

### University of the Witwatersrand : Nuclear Physics Exhibition

THE chair of physics at the University of the Witwatersrand, Johannesburg, became vacant last year upon the retirement of Prof. H. H. Paine. The newly appointed head of the Department of Physics, Prof. G. T. R. Evans, delivered his inaugural lecture in the Great Hall of the University on September 23, taking as his subject "Radium: 1898-1948". Prof. Evans took the opportunity of paying a tribute to the memory of Madame Marie Curie and her husband. The vice-chancellor, Principal H. R. Raikes, who presided, expressed the appreciation of the University at the presence of M. Lancial, the Minister Plenipotentiary of the French Republic in South Africa. In connexion with the inaugural lecture there was held a two-day Exhibition in the Department of Physics under the direction of Prof. G. T. R. Evans. The film, "Marie Curie", was shown in the Great Hall; shorter films, "The Nuclear Structure of the Atom" and "Atomic Energy", were shown in the lecture theatre of the Department. The exhibition of nuclear phenomena, apparatus and films was open daily from 2.30 p.m. and attracted several thousand people. The exhibits included items of historic interest contributed by Madame Irene Joliot-Curie. Prof. A. M. Tyndall, of the University of Bristol, exhibited a collection of photomicrographs of nuclear tracks in photographic emulsions. The National Physical Laboratory of Pretoria demonstrated artificial radioactivity in biology. Other exhibits appreciated by the lay public were a working model of a cyclotron, a Wilson cloud chamber, Geiger counters and scalars, the medical use of radium and South African fluorescent minerals. This is the third exhibition organised by the Department of Physics since 1945; the crowds which gathered round the demonstrators until long after the hour for closing constituted convincing evidence of the appreciation of the Department's efforts to meet the layman's desire for a better understanding of modern physics.

### Medical Research Council : New Members

By an Order of the Committee of Privy Council for Medical Research, Lord Addison and Sir George Schuster have been appointed members of the Medical Research Council. With the approval of the Committee of Privy Council, the Medical Research Council has appointed Lord Addison to be its chairman in succession to Lord Balfour of Burleigh, and Sir George Schuster to be treasurer in succession to Sir William Goodenough. By the same Order, made in this respect after consultation with the Medical Research Council and with the president of the Royal Society, the following have also been appointed members of the Council: Sir Frederic Bartlett, professor of experimental psychology in the University of Cambridge; Sir Howard Florey, professor of pathology in the University of Oxford; and Prof. Geoffrey Jefferson, professor of neurosurgery in the University of Manchester.

### Permanent International Association of Navigation Congresses

THERE has recently been formed, with the approval of the Ministry of Transport, a British National Committee in connexion with the Permanent International Association of Navigation Congresses. The main objects of the Committee are to foster interest in the Association, to promote papers for presentation at

the congresses (in particular for the next congress to be held in Lisbon in September 1949) and generally to act as the co-ordinator of British interests in this connexion. The membership of the Committee is as follows: Sir William Halcrow (chairman), Mr. M. G. J. McHaffie, Mr. W. P. Shepherd-Barron, Mr. R. D. Gwyther, Mr. A. L. Harvey, Mr. C. A. Wilson, Mr. L. Cleaver, Sir Gilmour Jenkins, Mr. L. Leighton, Sir Cyril Kirkpatrick, Sir Arthur Whitaker and Mr. Maurice Nachshen. The Council of the Institution of Civil Engineers will administer and provide secretarial facilities to the National Committee. The Committee, at the request of the Secretary-General of the Association, has agreed to distribute in Great Britain bulletins, etc., received in bulk from Brussels, and also to receive on behalf of the Association subscriptions from members resident in Britain for onward transmission in a bulk sum or sums. Correspondence should be addressed to the Secretary, British National Committee, Permanent International Association of Navigation Congresses, at the Institution of Civil Engineers, Great George Street, London, S.W.1.

### Royal Aeronautical Society

THE Royal Aeronautical Society has decided to form Divisions of the Society within the British Commonwealth, and steps are being taken to establish such Divisions in Australia and also in New Zealand by January 1, 1949. These Divisions (and those in other Dominions as formed) will have power to form branches of the Royal Aeronautical Society in their own countries, similar to those formed by the Society in Great Britain. Members of the Division will all be full registered members of the Society, and the Division will have the power to act in most respects exactly as the parent body in London. The only important exception is the actual election of members as associate fellows, so that a consistent standard will be set throughout the world; all such technical members will be elected by the Royal Aeronautical Society in London. But the Divisions will follow their own activities in their own countries in the ways which best suit that country and local conditions, and they will not be tied down in any way by rules or regulations which apply to Great Britain or the other Divisions.

### Society for General Microbiology

At a general meeting of the Society held at St. Andrews in September, the following were elected honorary members of the Society: Prof. O. T. Avery, Prof. Jules Bordet, Sir Alexander Fleming, Prof. A. J. Kluyver and Sir Charles Martin. In addition, a paper-reading session was held over two days, and thirteen demonstrations were given.

The officers and committee of the Society for 1948-49 are as follows: *President*, Dr. Marjory Stephenson; *Hon. Treasurer*, Mr. H. J. Bunker; *Joint Hon. Secretaries*, Dr. W. E. van Heyningen and Dr. J. G. Davis. The *Journal* of the Society is issued at about four-monthly intervals, and is edited by Dr. B. C. J. G. Knight and Dr. A. A. Miles, assisted by Dr. G. C. Ainsworth, Prof. W. B. Brierley, Dr. T. Gibson, Dr. A. T. R. Mattick, Dr. K. M. Smith, Dr. A. W. Stableforth and Dr. D. D. Woods.

### Fourth Empire Mining and Metallurgical Congress

THE Fourth Empire Mining and Metallurgical Congress convened by the Empire Council of Mining and Metallurgical Institutions will be held in Great

Britain in July 1949, under the presidency of Sir Henry Tizard. The chief object of the Congress is to afford an opportunity for scientific men, engineers and others concerned with the mining and metallurgical industries to meet and discuss technical progress and problems, including the development of the mineral resources of the Commonwealth. The programme will be divided into three parts: July 9-12, inaugural meeting, official functions, exhibitions, visits, etc., in London; July 13-17, technical sessions in Oxford; July 18-23, excursions based for the most part on universities in Great Britain. Further information can be obtained from the General Secretaries, Fourth Empire Mining and Metallurgical Congress, 436 Salisbury House, Finsbury Circus, London, E.C.2.

### Colonial Medical Research Fellowships

THE Secretary of State for the Colonies has instituted a limited number of research studentships for graduates in medicine and cognate sciences, who desire by this means to prepare themselves for research work in tropical medicine and related subjects. They will be awarded on the advice of the Colonial Medical Research Committee, and will be tenable for two years at any university or other appropriate institution as approved by the Committee. The maximum rates of allowance payable are £300 per annum at the Universities of Oxford, Cambridge and London, and £260 per annum at other universities in the United Kingdom. Candidates must be British subjects and graduates of British universities. Application should be made, through the head of the candidate's Department, to the Secretary, Colonial Medical Research Committee, c/o Research Department, Colonial Office, Sanctuary Buildings, Gt. Smith Street, London, S.W.1, and should include, in addition to details of the candidate's academic record, some indication of the subject preferred.

### A General Solution for the Force Constants of Polyatomic Molecules

MR. P. TORKINGTON writes with reference to the communication under the above title in *Nature* of September 4, p. 370: "It was stated that in the proposed solution the normal co-ordinate for  $v_i$  involved only the co-ordinates  $\Delta_i$  to  $\Delta_n$ . In fact, it involves only the co-ordinates  $\Delta_1$  to  $\Delta_i$ . The linear transformation giving the (unnormalized) normal co-ordinates  $\eta_i$  is found to be

$$\eta_i = \sum_{j=1}^i ({}^i A | ij) \Delta_j.$$

The quantities on the right-hand side of equations (7) and (8) are coefficients in the reverse transformation, giving here the components in the displacement for  $v_k$  in terms of  $\eta_k$ . In (8), the coefficients for  $\Delta_1$  to  $\Delta_{k-1}$  are zero; it is therefore the form of the vibration, not the normal co-ordinate, which involves  $\Delta_k$  to  $\Delta_n$  only. Where  $(v_i - v_{i+1})$  is small, and  $\Delta_i$  and  $\Delta_{i+1}$  overlap,  $\eta_i$  would be expected to involve  $\Delta_{i+1}$ ;  $\eta_{i+1}$  involves  $\Delta_i$  in any event."

### Announcements

THE Lords Commissioners of the Treasury have appointed Dr. A. E. Trueman to be chairman of the University Grants Committee in succession to Sir Walter Moberly, who retires on October 1, 1949. Dr. Trueman, who has had a distinguished career

as a geologist and a university administrator, became deputy chairman of the Committee in 1946 (see *Nature*, August 31, 1946, p. 299).

DR. ROBERT CRUICKSHANK, since 1945 director of the Central Public Health Laboratory of the Public Health Laboratory Service, has been appointed to the chair of bacteriology tenable at St. Mary's Hospital Medical School, London, as from January 1, 1949.

DR. R. A. M. CASE, until recently a principal scientific officer in the Royal Naval Scientific Service at the Royal Naval Physiological Laboratory, has taken up appointment at the Chester Beatty Research Institute of the Royal Cancer Hospital as research fellow under a scheme inaugurated by the Association of British Chemical Manufacturers, for the field and experimental investigation of the industrial incidence of papilloma of the bladder.

DR. T. T. PATERSON, who has resigned his post as curator of the Museum of Archaeology and Ethnology, Cambridge (see *Nature*, September 18, p. 445), is to devote his time to research in the social anthropology of Britain, with special reference to problems of social medicine and group phenomena in the industrial, rural and urban fields. The investigation is being financed by a grant from the Medical Research Council.

THE Leon Gaster Memorial Premium of the Illuminating Engineering Society, given annually for the best contribution submitted to and published by the Society during the session, has this year been awarded to Mr. J. N. Bowtell and Mr. H. G. Jenkins for their paper entitled "High Voltage Fluorescent Tubes". In view of the high standard of papers eligible for the award this year, the Council has made a second award to Messrs. H. K. Cameron, E. H. Rayner, E. R. Thomas and G. T. Winch for their paper entitled "Photometry of Searchlights" which forms part of the "Symposium on Searchlights" recently published by the Illuminating Engineering Society.

THE Tilden Lecture of the Chemical Society will be delivered by Prof. C. E. H. Bawn in the rooms of the Society on November 11 at 7 p.m. Prof. Bawn will speak on "The Structure and Reactivity of Free Radicals".

A COURSE of eight lectures on practical psychical research, beginning on October 16, has been arranged by the Society for Psychical Research and will be given at its house, 31 Tavistock Square, London, W.C.1. The topics to be discussed include the investigation of cases, extra-sensory perception experiments, and psychological and statistical methods. Tickets of admission (one ticket covers the whole course) can be obtained free from the secretary of the Society.

DR. B. P. DUDGING, honorary lecturer in industrial statistics, University of Sheffield, will give a course of eight lectures at the Sir John Cass Technical Institute, London, E.C.3, on Monday evenings at 7 p.m., beginning on October 25, on "Statistical Methods in Industry". A further course of lectures, also on Mondays at 7 p.m., beginning January 24, will be given by Mr. K. A. Brownlee on "Design of Experiments". The fee for either course is £1. Application for enrolment forms should be made to the Principal of the Institute prior to the opening date of the courses.