

Effect of Perspiration on Leather.—Work has been continued on the very complex problem of the cracking of upper leather during wear associated with the action of perspiration. Conditions of wear vary so much not only from person to person, but also with the individual person, that as yet it has not been possible to interpret analytical results obtained from analyses of cracked leathers not only on account of the above variables, but also due to other factors such as the fit and structure of the shoe and porosity of the leather.

Drying-chambers.—The pilot drying-cabinet mentioned in the 1946 annual report aroused a great deal of interest, which has resulted in the introduction of drying-cabinets in many factories.

A trial drying-cabinet using infra-red rays for the edges of soles after inking was constructed from results obtained in the laboratory.

Factory Problems.—The interest which has been aroused on such problems as factory lighting, colour schemes, and drying is reflected in the individual requests for further information on these subjects. Apart from these problems, the number of other problems—viz., 145—submitted for investigation has been above the average. The number of shoes damaged in wear by a strong acid submitted during the year for a report as to the cause of damage has been above the average, indicating that the public need education on the need for greater care in handling strong acids or containers.

Pelt Research.—The value of the work carried out in previous years has again been fully emphasized in dealing with the problems raised during the year. These have been mainly in connection with plant layout and adjustments of existing processes to meet the requirements of changes brought about by economic factors associated with post-war conditions. Changes in processes may have disastrous repercussions in very unexpected ways unless the fundamental principles underlying these processes are fully appreciated.

MANUFACTURERS' RESEARCH COMMITTEE

Secretary - Executive Officer: Mr. R. T. WRIGHT

The Committee is representative of the industries and principal manufacturing towns of New Zealand. Meetings were held quarterly during the year.

SERVICE TO INDUSTRY

The committee has maintained its policy of ensuring that the maximum scientific and technical service is made available to industry from the resources of the Department, and of avoiding competition with the facilities and service available from consultant analysts and appropriate private firms. No scientific officers have been appointed by the Committee, but especially through its representatives on the Technical Advisory Committee of the Dominion Physical Laboratory and on the Advisory Committee of the Auckland Industrial Development Laboratories the Committee has maintained close contact with the substantial volume of work being undertaken for industry.

Auckland.—The Committee has been so impressed with the value to sound industrial progress of the work of the Auckland Industrial Development Laboratories that it has recommended the continuation of the Laboratories on a permanent basis. The Laboratories have satisfactorily undertaken over 300 industrial jobs, notably an investigation into the variable speed spinning of wool on ring spinning frames, and the design and manufacture of precision optical parts for industrial use.

Canterbury.—In view of the success of the Auckland experiment, and as part of its long-term programme, the Committee has recommended that a similar organization for servicing industry in the South Island should be established in Christchurch, using as a nucleus the wartime Defence Development Section. A tripartite arrangement involving the Canterbury University College, the manufacturers' associations in Canterbury, Otago, and Southland, and the Department has been proposed, with an advisory committee representative of these three parties and the Committee to guide the activities.