

accordingly, names have been adopted or invented for these provinces. The important "Franciscan" deposits appear to have accumulated in typical geosynclines and therefore their underlying "provinces" are designated geosynclines. Contiguous "positive" provinces are given names ending in "ia" as being comparable with hypothetical ancient lands such as "Appalachia" and "Cascadia".

The conclusion is reached that a local orogenic time-law holds good for provinces similar to one another in basement character; ". . . so far as the post-Franciscan history of Southern California is concerned, tectonically comparable areas seem to have been affected at all times by orogenic and epeirogenic forces". Were other regions of similar size and complexity to Southern California classified by the same geologist into tectonic belts, and a sequence of tectonic events for each belt and for the region as a whole worked out, this local orogenic time-law might be more extensively

generalized. Decision on this point, however, must necessarily be delayed for some time to come, owing to the volume of work involved.

The above is only one of many interesting suggestions put forward as a stimulus to further investigation of this fascinating problem. Actually Southern California is too small an area to throw much light on major structural problems concerning comparable world-wide tectonic movements, but the results achieved by systematic assembling of data necessary for rational theorizing on Coast Range structure must prove of great interest to those concerned with major geotectonic problems.

The authors are to be congratulated on a text which lifts mere compilation of data to a high plane of scientific interpretation and constructive philosophy. A modest ending, suggesting that every reader may be "inspired to invent better theories for himself and will readily succeed", only serves to sustain the reader's confidence in the soundness of the authors' thesis.

Cellulose

(1) An Introduction to the Chemistry of Cellulose

By J. T. Marsh and Dr. F. C. Wood. Pp. xv + 432 + 18 plates. (London: Chapman and Hall, Ltd., 1938.) 21s. net.

(2) Die Chemie der Cellulose:

unter besonderer Berücksichtigung der Spinnfaser- und Zellstoff-Industrien. Von Prof. Dr. Carl G. Schwalbe. Zweite völlig umgearbeitete Auflage. Hälfte 1, Abteilung 1: Die Chemie der Hölzer. Pp. viii + 451. (Berlin: Gebrüder Borntraeger, 1938.) 24 gold marks.

CELLULOSE, the structural basis of the vegetable world and the raw material of the cotton textile industry, has long been the subject of scientific investigation. Within comparatively recent years its chemical constitution, in particular the length of the chain molecule, has been approximately determined, though the view is gaining ground that the properties of normal cellulose only reflect the average characteristics of the ultimate units of cellulose of which it is composed.

The industries which concern cellulose are so numerous and in many respects so different the one from the other that those engaged in them have a variety of problems to study. Nevertheless a good general knowledge of the behaviour of cellulose is the first requisite, and the progress of the last few years, both on the scientific side and

in regard to practical application, has enabled a considerable number of facts to be established, including physical data, which will facilitate further attack on the riddle presented by this most remarkable of all natural materials.

(1) This book is sponsored by Sir Kenneth Lee, who affirms that the close correlation of science to the textile industry has already had a profound effect on its development. The authors claim it to be a relatively simple book which may act as a guide to chemists engaged in the cellulose industries. The scope is best judged from the chapter headings—general properties, dispersed cellulose, modified cellulose, cellulose derivatives, constitution and structure. Being intended for experts, it is scarcely readable in the ordinary sense; but is full of informative detail. It cannot fail to be useful, more particularly since the literature of the subject is widely scattered, often in journals which are not everywhere available.

(2) Dr. Schwalbe wrote an important book on cellulose in 1911 which was very rapidly taken up. Various reasons have delayed the production of a second edition until he has retired from active work. A comprehensive text-book of the whole subject in the old German style is now planned in four volumes of which this, the first, deals with wood alone. For those primarily interested it will no doubt be found exhaustive, though, to judge from the references, very little British work has been considered.