

the British Nuclear Energy Conference was established by the Institution of Civil Engineers, the Institution of Mechanical Engineers, the Institution of Electrical Engineers, the Institute of Physics and the Institution of Chemical Engineers, which were joined later by the Iron and Steel Institute, the Institute of Metals, the Institute of Fuel and the Joint Panel on Nuclear Marine Propulsion. The Conference has sought to fill its role principally in three ways: (1) by publishing under one cover, in the *Journal*, all the more important papers on nuclear energy presented to the constituent societies; (2) by keeping members of the individual societies informed of those meetings of the other societies that are devoted to aspects of nuclear energy and making such meetings open to them; (3) by sponsoring meetings on nuclear energy organized either for the Conference by the appropriate societies or, where the subject involves the application of several disciplines, by the Conference itself.

The time has now come to provide a central forum for the discussion of nuclear energy, and it is for this purpose that the British Nuclear Energy Society has been established. The Institution of Civil Engineers has made its premises in Great George Street, Westminster, available as a meeting place, and a regular programme of papers, lectures, symposia and informal discussions is being planned. The Society will (like the Conference) publish a quarterly *Journal* which in addition to reprinting a wide range of important papers will also contain original papers and discussion on them, information and authoritative scientific and technological comment on developments in nuclear energy throughout the world, and reports on the proceedings of meetings of the Society. The first issue of this *Journal* will be in January 1962.

Membership of the new Society will be open to members of all classes of the constituent societies of the British Nuclear Energy Conference and to all who satisfy the Board that they are (to quote the Society's constitution) "actively engaged in the professional, scientific, or technical aspects of the application of nuclear energy and ancillary subjects". Further information can be obtained from the Secretary, British Nuclear Energy Society, Institution of Civil Engineers, Great George Street, London, S.W.1.

Changes in Times of International Time Signal

For more than one hundred years, the Royal Greenwich Observatory has been responsible for providing exact time signals for a wide variety of users both in Britain and abroad. In recent years this service has become increasingly important in various fields of scientific research where extreme accuracy is essential. In order to provide the various users with more frequent opportunities for checking the time, the present twice-daily transmissions from Rugby were increased to four as from December 1. This will mean that the transmissions on the low frequency of 16 kc./s. now radiated at 10 a.m. and 6 p.m. will be superseded by signals at 3 a.m., 9 a.m., 3 p.m. and 9 p.m. There will, however, be no change in the form of the signals. To ensure a world-wide coverage, the 10 a.m. and 6 p.m. broadcasts have also been transmitted on short wave. This service will continue after December 1, but the times will be changed to 9 a.m. and 9 p.m. As long ago as 1833, the Royal Greenwich Observatory provided hourly time signals for the operation of 'time balls', which were devices consisting of a large ball secured to the top of a mast

and released by a special catch at a precise time. One such ball is still in use in the grounds of the old Observatory at Greenwich. The hourly transmissions continued for many years, but this service has now diminished to almost negligible proportions and, in fact, the only user is the G.P.O. for the Talking Clock (*TIM*) which has been in operation since 1936. The reason for the falling-off of the requirement for the hourly Greenwich transmissions was the inauguration in 1924 of the B.B.C.'s Greenwich time signal, which is claimed to be as accurate as possible.

The Federal Council for Science and Technology

ACCORDING to *Scientific Information Notes* (3, No. 5, October–November 1961), the U.S. Federal Council for Science and Technology will in future, to help scientific periodicals meet the cost of publishing research results, pay, as a necessary part of research costs under Federal grants and contracts, page charges for publication of research results. The research papers concerned must report research work supported by the Government and the charges must be levied impartially on all research papers published by the periodical. Payment of such charges must not be a condition for acceptance of manuscripts by the periodical, and the periodicals must not be operated for profit. The new policy was stimulated by the National Science Foundation. The National Science Foundation has also placed a contract for computer-aided research with the Ramo–Wooldridge Corporation, Canogen Park, California, to further the investigation of new techniques for processing language data. Under the contract, 300,000 words of Russian text, representing five fields of study, will be used for dictionary compilation. Concurrently, the translation programme will be used for mechanical translation research in which the translation will be automatically compared on the computer with the results of a previous revision of the dictionary. Part of the investigation will be to consider the introduction of modifications and supplements into the programme. At the Institute for Scientific Information, Philadelphia, molecular formulae of several hundred randomly selected chemicals have been calculated on an electronic computer, using a newly constructed recognition grammar of chemical nomenclature, and the new grammar enables the computer to understand the chemical names fed to it by a typist. The linguistic analyses indicate that the procedure can be used manually by chemists in training clerks, librarians and indexers to calculate a molecular formula from a chemical name, and the new computer technique is being incorporated into the preparation of *Index Chemicus*.

National Central Library

THE forty-fifth annual report of the Executive Committee of the National Central Library (Pp. 24. London: National Central Library, 1961) covers the period March 1, 1960–March 31, 1961, in which, on an average, applications for loans increased by 4.6 per cent each month over the corresponding month in the previous year, while the percentage dealt with successfully increased from 72.22 to 74.13. Volumes added to the general stock by purchase rose from 1,129 to 1,952, largely in foreign languages, and nearly 18 per cent of requests were met directly by loans from the Library's own stock, compared with 16 per cent the previous year. Satisfactory progress is reported in the first stage of the project for dealing with the arrears of cataloguing, but further funds are