
SCIENCE NOTES AND NEWS

A central controlling authority to organise university education, in the interests of the country as a whole is suggested as a part of post-war educational reconstruction which has received the approval of the Central Advisory Board of Education. This authority is proposed to be constituted on lines analogous to the University Grants Committee in Great Britain. Its main function would be to settle the assessment and distribution of all grants from public funds and to enable universities to plan ahead. It will be empowered to encourage private benefactorships, to co-ordinate university activities, to avoid overlapping and to adjusting the output of universities to the economic needs of the country, to examine and advise upon all schemes of major development, to prevent undesirable competition between universities and to remove all provincial barriers, to arrange for the periodic inspection of universities, to ensure the maintenance of standards, to establish cultural contacts and to arrange for the exchange of teachers and students with foreign universities.

A comprehensive plan of post-war educational development in India, based mainly on the Sargent Scheme, has been drawn up by the Central Board of Education and is being submitted to the Reconstruction Committee of the Viceroy's Executive Council. The Scheme is the result of the work of the various Committees set up by the Board, including the two Wardha Education Committees. The total annual cost of the National system of education as envisaged by the Board will amount to 277 crores of rupees.

To advise the Government of India on problems of dehydration of meat, fish, fruits and vegetables an Empire Mission on Dehydration, consisting of Dr. J. C. Fiddler of the Ministry of Food and Cambridge Low Temperature Research Station, and Mr. T. C. Crawhall, Deputy Director, Dehydration, Ministry of Food, are now touring India. They will visit important factories in India where dehydration of meat, fish, fruits and vegetables for the army is being carried on and also the centres of supply of these products. They will also visit research centres in India.

It is proposed to establish a Central Coconut Committee which will, in the first instance, as a war measure, be entrusted with the task of stepping up the production of the produce by improved methods of manuring and cultivation. The necessary funds for the purpose will be met by the levy of a cess at Rs. 3-2-0 per ton of copra consumed by the mills. The annual revenue from this source is expected to amount to three lakhs.

The half-yearly meetings of the Indian Central Cotton Committee began on the 24th January and concluded on the 29th January 1944, Sir Pheroze Kharegat, C.I.E., I.C.S., Vice-Chairman of the Imperial Council of Agricultural Research, presiding. His Excellency the Governor of Bombay, Sir John Colville, attended the meeting of the main Committee on the 28th January and paid tribute to the work done by the Committee for the improvement of Indian cotton and in the interests of the cotton industry as a whole.

Sir Chunilal B. Mehta was elected Vice-President for the year 1944-45, and the following were appointed to constitute the Standing Finance Sub-Committee for the same period: Sir Chunilal B. Mehta (Vice-President) (*Chairman*), Sir Pheroze Kharegat, C.I.E., I.C.S. (*ex-officio*), Sir Chunilal V. Mehta, K.C.S.I., Sir Purshotamdas Thakurdas, C.I.E., M.B.E., Sir Sorab Saklatvala, Mr. J. L. Hirschler, Rao Bahadur Sir Madhaorao Deshpande, K.B.E., Mr. W. J. Jenkins, C.I.E., Mr. R. G. Saraiya, O.B.E.

There were some seventy items on the agenda, most of which, however, had been previously reviewed by the appropriate Sub-Committees and the Committee considered them in the light of the recommendations made on them by the Sub-Committees. Considerable discussion centred round the question of the desirability of taking legislative or other measures to prevent mixing of cottons in India. The consensus of opinion was strongly in favour of immediate action in the matter but, in view of the complexity of the problem, it was finally decided to authorise the Local Sub-Committee to go into the matter fully and suggest measures for stopping the malpractice.

Among the new schemes sanctioned by the Indian Central Cotton Committee, are a scheme for cotton physiological research, a scheme for improvement of Hill cottons in Assam, a scheme for distribution and multiplication of "Vijaya" in Baroda District and a scheme for distribution and marketing of Jarila in the Central Provinces and Berar. The following schemes due to terminate in the course of the year have been recommended for extension for varying periods:—(1) Central Provinces and Berar Cotton Breeding Scheme, (2) Mysore Doddahatti Scheme, (3) Scheme for co-ordination of research on Black-headed Cricket in Sind and Baluchistan, (4) Scheme for distribution and marketing of V. 434 cotton in Central Provinces and Berar, and (5) Scheme for grading and marking of 1027 A.L.F. and "Suyog" cottons in Surat District.

About 15 million acres of waste land will be brought under land development and reclamation scheme by the Government of Bombay as

a major part of its post-war reconstruction plan. The total cost of the scheme is expected to be Rs. 15 crores and its working is expected to extend over a period of five years. An essential phase of the development is the large-scale contour-bunding to conserve the available water-supply and to enable the extension of scientific dry farming. Afforestation and terracing of hill sides will be undertaken to conserve water.

The Government of India have entrusted to the Drugs Technical Advisory Board, established under the Drugs Act, 1940, the task of preparing an Indian Pharmacopœial list.

The Indian Metallurgical Association has donated a sum of Rs. 10,000 to the Council of Scientific and Industrial Research to be utilised by the Council, at its discretion, for the purpose of "promoting, encouraging and benefiting the interests of metallurgical industry in India".

With a view to widen the scope of the activities in industrial research in relation to the development of industries in the State, and to secure a closer and more effective contact with the Board of Scientific and Industrial Research of the Government of India, the Government of Mysore have reconstituted the Board of Industrial Planning and Co-ordination in Mysore. The reconstituted Board has been named the Board of Scientific and Industrial Research, and consists of eight members including Sir C. V. Raman, Sir J. C. Ghosh and Sir M. O. Forster.

The Hon'ble Mr. M. S. A. Hydari, c.s.i., c.i.e., i.c.s., Secretary, Department of Industries and Civil Supplies, was elected Vice-President of the Council of Scientific and Industrial Research, for a term of two years, at the meeting of the Governing Body of the Council held at Bangalore on December 1, 1943.

Sir Shanti Swarup Bhatnagar, kt., F.R.S., Director, Scientific and Industrial Research, Delhi, has been elected Vice-President of the Society of Chemical Industry in London.

Dr. B. Viswa Nath, who has just retired from the Directorship of the Imperial Agricultural Research Institute, has accepted the offer of the Government of Madras, to take charge of the Director of Agriculture from the 15th April 1944.

It is understood that Sir S. S. Bhatnagar, kt., F.R.S., will fly to Chungking in response to an invitation which has been extended to him by the Chungking Government.

On the recommendation of the Vincent Massey Scholarship Selection Committee, H. E. the Viceroy has awarded the Vincent Massey Scholarship for 1943-44 to Mr. P. S. Anantha Narayan, Labour Officer, the Tata Oil Mills Company, Bombay.

Nature, December 1943, records the obituary of Dr. W. H. Hatfield, F.R.S., the famous metallurgist and Director of Brown Firth Research Laboratories, Sheffield. The success of the

"18:8" nickel chromium steel to which Firths gave the name of "Staybrite" is largely due to his energetic efforts. He made a detailed study of the properties of austenitic stainless steels, especially of the intercrystalline corrosion to which they were liable under certain conditions, as when welded. He was elected a Fellow of the Royal Society in 1935.

Dr. A. S. Kalapesi's Presidential Address to the Geology and Geography Section deals with a brief review of the geographical and geological features of "The Bombay Island". Starting from the earliest reference to this part of the West Coast of India so far back as 150 A.D. by Ptolemy, Dr. Kalapesi proceeds to give a detailed historical account of the gradual evolution of the Bombay Island as a single unit from seven different islands. He next deals with the rocks of the Island and points out that while the main rock formation throughout the area is the Deccan Trap, there are evidences here of three or four 'local' and 'secondary' effusions of lava which seem to have taken place sometime after the main Deccan Trap eruptive activity came to an end, and are perhaps connected with the foundering of the land which extended towards the west of the present coastline of the Peninsula after the highest Deccan lava flows had consolidated. The Address concludes with a general account of the younger volcanic rocks due to these different 'effusions' and their distribution in different parts of the Island.

In his Presidential Address to the Mathematics and Statistics Section, Dr. B. M. Sen purports to give an account of quantum mechanics from the standpoint of a mathematician. A brief description of the Bohr Theory is followed by a mention of the matrix mechanics, and the Schrödinger Equation. Dirac's relativistic wave equation is then touched upon, and a reference is made to Eddington's theory. A brief mention is also made of the theory relating to particles of spin zero and one.

The Government of India have entrusted to the Drugs Technical Advisory Board established under the Drugs Act, 1940, the task of preparing an Indian Pharmacopœial List.

There are a number of drugs of Indian origin which are of sufficient medicinal value to be officially recognised and which are prescribed in India by practitioners of modern scientific medicine not included in the British Pharmacopœia. Pharmacopœial drugs are also produced in India from medicinal plants of a slightly different species from those described as standard in the British Pharmacopœia. It is necessary to prescribe official standards for such drugs in order to secure uniformity of strength, quality and purity.

The Indian Pharmacopœial List will be the official standard for drugs not included in the British Pharmacopœia and will serve as the official Supplement to the British Pharmacopœia. In preparing the List the Board will have the advantage of the considerable material collected as a result of the enquiry into

indigenous drugs conducted over a period of years under Lt.-Col. Sir R. N. Chopra.

At the annual general meeting of the Indian Botanical Society held at Delhi early last month, Prof. Yajnavalkya Bharadwaja, Head of the Department of Botany and Dean of the Faculty of Science, Benares Hindu University, was elected President of the Society. The following, among others, were elected members of its Executive Council:—Prof. Birbal Sahni, F.R.S. (Lucknow), Principal P. Parija, O.B.E., I.E.S. (Cuttack), Dr. T. S. Sabnis, I.A.S. (Cawnpore), Prof. S. P. Agharkar (Calcutta), Prof. T. S. Raghavan (Annamalainagar), and Prof. F. R. Bharucha (Bombay).

The Madras Engineers' Association has transferred Rs. 15,000 from its funds to the University of Madras for the institution of a research scholarship in Engineering.

SEISMOLOGICAL NOTES

Among the earthquake shocks recorded by the seismographs in the Colaba Observatory, Bombay, during the month of November 1943, there were two of great, two of moderate and five of slight intensities. The details for those shocks are given in the following table:—

Date	Intensity of shock	Time of origin I.S.T.		Epicentral distance from Bombay (Miles)	Co-ordinates of epicentre (tentative)	Depth of focus (Miles)	Remarks
		H.	M.				
2	Slight	10	09	1370	..	..	..
3	Moderate	00	38	7700	..	..	..
3	Moderate	21	02	6550	..	..	..
6	Great	15	02	4490	..	130	..
24	Slight	19	47	3160	..	..	..
27	Great	04	51	2890	..	..	Epicentral region in Turkey. Great loss of life and property reported in press.
27	Slight	15	15	910	..	..	..
28	Slight	12	50	3640	..	..	..
30	Slight	03	48	5070	..	..	..

Three crystal reliquaries have been discovered at a Buddhist site, known as Salihundam, near Chicacole in the extreme north of the Madras Presidency.

The attention of the Archæological Department was attracted to the site over twenty years ago. Last year a group of Buddhist religious buildings consisting of a chaitya and three stupas were discovered. One of them has now yielded three crystal reliquaries within three stone relic-boxes. The crystal caskets are hemispherical and are shaped like stupas and contain gold leaves embossed with lotus leaf decorations.

The remains at Salihundam indicate the flourishing state of Buddhism in the northern Andhra country under the Ikshvaku rulers.

Prof. Moses Ezekiel, Professor of Botany, Wilson College, Bombay, has observed that *Sopubia delphinifolia*, a well-known root-parasite on grasses, also parasitises the tomato plant. A distinct root connection between the host and the parasite has definitely been established.

The C. P. and Berar Provincial Board of the All-India Manufacturers' Organization has invited the All-India Manufacturers' Organization to hold its fourth Annual Session at Nagpur on 26th and 27th February 1944. Sir M. Visvesvaraya has kindly consented to preside.

Among the earthquake shocks recorded by the seismographs in the Colaba Observatory, Bombay, during the month of December 1943, there were one of moderate and five of slight intensities. The details for those shocks are given in the following table:—

Date	Intensity of shock	Time of origin (I.S.T.)		Epicentral distance from Bombay (Miles)	Co-ordinates of epicentre (tentative)	Depth of focus (Miles)
		H.	M.			
3	Slight	11	08	4810	..	..
5	Slight	09	46	1230	..	100
6	Slight	12	40	2520	..	70
12	Slight	22	24	1270	..	..
13	Slight	14	23	1350	..	..
24	Moderate	01	24	7610	..	..

MAGNETIC NOTES

Magnetic conditions during January 1944 were less disturbed than in the previous month. There were 14 quiet days and 17 days of slight disturbance as against 18 quiet days, 11 days of slight disturbance and 2 days of moderate disturbance during the same month last year.

The quietest day during the month was the 30th and the day of the largest disturbance the 1st.

The individual days during the month were classified as shown below:—

Quiet days	Disturbed days	
	Slight	Moderate
4, 5, 7-9, 19-24, 28-30.	1-3, 6, 10-18, 25-27, 31.	

No magnetic storm occurred during the month of January 1944, while two moderate disturbances were recorded in January 1943.

The mean character figure for the month of January 1944 was 0.55 as against 0.48 for January last year.

A. S. CHAUBAL.

University of Madras.—Applications are invited for the following appointments in the University of Madras:—

- (1) Director (Professor) of the Research Laboratory in Zoology on a salary of Rs. 750-50-1,000.
- (2) Director (Professor) of the Research Laboratory in Botany on a salary of Rs. 750-50-1,000.

Applicants should be graduates of Indian or British Universities with high academic qualification and should have sufficient experience of research work. For appointment to the post of Director (Professor) of the Zoological Laboratory, a knowledge of Marine Zoology will be an additional qualification.

Applications (eight copies) containing full particulars regarding (i) age, (ii) religion and caste or community, (iii) academic and other qualifications, (iv) original research and publications, if any (copies to be submitted), (v) present position and salary, together with copies of recent testimonials and names of two persons to whom a reference can be made, should be sent so as to reach the Registrar, University of Madras, Chepauk, Triplicane, Madras, on or before the 15th March 1944, with the envelope superscribed as "Director, Zoology/Botany Laboratory".

- (3) Professor in the Department of Chemical Technology on a salary of Rs. 750-50-1,000.

Applicants should (i) possess high academic qualification, (ii) have wide experience in Chemical Technology or Chemical Engineering, (iii) possess a degree of a recognised university and (iv) be able to produce a record of research in one of these subjects. The person selected for the appointment will be required to organise the Department of Chemical Technology, direct research in Chemical Technology, or Chemical Engineering, and generally to do such work as may be necessary for the starting and working of the Department.

Applications (eight copies) containing full particulars regarding (i) age, (ii) religion and caste or community, (iii) academic and other qualifications, (iv) previous teaching and technical experience, (v) original research and publications, if any (copies to be submitted), (vi) patents, if any, and (vii) present position

and salary, together with copies of recent testimonials and names of two persons to whom a reference can be made should be sent so as to reach the Registrar, University of Madras, Chepauk, Triplicane, Madras, on or before the 15th March 1944, with the envelope superscribed as "Professor in the Department of Chemical Technology".

The appointments will be, in the first instance, for a period of three years and will be subject to confirmation at the end of that period.

It will be open for the appointing authority to select a candidate for appointment either in the grade of Professor or in the grade of Reader (Rs. 400-25-600), taking his qualifications and experience into consideration. It will also be open for the appointing authority, in exceptional circumstances, to make short-term contract appointments on special terms.

Further particulars relating to the above appointments can be had from The Registrar, University Buildings, Chepauk, Madras.

The 1944 Easter Session of the Indian Academy of Sciences will be held at Madras from 7th April 1944 to 9th April 1944 in the University Buildings. Apart from the reading of papers, there will be special discussions on "Luminescence" and "Hydrogen Bonds".

We acknowledge with thanks the receipt of the following:—

"Journal of the Royal Society of Arts," Vol. 92, Nos. 4653-4654.

"Journal of Agricultural Research," Vol. 67, Nos. 3, 5 and 6.

"Agricultural Gazette of New South Wales," Vol. 54, Pts. 11-12.

"Allahabad Farmer," Vol. 17, No. 6.

"Biological Reviews," Vol. 18, Nos. 3-4.

"Journal of the Indian Botanical Society," Vol. 22, Nos. 5-6.

"Biochemical Journal," Vol. 37, No. 4.

"Journal of Chemical Physics," Vol. 11, No. 10.

"Journal of the Indian Chemical Society," Vol. 20, No. 11.

"Chemical Products and Chemical News," Vol. 7, Nos. 1-2.

Industrial and News Edition of the "Journal of the Indian Chemical Society," Vol. 20, Nos. 3-4.

"Endeavour," Vol. 1, Nos. 1 to 4; and Vol. 2, Nos. 5 to 8.

"Experiment Station Record," Vol. 89, No. 4.

"Indian Farming," Vol. 4, No. 8.

"Indian Forester," Vol. 70, No. 1.

"Indian Forest Records," Vol. 3, No. 4.

"Indian Forest Leaflet," No. 57—1943, and 61.

"The Quarterly Journal of the Geological, Mining and Metallurgical Society of India," Vol. 15, No. 3.

"Chronicle of the Health Organisation," Special Number, October 1943.

"Bulletin of the Indian Central Jute Committee," Vol. 6, Nos. 9-10.

"Journal of the Indian Mathematical Society," Vol. VII, Nos. 1-2.

"Mathematics Student," Vol. 10, No. 4.

"Indian Medical Gazette," Vol. 78, No. 12; Vol. 79, No. 1.

"The Review of Applied Mycology," Vol. 22, Pts. 10-11.

"American Meteorological Society Bulletin," Vol. 24, No. 56.