## Quantity Construction of Houses.

### Cheaper in Concrete than Wood in America.

The adaptation of the concrete house for multiple construction, such as in an industrial housing enterprise, has been successfully made in large groupings in Halifax, and other American cities. The suggested plans, shown here, are, however, interesting for another reason, in that they involve the standardization of operations, and the interchangability of parts rather than the fixing of a final type. They are the design of the Flynt Building & Construction Co., Palmer, Massacheussetts, and the builders state that they are able to make an arrangement, so that each house is different from its immediate neighbours, to avoid that monotony which characterizes mill cities, built up of an absolutely fixed type of house.

These houses were originally designed for a client who contemplated a rather extensive development and wanted to erect an economical type of house and particularly one in which the maintenance would be reduced to the minimum.

The houses were designed to be as comfortable and livable as possible, the client even being willing to forego any ornamentation which would not materially contribute to the beauty of the building. It was agreed that the beauty of the concrete building lay more in its proportions than in applied ornamentation.

The prospective illustrated houses shown are therefore intended primarily for those who desire neat, permanent, and attractive, but not ornate houses of a very substantial construction. They do not, however, exhaust the possibilities of this kind of construction, but merely indicate three suggestions and show at how reasonable a cost such houses can be built. A practically unlimited variety of types may be constructed without material change in costs.

In order to make the houses comfortable, it was planned to use the Van Guilder type of hollow wall construction, the plaster on the interior to be applied directly to the wall, and it was intended that the dividing wall in the two-family houses should be of concrete construction. This feature was introduced more from a fire prevention standpoint than any other, though it would have constributed materially towards preventing the transmission of sound from one side of the house to the other.

The Flynt Co., likewise, intended to construct the floors of ordinary joist construction with under-flooring on the first floor, having either a comb grain yellow pine or fir top floor. The second floor was to have only the top flooring, and the attic only the under-flooring. The interior trim was to be of yellow pine or fir throughout, except for the doors, which would probably have been birch.

An estimate made in Jan. 1920 by Chas Dingman, Engineer to the Flynt Company shows that a house built in concrete at Type "A" would cost £516; Type "B" £724, and Type "C" would cost £806.

Probably the most interesting feature about the new figures is that it will cost less at this time to build houses of concrete, when they are built in quantities, than it will to build them of ordinary frame construction. Furthermore, in the few months' interval between 1919, and January, 1920, the cost of concrete houses increased 67.6 per cent., whereas, the wooden houses increased in cost from 93.8 per cent. to 102 per cent.—a very striking comparison.

Of course, the explanation of this apparent inconsistency is in the fact that during the last half of 1919, the prices of practically all kinds of building lumber advanced very rapidly, while the advances in prices of cement, sand, gravel, crushed stone, and other materials were very much lower.

In the Van Guilder type of construction there is practically no wood used for forms, and, therefore, the only depreciation of form lumber that is included is that used in the cellar walls which were to be of solid poured concrete.

### Details of the Three Types.

If bath and wash basin be omitted from either type "B" or "C", £40 per family may be deducted. The difference between this cost and the cost quoted for type "A" being explained by changes necessary in type "A" to accommodate the fixtures.

Type "A" provides a kitchen, pantry, living room, toilet, two chambers and two closets, for each family.

Type "B" provides a kitchen, pantry, living room, dining room, reception hall, bath, three chambers, three closets and storage space in the attic, per family.

Type "C" provides the same accommodation as Type "B", except that the rooms are generally larger and the pantry is built into the kitchen.

An examination of the illustrations will further show the confortableness and the good arrangement of the rooms.—"Concrete."

## Dominion Federation of Building Trades.

The question of forming a Building Trades Federation of New Zealand was discussed at a conference of delegates representing unions in the building industry held at Wellington recently. Mr. E. Phelan, president of the New Zealand Timber Workers' Federation, presided. The following bodies were represented:—Timber workers of Invercargill and Westland, Furniture Trades Federation, National Organisation of the Amalgamated Society of Carpenters and Joiners, Wellington Building Trades Federation, painters of Christchurch and Nelson, Masterton unions, electrical workers of Wellington, Canterbury Building Trades Federation, Auckland labourers, King Country sawmill workers.

The following motion was carried:—"That this meeting affirms the principle of closer unity in the building trade, and recommends the provincial organisations concerned to still continue their efforts in the direction indicated, and when such provincial federations have been effected all provincial federations shall appoint delegates to attend a Dominion conference, to be held in Wellington, with the ultimate object of creating a Dominion Federation for the industry."

Mr. H. Hunter (Christchurch) was appointed secretary pro. tem., and instructed to get into communication with the provincial organisations.