A Biochemical Approach to Pathology

By M. J. R. Dawkins and Dr. K. R. Rees. Pp. vii+128. (London: Edward Arnold (Publishers), Ltd., 1959.) 18*s*. net.

As the advance of knowledge invades the old border-lines between the sciences, pathology becomes increasingly concerned with the chemistry of the cell, considered in topographical detail as an organized system of mainly enzymatically promoted reactions. Morbid states formerly described only in anatomical and histological terms have now to be interpreted in terms of chemical derangement in cytoplasm, microsome or other specified site. The first assertion is the justification of this book; the second describes the approach taken by its authors. Within the confines of 120 pages, two disciplines are bridged with an adequacy necessarily dependent on wise selection and enforced abbreviation. The authors have succeeded so well in combating these limitations that there is ground for some regret that more space could not be made available to them. Whereas pathologists may find difficulty with the assumption of extensive prior reading in chemistry, biochemical readers are less severely taxed in pathology, but both are aided by a wisely chosen short guide to further reading. Some of the present frontiers of knowledge are indicated in a stimulating manner.

The unfortunate tendency to write in initials (RNA, DPN and too many others) is strongly maintained without benefit of a glossary and detracts from an otherwise eminently readable text, while important substances such as adenylic acid appear only by name, assuming the glib role of shibboleth.

For a first edition, this well-produced volume is commendably free from errors, excepting the trivalent carbon shown in the structure of bilirubin (p. 40) and the confusion of β-amino-α-naphthol with *o*-aminophenol (p. 115). R. W. R. Baker

Proceedings of the Second United Nations International Conference on the Peaceful Uses of Atomic Energy held in Geneva, 1 September—13 September 1958

Vol. 2: Survey of Raw Material Resources. Pp. x+843. (Geneva: United Nations; London: H. M. Stationery Office, 1958.) 80 Swiss francs; 132*s*.; 18.50 dollars.

The geological discussions at the second Geneva conference on atomic energy, reported in this volume, had a much more international character than those at the first conference in 1955. At the latter, the delegation from the United States contributed 85 out of 125 papers on geology and prospecting, Great Britain and Brazil each produced four contributions, and the remaining 32 works came from 22 different countries. In 1958 only 30 papers out of 84 were of American origin and there was a much larger presentation from other lands, notably from the U.S.S.R., France, Canada, South Africa and India. Discussions were also more open, for as a direct consequence of the Free World's glut of uranium no aspect of the economic geology of radioactive ores is now secret in the West—although information on the location and output of domestic deposits is still 'classified' in the U.S.S.R. The radiogeological studies printed in this "Survey of Raw Material Resources" range widely over the diverse fields of economic geology, prospecting, geochronology, uranium mineralogy, and geochemistry; and they make up what is undoubtedly the most comprehensive assemblage of new information on radioactive mineralization that has ever been brought together. C. F. Davidson

Sechzig Jahre Medizinische Radiologie

Probleme und Empirie. Von Prof. Hans R. Schinz. Pp. 275. (Stuttgart: Georg Thieme Verlag, 1959.) 19·50 D.M.

This book is a historical document written by Prof. H. R. Schinz of Zurich on the occasion of the Ninth International Congress of Radiology in 1959. It covers 60 years of medical radiology from the date of discovery of X-rays up to the present. The first section of the book deals with the discovery of X-rays by Röntgen. This is preceded by a short annotation leading up to this momentous achievement. The discovery of uranium and radium and their radioactive properties by Becquerel and the Curies is dealt with in a similar way, and so is the fundamental early work on nuclear and radiation physics by Rutherford and his co-workers. This first chapter covers all the important milestones in experimental and theoretical physics up to the 1950's, listing all the great names connected with this work throughout the world.

In the second section there is a short historical note on technical achievements and the development of X-ray apparatus. The main section of the book deals with the medical aspects of radiology, in particular radiobiology, X-ray diagnosis and radiation therapy and their advances during the past 60 years. Finally, some of the original papers of the early days of radiation physics by Röntgen, Rutherford, Becquerel, the Curies, Hahn and Strassmann are appended.

This book is a useful historical review of the past 60 years, mentioning all the outstanding workers in the field: it also contains a number of interesting historical photographs and charts referring to the very early fundamental work. R. E. Steiner

How Animals Move

By Sir James Gray. (The Royal Institution Christmas Lectures 1951.) Pp. 144. (Pelican Book A454.) (Harmondsworth, Mddx.: Penguin Books, Ltd., 1959.) 3*s*. 6*d*.

In 1951, Sir James Gray gave six Christmas lectures to a young audience at the Royal Institution. His task was ". . . to illustrate the more striking features of animal locomotion without assuming previous biological knowledge". The lectures, together with many admirable illustrations and revealing photographs, were published by the Cambridge University Press in 1953. It is good that the book will now be available to many more readers, who will discover an absorbing subject treated in clear and direct English. Young naturalists (and older ones) will learn that the movements of animals can be illusory or impossible to follow without suitable recording devices. Correct observations require much circumspection (for example, anglers should not be misled as to the speed of a hooked fish by the scream of a reel). Lastly, the reader, who could be an artist just as well as someone with an interest in biology, will find a lucid analysis of the living mechanics of locomotion, one that parallels the natural ease of the animals themselves. N. B. Marshall