extremely high frequency electromagnetic waves (below 1 mm); £2,630 to Dr. B. V. Bowden, principal of the Manchester College of Science and Technology, for the continuation of work on the development of narrow pass band dye filters (for night sky astronomical photography); £1,000, as a supplementary grant, to Dr. S. Evans, senior assistant in polar research, University of Cambridge, for the development of an instrument for measuring the depth of continental ice sheets by a radar technique; £1,870 to Dr. E. T. Hall, director of the research laboratory for archæology and the history of art, University of Oxford, for the development (a) of a fully transistorized differential flux-gate magnetometer, and (b) of a miniaturized flux-gate compass; £725, as a supplementary grant, to Dr. D. W. Hill, senior lecturer in physics, Research Department of Anæsthetics, Royal College of Surgeons of England, for the construction of an infra-red gas or vapour analyser using interference filters; £5,250 to Dr. J. V. P. Long, assistant director of research in the Department of Mineralogy and Petrology, University of Cambridge, for the development of an ion-probe analyser for mass spectrometric measurements on selected microvolumes of 1-20µ diameter in polished specimens of minerals and metals; £5,690 to Prof. J. Ring, Department of Applied Physics, University of Hull, for the construction of apparatus for research into the applications of Moiré fringes as analogue Fourier transformers; £2,300 to Dr. T. H. Wilmshurst, Department of Electronics, University of Southampton, for the construction of an electron spin resonance spectrometer for examining shortlived paramagnetic species produced by a pulsed light source.

The Paul Instrument Fund Committee, composed of representatives of the Royal Society, the Institute of Physics and the Physical Society and the Institution of Electrical Engineers, was set up in 1945 "to receive applications from British subjects who are research workers in Great Britain for grants for the design, construction and maintenance of novel, unusual or much improved types of physical instruments and apparatus for investigations in pure or applied physical science".

The Indian Botanical Society: Awards

To commemorate the sixtieth birthday of Prof. P. Maheshwari, University of Delhi, the Indian Botanical Society presented him with an advance copy of the Maheshwari Commemoration Volume in recognition of his work of exceptional merit for the advancement of botanical research in India. The Volume is a compilation of articles contributed by eminent botanists from all over the world and represents almost all disciplines of botany. expected that it will be published in a month or so.

The Society awarded the Birbal Sahni Medal for 1962 to Prof. T. S. Sadasivan, Madras University, for organizing, promoting and fostering botanical studies in India. Prof. Sadasivan is the sixth recipient of this award.

University News: London

THE following titles have been conferred: Professor, Dr. J. M. Alexander (engineering plasticity), in respect of his post at the Imperial College of Science and Technology; Dr. T. Barnard (micropalæontology), in respect of his post at University College; Dr. F. R. Bell (experimental veterinary medicine), in respect of his post at the Royal Veterinary College; Dr. L. P. Mair (applied anthropology), in respect of her post at the London School of Economics; Dr. M. J. Scaton (physics), in respect of his post at University College. *Reader*, Dr. D. E. Barton (statistics), in respect of his post at University College; Mr. H. Billett (mochanical engineering), in respect of his post at University College; Dr. W. G. Chaloner (botany), in respect of his post at University College; Dr. R. W. Guillery (anatomy), in respect of his post at University College; Dr. K. J. Ives (civil and municipal engineering),

in respect of his post at University College; Dr. V. H. T. James (chemical endocrinology), in respect of his post at St. Mary's Hospital Medical School; Dr. C. R. Boddington Joyce (psycho-pharmacology), in respect of his post at the London Hospital Medical College; Mr. O. C. J. Lippold (physiology), in respect of his post at University College; Dr. D. H. Martin (physics), in respect of his post at Queen Mary College; Dr. D. V. W. Parke (biochemistry), in respect of his post at St. Mary's Hospital Medical School; Dr. A. F. Seager (mineralogy), in respect of his post at Birkbeck College; Dr. D. A. Walker (botany), in respect of his post at Queen Mary College. The following appointments to readerships have been made: Dr. E. M. Deuchar (embryology), tenable at University College; Dr. B. R. Rabin (biochemistry), tenable at University College; Dr. C. W. Rees (organic chemistry), tenable at King's College.

Announcements

MISS RACHEL CARSON, author and ecologist, and Prof. H. Clifford Darby, professor of geography in University College, London, have been awarded the Cullum Geographical Medal and the Charles P. Daly Medal, respectively, by the American Geographical Society for their respective contributions in the fields of conservation and geography. Miss Carson, who is well known for her books, Silent Spring and The Sea Around Us, has been affiliated with the Marine Biological Laboratory, Woods Hole, Mass., since 1929. Prof. Darby is known most widely for his work in historical geography, particularly for his book, The Domesday Geography of England, of which four volumes have so far been published; earlier this year he was awarded the Patron's Medal of the Royal Geographical Society. He was president of the British Institute of Geographers in 1961.

AT the tenth general assembly of the International Council of Scientific Unions held recently in Vienna, Dr. H. W. Thompson, of St. John's College, Oxford, and university reader in infra-red spectroscopy, was elected president of the Council for the next two years. Prof. D. Blaskovic, vice-chairman of the Czechoslovak Academy of Sciences and director of the Academy's Virological Institute, was elected secretary-general, and Ing. Gen. G. Laclavère, National Geographic Institute, France, was elected treasurer.

THE Memoirs and Proceedings, 1962-63, of the Manchester Literary and Philosophical Society (105. 128+xlix. Manchester: Manchester Literary and Philosophical Society, 1963. 31s. 6d.) contain M. W. Thring's Joule Memorial Lecture, "Can Machines make Humans Happier ?", and papers by E. Mendoza on the history of the kinetic theory of gases; by F. C. Toy on universities, research associations and industry; and by S. Toulmin on the discovery of time. The volume also includes the annual report of the Council, and lists of special lectures, members and members of Council.

THE twolfth inter-university geological congress entitled "The Present is the Key to the Past" will be held in the University of Shoffield during December 15-18. Further information can be obtained from H. G. Davies. Department of Geology, University of Shoffield, Mappin Street, Shoffield, 1.

A SYMPOSIUM on "The Use of Redundancy in System Design", arranged by the Systems Engineering Section of the Society of Instrument Technology, will be held at the Northampton College of Advanced Technology on February 14. Topics under discussion will include: automatic landing of aircraft; nuclear power systems; techniques of redundancy in logical circuits; reversionary modes in complex systems. Further information can be obtained from the Symposium Secretary, Society of Instrument Technology, 20 Peel Street, London, W.8.