

### Economic Problems.

THE proceedings of Section F (Economic Science and Statistics) of the British Association were marked this year by the variety and the number of the topics discussed. They were noticeable also in that a lady economist, Miss Lynda Grier, occupied the presidential chair of the Section. Taking "The Meaning of Wages" as the subject of her address, Miss Grier stated that it was not her intention to put forward a new theory of wages but rather to analyse and restate certain aspects of the wages problem under the three headings: (1) the distributive or competitive aspect, (2) wages as the product of the worker, and (3) the effect of the wages paid on the work and the supply of workers. We are being forced increasingly to discuss, she remarked, those measures which attempt to add to the normal wage rate or to "stretch" the rate so that it will pay for things that it did not previously pay for. Such measures include schemes for fixing minimum wage rates which do not increase productivity; cost of living sliding scales; systems of family allowances; compulsory insurance schemes, and schemes for subsidising certain sections of the wage-earners of the community.

In opening a joint discussion with the Agricultural Section on the "Marketing of Agricultural Products" Mr. R. B. Forrester said that in Britain very little serious attention has as yet been directed to the examination and analysis of marketing methods. Recent developments in other countries seem to show that a widespread tendency has set in towards improvement of marketing methods by means of control of quality and the setting up of grades or standards. So far, this has been especially associated with the efforts of the farmers themselves, though government

action has been of great help in providing scientific assistance and impartial inspection. It would seem that the British producer will also be compelled to give attention to marketing developments, which so closely affect competition in the home market. No alterations of a radical character are, however, to be expected in Great Britain unless they have the support of the farmers themselves, since changes in marketing are bound to involve important modifications in the system of production.

A young Swedish economist, Mr. Fabian v. Koch, gave an interesting account of unemployment relief in Sweden. The abnormal conditions of the post-War period are now practically at an end in that country. No insurance scheme has been initiated, though a provisional and restricted system of unemployment relief has been organised. The available funds have gone for the most part to State relief work, and only a small fraction has been devoted to the granting of doles or unemployment benefit. The principle has been accepted that relief work wages shall in all cases and localities be less than the ordinary wages that are paid.

Dealing with "The Economics of Family Endowment," Mrs. Stocks asserted that inadequate attention has been given by theoretical economists to the problem of the family and its place in the economic structure. But, from recent statistical and social investigations, the fact has emerged that current output is insufficient to ensure the payment of a living wage so long as wages are paid at a flat rate without respect to the family responsibilities of the wage-earner. This is the basis of the plea for family endowment and the argument on which its advocates base their case.

### The North Atlantic in Tertiary Times.

THE resemblances between the Tertiary faunas of the West Indies and those of the Mediterranean region have long been noticed and have been taken to indicate the former existence of shallow water across the Atlantic from the West Indies to Northern Africa, along which the migration of animals could take place. This subject, so far as the Miocene and Pliocene periods are concerned, has been more fully investigated by W. P. Woodring (Bull. Geol. Soc. America, 35, 1924, pp. 425, 867), who finds that the resemblance of the Miocene mollusks of the West Indies to those of the Mediterranean area is even closer than was formerly supposed—the resemblance being particularly striking to the fauna of the Piedmont basin of Italy. The similarity reached its maximum in the Helvetian period, when the Miocene transgression of the sea was at its greatest in both regions.

The Miocene faunas of the east coastal part of North America give clear evidence of the existence of climatic regions; in fact the distinction between tropical, sub-tropical, and temperate faunas is almost as striking as at the present day. It is therefore only natural that some differences should be found between the Miocene faunas of the Mediterranean and those of the West Indies; the former include temperate elements which are unknown in the latter and give them a sub-tropical aspect. The Mediterranean faunas are also characterised by the large number of exotic genera. The fact that so many genera, belonging to many different families, are common to both regions can scarcely be explained except by migration.

It is evident that this migration of tropical or sub-tropical genera could not have taken place along the northern border of the Atlantic; and Woodring concludes that there must have been series of shoal-water banks or islands extending across the southern part of the North Atlantic in Miocene times, but that these disappeared in late Miocene or Pliocene times, when the resemblances between the faunas of the two regions diminish. The present configuration of this part of the Atlantic floor, however, shows no sign of the former existence of shallow water or islands. In the Mediterranean region the sub-tropical faunas of the Miocene and Pliocene periods were replaced in Quaternary time by a temperate fauna coming from the North Atlantic.

In a later memoir, Woodring (Carnegie Institution, Publ. 366, 1925) describes the Miocene lamellibranchs and scaphopods from Bowden, Jamaica, and expects in a subsequent part to discuss the character and significance of the fauna. Dr. T. Wayland Vaughan has on more than one occasion pointed out resemblances between the coral faunas of the western side of the Atlantic and those of the Mediterranean region in Eocene, Oligocene, and Miocene times. In a short paper (Bull. Geol. Soc. America, 35, 1924, p. 823) he recurs to this subject and states that in the West Indies the resemblance is greatest (1) between the Upper Eocene of St. Bartholomew and the Priabonian of Northern Italy, and (2) between the Oligocene of Antigua and the Rupelian of Northern Italy.