

aircraft. This has involved fundamental work on structural plastics and the development of suitable plastic materials and manufacturing techniques. As a result of this work it has been demonstrated that large aircraft structures can be made cheaply and easily from reinforced plastics, and that such structures will compete successfully with the more conventional metal structures.

#### Dr. C. C. Hall

Dr. C. C. Hall, of the Department of Scientific and Industrial Research (Fuel Research Station), a chemist who has specialized on problems concerned with the production of oils and chemicals from coal, and is a recognized authority on the subject. He has made notable contributions to knowledge of the mechanism of the reactions in the hydrogenation of coals and tars and in the synthesis of hydrocarbon oils and waxes from carbon monoxide and hydrogen. He has played a leading part in the C.I.O.S. investigations of German researches in this field, and of the commercial plants in Germany for the production of oils and chemicals from coal; and he has been in close touch with the work of the U.S. Bureau of Mines on synthetic liquid fuels.

#### Dr. L. Pincherle

Dr. L. Pincherle, who joined the Telecommunications Research Establishment, Malvern, in 1948, after a distinguished academic career. Since this date he has been engaged in a study of the electronic properties of semiconductors using the methods of quantum mechanics. He has been largely responsible for initiating an extensive calculation of the electronic wave functions in ionic crystals having cubic symmetry, and has been responsible for the development of powerful mathematical methods to enable this to be achieved.

#### Dr. D. G. Tucker

Dr. D. G. Tucker, of the Royal Naval Scientific Service, who has had wide experience in telecommunications. For many years he was at the Post Office Research Station, Dollis Hill, before joining the Admiralty. His many valuable publications on important electronic problems give some indication of his ability as a research engineer, and the theoretical and practical work he is now doing on underwater problems is of particular concern to the Royal Navy.

#### Royal Aeronautical Society: Awards

THE following medals and prizes have been awarded by the Council of the Royal Aeronautical Society: *Society's Gold Medal*: W. G. A. Perring (posthumously), in recognition of his distinguished service to aeronautical science; *Society's Silver Medal*: S. B. Gates, for outstanding work on the stability and control of aircraft; *Society's Bronze Medal*: H. J. Pollard, for his many contributions to the development of aircraft construction; *British Gold Medal*: A. E. Russell, for practical achievement in aircraft design; *British Silver Medal*: Group Capt. J. Cunningham, for his outstanding achievements as a test pilot; *R. P. Alston Memorial Prize*: R. J. Falk, for his outstanding work in the testing of British delta-wing aircraft; *George Taylor (of Australia) Gold Medal*: R. E. Bishop, for his paper on "Design for Maintenance"; *Simms Gold Medal*: Dr. G. S. Hislop, for his paper on "Investigation of Gusts"; *Herbert Ackroyd Stuart Memorial Prize*:

A. V. Cleaver, for his paper on "Rockets and Assisted Take-off"; *Edward Busk Memorial Prize*: R. Hills, for his paper on "The Use of Wind Tunnel Model Data in Aerodynamic Design"; *Orville Wright Prize*: Dr. Neumark, for his paper on swept-back wings, published in the *Aeronautical Quarterly*, August 1950.

#### National Institute of Sciences of India: Research Fellowships

THE National Institute of Sciences of India has recently awarded the following research fellowships (normally tenable for two years) for work in particular fields at the places shown. *National Institute of Sciences Senior Research Fellowships*: Dr. A. M. Naqvi (solar problems), University of Delhi; Dr. S. C. Shome (corrosion of metals), National Metallurgical Laboratory, Jamshedpur; Dr. B. G. L. Swamy (comparative plant morphology), University of Madras. *National Institute of Sciences Junior Research Fellowships*: D. Basu (statistics), Indian Statistical Institute, Calcutta; Dr. M. Datta (statistical physics), University of Calcutta; Dr. A. M. Mehta (biochemistry), Haffkine Institute, Bombay; Dr. A. K. Mukherjee (bacteriology), Indian Institute for Medical Research, Calcutta; Dr. (Mrs.) T. S. Sarojini (mycology), University of Madras; E. G. Silas (zoogeography), University of Madras; T. B. Sinha (entomology), University of Allahabad. *Imperial Chemical Industries (India) Research Fellowships*: Dr. B. K. Banerjee (physical chemistry), Indian Association for the Cultivation of Science, Calcutta; Dr. A. Ganguli (plant pathology), Bose Research Institute, Calcutta; Dr. P. T. Rao (spectroscopy), Andhra University.

#### Graduateship of the Institute of Physics: A New Grade

A BOOKLET recently issued by the Institute of Physics, and which may be obtained free, on request, sets out the regulations and syllabuses for the examination for the graduateship grade of membership of the Institute. This new grade was formed in September 1949 and is for those who hold a recognized degree or other qualification in physics but who do not possess the necessary period of professional experience required for the associateship of the Institute. By July of this year more than four hundred applicants had been elected to graduateship. At the moment, such applicants are only admitted if they possess an honours degree of a British university; but for those who are without this qualification an examination, starting in 1952, is being arranged. Candidates for this examination will normally be required to have followed a suitable course of study at a college or other place of learning recognized for this purpose by the Institute, those already approved including all the universities and university colleges in Great Britain, a number of Commonwealth and foreign universities, and thirty-six technical colleges in Great Britain. The subjects of the examination are physics (three papers and a practical examination), mathematics (two papers), and a third subject (one paper) chosen from applied physics, more advanced physics, mathematical physics and statistics; those choosing applied physics will be required to offer only one of the sections, electronics, high-vacuum technology, acoustics, spectroscopy, X-rays or temperature measurement. Those who already have certain qualifications may be exempted from various parts of the examination. Graduates of the Institute,