

### American Geophysical Union Awards

THE William Bowie Medal, the principal award of the American Geophysical Union, has been presented to Prof. Sydney Chapman, for "outstanding contributions to the field of astro-geophysics in the course of five decades".

The John Adam Fleming Award for original research in geomagnetism, atmospheric electricity and aeronomy has been presented to Dr. Lloyd V. Berkner, formerly president of the Union. Dr. Berkner is president of the Graduate Research Center of the Southwest in Dallas, and treasurer of the U.S. National Academy of Sciences and chairman of the Academy's Space Science Board.

The James B. Macelwane Award for "outstanding contributions to the geophysical sciences by a scientist under the age of thirty-five" has been presented to Dr. James N. Brune, of Lamont Geological Observatory.

### The Commonwealth and International Library of Science, Technology and Engineering

ON May 23, the Pergamon Press, Oxford, headed by Robert Maxwell, is launching the new Commonwealth and International Library of Science, Technology and Engineering. The chairman of the Library is Sir Robert Robinson and the executive editor Mr. Cyril W. Wood. The Library, with a target of 1,000 volumes by 1967, contains about fifty subject divisions covering the different branches of science, technology and engineering. Further, in an attempt to broaden the outlook of the scientist, there are included such divisions as liberal studies and the history of science. The editors of the separate divisions have drawn up lists of titles designed to give a continuity of study within each division, and, in those subjects such as mathematics, physics, chemistry and biology, which are taught in schools, this continuity stretches over the age-range of 12+ to that of the honours graduate, thus covering the needs of secondary modern and grammar schools, colleges of technology and universities. Although the Library consists essentially of text-books, some smaller number of monographs on specialist subjects for the postgraduate student will be included. To achieve this continuity of study and to avoid too heterogeneous a collection, all the books of the Library are to be freshly written and are not reprints of existing publications. Furthermore, very close liaison between editors of related divisions is being maintained.

The books will be small, of an average length of 150 pages, and will be published in a common format in two styles—a soft-cover edition within the price-range of 7s. 6d.–17s. 6d. (1.25–2.75 dollars) and a more expensive one bound in a hard cover for libraries. Certain important advantages can be claimed for this type of book. The relatively small size makes it possible to select authors who are specialists in the particular section of the subject to be covered. Moreover, a series of small books on a subject can be more easily kept up to date than can one large volume in the same field. Because of the low price, the student may be encouraged to build up a library for himself during his course of study. This last-named objective is an especially worthy one, since too many students, for varying reasons, are now buying either new or second-hand books and discarding or selling them as soon as they have finished the courses which such books cover.

### British Iron and Steel Research Association

A PROCESS Physics Section has been set up in the Physics Department of the British Iron and Steel Research Association in place of the previous Metal Physics Section. The new Section is headed by Dr. R. V. Williams, who recently joined the Association from the Thermo-nuclear Section of the Associated Electrical Industries, Ltd., Research Laboratories at Aldermaston. The object of this Section is to study current research in certain new fields such as magneto-hydrodynamics and plasma physics, and to institute a programme of work on projects that show promise of being important to future steelmaking and processing practice. It will also include work on new materials research with special reference to fibrous reinforcement. Work is starting on the following: (1) electric resistance heating of flames using the ionic conductivity in a flame or hot gas as a means of flame or gas temperature boosting; (2) use of electromagnetic effects for control of liquid steel streams; (3) use of steel fibre reinforcement in non-ferrous materials.

### New Australian Radio Heliograph

THE Commonwealth Scientific and Industrial Research Organization is to build a giant camera for taking detailed radio pictures of the Sun. Construction of the radio heliograph is to be made possible by a gift to the Organization of 550,000 dollars by the Ford Foundation. It will consist of 100 saucer-shaped aerials, each measuring 42 ft. across. These will be arranged in the form of a circle two miles wide. Special receivers and computers will combine the waves received by the 100 individual dishes to give a motion picture of the Sun. The exact location of the new instrument has not yet been decided. It will probably be built at Parkes, N.S.W., not far from the Organization's 210-ft. radio telescope, which was completed last year. Mr. J. P. Wild, leader of the Organization's group studying the Sun, has designed the radio heliograph to give a detailed picture of the radio flares which accompany the explosions near sunspots which can be seen through optical telescopes. All in all, the Division of Radiophysics of the Commonwealth Scientific and Industrial Research Organization has been granted 1,333,000 dollars from American sources (361,000 and 250,000 dollars respectively from the Rockefeller Foundation and the Carnegie Institution towards the cost of the 210-ft. radio telescope, and 172,000 dollars from the National Aeronautics and Space Administration for research on radio antenna systems of advanced design).

### Capital Expenditure on Education in Britain

IN reply to a question in the House of Commons on May 1, the Economic Secretary to the Treasury, Mr. A. Barber, said that during 1956–57 capital expenditure by public authorities on education in Great Britain was £117 million and present expenditure £546 million, the total representing 3.6 per cent of the Gross National Product. For 1957–58 the corresponding figures were £133 million, £613 million and 3.8; for 1958–59, £134 million and £670 million and 4.0; for 1959–60, £137 million, £742 million and 4.1; and for 1960–61, £133 million, £812 million and 4.2.

### Educational Research in Scotland

ON May 2, the Under-Secretary of State for Scotland said that Exchequer assistance for educational