

### An Explaining and Pronouncing Dictionary of Scientific and Technical Words

10,000 Scientific and Technical Words in 50 Subjects explained as to a Person who has little or no Knowledge of the particular Subject. By Dr. W. E. Flood and Dr. Michael West. Pp. viii+397. (London, New York and Toronto: Longmans, Green and Co., Ltd., 1952.) 12s. 6d. net.

THIS is a very useful compact dictionary, and it will have a wide acceptance. In less than four hundred pages, ten thousand scientific and technical words in fifty subjects ranging from architecture to zoology are explained and given correct pronunciations. Like Larousse and Nuttall before them, but in a more generous and enlightened manner, the authors have supplied thirteen hundred pictures and diagrams to assist them in their explanations. A simple and effective method of cross-reference has been used in the book, and thus its value has been enhanced. The authors set themselves a number of working rules when they made their dictionary, and, by following these, their work has not degenerated into an unsatisfactory encyclopædia. Only a captious critic would find details which would evoke comment.

Why has oxygen not been given when nitrogen and hydrogen have? Why axolotl and not salamander, geriatrics and rheology but not cybernetics, harmonic but not consonance or temperament in their acoustic sense, coma with two meanings but without reference to lens aberrations? There is tawny port wine (which is important), but not polyploid, serology or the biological use of the word spindle. Very few of the explanations have suffered through the process of condensation, but some seem to need qualification; for example, "calciferol is found in yeast", "burn bones to make lime". There is a table which gives British and metric weights, measurements and temperatures, but atomic weights are not usually given. The most hypercritical reviewer would have to admit that in such a small but comprehensive volume some matters of choice must be left with the authors.

The book is excellent value for money and is attractively produced. It will be handy as a reference work for all intelligent citizens, even if their primary interest is not science. Many will be tempted to browse in it.

W. L. SUMNER

### Tables of the Bessel Functions of the First Kind of Orders Seventy-nine through One Hundred and Thirty-five

By the Staff of the Computation Laboratory. (Annals of the Computation Laboratory of Harvard University, Vol. 14.) Pp. x+614. (Cambridge, Mass.: Harvard University Press; London: Oxford University Press, 1951.) 52s. net.

THE publication of this volume completes a project inaugurated in 1944 by the Computation Laboratory of Harvard University and continued since, at intervals, whenever the Laboratory's automatic computer was not engaged on work of higher priority. The results are given in a series of large volumes, of which this is the twelfth. Previous volumes in the series have been reviewed (*Nature*, 160, 772 (1947) and 163, 152 (1949)), and there is not much to add to what has already been said.

The original project was to tabulate the function  $J_n(x)$ , for positive integer  $n$  up to 100 and for values of  $x$  up to 100, to ten decimals, except that, for  $n = 0(1)3$ , values are given to eighteen decimals.

For  $x$  greater than 25, the tabular interval has so far been 0.01, but in the present volume it is increased to 0.05 at  $n = 97$ , and again to 0.1 at  $n = 112$ . It has been found possible to increase the range of  $n$  up to 135, beyond which  $J_n(x)$  is not significant to the tenth decimal at  $x = 100$ . The range of  $x$  has been closed by the inclusion of a ten-decimal table of  $J_n(100)$  up to  $n = 135$ , and a table of  $J_n(n)$  for  $n = 1(1)100$  is also given.

Dr. H. Aiken and his staff—and also the machine—are to be congratulated upon the completion of the great task which they set themselves, and the result is probably the most extensive piece of tabulation which has so far been attempted and brought to a successful conclusion.

W. G. BICKLEY

### Du Pont

The Autobiography of an American Enterprise. The Story of E. I. Du Pont de Nemours and Company published in commemoration of the 150th Anniversary of the Founding of the Company on July 19, 1802. Pp. vi+138. (New York: Charles Scribner's Sons, 1952.) n.p.

THIS handsome volume, richly illustrated partly in colour, traces the development of a famous American firm from its foundation in 1802 near Wilmington, Delaware, by a young refugee from France, Eleuthère Irénée du Pont, who had been a pupil of Lavoisier. Many of the illustrations connected with the early period are taken from the contemporary press and are of great interest in respect of such things as costume. The illustrations showing present-day conditions may seem at first sight too familiar to warrant inclusion; but in due time they also will come to be records of past days, equally interesting and valuable. The volume, which has drawn upon many sources, including the records of the firm, is one of the most interesting and attractive of its type which has come to the notice of the reviewer, and any library which looks to the future should make a point of including it.

### The Bay

By Gilbert C. Klingel. Pp. x+278. (London: Victor Gollancz, Ltd., 1952.) 12s. 6d. net.

THE bay of which Gilbert Klingel writes is the Chesapeake, stretching to the east of Maryland and Virginia, and so called after the American Indians who first peopled its shores. The coast is deeply indented with wide river mouths, long lagoons, estuaries, and thousands of small creeks, so that, it has been said, if the shore-line were straightened out it would stretch more than four thousand miles. For twenty years Klingel has watched the bay with the acute perceptions of an enthusiastic and experienced naturalist. In this book he describes the bay in many moods as well as the remarkable variety of its living forms. The latter he has studied above, on and below the surface of the bay; possibly his best descriptions are those of the living creatures which he met underwater. For Klingel is an experienced underwater observer and, whether in helmet, diving-suit or his curious home-made 'Bentharium', his close contacts with submarine life have produced descriptions of animal behaviour which put him in the top flight of writers on natural history. One of the best chapters is an account of happenings during a whole twenty-four hours spent in the heart of a swamp. The chapter on luminescence is equally good, while the author's description of his experience with the 'Bentharium' is one of exciting adventure.