

INDUSTRIAL RADIOGRAPHY

Handbook of Industrial Radiology

By Members of the Industrial Radiology Group of the Institute of Physics. Edited by Dr. J. A. Crowther. Pp. viii+203. (London: Edward Arnold and Co., 1944.) 21s. net.

AS Dr. Crowther remarks in the introduction to this book, a volume put together as this one is "cannot have the degree of orderly development" that is to be expected in a book written by a single person. Consequently there is a certain amount of overlapping and a noticeable disjointedness which must inevitably occur when a series of discrete papers make up one volume.

The book is timely. During the War the use of X-rays in the inspection and examination of engineering structures has increased enormously, and X-ray inspection has proved itself to be an essential process in engineering development. It is astonishing that such a wide variety of applications of X-ray inspection should have manifested themselves without the appropriate differentiated development in radiographic apparatus. This, of course, may be understandable under war conditions.

The widespread use of X-rays during the War affords a very clear pointer concerning the importance of this branch of science in post-war activity, and there can be no question that the subject will be developed intensively to take its place as perhaps the most important branch of non-destructive testing.

The Radiology Group of the Institute of Physics is indeed to be congratulated on having culled the experience of so many pioneer workers and gathered together their views in the form of these articles. In this book there is very little matter which is not instructive and the collection cannot fail to be of the utmost value to those young scientific men who are now devoting themselves to this branch of technical activity.

It is really undesirable to draw invidious distinctions between papers of such excellence as those collected together in this volume, but special mention must be made of what is perhaps the outstanding contribution by Dr. L. Mullins—outstanding in the comprehensiveness with which he reviews this subject of industrial radiography. The potentialities of the method, both present and future, are strikingly illustrated by the examples he has collected and described in his article.

Attention should also be directed to another outstandingly useful contribution made by Dr. R. Jackson. In describing his experience in the radiography of heavy steel castings, he provides information of the utmost practical value. Of particular interest is his suggestion of zoning as a method of possible standardization of radiography in relation to the inspection of steel castings. This is a subject of unquestionable importance and one that bristles with difficulties, and Dr. Jackson is to be congratulated on the courage with which he has attacked the problem.

There is also a most valuable chapter on physical principles involved in X-ray practice contributed by Mr. W. J. Wiltshire. It cannot be over-emphasized that the would-be industrial radiographer must know something of the physical principles underlying the 'tool' which he intends to use, and Mr. Wiltshire has been quite remarkably skilful in putting so much valuable and fundamental information into the short chapter available to him. The first is by no means the least important chapter in the book.

The Institute of Physics has performed invaluable service to industry in having formed a special group for the study and encouragement of industrial radiology. In sponsoring this valuable collection of lectures containing so much practical information, it has emphasized that service.

The book under review is described as a "Handbook on Industrial Radiology". Some aspects of industrial radiology are not included, for example, the supremely valuable branch of the subject known as X-ray crystallography. Perhaps "A Handbook on Industrial Radiography" would have been a more generally appropriate title.

V. E. PULLIN.

CONTEMPORARY THOUGHT OF THE RENAISSANCE

Sociology of the Renaissance

(International Library of Sociology and Social Reconstruction.) Translated from the German by W. L. Luetkens. By Alfred von Martin. Pp. x+100. (London: Kegan Paul, Trench, Trubner and Co., Ltd., 1944.) 8s. 6d. net.

IT is something of an achievement to have written a book, even a small one, about the Renaissance without a mention of Walter Pater. But then he was a gentle creature, whereas Dr. von Martin is a little aggressive. Nevertheless, there is much of interest here for the man of science, psychologist and historian, not least because, as the author indicates, the phenomena he describes are of significance far beyond the particular period under review.

Much of the turmoil of those years, the estrangements and the efforts to compromise might well be transported bodily into our experience to-day. In fact, against a background of friction, the essential continuity of the sequence Medievalism-Renaissance-Baroque is exceedingly well brought out; and that alone is worth a great deal. Against it, however, stand a few odd contrasts. An example is the note, referring to the High Renaissance, to the effect that Catholicism was more or less compelled to set the 'here and now' with its stresses and strains, in quasi-opposition to the 'hereafter' with its axiomatic harmony. So far as the *philosophia perennis* goes (and this is supposedly what matters in the present context), such a view is scarcely tenable, since, of all systems, Thomism—whatever its defects—is probably the most comprehensive yet devised, and thus capable of fusing all the various 'knowledges' into something approaching coherence. That it was temporarily decadent is neither here nor there; its potency remained, and in consequence its inherent ability to smooth out the jolts.

Meanwhile, contemporary thought and action were alike obsessed with the boundless possibilities opening up for applied science; art and technics were not seldom practised by one and the same person, notably the peerless Leonardo da Vinci. How bitterly his brother artists complained that he had deserted them for engineering. It was no mere accident that he venerated Archimedes and shunned Aristotle, a point upon which it would be good to have Dr. von Martin expound. But there is no mention of it. Leonardo ends almost immersed in numinous rapture over the problem of natural law, while the merry men of the Renaissance carried on until one of the greatest storms in human history had blown itself out.

F. IAN G. RAWLINS.