

### Prof. H. S. Ruse

PROF. H. S. RUSE, who has succeeded Prof. S. Brodetsky as head of the Department of Mathematics in the University of Leeds, was an undergraduate at Jesus College, Oxford, during 1924-27. After spending nearly ten years as a lecturer on the mathematical staff at the University of Edinburgh, he became professor at University College, Southampton, in 1937 and he remained there until he went to Leeds in 1946 as successor to Prof. W. P. Milne on his retirement from the chair of mathematics. In 1931 Ruse spent a period in Rome working with the late Prof. Levi-Civita, and in 1933-34 he was on leave of absence from Edinburgh working with Prof. Oswald Veblen at the University of Princeton. Prof. Ruse's main interest is relativity and tensor analysis and he has published a great many original papers in this field in the leading mathematical journals.

In the University of Leeds with its large number of applied science departments, the Department of Mathematics occupies a focal position, and it has a great contribution to make to the work and development of the technological departments. There is a long tradition in the University of a close and cordial co-operation between the Department of Mathematics and the applied sciences, and *ad hoc* courses in mathematics suitable for the individual needs of the technological departments and the Medical School have, so far as the size of the mathematical staff permitted, for long been provided. Prof. Ruse is in complete sympathy with this liaison between the pure and applied sciences, and intends to develop it still further. The Department of Statistics under the readership of Dr. B. L. Welch is within the Department of Mathematics, and this fruitful relationship is already being felt throughout the University in the development of statistical methods. There is a movement afoot for co-operation being established between the universities of northern England in the systematic pursuit of mathematical research, and this activity also has Prof. Ruse's warm support. It need scarcely be said that, in addition to the above affiliations, the cultivation of the science of mathematics for its own sake will be vigorously pressed forward under the leadership of the new head of the Department of Mathematics in the University of Leeds.

### Prof. T. G. Cowling, F.R.S.

PROF. T. G. COWLING, who succeeds Prof. Brodetsky in the chair of applied mathematics at the University of Leeds, received his mathematical university training at Brasenose College, Oxford, and in 1931 was awarded the D.Phil. degree for a thesis dealing with the magnetic field of the sun and the radiative equilibrium of a spherical star. Afterwards he held lectureships in the mathematical departments at the Imperial College of Science and Technology, London, the University Colleges at Swansea and Dundee, and the University of Manchester, before being appointed to the chair of mathematics at University College, Bangor, in 1945. In 1947 he was elected a fellow of the Royal Society. He has written a large number of original papers on difficult problems of mathematical astrophysics, the kinetic theory of gases, the physics of the lower atmosphere and also of the ionosphere, and the magnetism of the earth, the sun and sunspots. His principal astrophysical papers deal with the stability of stellar models, the point source model of a star, convective equilibrium in stellar interiors, and the density distribution within

stars as deduced from the motion of the apsidal line in close binary stars. He is also joint author with Prof. S. Chapman of the treatise "The Mathematical Theory of Non-Uniform Gases", and of a memoir on gaseous diffusion in a rare gas mixture. In this field one of his most important papers treats the problem of the electrical conductivity of an ionized gas in the presence of a transverse magnetic field. His work is characterized by great critical insight combined with constructive power.

### University Representation in the House of Commons

WHEN the Representation of the People Bill now before Parliament (see *Nature*, February 21, p. 259) came up for consideration on March 16 by the House of Commons in committee, Mr. O. Peake, member for Leeds, N., moved an amendment which was one of a series designed, he said, in accordance with the words of the unanimous recommendation of the Speaker's Conference, to maintain university representation and methods of election, and to ensure that registration of university graduates should in future be automatic and free. Some of the grounds for the retention of the university vote were set out in the article referred to above, and the support they obtained, not only from university representatives but also from other members of various shades of political opinion, showed that a case could well be sustained. The Government's spokesmen, however, Mr. Herbert Morrison and Mr. Chuter Ede, confined themselves practically to two points, namely, that the Speaker's Conference recommendation, having been made during a previous Parliament, was not binding on the present Government, and that the principle of plural voting was fundamentally wrong and "not in accord with a properly conceived democracy". Mr. Ede referred to the measure as one designed to redress electoral anomalies resulting from the Act of 1918; he said he had never believed in university representation, which he described as the last of the fancy franchises. The amendment was negatived by 328 votes to 198, a majority of 130.

### Institute of Metals: Past and Future

THE new president of the Institute of Metals who took office on March 17 is Sir Arthur Smout, a director of Imperial Chemical Industries, Ltd., with special responsibility for the Company's metal and ammunition interests. A member of council of the University of Birmingham, and during 1942-45 director-general of ammunition production at the Ministry of Supply, he has had a life-long experience of the non-ferrous metal industries.

As this was the fortieth annual general meeting of the Institute, Sir Arthur, after paying a well-deserved tribute to his predecessor, Colonel P. G. J. Gueterbock, devoted the first part of his presidential address to its early history. The germ of the idea of such an Institute originated with a young engineer, W. H. A. Robertson—who was present at this meeting—in a letter in *Engineering*. A preliminary meeting held in Manchester in March 1908 was adjourned to London in June of that year, when the decision to go ahead with the plan was taken. This delay proved all to the good, as otherwise the trivial and clumsy title of "Copper and Brass Institute" might have been accepted. The fear of these pioneers that the Institute might fail through the disinclination of manufacturers to allow their technical staffs to present papers or take part in the discussions has fortunately

proved groundless, and possibly one of the greatest services that the Institute has rendered to the industry is the breaking down of such prejudice and by providing a bridge across which scientific men and practical men can come into contact. The work of Shaw Scott, the first secretary and editor, received from the new president, who is in a position personally to appreciate his work, the fullest and most well-deserved praise. To Shaw Scott's guidance and devotion the Institute owes much. Among the papers read at the opening meeting in Birmingham in November 1908, Echavarri spoke of aluminium and its uses, and referred to the "enormous" demand for aluminium in 1906 and 1907 when the world production was 15,000 and 23,600 tons respectively; these figures are interesting in comparison with that of 1,890,000 tons a year at the peak of production during the Second World War.

The concluding part of the address was devoted to the future. As one concerned with both the metallurgical and the chemical industries, Sir Arthur contrasted the essentially continuous processes characteristic of the chemical industry with the 'batch' process normal in non-ferrous metal production. "To any industrial metallurgist laying down a new plant, I would commend the technical approach of the industrial chemist as worthy of close consideration." This represents the crux of the plea made for the reduction or, if possible, complete elimination of 'idle time'. Coming from one who is essentially an industrialist, it is of the greatest interest that he pleaded for the encouragement "of those who are engaged on investigations which may at present be of little or no commercial value, but which are calculated to establish the underlying general principles of the science of metallurgy". As an instance of what can be done in this direction, the aluminium light-alloy industry was quoted as a practical example.

### The Royal Air Force School of Education

A NEW Royal Air Force School of Education has been opened at Wellesbourne Mountford, near Leamington Spa, and one of its main purposes is to prepare newly appointed education officers for their professional duties in the R.A.F. The School is housed for the present in temporary accommodation because in view of the nature and the importance of the work a start could not be delayed. It is intended, however, to move the School to a more permanent location when this is feasible. Education in the R.A.F. differs little in its background from education in the civilian world. Its immediate purpose is to develop those qualities of mind and character which, while adapting the officer, the airman or the boy apprentice to the exercise of particular duties, yet helps him to achieve a worthwhile personal and social life and to appreciate the duties and privileges of citizenship. On the technical side, too, it is the task of the Education Branch to contribute a theoretical content towards technical and air-crew training of R.A.F. personnel for their day-to-day duties. Naturally the means and conditions through which these tasks are performed in the Service so far differ from those outside as to involve the young education officer in a period of some difficulty until he finds his feet. It is a function of this new school of education to minimize this period, and to orientate the professional qualifications and experience of the newly appointed officer (normally a university graduate and a trained teacher, and preferably with some initial teaching experience) towards his new duties.

To this end he is given instruction over a period of four weeks in the organisation and administration of R.A.F. education, in certain aspects of the theory and practice of Service teaching, in the part played by education in maintaining high standards of training and of morale, and in the methods to be employed for education in citizenship and current affairs. In addition to the lectures given by the permanent staff provision is made in the School programme for visiting lecturers of eminence in the civilian world.

It will be noted that the School lays emphasis on the scheme for the education of Service personnel in citizenship and current affairs. Indeed the School will play a part of growing significance in the further development of this scheme, and in the near future a series of courses will begin at Wellesbourne Mountford which are designed for the benefit of officers of branches other than education who may volunteer to assist in the running of discussion groups on their stations. These courses will train the officers in the technique of discussion-group leadership, and will include a factual background in citizenship and current affairs. Until the machinery of recruitment gets into its full stride, there will for some little time ahead be an acute shortage of education officers in the R.A.F. As a temporary expedient, suitable officers and others of the Service who have lesser qualifications but a liking for the work, and who volunteer for temporary duty in the Education Branch, will be accepted for duty as educational assistants—and to prepare them for this work special short courses are to be arranged for them at Wellesbourne Mountford almost immediately. They will follow the lines of the main course as for education officers, but on a somewhat lower plane. In the case of airmen volunteers, since they will be given acting non-commissioned officer rank on the successful completion of the course, training will also be given in disciplinary and other duties appropriate to the rank. Finally, it is intended that the School will, from time to time, provide specialized courses of a refresher nature to keep education officers up to date in the development of new educational techniques and of educational research.

### Conference on Scientific Information Services

THE Royal Society is arranging a Conference on Scientific Information Services to be held in London during June 21–July 2. The Conference, which will consider information services from the point of view of the scientific user, in accordance with the recommendation made in 1946 by the Royal Society Empire Scientific Conference and the British Commonwealth Scientific Official Conference, will be attended by representatives of countries providing information services in English. Editors-in-chief, who will prepare memoranda as bases of discussion, have been appointed as follow for the four sections into which the Conference will be divided: Section 1, publication and distribution of papers reporting original work (Prof. J. D. Bernal); Section 2, abstracting services (Sir David Chadwick); Section 3, indexing and other library services (Dr. J. E. Holmstrom); Section 4, reviews, annual reports, etc. (Prof. H. Munro Fox). It is hoped to cover all scientific subjects, including agricultural, medical and engineering sciences. Material suggested for discussion should be submitted as soon as possible to the appropriate editor-in-chief c/o Assistant Secretary, Royal Society, Burlington House, London, W.1. Contributors are asked to