

Progrès récents de la chromatographie

Première partie : Chimie organique et biologique. Par Dr. Edgar Lederer. Pp. 146+3 plates. Deuxième partie : Chimie minérale. Par Michael Lederer. Pp. 131. (Actualités scientifiques et industrielles, 1079 and 1181.) (Paris : Hermann et Cie., 1949 and 1952.) n.p.

THESE two volumes on recent progress in chromatography have been prepared by authors who have themselves made significant contributions in chromatography and, taken together, form a useful guide covering the whole field of separation studies by this method. The general arrangement of subject-matter follows a similar plan in both cases in providing chapters dealing with adsorbents, solvents, techniques and a wide variety of applications. Chromatography on cellulose, which represents the most important advance in recent years, receives due notice; but there are also chapters dealing with electrophoresis, ion exchange and earlier work on alumina and other solid adsorbents. The information provided in these books, although necessarily brief, is reliable and clearly presented. The main function of books of this kind is to stimulate the interest of the reader in what may be an unfamiliar field, to describe what has been done and to provide references to original literature where more detailed information can be found. The authors have performed this task very well; but in such a rapidly advancing subject it is important that the work should be as up to date as possible to be of maximum usefulness. Part 1, published in 1949, loses something of its value at the present time from absence of descriptions of work done during the past few years, but forms a useful introduction to the subject. Part 2 gives a good account of inorganic chromatography up to the end of 1951. Work in the latter field has progressed rather more slowly than in organic and biological chemistry but has already proved of exceptional value in separations which are difficult to accomplish by other procedures. This little book by Michael Lederer should go far towards making inorganic chromatography better known and appreciated, particularly in France. F. H. BURSTALL

Introduction to the Foundations of Mathematics

By Prof. Raymond L. Wilder. Pp. xiv+305. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1952.) 46s. net.

IF the question be asked whether or not this book is just 'yet another' addition to the collection of texts on fundamentals, the answer is an emphatic 'No'; and for the following reason. Prof. R. L. Wilder has, in effect, written two volumes in one. The first, on concepts and methods, is the result of much teaching experience; it is helpful and readable, but not particularly original. The second, however, dealing with the "development of various viewpoints" is, in my opinion, outstanding and fully justifies placing this work in a class by itself. After discussing the various 'schools' (for example, intuitionism), come some twenty pages devoted to the cultural setting of mathematics, considered both genetically and historically. Nothing quite like it has appeared since Pickford did much the same, in a monograph, for the fine arts a decade or so ago.

Broadly, the thesis is that, like other cultures, mathematics shows a growth conditioned by evolution and by diffusion. The common influences like

migration, cross-infection and the like are shown to apply. Individual men of genius arose because the cultural environment 'required' them, rather than the other way round. Seen through contemporary eyes, the modern *Methodik* may soon invade psychology and the social sciences, a hypothetical movement at present, but reminiscent of the prophetic remark by the late Prof. A. N. Whitehead on a similar theme. Whatever eventually happens, Prof. Wilder's outlook is invigorating, and worthy of close attention by teachers and by students alike.

F. I. G. RAWLINS

A Century of London Weather

By W. A. L. Marshall. (Air Ministry: Meteorological Office, M.O. 508.) Pp. ii+103+29 plates. (London: H.M. Stationery Office, 1952.) 15s. net.

THE weather of London is of interest to a good many people, especially this year, and this official compilation was very timely. It is based on the records at the Royal Observatory, Greenwich, since 1841, the Kew Observatory, Richmond, since 1871, and some shorter records for other parts of London, including Kingsway. It opens with summaries for 1841-1949, giving the warmest and coldest years, months, days and nights, extremes of rainfall, snow, thunder, sunshine, drought, frosts and fog. The section on seasons includes comparisons of the temperature and rainfall of each season with those preceding and following. There is a slight tendency for abnormal conditions to persist into the following months, but with so many exceptions that the relation is useless for forecasting. A long chapter describes diurnal and annual variation of visibility in various parts of Greater London. Frequencies of warm and cold spells at different times of the year are discussed, but little support is found for Buchan's famous spells. Nearly half the book is taken up with monthly tables of temperature, rainfall and, after 1880, sunshine for each year, 1841-70 at Greenwich and 1871-1949 at Kew, and with graphical presentations in coloured plates of most of the material in the tables. It would be difficult to think of any query about London weather which cannot be answered from this book, but an explicit reference might have been made to the question of changes of climate—for example, the index includes no reference under "old-fashioned winters".

Embryology

By Lester George Barth. Revised and enlarged edition. Pp. xi+516. (New York: The Dryden Press, Inc., 1953.) 6 dollars.

IN this revised and considerably enlarged edition, the essential framework of the original work has been retained. The author's aim is to discuss the general principles of embryology and to illustrate relevant anatomical data over a wide taxonomic range. In particular, the new materials lay emphasis on the development of the nervous system and the derivatives of mesoderm; but new and valuable additions have been made at many points. An unusual feature of the book is that, to afford students a more thorough grasp of comparative embryonic development, illustrations of the development in frog, chicken and mammalian embryos have been so arranged, on a detachable system, that any organ can be studied either chronologically through its development in one animal, or comparatively in several animals simultaneously. Both the text and illustrations are of an admirable clarity.