SCIENCE NOTES AND NEWS

Inter-University Board

The Inter-University Board met in Cuttack during the first week of December under the presidency of Mr. N. K. Sidhanta.

The Board passed a resolution on a proposition sent by the Bombay University expressing the opinion that it is in general agreement that the autonomy of Universities be maintained and that their academic independence be ensured. This principle is urged to be borne in mind when any new legislation affecting universities is contemplated.

The question of the national language of India came up before the Board on two propositions, one from the Standing Committee which passed a resolution in March last, but was deferred.

On the proposal of the Nagpur University for the adoption of Hindi as the medium of official minutes and correspondence, the Board considered that the suggestion was not practicable.

University Grants Committee

In view of the recent constitutional changes and the additional responsibility that the Central University Grants Committee will have to undertake in the co-ordinated development of University education in the country, the Government of India have reconstituted the University Grants Committee with an enlarged membership. The Rt.-Hon'ble Dr. M. R. Jayakar is the Chairman, and the members are Mrs. Hansa Mehta, Sir S. S. Bhatnagar, Dr. M. N. Saha, Sir Homi Modi, the Hon'ble Dr. P. Subbarayan, Dr. Zakir Husain, Mr. K. Zacharia and Dr. B. C. Roy.

The Committee will make enquiries and recommendations regarding (1) the lines on which the Universities and other institutions of higher learning should develop, (2) the additional amounts in the form of grants-in-aid from public funds required for them, and (3) the co-ordination of their activities wih a view to avoiding unnecessary overlapping.

Indian Ecological Society

At the General Meeting of the Society, held on the 1st January 1948, at Patna, the following Office-bearers were elected :—Dr. T. S. Sabnis (*President*); Drs. L. A. Ramdas and R. Misra (*Vice-Presidents*); Dr. T. J. Job (*Joint-Secretary*); Dr. B. S. Navalkar (*Treasurer*); and Drs. B. Pal, N. K. Panniker, T. S. Sadashivan, Mrs. E. Gonzalves and Dr. T. S. Mahabale (*Members of the Executive Council*).

Bureau for International Understanding

The creation in Britain of a Central Bureau for Educational Visits and Exchanges on behalf of the UNESCO, for promoting International understanding has been announced by the Minister of Education. It will co-operate actively with the various agencies in Britain and abroad and supplement them by undertaking the responsibility for arranging visits to Britain by teachers and students from abroad and for exchange trips to other countries from Britain.

Sir C. V. Raman

Sir C. V. Raman has been invited to attend the International Conference of Physicists and Chemists at Bordeaux. He will proceed to Europe by the end of March to participate in the Conference. Among other subjects. 'Raman Effect' will be discussed at the Conference.

Award of Doctorate

The D.Sc. degree of the Benares Hindu University has been awarded to Messrs. P. .G. Deo and K. Venkateshwara Rao for research work carried out on the Joshi Effect.

Research in Minerals

It is understood that the Government of India have decided to establish a Bureau of Mines for the purpose of research in Mines and Mineral Wealth. A recurring expenditure of about Rs. 3 lakhs has been sanctioned, it is understood, by the Standing Finance Committee.

Madras University Endowment Lectureships

The Syndicate will proceed shortly to select persons to deliver lectures under the following Endowments for the year 1948-49. Applications for Lectureships will be received by the Registrar not later than the 15th March 1947. Applicants are requested to give full particulars regarding their qualifications, etc., and the subject selected by them for the lectures. Separate application should be submitted for each lectureship. The lectures are to be delivered before January 1949.

The following are the lectureships:—(1) *The Maharaja of Travancore Curzon Lectureships* (three); (2) *The Sir Subramanya Ayyar Lectureship*; (3) *The Gokhale Lectureship*; (4) *The Sankara Parvati Lectureship*; (5) The *Sir William Meyer Lectureship*; (6) *The Principal Miller Lectureship*; (7) *The Dr. Elizabeth Matthai Lectureship*; (8) *The Rt.-Hon. V. S. Srinivasa Sastri Lectureship.*

For further particulars regarding the lectureships, please see the University Calendar, Vol. I, Part I, 1945-46 (Appendix F).

Elliot Prizes for Scientific Research

The Elliot Prize for Scientific Research for 1948 will be awarded to the author of the best original essays giving the results of original research or investigation in Mathematics and published during the years 1944-47.

The Elliot Prize for Scientific Research for 1949 will be awarded to the author of the best original essay giving the results of original research or investigation made by the candidate in Chemistry and published during the years 1945-48..

Any native of Bengal, Bihar or Orissa or any Anglo-Indian or domiciled European, residing in Bengal, Bihar or Orissa, may compete for the prize.

The essays of competitors must be sent in so as to reach the President of the Royal Asiatic

Society of Bengal, C|o the General Secretary, 1, Park Street, Calcutta, by the end of June 1948. Author's reprints, and not manuscripts, must be submitted.

Preference will be given to researches leading to discoveries likely to develop the industrial resources of Bengal, Bihar and Orissa.

The prizes for the next four years will be allotted as follows:—1949—Chemistry; 1950—Physics; 1951—Geology and Biology (including Pathology and Physiology); 1952—Mathematics.

All essays submitted must have been published during the four calendar years immediately preceding that for which the prize is given.

Award for Sugar Research

The third $5,000 Intermediate Sugar Research Award will be made by the National Science Fund, Washington, U.S.A., on or about March 15, 1948. Established by the Sugar Research Foundation to stimulate scientific studies of sugar as a food and an industrial raw material which may lead to its greater usefulness; awards of $5,000 will be given in 1946 and 1949, with a Grand Prize of $25,000 to be given in 1950 for the most significant discovery of the preceding five years. Further details of terms and conditions governing the award may be obtained from the Secretary, National Science Fund, 2101, Constitution Avenue, Washington 25, D.C.

Mathematical Instruments Office

Two committees, one for reorganising the work of the Alipore Test House, Calcutta, and the other for expanding the scope and activities of the Mathematical Instruments Office, Calcutta, have been appointed by the Government of India in the Ministry of Industry and Supply.

The Government of India have appointed a Committee under the Chairmanship of Dr. B. C. Roy to examine the existing Organisation and the possibilities of expansion of the Government Test House, Alipore. Dr. Sir K. S. Krishnan, Dr. B. C. Guha and Mr. K. N. Sharma have been invited to serve on the Committee.

The Government of India have also appointed a Committee under the Chairmanship of Dr. G. R. Paranjpe to review the organisation of the Mathematical Instruments Office, Calcutta. The terms of reference include (i) the formulation of concrete plans, both short-term and long-term, for the development of the manufacture of scientific instruments and photographic, electronic and electro-acoustic equipment; (ii) an examination of the possibility of using the Mathematical Instruments Office as a training centre for instrument-makers, mechanics, etc.; and (iii) a review of the terms and conditions of service of the employees there.

Quality Control

A Conference on Quality Control commenced its seven-day session in Calcutta on February 8.

Dr. W. A. Shewhart, American Expert on Quality Control, presided over the Conference. Dr. L. C. Verman, Director, Indian Standards Institution, in explaining the object of the Conference said that the Indian Statistical Institute and Indian Standards Institution, joint-organisers of this Conference, had come together to take the first step in initiating the introduction of statistical methods into India's industry on the lines which have been tried and proved a success in other parts of the world. Prof. P. C. Mahalanobis, Director of Statistical Institute, also addressed the Conference.

The object of industry and applied science in India, Dr. Shewhart said, should be to satisfy the wants of 400 million people. But one could not even find out what these wants were without the help of statistics, nor could one take the final step on research concerning the design, specifications, and techniques on each of these fundamental aspects of production.

The accommodation problem of four million refugees, for instance, involved new houses which could not be constructed without building material. The improvement of quality and the maintenance of proper standards were essential in making these different branches of production fit into one complete whole. There were many research organizations, plants and industries in India but what was lacking was co-operation between various groups. India could not develop, Dr. Shewhart continued, her vast resources unless science laboratories and industrial concerns worked together as a co-ordinated whole. Quality control would enable them to do this.

A technicolour film on quality control, made by Mr. Johns Hyphen Manville of U.S.A. for training their own workers and sent on loan by the firm to India through Dr. Shewhart, was shown at the Conference.

Nearly 200 representatives from various industries and research organisations all over India attended the Conference which is expected to continue its session for nearly a week.

Indian Standards Institution

The Engineering Division Council of the Indian Standards Institution, met on November 17 and 18 and elected Mr. S. L. Kirloskar as the Chairman.

The Standardization programme to be executed by this Council covers, among others, metallurgical, mechanical, electrical, structural, communications, aeronautical, ship-building and other industries. Among the subjects which will come under the purview of the Sectional Commtitees, to be set up under the Council, are the following: basic ferrous and non-ferrous metals, cement, timber products, lubricants, electrical plant and machinery, electrical conductors, insulators and accessories, gas cylinders, refractories, radio equipment, etc.

It was decided at the meeting that this Council, pending the formation of a Chemical Division Council, will deal with the standardization work of paints, varnishes and bituminous and tar products.

Nearly 200 technical subjects were proposed by various sources for standardization.

Power Engineering Laboratory

Sir Vithal Chandavarker, Chairman of the Governing Council of the Indian Institute of Science, Bangalore, laid the foundation-stone of the High Voltage Engineering Laboratory of

the Power Engineering Department on the 14th February. Prof. M. S. Thacker, Head of the Department of Power Engineering, requesting Sir Vithal to lay the foundation-stone, said that this Laboratory was one in the chain of many national laboratories to be set up in due course. The Laboratory when completed would serve the research needs in power and would be of primary importance in the development of electrical supply. The laboratory would cost Rs. 23 lakhs.

Greenwich to Hurstmonceaux

The Royal Observatory at Greenwich is being moved to its new home at Hurstmonseaux in Sussex.

After the complete transfer the Observatory to Hurstmonceaux, the ancient buildings at Greenwich will stand as a national monument and as a museum to display all the historic instruments, including those of Halley and Bradley, Pond's transit circle, Bradley's zenith sector and the old quadrants. Most famous perhaps of them all is the Airy Transit Circle, on which, with its continuous use since 1851, no fewer than 650,000 observations have been made.

Greenwich will become an object of pilgrimage not only for astronomers, but also for countless visitors from all parts of the world.

Coffee Pulp for Cattle Feed

From the waste pulp of the coffee bean comes a new concentrate for cattle for milk production. This has been developed by technicians in U.S.A. and El Salvador. Pound for pound, dried coffee pulp has been found an effective substitute for corn concentrates in the feed of milch cattle. Coffee pulp is the fleshy covering of the bean, and is at present largely a waste product. The palatability of the pulp is increased by mixing it with banana leaves, molasses of other feed stuff.

The popularisation of dried coffee pulp in India will be of great benefit as it creates a new source of income for the coffee grower, larger supply of concentrate to cattle owners and finally, increased milk production in the country.

Indian Wattle Bark

The Indian *Babool* bark and *Avaram* bark are not rich sources of tannins, yielding only 14 per cent. tannin as compared to 64-65 per cent. of the imported bark.

It has been established by the Madras Forest Department that Nilgiris tan bark black wattle, *Accacia mollissime* wild Syn., *Accacia decurrens* wild *var. meths. Lin.*, are identical with Natal black wattle. The bark of the trees grown in the Palani Hills and the Nilgiris has a tannin content varying from 20 to 57 per cent. The species in the Madras Province requires an elevation of 5,000-7,000 ft. and a well distributed rainfall of 60" or more for best development. The Madras Government intends to cultivate these in Palani Hills, South Coimbatore Division, in Kollegal and North Coimbatore Hills. A Research Station is also to be started at Kodaikanal to deal with plantation, production, and marketting problems.

The Smokeless "Herl" Chula

This is a simple smokeless and fuel-saving cooking range called "Herl' Chula, as it has been developed in the Hyderabad Engineering Research Laboratories, under the direction of Dr. S. P. Raju.

This structure is built of brick and mud or only mud, and plastered with fine earth, and consists of an "L"-shaped duct with three holes for the cooking pots and an opening for the firewood. At the end of the duct is an arrangement for a big pot of water so that the hot gases before going out are utilized further to heat the water pot, thus providing hot water for the family as a by-product. The gases are finally taken out of the range by means of a clay pipe, tile or mud chimney. The opening for firewood is 6 inches wide and 4 inches high, which is enough for a family of about six. For bigger families the width may be increased to 7 or 8 inches. The size of the opening is designed to be fool-proof against unnecessary shoving in of firewood.

Geomagnetic Storms

Geomagnetic activity during the quarter October-December 1947 was very much on the decrease as compared with the earlier three quarters. Some details of the geomagnetic disturbances as recorded at the Alibag Magnetic Observatory are given in the following table in which t_0, t represent the time (I.S.T.) of commencement of the disturbance and its intense phase respectively and T the duration of the intense phase expressed in hours. The ranges in the three different elements (D, H and V) of the earth's magnetic field have also been given. D, in minutes of arc, H and V in γ where $1\gamma = 10^{-5}$ gauss. The maximum *k-index* recorded during the disturbances have also been given.

Date	t_0	t	T	Range			K_m	Nature of commencement
				D	H	V		
1947	H. M.	h. m.	hrs.	min.	γ	γ		
September 30 to October 3	23 .40	09 00 On Oct. 1	8	8·2	224	86	5	Sudden
November 9–10 ..	14 26	16 34	2½	5·1	217	46	6	Sudden

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