

Science Notes.

Two Charophytes from Kolhapur (S. M. C.).—Mr. S. A. Parandekar, Rajaram College, Kolhapur, writes:—Among the flora of Kolhapur two species of Chara have been recently observed and identified as *Chara brachypus* A. Br. and *Chara corallina* with the help of the key published by Allen (Charophyte Notes from Gonda, U.P., *J. Bombay Nat. Hist. Soc.*, 30, 589). The Charophytes from Kolhapur have not been so far recorded and studied, although about twenty species have been reported from Deccan. The report of the occurrence of the two charophytes might therefore prove of interest.

Chara brachypus A. Br. has been already reported from Bombay (Salsette island) by Dixit (*J. Ind. Bot. Soc.*, 19, 205) and by Allen from Gonda, U.P.

Chara corallina (which is not so abundant here as the other species) has been also recorded from Gonda by Allen, but not by Dixit from Bombay.

I am thankful to Mr. G. O. Allen, and Prof. S. C. Dixit, who have worked on Indian Charophyta, for informing me that Charophytes from Kolhapur have not been so far reported.

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Awards of Silver Jubilee Medals.—We have great pleasure in felicitating scientists of India who have been decorated with Silver Jubilee Medals on the occasion of the recent Jubilee Celebration of H. M. the King-Emperor. The list given below is, however, incomplete.

Dr. P. K. Acharya, M.A., Ph.D., D.Litt.; S. P. Agharkar, Esq., M.A., Ph.D., F.L.S.; Rai Sahib Arthaballah Mahant; S. N. Bal, Esq., M.Sc., Ph.D.; Dr. Bains Prashad, D.Sc., F.R.S.E., F.L.S., etc.; D. V. Bal, Esq., L.A.G. (Hons.), A.I.C., F.C.S.; A. C. Banerji, Esq., M.A. (Cantab.), M.Sc.; S. B. Belekhar, Esq., M.Sc.; D. Bhattacharji, Esq.; C. C. Calder, Esq., B.Sc., B.Sc. (Agric.), F.L.S.; H. Crookshank, Esq., B.A., B.A.I. (Dub.); J. F. Dastur, Esq., M.Sc., I.A.S.; M. L. De, Esq., M.A., I.E.S.; Deoras, Esq., M.Sc.; Dr. H. B. Dunningcliff, M.A., D.Sc., F.I.C.; Sir L. L. Fermor, O.B.E., A.R.S.M., D.Sc., F.R.S., etc.; Dr. C. S. Fox, D.Sc. (Birm.), M.I.Min.E., F.G.S., etc.; Babu S. K. Ganguli; Rao Sahib S. N. Godbole, M.Sc.; Dr. F. H. Gravely, D.Sc.; Dr. A. M. Heron, D.Sc. (Edin.), F.G.S., F.R.G.S., etc.; Dr. S. L. Hora, D.Sc., F.R.S.E., etc.; Jamaluddin, Esq.; Gurudatta Karwal, Esq.; R. P. Khosla, Esq.; Dr. K. Krishnamurthi, D.Sc.; D. N. Mehta, Esq., B.A. (Oxon.); Dr. E. P. Metcalfe, D.Sc., F.Inst.P.; M. A. Moghe, Esq., M.Sc.; Dr. A. L. Narayan, D.Sc., F.Inst.P.; Dr. B. K. Narayana Rao, B.A., M.B.C.M., M.R.C.S., D.P.H., D.O.; M. Owen, Esq., M.Sc., F.I.P., I.E.S.; G. R. Paranjpe, Esq.; M. W. Sayer, Esq., B.A., Dip. Agri. (Cantab.); D. R. Sethi, Esq., M.A., F.Sc.; Dr. F. J. F. Shaw, D.Sc. (Lond.), A.R.C.S., F.L.S.; Dr. B. K. Singh, M.A. (Cantab.), D.Sc., F.I.C.; Rao Bahadur B. Viswanath, F.I.C.; D. N. Wadia, Esq., M.A., B.Sc., F.G.S., etc.; Dr. T. S. Wheeler, Ph.D., F.I.C., F.Inst.P., M. I.Chem.E.

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Origin, Scope and the Present Position of Potato Research at the Agricultural Research Station, Nanjanad.—The potato was introduced into the Nilgiris in the beginning of the nineteenth century. As the climate was quite suitable for its cultivation, it gradually extended and the local ryots

(Badagas) finding the crop most remunerative took to its cultivation readily.

The crop now occupies nearly 11,000 acres. The potato is a very delicate crop and the ryots out of ignorance handled the crop carelessly and consequently deterioration set in rapidly.

As the crop is of very appreciable economic importance in the Nilgiris where it forms the main crop raised by the indigenous hill population and as its cultivation was threatened to extinction, the Government of Madras opened a Station in 1917 for the improvement of potatoes and supply of good seeds to the potato growers on the Nilgiris.

The Station is situated in the Nanjanad village and is 10½ miles from Ootacamund on the Governor Shola Road. The soil in the Station is a poor clayey loam and is typical of that to be found on the Nilgiris. It is all dry land. The Station is exposed to the South-West monsoon, the violent winds of which usually damage the potato haulms. The area of the Station is 161 acres and that under cultivation is nearly 45 acres.

The chief crop is potato, but koral and samai are grown in rotation and lupin, a leguminous crop, is grown as a green manure crop. Two crops of potatoes are grown annually the first being planted in March-April and harvested in August-September and the second sown in August-September and harvested in December-January. The bulk of the area is planted to first or main crop in the month of March-April.

Up to 1933, the work on potatoes was carried on in a restricted scale and was confined to the testing of improved varieties of potatoes, method of cultivation and manuring for the purpose.

The Government of Madras approached the Imperial Council of Agricultural Research for a grant for expansion of research work on potatoes chiefly with the object of breeding new varieties. The Imperial Council of Agricultural Research accepted the scheme and sanctioned a grant of Rs. 19,995 spread over a period of 5 years for research work on potatoes.

The work commenced from June 1933. A detailed study of the Botanical characters of all the varieties grown at this Station was made and a list of varieties that produce and retain flowers and those that bear visible pollen have been worked out.

Inter-varietal crosses have been carried out successfully and as many as 7 crosses have been obtained. The seedlings have been raised and are awaiting further study and selection of suitable types for cultivation. It is hoped that some of them may prove better than the existing varieties and a few may be fit for cultivation in the plains as well.

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Combining of Good Quality Indian Cottons.—The Publicity Officer, Indian Central Cotton Committee, writes:—There is enough evidence to show that the present-day tendency in the cotton textile industry lies in the increased production of yarns of finer counts. This can be achieved either by using superior quality cottons or by subjecting cotton of a given quality to some such mechanical treatment as will appreciably raise its spinning performance.

Among the latter the most effective method now available is that known as combing. This method consists essentially in the extraction by the combing machine, of a known percentage of the relatively short fibres which are to be found to a greater or less extent in all cottons. The combing process besides serves to parallelise the fibres which results in a greater regularity and higher strength of the yarns. It also serves to reduce such undesirable features as neps from a cotton.

Hitherto the combing process has been almost exclusively restricted to the long staple non-Indian cottons. This restriction is presumably based on the assumption that combing, with its consequent rejection of a large percentage (generally from 15 to 25 per cent.) of the fibres, is economically suitable for such cottons only. In order to examine the limiting performance, as a result of combing, of Indian cottons and to test, among other things, the validity of this assumption, a series of experiments were carried out at the Indian Central Cotton Committee's Technological Laboratory, Bombay. Four Indian cottons of good quality were selected for these experiments. Each cotton was combed to the extent of 20 per cent. and 30 per cent. and spun into appropriate counts of yarn on a ring frame using the ordinary and a high draft system of spinning. The comber wastes extracted from these cottons were respectively mixed with four Indian cottons of suitably low quality, and the mixtures were spun into carded yarns of appropriate counts.

These tests form the subject of a Technological Bulletin (Series A, No. 27) of the Indian Central Cotton Committee. The bulletin comprises five sections and a comprehensive appendix and contains such items of practical interest as a description of the cottons and the machinery used in these tests and full details of treatment accorded to each sample. The results obtained are suitably tabulated and include particulars of fibre-properties, yarn test results, waste percentages, yarn breakages during spinning, and the strength, evenness and neppiness of the yarns spun from the various samples.

The joint authors, Mr. R. P. Richardson, F.T.I., and Dr. Nazir Ahmad, M.Sc., Ph.D., F.Inst.P., discuss the implications of the various results at some length and they offer the chief conclusions drawn from them in the form of a summary.

The work embodied in this bulletin is a valuable contribution to the subject of cotton combing and in its 31 pages will be found much data, of a specific character, which will be of great value to the practical spinner. The bulletin is available to the public at a nominal cost of Re. 1.

The Mysore Veterinary Medical Association, Bangalore.—The seventh annual conference of the Association was held on 22nd, 23rd and 24th June 1935. Sir K. P. Puttanna Chetty in opening the Conference eulogised the part played by the Veterinarian in the rural economy of the country and stressed on the point that control over the supply of wholesome milk and meat should be handed over to the Veterinary authorities. He hoped that every taluk in the State would soon be provided with a Veterinary dispensary. In referring to Veterinary Research he pointed out the importance of co-operation between the Medical Department and the Veteri-

nary Department as both the Sciences were inter-dependent in matters of experiments on animals and their applicability to human beings. He also referred to the progress shown in the production and preparation of sera and vaccines at the Mysore Serum Institute, which are largely and effectively used both in and outside the State.

Mr. K. Krishnaiengar, Superintendent, Mysore Civil Veterinary Department, welcoming the delegates to the Conference pointed out that the members of the Veterinary profession in Mysore had succeeded in reducing the incidence of cattle disease to the lowest possible minimum by promptly adopting measures of control. He impressed on the members the need for further educating the private owners as well as the public bodies in the hygienic maintenance of live-stock. He further observed that no one was better qualified than the Veterinarian to be in charge of Inspection of milk and meat which are two of the most important foods of human beings. He deplored the apathy of the local bodies on this question as they do not seem to have yet realised the importance of such work.

Major R. W. Simpson in his inaugural address hoped that before long the Veterinary Department would be made an independent unit. Apart from his capacity to treat the sick animals and prevent the spread of contagious diseases the Veterinarian is well qualified to inspect animal food products, to certify for their wholesomeness and purity and thus prevent diseased meat and milk being sold. The Veterinary Surgeon in western countries plays an important rôle in matters relating to public health. He also referred to the live-stock trade which is one of the chief trades in Mysore amounting to a crore of rupees every year and made mention of the good work that is being turned out in the Cattle Breeding Station at Ajjampur, in the matter of improvement of live-stock. He next referred to Poultry Farming and congratulated the Government of Mysore on sanctioning funds for the purpose at Dodballapur and suggested that the breeding of poultry should be taken up in right earnest as it is indeed a profitable and useful concern.

Two resolutions were passed, one for the supply by the Government, of good breeding bulls and buffaloes to village panchayats to improve the breed of the cattle in those parts and the other for awarding a gold medal every year to the member who is adjudged to have done original scientific work.

On the second day twelve papers were read—Important among which were (1) "Local Anæsthesia with Planocaine", (2) "Variola in domestic animals, with special reference to Sheep-pox" and (3) "The Veterinarian's rôle in public health".

The members of the Association visited the Mysore Serum Institute on the 3rd day of the sessions where lectures and demonstrations were held on "The recent advances in the preparation of biological products" and "Epidural Anæsthesia" in animals. In the afternoon the representatives of the General Electric Company demonstrated the uses of the portable "X-Ray" set in animal practice.

The session came to a close after the departmental conference at which important matters

pertaining to the working of the Civil Veterinary Department in Mysore, were discussed.

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Lady Tata Memorial Trust.—The Trustees of the Lady Tata Memorial Trust have announced the following Indian Scholarships for the year 1935-36, each of the value of Rs. 150 per month, for scientific investigations having a bearing on the alleviation of human suffering, on the occasion of the fourth anniversary of the death of Lady Tata.

(1) Mr. N. C. Datta, M.Sc., to study the rôle of nutrition and the effect on the body, of mineral contamination of foodstuffs during cooking and storage. (2) Mr. K. N. Gaind, M.Sc., to synthesise new compounds possessing local anæsthetic properties. (3) Mr. M. C. Nath, M.Sc., to carry out chemical and biological analyses of proteins of Indian foodstuffs. (4) Mr. Y. V. Sreenivasa Rao, M.Sc., A.I.I.Sc., to study the proteins of Indian foodstuffs, chemical and biological analyses (at Halle, Germany). (5) Mr. R. Chakraborty, M.Sc., to investigate nutritional problems of Indian foodstuffs with special reference to Vitamin C. (6) Mr. N. B. Das, B.Sc., for work on the Oxytocic hormone and on oxidation-reduction systems in the body (at Stockholm). (7) Mr. T. N. Ghosh, M.Sc., A.I.I.Sc., for research on the preparation of new anti-malarials. (8) Mr. H. S. Mahal, M.Sc., to work on the anthelmintics, synthesis of substances and examination of Indian plants having anthelmintic properties. (9) Dr. B. K. Nandi, M.Sc., Ph.D., A.I.C., to work on the synthesis of anti-malarials on the line of plasmochin and atebirin types (at Oxford). (10) Mr. H. B. Sreerangachar, M.Sc., A.I.I.Sc., to investigate the growth-promoting and anti-anæmic properties of liver.

The trustees have also made eight international awards for research in diseases of the blood with special reference to leucæmias.

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Pramatha Nath Bose Memorial Medal.—The Council of the Asiatic Society of Bengal has adopted the following regulations regarding the award of the medal:—(1) The Medal shall be awarded every three years at the Ordinary Annual Meeting of the Asiatic Society of Bengal in February. (2) The Medal shall be bestowed on a person, who, in the opinion of the Council, has made conspicuously important contributions to practical or theoretical Geology with special reference to Asia. (3) The General Secretary shall, at a meeting of the Council preceding the Ordinary Meeting in November, place before the meeting the names of at least three Geological experts and three members of the Society for consideration. The Council shall then proceed to appoint an Advisory Board of not less than three members selected from the list placed before them provided that the Council, for special reasons, shall be entitled to select persons outside the list. The Advisory Board shall always include two Geological experts and the General Secretary shall be an *ex-officio* member of the Board. (4) The Advisory Board shall be termed "The Pramatha Nath Bose Memorial Medal Advisory Board." The Board shall appoint a Chairman from amongst its members who shall have a casting vote (in addition to his own vote) in the event of the number of votes being equally divided. (5) The General Secre-

tary shall call a meeting of the Advisory Board on the first convenient date subsequent to the first Monday of December, at the same time requesting members to bring with them to the meeting a detailed statement of the work or attainments of such candidates as they may wish to propose. The General Secretary shall also place before the Board for consideration detailed statements of the work or attainments of any other candidate submitted by any Fellow of the Society. The Board shall make such arrangements as may be necessary for the selection of a name to be submitted to the Council at their December meeting. (6) Notwithstanding anything determined in these Regulations, it shall be within the competence of the Board to abstain from the selection of any name to be submitted for the year and to report accordingly to the Council, in which case, provided the Council concurs, the award for the year shall lapse and shall be postponed to the next following year to be determined in the manner prescribed in the above rules, and, if necessary, deferred again year by year, until an award be made, the period mentioned in Rule 1 in such case to be reckoned from the date of the award.

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The University of Madras has conferred the degree of Doctor of Science (D.Sc.) on (1) Mr. A. V. Varadaraja Iyengar, M.Sc., (2) Mr. P. P. Pillai, M.Sc., (3) Mr. C. Sambasiva Rao, M.Sc., and (4) Mr. C. P. Gnanamuthu, M.A. Mr. V. Krishnan, M.A., has received the degree of Doctor of Philosophy (Ph.D.).

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Two Inscriptions from Barakar.—At the ordinary meeting of the Asiatic Society of Bengal, held on the 1st July, Dr. S. N. Chakravarty read a paper on the two inscriptions which are found on the "right door-jamb of the Ganesha temple in the Begunia group of four temples at Barakar in the Burdwan District". He discussed the previous literature referring to the date of the inscriptions and believes that on palæographical grounds, Saka 1468 or 1498 should be preferred. The Palæographical evidence was discussed at length and the transcription and translation of the inscription were also given.

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It has been proposed to present Rajasevasaktha Rao Bahadur S. Krishnaswamy Iyengar, M.A., Ph.D., F.A.S.B., formerly Professor of Indian History and Archeology, University of Madras, with a commemoration volume of papers contributed by scholars both in India and abroad, engaged in the field of Indian Historical and Archeological learning and research, on the occasion of his sixty-fifth birthday (15th April 1936). An appeal signed by S. Radhakrishnan, Dr. Surendranath Sen, Dr. P. K. Acharya, Dr. Radha Kumud Mukherjee and a number of others has been issued, calling for donations towards the cost of printing the volume. All communications may be addressed to Mr. C. S. Srinivasa-chari, M.A., Professor of History, Annamalai University, Annamalai-nagar, or to Professor V. Rangacharya, M.A., L.T., "Sri Rangadaman," Lloyds Lane, Royapettah, Madras.

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Rao Bahadur K. V. Rangaswamy Iyengar has been appointed Principal of the College of the Benares Hindu University.

Rt. Hon'ble V. S. Sreenivasa Sastri has been appointed Vice-Chancellor of the Annamalai University.

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Rao Bahadur T. S. Venkataraman will represent India at the World Sugar Conference to be held at Brisbane, Queensland, in the last week of August.

It is understood that Dr. (Miss) E. K. Janaki Ammal will attend the Botanical Conference to be held at about the same time in Cambridge.

Dr. Issac, Second Imperial Entomologist, Pusa, will attend the Imperial Entomological Conference in London, after which he will visit the United States, Porto Rico and Hawaii Islands with a view to study the methods of Pest Control in regard to Sugarcane. The problem has acquired importance and urgency in view of the fact that considerable damage is being caused to sugarcane in United Provinces, due to insect pests.

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Sir S. Radhakrishnan left India for Geneva to attend the forthcoming meeting of the International Committee of Intellectual Co-operation on 15th July. The meeting is expected to last for a week. Sir S. Radhakrishnan will visit Oxford, and is expected to return to India in August.

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It is understood that Dr. C. P. Turner, Ph.D., Chairman of the Institute of Technology, Cambridge, Mass. (U.S.A.) has been appointed by the Calcutta University to deliver a course of six lectures on the following subjects relating to "Organisation of Health Education":—underlying principles in health education; construction of curriculum in health education; and school practices of health education.

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Principal P. Seshadri, Rao Bahadur Thakur Chain Singh, Educational Minister, Jodhpur State, Principal A. A. C. Harvey and Principal F. G. Pearce, will constitute the delegation to the World Conference on Education. The Conference will be held at Oxford from August 10th to 17th and Principal P. Seshadri will lead the delegation.

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Professor Brauner, prominent Czechoslovakian chemist, died in February at the age of 80. He was well known for his researches on the periodic system of elements. He was a pupil of Bunsen and Rowe, and by collaborating with Ramsay, Richards, Baxter, Dixon and Mendeleeff, he became a prominent figure in inorganic and analytical chemistry. It was due to him that oxygen was adopted as the basic element in calculating atomic weights. His researches were mainly confined to the rare elements and as a result of his work, beryllium was placed in the second group of the periodic table.

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According to an *Associated Press* message the Government of Travancore are contemplating the starting of a factory for refining china clay and manufacturing porcelain at Kundara, near Quilon. The deposits of china clay at Kumbalom have been found to be of the standard quality. The deposits cover an area of over 30 square

miles. It is reported that cheap skilled labour is also available.

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From a report appearing in the *Hindu*, it is understood that proposals are submitted to the Government of Travancore for establishing a separate Fisheries Department instead of its being attached to the Agricultural Department as at present. Canning and cold storage are to be introduced; it is suggested that deep sea fishing should be started and the fish canning should be improved on scientific lines.

The Department now maintains four fishery schools where fisher boys and girls are given elementary schooling and the special fishery school at Karungapalli is making steady progress. Improvement and expansion of the schools, and the establishment of a library, museum and laboratory are also under contemplation.

The State has a fishing population of one and a half lakhs. 95 per cent. of the population eat fish and the foreign trade in fish amounts to 40 lakhs, and a maritime state like Travancore affords an almost untapped source of wealth in fisheries.

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Manurial Research in Travancore.—Among the important manurial experiments which are in progress in the State, mention may be made of (1) the effect of phosphatic, nitrogenous and general manures on paddy cultivation in South Travancore. Superphosphates have given the highest yield; (2) comparison of the values of artificial manures and green manures on paddy; and (3) improvement of alkali soils by the application of special green manures.

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The research work done in India on sugarcane both in its agricultural and manufacturing side since 1932, was reviewed at a recent meeting of the Sugar Committee of the Imperial Council of Agricultural Research. The review shows that the progress made has not kept pace with anticipations and that if the present rate was not accelerated India would not be able to stand on her own legs within the period of protection. The paucity of funds for sugar research and the fact that the Central Research Institute had not been started early enough are the two causes responsible for the slow progress.

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The Terminology of Illumination and Vision. H. M. Stationery Office. Price 6d. net.—This paper, of which an up-to-date revised edition is now issued, contains definitions and clear explanations of all the common physical, physiological and ophthalmic terms used in the study of the problems of illumination, the understanding of which is essential to all who wish to follow the rapid progress now being made in their solution.

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Research in Tuberculosis.—It is understood that the Italian Fascist National Federation against Tuberculosis has placed six scholarships at the disposal of the International Union against Tuberculosis of Paris at "Carlo Forlaniani" Institute in Rome for the session from November 15, 1935 to July 15, 1936.

These scholarships are intended for foreign medical practitioners who are already familiar

with tuberculosis problems, and who wish to improve their knowledge in this branch of medicine.

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Occupational Diseases.—Certain occupational diseases, e.g., silicosis, arsenic poisoning, pathological manifestation due to radium and other radioactive substances, epitheliomatous cancer of the skin, will, it is understood, be added to the list of diseases now coming under the convention regarding workmen's compensation for occupational diseases. The most important of these is silicosis, which is associated in other countries with gold mining and with many common industrial processes of which sand-blasting, manufacture of china glass and pottery and stone cutting are examples. Silicosis cannot ordinarily be diagnosed definitely except by well-equipped radiological apparatus, and the Government of India according to an *Associated Press* message have started enquiries regarding the availability of facilities for such tests in the various industrial areas.

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Sir Asutosh Mukherjee Memorial Institute.—The Minister of Education, Bengal, performed the opening ceremony of the Memorial Building on June 29th. The building will not only house the Institute but the Asutosh College founded by him at the beginning of the present century. "It would be a meeting place for people of all nationalities, united by a permanent bond of fellowship based on honourable understanding and determination to advance the best interests of the province and the country."

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Royal Institute of Science, Bombay.—Prof. R. H. Dastur, Head of the Botany Department, has gone on deputation as Plant Physiologist under the Indian Central Cotton Committee, Lyallpur (Punjab).

Mr. G. V. Jadhav of the Chemistry Department has sailed for higher studies in the University of Manchester as one of the Sir Mangaldas Nathubhai Scholars of the Bombay University.

As a result of Scientific Exhibition organised by the Institute in December last in aid of Bombay Hospitals a net sum of Rs. 17,500 has been made over to the Hospitals Fund Committee.

The staff and students of the Institute have collected about Rs. 250 in aid of the Quetta Earthquake Relief Fund.

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The aluminium globe in which Professor Piccard and M. Max Cosyns made their second ascent into the stratosphere three years ago was presented to the South Kensington Museum, London. The actual presentation was performed by M. Jean Willems, who was accompanied by the two scientists.

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Sir E. Shackleton's famous ship, the "*Quest*" will leave shortly for the Arctic carrying an expedition which will explore the area of latitude 70° for geographical purposes. The expedition will be led by Mr. F. L. Wager, who will be accompanied by his wife. The second in command is Mr. Court Aulo, who, four years ago, spent the whole of one winter alone in a remote part of Greenland, snowed up in a small hut.

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Microvivarium.—The microvivarium which, according to Dr. Frank Thore, is the "biological analogue of the Planetarium," is a highly useful

instrument for clear and effective instruction in biology and therefore constitutes an indispensable complement to laboratories, museums or botanical and zoological gardens. In a paper appearing in the *Educational Screen*, April 1935, Dr. Georg Roemmert has given an account of this device. The microvivarium exhibit attracted a great deal of attention at the Century of Progress. "In the microvivarium the micro-projection method has been used on a large scale for the first time. This method shows essentially the same things as we otherwise perceive in a microscope. The image is produced from the object itself, by the objective of the microscope with all its colours and movements. The difference is simply that in micro-projection the picture, in huge magnification, appears on a screen, and consequently observation on a microscope is rendered superfluous. The great advantage of this method for popular presentations is that explanations can be given once only for all observers and there is no necessity for unpractised layman to manipulate the microscope. Moreover, objective demonstration in the enormously magnified field of vision, over one yard in diameter, leaves behind an unforgettable impression."

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According to a Calcutta message three earthquake shocks, one of considerable intensity were felt at Siliguri, Bengal, on Thursday, the 4th July. No loss of life or damage to property has been reported. Shocks were also felt at Kalipong and Jalpaiguri in the Dinajpur District.

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The second meeting of the Imperial Sericultural Committee will be held at New Delhi on Wednesday, October 30, 1935. The meeting will consider the progress of the schemes, which have been initiated recently with the aid of the grant given by the Government of India for the purpose and will advise on the allotment of funds available for 1936-37. The schemes started in Bengal, Assam, Madras, Bihar and Orissa and Burma are designed mainly to increase the production of disease-free seed. There are also schemes for investigation of questions connected with silk-worm disease.

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Announcement :—

Fifth Congress of the International Society of Sugarcane Technologists (Brisbane, Australia, August, 1935).—The International Society of Sugarcane Technologists is to meet at Brisbane in Australia on the 27th August, 1935. This Society, which generally meets once in three years and alternately in the Eastern and Western hemispheres, has already held four sessions, viz., in Hawaii, Cuba, Java and Puerto Rico. The one at Brisbane is to be the Fifth Congress of this body.

Visits to experiment stations and excursions to factories and sugar plantations have been important adjuncts to the meetings of the Congress. While the actual sessions at Brisbane are to last about a week from 27th August, excursions are to occupy a fortnight after the meeting. We learn that leaders of the Sugar Industry in Australia are to deliver addresses at Brisbane so as to give the delegates to the Congress a true perspective of the special conditions obtaining in the Australian Sugar Industry.

One special feature of the industry in Australia is the employment of White labour alone.

The Congress is to consist of eight different sections representing the various aspects of the Sugar Industry. In the manufacturing section a special feature will be "Sugar boiling with particular reference to the refining quality of raw sugar". Plot technique is to receive attention on the agricultural side; and we learn there is to be a symposium on the very important subject of selection of useful types in sugarcane breeding. Australia is said to be a land of diseases and the Pathological section—including virus diseases and quarantine—is expected to be particularly instructive. Testing of new varieties for disease resistance and control of diseases by cultural operations are two of the rather attractive items in the programme of the Congress.

The Australian Government and the Sugar Industry are doing their best to render a visit to the Congress both comfortable and instructive. In India there are as many as 28 members of this Society representing the various lines of Sugar Research in the country and the Industry in all its aspects. About half a dozen delegates from India are expected to attend the Brisbane Congress.

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We acknowledge with thanks the receipt of the following:—

"Journal of Agricultural Research," Vol. 50, Nos. 4 and 5.

"Journal of Agriculture and Live-stock in India," Vol. 5, No. 2.

"The Journal of the Royal Society of Arts," Vol. LXXIII, Nos. 4305-08.

"Biochemical Journal," Vol. 29, No. 5, May 1935.

"American Journal of Botany," Vol. 22, No. 5, May 1935.

"The Journal of the Institute of Brewing," Vol. XLI (Vol. XXXII, New Series), No. 6, June 1935.

"Canadian Journal of Research", Vol. 12, No. 5, May 1935.

"Chemical Age," Vol. 32, Nos. 830-833.

"Berichte der Deutschen Chemischen Gesellschaft," Vol. 68, No. 6,

"Ceylon Journal of Science,"—

Section A, Vol. XII, Part 1.

„ B, Vol. XIX, Part 1.

„ C, Vol. V, . . .

„ D, Vol. III, Part 3.

„ E, Vol. I, Part 3.

„ G, Vol. II, Part 3.

"The Journal of the Indian Chemical Society," Vol. 12, No. 4, April 1935.

"Experimental Station Record," Vol. 72, No. 5, May 1935.

"Journal of Entomology and Zoology," Vol. 27, No. 1.

"Indian Forester," Vol. LXI, Nos. 6 and 7.

"Forschungen und Fortschritte," Vol. 11, Nos. 15-18.

"Indian Forest Records," Vol. 20, Pt. 15.

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