Book Reviews

The Corner House Group—Health Department Report for the year 1964. By A. M. Coetzez, Chief Medical Officer.

The Corner House Group, previously known as the Central Mining-Rand Mines Group, comprises eight gold mines and four collieries employing currently around 63,000 and 4,500 Bantu mine workers respectively. This annual report is the fiftieth issued and marks not only the golden jubilee of the department but of its first medical officer—retired 1956—Dr. A. J. Orenstein, C.B., C.M.G., C.B.E., D.Sc., LL.D., M.D., F.R.C.P.

Early this century many of the leaders of the gold mining industry in South Africa became increasingly perturbed by the high mortality from diseases among the Bantu mine workers. It was in the region of 22 per 1,000 per year, with pneumonia, often epidemic, causing about 10 per 1,000 and acute tuberculosis six per 1,000. The Chamber of Mines invited Sir Almroth Wright, leading immunologist, and Colonel (later General) William Crawford Gorgas, chief sanitary officer for the Panama Canal area from 1904 to 1913, to visit the Witwatersrand and advise managements on how to cope with the problems. Colonel Gorgas strongly recommended the appointment of a competent medical officer to organize and control the health and medical service. Thereupon in April 1914 Dr. A. J. Orenstein (b. 1879), a young American army surgeon, who had served under Colonel Gorgas in the supervision of the workmen employed in the construction of the Panama Canal, was appointed to the office in which he continued until 1956. He became the pioneer of mining medical services in South Africa and, by reason of his work in the mines and other activities, such as director of Army Medical Services—rank Major-General—and director of the Pneumoconiosis Research Unit in Johannesburg, he achieved an international reputation as a leader in occupational health, hygiene, and research. The long list of civic, military, and professional honours attached to his name testify to this.

From its inception Dr. Orenstein based the development of the Health Department on a two-fold policy. The first was that 'while alert and receptive toward new discoveries and developments, the best possible use is made of well established and proved methods and proceedings'. The second was founded on General Gorgas's aphorism: 'Public health cannot be enforced—it must be persuaded.'

Since his retirement Dr. Orenstein has remained active. In 1959 he acted as Secretary General of the International Pneumoconiosis Conference convened at the University of Witwatersrand, Johannesburg by the South African Council for Scientific and Industrial Research. He edited (1960) the Proceedings of the Conference. This magnificent volume and the A. J. Orenstein Hospital at Blyvooreitzicht are fitting monuments to this great pioneer of health in industry. Even more so is the advance in the health and well-being of the Bantu mine workers and their dependants as exemplified by the following table from the 1964 report:

<table>
<thead>
<tr>
<th>Disease</th>
<th>Mortality Rates per 1,000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1913</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>9.0</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>3.5</td>
</tr>
<tr>
<td>Silicosis</td>
<td>1.08</td>
</tr>
<tr>
<td>Scurvy</td>
<td>0.4</td>
</tr>
<tr>
<td>All diseases</td>
<td>21.00</td>
</tr>
<tr>
<td>Accidents at work</td>
<td>4.5</td>
</tr>
</tbody>
</table>

Concurrently there has been a corresponding improvement in morbidity rates.

Industrial medical officers in Great Britain will welcome this opportunity of saluting the achievements of Dr. Orenstein and wishing him many more years of health and activity.

Future generations will honour his name by recording it with Agricola and Paracelsus. A. MEIKLEJOHN


The last decade has seen a revolution in the practice of chest disease in this country, partly due to the decline of pulmonary tuberculosis and partly to the rapid increase in understanding of pulmonary function and the means of accurately measuring its component parts.

The importance of assessing pulmonary function quantitatively has been recognized not only in general medicine but in surgery, anaesthesia, and, of course, in industrial medicine, when occupational factors may lead to damage of the lungs. The small number of pulmonary function units already existing in various parts of the country are already not sufficient to meet the growing needs, and an expansion of these facilities will have to take place. The needs are varied: sometimes detailed physiological studies of the whole span of pulmonary function are necessary; at other times, the serial measurement of a limited number of tests is all that is required. The appearance of Dr. Cotes' book is timely for it will be a valuable source of information to anyone having to provide these facilities.

Its approach is different from other books in this field; its emphasis is as much on the practical as on the basic aspects of pulmonary function.

It is clearly written but anyone coming to the book...
without previous knowledge of pulmonary physiology is likely to find it difficult to follow. This was probably unavoidable if the book was to be kept to reasonable proportions; any expansion of sections on basic physiology would have been at the expense of the detailed description of the techniques employed in measurement; and this aspect cannot readily be found elsewhere. In any case there are excellent accounts already available of basic pulmonary physiology.

It was a surprise to find that, having covered lung function and its measurement, one was barely halfway through the book. The remainder includes a valuable chapter on normal values for lung function and the effect of ageing upon them. This is followed by a section entitled Syndromes of Abnormal Lung Function which includes bronchitis, diseases characterized by diffuse obstructive changes in the airways, disease of the lung parenchyma, and disturbances of the circulation. The industrial pulmonary diseases discussed are dominated by pneumoconioses, and the functional changes found are related to the pathology. Illustrative cases are described.

The therapy of lung dysfunction is reviewed with particular emphasis on the rational use and techniques of O₂ administration.

There is a good bibliography and an excellent index.

In a book which contains so many facts about a developing subject, it is inevitable that there are areas for disagreement, and not everyone will agree with all the views put forward, but the presentation of the controversial aspects of the subject is balanced and fair.

This book will prove to be a worthwhile contribution to the literature of the subject.

J. B. L. Howell


This small book is intended for the beginner and aims at inducing a systematic, if laborious, approach to the interpretation of electrocardiograms. Most of the text is concerned with explaining the way in which each stage of interpretation is carried out. This is preceded by an introduction to the leads used and the meaning of the electrocardiogram, which is considered almost too briefly to be of much value to the beginner. A few illustrative interpretations and a brief index follow the main part of the text.

The emphasis throughout is on method and orderliness of approach, and this is wise for the beginner but it perhaps fails to provide an adequate basis for understanding the formation of the normal or abnormal electrocardiogram and even tends to discourage understanding by emphasizing empirical rules, as in the statement that if the height of R in V₅ or V₆ added to the depth of the S in V₁ or V₂ exceeds 35 mm. left ventricular hypertrophy is therefore present. This requires at least some theoretical justification if understanding of the principles of interpretation is the aim. The electrocardiograms are not reproduced to a very high standard but this may be due to the type of paper used.

A. Morgan Jones

The Nails in Disease. By P. D. Samman. (Pp. 130; 126 figs. + 4 colour plates; 40s.) London: Heinemann Medical Books. 1965.

It must be appreciated that this small volume is in the main the result of personal observations of the author. It represents the analysis of nearly 800 patients who presented with nail disorders over the course of seven years. After an initial chapter on the anatomy and physiology of nail growth, chapters are presented on nail changes in various disorders of the body, changes associated with skin diseases, effects of trauma, circulatory changes, etc. The black-and-white pictures and the colour pictures are of a high standard, though some radiographs leave a lot to be desired.

Important facts emerge, e.g., median nail dystrophy undergoes spontaneous healing, and thus cures attributed to the eradication of focal sepsis must be viewed with caution. The author's views on nail changes associated with alopecia areata and dermatitis are most valuable.

Not only will dermatologists need this book, but physicians who feel the pulse and examine the hand will find this a most useful addition to their libraries.

M. Garrettts


The main theme of this book is the 'Cu (I,II)-Peroxyl theory', the essence of which is that ionizing radiation produces organic peroxides which oxidize cuprous to cupric copper in the prosthetic group of cytochrome oxidase. On this basis the whole field of radiobiology is reviewed and explained and further experiments are suggested. In addition to the main theme there are valuable discussions of copper chelates, copper enzymes, copper deficiency, Wilson's disease, cancer, ageing, antipyresis, and hypothermia. There has long been a need for a book of this sort and this one fills it well, though somewhat marred by careless grammar and by an apparent spread into the text of some of the sales talk on the cover. A book which is not a mere compilation, but which sets out facts (somewhat selected) in a logical order aimed at the propagation of a particular view, is a pleasant change. Many will claim to have thought on similar lines for years but few have been bold enough to defy the taboo against speculation and to state in print which particular combination of unprovable ideas they favour. Some possible bits of speculation seem to have been omitted. There is no mention of antithyroid drugs such as thiouracil nor of the fact that all known lathyrogens are obviously copper-complexing agents (though they do not protect against radiation) or of thalidomide. These and other interesting substances call for many further measurements of cuprous and cupric-complexing constants and of metabolic pathways by a reliable and dedicated experimentalist.

J. St. L. Philpot


The purpose of this book is to present the hypothesis