

personnel, and these resulted in substantial growth of every phase of the organisation. In 1904 there was put into effect by Congress the plan of organisation of Federal entomological work by which separate units were established for investigation of pests affecting the various host plants, namely, field crops, fruits, truck crops, forest- and shade-tree insects, and the like. With various modifications, changes and additions made necessary over the years, essentially the same general set-up remains in effect at the present time in the Bureau. It was also on July 1, 1904, that the entomological work of the Department was raised to Bureau status.

A notable addition to the striking events of the last decade of the nineteenth century was the discovery by Ross in 1898 of the carriage of malaria by *Anopheles* mosquitoes. As a result of this and other discoveries, medical entomology became a most important field of investigation and demanded the

intimate co-operation of pathologists and entomologists, and in all these Dr. Howard played an honourable part.

From 1896 until 1930 Dr. Howard was recognized by being given degrees from several institutions. These included the Ph.D., M.D., LL.D. and D.Sc. More than nine hundred publications came from the pen of Dr. Howard during his creative years, including not only his official reports and bulletins and a veritable stream of periodical articles, but also several books, notably "The Insect Book", 1901; "Mosquitoes", 1901; "The House Fly", 1911; "Mosquitoes of North America", 1912-17 (four vols., joint authorship with H. G. Dyar and Frederick Knab); "History of Applied Entomology", 1930; "The Insect Menace", 1931; and "Fighting the Insects: an Autobiography", 1933. In addition to all this, many home and foreign honours were conferred upon him.

J. S. WADE

NEWS and VIEWS

Commonwealth Viticultural Research Station, Merbein, Victoria

MR. FRANK PENMAN, chief irrigation officer of the State Rivers and Water Supply Commission of Victoria, has been appointed to the Commonwealth Viticultural Research Station, Merbein, and will succeed the present officer-in-charge, Mr. A. V. Lyon, when the latter reaches the retiring age shortly. Mr. Penman holds the degree of M.Sc. of the University of Melbourne, and is a fellow of the Royal Australian Chemical Institute. He has had very considerable experience in research into problems of soils and irrigation, especially in relation to vine and citrus culture, and was for many years an officer of the Department of Agriculture, Victoria.

Mr. Lyon has been in charge of the work of the Station since it was first started by the Mildura and District Research Committee in 1919. He continued in that position when the Station was taken over by the Council for Scientific and Industrial Research in 1927. The work of the Station has contributed towards the major advances that have been made in the viticultural industry of the region since the First World War. Mr. Lyon has also made a notable contribution in providing personal detailed advice to the settlers during the critical years of many irrigation settlements along the Murray.

Economics of the Family

PUBLICATION of the Report of the Royal Commission on Population has been followed by a series of papers, and the fifth volume, entitled "Memoranda Presented to the Royal Commission" (pp. 120; London: H.M. Stationery Office, 1950; 3s. net), which has recently been published, contains an important contribution on "The Economic Position of the Family", by Mr. J. Hajnal and Prof. A. M. Henderson. The authors of this paper, after discussing the various ways in which parents meet the extra cost of bringing up children, by comparing their expenditure with that of childless couples having the same income, conclude, first, that at all income-levels parents have to make considerable economic sacrifices to maintain their children, and, secondly, that children in large families have a lower standard of living than children

in smaller families. Even at relatively high income-levels, parents meet a large proportion of the cost of their children by reducing their own expenditure on necessities (for example, clothing) and buying cheaper kinds of goods to satisfy their requirements (for example, food). The cost of children is not met only by spending less on luxuries. The economic position of the family has been considerably affected by the changes of conditions since 1938. It would seem that, despite the large increase of prices and incomes, the actual money cost of a child to its parents, at a low working-class level of income, is substantially unchanged as compared with the pre-war figure. The burden of two children, which at this income-level was about a third of a childless couple's income, has now fallen to one-sixth. The raising of the school-leaving age, however, has meant that the burden lasts a year longer. Other papers in this volume include several on "The Relation between Intelligence and Fertility", by Sir Godfrey Thomson and other contributors, and a special memorandum submitted by Mr. R. F. Harrod in which he advocates family endowments proportionate to income through compulsory insurance.

National Forest Park of Glen Trool

THE latest of the National Forest Park Guides (H.M. Stationery Office; 3s.) describes the 110,000 acres which comprise the five forests, Glen Trool, Carrick, Cairn Edward, Changue and Kirrough-tree which the Forestry Commissioners have grouped to form the National Forest Park of Glen Trool. All these forests are places of great natural beauty, and it is gratifying to know that several proprietors and tenants of lands in the vicinity of the Forest Park have agreed to allow walkers to use fixed routes across their properties. These routes are indicated in the map that accompanies the guide-book, which also contains articles on the mountains, lochs and rivers by H. L. Edlin; geology by Prof. G. H. J. Daysh; plant life by Prof. J. R. Matthews; and wild animals and birds by Gavin Maxwell. J. R. Thom, conservator of forests for South Scotland Forestry Commission, describes the forests and plantations, and Andrew McCormick gives details of