

are in their laboratories. Correspondence in connexion with the grants should be sent to Dr. Robert R. Williams, Research Corporation, 405 Lexington Avenue, New York 17, N.Y.

Sterilization of Syringes

THE difficulty of sterilizing syringes satisfactorily has been the subject of much recent research. A leading article in the *Lancet* (111, July 28, 1945) discusses this problem, the importance of which is emphasized by the publication, in the same issue (p. 106), by E. M. Darmady and C. Hardwick, of an account of hepatitis in ten subjects which followed the administration, by means of syringes, of pentothal and penicillin. These authors discuss the difficulties of proving the possibility of the transmission by syringes of the small amounts of blood containing an icterogenic principle which are required to produce hepatitis. The icterogenic principle involved is, these authors say, so heat-resistant that ordinary methods of sterilization of syringes do not destroy it. Prolonged heat is necessary for this. The use of needles alone for the withdrawal of blood for laboratory purposes would also prevent the contamination of whole syringes. The discussion of the same problem in a memorandum issued by medical officers of the Ministry of Health, recorded in the same issue of the *Lancet* (p. 116), comes to the conclusion that revision of existing injection techniques is required, and that hepatitis following the injection of arsphenamine, gold and other substances is an expression of homologous serum jaundice communicated by traces of blood transferred from subject to subject on syringes and needles. It is, of course, easy to overestimate the dangers which may result from existing methods of sterilization of syringes. Millions of injections must be done every year without untoward results. But the evidence recorded here emphasizes the importance of the report of the committee appointed by the Medical Research Council (M.R.C. War Mem. No. 15, H.M. Stationery Office, 1945, 4d.) to consider the sterilization of syringes. This report should interest the experimental worker as well as the medical man, for, in certain kinds of experimental work, the results may be seriously affected by inadequate attention to the cleaning of syringes and needles.

Toxicity of D.D.T. to the Housefly

DURING the War the importance of the compound usually referred to as D.D.T. as an insecticide has been demonstrated. In the *Bulletin of Entomological Research* (36, Pt. 2; Sept. 1945), E. A. Parkin and A. A. Green, of the Pest Infestation Laboratory at Slough, describe experiments in testing the efficacy of controlling the housefly (*Musca domestica*) by means of D.D.T. They found that when applied as a spray containing 0.1 per cent w./v. or more of D.D.T. in kerosene it is very toxic to the insect in question. At 1 per cent strength D.D.T. gives an effective spray for practical use but at lower concentrations its action is too slow. Its advantages as a fly spray are that it can be prepared synthetically; it is almost odourless; it will not stain fabrics, etc.; it appears to have no marked irritant effect upon the operators up to 2 per cent strength; it is extremely lethal to flies both in solution and in the solid form after deposition on walls, etc., from volatile solvents. Its main disadvantage is its slow rate of action on flies unless used at a concentration of at

least 1 per cent w./v.; but, even at this strength, affected flies produce an unwelcome buzzing, for at least an hour prior to the wing muscles becoming paralysed. The slow action of this compound can be overcome by the admixture with D.D.T. of a small amount of pyrethrins which has a very rapid paralytic effect. It would appear that the two constituents act independently, the rapid effect of the pyrethrins keeping the flies immobile until the slow lethal action of the D.D.T. has had time to come into effect.

British Rheologists' Club

THE fifth annual general meeting of the British Rheologists' Club was held at the Engineers' Club, Manchester, on October 5. Dr. G. W. Scott Blair, the retiring honorary secretary, reported on the activity of the Club during the year 1944-45, and stated that membership had reached the three hundred mark. The Club had held four general meetings, and two bulletins of information, abstracts, etc., had been issued. Close contact had been maintained with the Society of Rheology (United States), and contacts had begun with rheologists in the U.S.S.R., France and other countries. The Proceedings of the Oxford Conference were nearly ready and would be published in book form. Prof. E. N. da C. Andrade was re-elected president for the ensuing year. Dr. E. W. J. Mardles of the Royal Aircraft Establishment, Farnborough, Hants, was elected secretary; a vote of thanks was moved from the chair to Dr. Scott Blair, who had been secretary of the Club since its inception in 1940. The meeting was followed by a joint discussion with the Manchester Section of the Oil and Colour Chemists' Association on the general rheological properties of suspensions.

Announcements

DR. H. R. HULME, sometime a chief assistant at the Royal Observatory and recently director of naval operational research at the Admiralty, has been appointed scientific adviser to the Air Ministry.

At a meeting of the Council of the University of Sheffield held on December 14, the following appointments were announced: Mr. P. C. Sylvester-Bradley to be assistant lecturer in geology, and Dr. H. McIlwaine to be lecturer in biochemistry. Dr. A. Elliott, lecturer in physics, Dr. J. C. Speakman, lecturer in chemistry, and Mr. F. G. Hannell, lecturer in geography, have resigned.

THE All-Union Scientific Research Institute of Plant Industry of the U.S.S.R., made famous under the directorship of N. I. Vavilov, has returned to Leningrad from evacuation, and has begun to set its collections in order and to re-establish its exchanges of seeds and literature. None of the priceless collection of seeds has been lost. During the siege the Institute was guarded by five members of the staff who remained in Leningrad. This corrects the statement in the obituary article of Vavilov (*Nature*, 156, 622; 1945) that "the residue of his collections was eaten by the famished people". Altogether about thirty members of the staff were killed or died of starvation during the siege. The director, Academician Eichwald, and the librarian, Mrs. Heintz, are anxious to resume exchanges. The address of the Institute is Ulitsa Gertsena 44, Leningrad.