drawn up. Tables of this kind would relieve designers of a great deal of the tedious numerical calculation required in the design of a large building. By this means the cost of this portion of the design would be very much reduced, and this would compensate for the extra cost involved in making the intricate calculations for the moments and shears induced in the load-carrying elements of the framework when account has to be taken of earthquake forces.

While it has been impossible for the Committee, during the short time at its disposal, to compile a complete uniform code, careful consideration has nevertheless been given to certain clauses relating particularly to resistance to earthquake forces for various building-materials. These more detailed recommendations, which are set out in Appendix II, are not at present in proper by-law form. It is intended that, after being subject to expert public criticism, they should be suitably amended and eventually incorporated in a Dominion Building Code. Brief reference will now be made to these recommendations under the various headings: General Basis of Designing and Floor-loads; Chimneys; Construction in Timber, Brick, Reinforced Concrete, and Steel respectively.

There are no special features calling for comment in connection with general basis of designing and floor-loads.

The problem of earthquake-resistant-chimney design has not been solved, but a draft regulation is put forward under which it is believed that a successful type of construction may be evolved. Several promising designs have been placed before the Committee, but experience only will prove what is the best form. The use of pumice concrete offers great possibilities. Building-owners might do well to consider alternative methods of heating to avoid any chimneys at all.

In timber construction no far-reaching amendments have been proposed in current building practice. The recommendations made, however, are none the less important, and will go a long way in reducing the damage sustained by a wooden building in a severe earthquake.

The Committee has devoted a large proportion of its time to the difficult question of brickwork construction. Brick buildings have the inherent drawback that they are not amenable to precise calculation, and their stability depends essentially on the quality of the workmanship used. Nevertheless, the Committee has endeavoured to set out what it considers to be the safe limits to which brickwork construction may be carried. The recommendations of the Committee involve the elimination of construction solely in brick of commercial buildings of over three stories. In buildings over this height a framework of steel or reinforced concrete is necessary. In domestic architecture the use of three storys may be permitted in brickwork under certain restrictions, but important public buildings, such as theatres and halls, and certain institutions, such as hospitals and gaols, if over one story in height should be of framed construction.

The recommendations in regard to steel and reinforced concrete are more in the nature of standardizing what is recognized to-day as the best practice and design for construction in these materials. In connection with the clauses on steelwork, an attempt was made to draft a section which would cover the use of welding in steel-framed buildings. At the last minute, however, an important communication dealing with this question was received from the Steel Structures Research Committee of the Department of Scientific and Industrial Research of Great Britain. Consideration of this report made it appear wise, in the meantime, to withhold the issue of any recommendations on this subject, as the art of welding is now in the developmental stage and improvements may be looked for in the near future. Consideration is being given in New Zealand at the present time to developing a system for the training of welders, and this is a vital preliminary to the success of welding in a wide field of practice. The testing of personal ability of welders to carry out work in which full confidence may be placed is full of difficulties, but the successful application of welding is dependent on such a system being developed, and this will probably lead to a system of State licensing of welders. The importance of the soundness of welding in structures arises from the fact that the welded connections, particularly the ones which carry the earthquake stresses are, in general, permanently enclosed in the building. Very often they are covered in by expensive concrete and masonry in buildings which should be expected to last for many generations, and inspection and repair of the work would be a matter almost of impossibility. Certain portions of a building, notably steel roof-trusses, might undoubtedly be welded, under suitable safeguards, without any fear of future trouble. Experience in welding such portions will, no doubt, gradually build up an organization which may be entrusted with more difficult parts of the steel fabric of a frame structure.

Speaking with regard to steelwork generally, the working stresses now recommended by the Committee are higher than those current in New Zealand by-laws, but they coincide with the stresses used by engineers in Europe and America. It must not be forgotten that these higher stresses are only suitable for use with materials of undoubted quality and strength. The steel which is imported into New Zealand for general building purposes should be subject to inspection and test, in England, in the same manner as steel which is destined for use in