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(72) Inventor: **Shillabeer, John Louis,  
Cavity Trays Ltd.  
Somerset BA22 8HU (GB)**

(74) Representative: **Stuart, Ian Alexander et al  
MEWBURN ELLIS  
York House  
23 Kingsway  
London WC2B 6HP (GB)**

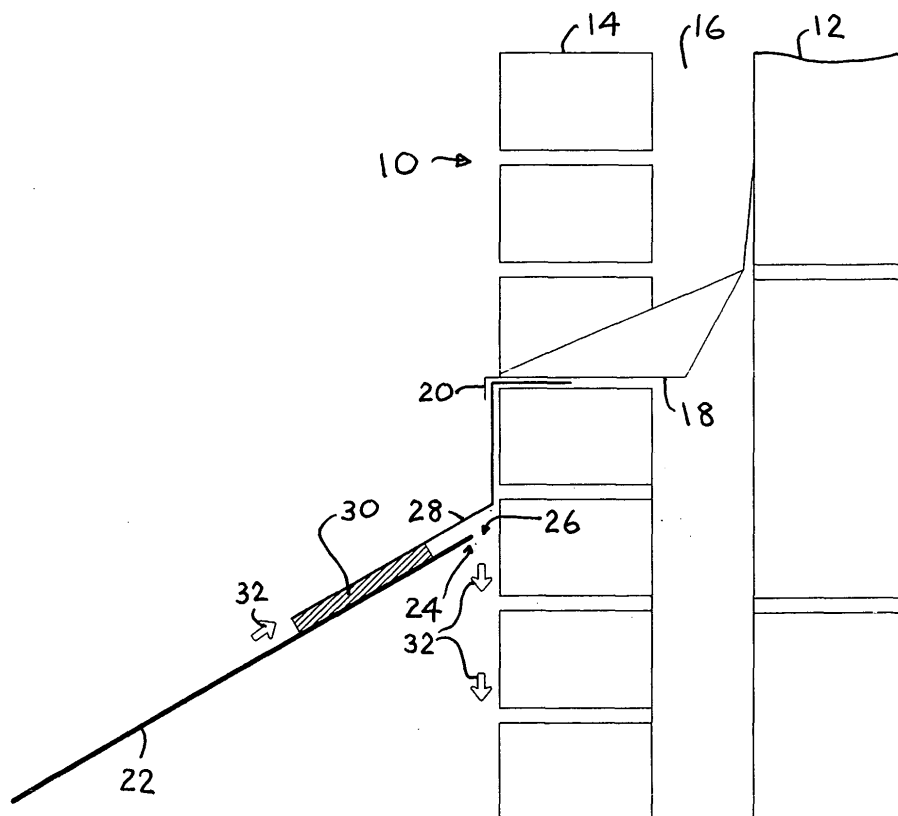
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(71) Applicant: **Cavity Trays Ltd.  
Yeovil, Somerset BA22 8HU (GB)**

(54) **Ventilation and flashing system for roof**

(57) A flashing assembly for use where a sloping roof (22) extends away from a wall (10) is a strip (28) of flexible flashing material (e.g. lead) bearing a layer of air permeable material (30), preferably fibrous or reticulated foam material. This spaces the strip (28) from the

roof (22) and provides a ventilation path, e.g. to a gap (26) adjacent the wall. The strip also rises up the wall (10) and may be embedded in it, e.g. beneath a cavity tray (18). The upper portion of the strip may not bear the permeable material (30).



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## Description

**[0001]** The present invention relates to the ventilation of roofs. In various aspects it relates to a flashing material incorporating ventilation means, to a roof assembly including flashing and ventilation means, and to a method of providing a ventilated roof assembly.

**[0002]** The invention is mainly concerned with what happens where a roof (typically a sloping monopitch roof) abuts a wall. It is normal to seek to waterproof the abutment joint by the use of a strip of flexible flashing material, traditionally lead sheeting. Building regulations now call for an airflow gap to be provided at the top end of the roof. Various products are available to assist in achieving this. They are relatively complicated mouldings and fittings, which can be inconvenient to use.

**[0003]** In a first aspect, the present invention provides a flashing assembly comprising a strip of flashing material having a continuous or intermittent band of air-permeable material connected to one surface. The air-permeable material may extend over the full width of the strip or may be narrower, in which case it may be adjacent one longitudinal edge. The material is such that, when it is sandwiched between the flashing material and a roof, the flashing material is spaced from the roof, and the permeable material provides a ventilation path. The permeable material is chosen so that it does not substantially impede the flexibility of the flashing material. It is suitably a fibrous material and/or a reticulated foam material. It preferably has little or no tendency to absorb or retain moisture. It preferably does not consist of closed cells or large solids.

**[0004]** In a second aspect the invention provides a roof construction including a sloping roof abutting an upright wall, a length of flashing material fitted at the junction of the roof and the wall, and permeable material interposed between the flashing material and the roof to provide an airflow path.

**[0005]** In a third aspect the invention provides a method of producing a roof construction, including a first step of providing a flashing assembly accordingly to the first aspect, and a second step of applying this to the angle where a roof abuts a wall.

**[0006]** An embodiment of the invention will now be described in more detail by way of example with reference to the accompanying drawing, in which the sole figure is a schematic sectional view through a wall and roof assembly.

**[0007]** The drawing shows a cavity wall (10) of masonry, having an inner skin (12) spaced from an outer skin (14) by a cavity (16). A cavity tray (18) is shown extending through the outer skin (14) and bridging the cavity (16). At the front, it has a downturned lip (20).

**[0008]** A monopitch roof (22) extends downwardly away from the wall. At its upper edge (24) it is slightly spaced from the wall (10), leaving a ventilation gap (26). A strip of flexible flashing material (28) has been applied so that one edge is built into the outer skin of the wall,

underlying the cavity tray (18) and extending behind the lip (20) of the tray (18). The flashing material extends downwardly against the wall for a short distance, and then overlies the top portion of the roof (22). The outer portion of the flashing (28) has bonded to its lower face a continuous strip of fibrous material (30). (This material was applied to the flashing before the flashing was incorporated into the roof construction, e.g. in the factory. Alternatively the material may be applied to the flashing on site. For this purpose the material may be provided with an adhesive surface). Thus the flashing material (which may be lead, copper, alloy or other suitable material) is slightly spaced from the roof by the fibrous material (30). As shown by the broad arrows (32), this provides a ventilation path, extending under the flashing material (28) and through the ventilation gap (26) between the roof and the wall (10). Thus an air flow path is established. The fibrous material (30) also has the effect of arresting wind-driven rain from being blown up and under the flashing. Insects and detritus are also excluded thereby. The fibrous material is not present on the portion of the flashing that returns into the masonry. Indeed in this example it is not present on the upright portion of flashing that overlies the wall. As shown there may also be a portion of flashing overlying the roof adjacent the wall which does not have the fibrous material connected to it.

**[0009]** In some roof constructions, the roof covering and/or underfelt may not terminate adjacent the wall as shown but may rise some way up the masonry. In such cases the air-permeable material on the flashing will be disposed so that it also extends some way up the wall, so that a ventilation path is provided which rises up to the top of the roof covering or underfelt, and then passes down behind it.

## Claims

1. A flashing assembly comprising a strip of flashing material (28) having a continuous or intermittent band of air-permeable material (30) connected to one surface.
2. An assembly according to claim 1 wherein the air-permeable material extends continuously over the full width of the strip.
3. An assembly according to claim 1 or claim 2 wherein the strip (28) has a first portion which is intended to overlie a roof (22) and of which at least part bears said air-permeable material (30); and a second portion which is intended to engage an upright wall and of which at least an end part remote from the first portion does not bear said material (30).
4. An assembly according to any preceding claim wherein said air-permeable material (30) is reticu-

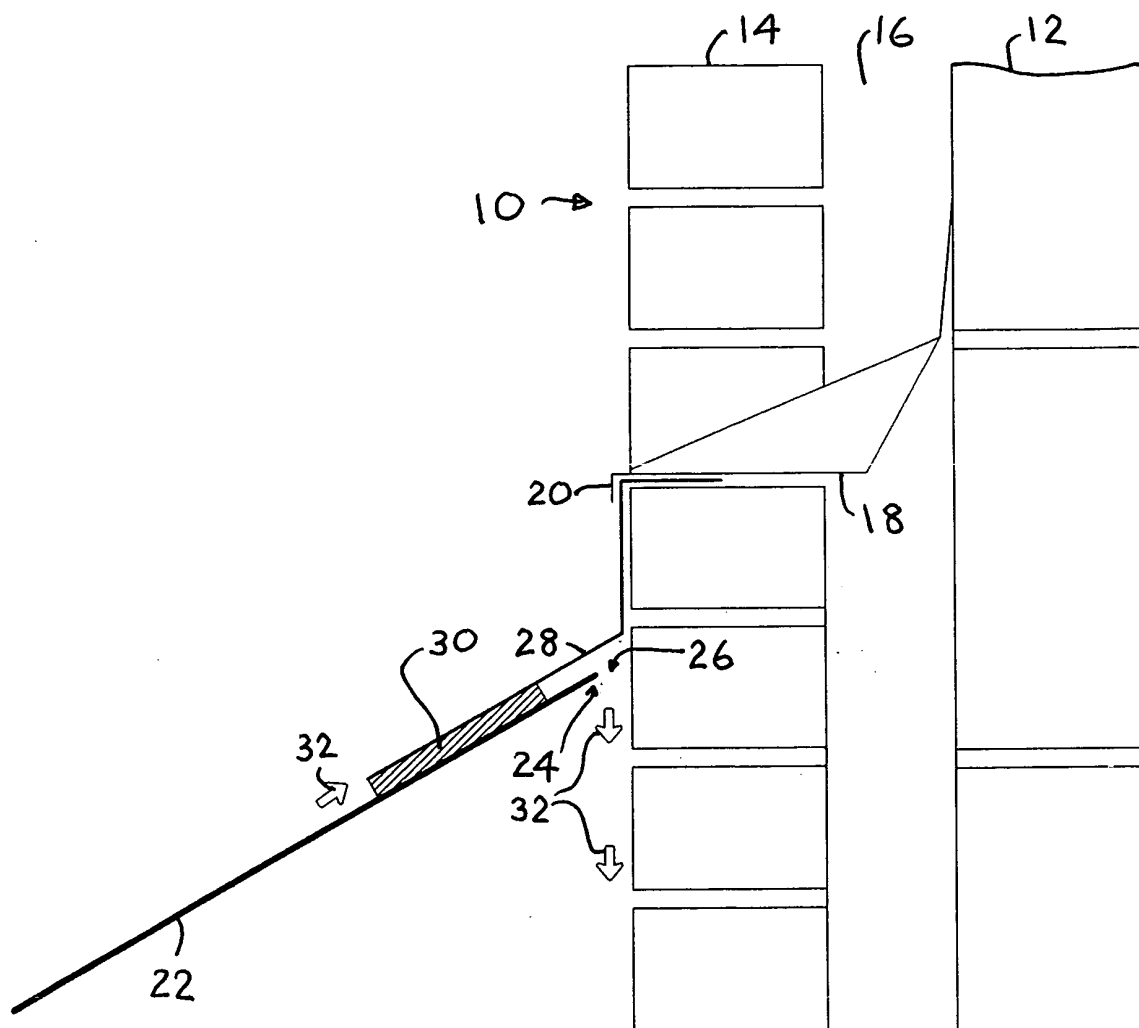
lated foam.

5. An assembly according to any of claims 1-3 wherein said air-permeable material (30) is fibrous. 5
6. A roof construction including a sloping roof (22) extending downwardly away from an upright wall (10), a length of flashing material (28) fitted at the junction of the roof and the wall, and permeable material (30) interposed between the flashing material (28) and the roof (22) to provide an airflow path. 10
7. A roof construction according to claim 6 wherein said flashing material (28) and permeable material are provided by a flashing assembly according to any of claims 1-5. 15
8. A roof construction according to claim 6 or claim 7 wherein the roof (22) has an upper edge (24) slightly spaced from the wall (10), leaving a ventilation gap (26). 20
9. A roof construction according to any of claims 6-8 wherein one end of the strip of flashing material (28) is built into the wall (10). 25
10. A roof construction according to claim 9 wherein the wall is a cavity wall (10) of masonry, having an inner skin (12) spaced from an outer skin (14) by a cavity (16); and there is a cavity tray (18) extending through the outer skin (14) and bridging the cavity (16), said tray having a downturned lip (20) at the front; and wherein said edge of the flashing material is built into the outer skin (14) so that it underlies the tray (18) and extends behind the lip (20) thereof. 30  
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11. A method of producing a roof construction according to any of claims 6-10 comprising producing a flashing assembly according to any of claims 1-5, and applying it to the angle defined by the roof and the wall. 40

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Application Number  
EP 03 25 5540

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			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			E04D
The present search report has been drawn up for all claims			
Place of search <b>THE HAGUE</b>		Date of completion of the search <b>25 November 2003</b>	Examiner <b>Demeester, J</b>
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			

EPO FORM 1503 03 82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on  
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