

Further than this, the unnecessary diversification of our imported supplies correspondingly increases production costs overseas which, together with the increased charges incurred at this end, expresses itself in added financial burdens, the only return for which is less efficient service.

Good progress has been made up to the present in response to the representation received from local-body interests, particularly in regard to the development of standards for building construction. A complete survey of the work necessary for the undertaking has been made, including a comprehensive plan of the divisions into which it will fall and the committees to which the various projects will be delegated have been drawn up as a guide for future activity. A number of new committees has been instituted and are at present engaged in the development of the relevant standard specifications - the projects so treated having been indicated in earlier sections of the report.

It is intended that each separate section of the work should be issued as it is completed to enable the local bodies to derive the benefits of the uniform provisions, within the limits of their application to varying local conditions and requirements, by progressive stages, until a comprehensive set of by-laws is available providing for the use of the most suitable and uniform equipment and materials.

The subject is so extensive and diverse that it is not possible to make any adequate statement of the range of equipment, material, practices, and conditions which must be incorporated before the work is complete.

The organization at present adopted centres round the Building Divisional Council under which works the Building Code Committees - one of which deals with timber buildings and another with all buildings other than timber (for instance, brick, reinforced concrete, steel and combinations of these materials). The latter committee also deals with the question of the general requirements to which all classes of building, whether timber or otherwise, should be subject.

In addition to the committees and sub-committees developing the building code, there are a number of other committees working under the Building Divisional Council dealing with various materials used by local authorities. The various by-laws controlling the use of the materials or equipment covered by the specifications will thus only require to lay down that such material or equipment shall comply with the requirements of New Zealand standard specifications by reference to titles and numbers only. This method will simplify the procedure when modification of any by-law becomes desirable, or when advancing knowledge and experience appears to indicate that the specification for a material should be brought up to date, or that new specifications for new materials should be prepared.

The Plumbing Committee has made considerable progress in comparing the plumbing equipment which is used in various parts of the Dominion and also in studying the provisions of the Health Act in this connection and the extent to which these are adhered to in different localities. The Plumbing By-laws Sub-committee has only recently commenced operations, but substantial results may be expected shortly.

The Paints and Coatings Committee is giving the necessary attention to the development of suitable standards to satisfy the need in this respect.

The same will apply to the Ceramic Committee, Heating and Ventilation Committee, Fire-prevention Committee, and Flats and Apartment House By-laws Committee, which are to initiate the work in their respective spheres.

The Building Code Committee and its technical sub-committee have made substantial progress, and have, as far as they are able to go, completed Sections I-III, which will be reissued as Parts I, II, III, and IV of the Model Building By-law. These four parts form the basis on which all the other work will be built, and as the other sections of the work are completed further parts can be issued with the preliminary advice that they are to be read in conjunction with the relevant New Zealand standard specification or code.

Part I deals with preliminaries, the revocation of old by-laws and the commencement of new ones, the statutory requirements overriding the previous by-laws, interpretations, &c.

Part II deals with building permits, the circumstances under which permits are required, how they shall be applied for, the particulars which the application shall set out, and the plans and specifications which shall accompany it. It lays down the conditions under which a permit shall be withheld or issued, and when issued the form and effect of the permit, the fees to be paid in connection therewith, and the means whereby it shall be ensured that nothing is done either in the way of omission or commission contrary to the requirements of the permit.

Part III deals with general design and construction: laying down methods of design, general rules to be followed to ensure safety and stability, particular requirements for special buildings such as those for public meetings and institutions, governing the use of special materials and special forms of construction, and providing for the occasions when alterations and additions to existing buildings are desired.

Part IV lays down the basic loads to be assumed in buildings of various types, which loads are to be used in calculating the stresses in, and consequently the requisite sizes of the various parts of the structure. It further lays down the safeguards which must be followed when structures are subject to special conditions such as the impact and vibration of machinery and the operation therein of motor-vehicles. It provides that all structures must be designed in such a way as to make adequate provision for the effects of wind and earthquake, as well as ordinary loading. With regard to earthquake stresses, it lays down the magnitude of these which must be assumed in the design of buildings falling within different categories. For instance, it must be self-evident that the construction of fire-brigade stations providing the maximum margin of safety is of vital concern to the community, in that their destruction in earthquake would create more disorganization and loss than the destruction of a warehouse, and similarly the inmates of public and other hospitals require more protection than those living in private houses.

The four parts of the code referred to above can be issued immediately after they have been reviewed by a small Legal Committee that is being appointed for this purpose, in co-operation with