worked out by the previous director, Dr. S. L. Hora (1947-55). It was left to his successor, Dr. R. L. Roonwal (1956-), to carry out successfully the development plan during the Second Five-Year Plan period. The strength of its specialist officers has now increased from 14 to 50 (Science and Culture, 29, No. 10; October 1963). The other scientific and technical staff has also increased correspondingly. Work on several hitherto neglected groups of animals has either been started or developed further. Among the new sections opened are those dealing with marine survey, animal population studies, prehistoric zoology, protozoa and documentation.

# Middle Cwm Gorse Marine Band

A SURFACE borehole has recently been drilled for the National Coal Board at Betws, near Ammanford, Carmarthenshire. In the process, the Coal Measure sequence between the Lower Pinchin Seam and the Red Vein containing the Cwm Gorse Marine Bands was cored. This part of the Coal Measure succession has been described in detail by D. F. Davies, E. Dix and A. E. Trueman as a result of the examination of the cores from two boreholes put down in the Cwm Gorse Valley in 1926 (Proc. S. Wales Inst. Eng., 44, 87; 1928). In the recent borehole, three well-preserved specimens of Lingula and two specimens of Estheria were discovered at 13 ft. and 14 ft., respectively, below the base of the Lower Welsh Vein, thereby confirming the existence of a marine horizon (Middle Cwm Gorse Marine Band) approximately midway between the Upper and Lower Cwm Gorse Marine Bands. Other deep surface boreholes drilled for the National Coal Board in the neighbourhood of Llanelly and Caerphilly in the past few years have frequently passed through and confirmed the horizons of the Upper and Lower Cwm Gorse Marine Bands. Except for the recording by H.M. Geological Survey of one specimen of Lingula and scattered small Estheria at about 6 ft. below the Lower Welsh Vein in the National Coal Board's No. 7 (Egel) borehole drilled in the Cwm Gorse Valley in 1957, the presence of the Middle Cwm Gorse Marine Band of Davies, Dix and Trueman has hitherto gone undetected in the South Wales Coalfield.

# Carlsberg-Wellcome Travelling Research Fellowships, 1964-65

APPLICATIONS are invited for the Carlsberg-Wellcome travelling research fellowships, 1964-65, the object of which is to encourage co-operation, on an exchange basis, between Danish and British research workers in any branch of the natural sciences which has a bearing on human and animal medicine. One fellowship is awarded annually to a candidate from the United Kingdom for a year's work in Denmark and one annually to a Danish candidate for a year's work in the United Kingdom. The stipend may range from £1,000 to £2,000 per annum (or the equivalent sums in Danish kroner), travelling and some additional expenses being provided in addition. Further information can be obtained from the Scientific Secretary, the Wellcome Trust, 52 Queen Anne Street, London, W.1. Applications must be submitted before April 30.

#### University News:

# Aberdeen

Keele

Dr. J. R. Symons has been appointed senior lecturer in psychology with effect from April 1.

THE following promotions have been announced, to take effect from October 1: *Readership*, Dr. I. T. Millar (chemistry). *Senior Lectureships*, Dr. R. C. Smith (mathematics); D. W. Jordan (mathematics); Dr. G. Jones (chemistry); Ruth M. Badcock (biology).

## London

PROF. S. GILL, of the Research Department, International Computers and Tabulators, Ferranti Computer Department, and part-time professor of automatic data processing, Manchester College of Science and Technology (*Nature*, 198, 16; 1963), has been appointed to the chair of computing science tenable at the Imperial College of Science and Technology. Dr. T. A. J. Prankert has been appointed to the chair of clinical hæmatology tenable at University College Hospital Medical School. Titles of reader have been conferred as follows: Dr. C. F. Cullis (combustion chemistry), in respect of his post at the Imperial College of Science and Technology; Dr. P. V. March (physics), in respect of his post at Westfield College; Dr. F. J. Weinberg (combustion physics), in respect of his post at the Imperial College of Science and Technology.

#### St. Andrews

THE following appointments to departments in the Faculty of Science, St. Salvator's, have been announced: Senior Lecturer, Dr. D. M. Finlayson (physics). Lecturers, Dr. J. F. Nixon (chemistry); Dr. C. Thomson (chemistry); Dr. B. C. Scott (zoology); Dr. G. A. T. Targett (zoology); Dr. R. C. G. Killean (physics); Dr. I. M. Firth (physics).

### Announcements

PROF. A. W. BROWN, head of the Department of Zoology, University of Western Ontario, has been awarded the 1963 Entomological Society of Canada Annual Gold Medal for his distinguished achievements in entomology.

THE second international research symposium on "Electric Contacts" will be held in the Technical University of Graz during May 4–6. Further information can be obtained from J. B. P. Williamson, Burndy Corporation, Norwalk, Connecticut.

THE twelfth annual colloquium of the Sint-Janshospitaal, Bruges, entitled "Protides of the Biological Fluids", will be held in the Hospital during April 30– May 3. Further information can be obtained from Dr. H. Peeters, the Laboratory, Sint-Janshospitaal, Bruges.

THE first international Electron and Ion Beam Conference, sponsored jointly by the Metallurgical Society of the American Institute of Mechanical Engineers and the Electrochemical Society, will be held in Toronto during May 3-7. Topics under discussion will include: melting and refining; welding and brazing; recording and storage of information; microelectronics; ion propulsion; microprobe analysis; new advances in systems. Further information can be obtained from Mr. M. E. Boston, Torvac, Ltd., Histon, Cambridge.

A ONE-DAY course on "Studies in Vertebrate Physiology", organized by the Joint Biology Committee, will be held in the University of London on May 2. The programme will include: "Seeing is Believing? Visual Perception and Illusion" (Dr. T. C. D. Whiteside); "Reflex Mechanisms and the Maintenance of Posture" (A. J. Butler); "Electric Fishes" (Dr. R. D. Keynes); two biological films, "Pigeon Flight" and "The Master Mind (Animal Learning)". Further information can be obtained from the Joint Biology Committee, c/o the Association of Agriculture, 78 Buckingham Gate, London, S.W.1.

THE twenty-fifth annual congress and exhibition of the British Institute of Radiology will be held in London during April 22-24. The programme will include sessions on: the blood supply of tumours; factors affecting the results of radiotherapy; dosimetry in radiotherapy; tropical radiology; electron-spin resonance in radiation research; radiology of iatrogenic lesions; the new code of practice for hospitals. The Silvanus Thompson Memorial Lecture, entitled "X-ray Analysis of Proteins", will be delivered by Dr. M. F. Perutz. Further information can be obtained from the General Secretary, British Institute of Radiology, 32 Welbeck Street, London, W.1.