

cephalic nephridium, which unites during growth with a nervous rudiment (the neurohypophysis or the corpus cardiacum) to form an endocrine complex. Both neurohypophysis and corpus cardiacum are innervated from cells in the brain (the hypothalamus and the protocerebral cells respectively), which themselves probably have a neurocrine function.

The corpus cardiacum (or paracardiacum) is made up of two sorts of cells: chromophil cells which stain deeply with hæmatoxylin after osmic acid fixation, and chromophobe cells, which are probably glial in nature. The chromophil cells are regarded by Cazal as modified neurones, which give off ramifying processes with bulbous extremities discharging their secretion into the blood. In the corpora allata, droplets of secretion with similar staining properties are formed in association with the mitochondria. Further secretory droplets are to be seen along the nerve fibres which connect the neuro-secretory cells of the protocerebrum with the corpus cardiacum.

A very clear account is given of the puzzling structures which make up Weismann's ring in the larvæ of the higher Diptera. There is general agreement that the small dorsal cells represent the corpus allatum; the ventral cells of chromophil and chromophobe types are clearly the corpus cardiacum; Cazal supports E. Thomsen and others in regarding the large lateral cells as pericardial cells which have secondarily acquired an endocrine function. But this last conclusion is based only on the general appearance of these cells. They contain droplets which stain with osmic acid and potassium iodide, a reaction that is thought to be specific for certain phenolic compounds.

V. B. WIGGLESWORTH

## APPOINTMENTS VACANT

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

LECTURER IN PHYSICS—The Registrar, Technical College, Sunderland (August 6).

SENIOR PROFESSIONAL OFFICER (Physiology), to take charge of the Plant Physiology Section of the Western Province Fruit Research Station, Stellenbosch—The Secretary, Union of South Africa, South Africa House, Trafalgar Square, London, W.C.2 (August 6).

ASSISTANT LECTURER IN AGRICULTURE, and an ASSISTANT LECTURER IN BIOLOGY—The Clerk to the Governors, Essex Institute of Agriculture, Writtle, Chelmsford (August 6).

SCIENTIST (Grade III) or a SCIENTIFIC TECHNOLOGIST (Grade I) in the Fife and Clackmannan Area Laboratory, Cowdenbeath—The Establishments Officer, National Coal Board, 1 Eglinton Crescent, Edinburgh (August 6).

PLANT PATHOLOGIST (Scientific Officer grade) in connexion with potato storage investigations being carried out at the University of Nottingham School of Agriculture, Sutton Bonington—The Secretary, Agricultural Research Council, 6a Dean's Yard, London, S.W.1 (August 8).

METALLURGICAL CHEMIST IN CHARGE, Dominion Laboratory—The Office of the High Commissioner for New Zealand, 415 Strand, London, W.C.2 (August 10).

LECTURER IN ENGINEERING—The Registrar, Merchant Venturers' Technical College, Bristol 1, endorsed 'L.E.' (August 13).

SENIOR LECTURER or LECTURER IN ANATOMY, DEMONSTRATORS IN ANATOMY, a LECTURER IN INDUSTRIAL HYGIENE, a LECTURER or ASSISTANT LECTURER IN THE DEPARTMENT OF BACTERIOLOGY, and a LECTURER or ASSISTANT LECTURER IN THE DEPARTMENT OF BOTANY—The Registrar, The University, Sheffield (August 13).

SENIOR ASSISTANT IN MECHANICAL ENGINEERING in the Engineering (Non-Faculty) Department—The Registrar, Merchant Venturers' Technical College, Bristol 1, endorsed 'S.A.E.' (August 13).

BRITISH COKE RESEARCH ASSOCIATION FELLOWSHIP—The Registrar, The University, Sheffield (August 15).

ASSISTANT LECTURER IN THE DEPARTMENT OF ELECTRICAL ENGINEERING—The Secretary, University College, Gower Street, London, W.C.1 (August 15).

RESEARCH OFFICER IN THE COAL RESEARCH SECTION of the Division of Fuel Research, Sydney (Ref. No. 2183), a RESEARCH OFFICER IN THE DIVISION OF ELECTROTECHNOLOGY, National Standards Laboratory, Sydney (Ref. No. 2310), and a RESEARCH OFFICER IN THE BUILDING RESEARCH SECTION, Melbourne (Ref. No. 2320)—The Chief Scientific Liaison Officer, Australian Scientific Research Liaison Office, Africa House, Kingsway, London, W.C.2, quoting the appropriate Ref. No. (August 20).

ASSISTANT IN THE BOTANY DEPARTMENT—The Secretary, The University, Aberdeen (August 20).

SENIOR LECTURER or LECTURER IN PHYSIOLOGY, and an ASSISTANT LECTURER IN PHYSIOLOGY—The Registrar, The University, Sheffield (August 27).

ASSISTANT LECTURER or LECTURER IN STATISTICS—The Registrar, The University, Leeds 2 (August 27).

PROFESSOR OF GENETICS, a PROFESSOR OF ENTOMOLOGY, a PROFESSOR OF AGRICULTURAL CHEMISTRY (Chemistry of Insecticides and Fungicides), a PROFESSOR OF ANIMAL PRODUCTION, a PROFESSOR OF SOIL SCIENCE, a PROFESSOR OF DAIRY, a PROFESSOR OF PLANT BREEDING, and a PROFESSOR OF AGRICULTURAL ECONOMY, at Farouk I University, Alexandria—The Director, Egyptian Education Bureau, 4 Chesterfield Gardens, London, W.1 (August 31).

ASSISTANT CURATOR (male) in the Botany Department of the Natural History Museum—The Town Clerk, The Guildhall, Nottingham (August 31).

PROFESSOR OF PHARMACEUTICAL CHEMISTRY, a PROFESSOR OF PHARMACOLOGY, a PROFESSOR OF PHARMACOLOGY, and a PROFESSOR OF PHARMACEUTICS, in the Faculty of Medicine Pharmacy School of Farouk I University, Alexandria—The Director, Egyptian Education Bureau, 4 Chesterfield Gardens, London, W.1 (August 31).

TECHNICAL ASSISTANT (Grade II) in the DEPARTMENT OF PHYSICS—The Registrar, The University, Nottingham.

SENIOR MEDICAL LABORATORY TECHNICIAN IN THE PATHOLOGICAL LABORATORY—The Secretary, Rochdale and District Hospital Management Committee, 132 Drake Street, Rochdale.

ASSISTANT PHYSICIST—The Secretary, Lambeth Group Hospital Management Committee, Renfrew Road, London, S.E.11.

LECTURER IN CHEMISTRY, to teach to Intermediate and Final B.Sc. standard—The Clerk, Northern Polytechnic, Holloway, London, N.7.

LECTURERS (part-time) ON MECHANICAL OR CIVIL ENGINEERING subjects to University Degree standard, and DEMONSTRATORS (University Graduates in Engineering) as Demonstrators in the Mechanical and Civil Engineering Department—The Principal, Battersea Polytechnic, Battersea, London, S.W.11.

LECTURER IN METALLURGY—The Principal, Central Technical College, Suffolk Street, Birmingham 1.

LECTURER IN MICROBIOLOGY at the Massey Agricultural College, Palmerston North—The High Commissioner for New Zealand, 415 Strand, London, W.C.2.

## REPORTS and other PUBLICATIONS

(not included in the Monthly Books Supplement)

### Other Countries

Journal of the Zoological Society of India. (Published half-yearly.) Vol. 1, No. 1, January 1949. Pp. 70. (Calcutta: Zoological Society of India, 1949.) 11 rupees. [25]

Antaño del Observatorio Astronómico de Madrid para 1949. Pp. 369. (Madrid: Instituto Geográfico, 1948.) [25]

Conseil Permanent International pour l'Exploration de la Mer. Rapports et procès-verbaux des réunions, Vol. 123: Studies on the Biology of the Cod in Greenland Waters. By Paul M. Hansen. Pp. 77. (Copenhagen: Andr. Fred. Høst et fils, 1949.) 8 kr. [35]

British Guiana. Report on the Geological Survey Department for the Year 1947. Pp. iii+39+3 plates. (Georgetown: Geological Survey Department, 1948.) 48 cents. [105]

Geophysikalisches Institut Potsdam. Abhandlungen Nr. 6: Magnetische Reichsvermessung 1935-0. Teil 1. (Tabellen). Von R. Bock, F. Burmeister und F. Errulat. Pp. 53. (Berlin: Akademie Verlag G.m.b.H., 1948.) 6 D. marks. [115]

United States Department of Commerce: Weather Bureau. Research Paper No. 30: First Partial Report on the Artificial Production of Precipitation—Stratiform Clouds, Ohio, 1948. By Richard D. Coons, R. C. Gentry and Ross Gunn. Pp. iii+63. 30 cents. Technical Paper No. 5: Highest Persisting Dewpoints in Western United States for Durations of 12 to 120 Hours. Pp. 27. 35 cents. (Washington, D.C.: Government Printing Office, 1948.) [125]

### Catalogues

Mercury-in-Steel Thermometers. (List T.40.) Pp. 40. (London: Negretti and Zambra, Ltd., 1949.)

Engineering Bulletin, No. 237: Lisbon-Vila Franca Trunk Telephone Cable. By F. W. Martin, G. W. Arcus and D. Gibbon. Pp. 8. Engineering Bulletin, No. 238-9: Short Circuit Data; Plant Impedance and Fault kVA. By E. A. Beavis and K. J. Hacke. Pp. 8. (London: Siemens Brothers and Co., Ltd., Woolwich, 1949.)

Technique: a Journal of Instrument Engineering. Vol. 3, No. 2, April. Pp. 9-16. (Beckenham: Muirhead and Co., Ltd., 1949.)

Rohm and Haas Reporter. Vol. 7, No. 1, February. Pp. 26. (Philadelphia: The Rohm and Haas Company, 1949.)

Gallenkamp Plumbing Units. (Publication No. 517.) Pp. 4. (London: A. Gallenkamp and Co., Ltd., 1949.)

Rectifying Valve Type U.19. (Ref. D1.9.) Pp. 4. Transmitting and Power Rectifying Valves. (Ref. SP. 7/3.) Pp. 6. Receiving and Rectifying Valves. (Ref. SP. 8/3.) Pp. 10. (Chelmsford: Marconi's Wireless Telegraph Co., Ltd., 1949.)

Sciex Bulletin. No. 5 Technical Series, May. Pp. 20. (London: Scientific Exports (Great Britain), Ltd., 1949.)

Soucol Brand Carbonaceous Cation Exchange Material: Data for use in the Design of Water-Softening Plants. (Technical Publication No. 22.) Pp. 20. Doucil Brand Base Exchange Material: Data for use in the Design of Water-softening Plants. (Technical Publication No. 23.) Revised edition. Pp. 23. Doucil Brand Base Exchange Material: Data for use in the Design of Domestic Water-softeners. (Technical Publication No. 24.) Revised edition. Pp. 12. The Lime and Soucol Process: a Process for Water Treatment. (Technical Publication No. 25.) Revised edition. Pp. 12. (Warrington: Joseph Crosfield and Sons, Ltd., 1948.)

B.D.H. Laboratory Chemicals and Testing Outfits. Pp. vi+254. (London: British Drug Houses, Ltd., 1949.)