pillar by R. de G. Weevers; locust flight and its control are ably described by D. M. Wilson. The special subject of control of respiratory movements is covered by P. L. Miller. A detailed and highly original study of the activity of single neurons of locust optic lobe and brain is presented by G. A. Horridge and collaborators, and G. Hoyle provides an account of neurophysiological studies on "learning" in locust ganglia. F. Huber reviews his important and already classical studies on the behavior of crickets evoked by local electrical stimulation of the brain, and some interesting general thoughts are contributed by C. H. F. Powell and by K. D. Roeder in his epilogue.

This is a delightful and an important book for anyone interested in insect function, and its publication will be welcomed by all comparative and insect physiologists. It provides an excellent summary of the state of our knowledge and of current progress in a rapidly expanding field.

All investigators of nervous systems, whether of insects, rats, cats, or men, should find food for thought in this volume. The authors and Academic Press are to be congratulated on its excellent format and the speed with which it was produced.

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AIME Metallurgical Society Conference

The Sorby Centennial Symposium on the History of Metallurgy (Gordon and Breach, New York, 1965. 580 pp.), edited by Cyril Stanley Smith, is quite different from the 26 volumes compiled from previous AIME Metallurgical Society Conferences. It is based on the Sorby Centennial Meeting arranged by the Society for the History of Technology in collaboration with the Metallurgical Society of the American Institute of Mining, Metallurgical, and Petroleum Engineers and the American Society for Metals. It covers a wider field, and with a different purpose, than the other conference volumes.

The result is an anthology of metallurgy, with as broad a range of writing styles and topics as one expects in an anthology of literature. In this field, the authors are as well known as those selected from the general field of literature, and some of the results are as disappointing as those encountered in that field.

As an anthology, it should be read one piece (or perhaps two) at a time, with plenty of time in between for digestion, so that the lack of continuity and the irregularity in style are least noticeable. Besides, the ideas and ways of arriving at ideas, as presented by Orowan, Bain, Taylor, Mehl, and Jeffries, deserve careful consideration, as do the unanswered questions posed by Multhauf, Weill, and Müller.

The editor commended this volume "both to metallurgists who want to understand the past of their profession and to general historians who can gain from it added light on the nature of an activity which has sometimes helped man's thinking and has always influenced what he could achieve." I concur in its general value to metallurgists, but must qualify the recommendation to historians. The biographical and autobiographical papers will benefit both groups of readers, despite the difficult styles of Humphries, Moore, and Thompson. In addition to the biographical papers, both groups can gain pleasure and benefit from Multhauf, Bastien, Sadovsky, Cohen and Harris, Mehl, Taylor, Orowan, Müller, Coolidge, and Gale, because these authors clearly transmit the ideas and define the problems which they review.

Unfortunately the other 14 articles fall into technical discussions which require more than passing acquaintance with metallurgy and which are historical only in the sense that literature reviews for dissertations are historical. For the metallurgist who is attacking a new problem, most of the 14 provide a convenient starting place in the subject fields. Even from this point of view, the paper by Rhines seems out of place.

The book itself suffers in two areas: the lack of discussion and an inadequate index. The lack of discussion may accurately reflect the conference, but the index does not accurately reflect the book. Too few technical categories were indexed (not even all the subheadings of the papers), and too many of the names listed occurred only because authors conscientiously completed the literature reviews. The historian of technology or science will find this an unhandy reference.

I salute Cyril Smith for providing many pleasant hours with great men who touched on metallurgy among their many contributions, and for inspiring so many "amateur" historians to make the enthusiastic contributions they have provided here.

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Conference and Symposium Reports

Accuracy in X-ray Intensity Measurement. Proceedings of a symposium (Suffern, New York), February 1965. S. C. Abrahams, Ed. American Crystallographic Assoc., Pittsburgh, Pa., 1965 (order from Polycrystal Book Service, Pittsburgh). 122 pp. Illus. Paper, $3.50. Six papers: "On determining absolute x-ray intensities with powders" by B. W. Batterman; "Accuracy in x-ray intensity data, how to recognize it, what to do with it" by W. H. Zachariasen; "Background factors and technique design" by R. A. Young; "The comparison of single crystal diffractometric techniques" by T. C. Furnas, Jr.; and "Systematic errors in the determination of structure factors" by Joshua Ladell.

Adipose Tissue Metabolism and Obesity (*Ann. N.Y. Acad. Sci.* **131**). Harold E. Whipple, Ed. New York Acad. of Sciences, New York, 1965. 683 pp. Illus. Paper, $12. Fifty-seven papers presented at a conference held in December 1964. The topics considered were Adipose tissue metabolism (25 papers); and Metabolic factors in obesity (32 papers).

The Biological Significance of Climatic Changes in Britain. Proceedings of a symposium (London), October 1964. C. G. Johnson and L. P. Smith, Eds. Published for the Institute of Biology by Academic Press, New York, 1965. 232 pp. Illus. $7. Symposia of the Institute of Biology, No. 14; 13 papers: Dimensions of change (1 paper); Effects of climatic change and their implications (7 papers); The manipulation of material and the selection of sites (3 papers); and Perspectives of the future (2 papers).

The Fisheries: Problems in Resource Management. James A. Crutchfield, Ed. Univ. of Washington Press, Seattle, 1965. 152 pp. Illus. $5. Seven papers, and commentary, on public policy issues involved in the management of fisheries resources; the papers were prepared by members of the faculty of the University of Washington for oral presentation at the inaugural series of Natural Resources Public Policy Seminar sponsored by the Graduate School of Public Affairs.

Photographic and Spectroscopic Optics. Proceedings of a conference (Tokyo and Kyoto, Japan), September 1964. Japanese Journal of Applied Physics, Tokyo, 1965. 694 pp. Illus. One hundred and eleven papers given at a symposium held under the auspices of the International Commission for Optics and arranged by the Science Council of Japan and the Japan Society of Applied Physics.