

its full width. The rebuilding of the north-west corner has allowed of an extension to the main library, in addition to extensions to the rooms on the other floors, and advantage is being taken of this extension to house, at the west end of the main library, the original collection of books, etc., presented by Thomas Telford to the Institution in 1820, which formed the nucleus of the existing library, now containing more than 62,000 volumes.

#### Television Exhibition

PARTLY with the view of demonstrating that television has now emerged from the experimental stage, partly to illustrate the general principles which underlie the modern technique, and partly to foster the widest possible appreciation of television as a home entertainment, a special exhibition has been organized by the Science Museum, South Kensington, in co-operation with the British Broadcasting Corporation and the leading manufacturers. The exhibition will be opened by Lord Selsdon, chairman of the Television Advisory Committee, on June 10. The exhibition incorporates a historic section dealing briefly with early proposals for television, and a number of exhibits describe the developments of the past ten years. There is a working demonstration of the low-definition television which was broadcast by the Baird process a few years ago, there are demonstrations on modern cathode ray receivers supplied by the various manufacturers, and a demonstration of large-screen television by a mechanical-optical process. In order that these demonstrations can be given when there is no B.B.C. transmission available, a local transmitter has been installed which will provide programmes from cinema films. In connexion with the exhibition a handbook has been compiled by Mr. G. R. M. Garratt, assisted by members of the Exhibition Committee. Copies will be on sale at the Science Museum, or may be obtained from the publishers, H.M. Stationery Office, price 6d. (by post 7d.).

#### The Royal Society of Arts

Few societies have done more to stimulate the arts and industries of the British Empire than the Royal Society of Arts, which during the last few days has had on exhibition, for the benefit of overseas visitors, a series of documents and objects illustrating its achievements since its foundation in 1754. Before the modern practice of holding frequent meetings to hear papers and lectures, the Society instituted awards for improvements in science, art and manufacture; and many of the objects exhibited illustrate the work of some of the Society's medalists. Hanging on one side of the room in which the exhibition was arranged was the first geological map of Great Britain prepared by William Smith. The map was published in 1815, Smith being assisted by a grant of £50. On the other side of the room were a model of Abraham Darby's iron bridge of 1788 (happily still standing); a model of Greathead's life-boat and Bell's lifeline-throwing mortar for ships, for which medals were awarded. On another stand

were samples of coco-nut oil, cinnamon, silk, tea, nutmegs, cloves, mace, wool and indigo from the Colonies, all representing products the cultivation of which has been stimulated by the Society. In addition to these and similar objects, were many books, prints and letters recalling the history of the Society and its never-ceasing activity.

#### Institute of Physics

THE annual report for the year 1936 of the Institute of Physics presented at the annual general meeting held on May 26 shows that the total membership has continued to increase in a very satisfactory way. The membership at the end of the year was 902. An informal discussion on the training of industrial physicists was held on February 11, 1936, at which appointed representatives of nearly every university and college in Great Britain and Ireland, of firms employing physicists and of research associations and Government establishments were present. As a direct result of this discussion, a scheme was inaugurated whereby registered students of the Institute are enabled to gain first-hand experience of industrial research and development work in physics during their vacations. The report records that in its first year this scheme proved most successful. The fifth conference of Australian physicists and astronomers was convened by the Australian Branch of the Institute and was held in Sydney on May 25-28, 1936. A London and Home Counties Branch of the Institute was founded in November. The general improvement in industry is reflected by the report of a great increase in the activities of the appointments register and panel of consulting physicists maintained by the Institute. The following officers have been elected to take office on October 1: *President*, Mr. C. C. Paterson; *Vice-President*, Prof. W. Makower; *Honorary Treasurer*, Major C. E. S. Phillips; *Honorary Secretary*, Prof. J. A. Crowther; *New Members of the Board*, Prof. J. Chadwick and Mr. D. C. Gall.

#### Maynard Ganga Ram Prizes

IN 1925, the late Sir Ganga Ram, presented to the Punjab Government a sum of Rs. 25,000 for the endowment of a prize of the value of Rs. 3,000 to be called the Maynard Ganga Ram prize and to be awarded every three years, for a discovery, invention, or a new practical method which will tend to increase agricultural production in the Punjab on a paying basis. The competition is open to all. The first award, due in 1929, was made in 1931 to Dr. C. A. Barber, late Imperial sugar expert, for his fundamental discoveries which resulted in the production of Coimbatore sugar-cane. During the last five years, no further awards have been made owing to lack of suitable entries. The 1932 award has now been made to T. A. Miller Brownlie, lately agricultural engineer to the Government of Punjab, for his invention of a slip strainer suitable for water augmentation supplies derived from bores sunk in open wells. This strainer has the particular merit that it is not affected by alkaline sub-soil water—a defect from which many of the earlier metal strainers

suffer. By its use, owners of well-irrigated lands can increase the output of water from their wells. The 1935 prize has been awarded to R. S. L. Jai Chand Luthra, professor of botany, Punjab Agricultural College, Lyallpur, for his new method of treating wheat seed against the fungal disease called loose smut. The wheat seed to be treated is merely soaked in water at ordinary temperature for four hours during the morning of a day in summer. Thereafter the soaked grain is spread in the sunshine until it is thoroughly dried. Experience has shown that this treatment is effective in controlling the disease without damaging the germinating power of the seed. Entries for the next award should reach the Director of Agriculture, Punjab, Lahore, on or before December 31, 1938.

#### Aquarium Notes

THE *Aquarist and Pond-Keeper* of March-April 1937 (7, No. 7) contains a good article (to be continued) on the freshwater sunfishes (family Centrarchidæ) by A. Fraser Brunner. These fishes are natives of North American freshwaters, their nearest relatives being the perches. A key to all the species is given with notes, and a double-page illustration together with a coloured plate comprises most of the species which can be kept in aquaria. Among other interesting contributions is one entitled "The Ways of the Natterjack" by Eric Hardy. The author states that he finds no difficulty in obtaining specimens in early spring and late summer on the brackish slacks of the west Lancashire dunes below Southport, and others may be found at the Solway marshes, in the Prestatyn district of the Conway estuary, North Wales, at Hilbre Island in the Dee Estuary and on the Leasowe marshes of the West Cheshire coast. He has kept this toad successfully in indoor aquaria.

#### Birth-rate in the United States

THE birth-rate in the United States, based on returns from thirty-four of the forty-eight States and covering only the first nine months of 1936, was the lowest on record, according to a provisional report recently issued by the Metropolitan Life Insurance Company (*Med. Rec.*, Feb. 17). The death-rate was slightly higher than that of any year within the last five, so that the natural excess of the birth-rate over the death-rate fell to a minimum of about 5 per 1,000.

#### A Heidelberg Correction

WITH reference to the article in our issue of January 16, 1937, "University of Heidelberg and New Conceptions of Science", Dr. E. Wolf, Privatdozent of the University of Heidelberg, writes to us from the Biological Laboratories at Harvard University under date April 20, as follows: "I had already left Heidelberg in Fall of 1931 with the consent of the Minister of Education and that of the Faculty of Science, to accept an invitation from Harvard University. Since then I have been on a leave of absence from Heidelberg and I can assure you that I regard it always an honour to be a member of the Faculty of the University of Heidelberg".

#### Göttingen and the Massachusetts Institute

IN response to requests for information on the extent of the Institute's participation in the celebration on June 30 of the two hundredth anniversary of the founding of the University of Göttingen, the Massachusetts Institute of Technology has issued the following statement: "Although the Massachusetts Institute of Technology will not send an official delegate from Cambridge to attend the celebration of the two hundredth anniversary of the founding of the University of Göttingen, the rector of the university has been notified that Werner T. Schuarte, a technology alumnus of the class of 1914, who lives in Germany, will represent the Institute as an academic courtesy to a university which during the past two centuries achieved world-wide renown through distinguished scholarship and notable contributions to the advancement of scientific knowledge. This action is not intended to condone changes in or restrictions placed upon German universities in recent years."

#### Canadian National Research Council Scholarships

WITH the view of encouraging postgraduate training in scientific research, chiefly in the graduate schools of Canadian universities, the National Research Council has awarded forty-seven scholarships for the year 1937-38. These include three fellowships of 700 dollars each, twelve studentships of 600 dollars and twenty-seven bursaries of 500 dollars, all of which will be held in departments of science at the universities. Five other scholarships, tenable in the National Research Laboratories at Ottawa, will enable the holders, all of whom have already done postgraduate research at the universities, to gain experience in the field of industrial research before engaging in commercial work. The awards show that chemistry in its various branches heads the list with twenty-five, physics comes next with twelve, followed by four in biology, two in genetics, and one each in botany, geology, mathematics and mechanical engineering. Applications were received from graduates of eighteen Canadian universities, and awards have been made which will enable the holders to work in the Universities of Dalhousie, Laval, McGill, Montreal, Queen's, Toronto, Western Ontario and Saskatchewan.

#### Congress of French Physiologists

THE eleventh Congress of French Physiologists will be held on June 7-9 at the Paris Faculty of Medicine under the presidency of Prof. Cardot, of the Lyons Faculty of Science. The principal subjects for discussion will be trophic sensibility, introduced by A. Pi Suner, professor of physiology at Barcelona; comparison of histological and biochemical data in ossification, introduced by Profs. Policard, of the Lyons Faculty of Medicine, and Roche, of the Faculty of Medicine at Marseilles, and exploration of organic functions by the electrical manifestations of their activity, by Prof. Ryart of the University of Brussels. Further information can be obtained from M. R. Gayet, Laboratoire de Physiologie Pathologique, 1 rue Lacretelle, Paris.