

Sechstellige Trigonometrische Tafel

Edited by Herman Brandenburg. Pp. xxiv+304. (Copyright vested in the Alien Property Custodian, 1944: first published in Leipzig, 1932.) (Ann Arbor, Mich.: J. W. Edwards; London: Dr. J. L. Comrie, Scientific Computing Service, Ltd., 1945.) 5 dollars.

THE main content of this volume consists of a six-figure table of sines, tangents, cotangents and cosines over the range 0° – 45° . Each page represents a range of 10 minutes, the intervals being 10 seconds, so that it contains 60 entries for each of the four functions. Each individual entry is supplied with its corresponding first difference, and tables of proportional parts are also appended.

In order to assist in computing, the parts of the table where exact interpolation is impossible (owing to insufficient data) have been substantially enlarged and appear in the form of two preliminary tables. The former, occupying 24 pages, gives values of the cotangent over the range 0° – 3° , at intervals of one second, to seven significant figures; while the latter, occupying three pages, gives values of the sine and tangent, over the range 0° – 1° , at intervals of 10 seconds, to six significant figures.

Other information supplied at the end of the book includes conversion tables from mean time to sidereal time and vice versa and also from arc to time. There is, in addition, a table of factorials and their reciprocals from 1 to 20.

The original preface to the book, written by the author in 1931, has been translated into English, French, Dutch, Russian, Spanish and Japanese, and all seven prefaces are included. The book is another fine example of lithoprint reproduction and is published and distributed under the authority of the Alien Property Custodian in the United States. It is excellently reproduced and neatly bound, and should prove a useful asset to all who are fortunate enough to be able to acquire it. J. H. PEARCE.

Good Farm Workmanship

By D. V. Fletcher. (Teach Yourself Farming Series.) Pp. 180. (Bickley: English Universities Press, Ltd., 1944.) 3s. net.

THE written description of highly skilled manual work is naturally very difficult, especially if it has to be understood by readers not acquainted with the work. The author of this book deals in turn with each of the main departments of a mixed farm and gives a lucid account of the series of skilled operations performed by each farm worker, and the reasons underlying them. The book is presented in an interesting and very readable form, and the author obviously knows his subject well.

The picture painted by the author is, however, rather too full of colour, for all farm work is made to appear pleasant and well organized, with no dull tedious work, no back-breaking slogging at harvest time and no groping about in milking sheds with lanterns on cold dark mornings. It is, in fact, a picture of farm-work as it should be done, rather than how it is done on most farms. This is not necessarily a fault in a book of this nature, for the novice would soon learn of the difficulties by experience, and would soon realize that the easy skill of a farm-worker can only be acquired after much practice. The seasonal routine work of the general farm-worker renowned for his skill in many operations does not get the space it deserves, for this

work plays by far the largest part on most farms. Much more might have been made of this part of the book.

The book will be of interest to laymen and of use to people on the threshold of an agricultural career, but it will not satisfy these latter for long, as they will soon want to pass on to something more advanced. J. R. MOFFATT.

Virus as Organism

Evolutionary and Ecological Aspects of some Human Virus Diseases. By Dr. Frank MacFarlane Burnet. (Harvard University Monographs in Medicine and Public Health, No. 8.) Pp. ix+134. (Cambridge, Mass.: Harvard University Press; London: Oxford University Press, 1945.) 2 dollars.

DR. BURNET'S monograph is a welcome contribution to the literature on the viruses. A subject so wide and so rapidly changing requires periodic summarization so that new concepts may be made known to the wide medical public which cannot cope with the spate of articles directed at the specialists. The origin, evolution and economy of the viruses are here outlined from a biological point of view. The author postulates the evolution of the viruses from larger micro-organisms by a process of parasitic degeneration, and the derivation of human virus diseases from animal infections. Examples are given to show the differences which can exist between variants in virus strains.

Evolution is scarcely the word to describe the progress of virus life, for in this process there is no increase in complexity or emergence of new powers. On the contrary, the onward trend is towards more and more simplification in structure until in the smallest viruses nothing remains but a "shadowy, self-replicating residuum of genetic mechanism". There is an enormous reservoir of viruses in arthropod, bird and mammal life, and chance may allow the appearance in the future of new virus diseases in man. Illustrations of the behaviour of viruses and their hosts are given in chapters on individual diseases: herpes simplex, poliomyelitis, psittacosis, smallpox, yellow fever and influenza.

There is a comprehensive bibliography. This excellent book can be recommended as a concise summary of the recent advances and present conceptions in virus diseases.

L'Azéotropie

La tension de vapeur des mélanges de liquides, bibliographie. Par Maurice Lecat. Tome 2, pour 1932–1941, avec compléments rétrospectifs. Pp. x+128. (Bruxelles: Maurice Lamertin, 1942.) 125 francs.

THE first volume of the present work appeared ten years ago, and the present second volume deals with the literature, including many patent specifications, which has appeared since. It also includes many entries which are not contained in the first volume, although belonging to the earlier period. The entries appear twice, under authors, and chronologically. The book is printed on one side only, so that additional entries can be made. The subject has a high scientific and technical interest, and such a collection, which must have cost a great deal of labour on the part of the author, is valuable and important. The paper and printing are good, and although the book is not bound, it has a stout cover which will stand much usage. It can be recommended for inclusion in any chemical library.