lactating cows in a byre treated with DDT secreted in the milk within forty-eight hours quantities of 2 parts per million. This amount was shown to be significant in that DDT when fed to laboratory animals was stored in the body fats; diets containing as little as 5 parts per million produced liver injury in rats. Other pesticides are even more highly toxic, and it was suggested that some should be banned completely from use on food crops.

Many other topics were reviewed by the Delaney Committee; for example, the impairment of the nutritive value of prepared foodstuffs through the replacement of naturally occurring constituents such as fat by synthetic materials which cannot be utilized by the body and which may interfere with the normal absorption and metabolism of nutrients. Information was also given regarding the unforeseen consequences of the introduction of synthetic hormones into poultry husbandry; mink fed on the offal of chickens treated with hormones became sterile, an observation which has naturally led to a demand for a full inquiry.

There is now a substantial body of public opinion in the United States which favours legislation to deal with the various problems outlined above, and this proposal is supported by members of the medical profession and by others working in the fields of biochemistry and nutrition. The central issue under discussion is how to frame suitable legislation which, on one hand, will provide adequate protection for the consumer and, on the other, will also give freedom for new and legitimate developments in agriculture and food technology.

FRANCIS AYLWARD

MECHANICAL ENGINEERING RESEARCH ORGANIZATION

REPORT FOR 1947-50

UNTIL recently it was clear that in Great Britain research in mechanical engineering suffered from lack of any central co-ordination: a considerable amount of work was being done in government, industrial and university research laboratories, but in some branches the researches carried out were insufficiently fundamental, being directed towards the solution of immediate problems. A new organization was clearly needed, both to conduct basic research not carried out elsewhere and to serve as a focal point for all other research work. To meet this need the Mechanical Engineering Research Board was appointed in 1946 to advise on the organization and equipment of the government-sponsored Mechanical Engineering Research Organization, to which funds amounting to some £300,000 a year were allotted.

The first report of the director of the Organization has now been issued*. It is prefaced by a report of the Board, which reviews the broad issues involved and the progress achieved in the establishment of this new Organization. It gives a clear and concise account of the whole situation: the objectives, the resources available, the constructional work complete

or projected, the research now in hand or planned, and the collaboration with other research bodies.

A new organization of this type cannot grow without any roots: it is necessary to train the teams who will work together, before they can be transplanted to other premises. There must be a proportion of well-established lines of research in addition to those that are quite new. In this case the greatest debt is to the Engineering and Metrology Divisions of the National Physical Laboratory, from which the nucleus of the Mechanical Engineering Research Organization has been formed.

It was decided, on broad national grounds, that the new laboratory should be situated in Scotland. The site adopted is at East Kilbride, near Glasgow. The site adopted is at East Kilbride, near Glasgow, together with temporary premises a few miles away at Thorntonhall, and sufficient laboratories and essential services are now ready at East Kilbride for research work to begin there. The establishment is being organized into seven main divisions, the work of each being under the supervision of a committee of experts from industrial and other research laboratories. In addition, a considerable amount of extra-departmental research is being undertaken in collaboration with each division.

The first director of the Organization was Dr. G. A. Hankins, formerly superintendent of the Engineering Division of the National Physical Laboratory. Since his death in November 1950, Dr. D. G. Sopwith, his successor at the National Physical Laboratory, has been in charge on a part-time basis (see p. 769). His report gives a fairly complete picture of the work done during the first three years of the existence of the Organization. In the early stages the main emphasis was naturally on the formulation of future research programmes; this changed to the detailed design of laboratories and equipment and the recruiting and training of staff. The total staff in 1948 numbered only seventeen, but by December 1950 the scientific and technical staff had increased to sixty-three, together with a roughly equal number of ancillary laboratory, office and industrial staff.

The progress of the various researches and future work planned by each division is detailed, together with an account of extra-departmental projects. Even an outline of all the work undertaken or contemplated is impossible in this article. It ranges from the comparatively familiar tests and techniques used in the testing of materials to the development of the use and analysis of mechanisms, a branch of engineering science which has remained practically static for some fifty years. It is apparent how closely allied many of the researches are to other fields of scientific, as opposed to technological, research; it is, of course, quite impossible, and undesirable, to make any such distinction. It is intended, however, that the work of the Organization shall be carried through to the development stage, should it be considered essential to do this in order to make apparent the industrial advantages to be gained from the results of basic work.

This publication is likely to prove of interest to those engaged in scientific research of any sort, and it can be recommended as giving a clear idea of the progress and aims of the new venture. No longer can it be maintained with justice that technological research in Great Britain lags behind general scientific research, either in relation to its fundamental nature or to the breadth of outlook of those concerned with it.

R. H. MACMILLAN

* Department of Scientific and Industrial Research. Report of the Mechanical Engineering Research Board, with the Report of the Director of Mechanical Engineering Research for the Period May 1947 to December 1950. Pp. 39+8 plates. (London: H.M.S.O., 1951; 2s. 6d.)