here concerned, its theoretical and technical importance, and the international character of the contribution under notice become evident from a mere glance at the list of contents. The papers deal with the history of monosaccharides (Bertrand), the ring structure of carbohydrates (Haworth), correlations of optical rotatory power and structure (Hudson), mutarotation (Lowry and Smith), starch (Pictet), structure of polysaccharides (Karrer), molecular weight of complex polysaccharides (Pringsheim), X-ray studies of polysaccharides (Mark), the relationship between the properties and applications of cellulose (Heuser), cellulose and its derivatives as colloids (Duclaux), and the relationship of the physical properties of artificial silk to the raw material and the methods of preparation (Viviani).

The publication calls for a cordial welcome, with one qualification: namely, that "the horrible nomenclature of a biochemical committee of the Union"—to quote the justifiable description of Dr. E. F. Armstrong—has been adopted, according to which carbohydrates are called 'glucides', and mono-, di-, and poly-saccharides disguise fair nature under the name of 'holosides'. Fortunately, 'silicides' had already been appropriated!

J. R.