SCIENCE NOTES AND NEWS

House-freqenting Flies.—Fly reduction is a question of efficient sanitation; sanitation is no less a question of efficient fly control. This fact of intimate inter-relationship between the fly and sanitation in a town or village has been lucidly described in the Health Bulletin No. 31 (*"The House-frequenting Flies, Their Relation to Disease and Their Control"*, by I. M. Puri, M.Sc., Ph.D.). As the author has, however, pointed out more than once, the amazing fact about this relationship is its failure to impress sufficiently the greater portion of the public, of its importance, to human welfare. The author is of the opinion that the public—literate as well as illiterate—need to be rigorously educated and constantly reminded about the basic facts of human diseases like typhoid, cholera, tuberculosis and infantile diarrhœa, etc., and the close relationship of the fly to these diseases.

By far the most prevalent house-frequenting fly is the common fly belonging to the genus Musca, having a number of different species in various parts of India. From the public health point of view, some eight species of Musca, four species of Lucilia, three of Calliphora, three of Chrysomia and two of Sarcophaga, are of considerable importance to India. The author of this Bulletin has done a service to the cause of sanitation in India by providing very simple keys for the identification of the different species of flies under each genus. The author has also dealt with the question of control of flies in a rather exhaustive manner, under different heads, namely, Prevention of Egg-Laying; Chemical Control of Fly-breeding; Biological Control of Fly-breeding; Control of Fly-breeding in Trenched Night-soil; and Measures against Adult Flies, involving screening, baiting, trapping and spray-killing.

Jute Substitute in Cuba.—It is understood that an experiment is being made in Cuba under Government backing to determine the commercial possibilities of *Malva blanca*, a plant which grows wild in Cuba and Venezuela. The fibre from this plant, it is claimed, is a good substitute for jute and can be made into bags for sugar, rice and coffee at a cost not greater than those made from jute. It is said that arrangements have been completed for the erection of a factory in Cuba for converting the *Malva* fibre into bags. This factory is expected to be ready by April next and will have an annual capacity of 6,000,000 bags.

Jute as Substitute for Wool.—In the Technological Research Laboratories of the Indian Central Jute Committee some knitted fabrics from jute ply-yarns were prepared and experiments are in progress to see if softening treatments can be found to make the material suitable to replace wool for such purposes as knitted jerseys, scarfs, etc.

Principles of Stellar Dynamics. By Prof. S. Chandrasekhar.—This book represents one of the most important recent additions to astronomical literature. The titles of the five chapters are: Kinematics; The Time of Relaxation of a Stellar System; Galactic Dynamics; The Dynamics of Differential Motion; General Dynamics of Stellar Systems; Spiral Structure; and The Dynamics of Star Clusters. Not only does the book provide a most excellent introduction to the whole field of Stellar Dynamics, but in it are contained highly illuminating discussions of some of the major current problems in astronomy, among them the probable interpretation of spiral structure. The book is one of the series of Astrophysical Monographs sponsored by the *Astrophysical Journal.*

Lady Tata Memorial Trust: Scientific Research Scholarships for 1943-44.—Applications are invited for six Scientific Research Scholarships of the value of Rs. 150 per month each for the year 1943-44.

The Scholarships are open to men and women, and will be tenable for a period of twelve months commencing from the 1st July 1943. Any or all the Scholarships may be extended for a further period of twelve months, within the discretion of the Trustees. All old scholars who desire renewal should re-apply.

Applicants, who must be of Indian nationality, must be Graduates in Medicine or Science of a recognised University. They must undertake to work whole-time and will be debarred from private practice. In the duration of the period of his scholarship or award the recipient of the benefit shall devote himself to the work before him to the entire satisfaction of the Trustees, who reserve the right to withold payment on the recommendation of the Advisory Committee.

The subject of scientific investigation which they may select must have a bearing directly or indirectly on the alleviation of human suffering from disease.

Application must be forwarded through the Director of a recognised Research Institute or Laboratory where the candidate proposes to work and must be accompanied by a letter from the Director stating that he has critically examined the details of the proposed Research, that he approves of the general plan and that he is willing, as far as possible, to guide and direct the investigation and give laboratory facilities.

Candidates will be required to furnish the following additional information in their application, along with certificates of physical fitness and character:—

(*a*) Full Name, (*b*) Age, (*c*) Sex, (*d*) Permanent Address, (*e*) Details of Academic Career, (*f*) Particulars of their past and present Research qualifications, (*g*) Particulars of the proposed Research, (*h*) What other emoluments, scholarships and pay or any other financial support from friends or relations they are or will be in receipt of

during the period they are Scholars and the amount, if any.

Applicants must give (*a*) a short resume on the subject indicating present state of knowledge and (*b*) details of the proposed research indicating (*i*) the methods intended to be employed, (*ii*) previous experience in the use of these methods and (*iii*) the experiments to be carried out.

Applications, which must be typed, must give full particulars in the order indicated above and must be addressed to the Secretary, THE LADY TATA MEMORIAL TRUST, BOMBAY HOUSE, BRUCE STREET, FORT, BOMBAY, so as to reach him not later than 15th March 1943.

Indian Botanical Society: List of the Office-bearers for 1943.—*President*: Dr. K. D. Bagchee, Dehra Dun; *Vice-Presidents*: Principal P. Parija, Cuttack, and Prof. M. A. Sampathkumaran, Bangalore; *Treasurer*: Prof. M. O. P. Iyengar, Madras; *Secretary*: Prof. G. P. Majumdar, Calcutta.

Elected Members of the Executive Council: Mr. I. Banerji, Calcutta; Prof. Y. Bharadwaja, Benares; Prof. F. R. Bharucha, Bombay; Prof. S. R. Bose, Calcutta; Prof. H. Chaudhari, Panjab; Dr. A. C. Joshi, Benares; Prof. B. C. Kundu, Calcutta; Dr. T. S. Mahabale, Ahmedabad; Dr. P. Maheswari, Dacca; Rai Bahadur Prof. K. C. Mehta, Agra; Dr. B. P. Pal, New Delhi; Prof. M. Sayeed-ud-Din, Hyderabad (Deccan).

Editorial Board: Prof. S. P. Agharkar, Calcutta; Prof. H. Chaudhuri, Panjab; Prof. M. O. P. Iyengar, Madras (*Chief Editor*); Prof. G. P. Majumdar, Calcutta; Principal P. Parija, Cuttack; Prof. B. Sahni, Lucknow.

National Institute of Sciences of India.—The Eighth Annual General Meeting of the National Institute of Sciences of India was held on Friday, the 1st January 1943, in the University College of Science, Calcutta. The Report of Council for the year 1942 together with the audited statement of accounts was adopted and the Presidential Address by Dr. Baini Prashad, O.B.E., on "Conservation of Wild Life in India" was read.

The following Officers and Members of Council for the year 1943 were elected:—

President: Sir Jnanchandra Ghosh, Bangalore; *Vice-Presidents*: Prof. S. K. Mitra, Calcutta, Mr. D. N. Wadia, Colombo; *Treasurer*: Rai Bahadur K. N. Bagchi, Calcutta; *Foreign Secretary*: Prof. J. N. Mukherjee, Calcutta; *Secretaries*: Prof. S. P. Agharkar, Calcutta, Dr. C. S. Fox, Calcutta; *Editor of Publications*: Rai Bahadur S. L. Hora, Calcutta; *Members of Council*: Dr. K. Bagchee, Dehra Dun, Sir S. S. Bhatnagar, Delhi, Dr. F. H. Gravely, Kodaikanal, Prof. B. C. Guha, Calcutta, Dr. B. S. Guha, Benares, Dr. M. Ishaq, Aligarh, Dr. D. S. Kothari, Delhi, Prof. K. G. Naik, Baroda, Prof. V. V. Narlikar, Benares, Principal P. Parija, Cuttack, Dr. F. G. Percival, Jamshedpur, Dr. K. R. Ramanathan, Poona, Mr. B. Rama Rao, Bangalore, Prof. P. Ray, Calcutta, Prof. M. R. Siddiqi, Hyderabad (Dn.), Dr. N. K. Sur, Calcutta, Dr. K. Venkataraman, Bombay; *Ex-officio Members of Council*: Sir R. N. Chopra, Jammu-Tawi, Sir Lewis Fermor, Bristol, England, Dr. B. Prashad, Benares, Prof. M. N. Saha, Calcutta.

We acknowledge with thanks receipt of the following:—

"Journal of Agricultural Research," Vol. 65, Nos. 3 and 4.
"Agricultural Gazette of New South Wales," Vol. 53, No. 10.
"Allahabad Farmer," Vol. 16, No. 6.
"Annals of Biochemistry and Experimental Medicine," Vol. 2, No. 3.
"Journal of the Indian Botanical Society," Vol. 21, Nos. 5 and 6.
"Journal of Chemical Physics," Vol. 10, No. 9.
"Journal of Indian Chemical Society," Vol 19, Nos. 9 and 10.
"Experiment Station Record," Vol. 87, Nos. 2 and 3.
"Transactions of the Faraday Society," Vol. 38, No. 10.
"Indian Forester," Vol. 69, No. 1.
"Bulletin of the Indian Central Jute Committee," Vol. 5, No. 9.
"Review of Applied Mycology," Vol. 21, Pt. 9.
"Bulletin of the American Meteorological Society," Vol. 23, No. 5.
"Indian Medical Gazette," Vol. 77, No. 12.
"Nature," Vol. 150, Nos. 3798, 3806 and 3808.
"Journal of Nutrition," Vol. 24, No. 3.
"American Museum of Natural History," Vol. 50, No. 2.
"Indian Journal of Physics," Vol. 16, Pt. 5.
"Canadian Journal of Research," Vol. 20, No. 9.
"Science," Vol. 96, Nos. 2487-2490.
"Sky," Vol. 1, No. 11; Vol. 2, No. 1.
"Science and Culture," Vol. 8, No. 7.
"Indian Trade Journal," Vol. 147, Nos. 1904-1906; Vol. 148, No. 1907.
"Indian Journal of Veterinary Science and Animal Husbandry," Vol. 12, Pt. 3.

BOOKS

Temperature Control. By A. J. Ausley. (Chapman and Hall, London), 1942. Pp. viii + 127. Price 13*sh* 6*d*.

Electrical Engineering Practice, Vol. II, Fifth Edition. By J. W. Meares and R. E. Neale. (Chapman and Hall, London), 1942. Pp. xii + 668. Price 35*sh*.

Modern Synthetic Rubbers. By Harry Barron. (Chapman and Hall, London), 1942. Pp. viii + 274. Price 25*sh*.

Biochemistry and Morphogenesis. By Joseph Needham. (Cambridge University Press, London), 1942. Pp. xiii + 785. Price 52*sh*. 6*d*.