

To find out the effect of the disease the two groups were compared in the various Binet tests, the frequency and percentage of each group passing the given tests being tabulated and the percentage of deterioration on each test calculated.

On the hypothesis that the ability to pass a given

test is cortically localized, a randomly distributed deterioration would be expected. Such was not the case. The experimental findings supported the hypothesis that intelligence is a function of the whole brain, against the hypothesis of specific localization.

LONDON'S WATER DURING 1938

THE recently issued report of the Metropolitan Water Board* tells of the unceasing supervision exercised over London's water supply during 1938. The total output from the Board's works was 111,438 million gallons, a slight increase over the previous high record of 1937, the average daily supply to consumers being 312.77 million gallons, of which 65 per cent was derived from the Thames.

Some 50,000 samples were analysed during the year, of which about 30,000 were routine bacteriological, and 4,700 routine chemical, examinations, the main purpose of which is to determine that all the processes—storage, filtration, purification, distribution—are working satisfactorily so as to ensure a pure and safe supply to consumers. Based upon the *Bact. coli* test, 99 per cent of all samples were of first-class quality (absence of *Bact. coli* from 100 ml.)—a highly satisfactory record.

Of researches conducted in the Board's Laboratories, much attention has been directed to improving the *Bact. coli* test, and the method for isolating coliform organisms when present, for the purpose of differentiating the type. New procedures were also investigated for improving the method of isolation of *Clostridium Welchii* and the Streptococcus organisms that are sometimes of service for assessment of the potability of a water.

The occurrence of *Bact. paratyphosum* B, a microbe that causes a form of enteric fever, in Epping sewage has been noted since 1931. This specific organism is still present in the sewage, in fact was somewhat more numerous than it was in 1937, and as a precaution chlorination of the effluent has now been established as a permanent measure. Investigations on improved methods for the isolation of this organism are in progress.

Complaints are sometimes received concerning the

* Metropolitan Water Board. Thirty-third Annual Report on The Results of the Bacteriological, Chemical and Biological Examinations of London Waters for the Twelve Months ended 31st December, 1938. By Lt.-Col. E. F. W. Mackenzie, Director of Water Examination, Metropolitan Water Board. (P. S. King and Son, Ltd., 14 Great Smith Street, Westminster.) 10s. 6d.

taste of the water, and no less than 11,360 'taste' tests were carried out during the year by the expert tasters of the Board's staff. Complaints of taste are generally attributable to some defect at the works, the commonest being an overdose of chlorine. Earthy or musty tastes result from decomposition of, or fungoid growths in, filter bed skins during hot weather, and characteristic tastes are produced by decomposing plankton. In one instance, a musty taste occurred in the water drawn from the cold water tap in a kitchen, and was traced to two species of fungi growing in the tap. Organisms belonging to the Actinomyces are capable of producing earthy tastes, and this subject is under investigation.

Certain algae and diatoms are subject to periods of sudden excessive growth, and are liable to cause trouble in reservoirs and filter beds. Thus, it was reported that a 'brown' growth had arisen in one of the reservoirs, and microscopical examination showed that this was caused by excessive growth of a diatom, *Stephanodiscus Hantzschii*, which was clogging the secondary filter beds. By treatment with alum this trouble was overcome. Investigations are being carried out in the Biological Section with the view of ascertaining the cause of these fluctuations in the number of the algal and other living forms in the water; they may depend upon peculiar variations in the silica, phosphates and other mineral constituents of the water which are known to take place at certain seasons of the year. An account is given of the appearance in a reservoir of *Oscillatoria rubescens*, a blue-green alga, and of the chemical conditions prevailing. In August when this organism became very numerous, pH values were higher, temporary hardness was lower, and concentrations of PO₄ were rising rapidly to a very high level compared with March, when the organism was scanty.

Notes are given on the occurrence of certain rare Copepods and other forms of microscopic life, numerous tables are included, and the report is illustrated with several excellent plates.

ECONOMICS OF WAR COSTS

THE problem of paying for the War is discussed in an Oxford Pamphlet on World Affairs (Oxford: Clarendon Press. 3d. net) by G. Crowther and a broadsheet issued by Political and Economic Planning (P E P), which have both appeared under that title. The real problems of paying for the War, the broadsheet points out, are economic, political and psychological; for the limits of war effort are

not financial but social, psychological and economic. The size of the output of war material depends on the willingness of people to work harder and make their capital resources last longer, and above all, on the way they react to reductions in their standards of life. The methods of financing the War are vitally important, since they determine the distribution of its cost between different groups of people and may