

PATENT SPECIFICATION

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(54) IMPROVEMENTS IN FACED BUILDING PANELS

(71) I, JULIUS WILLIAM ELISCHER, Australian citizen, of 97 Broadway, Nedlands, in the State of Western Australia, Commonwealth of Australia, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to improvements in faced building panels, i.e. panels comprising a central core faced on each opposed face with a facing sheet such as plywood, particle board or asbestos cement.

With such panels there is a problem in fixing the sheets in edge to edge relationship in such a manner that the joint is substantially moisture proof. The present invention provides one solution for the problem. A further problem with such panels is that during the construction, particularly when the core is poured, the external lining sheets have a tendency to curl in on the edges, which, in the end, causes inaccurate panel thickness which is very often only discovered after the panel has been formed because, with bigger panels, it is hard to determine the actual position of the facing sheets in the formwork.

Normally, the formation of recesses next to the external lining is avoided because this makes the edge more susceptible to damage, and it seems that this is the main reason why the suggested solution has not been used in the industry.

In one form the invention resides in a faced building panel comprising a core having a facing sheet fixed to each opposed face thereof, each facing sheet being of greater tensile and flexural strength than the core, said panel being suitable for assembling in use, with identical panels in abutting end to end relationship to form a wall or the like characterised in that an end of the core projects a short distance beyond the corresponding ends of the facing sheets and in that a groove is formed in the core adjacent the corresponding end of one of

said facing sheets, extending the full length of said end and exposing said core so that when two panels are assembled in abutting end to end relationship the grooves combine to define a keyway into which a suitable mastic or an extruded plastics sealing member may be placed.

Preferably the abutting end of the core projects beyond corresponding end of the facing sheet by a distance of the order of one or two millimetres. Thus, in an assembled wall the adjacent ends of the facing sheets on adjacent panels would be two to four millimetres apart from each other allowing filling with sealants after the panels have been erected. However, the measurement can be varied according to the type of materials used.

The invention will be better understood by reference to the following description of one specific embodiment shown in the accompanying drawing of a fragmentary cross section through a pair of abutting panels;

As shown in fig. 1 of the drawings each of the panels A and B comprises a central core 12 formed of foamed concrete or concrete formed with lightweight aggregate such as polystyrene foam beads and faced on each face with an asbestos cement sheet 11. Thus, it is clear that each lining sheet 11 has a greater tensile and flexural strength than the core 12. The ends of the facing sheets 11 terminate short of the vertical edge of the core 12 and a small groove 13 is formed in the core immediately adjacent the vertical edge of the facing sheets.

When the two panels are brought together the recesses combine to form a keyway into which a suitable mastic or a plastics or rubber sealing member may be placed to provide a very satisfactory joint. The keyway serves to hold the jointing material in place irrespective of the movement of the panels. The mastic or sealing member provides a barrier against the passage of moisture through the joint. Suitable mastics include "Secomeric", "Thioflex One", "Nulkem" and Urethane sealants as well as epoxy resins.

2 The vertical edge of the panel may be provided with a central recess 14 arcuate in cross section adapted to fit around a
5 correspondingly shaped loose tongue (not shown). Alternatively the edges of the panels may be provided with tongues or grooves to facilitate joining of panels in edge to edge relationship.

10 The mould used to form the keyway also serves to hold the facing sheets of asbestos or other material in place during the manufacture of the panel.

15 The mould is provided with a continuous projecting rib around three of its edges, the rib having a cross-sectional shape corresponding to the keyway.

WHAT I CLAIM IS:—

20 1. A faced building panel comprising a core having a facing sheet fixed to each opposed face thereof, each facing sheet being of greater tensile and flexural strength than the core, said panel being suitable for

assembling, in use, with identical panels in abutting end to end relationship to form a wall or the like, characterised in that an end of the core projects a short distance beyond the corresponding ends of the facing sheets and in that a groove is formed in the core adjacent the corresponding end of one of said facing sheets, extending the full length of said end and exposing said core so that
25 when two panels are assembled in abutting end to end relationship the grooves combine to define a keyway into which a suitable mastic or an extruded plastics sealing member may be placed.

30 2. A faced building panel substantially as herein described and as shown in the accompanying drawing.

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