

having halved the bodies. To his surprise he found next day that the halved larval bodies the dorsal skin of which had been left intact had re-united and healed together.

This observation led Born to the fundamental discovery that it is possible to join together as a chimera the half of an embryo of one amphibian species with that of another. This fact provides the basis for the many transplantation and grafting experiments out of which much of experimental embryology as we know it to-day has developed. The centenary of Gustav Born's birth takes place in 1951, and it is to be hoped that the occasion will be properly celebrated by the publication of a commemorative volume tracing the story of his work and its subsequent development. The present issue of *Ciba Symposia* is a reminder of his very great contributions to experimental embryology, and of the widespread interest which the subject of monstrosities has always aroused.

### Simultaneous Recording of Related Oscillograph Traces

DURING the War, the frequent need in such fields as ballistics, and the study of mechanical shock and vibration, to obtain information about the temporal variation of quantities, and in particular the inter-relationship of these variations, led to a considerable use of the cathode ray oscillograph and moving-film technique. The methods of obtaining several records at once so as to permit a study of this interrelationship included the use of double-beam oscilloscopes, electronic switches for beam splitting, ganged cameras, and the photographing of a number of screens on the same film. Messrs. Cossor designed a unit comprising a 70-mm. film camera facing the screens of two double-beam tubes, and provision was made for ganging three such instruments together. The problem became more difficult, however, when it was desired to record some fifteen traces on the same film, as it was obviously impracticable to photograph fifteen oscilloscopes in line and still retain reasonable trace amplitude. To meet such a requirement, Messrs. Avimo Ltd., Taunton, have produced a series of units, employing up to fifteen 1½-in. cathode ray tubes photographed through mirrors on 70-mm. film or paper. The apparatus is robust and portable, and has a range of film speeds of 1–50 in./sec. The optical reduction factor is 2.5, and a microscope is provided to allow observation of the traces during recording. Of particular importance is the provision of adjustments to permit the alignment of the tubes so that each deflexion shall be normal to the film motion and all the deflexions shall be colinear.

### Rubber Developments

*Rubber Developments* is a new illustrated quarterly, issued gratis by the British Rubber Development Board, Market Buildings, Mark Lane, London, E.C.3. The primary purpose of the journal is to direct attention to fresh or extended applications of the use of rubber, and it is addressed more to the potential user than to the manufacturer of rubber. The first number, consisting of 40 pages, contains articles on the rehabilitation of rubber estates in Malaya, liquid latex, engineering with rubber, and 'Positex', as well as other features. It is interesting to note that there are now six pamphlets available describing 'Positex' and its applications to woollens, cotton, linen and other yarns, and felts, and also its use as

a textile printing paste. The British Rubber Development Board is a non-profit-making organisation, deriving its funds from a cess on raw rubber exported from the British production areas. The Board works in association with corresponding units in France and Holland, the work being co-ordinated on an international basis by the International Rubber Development Committee, the area allocated to the British Board comprising the British Empire and the United States.

### Unasylva : A Forestry and Forest Products Review

THE first number of *Unasylva*, a new, illustrated, bi-monthly magazine of forestry and forest products, published by the Food and Agriculture Organisation of the United Nations, is dated July–August, 1947. Editions are being issued both in English and French, and a Spanish edition is planned for the near future. The aim of the journal is to shed light on all problems connected with forestry, to compare the methods used in different countries and to present the opinions of experts in the various fields. It is realized that the nations working together through the Food and Agriculture Organisation cannot hope to achieve their main objectives if due regard is not paid to the vast forests of the world. Conservation of those that perform useful social or protective functions is essential; their soils must be used wisely if productivity is to be maintained, and improved methods of processing and utilizing forest products need to be found. In the first number, Sir John Boyd Orr, director-general of the Organisation, contributes a foreword, while articles relating to the disappearance of the tropical forests of Africa, forest utilization, and the growth of the world's forests appear under the sub-heading "Problems". In the section dealing with "National Situations" are papers on timber shortage or timber abundance in the United States, and forest and forest products research in Canada, while a further part is devoted to a description of the scope and framework of the Forestry Division of the Food and Agriculture Organisation. Distributing agents for the new magazine are being selected for various countries and areas. Meanwhile, orders are being taken by the Documents Office, FAO, 2000 Massachusetts Avenue, N.W., Washington 6, D.C., U.S.A.

### Physical Chemistry at the Mellon Institute

A DEPARTMENT of Research in Physical Chemistry has been established at the Mellon Institute of Industrial Research, University of Pittsburgh, to conduct fundamental investigations in its domain for professional and public benefit. Since its beginning, the Mellon Institute has recognized the need of fundamental scientific research as a background and source of stimulus for investigations in applied science. The Institute has therefore supported extensively disinterested investigations planned within the organisation and focused on the study of more basic problems than those usually pursued in researches in applied science or technology. This new Department of Research in Physical Chemistry will supplement the Institute's work in pure science, carried on since 1911 and formally organised under the Department of Research in Pure Chemistry in 1926 and the Department of Research in Chemical Physics in 1946. The Department of Research in Pure Chemistry specializes in the organic, biological and pharmaceutical fields. As investigations in pure science are completed, the results are published and widely disseminated. Dr. John R. Bowman, who

has been appointed head of the Department of Research in Physical Chemistry, has distinguished himself in applied mathematics, particularly as employed in the analysis of chemical engineering problems, and in petroleum chemistry, especially in his comprehensive original work on distillation. He was born in New York, in 1910, and educated at the University of Pittsburgh and at the California Institute of Technology. Since 1935 he has been at the Mellon Institute, on the multiple fellowship of the Gulf Research and Development Co.

### Public Libraries in Germany

H. SCHURER'S paper "Public Libraries in Germany", published as No. 5 in the German Educational Reconstruction Series (15 James Street, London, W.C.2), gives a readable account of the development of the public library system in Germany and of the two schools of thought, neither favouring open access to the shelves, which influenced that development down to the Nazi regime; it also deals with the part which the system could play in the educational reconstruction of Germany. The ideas of Walter Hofmann and his school in making book selection the decisive intellectual task of library staff, with all its implied demands on the library staff, are set forth in some detail and should be of considerable interest to those engaged in library work in Britain, whether in the public library service, in the universities or in industry and commerce. The special characteristics of the tradition of German librarianship are of international significance, and a chapter in L. R. Wilson and M. F. Tauber's book on the university library suggests that that tradition has already made its influence felt in the United States as a positive contribution in library service. As regards the immediate future in Germany, apart from the restoration of damaged buildings and the recovery of lost stocks, Mr. Schurer considers that the main task will be the negative one of undoing most of the work of the Nazis, including the elimination of Nazi literature from book collections, removal of ardent Nazis from responsible positions, the preparation of new readers' guides and the training of library workers. Furthermore, he considers that the principle of open access must now be adopted, and he looks to a steady increase in the number of readers and to a healthy development of local and regional efforts rather than national or centralized efforts.

### Glasgow Art Gallery and Museum

COMMENDABLE enterprise in making the natural history department attractive to visitors has been shown recently by the Glasgow Art Gallery and Museum. Despite special difficulties caused by enemy action during the War, considerable material has been salvaged and displayed as a series of habitat groups in an Animal Court at the Museum. The first and second arches contain representative samples of African and Indian animals, and the others in preparation will display animals of Australia and the Scottish Highlands. To accompany each display the Museum is publishing a series of attractive booklets in which each animal typified is described and illustrated. "Animals of Africa" and "Animals of India" are already available.

### Medical Sub-Section of the Library Association

THE first ordinary meeting of the newly formed Medical Sub-Section of the Library Association was

held at the National Institute for Medical Research on January 2. In welcoming the seventy or more members and guests, Dr. C. R. Harington, director of the Institute, spoke of the increasingly important part played by library services in the modern medical world and of the invaluable aid that specially trained librarians could give to those engaged in medical practice and research. Dr. G. Popjak gave an illuminating talk on recent developments in nuclear physics and their medical applications; his exposition of the manufacture of radioactive isotopes was much appreciated. Miss Ethel Wigmore, librarian to the Medical Research Council and a member of the Committee of the Medical Sub-Section, then described the work of the Library of the Institute, and this was followed by a conducted tour. The members were especially interested in the system of indexing current periodical literature pending the issue of the *Quarterly Cumulative Index Medicus*, and in the very comprehensive subject-index to the large collection of reprints.

### Institution of Electrical Engineers: Awards

THE triennial award of the Coopers Hill War Memorial Prize and Medal, which fell in 1946 to the Institution of Electrical Engineers, has been made by the Council to Mr. E. C. Cherry, for his paper on "Analogies between the Vibration of Elastic Membranes and Electro-Magnetic Fields in Guides and Cavities".

No award having been made in 1946 of the Page Prize for the best thesis in lieu of the Associate Membership Examination of the Institution, the Council has awarded two Page Prizes for 1947: one to Mr. D. T. Hollingsworth for his thesis entitled "An Account of the Development of the Accessories for a Cable with the Dielectric under Pressure"; and the other to Mr. M. K. Taylor for his thesis entitled "The Transmission of Voice Frequencies by Height Modulated Pulses of Constant Recurrence".

### Announcements

APPLICATIONS are invited for research fellowships, normally of the value of £600 per annum, founded by Imperial Chemical Industries, Ltd., tenable in the University of Cambridge and available for research in physics, chemistry, biochemistry, engineering, metallurgy, pharmacology, chemotherapy, or related subjects. Applications should be received not later than April 30. Regulations governing the award of the Fellowships may be obtained from the Secretary of the Board of Research Studies, The Old Schools, Cambridge, to whom all applications should be addressed.

A PRELIMINARY announcement under the title "Photostat Copies of German Scientific and Technical Papers" appeared in *Nature* of September 27, 1947, p. 427. It has now proved possible to reduce the cost of this service and a revised charge of 6d. per page, irrespective of number, is now being made.

ERRATUM.—Mr. A. B. Wardrop and Dr. R. D. Preston write: "In our recent article entitled "Organisation of the Cell Walls of Tracheids and Wood Fibres" in *Nature* of December 27, p. 911, we inadvertently allowed the same mistake to occur in three places. The legends to the abscissæ of Figs. 3 and 4 should read 'Angle of section to *transverse* plane' and the word 'increasing' (p. 912, line 8) should read 'decreasing'."