

Hall, recently appointed to a chair at Manchester (see *Nature*, March 18, p. 877), Dr. Vinen conducted an elegant series of studies on the hydrodynamics of superfluid helium, with particular reference to the development of turbulence and the frictional effects arising from the interactions of the thermally excited 'normal fluid' with the vorticity of the ground-state, the 'superfluid'. The work of these two collaborators, which must ultimately be ranked as a classic investigation, soundly establishing quantum hydrodynamics on an experimental basis, culminated on Dr. Vinen's side with a direct demonstration of the quantization of circulation in the superfluid. This beautiful experiment may well be regarded as a worthy conclusion to the work of more than twenty years in Cambridge on the properties of superfluid helium, which began equally strikingly with the discovery of the fountain effect. In the organization of a new department and the development of new fields of research, Dr. Vinen will have full scope for the inventiveness and versatility which have been such a notable characteristic of his work up to the present.

Director of the National Fishery Institute, Ecuador: Mr. F. Bourgois

MR. FRANÇOIS BOURGOIS has been appointed director of the National Fisheries Institute, Guayaguil (Ecuador), for a period of four years. Mr. Bourgois has been Food and Agriculture Organization fishery officer in Haiti since last July. Prior to that, he was fishery officer and the Organization's representative in Tunisia for three and a half years. While in Tunisia, Mr. Bourgois was concerned with finding and charting new fishing grounds, improving the sardine fisheries and extending Tunisian trawling farther offshore. Together with one of the Organization's master fishermen, he introduced the use of underwater lamps into Tunisian sardine fishing. Mr. Bourgois joined the French Fisheries Service in 1945 as a fisheries expert and administrator. He was previously fisheries adviser to the Viet Nam Government, and fisheries expert with the Supreme Commander for the Allied Powers. His first assignment for the Food and Agriculture Organization was in 1956 in Libya. The Ecuadorian National Fishery Institute is the second major U.N. Special Fund fisheries project, with the Food and Agriculture Organization as executing agency, to be established in Latin America. The project calls for a Government contribution of 663,040 dollars over a four-year period, and a special fund contribution of 633,800 dollars. The purpose of the Ecuadorian Institute is to help the Government foster the country's economic development by a substantial expansion of fishing and ancillary activities. Facilities and maintenance for the Institute's two research vessels, and personnel are to be provided by the Ecuadorian Navy. The Navy will also provide hydrographic and meteorological information on areas not studied by the Institute's vessels and will provide a ship for several months of whale-marking each year in the seas of Ecuador.

Space Research in Britain

REPLYING to a question regarding Great Britain's contribution to a space research programme, Mr. D. Freeth, Parliamentary Secretary for Science, said in the House of Commons on May 2 that Great Britain's programme comprises five main elements. There is the programme of scientific experiments using sounding rockets. Further experiments will be made in satellites to be launched by the United States,

with which Britain is also collaborating in testing communications using satellites. Thirdly, Britain is participating actively in the preparatory commission set up to plan a European organization for co-operation in scientific research in space. Great Britain and France have also proposed to other European Governments a co-operative programme for the development of satellite launchers beginning with one based on *Blue Streak* to be fired from Woomera. Finally, Britain is doing much analysis of satellite tracking data, including the operation of one of the three World Data Centres which act as international clearing houses for information on space research. Future plans in Britain will be considerably affected by the results of the discussions now taking place with other countries regarding the third and fourth elements in this programme. Mr. Freeth added that Britain is in very close touch with both the Australian and Canadian Governments, and he strongly disagreed with the suggestion that discouragement of British participation in a space programme is leading to an exodus of the finest brains of the country to the United States and Canada.

In a written answer on May 2, Miss Pile, Assistant Postmaster-General, said that the Post Office is co-operating in a wide-ranging communications satellite research programme which covers orbits, altitudes and frequencies, and the design of the electronic equipment in the communication satellites themselves. The first requirement is a ground station for joint experiments with the Americans in satellite communications across the Atlantic.

In reply to questions on May 4, the Prime Minister said that the Minister for Science, in his speech to the Geological Society on April 26, was re-affirming his acceptance of the view of the Advisory Council on Scientific Policy that a full-scale space programme on a purely national basis, including the development of a large launcher, would not be justified solely on scientific grounds. The wider problem of developing a launcher for heavy satellites is under discussion in Europe, and any further statement of policy must await the outcome of discussions. He hoped that Britain would be able to get the joint scheme, because of the enormous sums involved if the matter were to be pressed forward in all its aspects. In other questions reference was made to the expenditure of only £5 million on scientific research by the National Coal Board, and to the cost of the Russian rocket programme for launching heavy satellites as about equal to the cost of the whole defence programme of Britain. Mr. Macmillan emphasized that it is a matter of determining the right priorities and in this matter the Government looks to the Advisory Council on Scientific Policy for guidance.

Industry, Science and the Chemical Engineer

On April 25, at the thirty-ninth annual general meeting of the Institution of Chemical Engineers, Mr. W. K. Hutchison, deputy chairman of the Gas Council, delivered the presidential address. He referred to the rapid growth in membership of the Institution. This occurred chiefly because of post-war expansion; chemical industry and chemical plant manufacturers all began to offer opportunities for employment to chemical engineers on a scale not contemplated before the War. The greatest demand is in the field of production, and, in particular, plant operation, where techniques of management are of special importance. The Institution is able to make one of its most useful contributions to the education