Progress in Wool Research

A PAMPHLET recently issued by the Wool Industries Research Association summarises, under the title "Scientific Research applied to the Wool Industries", a number of the practical results of the work. These include the invention of durable sheep-marking fluids completely removable in subsequent processing and leaving no traces in the finished fabric. The investigations on the recovery of wool grease from scouring liquors have contributed largely to the development of three processes in use at Bradford and elsewhere, while those on wool scouring, for example, have made possible the actual detection and commercial control of variable alkalinity by means of indicator cloth. The discovery of the chemical changes responsible for discoloration in carbonising have enabled adequate precautions for prevention to be taken. Improved 'ionised' oils have been developed for the lubrication of wool. Fundamental issues underlying the woollen spinning process have been elucidated, a new principle in roller drafting has been discovered for use in the spinning of dry combed rovings and a general relation developed between count, twist and strength for single worsted yarns. Causes of deterioration of spinning ability of dyed wool have been ascertained and of damage in fabrics through lead staining in weaving. Mothproofing and preservation against moulds and mildew have been important fields of work, and in these and in many other ways the application of quantitative measures has assisted in the control and efficiency of the numerous processes with which the wool industry is concerned.

Association of Scientific Workers

THE annual report of the Executive Committee of the Association of Scientific Workers presented to the Council on February 24 refers to the formation of a National Parliamentary Science Committee as an outcome of negotiations with the British Science Guild as the outstanding special work of the year. The support of twelve leading institutions has been obtained, and the committee includes Sir James Henderson, Prof. Miles Walker, Prof. Blackman, with Commander Bernacchi as chairman, and Mr. A. Howard and Mr. H. J. W. Stone as joint honorary secretaries. In consequence, the Parliamentary Committee of the British Science Guild and of the Association have been disbanded. The compilation of a "Handbook of Extra-University Research in Pure and Applied Science", giving data concerning commercial, endowed and private research laboratories, has been completed and negotiations for publication are in progress. It is believed that the handbook will serve as an advertisement of British research activities and of the interest taken by British industrialists in maintaining the highest efficiency in factories. The book may become a standard work of reference alongside the "Universities Yearbook" and the "Year-Book of Scientific and Learned Societies".

THE Association has been active in combating the evil of bogus degrees and has been in negotiation with the universities to secure their support of successive Bills introduced in the House of Lords by Lord Jessel to deal with this evil. The Association collected a considerable amount of information regarding the granting of degrees by five different British 'degree-mongers' but has so far been unable to induce the universities to withdraw their opposition at the third reading of the Bills. The finance of the research associations has received attention and is being considered by a joint Committee of the Association and the British Science Guild. The production of "Science in Parliament" has continued and a memorandum has also been prepared on the relation of the unification of national transport, the construction of ship-canals across Britain, the reconstruction of derelict canals and land-drainage. The report concludes by directing attention to the resolution passed that members should seek to assist towards a better adjustment between scientific advances and social progress.

Absence of Winter Rains in England and Wales

THE Director of the Meteorological Office, Air Ministry, states that the rainfall over England and Wales has been less than the average for nine out of the last eleven months. August, November, December and February stand out conspicuously for their dryness. In October and January the fall was slightly above the average but there is not a single month of large excess. Taking the period as a whole, the rainfall was everywhere less than the average except along a strip of the east coast from Newcastle to Hull and again near Yarmouth. There were two areas in which the deficiency was particularly large, the fall amounting only to about two thirds of the average. The first of these is bounded roughly by the counties Breconshire, Bedfordshire, Somersetshire and Surrey; the second includes the Cheshire plain and the coastal strip of Lancashire. The absence of the winter rains on which we rely to such a large extent for keeping up our water supplies is remarkable. The rainfall for the four months November–February was less than half the average over a great part of the country south of a line from Aberystwyth to Yarmouth, and there are regions of similar deficiency to the west of the Pennines and in south Lancashire. In January, heavy falls amounting to about 20 inches fell in Snowdonia and the English Lake District, but less than two inches were measured over the eastern half of England, and less than an inch in the neighbourhood of Middlesbrough and the Wash. The deficiency for February was also marked. Totals of more than an inch were confined to Snowdonia, the neighbourhood of Borrowdale and parts of the north-east coast. Locally, for example at Patching Farm near Littlehampton, there was no measurable rainfall for the whole of the month, a very unusual occurrence. The partial failure of the winter rain has been the most severe since the memorable winter of 1879–80, which, however, followed a wet summer, whereas the summer of 1933 was dry.

Award to Dr. F. W. Pennell

THE first award of the George W. Carpenter fund for encouragement of scientific research was made on

February 20 by the Academy of Natural Sciences of Philadelphia to Dr. Francis W. Pennell, curator of botany in the Academy, for his work and study on the snapdragon family (Scrophulariaceæ) of eastern North America. In presenting the 250 dollars honorarium at the annual meeting, the president announced that this fund also will permit publication of Dr. Pennell's book on the subject. The George W. Carpenter fund is a bequest from the late Mrs. Ellen D. C. Bennett, in memory of her father, one of the Academy's earliest members, who served as treasurer from 1826 until his death in 1860. Dr. Pennell was appointed curator of botany at the Academy in 1921, and under his direction this Department has become one of the largest of its kind in the United States, containing at the present time more than 600,000 specimens of plants and flowers from all parts of the world. Among these are some of the oldest and most valuable of American collections.

Ray Society

At the annual general meeting of the Ray Society held on March 13, the following officers were re-elected: *President*, Sir Sidney Harmer; *Treasurer*, Sir David Prain; *Secretary*, Dr. W. T. Calman. Mr. J. M. Offord was elected a vice-president in succession to the late Canon G. R. Bullock-Webster, and Mr. R. S. W. Sears, Mr. M. A. C. Hinton and Mr. A. G. Lowndes were elected new members of Council. The Council's report directed attention to the decline in the receipts from all the regular sources of the Society's income, and stated that unless further support for the Society is obtained, a regrettable curtailment of publications may soon become necessary. It was stated that the plates for the second volume of Prof. T. A. Stephenson's "British Sea Anemones" are being engraved, and it is hoped that the volume will soon be in the press. The Council reported with gratitude the receipt of a donation of £30 towards the cost of this volume from Miss Teresa Gosse, the grand-daughter of Philip Henry Gosse, author of the "Actinologia Britannica" (1860).

Soviet Stamps in Commemoration of Mendeléeff

THE Soviet postal authorities have issued a series of new postage stamps to commemorate the centenary this year of the birth of Mendeléeff. The new issues are of five, ten, fifteen and twenty kopek denominations. The five and the twenty kopek denominations bear a design of the Mendeléeff monument against a background of his table of the periodic system of elements; the ten and fifteen kopek denominations bear a portrait of Mendeléeff, also against a background of the table of the periodic system of elements. All the stamps bear the commemoration date 1834–1934.

Vital Statistics for the Year 1933

THE Registrar-General has issued a provisional statement of the figures for birth-rate, death-rate and infant mortality in Great Britain during the year 1933. For England and Wales, the live births and the deaths were respectively 14·4 and 12·3 per 1,000 resident population, and the deaths of infants less than 1 year old, 64 per 1,000 registered live births. For the fifth year in succession the birth rate was the lowest on record, being 0·9 per thousand below that of 1932, and 1·4 below that of 1931. The death rate was 0·3 above that for 1932 and is the same as that for 1931. The infant mortality rate was 1 per 1,000 below that for 1932, and with the exception of the year 1930 (60) is the lowest on record.

Announcements

AT the annual general meeting of the Physical Society, held on March 16, the following officers were elected: *President*, The Right Hon. Lord Rayleigh; *Vice-President*, Dr. D. Owen; *Secretaries*, Dr. Allan Ferguson (Papers), Dr. Ezer Griffiths (Business); *Foreign Secretary*, Prof. O. W. Richardson; *Treasurer*, Mr. R. S. Whipple; *Librarian*, Dr. J. H. Brinkworth; *New Members of Council*, Mr. H. H. Emsley; Prof. H. R. Robinson.

THE Institute of Physics has put forward a scheme for the training and certificating of laboratory and technical assistants in physics, and proposes in due course to set up an appointments register. Candidates for the Institute's certificates must attend approved courses of instruction and pass examinations in accordance with the regulations issued. It is understood that evening class courses for the Institute's certificates will be commenced in September next in London.

APPLICATIONS are invited for the following appointments, on or before the dates mentioned:—Engineers at the Fuel Research Station, East Greenwich—Establishment Officer, Department of Scientific and Industrial Research, 16 Old Queen Street, S.W.1 (March 26) An assistant in the Admiralty Technical Pool for duty at the Admiralty Compass Department—Secretary of the Admiralty (C. E. Branch), London, S.W.1 (March 28). A veterinary officer under the Devon County Council—County Medical Officer, 4 Barnfield Crescent, Exeter (March 29). Two junior assistant engineers on the Manchester Corporation—City Engineer (March 30). Engineer and manager of the Weymouth Waterworks Company—Chairman (April 3). Water engineer and manager and gas examiner to the County Borough of Swansea—Town Clerk, Guildhall, Swansea (April 7). Principal of the County Technical College and School of Art, Newark—Clerk to the Governors (April 10). A demonstrator in zoology at University College, Nottingham—Registrar (April 11). A demonstrator in the Department of Inorganic and Physical Chemistry at Bedford College for Women, Regent's Park, N.W.1—The Secretary (April 21). Two technical assistants (A. 587/8) and a draughtsman (A. 589) at the Royal Aircraft Establishment, Farnborough, Hants—Chief Superintendent, quoting reference number above. Two resident staff tutors for adult education, University of Birmingham—Director of Extra-Mural Studies (April 23). University professor of anatomy at St. Thomas's Hospital Medical School, London—Academic Registrar, University of London, S.W.7 (May 16).