

American Philosophical Society

THE Year Book, 1944, of the American Philosophical Society covers the year January 1, 1944–December 1, 1944. During the year a radical change was made in the policy of the Society's library towards exchange and distribution of the Society's publications, based on the conviction that acquisitions for the library and the distribution of the Society's publications can be more effectively promoted through subscriptions than by the system of exchange. Under the new policy, the library receives in exchange for the Society's publications relatively little, depending rather on subscription or direct purchase of materials vital to the development of its holdings. The Library Committee is also mindful of the possibilities of current trends in library and research disciplines like those started by Binkley and recently developed by Fremont Rider in his volume "The Scholar and the Future of the Research Library". The problem of bringing the rich resources of the library to the attention of scholars and making them available for study and research has been a major concern of the librarian. Two special committees were set up during the year to assist in this way, in the special fields of American linguistics and archaeology and of Americana. Of exceptional interest in this Committee's report are the notes by C. Dan Doren on the Franklin–Mecon correspondence, by G. Chinard on the strange fortune of two volumes of the *Transactions* associated with Franklin, and on the Elihu Thomson collection. The report of the Committee on Research includes a list of grants made from the income of the Penrose Fund and a summary of the grants made during the period July 31, 1933–December 31, 1944, together with reports from recipients of grants, arranged alphabetically under the classification of subjects represented in the membership of the Society. Because of the participation of many scientific men in research connected with the war effort, particularly in certain fields, the request for grants during the past two years was not as large as previously, but the Committee has not lowered the standard set for making grants.

National Foundation for Scientific Research, Brussels

THE seventh annual report of the National Foundation for Scientific Research, Brussels, for the year 1945–44, in addition to the report on the activities of the Foundation during the year, includes the statistics, a list of members of the scientific commission and of publications during the year, which renders the report a most useful reference work. Reporting on eleven important projects in the field of industrial science, reference is made to research financed by the Foundation André van der Stricht on the mechanism of the degradation of nitrogenous substances contained in yeasts, malts and moulds of breweries. The Établissements Hauzeur, Simonis and Peltzer have financed a research on the physico-chemical affinity between the molecules of certain colouring matters and proteins, especially the keratins of wool. Further research is being assisted by the Fabrique de Produits Chimiques de Grammont on the preparation, improvement and stabilization of certain grades of animal black and of certain carbons and colloids constituting the active absorbents. The Belgian Institute for the Improvement of the Beet is supporting an experimental study of the causal factors of the phenomena of polyploidy in the beet, in view of its eventual systematic use

in industrial cultivation. The Belgian Association for the Testing and Use of Materials is supporting an investigation on the protection of ferrous metals against corrosion, and the Optical Society of Belgium an investigation leading to the development of a photometer for the trichromatic specification of colour.

Cheshunt Research Station

THE glasshouse work of the Experimental and Research Station at Turner's Hill, Cheshunt, Herts, was interrupted by enemy action in July 1944; but a substantial amount of laboratory work was carried out during that year (Rep. Exp. Res. Sta., Cheshunt, 1944). Preliminary trials by W. H. Read show that 5 per cent D.D.T./kaolin dusts or 0.02 per cent D.D.T. sprays give good control of tomato moth caterpillars (*Polia oleracea*). Red spider mites are not, however, controlled by this new insecticide, but D.D.T. can be added to petroleum emulsion sprays and the mixture used for the control of both pests. E. R. Speyer and W. J. Parr suggest measures for the control of tomato leaf-miners (*Liriomyza* spp.). These involve steaming the soil of propagating houses before introduction of the staging, and growing plants with a harder kind of growth than normal. Magnesium deficiency of tomato has been studied by O. Owen, who finds that spraying the foliage with 2 per cent Epsom salts, plus a wetting agent, gives good control. I. W. Selman finds that Cheshunt Early Giant lettuce is most resistant to mosaic virus when grown with low nitrogen and low phosphate, with medium watering. It is unlikely, according to P. H. Williams, that *Verticillium* wilt can be controlled by altering the pH of the soil, as the fungus can grow well between pH 4.0 and 8.0. A severe loss of heliotrope cuttings, due to the fungus *Corticium solani*, is described by Mrs. E. Sheard. The report of the director (Dr. W. F. Bewley) shows that experiments on the growth of tomatoes in gravel cultures have been commenced. Trials of bulky composts were inconclusive because of damage by enemy action.

London Scientific Film Society

THE London Scientific Film Society, 34 Soho Square, London, W.1, which has been re-organised and enlarged, starts its ninth season in September. It has booked the Scala Theatre in Charlotte Street, London, for ten Sundays in the next ten months, and will show programmes of scientific and documentary films afternoon and evening. In addition it hopes to arrange for lectures and showings of research films on weekday evenings in suitable halls. It also proposes activities to organise shows of scientific films for children and to publish a small quarterly journal to be called the *Scientific Film*. The Society is also to sponsor the production of experimental films by a group of its members. Membership is open to anyone more than sixteen years old.

Size of Page in Technical Journals

A REPORT of the Technical and Trade Papers Committee of the Institute of Incorporated Practitioners in Advertising for 1943, was issued in May 1946 by the Institute under the title "Standardisation of Type Area Sizes for Trade and Technical Journals", with the note that the trade and technical Press has recommended its members to give serious consideration to the standardization of type-areas. The members of the Institute hope that British

periodicals which adopted reduced page-sizes as a war-time measure will as soon as possible revert to full size, but they direct attention to the opportunity for standardization that will occur when paper supplies permit this change. Out of 638 trade and technical periodicals examined by the Committee, the maximum number with any one type-area was 47; there were 242 different sizes, 144 of which were unique, and the type-areas also vary in shape. Standardization is pressed in this report from the point of view of the advertiser, who wishes to submit sketches, layouts and copy in as few sizes as possible; but the strong recommendation of the report in favour of the adoption of a single size, namely, 10 in. by 7 in., will be welcomed by librarians and others who have been seriously embarrassed at times by the apparent irrational changes in size of periodicals as well as by the extreme diversity. The Committee recommends adoption of this size as the one indicated by its analysis as the most generally suitable and that to which journals making a change are likely to conform. It is also to a much greater extent than any other the most approved size for American, Canadian and other periodicals published overseas. Two other sizes are also suggested for consideration: 11½ in. by 8 in. and 9 in. by 6½ in. The proposals of the report are now commended by the Institute for detailed consideration by all concerned.

Vibration Problems

In a paper read before the Institution of Electrical Engineers in London recently, Dr. A. J. King considers the various ways in which vibration manifests itself, namely, noise, vibration, stress and rotational oscillation. The available methods of measuring vibration are described and their relative merits and limitations discussed. Methods of calibrating measuring apparatus are given, with an indication of their limits. The suppression of vibration is considered from the points of view of what is desirable, how much can be obtained at the source and how much by resilient mountings, attention being given to the effect of ground and source impedance. Practical examples are given of the reductions in vibration which have been achieved in certain cases by improvements in the source and by resilient mountings. The second part of the paper is concerned with the determination of elastic design data on resilient materials and mountings for use as described earlier for reducing vibration transmission. The limitations of a previous moving-iron-drive resonance-type method are discussed, and the advantages of a moving-coil-drive co-ordinate-potentiometer method are pointed out. The apparatus is described in detail, and results of tests on typical materials and mountings are given and discussed.

Mites as Carriers of Typhus

THE British Museum (Natural History) has issued a useful pamphlet, in its Economic Series (No. 16), by Dr. Susan Finnegan entitled "Acari as Agents Transmitting Typhus in India, Australasia and the Far East" (from the Museum, 1s. 6d.). The typhus fever group of diseases, it may be added, includes a number of affections occurring under diverse climatic and biological conditions throughout the world. They are all due to the activities of minute, non-filterable, rod-like bodies of the genus *Rickettsia*. Excluding epidemic louse-borne typhus, these diseases are known, or suspected, to be carried by larval mites of the family Trombididae or by ticks of the family

Ixodidae. The most important infections spread by Acari are 'rural' typhus, tsutsugamushi or 'scrub' typhus; tick typhus or 'Kumaon fever' of India; the so-called 'Q' fever of Queensland; Rocky Mountain spotted fever of North America and others. The carriers are definitely known in but few cases, though the available evidence points to Acari as being the main vectors. This naturally has led to the great importance of correct identification of any species suspected in this connexion. Dr. Finnegan in this pamphlet has provided an admirably clear and well-illustrated guide to the subject which can scarcely fail to be of real use to medical officers and others in lands where typhus occurs.

Varieties of Red and White Clover

WATKIN WILLIAMS (*Bull. Welsh Plant Breed. Stat.*, No. 16, 1945) has outlined the results of the recent work on clovers which has been carried out at the Welsh Plant Breeding Station, largely under the guidance of the late R. D. Williams. This painstaking work emphasizes the necessity of an analysis of the characteristics of the existing types, judicious selection of the characters desired and the practical production of suitable methods for the isolation of commercially desired forms. Both in red clover and in white clover, the Welsh Plant Breeding Station has been able to produce improved strains which are outstanding for commercial purposes.

University of London Appointments

The title of reader in civil engineering in the University has been conferred on Dr. L. A. Beaufoy in respect of the post held by him at King's College. The title of reader in chemistry in the University has been conferred on Dr. D. J. G. Ives, in respect of the post held by him at Birkbeck College. The title of reader in history and philosophy of science in the University has been conferred on Dr. Douglas McKie, in respect of the post held by him at University College. The title of professor of morbid anatomy and histology in the University has been conferred on Dr. R. W. Scarff, in respect of the post held by him at the Middlesex Hospital Medical School.

The title of professor emeritus of civil and mechanical engineering in the University has been conferred on Prof. E. H. Lamb, who held the chair of civil and mechanical engineering at East London College (now Queen Mary College) from 1913 until his retirement at the end of the session 1944-45 (see *Nature*, 156, 137; 1945). The title of professor emeritus of helminthology in the University has been conferred on Prof. R. T. Leiper, who retires in September 1946 from the William Julien Courtauld chair of helminthology at the London School of Hygiene and Tropical Medicine, which he has held since 1917. The title of professor emeritus of experimental pathology in the University has been conferred on Prof. E. L. Kennaway, who retires in September 1946 from the chair of experimental pathology at the Chester Beatty Research Institute of the Royal Cancer Hospital, which he has held since 1931 (see *Nature*, 158, 51; 1946).

ERRATUM. In the communication "Nutritional Value of High-Extraction Wheat Meals" by A. R. P. Walker, Prof. J. T. Irving and Dr. F. W. Fox in *Nature* of June 8, p. 769, the percentage of calcium absorbed during week 2 on usual diet (see table) should be 26, and not 36 as printed.