

removal of the solvent or water is not carried out, its presence may interfere with or reduce the efficiency of the next process. Unless proper drying plant is installed at suitable points in the factory, the drying may take too long a time and so delay the progress of the shoes through the factory. Efficient drying, therefore, is an important aspect of shoe-manufacture enabling as it does, better workmanship and also a more regular progress of the shoes through the factory. During the year the Department's Chemical Engineer designed and erected a pilot drying plant suitable for the conveyor system of shoe-manufacture. This has aroused a large amount of interest and has drawn attention to the importance of suitable drying.

Factory Problems.—The practical aspect of shoe research is the help that it is capable of giving to the investigation of factory problems. The confidence of the industry in its Research Association is reflected in the number of problems so submitted for investigation. During the year the number of problems submitted was the second highest during the life of the Association, the record being held by one of the war years. On this basis the work carried out has again fulfilled the objects for which the Research Association was formed.

PELT RESEARCH ASSOCIATION

The continued confidence of the freezing-works, associated with pelt research, in the activities of the Association has been manifested by the results of the past year's efforts. Not only have alterations in processes been discussed, but also the layout of plant and machinery. Changing conditions have demanded that processes should be modified to some extent, and this has been done without sacrificing the quality of the pickled pelts. This has been possible because the fundamental principles underlying the processes are known as a result of the work carried out during the past years.

An investigation of the curing of calf-skins was commenced during the year and the results so far obtained indicate that progress is being made to improve the quality of the skins.

MANUFACTURERS' RESEARCH COMMITTEE

Committee.—Drs. E. Marsden (Chairman), J. C. Andrews, R. O. Page; Mr. D. F. Sandys Wunsch (Council of Scientific and Industrial Research); Messrs. A. Dennison, S. T. Hudson, D. T. Clifton-Lewis, F. Morgan, R. J. Rastrick, L. W. Tattersfield (New Zealand Manufacturers' Federation); and Mr. R. T. Wright (Secretary - Executive Officer).

The Committee is representative of the industries and main districts of New Zealand.

Mr. F. Johnson, Assistant Secretary, Department of Industries and Commerce, acts in a liaison capacity.

Meetings of the Committee have been held at approximately bi-monthly intervals.

Scientific Testing and Servicing.—Following the policy enunciated in last year's report, the Committee has promoted in every way possible the scientific servicing of and provision of scientific testing for all industries and industrial units requiring assistance. Splendid assistance to industry has been undertaken by the scientific workers in all branches of the Department which have been called upon, and commendable enthusiasm in applying scientific knowledge and methods to industry has been shown by these officers. Particular reference must be made to the aid rendered by Dominion Laboratory and its branches, by the Dominion Physical Laboratory, Lower Hutt, and by the newly established Auckland Industrial Development Laboratories, the latter having been established especially to cater for the needs of industry. Care has been taken in all circumstances to avoid overlapping with any scientific or technical services available within industry. As further trained staff and equipment become available, it is hoped to extend the services available to the large number of small units in New Zealand industry which are unable to provide adequate scientific facilities for themselves.