

CHAPTER X.—UTILIZATION TECHNOLOGY

77. *General*.—Attention that was directed primarily to wartime needs during the earlier part of the year has since been diverted to the almost equally pressing need for timber and timber products for essential post-war purposes, both within and without New Zealand. Old-established timber-using industries are now so largely dependent upon local timbers that, with a more diversified demand on account of new secondary industries, utilization problems have become much more difficult and complex.

78. *Grading of Timber*.—During the year draft grading rules for insignis-pine framing timber drawn up by the Forest Service were submitted to the Timber Sectional Committee of the Standards Institute. The adoption of several standard grades, to be known as "No. 1 Dimension," "No. 2 Dimension," and "Shop" respectively, was agreed to only after members had satisfied themselves by inspections of State houses under erection and by grading studies at Christchurch and Frankton Junction that the rules were practicable and met the requirements of house-building. The dimension grades, which are intended primarily for full-length use, require that two-thirds of the cross-section at any part of the length of any piece admissible in No. 1 shall be free from defects, and that pieces admissible in No. 2 shall have half the cross-section free from defects. "Shop" timber, on the other hand, is not for full-length use; it is a "cuttings" grade. Each piece graded "Shop" is required to yield at least one 8 ft. cutting of No. 2 Dimension or better for studs, and the remainder is intended for shorter cutting; but the Forest Service is not satisfied with this particular grade and proposes to investigate its modification.

Preliminary studies are now in progress to establish grades for flooring, weatherboarding, and matchlining obtainable from good-quality insignis pine and other planted coniferous woods. Interest has also been shown in the possible use of these woods for interior and exterior joinery; a British Standard Specification for the grading of joinery timber describes grades and timbers which may possibly be paralleled in New Zealand. Dip treatment of manufactured joinery parts in approved preservatives would secure ready penetration of the end-grain surfaces, which are vulnerable to rot. This is standard practice in United States of America.

Pending the completion of national hardwood grading rules, a tentative system of grading for tawa has been supported to facilitate marketing of the timber, of which increasing quantities are being produced.

The Forest Service was again required to adjudicate between suppliers and users of white-pine in respect to both grading and sapstain caused by transport delays.

79. *Specifications for Finished Products*.—Draft specifications for the sizes and profiles of weatherboarding, flooring, and matchlining and of joinery and mouldings have now been circulated to the trade for final comment prior to their issue by the Standards Institute.

As a result of complaints, especially by furniture-makers, regarding quality of plywood, frequent inspections have been made in the users' factories to determine the extent to which plywood conforming to the Standard Specifications fails to give satisfaction. Several instances of non-conformity to specification were referred back to the manufacturers, but the main complaints were levelled rather at faults not covered by the specification. A meeting of the Standards Institute Committee was called to revise the specification, and amendments were made to the provisions governing core gaps, checks on backs, and tests for adhesion of plies. The occurrence of hair checks on face veneers was discussed, and, while a proposed amendment covering this blemish was rejected, the trouble is a very real one and is receiving further study.

Other Standards Institute Committee work included revision of the "Timber Ladders" specification, provision of clauses governing the permissible timbers and their blemishes and defects in "Handles for Garden Implements," and revision of the "Household Furniture" specification in regard to timber sizes, acceptable species, and methods of construction. It must again be emphasized that furniture-manufacturers would be well advised to consider alternative methods of construction, employing plywood and veneers in conjunction with insignis-pine timber in place of solid timber.