



# A DESCRIPTIVE ATLAS OF RADIOGRAPHS

*AN AID TO MODERN CLINICAL METHODS*

BY

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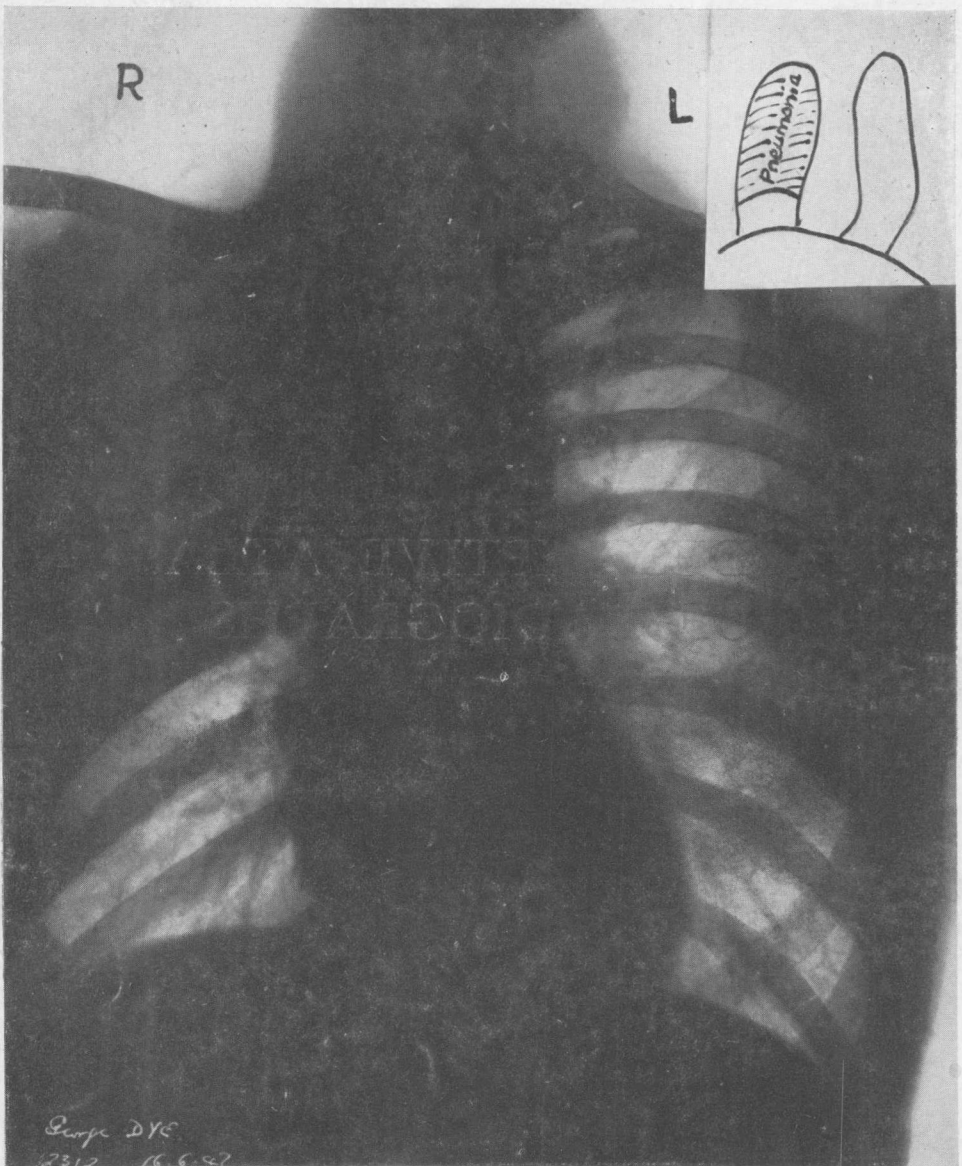
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A DESCRIPTIVE ATLAS  
OF RADIOGRAPHS



## FRONTISPIECE



### ACUTE LOBAR PNEUMONIA

CLINICAL HISTORY—See Figs. 799–801.

*Radiograph (Portable Apparatus).*—The whole of the upper part of the right lung is consolidated so that the ribs are barely visible. Comparing this picture with that given in anatomy text-books the disease is seen to be localised accurately to the upper and middle lobes of the lung.

F. TOLLEY.

Dr HOLMES WATKINS.

## RADIO-DIAGNOSIS

*"Use your eyes and your fingers, sometimes your nose, very seldom your ears."*

THESE words of Sir James Paget in *Clinical Essays* (1875) ring particularly true in the case of Radiology; but why is this science, for it is more than an art, still the Cinderella of British Medicine? It is possible for general practitioners to obtain teaching in any ancillary of Medicine except Radiology. As a result of this lack of teaching the general practitioner does not know what cases are suitable for X-ray examination and how it can help him in his daily round. Therefore when he gets a puzzling case, as a last resort, he sends it to a radiologist. If he fails to establish a diagnosis, scorn is poured on one of the most accurate methods we possess.

All will agree that the greatest, if not the only, opportunity of eliminating disease rests on an early diagnosis. Radiology can often establish an earlier diagnosis in the case of internal surgical disease than any other method; moreover it can confirm and give precision to diagnosis made by other means. Further, Radiology has this unique feature: AN EXACT RECORD IS OBTAINED FOR COMPARATIVE PURPOSES IN THE COURSE OF DISEASE, whereas with other methods it is often only possible to record impressions.

Few general practitioners have time or inclination to possess an X-ray plant, though those who do, find it invaluable in the study of the course of disease. They know and live among the patients, and often do useful work based, as all Medicine should be, on clinical grounds. There should be no excuse, such as there is, for the practitioner not knowing what Radiology can reveal to him. There is a welcome trend amongst the specialist consultants—i.e. those dealing with one system of the body—to diagnose their own radiographs, and who could be better fitted, since they have all the clinical facts at hand? All the outstanding advances of recent years have been made by such men: Sicard introduced lipiodol; Dandy produced the first ventriculographs; Von Lichtenberg prepared the first excretion pyelograph; Grahame and Cole, at

Rowntree's suggestion, made the first cholecystograms. In the non-teaching hospitals and small hospitals which are not in a financial position to carry a radiologist it is imperative that the staff do their own interpretation, and where can they obtain teaching of a non-technical nature to enable them to do this?

## CANCER CAMPAIGN

ONE by one, a remedy is being found for all diseases, even tuberculosis is proving amenable to treatment, but cancer holds out as the one affliction which shows an increase. Doubtless some of this increase is due to improved methods of diagnosis, also to the fact that the expectation of life is increasing, and as it is usually a disease affecting people at or past middle life there are more subjects available. Large funds are being collected in connection with the British Empire Cancer Campaign. To celebrate the late King George V's happy recovery in 1929, £100,000 out of £250,000 was collected from the nation for the purchase of radium, yet this element was not used in his diagnosis or treatment, the public apparently considering Radium and Radiology synonymous. While the results of radium for oral and skin conditions are magnificent, and radium needles have a wide field of usefulness, the results would not appear to justify the expenditure of so much money when its place can often be taken by X-rays in their various forms.

Why has not the approach to the problem been along the line of earlier diagnosis? Every surgeon will admit that, provided the disease is recognised at its outset, cancer is very amenable to the knife. Now the alimentary tract is the commonest site for cancer, it is eminently suitable for X-ray examination, and in most of its extent it is accessible to operation. In view of these three facts, why is the general practitioner taught the late symptoms, or rather they are complications, of abdominal cancer, instead of the early ones, which can be confirmed by Radiology with little expense, trouble, or pain compared with those of a laparotomy?

## X-RAY MUSEUM

THE establishment of a Radiographic Museum would at once vitalise the science and take from it the shrouds of mystery and place it in the



## PREFACE TO THE SEVENTH EDITION

It is once again my pleasant duty to thank those whose kindly help alone has rendered this Atlas possible, but before doing so I wish to record my deep sorrow in the passing away of many earlier contributors. The Atlas has sustained a serious loss in the death of Mr Lawford Knaggs, who scrutinised all bone radiographs. Inevitably much of their work will have to be replaced by newer work, but it is as they would wish: they have blazed the trail and they would have expected those coming after them to carry it further.

The greater number of bone radiographs were collected from the vast resources of the General Infirmary at Leeds, where I was Resident Surgical Officer, with the kind permission of the Honorary Surgical Staff and the assistance of Dr Scargill and his Radiological Staff. Dr Rowden gave me free access to his splendid collection; additional plates were furnished by the late Mr Barnett, Dr Rhys and Dr Salmond. I am most grateful for a series of pictures kindly given me by the Radiological and Surgical Honorary Staffs of the Nottingham General Hospital. The section dealing with the nasal sinuses is the work of the late Sir William Milligan, Mr Robertson and Dr Rowden, jun. The dental section, previously the work of Mr Marxer, has been augmented by Mr Forgan.

The alimentary system is the work of Dr Rowden, Sir Edmund Spriggs, the late Sir David Wilkie and Dr Rowden, jun. The urinary system is the work of the late Professor Fullerton, Mr Huggins, the late Mr Frank Kidd, Dr Rowden and the late Mr Jocelyn Swan. Dr Watkins has added further valuable material to the respiratory section, originally the work of Mr Morriston Davies, Dr Peter Edwards, Dr Johnston, and Dr Ramage. The late Professor Sicard furnished examples of lipiodol injections of the spinal theca; Mr Norman Dott a series of brain tumours, and Mr Pattison several ventriculograms.

It has been very difficult to collect more radiographs since this World War, when everyone has their time more than fully taken up. A section devoted to helminthology has been started. Mr Lewin and Mr Harrison

have contributed more interesting cases. Dr Hodson is a welcome newcomer, contributing many examples of tuberculosis. F. H. Frier's untimely death was a blow, he was a keen worker, and is succeeded by an equally keen one in F. Tolley. I take this opportunity of asking readers to submit radiographs either of diseases not included or which would be improvements on existing pictures.

I am grateful to Mr Schall for his chapter on "The Clinical Application of Radiology," and to Mr Shields of the B.M.A. Library for much help; also to Mrs McGraw of the Dumfries Secretarial and Typing Agency.

A. P. BERTWISTLE.

## INTRODUCTION

THE object of this book is to show the immense possibilities of X-rays. It is an attempt to portray, as far as is possible in the space available, as many of the normal and abnormal conditions that are met with in practice. It is written by a clinician for clinicians.

It is difficult to see how the profession can "feed" the Radiologist with suitable material unless he knows the capabilities of X-rays.

Although there are excellent courses and text-books for those taking up Radiology as a whole-time occupation, vide that excellent monumental work of S. C. Shanks, P. Kerley and E. W. Twining *A Text-Book of X-ray Diagnosis*, there are few of either for those who, engaged in general or special practice, seek the help of X-rays in confirming or giving precision to their diagnoses. Although the author hopes that the work will be of use to Radiologists, it is primarily intended for the use of the clinician who, without being concerned with the technical side, yet desires to know what X-rays are capable of revealing to him.

There is a lamentable lack of teaching facilities available for those who qualified before the advent of X-rays, or before they became so generally used. On the other hand, little, if any, can be crammed into the present-day student's overflowing curriculum, unless in the form of optional lectures to senior students. It is hoped that this book will stimulate his interest so that, after qualifying, he may pursue the subject further.

No conscientious worker in medicine or surgery can afford to neglect any method of approach to a clinical difficulty which makes for earlier or more accurate diagnosis. Radiology can certainly do this in many obscure conditions, and can rule out organic disease in others. The *Pathology of the Living*, as it has aptly been termed by the late Lord Moynihan, is admirably suited for study, and is far more important to the clinician than that of the dead. In spite of the difficulty in obtaining them, several serial radiograms are included showing arrest or progress of disease; such work has not been pursued in this country as much as it deserves. As far as possible the earliest manifestations of disease are depicted; time will show that many clinical signs and symptoms are in fact complications, the condition having been diagnosable much earlier by X-rays. To write of the symptoms of carcinoma of the stomach as



vomiting, wasting and coffee-ground vomit is not true; these symptoms are frequent complications, when all hope of radical cure may have passed.

Already X-rays feature largely in medico-legal work—so much so that Medical Protection Societies will not give cover where a fracture has not been radiographed. The day may come when failure to examine for early malignant disease, by this means, will be viewed as want of care. The same may be said of exploratory operations when sufficient information could have been obtained by a less painful and dangerous means.

No special technical knowledge is required for the understanding of this book once the basis of Radio-diagnosis is grasped—namely, X-RAYS PENETRATE DIFFERENT MEDIA TO VARYING EXTENTS, THUS CASTING SHADOWS OF DIFFERENT DENSITY. Undoubtedly one reason for the general practitioner's lack of knowledge of the subject is its amazingly rapid progress. The presentation in this work of a number of pictures with descriptive and clinical notes will enable him to realise what cases are suitable for examination. Normal plates are on the left-hand pages, so as to be the more readily compared with those of the abnormal on the right-hand. Many examples of common conditions are given in preference to rarities, save when these are of special interest.

A certain number of plates, particularly of the bones, appeared in the first edition. Owing to the rapid progress of medicine during the last twenty years many diseases, once common, are never seen in their advanced state nowadays. For example, rickets—the English disease—is now rare, syphilis has lost much of its sting, acute osteomyelitis responds to the sulpha drugs and penicillin. Osteomalacia is cured with cod-liver oil, varicose ulcers are cured before they have time to involve bone; certain tumours, *e.g.* Ewing's, are destroyed before becoming fatal, by X-rays. In fact, certain conditions depicted will be of value as museum curiosities in a few years' time.

If, by means of this Atlas, medical men are encouraged to resort to Radiology when confronted with clinical difficulties, the writer's ambition will have been achieved.

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The names of the clinicians appear on the right, those of the radiologists or radiographers on the left side of the foot of the text.



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