

experience gained in the use of flooring, weatherboarding, shelving, skirtings, and architraves of exotic forest timbers in Forest Service buildings and those erected by private companies, a satisfactory basis for grading has been established. In co-operation with representatives from some of the principal producers, mill studies have been carried out and grading rules submitted for consideration by the appropriate Standards Institute Committee. At the end of the year, rules for grading of rough-sawn timber of *Pinus* spp. in finishing and dressing grades, and also for the machined finishing timbers, flooring, weatherboarding, and other interior woodwork such as shelving, were in the final Committee stages.

Grades of insignis pine for light timber construction—i.e., dimension grades—have been issued in printed form as an addendum to the National Grading Rules for New Zealand building timber. The need for strict adherence to those grades has not been recognized by all producers, and this factor, in conjunction with the unmerited publicity given to insect-borer hazards, has delayed the acceptance of the grades by some of the building authorities. Arrangements are in hand for the testing of insignis-pine timber conforming to the grades in several standard sizes over a number of spans; to be of greater practical value, these strength tests should be paralleled with similar tests of rimu building grades.

Some progress has been made in the definition of structural grades for insignis pine, and large-sized members conforming to those tentative grades (standard structural) have been used in roof trusses with spans of 45 ft., in smaller trusses, and in columns in large buildings at the Waipa Mill.

The approved profiles for weatherboarding, flooring, and matchlining have been amended slightly to permit the inclusion of the taper-tongue flooring profile. As an essential preliminary to the manufacture of templates, accurate drawings of the profiles have had to be made, and this work has been simplified by the receipt of Swedish standard profiles for flooring and matchlining giving the dimensions required. The completed Standard Institute specification for the above-mentioned profiles and also the specification for moulding and joinery profiles are now in the hands of the printer.

The establishment of grades for dressed flooring, weatherboarding, and other interior woodwork from forest-grown exotic timbers draws attention to the need for similar standards for the indigenous softwoods permitting prescribed defects and thus enabling additional supplies to be drawn from Building A Grade. Draft specifications are at present being formulated.

Other Standards Institute Committee work under this heading involving active participation by the Forest Service has concerned "Plywoods," "Glues," "Ladders," and "Household Furniture." The use of tawa has been the most important item for discussion in the last-mentioned specification, with special regard for the elimination of *Lyctus* borer attack. Tawa dowels are now acceptable in furniture conforming to this specification only if treated with preservatives. For other furniture parts this Service, in co-operation with private firms, has been studying the practical possibilities of a superficial treatment with an oil-soluble preservative. The material formulated has been shown to have no detrimental effect upon the finish or on glue bond. The potential value of such treatment for tawa, taraire, or other *Lyctus*-susceptible timbers is based upon the assumptions that the timbers have been kiln-dried and are free from infestation when the furniture is manufactured and that the preservative is applied to all surfaces of the furniture parts or assembled furniture.

83. *Utilization of Minor Timbers.*—The very good strength properties of locally grown Douglas fir and European larch, combined with their ability to yield high-grade framing timber and planks, have been recognized in their use for light timber framing and a limited use for scaffolding and scaffold planks. For sub-floor members, heartwood