Handbuch der Papierchromatographie

Herausgegeben von I. M. Hais und K. Macek. Band 2: Bibliographie und Anwendungen. Pp. xxiv + 726. (Jena: Gustav Fischer Verlag, 1960.) 44 D.M.

IN their introduction, the editors state that as it was difficult to incorporate a comprehensive bibliography on paper chromatography in their first volume on principles and techniques, they decided to do this separately in a second volume. This book contains more than 10,000 references (about four times as many as in Volume 1) and the arrangement follows roughly the same pattern as that of the subject-matter of the first volume. The references cover the period up to 1956; each is numbered and each title is given in full if the original language is English, French or German; otherwise the English or German translations as they occur in the recognized abstracts in these languages are given. The literature is covered very thoroughly, and there is probably no publication of any importance or interest about fundamentals or applications which has been missed. The systematic sectional arrangement, cross-references and comprehensive indexes of subjects and authors make for easy location of references to any desired topic in which paper chromatography has played a part.

R. CONSDEN

Précis de Climatologie

Par Prof. Ch. P. Péguy. Pp. iv + 348 + 3 planches. (Paris: Masson et Cie., 1961.) Broché 42 N.F.; Cartonne toile 52 N.F.

THE studies on various aspects of physical geography and related sciences published since 1958 by Masson et Cie. have gained wide acceptance as soundly based, timely and authoritative: and the *Précis de Climatologie* maintains well the standards set by earlier volumes of the series. Prof. Péguy approaches his topic on a global scale, and is also actively concerned to demonstrate the practical applications of climate and weather to human and vegetal life. His method is first to discuss the elementary physical principles involved in climate: atmospheric radiation and circulation, temperature, humidity, and air mass characteristics; then to show the interrelations of these elements both on a local scale and for Earth as a whole; and next, to consider the effects of these elements on soils, and plant and animal life (especially human). Lastly, present-day theories are reviewed with, on occasion, evaluation by the author of differing approaches to a particular problem—for example, by Sorre and Köppen in the matter of thermal zones.

This treatment has the important advantage of subordinating theory and basic principles to interrelationships and effects within the natural environment; and thus Prof. Péguy's study is useful not only for geographers but also for the agronomist, botanist, planner and engineer concerned with problems of land development. Recent advances and trends within the subject can be treated at some length as a logical culmination: frontal and air-mass analysis; evapo-transpiration; rainfall dispersion, intensity, and efficacy; and the concept of water-budgets. There are also sections on climate classification and fluctuation.

With such an approach there can, however, be considerable risk of over-simplification and superficiality, especially when allied to a concise, near-didactic style of presentation. This the author in general avoids, due to extensive use of numerical examples, graphs, and a rigid statistical treatment of material. Too often in climatological treatises there is an insufficient factual basis—this is by no means the case here: although in one or two rare instances (for example, treatment of geostrophic forces and discussion of frontal surfaces) greater detail and clarity might have been attained. One might also have expected more than four pages on micro- and local-climates, especially in view of the exhaustive discussion of such matters as angle of incidence of the solar beam.

These, however, are very small matters when viewed alongside the many and solid merits of Prof. Péguy's work. Here in one volume we have a spread of modern climatological topics so far not brought together (at least in English), with a wide range of examples from the work of research workers both in Europe and America, completed in many instances by a review of future research possibilities. The work is a distinct advance in the subject, and is a demonstration of geographical techniques applied soundly to scientific material.

W. B. FISHER

Wunderwelt Kakteen

Von Curt Backeberg. Pp. 242 (176 Abbildungen). (Jena: Gustav Fischer Verlag, 1961.) 19.50 D.M.

THIS is one of the most entertaining books that the reviewer has read for a very long time. Dr. Backeberg is possibly the world's foremost authority on the classification of the Cactaceae and has published six large volumes on the taxonomy of the numerous species, magnificently illustrated and containing a wealth of critical judgment. But Dr. Backeberg is not concerned with taxonomy in the book that lies before us. Here we are introduced to the Cactaceae, not in the arid fashion of a botanical treatise, but most entertainingly to what he calls the "miracle world" of these extraordinary plants. The first miracle is how they manage to exist in some of the most arid and inhospitable parts of the Earth. The second miracle is the amazing variety of shape, size and characteristics developed. A glance at the family members shows that in size the species vary from huge specimens of several tons weight to minute marble-size prickly spheres; in shape they may be cylindrical, spherical, erect, simple or branched; the surface may be smooth, wavy or furrowed, with or without a fearsome armament of spines; the flowers, whether large or small, night- or day-flowering, are, by any standards, beautiful; the flesh of some species yields food and drink, and the notorious drug mescalin can be obtained from another.

Many additional uses are mentioned, one macabre, some utilitarian, some humorous. The Aztecs slaughtered their human sacrifices on a bed made from the cut stems of one of the larger specimens. The frame-work of a hut can be made from the stems of other species. "Cactus fiends" in California decorate their clothing with cacti while "Miss Cactus" wears a spiny crown. These prickly plants are a boon to the caricaturist, for the man who sat down on a cactus can scarcely fail to raise a smile. Romanticists have even written poetry about them, and such is their attraction that "out and out" fiends will even descend to barefaced theft to acquire a rare specimen.

The book is beautifully illustrated, beautifully printed, a credit to Dr. Backeberg and, let us add, worthy of the Cactaceae.

N. L. BOR