

### The Indian Association for the Cultivation of Science, Calcutta.

THE annual grant of Rs. 20,000 which the Central Government has been awarding to this institution has suffered a cut on account of the financial stringency and the offer of Rs. 18,000 for the next financial year by the Standing Finance Committee of the Assembly was based on the report of the Educational Commissioner with the Government of India who inspected the institution in September last. We have always thought that it is an extremely short-sighted policy to curtail subsidies to research institutions in general and in particular to those whose work has earned for India a distinct position in the world of international science. The inveterate tendency on the part of Governments to measure the value of scientific research in terms of its practical applicability to the administrative affairs is hard to cure and the utilisation of its results for increasing

the material wealth of the Nation, while necessary and important, must be subordinate to the claims of wider knowledge and deeper penetration into the mysteries of Nature. Judged by this standard, the Indian Association for the Cultivation of Science under the inspiring guidance of Sir C. V. Raman has achieved remarkable results and his successor Dr. K. S. Krishnan whose zeal and devotion for scientific research are well known, requires perhaps greater financial encouragement than has hitherto been accorded to the Association. Scientific work should not be made to depend on the financial vicissitudes of Government, for its orderly and uninterrupted progress must be assured of a steady and satisfactory income, without subjecting the grant to be based on "a review of the position and the work of the Association annually".

### The 150th Anniversary of the Asiatic Society of Bengal.

ON the 15th January the Asiatic Society of Bengal celebrated the 150th anniversary of its foundation by an afternoon conversazione in the Indian Museum, and a banquet in the evening followed by a special anniversary meeting. The Conversazione was attended by the Mayor of Calcutta and about five hundred ladies and gentlemen, the leading citizens of Calcutta. It took the form of a garden party on the lawn of the Museum and special and most interesting collection of exhibits, consisting of paintings lent by the Academy of Fine Arts, copies of old documents from the Imperial Records Department, mostly of the eighteenth century and some concerning the Asiatic Society, paintings of plants from the Botanical Survey, Javanese and Siamese sculptures from Dr. S. K. Chatterji, chemical and physical processes in action by the University College of Science and Technology, prehistoric and tenth century finds from the Archæological Survey, fossils, crystals and economic products from the Geological Survey, birds of Bengal from Dr. S. C. Law, diseases, their prevention and treatment, by the School of Tropical Medicine and Hygiene, medals and coins by His Majesty's Mint, Kaffir attire, fish, crustacea and insects from the Zoological Survey.

The Banquet was honoured by the presence of His Excellency Sir John Anderson, Governor of Bengal, who is the Patron of the Society, and took place in its 126 year old hall, surrounded by portraits and busts of former members who have made history in Bengal. Ninety-three members and guests took part, including the Consular representatives of France, Germany, Holland, Sweden and the United States of America, the Archbishop of Calcutta, the Hon. Sir M. N. Roy Chowdhury, Sir David Ezra, the Hon. Nawab K. G. M. Faruqi, Sir C. C. Ghose, the Hon. Sir A. K. Ghuznavi, Lord Sinha, the Hon. Sir B. P. Singh Roy, and Sir Jadu Nath Sircar. The toast of the Guests was proposed by the President, Dr. L. L. Fermor; to which Mons. J. Delacour of the National Museum of Paris replied, and also proposed the Asiatic Society, but speeches were brief in view of the meeting afterwards.

At the Special Anniversary Meeting His Excellency the Governor took the chair and the President delivered his Anniversary Address, outlining the history of the Society and naming the distinguished contributors to its publications, more especially in the last half century. He pointed out that many of the specialist departments and institutions founded in India originated from

the Asiatic Society, in particular the Indian Science Congress, and mentioned the proposals which had been made for the formation of an Indian Academy of Sciences to effect co-ordination between these various interests in the sphere of science.

Following the President's Address, congratulatory messages were read from His Excellency the Viceroy, the Mayor of Calcutta, the League of Nations, Prof. C. Rockwell Lanman, Sir George Grierson, and Sir Thomas H. Holland, Honorary Fellows. Seven addresses were read from the British Museum, the Linnean Society, the Zoological Society of London, the Batavian Society of Arts and Sciences, the Indian Institute, Oxford, the Schopenhauer Society, Frankfurt, and the Prussian Academy of Sciences. Congratulations were presented by 26 delegates from 58 learned institutions, and in all 19 countries were represented,—Australia, Austria, Belgium, Ceylon, Canada, France, Federated Malay

States, Germany, Great Britain, Hungary, Italy, Japan, Netherlands, Spain, Sweden, Switzerland, Tasmania, United States and India.

In his speech His Excellency the Governor stressed the vigour of the Society in spite of its age, its permanence since the days of the French Revolution, and the esteem in which it is held abroad, as manifested by the spontaneous tributes received from all over the world. He drew attention to the traditional connection of the Ruling Princes with the Society, and hoped that this tradition might be widened, to the benefit of scholarship, by the inclusion in the Society's list of members of the name of every substantial Ruler in the country.

His Excellency paid special tribute to three members of the Society, Sir Rajendra-nath Mookerjee, Mr. Johan Van Manen, the General Secretary, and Dr. S. L. Hora, the Honorary Secretary of the Celebration Committee.

### Research Notes.

#### Separation of the Heavy Hydrogen Isotope.

IN *Die Naturwissenschaften*, 21, p. 884, 1933, Prof. G. Hertz describes experiments performed by him in collaboration with H. Harmsen and W. Schütze to separate the heavy hydrogen isotope by means of the new separating apparatus developed by him. (A description of this apparatus has already appeared in a previous note in this journal.) Since the two isotopes of hydrogen have masses in the ratio of one to two, separation by diffusion should be easiest in this case. The hydrogen was produced by the action of magnesium vapour on the water in an electrolytic cell. Since this hydrogen contains  $H_2^1$  and  $H^1H^2$  molecules with only a very few  $H_2^2$  molecules, a discharge tube was introduced at a suitable point of the apparatus so that  $H_2^1$  and  $H_2^2$  molecules were produced from the  $H^1H^2$  molecules. In this way the  $H^2$  isotope was obtained in such purity that discharge tubes filled with this gas after fully degassing the electrodes did not show even a trace of the ordinary hydrogen lines. The paper contains two interesting photographs, one giving the  $H_2$  line of  $H^1$  and  $H^2$  taken on the same plate and the other giving the many-line spectrum of hydrogen from tubes containing ordinary hydrogen, a mixture of the two

isotopes in nearly equal proportions and pure heavy hydrogen respectively, all taken on the same plate. In this way one can distinguish between the lines of  $H_2^1$ ,  $H^1H^2$  and  $H_2^2$  and the comparison is very instructive. Further details are to appear in the *Zeitschrift für Physik*.

#### Experiments on the Adiabatic Cooling of Paramagnetic Salts.

IN *Physica* (1, 1, 1933) W. J. de Haas, E. C. Wiersma and H. A. Kramers describe experiments in which extremely low temperatures were sought to be obtained by the sudden demagnetisation of paramagnetic salts kept at the temperature of liquid helium. A sample of the salt was kept surrounded by liquid helium at a point in the field of a big electromagnet where  $H \frac{\partial H}{\partial x}$  was a maximum. The sample was thermally well isolated and shut off from radiation. It was thus kept in the high constant magnetic field till it had acquired the temperature of the liquid helium. The field was then suddenly decreased and the force on the sample was then determined as a function of the time. Knowing the force immediately after the decrease in the field