Vol. 12 No. 5 (January - February 1947)

Monocrete insulated Masonry

New constructional method shows speed and versatility.

THE introduction to Monocrete Insulated Masonry in last month's publication will have no doubt aroused the interest of many architects and builders who, in their search for a new material, are keen to learn the fuller details of the development of this material.

The illustration is of one of the houses completed by a large Sydney building company, and two interesting features are worth while noting.

Adequate natural lighting has been provided by the use of large windows for the living room and No. 1 bedroom. These larger windows have been obtained by laying a Monocrete wall unit on its side, under the window frame, whilst above the frame an attractive weatherboard effect has been used. An economical and efficient heating system has been provided by the use of gas fires in the living room. The insulation cores run the full length of the wall unit and serve another useful purpose when used as a flue for the gas fires.

Difficult building sites have in the past presented many problems to the introduction of a new constructional method, whereas to-day Monocrete, a new and revolutionary method of construction, can be built on practically any building block. Two methods by which the wall and floor units can be erected and laid are firstly by the use of a mobile crane, and secondly by a fixed crane. During the past six months both methods have been widely employed with the mobile crane operating on flat or slightly sloping blocks. This method provides for greater speed in erection, enabling the walls of, say, a 12-square home to be completed in two days. Building sites involving uneven surfaces, steep slopes and awkward approaches necessitate the use of

the fixed crane. Speed can still be maintained, for only one additional day is required for the erection and dismantling of the crane.

The photograph taken at Castlecrag shows an example of the efficiency of this method when the obstacles of inaccessibility and handling were reduced to a minimum by the use of a 50ft. jib.

Here is a method of construction which can provide, for the town-planner, full architectural liberty in design and gaining the all-important factors of speed and simplicity. The growth of industrial expansion to the outer suburbs of all the principal cities of Australia has necessitated the formulating of large town-planning schemes to provide homes for the thousands gravitating to these centres. To implement these schemes and to overcome the acute housing shortage it was necessary that some method of mass erection be evolved. Monocrete has now been able to provide that answer.

The laying of the floor units again provides a lesson in speed, only one day being necessary to lay the floors of a house. An interesting feature noted by those people occupying Monocrete houses incorporating the floor units, is the highly efficient insulating quality afforded against the extremes of heat and cold.

Simplicity of construction is vital when speed is necessary. The insulation core being $2\frac{3}{8}$in. in diameter and carried through the full length of the units, not only provides a cavity for controlled air ventilation, but enables plumbers and electricians to successfully conceal all pipes and fittings. The ease of drilling without any shattering, and the insulation holes greatly facilitate work of both electrical and plumbing trades.

Post-war industrial expansion is now making large demands on building materials, the supply of which is already heavily overtaxed by the huge housing programme. Monocrete has now shown its versatility by being used in factory construction, office buildings, extensions to existing factories and garages. When required for small buildings Monocrete may be used without any additional supporting structure, whereas with larger buildings requiring long single walls, it is necessary to employ a steel structure or a similar method of support. The fields of development for this material are unlimited, and again the speed of erection can provide the answer to the many companies and business executives who are earnestly striving to expand their business premises.

● At left: The Monocrete home is made of an ideal material for quick erection during these times of shortages and restrictions.

●Below: The partly built home at Castlecrag is an example of speedy erection in an awkward site by the use of a fixed crane.