

methods of display intended to make their work more intelligible to the general public. Thus his appointment in 1914 as director of the Cambridge University Museum of Zoology was a natural one.

His appointment was immediately followed by the outbreak of war, and he spent the period until 1918 in work on malaria. On his return to Cambridge he completely reorganised the Zoology Museum, making it a well-designed teaching collection. At the same time he took some private pupils, who have since become distinguished zoologists, and gave many lectures, becoming University reader in vertebrates. But his activities in Cambridge soon widened out: he became a fellow and bursar of Trinity Hall, and when the accommodation of books and readers in the University library became an embarrassment to everyone, suggested that the only real solution was the radical one of moving the whole to a new and unencumbered site where it could be housed in a modern building designed for that purpose. Ultimately this plan was adopted, and Forster-Cooper, as chairman of the Buildings Syndicate, became responsible for its execution.

But his real interests remained in museum work, and in 1938 he was appointed director of the British Museum (Natural History). There he began to consider and design a new plan for the exhibition

galleries which would have made them far more valuable both to students and to the general public. But the advent of the War ended all possibility of putting these plans into effect. The whole staff of the Museum was devoted to packing up the vast collections and placing them in safety. For a long time Forster-Cooper actually lived in the Museum, which suffered much damage from bombs in 1940 and again in 1945. Thus the opportunity of which he would have made such good use came to him too late, and was immediately taken away.

Forster-Cooper had all the qualities of a great museum man. He was a good teacher, with many ideas about the exposition of facts and ideas in a museum. He had a very wide experience of the world, and of zoology. He had seen and considered critically very many great museums.

Most important of all was that he was a man of wide general culture, with a highly developed appreciation of pictures, prints and drawings. Indeed, he was himself an excellent draughtsman, who had painted good water-colours and etched some pleasant plates; and he could, with his own hands, carry out most museum operations.

He was a man of great personal charm, very modest and shy, unwilling to impose his own ideas on anyone.

D. M. S. WATSON

NEWS and VIEWS

Atomic Energy Control

A DISCUSSION of the present situation concerning the international control of atomic energy has recently been issued by the executive committee of the Association of Scientific Workers. The committee believes that on most of the issues concerned there is little difference between the points of view of the United States and the U.S.S.R., that "a start should be made by setting up an international control organ having powers on which there is immediate agreement", and that it would then be possible to find acceptable compromises on the remaining points of difference. It calls upon the British Government to make a more positive approach to the solution of these problems.

The area of agreement is stated to be as follows: "All countries are agreed on the urgent necessity of an international control scheme of some kind. All countries agree that when such a scheme is functioning no atomic weapons should be in the hands of any national authority. All agree that the international control authority should have its own rules of procedure and that there should be no right of veto in the day-to-day functioning of the authority. All agree that the international control authority should have its own inspection staff which should be chosen on an international principle and have full inspection rights in any establishment in any country concerned with obtaining atomic war materials and producing atomic materials and atomic energy. All agree that the international control authority should be empowered to conduct special investigation on cases when it is suspected that illicit material is being produced, and that it should be given facilities by the State concerned to conduct the necessary investigations. All agree that the international control authority must have the positive functions of operating research establishments staffed by its

own qualified international personnel so that it will keep abreast of the latest scientific developments in the field of atomic energy." Although the statement suggests lines of compromise on several contentious aspects of the problem, it does not attempt to show how the points of agreement could provide a practical basis for an international organ before the points of disagreement are resolved.

Controlled Fast Neutron Chain Reaction

It has been announced that a "fast fission pile" is in operation at the Los Alamos Laboratory of the United States Atomic Energy Commission. Instead of using natural uranium, in which a chain reaction can be maintained only with the aid of a 'moderator' that brings the energies of most of the neutrons into the thermal region, this pile employs plutonium and has no moderator, the reaction being maintained (as in the atomic bomb) by fast neutrons. It may be explained that the possibility of controlling such a pile arises from a time lag between the fission process and the emission of the small but appreciable proportion of the neutrons that come from the radioactive products of fission. The pile will be a valuable source of fast neutrons for experimental purposes.

Literature on Atomic Physics

IN the April-May issue of the *Bulletin of Atomic Scientists* the editors present a new section which, it is intended, will contain information concerning articles and books of interest on atomic energy. The first contribution is a bibliography surveying the literature now available. M. C. Leikend, who is consultant in science on the staff of the Library of Congress, has compiled a bibliography which covers the period March 1, 1946-February 1, 1947, and which is printed, by permission of the Library of Congress, on pages 127-35 of the *Bulletin*. The

alphabetical list contains 284 references, and supplements the bibliography of "Books and Articles on Scientific and Political Aspects of Atomic Energy" which was published in the Report of the Special Committee on Atomic Energy, U.S. Senate, issued in 1946. The editors, in addition, direct attention to the list of the first 270 atomic energy papers to be declassified by the Atomic Energy Commission or by its predecessor, the Manhattan Engineering District, details of which can be obtained from the Office of Technical Services, U.S. Department of Commerce (see also p. 445 of this issue).

New Quarterly Journal of Mechanics and Applied Mathematics

It has long been felt that there is a need in Great Britain for a journal devoted to classical mechanics. At present papers on this subject can only be published in journals such as the *Proceedings of the Royal Society* and the *Philosophical Magazine*, which are already overloaded with other subjects. The existence of such a journal would have a stimulating effect on scientific and technical education, as similar publications have had in Germany and the United States. The topics which would come within the scope of such a journal would include: hydrodynamics, including aerodynamics, sound and dynamical meteorology; elasticity and plasticity; numerical methods, including calculating machines and relaxation methods; non-linear dynamics; ballistics; classical electromagnetism, including the propagation of electric waves in space and in wave-guides. Contributions on these subjects are likely to contain references to published experimental work; and when new experimental work is undertaken in this connexion, it might be suitable for publication in the journal.

An editorial board consisting of Prof. S. Goldstein, Dr. R. V. Southwell, Sir Geoffrey Taylor, Prof. G. Temple, and other eminent British investigators in these fields has been formed, and a new periodical to be called *The Quarterly Journal of Mechanics and Applied Mathematics* is to be published. The business connected with the *Journal* will be conducted by two executive editors, Dr. V. C. A. Ferraro (University College, Exeter) and Dr. G. C. McVittie (King's College, London). The Oxford University Press has undertaken to publish the *Journal*, and it is intended to issue the first number in April 1948. Papers to be considered for one of the early issues should be sent before December 1947, addressed by name to one or other of the executive editors, at King's College, Strand, London, W.C.2.

Photostat Copies of German Scientific and Technical Papers

ARRANGEMENTS have been completed for a photostat service to provide workers in Great Britain with the full text of papers appearing in current German scientific journals. A very full list of current German scientific and technical journals is now being sent regularly to the Bureau of Abstracts, which is working in close harmony with other British abstracting bodies, in particular the Institution of Electrical Engineers, to ensure the most complete cover possible in abstracting all significant papers appearing in these journals. Any British scientific man who desires to consult the full text of a German article referred to in a British abstract publication should write direct to Research Branch ECOSC (Photostat Service), 77 H.Q. C.C.G. (BE), AVA-Göttingen, B.A.O.R., with his

request. A simple *pro forma* system has been devised whereby the photostats are prepared in Germany, and payment is made in sterling to the Director of Accounts, Photostat Service, Foreign Office (German Section), Norfolk House, St. James's Square, S.W.1. The charge is one guinea for ten pages, 2s. 6d. per page thereafter.

Institute of Navigation

THE first annual general meeting of the Institute of Navigation was held on September 19 in the house of the Royal Geographical Society. The officers and council of the Institute were elected for the ensuing year; the Astronomer Royal, Sir Harold Spencer Jones, was elected president, and Air Chief Marshal Sir John Slessor and Sir Robert Watson-Watt were elected vice-presidents. Messages of support for the Institute were received from the First Sea Lord and the Chief of the Air Staff. In his address to the Institute, Sir Harold Spencer Jones reviewed the important contribution that, from the time of the foundation by Charles II of the Royal Observatory to the present day, had been made by British scientific work towards the solution of navigational problems. "The first systematic observations to provide the fundamental astronomical data with the required precision; the construction of the first magnetic charts; the invention of the quadrant or sextant...; the publication of the first Nautical Almanac planned specifically for the use of the navigator; the invention of the first timepiece capable of keeping accurate time at sea. These are all achievements on which we can look back with pride and satisfaction." He pointed out that it is appropriate, as Great Britain took so prominent a part during the past centuries in the development of navigation as a science, that the Institute of Navigation should have been formed to foster an interest in navigation and to stimulate its advancement. There are still many problems to be solved and, in particular, those presented by the advent of high-speed aircraft have necessitated changes of method. In bringing together those who are interested in the many and varied aspects of the science of navigation, the Institute will fulfil a useful function.

After the president's address, two papers were read to the Institute: "The navigational work of the Nautical Almanac" by D. H. Sadler, superintendent of the Nautical Almanac; and "Wind Statistics and their Relation to Air Line Operation" by Captain E. Brook Williams, superintendent of navigation, British Overseas Airways Corporation. The Institute, which has its offices at the Royal Geographical Society, was formed six months ago "to unite in one scientific society those interested in the science of navigation". Its formation was stimulated by the formation in 1945 of a similar body in the United States. Institutes have either been formed or are in the process of formation in Belgium, Denmark, Holland and Sweden.

A Projected International Institute for Amazonian Studies

ON August 12 a conference began in Belém, Brazil, at the mouth of the Amazon, which carried a stage further the proposal, made to the United Nations Educational, Cultural and Scientific Organisation last year, that inquiries be made into the possibility of setting up an international institute for investigating as a whole the enormous rain-forest area of tropical South America. Apart from the Antarctic continent, this area is less known than any other in the world; and data in all subjects, from physical