

alternatively the provision of a 'warden' fire in addition to one lighting point and one 5-amp. plug socket for 1s. 3d. per week for 18 months. These proposals have been unanimously approved by the Electricity Committee, and will be put into operation as soon as the necessary approval has been obtained to the financing of the scheme. After the scheme has been approved by the Electricity Commissioners it is hoped that it will be put into operation. It is to be hoped that similar facilities will be made widespread by other undertakings throughout the country. Winter is immediately ahead, with much illness to come if the shelter-comfort problem is not dealt with promptly.

Air Raid Precautions for Users of Ammonia

THE Ministry of Home Security has recently issued a pamphlet on "Air-Raid Precautions to be taken by Users of Ammonia" (London: H.M. Stationery Office. 1d.). The extensive use which is now being made of anhydrous ammonia refrigerating plants makes the question an urgent one. The main precaution recommended is to keep stocks of anhydrous ammonia down to the absolute minimum. If the capacity of a given plant is sufficient to provide a reservoir, no reserve stocks at all should be kept. Where it is essential to keep additional supplies in cylinders, these should preferably be dispersed to protected positions in the open away from risk of fire and stored horizontally. If such a dispersal is impracticable, the cylinders should be placed in an angle of the walls of the building and suitably protected on the exposed sides. Precautions against the escape of ammonia from the refrigerating plant include the provision of sills around the area over which liquid ammonia may flow from a broken condenser coil; and it is suggested that the condenser water should be kept running, as ammonia is readily soluble in water and the aqueous solution is less dangerous than the anhydrous liquid. In an emergency, the charge in the machine should be isolated by closing all possible stop valves. To facilitate this operation by possibly inexperienced personnel, the engine-room master-valves may be painted in striking colours. It is pointed out that cylinders to be emptied should be laid horizontally, so as to discharge the ammonia in liquid form, due care being taken to avoid burns by the splashing of the liquid.

Electric Power Stations Underground

As we see things at present, unless war can be banished from the earth we may have to revise our ideas completely as to underground power plant and underground shelters. The only really safe refuge in a great city assaulted from the air is a chamber far below the surface such as we find along some of the lowest tunnelling of the electric tubes, a level well below the maximum depth excavated by the comparatively feeble bomb of 1940. In the *Electrical Times* of September 26 it is stated that soon after the War of 1914-18 a few eminent consultants and power plant engineers sent the editor outline ideas of generating stations placed underground at low

level. One of the difficulties which appeared insurmountable at that time was the supply of cooling water in large bulk at these depths. The inlet of water is easy enough, but what of the outlet? The case is a little less puzzling in that of oil-driven prime movers, but even these would strain the engineer's resources and ingenuity.

When the struggle at present raging reaches a settlement, inquiry may well be reopened. Excavations to a considerable depth and on a large scale may become essential, if only for providing an absolutely safe refuge for distracted people and hospital patients and staffs. Underground stations, too, are being used as air raid shelters. This is one stage of a difficulty which in time might become formidable; it will have to be considered along with the other problem of finding a safe lodging for the much-discussed electric power house.

British Rheologists' Club

SINCE the outbreak of War, new and urgent problems concerning the flow and deformation properties of materials (rheology) have arisen in many industries and in research, and a group of British rheologists have therefore formed a club for mutual help and discussion. Prof. G. I. Taylor, Yarrow research professor of the Royal Society, has accepted the presidency. The objects of the new Club are "to co-ordinate the activities of Rheologists in Britain during the War, to further the appreciation of the importance of rheology in industry and to facilitate the pooling of information (where it is desirable) with respect to problems and new methods of research". Membership of the Club is open to any individual working or interested in rheology who is resident anywhere in the British Empire, and there is a nominal subscription of five shillings per annum. Arrangements are in preparation for an inaugural meeting of the Club to be held at the National Institute for Research in Dairying, University of Reading, on November 16, when it is proposed to hold an informal discussion on a topic to be selected, followed by an inspection of rheological apparatus including some recent developments. Fuller details of the Club may be obtained from the honorary secretary, Dr. G. W. Scott Blair, c/o Institute of Physics, at the University, Reading, Berks.

Primitive Art: Past and Future

THE anthropologist, when confronted with some of the more extreme pronouncements of aesthetic judgment on the primitive artist, was at one time perhaps a little too apt to regard them as unwarranted apotheoses of what was after all a phase and no more in a process of aesthetic development or 'evolution', differing in this relation in no essential from any other cultural element depending upon technical achievement. He was, however, so far justified in that each example of the artist's skill and taste was to be regarded with reference to its social and religious background; and while it might, and very often did, afford satisfaction to a judgment habituated to European canons, to award it the highest mark as