

## BOOK REVIEWS

GET FIT THE CHAMPIONS' WAY. Brian Corrigan and Alan Morton. 1968.

Published by Souvenir Press, London. 30/-. Pages 221. Illustrated.

Perhaps the worst feature of this book is its title, which gives an impression of being a superficial but rather expensive handbook of the "play the sport this way" type. It is much more the book that shall appeal to the intelligent non-specialist who requires a logical explanation of his training schedules and the treatment of his injuries, rather than empirical instructions that so many popular works give, without rationale. The authorship is a good example of the physical medicine/physical education teamwork that we have already seen in such books as that by Hunter and Murray, and in scientific articles such as that by Chapman and Troup.

The first few chapters give an elementary but highly relevant introduction to the anatomy and physiology of the body in activity. From this introduction, the principles behind training are discussed, and logical training schedules are developed from these principles. These exercise schedules are profusely illustrated, both by line drawings and by photographs, the latter being particularly valuable, as the athlete is not only told what to do, but can see someone not unlike himself actually doing it. Some 120 of these photographs illustrate exercises with and without apparatus, and bring out clearly the principle that exercise must be progressive. There is a valuable chapter on the use of measurement in the evaluation of training, and simple techniques are described, although details of scoring tables etc. are omitted, (but are of course available in the specialised textbooks on the subject). Even the electrocardiograph is mentioned, and with the increasing use of cardiography in the investigation of exercise, this helps potential subjects to understand what the research worker may be aiming to do.

Diet is discussed in elementary terms, and sound practical advice given, especially over dietary fads with which so many athletes become obsessed. Several other fields of superstition are dealt with in similar commonsense non-emotional fashion, especially the current topic of "ergogenic aids", which includes some dramatic photographs of competitors in various events suffering from stresses complicated by the taking of drugs.

The same common sense characterises the chapter on sports injuries. Some of us might disagree a little over the treatment of some of the conditions, but as many would support the authors' views, which are based upon wide practical experience. We all advocate immediate cooling in the primary treatment of sprains and muscle tears, but there is controversy as to whether this cooling should be by cold water or by ice packs. Reduction of a locked knee under general anaesthetic is suggested, whereas the more enlightened British orthopaedic surgeons are in the belief that if a torn cartilage requires manipulation under general anaesthetic, then meniscectomy should be performed straight away, rather than subject the patient to another anaesthetic subsequently.

This book will be of value to several different classes of readers; to the doctor who wants to know something about contemporary methods of training, and requires an easily readable book to give him some of the scientific rationale of these training methods; to the more intelligent and better educated coach and athlete; to the physical educationist needing a "refresher course", and to new entrants to the physical education profession who require an elementary survey of the whole field of applied science in sport.

PHYSIOLOGICAL BASIS OF HUMAN PERFORMANCE. Benjamin Ricci, 1967.

Published by Lea and Febiger, Philadelphia. 300 pages. £ : : .

A few years ago, apart from the classical studies of A.V.Hill, from the pre-war era, there was virtually only one book on the subject of the physiology of exercise. Within the last two or three years, there has been a surge of literary activity in this field, several books that must have been started almost simultaneously appearing within a short time of each other, and obviously covering the same ground. The book under review is therefore one of several recent publications, but it deals with several topics not covered in the other exercise physiology books. The opening chapters are concerned with the cellular anatomy and physiology of muscle, and its nerve supply. This is followed by a chapter on "Kineoenergetics" and serves as an introduction to modern investigation techniques into muscle activity by electromyography and electrogoniometry, plus a useful revision of our 1st M.B. physics as applied to biochanics. The heart and peripheral circulation are also considered from a mechanical as well as a physiological viewpoint, as is respiration. Heat regulation is considered both in changes due to exercise and to changes in environment, although data from trained athletes undergoing maximum performance is scarce. Perhaps the forthcoming Olympic Games might provide results worth including in subsequent editions. Metabolism, diet and fluid balance are all discussed, and there is a chapter devoted to a mixture of unclassified topics, including the pharmacological effects of drugs and other ergogenic aids used by some athletes.

The last chapter is particularly valuable to those who without being formally trained physiologists are required to teach some physiology and to understand how to carry out the calculations. This chapter on "Calculation methods" starts off by giving detailed instructions on the use of the slide-rule for every-day calculations. I know all the clever young newly qualified doctors and physical educationists know this, but to us of an older generation, we can revise and practice without loss of face or without being tiresome to our impatient juniors. Detailed calculation methods are also given for apparatus that was only available in research units a few years ago, largely concerning the evaluation of energy expenditure from respiratory investigations. Techniques are also given for some physique assessments, but Parnell's simple technique for field (as opposed to research) use is not mentioned, although in use in some places in the U.S.A., e.g. by Lindsay Carter in California. Finally, there is a useful revision section on definitions, formulae and laws, - Ohm's Law, Hooke's Law, Newton's Laws etc.