BOOK REVIEW

SYNTHETIC ANALGESICS. PART I. DIPHENYLPROPYLAMINES. By Paul A. J. Janssen. Pp. vii + 183 (including Index). Pergamon Press, Oxford, 1960. 45s.

It is no fault of Dr. Janssen that this book, the third in a series of chemical monographs and Part I on synthetic analgesics, makes rather dull reading. Much of chemical pharmacology is routine synthesis undertaken only with a view to compensation by the chance of producing a notable drug. It is inevitable that a complete review of any aspect of chemical pharmacology must approximate to a catalogue. The synthetic chemistry of drugs related to methadone, substantially an essay in the problems posed by steric hindrance, is relatively uninteresting with the possible exception of the "methadone rearrangement". Methadone was described in 1948 and the author has summarised the subsequent work to July, 1958, including his own considerable unpublished material. Synthetic methods used to prepare 576 3,3-diphenylpropylamines without substituents on the aromatic nuclei, and their published physical properties (52 have no recorded m.p. or b.p.), are briefly described. The book is worth the outlay for the time it can save in literature searching alone.

As befits a chemical monograph, biological topics have been severely pruned and this may account for the 190 references of the total of 564 that are not mentioned in the text. In view of this surfeit it is perhaps unfortunate that reference 344 is missing. Analgesia is dismissed in two pages and analgesic assay methods severely criticised in two more pages, but to assist speculation on structure-activity relationships there is a table of 31 pages giving analgesic ED50 doses and potency ratios relative to morphine, codeine, methadone and pethidine (the latter expressed in error as mg./kg.). Three tables in sequence totalling 92 pages and covering physical properties, analgesic potencies in animals, and structure, seems a bit unwieldy in the middle of a chapter, especially when compared to an average chapter length of two and a half pages and one of a mere half page. Thus the casual reader scanning Table V might find it difficult to locate the definitions of its symbols in the body of a chapter some 56 pages away, only then to find that some symbols lack definition. There is an occasional looseness of expression such as "other nitriles—are solid bases" (p. 125), or "heavier alkyl halides" (p. 135). Paragraph 4 on p. 125 is unintelligible as it stands and listing quaternary ammonium salts as alkyl halide salts of trivalent bases is perhaps convenient for tabulation but Figure 5.5 (p. 117) would be better drawn as a quaternary salt. These and a number of misprints however are minor points and do not detract from a well presented concise and factual account. There is only a modicum of hypothetical matter, this mainly limited to configurational studies.

A. McCOUBREY