

Science Notes.

Loss of Spirit Due to Evaporation under Indian Conditions.—Mr. K. R. Ganguly, Government Laboratory, Agra, writes.—Experiments, the results of which are given in Table I, were carried

highest in the case of the lowest strength and the lowest in the case of the highest strength spirit, but loss in *proof strength* is the highest near about the United Provinces' maximum

TABLE I.

a—Bottles kept tightly closed with corks.

b—Bottles kept open (plugged with loose cotton wool to prevent dust).
(Results expressed in % proof)

Days	I		II		III		IV		V		VI	
	a	b*	a	b*	a	b*	a	b*	a	b*	a	b*
Starting day ..	9.3	9.3	29.6	29.6	49.7	49.7	63.5	63.5	100.0	100.0	139.9	139.9
17th ..	9.3	8.9	29.6	28.8	49.7	48.5	63.5	61.9	100.0	98.9	139.9	139.2
32nd ..	9.5	8.8	29.6	28.2	49.6	47.5	63.5	60.9	100.0	98.0	139.9	138.7
51st ..	9.5	8.6	29.6	27.6	49.6	46.6	63.5	59.6	100.0	97.0	139.9	138.0
66th ..	9.4	8.3	29.6	26.9	49.6	45.4	63.5	58.3	100.0	95.7	139.9	137.3
81st ..	9.4	8.2	29.6	26.4	49.5	44.3	63.5	57.4	100.0	94.9	139.9	137.0
111th ..	9.4	7.7	29.5	25.3	49.5	42.5	63.5	55.3	100.0	92.9	139.9	136.1
148th ..	9.2	6.7	29.2	23.2	49.2	39.5	63.4	51.7	99.8	89.7	139.6	134.2
298th ..	9.1	5.4	29.2	19.8	49.2	34.6	63.2	44.2	99.8	81.9	139.6	130.6

*Mean of duplicates.

out to see how far spirits lose in strength under Indian conditions, when kept in bottles with faulty or loose stoppers. The nature of loss studied in this laboratory, situated at a place where almost throughout the year a very dry atmosphere prevails, may be taken as more or less the highest in India that may occur due to negligence such as keeping the bottle in an almost open condition due to faulty corks.

Plain country spirits of six different strengths, *i.e.*, 9.3, 29.6, 49.7, 63.5, 100.0 and 139.9 per cent. proof were kept in reputed quart bottles, which are stamped 'U. P. Excise' and are used in bottling country spirits in the United Provinces of Agra and Oudh. The dimensions of these bottles were: body, 8"; neck, 4" and inner diameter of the mouth, 0.9" to 1.0".

The strengths under I and II were taken to study the condition of very dilute spirits such as obtaining in feints. The strengths under III and IV nearly correspond respectively to the minimum and the maximum issue strengths of the United Provinces. The strengths under Nos. V and VI correspond nearly to the strength of final products of distillation used for potable purposes by pot and patent stills respectively.

Rectified spirit of 60.0 O. P. strength was diluted with distilled water in order to obtain the different alcoholic strengths to start with. In the beginning each bottle was filled with 758 c.c. (1/6th of a gallon) of spirit; this liquid nearly filled up the bottles to the mouths.

The strengths were determined at the start and at different subsequent stages from specific gravities measured by a Pyknometer at 60° F.

The results of these experiments show that the percentage loss in *proof gallonage* is the

issue strength. This is shown by the following figures deduced from those given in the Table I.

TABLE II.

		Maximum per cent. loss in <i>proof gallonage</i> due to deterioration of <i>proof strength</i> in about one year	Maximum loss in proof strength in about one year
No.	I	41.9	3.9
No.	II	33.1	9.8
No.	III	30.4	15.1
No.	IV	30.4	19.3
No.	V	18.1	18.1
No.	VI	6.6	9.3

These results would be of interest in deciding questions of alleged evaporation, where wilful dilution is suspected.

Further experiments are being carried out to find out directly the vapour pressure of different strengths of alcohol-water solutions at ordinary temperatures.

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A New Type of Vasculum for the Indian Climate.
—Dr. F. R. Bharucha, writes from Bombay under letter, dated 29th April 1936:—Every field-botanist in India comes to realise very soon that the tin vasculum (black-japanned outside) ordinarily used in the West is almost completely useless for the Indian climate. It is my experience that many plants and particularly small flowers of the Papilionaceæ order gathered

during the day, dry up beyond recognition by the time they are taken to the laboratory.

Hence some experiments were undertaken to devise a vasculum most suited to Indian conditions. Tin was preferred to aluminium for making the vasculum as it lends itself to soldering and is not easily corroded by water and alkalies which are present in the soil attached to the roots of plants.

The vasculum was lined inside by a thin white asbestos sheet about 1/16 in. thick. The lid of the vasculum which was made tight-fitting was also lined with the same material. To test its efficiency delicate flowers, like the garden Phlox and Canna, were placed inside the vasculum along with a thermometer. A control vasculum without any asbestos lining was set up. It was found that the flowers in the experimental vasculum remained fresh for a long time. By introducing a wet sponge in the asbestos-lined vessel it was found that the flowers remained fresh the whole day, even on days of intense heat.

In the course of these experiments it was noted that though the thermometer in the asbestos-lined vasculum recorded almost as high a temperature as in the control one, the flowers remained fresher in the former than in the latter. Two conclusions may be drawn: (1) that primarily a humid atmosphere is necessary for maintaining the freshness of the flowers, and (2) that a direct contact with the outside cover of the vasculum affects the flowers considerably; an intervening layer of a material of poor conductivity prevents flowers from wilting. A lighter vasculum can be made by lining it with limp sheet instead of ordinary asbestos but this would cost double the price. To prevent tin from rusting the outside of the vasculum can be specially painted to an aluminium finish.

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Archaeological Discoveries in Kotah State.—In the course of a tour of archaeological exploration organised under the auspices of the Kotah Government, Dr. A. S. Altekar, Manindrachandra Nandi Professor of Ancient Indian History and Culture in the Benares Hindu University, made several important discoveries. The most important among these is the discovery of three sacrificial pillars each bearing a record, dated in the year 295 of the Vikrama era, and announcing the performance of the *Tri-rātra* sacrifice by the sons of a Maukhari ruler. The earliest Vikrama era inscription, so far known, is dated in the year 282; so the new inscriptions are the second earliest records in the Vikrama era. So far the antiquity of the Maukharis could not be taken to a date earlier than the 5th century; the new records show that they were ruling as important chiefs a couple of centuries earlier and so far to the west as the Kotah State. These pillars were discovered in the village Badra.

Three Gupta period inscriptions were discovered, two at Charchoma and one at Mukundara. One of these contains an Ayurvedic prescription, the second records the foundation of a Śiva temple and the third mentions a chief who is known to have died while fighting with the Hunas.

In the Lakshmi-Nārāyaṇa temple at Shergadh, two very interesting Paramāra records were

discovered. These belong to the 11th century A.D. These records show that Lakshmi and Nārāyaṇa are interlopers in their present abode which was originally built for Somanātha. When and why the latter gave place to the former, we do not know. The inscriptions describe a series of donations given to the Somanātha temple by the rulers and private individuals for different purposes connected with the temple worship.

Shergadh is now a deserted village, but during the period 800–1200 A.D., it was the headquarters of a flourishing district, as its old name *Kosha-wardhana*, "the increaser of royal revenue", shows. Several Jain temples and Buddhist monasteries existed there during this period and numerous records mentioning grants to these were discovered at the place. Another place, once flourishing but now deserted, was discovered on the tiger-haunted forests in the vicinity of the village Bilas. This forest is literally studded with old temples, sculptures and images. One of these was dedicated to twenty-four Jaina *Tirthankaras*, as the extant riches in the dilapidated temple show. Bhimagadh was another old flourishing fort, now altogether deserted. In two temples in the fort were discovered two inscriptions mentioning King Bhīma, who had founded the city and fort.

The discoveries made during the tour show that from about the beginning of the Christian era down to the advent of the Muslim power, the territories of the Kotah State were inhabited by cultured people, who lived harmoniously in spite of their following different religions and who had made a remarkable progress in sculpture, architecture and literature.

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The Date of Bhārata Battle.—A paper of considerable interest on the date of the Bhārata Battle, was read by Dr. P. C. Sen Gupta, at the ordinary monthly meeting of the Asiatic Society of Bengal, held on Monday, 1st June. The date of the battle is of importance for fixing the chronology of the *Vedas*, *Brāhmaṇas* and the *Upaniṣads*. The previous researches on the subject have all led to inconclusive results. According to tradition, the date of the event has been severally given as 3102 B.C. (Aryabhata), 2449 B.C. (Vṛddha Garga) and 1421 B.C. (the astronomical writers of the *Furāṇas*). Dr. Sen Gupta, from a critical study of the astronomical references in the *Mahābhārata* itself, comes to the conclusion that the date of the battle is 2449 B.C.

In the paper, Dr. Sen Gupta cites a system of consistent astronomical references from the *Mahābhārata* from which he attempts an approximate solution of the problem as one on conjunction of the moon with the sun and some fixed stars. He finds that the approximate position of the summer solstitial colure of the year of the Bhārata Battle passed through the star *Regulus*, whence the year comes out to be 2350 B.C.—a result which fairly agrees with the tradition ascribed to Vṛddha Garga that Yudhiṣṭhira became King in 2449 B.C. He then examines the year 2449 B.C. astronomically by a consideration of the mean motions of the sun and the moon and proves that the lunisolar phenomena of the *Mahābhārata* references did actually happen in 2449 B.C. He next calculates the apparent longitudes of the sun, the moon, and some stars

for some days of the year 2449 B.C. and shows conclusively that the fight began on the 14th October and lasted till the 31st of the same month and that Bhīṣma expired on the 20th December, one day after the sun had reached the winter solstice. So far as our knowledge goes these *Mahābhārata* references have not been used in any other previous researches. The author has supplemented his paper by citing some other *Mahābhārata* references showing that there was a time in the history of Hindu India, when the summer solstitial colure passed through the star *Regulus* and the vernal equinoctial year through the star group *Pleiades*, for which the mean date is 2350 B.C.

At the same meeting the following exhibits were shown and commented upon: (1) Chintaharan Chakravarti: *Newly Acquired Manuscripts on the Cult of Kubjikā*. (2) M. Hidayat Hosain: *A Persian Stenciled Wall-hanging Picture said to represent "Umar Khayyām"*. (3) Percy Brown: *A Metal Figurine of a Dancer*.

The following candidates were balloted for as Ordinary Members.—Mr. Jitendra Mohan Sen, M.Ed., B.Sc., F.R.G.S., F.N.I. (2) Khan Bahadur Alfazuddin Ahmad, M.A.

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Deutsche Akademie Scholarships.—The Indian Institute of the Deutsche Akademie has announced the award of seventeen new scholarships for the academic year 1936–37 to the following Indian graduate students who are to carry on higher studies in various German Universities:—*Medicine*: Miss Usha Haldar, M.B.B.S. (Delhi), and Mr. G. S. Guha, M.B. (Assam); *Mathematics*: Mr. Suprasanna Sengupta, M.Sc. (Rangoon); *Indology*: Mr. Aryendra Sharma, M.A. (Allahabad), and Mr. R. N. Dendekar, M.A. (Poona); *Chemistry*: Mr. N. K. Seshadri Iyengar, M.Sc. (Bangalore), Mr. Basudeb Banerjee, B.Sc. (Calcutta), Mr. N. K. Saha, M.Sc. (Allahabad), and Dr. A. K. Dutta, D.Sc. (Calcutta); *Engineering*: Mr. N. Anjaneyulu, B.Sc. (Benares), and Mr. Nand Lall Gulali, B.Sc. (Benares); *Archæology*: Mr. T. Balakrishnan Nayar, M.A. (Annamalainagar); *Veterinary Science*: Mr. P. C. Nag, G.B.V.C. (Sylhet); *Agriculture*: Mr. Panchanan Maheshwari, M.Sc., D.Sc. (Agra); *Mining*: Mr. B. S. Sanjeeva Reddi (Colarado, U. S. A.); *Fine Arts*: Miss Sheila Bannerjee (Calcutta); *Economics*: Mr. Bashesharnath Tandon, M.A. (Meerut).

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Radio Research Board for India.—At the invitation of Prof. S. K. Mitra, a number of distinguished scientists, including representatives of radio research workers from Australia and Canada, met at London to consider the question of forming a Radio Research Board for India. Prof. S. K. Mitra, who was in England to acquaint himself with the latest developments in Radio Research, in the course of his speech, emphasised the need for a co-ordinate organisation with adequate funds at its disposal for conducting radio investigation in India. Prof. Mitra said "There are men available for such work in the Universities, men who by their training are particularly gifted for such type of work. But without the co-operation of Government Departments, like the Air-Ministry, the

Meteorological and the Postal Departments, the Universities, where alone such work is now being carried on, cannot successfully conduct such investigations. The nature of the most helpful co-operation that is necessary is best exemplified by the *British Radio Research Board* which maintains a close touch between the various Government Departments and the Universities." Prof. E. V. Appleton, King's College, London, supported the need for a Board of the type envisaged by Prof. Mitra. Sir Frank E. Smith mentioned that various problems such as that associated with the field strength of received signals at different times of the day and at different seasons of the year with different wavelengths and with different transmitting aerials, are of a *local* nature, which can be solved by work in the country desiring the information. If the Research Board is founded in India, it will be of help, not only to India, but to the international Research work now being conducted in Great Britain and other countries. The British Radio Research Board will be glad to co-operate with any research organisation which might be established in India. Prof. A. S. Eve (Canada) and Prof. T. H. Laby (Australia) also emphasised the need for the formation of such a Board which will bring engineers and physicists together in solving both theoretical and practical problems.

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The Indian Anthropological Institute.—In response to a general desire among the leading anthropologists of India, a Central Anthropological Association has been formed with its headquarters in Calcutta under the name of the Indian Anthropological Institute. Dr. J. H. Hutton, D.Sc., C.I.E., I.C.S., is the President, and Dewan Bahadur L. K. Ananthakrishna Aiyar and Rai Bahadur Sarat Chandra Roy are the Vice-Presidents of the Institute. Mr. K. P. Chattopadhyaya is the Treasurer and Dr. B. S. Guha and Dr. Panchanan Mitra are the Secretary and the Joint Secretary of the Institute, respectively. The Institute proposes to hold periodical meetings and promote anthropological research in India on scientific lines and publish a half-yearly journal.

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The Central Jute Committee.—It has been decided to set up a Central Jute Committee under the Central Government of India. The function of the Committee will be to undertake agricultural, technological and economic research, the improvement of crop forecasting and statistics, the production, testing and distribution of improved seed, enquiries and recommendations relating to banking and transport facilities and transport routes and the improvement of marketing in the interests of the Jute Industry in India. The Committee will also be required to advise the Local Governments concerned on any points which may be referred to it, provided the subject-matter of the reference falls within the prescribed functions of the Committee.

The Secretary of the Committee will be appointed by the Governor-General in Council, and he will not be a member of the Committee. The Government of India have decided to finance the Committee for the time being by grants from the Central Revenues. The grants will not exceed

5 lakhs of rupees in a year and for the year 1936-37, a grant of Rs. 2½ lakhs has been made.

The Headquarters of the Committee will be Calcutta.

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Sir George Anderson has been permitted by the Government of India to relinquish his duties as Education Commissioner with the Government of India. Mr. Arthur Henderson McKenzie has been appointed to the post.

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Deterioration of Structures in Sea-Water (Fifteenth Report).—His Majesty's Stationery Office. Price 12s. 6d. Post Free 13s. The problem of protecting structures against deterioration in sea-water has been exhaustively studied by a Committee of the Institution of Civil Engineers for over fifteen years. During that time, observations have been made in several parts of the world on the action which sea-water has exerted upon a wide variety of structural materials. The present volume constitutes an authoritative general survey of the problem as a whole and of the results achieved in the work already undertaken. The four main sections of the Report are:—Preservation of Timber; Corrosion of Steel and Iron; Protection of Steel and Iron by means of Paint and other Preservatives; and Deterioration of Reinforced Concrete. The Report is accompanied by a large number of tables and plates.

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Yellow Fever.—The operation of direct air services from Central and East Africa to India has brought India within the reach of yellow fever. There has not been any case of yellow fever in India, but extreme precautions are essential particularly as the mosquito, *Stigomyia fasciata*, which is the transmitter of yellow fever virus, is common in most parts of India, particularly in the coastal tracts. The Government of India have taken up the matter for consideration and by a new Act, the air-port authorities at Karachi are empowered to take preventive measures similar to those which are taken by seaport authorities.

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Oil and Soap Research.—Important decisions were reached at the meeting of the Oils and Soaps Committee of the Industrial Research Council, held during the first week of this month. According to an *Associated Press* report the Committee first surveyed the work done on Oils and Soaps and also the equipment and staff in different laboratories. Future research necessary was then considered and a programme was agreed to. The items decided were distributed amongst the different laboratories. They include work on fatty oils, including examination of the character of oils pressed from different races of linseed and examination of the best method of preparing paint oils, boiled linseed oil and stand oil and also the study of development of rancidity in oil.

Regarding soap, problems considered were the selection of soap stocks mixtures of fats used for soap-making, cause and cure of certain defects, *viz.*, rancidity and sweating and the study of soap detergency, *viz.*, cleansing power.

In the field of essential oils, it was thought that a selection be made from among the numerous

essential oil plants known to grow in India. Some of the most important plants were selected for study, each to be examined in one or other of the laboratories represented.

One other important matter which the Committee decided was the utilisation of vegetable oils for lubricating purposes. Whether this would be practicable or not remains to be tested. Vegetable oil-producing industry in India is very large and besides extensive home consumption, India exported in 1934-35, Rs. 30 lakhs worth of vegetable non-essential oils.

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The Effects of Storing Cotton Bales in the Open and Inside a Shed at Karachi.—In his investigation into "The effects of storing cotton bales in the open and inside a shed at Karachi", Dr. N. Ahmad, Director of Indian Central Cotton Committee's Technological Laboratory, Matunga, reveals some interesting facts and figures.

With the increase in the cotton export trade at Karachi, there has been a corresponding increase in the number of cotton bales stored prior to shipment, a small percentage of which could only then be accommodated owing to the paucity of sheds: the remainder were exposed to the action of salt, ozone in the sea, air, sunshine and rain. The author selected the three important trade varieties, namely, Punjab-American, Punjab-Desi and Sind-Desi for his investigation and analysed the effect of this exposure and the consequent deterioration caused by bacteria and fungi on the cotton fibre by applying the method of analysis of variance. He found that the average deterioration in spinning quality over a period of 18 months was 13.6% for Punjab-Desi, 15.6% for Sind-Desi and 5.2% for Punjab-American. The rate of deterioration was different for different cottons.

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Quality of Sugar Manufacture in India.—A review of the quality of sugar manufactured by central sugar factories and refineries during the season 1935-36 has been published by Mr. R. O. Srivastava (*Indian Trade Journal*, Jan. 4, 1936, 1044). The quality is judged by two physical characteristics, colour and size of grain of sugar. About 25 per cent. of the factories in India produce one grade sugar only; but the most common practice is to produce two grades. The commonly manufactured qualities of crystal sugar in India at present are those having fine grain and medium or inferior colour. In the large grained sugars examined, the crystals were dull in appearance. As a rule the crystals showed mixed grain of varying sizes and irregular shapes; only a few samples showed well-defined edges. It may be remarked here that a feature of all samples of imported sugars was the uniformity in the size of grain combined with a good lustre.

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Study of Malaria Problems.—The League of Nations Malaria Course was inaugurated on Monday, April 27, at the King Edward VII College of Medicine, Singapore (see *Curr. Sci.*, 1936, 4, 542). The Hon'ble Mr. A. S. Small, Officer administering the Government, in welcoming the delegates said "In Singapore and Malaya, a great deal of work has been done in connection with malaria research and we in

Malaya are proud of the fact that, to a great extent, we have played a leading rôle in such of the work that has been done throughout the world. I understand that the problem of malaria control varies in different countries, but it seems to me that there must be certain guiding principles which are common to the problem in all the places and a course such as this where you are enabled to exchange your ideas, must tend, I think, to increase your experience and knowledge and help you to a favourable result in dealing with the problems that may face you in your country."

The programme of lectures include laboratory work at the College of Medicine with clinical examinations at the Government Hospitals supplemented by practical field demonstrations in and around Singapore Island. The candidates then proceed in groups either to the Federated Malay States or to Indo-China or to Netherlands Indies, for a three weeks' intensive study of the measures for the control of malaria and their different conditions.

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The London School of Economics and Political Science.—A special course on Colonial Administration, which is designed for persons interested in the problems of Colonial Administration, including those actually in contact with such problems, whether as administrators, educationalists or missionaries, will be given at the London School of Economics and Political Science, University of London. It includes seminars for discussion in addition to formal lecture courses in anthropological, administrative, legal and economic aspects of colonial administration and includes comparative studies of the principal colonial systems. The session covers the Lent and Summer terms—11th January to 25th June 1937—and represents a full-time programme of study. Applications for admission should be made to the Secretary of the School, Houghton Street, Aldwych, London, W.C. 2.

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Death occurred on 9th June of Dr. A. Moffat, former Professor of Physics, Madras Christian College. Dr. Moffat came to India in 1892 to join the staff of the College. He was a very popular professor and was a member of the Senate, Board of Studies and Syndicate of the Madras University. After retirement, he served the Union Christian College, Alwaye, in an honorary capacity. Until April last, Dr. and Mrs. Moffat were residing at Bangalore. Dr. Moffat went to England for medical treatment where he died.

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Statistical Abstract for British India, 1923-24 to 1932-33.—We have recently received from the Manager of Publications, Delhi, the statistical abstract covering 951 pages (price Rs. 5-2-0). The publication also includes statistics relating to certain Indian States. The topics dealt with are divided into :—Area and Population; Justice, Police and Prisons; Registration; Finance; Coinage and Currency; Banks; Municipalities, District and Local Boards; Education; Press; Co-operative Societies; Agriculture and Land Revenue; Forests; Port Trusts; Emigration; Pilgrims; Vital Statistics; Medico-Legal investigations; Mental Hospitals; Railways; Road

Communications; Foreign Trade; Coasting Trade; Ships Built and Registered; Joint Stock Companies; Life, Fire, Marine and Miscellaneous Insurance Companies; Post Offices; Telegraphs and Telephone; Meteorology; Irrigation Works; Prices of Staple Commodities; Industries; Fabrics; Trade Unions; Patents and Designs and Mineral Production. The publication is well indexed.

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ANNOUNCEMENT.

His Majesty, the King-Emperor, has been graciously pleased to grant permission to the Asiatic Society of Bengal to use the title "Royal" before its name.

The Society, therefore, will henceforth be known as the "*Royal Asiatic Society of Bengal*".

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Seventh International Congress of Genetics.—In accordance with the resolution of the International Committee elected by the Sixth International Congress of Genetics and with the resolution of the Government of the USSR, the Seventh International Congress of Genetics will take place in the USSR. It is planned to hold the sessions in Moscow in the second half of August, 1937.

The Organisation Committee of the Congress is as follows :—

President.—A. I. Muralov (President of the Lenin Academy of Agricultural Sciences of the USSR)—Moscow.

Vice-Presidents.—N. I. Vavilov (Vice-President of the Lenin Academy of Agricultural Sciences of USSR)—Leningrad; V. L. Komarov (Vice-President of the Academy of Sciences of the USSR)—Moscow.

General Secretary.—S. G. Levit—Moscow.

Titles and abstracts should be directed to the Organisation Committee and should be in their hands by February 15th, 1937.

The Organisation Committee will appreciate suggestions concerning the programme and other matters pertaining to the Congress.

For all questions in connection with the Congress write to :

ORGANISATION COMMITTEE of the Seventh International Congress of Genetics, Institute of Genetics, Academy of Sciences, Bolshaya Kaluzhskaya 75, Moscow, USSR.

Telegrams : MOSCOW GENETICA.

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It is announced that the Fifth Conference of the All-India Ophthalmological Society will be held in Lahore from the 20th to 22nd December, 1936, under the presidency of Lt.-Col. E. O'G. Kirwan, I.M.S. One Session of the Conference will be devoted to a discussion on the ocular disorders in diabetes.

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We acknowledge with thanks the receipt of the following :—

"Actualités Scientifiques et Industrielles," Nos. 134, 135, 137, 142, 150, 155, 158, 177, 222, 224, 234, 236, 249, 250, 253, 256-259, 261-263,

265-266, 270, 273-274; 278-280; 282-286; 288-294, 297-298, 302, 304-35, 307, 314, 318-319, 323.

"The Agricultural Gazette of New South Wales," Vol. XLVII, Pt. 5, May 1936.

"Journal of Agricultural Research," Vol. 52, Nos. 3 and 4.

"The Allahabad Farmer," Vol. X, No. 3, May 1936.

"Journal of the Royal Society of Arts," Vol. LXXXIV, Nos. 4353-4356.

"Biochemical Journal," Vol. 30, No. 4, April 1936.

"Journal of the Indian Botanical Society," Vol. 15, No. 3, June 1936.

"Journal of the Institute of Brewing," Vol. XLII (XXXIII), No. 5, May 1936.

"Chemical Age," Vol. XXXIV, Nos. 878-881.

"Journal of Chemical Physics," Vol. 4, No. 5, May 1936.

"Journal of the Indian Chemical Society," Vol. 13, No. 3, March 1936.

"Berichte der Deutschen Chemischen Gesellschaft," Vol. 69, No. 3.

"Journal de Chemie Physique," Vol. 33, No. 5.

"Transactions of the Faraday Society," Vol. XXXII, No. 5, May 1936.

"Indian Forester," Vol. LXII, Nos. 5-6, May-June 1936.

"Indian Forest Records," Vol. II, Part I.—'Silviculture: A Glossary of Technical terms for use in Indian Forestry'.

"Forschungen und Fortschritte," Vol. 12, Nos. 13-15.

Government of India Publications:—Miscellaneous Bulletin No. 6. (Imperial Council of Agricultural Research)—"Bee-Keeping," by C. C. Ghosh, III Revised Edition.

"Indian Trade Journal," Vol. CXXI, Nos. 1560-62.

"Scientific Reports of the Imperial Institute of Agricultural Research, Pusa (including the Reports of the Imperial Dairy Expert, Physiological Chemist and Sugarcane Expert), 1933-34."

"Annual Report of the Imperial Council of Agricultural Research for the year 1934-35."

"Quarterly Bulletin of the Health Organisation, League of Nations," Vol. V, No. 1, March 1936.

"Communications from the Kamerlingh Onnes Laboratory of the University of Leiden" Nos. 235-238 and Suppl. No. 77, to Nos. 229-240.

"Technological Bulletin" Series A, No. 30, March 1936 (Indian Central Cotton Committee). 'The Effect of Storing Cotton Bales in the Open and Inside A Shed in Karachi,' by Nazir Ahmed.

"Scripta Mathematica," Vol. IV, No. 1, January 1936.

"The Calcutta Medical Journal," Vol. 30, No. 11, May 1936.

"Medico-Surgical Suggestions," Vol. 5, No. 5, May 1936.

"Dominion of Canada—18th Annual Report of the National Research Council containing the Report of the President and Financial Statement, 1934-35."

International Institute of Agriculture." Rome —"Monthly Bulletin of Agricultural Science and Practice," Vol. 27, No. 4, April 1936.

"Proceedings of the Association of Economic Biologists, Coimbatore," Vol. III, 1935.

"Proceedings of the National Academy of Sciences, India," Vol. VI, Pt. II, May 1936.

"Review of Applied Mycology," Vol. 15, No. 4, April 1936.

"Journal of the American Museum of Natural History," Vol. 37, No. 5, May 1936.

"Journal of the Bombay Natural History," Vol. 38, No. 3, and Index to Vol. 38, Nos. 1 and 2.

"Nature," Vol. 137, Nos. 3469-3472.

"Journal of Nutrition," Vol. 11, No. 4.

"Journal of Research, National Bureau of Standards," Vol. 16, No. 1, Jan 1936.

"Ceylon Journal of Science," Section D, Vol. IV, No. 1.

"Science and Culture," Vol. I, No. 13, June 1936.

"Arkiv fur Zoologie," Vol. 28, No. 2.

CATALOGUES.

Universum Book Export Co., 1936, Catalogue II.

Hilger Publication No. 244 (Messrs. Adam Hilger Ltd.).

Everest Expedition.

MOUNT Everest, the world's highest peak, has once more defied man's attempt to climb its summit. The early advent of the monsoon and the heavy fall of snow rendered all heroic efforts unsuccessful and a retreat of the adventurous expedition has been officially announced, but

this unsuccessful attempt has yielded much valuable information. The party under the leadership of Mr. Ruttledge have discovered a new point of attack which would be of great value on a future occasion.