help which they have already given. The Admiralty provided a submarine on two occasions for gravity observations at sea, and lent a kite balloon and personnel for research on the feeding habits of swifts. The War Office lent equipment to a geological expedition to Spitsbergen. The Air Ministry provided: a helicopter fitted with a large net for collecting insects, photographic cover for an archæological expedition to Tripolitania, flying-boats of Coastal Command for two flights to observe the breeding grounds of seals and sea-birds, six cameras to the International Committee for Bird Preservation for use in a wildfowl census, and a considerable number of aerial photographs of specific areas required by men of science from time to time; in addition, arrangements were made for the Royal Air Force to fly photographic plates at high altitudes in connexion with cosmic-ray research. In another instance, the co-operation of the Ministry of Supply was obtained in the development of an airborne magnetometer. Men of science wishing to submit proposals for consideration by the Committee should communicate their suggestions to the Assistant Secretary of the Royal Society, Burlington House, London, W.1.

25-Inch Telescope Disk for the University of Michigan

A LARGE telescope disk for the University of Michigan has just been completed by Chance Brothers, Ltd., of Smethwick, Birmingham. Now that work is finished on the moulding and annealing of the disk, which is of dense flint optical glass, 25 inches in diameter and almost 4 inches at its thickest edge, it will be dispatched to the Perkin Elmer Corporation in the United States, where it will be ground and polished for use in the objective of a new Schmidt-type telescope now being built for the University of Michigan by the Warner Swasey Co. of Cleveland, Ohio. The sequence of operations necessary for the production of this disk occupied eight months. A special melting of glass of the required composition to give the necessary refractive index was rendered homogeneous by stirring and then cast into a large block weighing about half a ton. The surfaces of the block were polished to detect any portions containing defects. Finally, a portion weighing about 250 lb. (approximately a quarter) was selected, heated to softening point and moulded to the required circular shape. The surfaces of the moulded disk were then polished for further inspection; after which it was annealed in an electric furnace, this operation taking four weeks. Finally, the disk was tested in the Chance Laboratories, first on an interferometer to prove the perfection of optical homogeneity, and, finally, in polarized light to detect any abnormal mechanical stresses which might affect its performance. A second disk, similar to the one described, is also being manufactured for the Warner Swasey Co. It is of interest to note that Messrs. Chance Brothers are now celebrating the hundred and twenty-fifth anniversary of their foundation.

Exhibition of Physics Instruments in Paris

THE annual exhibitions of scientific instruments held in London by the Physical Society are well known, and the printed catalogues of these exhibitions, containing as they do a wealth of information which is handy for reference and not easily accessible in any other form, have proved most useful to many research workers and institutions, even many years after the particular exhibitions of which they form a record. The annual exhibitions of scientific instruments and materials of the Société Française de Physique deserve to be equally well known. The 1949 exhibition was held at the Sorbonne (University of Paris) during June 4–9, and for the first time a detailed printed and illustrated catalogue of the exhibits was issued. To those who were unable to visit the exhibition this catalogue should prove valuable as an introduction and guide to the resources and state of development of the research institutions and instrument manufacturers in France. Of the 200 pages of the catalogue, 137 are devoted to descriptions of the apparatus exhibited by the eighty-five different exhibitors, and forty to advertisements. As is explained by P. Jacquinot, general-secretary of the Société, in the introduction to the catalogue, the usual troubles in compiling the catalogue were experienced, and the descriptions given of the various pieces of apparatus vary in length from just a brief title, which conveys almost nothing to the reader, to detailed technical expositions of construction and method of use. However, even a brief glance through the pages of the catalogue is sufficient to assure the reader of the diversity and high standard of the apparatus exhibited. Further, the excellent alphabetical indexes with which the catalogue is provided afford easy reference to any piece of apparatus or to its manufacturer.

Air Transport and Insects of Agricultural Importance

CONSIDERABLE attention has been given in recent years to the risk of spreading disease-carrying insects by the agency of air transport. Almost no consideration has been given to the possible introduction of new agricultural pests by the same means, although the development of new routes and the short time taken to traverse great distances are unquestionably adding greatly to the risk of such invasions. The Commonwealth Institute of Entomology has recently published a small pamphlet (pp. 12, price 1*s.* 6*d.*) on this subject by Dr. W. A. L. David. Up to the present time, although many disastrous introductions have occurred both in Europe and in the United States within the past fifty years, there has been no authenticated case of air transport having been responsible. But insects of many kinds are found surviving in aircraft, and the danger will increase. Tolerably efficient methods of freeing aircraft of flies and mosquitoes are being worked out; but these are certainly not lethal to more resistant insects—even when they are properly applied. Perhaps the deposition of a lasting film of insecticide is the most promising line of development. Some modifications in the planning of the interior of aircraft could reduce the number of lurking places for insects and thereby make disinfestation easier.

Flightless Birds of New Zealand

IN Dominion Museum Bulletin, No. 15, Mr. W. R. B. Oliver has summed up the available information concerning that remarkable group of flightless birds, the moas, some of great size, that formerly inhabited New Zealand and parts of Australia, but have all vanished, being only known to us through their remains. It appears that the birds, unable to fly, were liable to get engulfed in bogs, in which marshes their bones have been preserved, often in surprising numbers. It is to such remains that we owe our knowledge, though the birds must have survived up to comparatively recent times, because Maori camp