

Because these housing targets demand the building of nearly twice as many houses a year as the Canadian building industry has ever been able to produce, the government is prepared to facilitate the program in various ways. The main obstacles to the Canadian construction companies in getting on with the job are shortages of materials and of trained building trades workers.

### Materials

Timber, Canada's most plentiful building material in normal times, is the principal component of 47 per cent of Canadian homes. Six years of war and manpower shortage has depleted stockpiles of seasoned lumber; more than two billion board feet of Canadian lumber is being purchased by the British Ministry of Supply to rebuild blitzed homes. Shortages persist in steel products such as nails, plumbing and heating equipment, glass and other essentials. The Dominion Government is exercising all its administrative powers to clear up bottlenecks blocking the housing program; priorities on scarce building materials are given to the construction industries; necessary machinery and equipment which is not made in Canada is imported.

### Labour

During the inactivity of the depression the working forces of the building industry tended to drift to other trades. It was, therefore, a depleted labour force which achieved the record construction job of World War II, and although thousands of skilled veterans have since returned to employment in the building trades, Canada's housing program still lacks experienced hands.

To encourage training in the construction trades, the Dominion Government is partner with the governments of the provinces in a ten year apprenticeship-training scheme, under which the Dominion Government provides a fund of over a million dollars for assistance in expanding the already established training facilities in the provinces. More than 7,000 men are taking advantage of the vocational training and the first graduates are expected to join the ranks of the builders in 1947.

### Science Aids the Builders

The benefits of scientific research are being brought to bear on housing conditions in Canada. Economic and statistical studies have been undertaken to provide the basic data from which sound plans can be developed.

Technical research carried on in the universities and other centres throughout Canada has brought results in building and foundation design, requirements for structural materials and sanitary engineering problems.

A National Building Code and a model zoning by-law prepared by the National Research Council have already been used extensively as reference works by the Canadian municipalities. Studies on efficiency in lighting, in sound proofing of floors and walls, in the relative values of the various insulating materials, in the problem of moisture condensation on outside walls, on heat losses through windows, in ventilation and in the safe operation of oil burners are examples of housing research carried on in the National Research Council Laboratories. 'Panel' or radiant heating in relation to the Canadian winter is being tested out in two experimental houses built by the National Research Council. Models for the most efficient construction of prefabricated houses are nearing completion in the laboratories.

The research laboratories of the Department of Mines and Resources offer as a solution of the hardwood flooring shortage, a new laminated flooring composed of softwoods with hardwood facings. Experimental furniture has been constructed of moulded plywood.