

NEWS and VIEWS

Botany at Delhi: Prof. P. Maheshwari

DR. PANCHANAN MAHESHWARI, who is well known for his work on angiosperm embryology and cytogenetics, has been appointed to a chair of botany in the University of Delhi. Receiving his early training at Allahabad, he came under the influence of an American botanist, the late Dr. Winfield Dudgeon, and in 1931 was the first to obtain the degree of D.Sc. in botany in the University of Allahabad. As a teacher he served successively as a lecturer and associate professor of botany at Agra College (1930-37). For about two years (1937-39) he was lecturer in the University of Allahabad and for a brief term in Lucknow, later migrating to Dacca as reader in botany and head of the department, where he developed facilities for postgraduate teaching and research. He was recently promoted professor of botany in the University of Dacca and became dean of the Faculty of Science.

Prof. Maheshwari has travelled widely for the sake of developing contacts with colleagues in his own field of research, undertaking two long study tours in Europe (1936-37) and in the United States (1945-47). His original work has been largely influenced by the school of Tischler at Kiel and of Schnarf in Vienna. He has done much, both directly and indirectly, to advance the study of angiosperm embryology in India. He is the author of an advanced text-book on the "Embryology of Angiosperms", which is shortly to be published, and is editing for the *Chronica Botanica* series a "Manual of Angiosperm Embryology" based upon contributions from specialists in many countries of the world. He is president elect of the Section of Botany at the next Indian Science Congress to be held in Poona in January 1950.

Nature Conservancy in Britain

MR. HERBERT MORRISON announced in the House of Commons on February 11 that arrangements have been completed for forming a Nature Conservancy, and that a separate committee will supervise activities in Scotland. Membership of the Conservancy will be as follows: Prof. A. G. Tansley (chairman); Mr. A. Anderson, M.P.; Mr. C. Elton; Dr. E. B. Ford; Dr. H. Godwin; Mr. E. H. Keeling, M.P.; Mr. N. B. Kinnear; Prof. R. C. McLean; Prof. J. R. Matthews; Mr. E. M. Nicholson; Prof. W. H. Pearsall; Mr. M. Phillips Price, M.P.; Mr. J. A. Steers; Mr. W. L. Taylor; and Dr. A. E. Trueman. The Conservancy—Mr. Morrison referred to the term as a more convenient title than conservation board—will be responsible for the whole of Great Britain; but as a result of the recommendations of the Scottish Wild Life Conservation Committee, and of consultations with the Secretary of State, activities in Scotland will be supervised by a Scottish committee with the following composition: Prof. J. R. Matthews (chairman); Mr. A. Anderson, M.P.; Mr. H. C. Beresford-Peirse; Dr. F. Fraser Darling; Mr. A. B. Duncan; Dr. D. N. McArthur; Sir Basil H. H. Neven-Spence, M.P.; Prof. A. D. Peacock; Prof. J. Ritcher; Prof. J. Walton; Lord Wemyss and March; and Prof. C. M. Yonge.

Dr. John Berry, who is known for his work in fishery research and for contributions on wild life in Britain, and in 1944 was appointed biologist to the North of Scotland Hydro-Electric Board, has been

released to serve as director for Scotland of the Conservancy. It has already been announced that Captain Cyril Diver has been appointed as director-general, with his office at Thorney House, Smith Square, S.W.1. The Conservancy is seeking a charter on similar lines to that of the Agricultural Research Council, with which it will co-operate. The Committee of the Privy Council for Agricultural Research will be reconstituted as the Committee of the Privy Council for Agricultural Research and Nature Conservation, and the Minister of Town and Country Planning will join it in view of its extended responsibilities. The Conservancy will start work at once.

Institution of Mechanical Engineers: James Clayton Prize

THE COUNCIL of the Institution of Mechanical Engineers has awarded the 1948 James Clayton Prize of £1,350 to Mr. Karl Baumann, for his contributions to the advancement of mechanical engineering science by way of invention, design and investigation, communicated, in part, in a lecture delivered to the Institution in 1948. Mr. K. Baumann is the chief mechanical engineer and a director of the Metropolitan-Vickers Electrical Co., Ltd., Manchester. His professional life has been largely identified with the development of the modern steam power station including steam turbines and boiler plant, and latterly the internal combustion turbine. He received the Institution's premier award, the Thomas Hawksley Gold Medal, for a paper published in 1930. The James Clayton Bequest is for the distribution annually, on research, investigation and the encouragement of mechanical engineering science, of three-quarters of the income of the fund. The remaining quarter of the income is for the award (James Clayton Prize) to a member, associate member, graduate or student of the Institution, who contributes most in the year to modern mechanical engineering science. Previous awards have been made to Sir Frank Whittle (1945), Mr. Hayne Constant (1946), Sir Richard Southwell (1946), Mr. T. E. Beacham (1947), and Mr. J. E. Sears (1947).

Midwest Research Institute

DR. GEORGE E. ZIEGLER has been appointed director and Dr. Clayton O. Dohrenwend assistant director of the Midwest Research Institute, Kansas City. Dr. Ziegler went to the Institute at the time of its inception in 1945 as executive scientist, having previously been associated with the Armour Research Foundation in Chicago. He is known in scientific circles for his experimental X-ray diffraction studies, and has been acting chief administrator of the Institute since the resignation of Harold Vagtborg some six months ago. Dr. Dohrenwend has been research consultant since going to the Institute in July 1946. He was formerly associated with the Illinois Institute of Technology as director of the Mechanics Department. He is a specialist in the field of engineering mechanics and past president of the Society for Experimental Stress Analysis.

East African Industrial Research Board

THE fifth annual report of the East African Industrial Research Board (Pp. iii+28. Nairobi, P.O. Box 1587, Kenya), covering the year ended December 31, 1947, includes the report of the acting chairman, Mr. H. B. Stent, the General Laboratory report, the annual report of the Tanganyika Industrial Committee,

1947, and a list of publications on industrial research in East Africa. A departmental report on ceramics details the work carried out on bricks and roofing tiles, domestic pottery, refractories, building materials, glazed wall-tiles and drain-pipes, while a fairly full account is given of work on the extraction of undried pyrethrum flowers, which has given results comparing favourably with existing methods of extracting dried flowers and appears to merit large-scale trials. Work on silicophosphate is also described in detail, including the results of rotary kiln firings, laboratory-scale firings, and of investigations on the fractions of the linker soluble in water and in citric acid. Investigations on the treatment of effluents from the processing of sisal and coffee have continued, and biological filtration gave promising results for the former. The Tanganyika Industrial Committee reports on the production of totaquina, the final target of 10,000 lb. for which was met early in November, 1947. Other investigations under the Committee related to the assay and manufacture of papain, and the assay and cultivation of pyrethrum flowers. The Board itself at its three meetings during the year focused its attention on negotiations for the early establishment of a permanent East African Scientific and Industrial Research Organisation, and a memorandum was submitted to the East African Governments and to the Colonial Office advocating the establishment of such an Organisation on the lines of other existing inter-territorial research organisations. Stress was laid on the vital need of such work if the large sums of money for the development of the East African territories are to be used to the best advantage.

Parliamentary and Scientific Committee

THE annual report for 1948 of the Parliamentary and Scientific Committee records the visit of a deputation from the Committee to discuss with the Minister of Education the position in Britain of colleges of technology. The Minister said that the report of the Committee agreed closely with the policy of the Ministry; but he thought that a National Council of Technology would be too cumbersome. He agreed that the status of technical colleges should be raised, and promised to increase the number of technical State Scholarships immediately the demand and capacity to take advantage of such scholarships existed. Members of the Committee took a very active part in debates on the Development of Inventions Bill, and a critical discussion of the Bill was arranged on May 11. Early in the year a detailed memorandum on current difficulties in the import of scientific books and periodicals was submitted to the Board of Trade, and information collected from scientific bodies about the shortage of paper and facilities for producing scientific books and periodicals was incorporated in a memorandum forwarded to the Lord President of the Council in July. A reply from the Lord President in September stated that the paper allocation for the production of books was practically equal to that used in 1939 and that about double the number of books were being produced. A further memorandum, which, among other recommendations, urged that the criteria to be applied should be whether the output was meeting the greatly increased requirements in Great Britain and overseas for up-to-date scientific and technical information, and not pre-war figures, was submitted to the Lord President in November. A memorandum on steel utilization has also been prepared by the Committee; technical education, the salaries of teaching and

research staff in medical schools and universities, and the Veterinary Surgeons Bill have also been considered.

Superconducting Bolometers

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DURING the past few years a sensitive form of bolometer has been developed, at the Johns Hopkins Cryogenic Laboratory, under the direction of Dr. D. H. Andrews, which makes use of the high variation of electrical resistance with temperature that occurs in the region between the normal- and zero-resistance states of a superconducting material. Tantalum (*Rev. Sci. Instr.*, 13, 281; 1942) has been used successfully, but it requires to be cooled to liquid helium temperatures. Columbium nitride, with a transition temperature at about 15° K., just above the triple point of hydrogen, presents a much less difficult temperature-control problem, and bolometers of very high sensitivity have been made. These should prove useful for the examination of the as yet unexplored region of emission spectra of sources at room temperature, with considerable application in biological research. Recently, a careful study of the infra-red sensitivity of a number of columbium nitride superconducting bolometers has been made by N. Fuson (*J. Opt. Soc. Amer.*, 38, 845; 1948), and the sensitivities have been compared with those of other infra-red detectors. Details of the construction of the bolometers, of the infra-red source, modulator, cryostat, wide-band amplifier, and other auxiliary equipment, together with the experimental procedure, are given. Time constants of 0.7 to 17.0 milliseconds were observed. For the purposes of comparison, a factor of merit, based on the reference conditions suggested by R. C. Jones (*J. Opt. Soc. Amer.*, 37, 888; 1947) and R. Havens (*J. Opt. Soc. Amer.*, 36, 355 A; 1946), is defined. The nine most sensitive of the twenty-five superconducting bolometers examined had factors of merit between 1.3 and 14.0.

Functional Embryology

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THE New York Academy of Sciences has issued a publication entitled "Recent Studies in the Mechanisms of Embryonic Development" (*Ann. New York Acad. Sci.*, 49; 1948) the title of which is self-explanatory. It contains nine contributions by separate authors each dealing with one aspect of the general subject, and each article is well illustrated and provided with a brief summary of the relevant work and a bibliography. The subjects dealt with include: the early organisation and differentiation of prospective areas in the developing eggs of *Nereis*, the amphibians *Triton* and *Ambystoma*, and the chick; biochemical differentiation; the role of nerves in amphibian limb regeneration; and locomotor responses and retinal development in normal and transplanted retinae. Incidentally the name '*Amblystoma*' is used in two of the papers instead of the correct form *Ambystoma*. It is difficult to pick out for special notice any one paper; but that by S. R. Detwiler on "Quantitative Studies on Locomotor Responses in *Amblystoma* Larvae following Surgical Alterations in the Nervous System" with its reconstructions is of particular interest in view of the recently published book by C. Judson Herrick on the brain of *Ambystoma*.

National Tsing Hua University: Science Reports

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THE three series of the *Science Reports of the National Tsing Hua University* (Series A: mathematics, physics and engineering; Series B: biology