

certain conditions produces a 'ballooning' of the outer layer of the wall in hemp, but not in jute, and this fact, taken in conjunction with associated optical phenomena, suggest that the outer layer in hemp and the inner in jute differ appreciably from the rest of the wall.

It seems clear that in such walls the aggregates of the cellulose complex must differ in their association with one another in the different layers. Comparisons with long collenchyma cells suggest that the optical heterogeneity may be due to a variation in *angular dispersion* of the cellulose chains from layer to layer; this argument is less convincing for hemp and jute fibres, but not precluded by the X-ray diagram. There is therefore still doubt as to whether any chains exist in the secondary walls of these phloem fibres other than those which run in the longitudinal direction.

FORTHCOMING EVENTS

Saturday, November 4

ROYAL AERONAUTICAL SOCIETY (at the Institution of Mechanical Engineers, Storey's Gate, St. James's Park, London, S.W.1), at 10.30 a.m.—Discussion on Civil Aviation. General Critchley: "The Selection and Training of Personnel for Civil Aviation"; Major Thornton: "The Economics of Air Transport"; Mr. Roy Chadwick: "Civil Aircraft Design"; Mr. E. W. Hives: "Civil Aero-Engine Design"; Mr. W. P. Hildred: "Route Facilities (Radio, Aerodromes, Meteorology, etc.)."

GEOLOGISTS' ASSOCIATION (at the Geological Society of London, Burlington House, Piccadilly, London, W.1), at 2.30 p.m.—Dr. L. Hawkes: "On Jet Coal in the Chalk of Kent".

Monday, November 6

FARMERS' CLUB (at the Royal Empire Society, Craven Street, Strand, London, W.C.2), at 2.30 p.m.—Mr. J. L. Davies: "The Policy of Expansion of our Dairy Farming".

SOCIETY OF CHEMICAL INDUSTRY (at the Chemical Society, Burlington House, Piccadilly, London, W.1), at 2.30 p.m.—Dr. A. Batley: "Use of Sensitized Metal in Engineering Design".

ROYAL GEOGRAPHICAL SOCIETY (at Kensington Gore, South Kensington, London, S.W.7), at 5 p.m.—Lord Rennell of Rodd: "Italian East Africa in 1941".

Tuesday, November 7

ROYAL INSTITUTION (at 21 Albemarle Street, Piccadilly, London, W.1), at 5.15 p.m.—Mrs. Jaquetta Hawkes: "Prehistoric Britain", (i) "The Early Colonizations".

INSTITUTION OF CIVIL ENGINEERS (at Great George Street, Westminster, London, S.W.1), at 5.30 p.m.—Mr. F. E. Wentworth-Sheilds: Presidential Address.

SHEFFIELD METALLURGICAL ASSOCIATION (joint meeting with the SHEFFIELD AND DISTRICT BRANCH OF THE INSTITUTE OF WELDING) (at the Royal Victoria Station Hotel, Sheffield), at 6.30 p.m.—Mr. H. F. Tremlett: "Arc Welding Problems—Some Notes on Metallurgical Solutions".

INSTITUTION OF ELECTRICAL ENGINEERS (LONDON STUDENTS' SECTION) (at Savoy Place, Victoria Embankment, London, W.C.2), at 7 p.m.—Mr. C. C. Barnes: "Notes on the Design and Manufacture of Impregnated Paper Insulated Power Cables".

QUEKETT MICROSCOPICAL SOCIETY (at the Royal Society, Burlington House, Piccadilly, London, W.1), at 7 p.m.—Exhibits.

Wednesday, November 8

INSTITUTE OF FUEL (NORTH-WESTERN SECTION) (at the Engineers' Club, Manchester), at 2.30 p.m.—Brains Trust on "The Efficient Utilisation of Industrial Waste and Town's Refuse".

SOCIETY OF CHEMICAL INDUSTRY (FOOD GROUP) (joint meeting with the MICROBIOLOGICAL AND NUTRITION PANELS) (at the Chemical Society, Burlington House, Piccadilly, London, W.1), at 2.30 p.m.—Dr. B. C. J. G. Knight: "Some Wider Aspects of Nutritional Studies with Micro-Organisms".

CHEMICAL SOCIETY (joint meeting with the MANCHESTER UNIVERSITY CHEMICAL SOCIETY and the ROYAL INSTITUTE OF CHEMISTRY) (in the Chemistry Lecture Theatre, The University, Manchester), at 5 p.m.—Prof. I. M. Heilbron, F.R.S.: "Chemistry in relation to National Prosperity".

INSTITUTION OF ELECTRICAL ENGINEERS (TRANSMISSION SECTION) (at Savoy Place, Victoria Embankment, London, W.C.2), at 5.30 p.m.—Mr. D. B. Irving: "Cable Terminations".

Thursday, November 9

ROYAL INSTITUTION (at 21 Albemarle Street, Piccadilly, London, W.1), at 2.30 p.m.—Sir James Jeans, O.M., F.R.S.: "Old and New Descriptions of the Astronomical Universe", (i) "Stars".

PHYSICAL SOCIETY (at the Royal Society, Burlington House, Piccadilly, London, W.1), at 5 p.m.—Prof. S. K. Mitra: "The Night Sky".

INSTITUTION OF ELECTRICAL ENGINEERS (INSTALLATIONS SECTION) (at Savoy Place, Victoria Embankment, London, W.C.2), at 5.30 p.m.—Mr. F. C. Fuke: "Electrical Accessories for Domestic Purposes—Some Notes on their Design and Installation".

SOCIETY OF CHEMICAL INDUSTRY (EDINBURGH AND EAST OF SCOTLAND SECTION) (in the Anatomy Lecture Theatre, The University, Teviot Place, Edinburgh), at 5.30 p.m.—Prof. Sir Alexander Fleming, F.R.S.: "Antiseptics" (Lister Memorial Lecture).

PHARMACEUTICAL SOCIETY (at 17 Bloomsbury Square, London, W.C.1), at 7 p.m.—Mr. A. L. Bacharach: "Properties and Uses of Penicillin in relation to Pharmacy".

Friday, November 10

ASSOCIATION OF APPLIED BIOLOGISTS (in the Metallurgical Lecture Theatre of the Imperial College of Science and Technology, South Kensington, London, S.W.7), at 2 p.m.—Discussion on "Nomenclature Problems of the Applied Biologist".

ROYAL INSTITUTION (at 21 Albemarle Street, Piccadilly, London, W.1), at 5 p.m.—Mr. G. M. Young: "Equality".

CHEMICAL SOCIETY (SHEFFIELD SECTION) (joint meeting with the SHEFFIELD UNIVERSITY CHEMICAL SOCIETY) (in the Chemistry Lecture Theatre, The University, Western Bank, Sheffield), at 5.30 p.m.—Prof. W. Wardlaw: "Co-ordination Compounds".

APPOINTMENTS VACANT

APPLICATIONS are invited for the following appointments on or before the dates mentioned:

PESTS CONTROL ORGANIZER (temporary) for the County of Montgomeryshire—The Executive Officer, Montgomeryshire War Agricultural Executive Committee, County Offices, Welshpool, Mont. (November 7).

ELECTRICAL ENGINEER AND MANAGER of the Metropolitan Borough of Southwark Electricity Department—The Town Clerk, Southwark Town Hall, Walworth Road, London, S.E.17 (endorsed 'Electrical Engineer and Manager') (November 8).

LECTURER (temporary) IN GARDENING, BIOLOGY AND ELEMENTARY SCIENCE in the Caerleon Training College (men)—The Acting Director of Education, Higher Education Department, County Hall, Newport, Mon. (November 11).

EDUCATIONAL PSYCHOLOGIST—The Director of Education, County Offices, Oxford (November 11).

SPEECH THERAPIST—The Director of Education, Education Offices, Woodlands Road, Middlesbrough (November 11).

LECTURER IN PRODUCTION ENGINEERING, in Courses (both part-time Day and Evening) leading to Ordinary and Higher National Certificates—The Principal, Derby Technical College, Normanton Road, Derby (November 15).

DRAINAGE OFFICERS (2), and a WATER SUPPLIES OFFICER—The Executive Officer, Shropshire War Agricultural Executive Committee, County Buildings, Shrewsbury (November 18).

OFFICER IN CHARGE of the Government's Agricultural Training Scheme for ex-Service men and women in the County of Norfolk—The Secretary, Norfolk War Agricultural Executive Committee, Sprowston, Norwich (November 18).

EXAMINER IN CHEMISTRY for the Higher School Examination for the year 1945—The Secretary to the Matriculation and School Examination Council, University of London, at Richmond College, Richmond, Surrey (November 20).

ASSISTANT LECTURER AND DEMONSTRATOR IN ZOOLOGY, preferably with special qualifications in Experimental Zoology—The Registrar, University College, Cathays Park, Cardiff (November 30).

UNIVERSITY CHAIR OF CONCRETE TECHNOLOGY tenable at Imperial College of Science and Technology—The Academic Registrar, University of London, c/o Richmond College, Richmond, Surrey (February 26).

LABORATORY ATTENDANT IN THE DEPARTMENT OF ZOOLOGY—The Secretary, Bedford College for Women, Regent's Park, London, N.W.1.

LABORATORY STEWARD or LABORATORY TECHNICIAN—The Registrar, The University, Bristol 8.

SENIOR SCIENTIFIC ASSISTANT IN THE DEPARTMENT OF ECONOMICS—The Principal, Harper Adams Agricultural College, Newport, Shropshire.

MANAGER OF THE INTELLIGENCE DEPARTMENT—The Secretary, British Cast Iron Research Association, Alvechurch, Birmingham.

AGRICULTURAL TRAINING OFFICER to organize the scheme for the training in Agriculture and Horticulture of men and women released from War service—The Secretary, Berkshire War Agricultural Executive Committee, 1 Abbot's Walk, Reading.

REPORTS and other PUBLICATIONS

(not included in the monthly Books Supplement)

Memoirs of the Cotton Research Station, Trinidad. Series A: Genetics. No. 21: The Inheritance of Lint Colour in Asiatic Cottons. By R. A. Silow. Pp. 39. 2s. 6d. No. 22: The Genetic Organization of Leaf-Shape Development in the Genus *Gossypium*. By S. G. Stephens. Pp. 25. 2s. 6d. No. 23: The Genetics of Species Development in the Old World Cottons. By R. A. Silow. Pp. 16. 2s. 6d. Series B: Physiology. No. 16: (1) Studies on Foliar Hydration in the Cotton Plant, (ii) Preliminary Observations using the Pruning Method, (iv) The Influence of Composition and Concentration of Nutrient Solution, by E. Phyllis and T. G. Mason; (v) A Further Experiment with Potassium, by T. G. Mason and E. Phyllis; (2) Studies on the Partition of the Mineral Elements in the Cotton Plant, (iv) More about Nitrogen, Phosphorus and Labile Carbohydrate, by T. G. Mason and E. Phyllis. Pp. 42. 2s. 6d. (London: Empire Cotton Growing Corporation.)

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