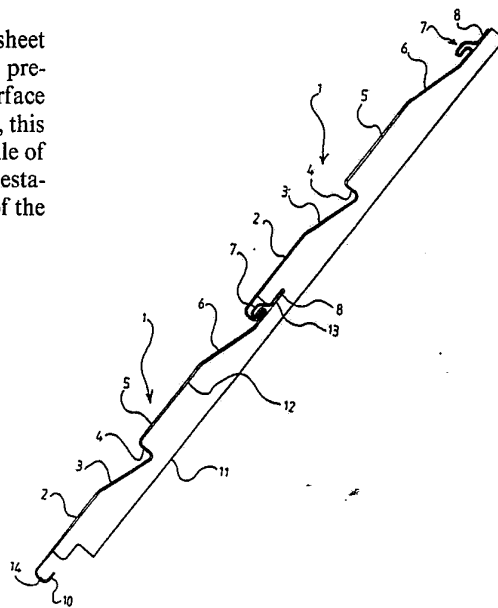


## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<p><b>(21) International Application Number:</b>      PCT/GB92/00294</p> <p><b>(22) International Filing Date:</b>      28 February 1992 (28.02.92)</p> <p><b>(71) Applicants (for all designated States except US):</b> IMPIZ PTY. LIMITED [AU/AU]; Suite 101, 602 Whitehorse Road, Mitcham, VIC 3132 (AU). FRANKLAND, Nigel, Howard [GB/GB]; 52 Bounds Green Road, London N11 2EY (GB).</p> <p><b>(72) Inventor; and</b></p> <p><b>(75) Inventor/Applicant (for US only) :</b> SEIFERT, Bernhard, Ulrich [AU/AU]; 700 High Street, East Kew, VIC (AU).</p> <p><b>(74) Agent:</b> FRANKLAND, Nigel, H.; Forrester Ketley &amp; Co., Forrester House, 52 Bounds Green Road, London N11 2EY (GB).</p>		<p><b>(81) Designated States:</b> CA, US, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE).</p> <p><b>Published</b> <i>With international search report.</i></p>

**(54) Title:** IMPROVEMENTS IN OR RELATING TO IMITATION WEATHERBOARDING**(57) Abstract**

An imitation weatherboarding consists of a moulded sheet of plastics material which simulates weatherboard, and a pre-formed backing sheet. The backing sheet has an exposed surface which, in use, abuts the sheet that simulates the weatherboard, this exposed surface being configured to conform to the rear profile of the sheet of imitation weatherboard. Thus the backing sheet establishes contact with a significant proportion of the rear area of the imitation weatherboard.



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"Improvements in or relating to Imitation Weatherboarding"

THE PRESENT INVENTION relates to imitation weatherboarding.

For many years houses have been clad with weatherboarding which comprises boards of wood mounted, optionally with intermediate battens, on the exterior of a building, with one edge of each board overlapping the adjacent edge of the adjacent board. This is sometimes known as "ship-lap".

Wood weatherboarding possesses the disadvantage that the wood needs to be maintained regularly, and even if it is maintained the wood will eventually perish, meaning that the weatherboarding will have to be replaced. It has therefore been proposed to produce imitation weatherboarding which does not present these difficulties. Such imitation weatherboarding may be formed from plastics or aluminium extrusions, which present the exterior appearance of a plurality of boards which are ship-lapped together, the extrusions themselves being able to be joined together adjacent one another to enable the extrusions to be mounted on a large area of a building to simulate weatherboarding on the building. The extrusions may be secured in position by means of nails or screws which pass through the extrusions either directly into the building or into battens mounted on the building.

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It is conventional to provide a foam insulation sheet between the extrusions and the building to provide some degree of thermal insulation.

One problem that has been encountered with existing imitation weatherboarding of the type described above is that when it is raining, the rain falls on the extrusions, and can produce a "drumming" sound. If a significant part of the house is covered with the imitation weatherboarding this can be a significant disadvantage. The present invention seeks to provide an improved imitation weatherboarding.

According to this invention there is provided an imitation weatherboarding arrangement, the arrangement comprising at least one imitation weatherboard element defining at least one "board" and at least one pre-formed backing sheet, the backing sheet having an exposed surface which is configured to conform to the rear profile of the said element or elements when mounted in position on the backing sheet so that the backing sheet establishes contact with a significant proportion of the rear area of the said element or elements.

Preferably the arrangement includes a plurality of said elements.

Conveniently each element defines a plurality of boards which overlap.

Advantageously a plurality of said elements are associated with a backing sheet. Thus each backing sheet may for example be twice as large as one of said elements.

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Preferably the backing sheet is made of foamed plastics.

Conveniently the backing sheet is expanded polystyrene.

Preferably the or each element is an extrusion of a plastics material.

In order that the invention may be more readily understood, and so that further features thereof may be appreciated, the invention will now be described, by way of example, with reference to the accompanying drawing which is a cross-sectional view of artificial weatherboarding in accordance with the invention.

Artificial weatherboarding in accordance with the invention is formed from a plurality of extrusions of plastic or aluminium, but in the present example is formed from extrusions of a vinyl material. Two such extrusions 1 are shown in the drawing, and being inter-engaged. Each extrusion comprises a first planar portion 2 representing a front face of a plank and an inclined portion 3 adjacent thereto representing where a first plank is ship-lapped under an adjacent plank. Each extrusion presents a perpendicularly extending portion 4 representing the lower edge of a second plank and a further planar portion 5 aligned with the first horizontal portion 2 representing the front face of the second plank. A further inclined portion 6 represents where the second plank is ship-lapped under a further plank.

The lower end of the inclined portion 6 is provided with a reflexed portion 7 which forms a hook-like engagement, the reflexed portion terminating with a short

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planar portion 8. At the opposed end of the extrusion, the surface 2 terminates with a downwardly extending portion 9 which effectively corresponds to the perpendicular portion 4 and a rearwardly returned terminal portion 10. As can be seen from the region 11 of Figure 1 the downwardly extending portion 9 and the inwardly returned portion 10 of one extrusion may be engaged with the hook-like portion 7 of an adjacent extrusion, to produce a relatively large area of imitation weatherboarding. Clearly a large number of extrusions may be joined together in this way.

In the present invention the extrusions, as described above, are used in combination with a backing sheet. The backing sheet may be formed of a foamed plastics material, such as foamed polystyrene. Preferably the foamed plastics material provides significant insulating properties. As can be seen, the backing material has a profiled upper surface 12 which is designed to touch the extrusions 1 underneath the surfaces 2, 3, 4, 5 and 6 as described above. Thus, these surfaces are prevented from "drumming" when it rains.

It is to be appreciated that in providing a building with weatherboarding as described above, initially the backing sheet is secured in position, optionally with the use of intermediate battens, by driving nails or screws through the backing sheet. Since the backing sheet is made of polystyrene this is not a difficult task. Subsequently, the lower-most extrusion 1 is mounted in position on the backing sheet. The planar portion 8 of the first extrusion 1 is inserted into a slot 13 which is provided for that purpose in the backing sheet. The second extrusion is then mounted in position, with the returned portion 10 of the second extrusion engaging the hook-like portion of the first extrusion. A second backing sheet may

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then be mounted in position. It can be seen that the backing sheet 11 is provided with a recessed portion 14 which can be engaged over the upper end of an adjacent backing sheet, trapping the planar portion 8 of the upper extrusion on that backing sheet.

Whilst the invention has been described with reference to one embodiment it is to be appreciated that many modifications of design may be effected without departing from the scope of the invention as defined in the following Claims.

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## CLAIMS:

1. A imitation weatherboarding arrangement, the arrangement comprising at least one imitation weatherboard element defining at least one "board" and at least one pre-formed backing sheet, the backing sheet having an exposed surface which is configured to conform to the rear profile of the said element or elements when mounted in position on the backing sheet so that the backing sheet establishes contact with a significant proportion of the rear area of the said element or elements.
2. An arrangement according to Claim 1 wherein the arrangement includes a plurality of said elements.
3. An arrangement according to Claim 1 or 2 wherein each element defines a plurality of boards which overlap.
4. An arrangement according to Claim 2 or Claim 3 wherein a plurality of said elements are associated with a backing sheet.
5. An arrangement according to any one of the preceding Claims wherein the backing sheet is made of foamed plastics.
6. An arrangement according to Claim 5 wherein the backing sheet is expanded polystyrene.
7. An arrangement according to any one of the preceding Claims wherein the or each element is an extrusion of a plastics material.



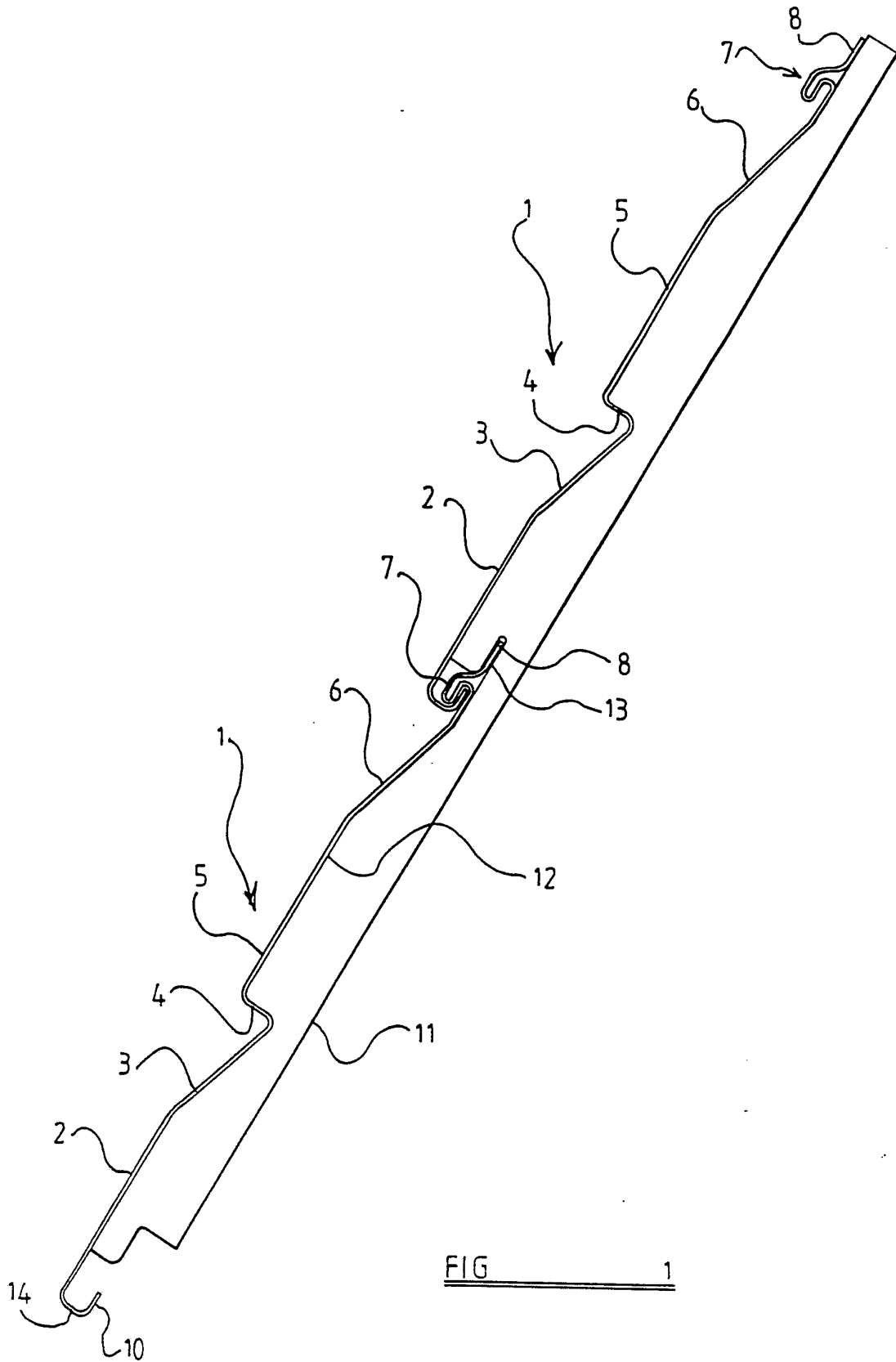


FIG 1

## INTERNATIONAL SEARCH REPORT

PCT/GB 92/00294

International Application No

<b>I. CLASSIFICATION OF SUBJECT MATTER</b> (if several classification symbols apply, indicate all) <sup>6</sup>		
According to International Patent Classification (IPC) or to both National Classification and IPC Int.Cl. 5 E04F13/08		
<b>II. FIELDS SEARCHED</b>		
Minimum Documentation Searched <sup>7</sup>		
Classification System	Classification Symbols	
Int.Cl. 5	E04F	
Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched <sup>8</sup>		
<b>III. DOCUMENTS CONSIDERED TO BE RELEVANT<sup>9</sup></b>		
Category <sup>10</sup>	Citation of Document, <sup>11</sup> with indication, where appropriate, of the relevant passages <sup>12</sup>	Relevant to Claim No. <sup>13</sup>
X	US,A,4 320 613 (KAUFMAN) 23 March 1982	1-6
Y	see column 3, line 15 - column 5, line 52; figures 1-5	7
	---	
X	US,A,4 864 787 (BUKOWSKI) 12 September 1989 see column 2, line 63 - column 3, line 37 see column 4, line 6 - line 18 see column 4, line 44 - line 50; figures 1,2,7	1,2
	---	
X	US,A,3 158 960 (NEWTON ET AL) 1 December 1964	1
Y	see column 2, line 19 - column 3, line 47; figures 1-6	7
	-----	
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<b>IV. CERTIFICATION</b>		
Date of the Actual Completion of the International Search	Date of Mailing of this International Search Report	
19 OCTOBER 1992	02. 11. 92	
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**ANNEX TO THE INTERNATIONAL SEARCH REPORT  
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US-A-4320613	23-03-82	None	
US-A-4864787	12-09-89	None	
US-A-3158960		None	