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(54) Improvements in or relating to structural members and methods of using such members.

(57) There is described a structural member for facilitating the provision of a part course of inclined bricks (7) in a wall (6), for example, as decoration below a window opening. The structural member is formed of sheet material and comprises a first portion (1) for location against the inner face of the wall (6), a second portion (2) joined to the upper edge of said first portion and inclined downwardly with respect thereto, said second portion extending at least to the outer face of said wall (6), and at least one third portion (3) projecting from said first portion (1) in a plane perpendicular thereto and extending part way between the inner and outer faces of said wall (6). The method of constructing a wall using the member is also described.

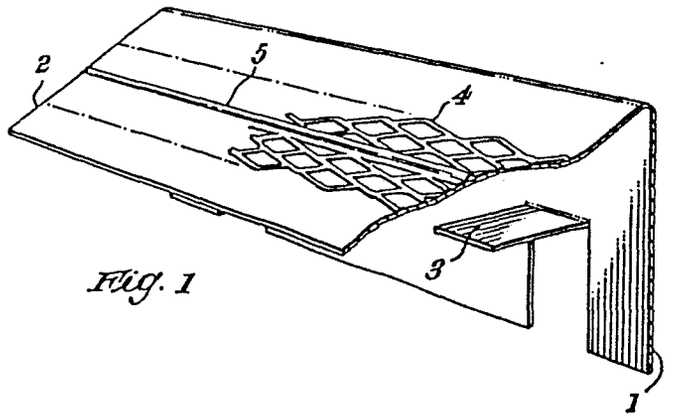

Fig. 1

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IMPROVEMENTS IN OR RELATING TO STRUCTURAL MEMBERS AND METHODS OF USING SUCH MEMBERS

This invention relates to structural members for use in buildings, and methods of using such members.

In order to improve the appearance of a building, particularly a building constructed with facing bricks, it is sometimes required to include a course of bricks or other building materials arranged at an inclined angle with respect to the vertical. In particular a row of bricks sloping downwardly and outwardly may be required to be provided below a window sill in a building.

The present invention may be applied to buildings having cavity walls or to buildings having single-skinned walls. For simplicity the word "wall" will hereinafter be used to mean either a single-skinned wall or the outer skin of a cavity wall.

It is an object of the present invention to provide a structural member for use in the wall of a building to facilitate the provision of a course, or part course, of inclined bricks or other building materials in said wall.

From one aspect the invention consists in an elongated structural member for use in the wall of a building, comprising a first portion for location against the inner face of the wall, a second portion joined to the upper edge of said first portion and inclined downwardly with respect thereto, said second portion extending at least to the outer face of said wall, and at least one third portion projecting from said first portion in a place

perpendicular thereto and extending part way between the inner and outer faces of said wall.

In the preferred embodiment, a plurality of third portions are spaced along the length of the member, extending in a common plane perpendicular to the first portion.

From another aspect, the invention consists in the method of building a wall constituted by a plurality of courses of bricks or the like, joined by mortar, in which method mortar or the like is spread on at least part of the uppermost course that has been laid and a structural member is then placed in position on said wall, said structural member including a first portion which is located against the inner face of the wall, a second portion joined to the upper edge of said first portion and inclined downwardly with respect thereto, said second portion extending at least to the outer face of said wall and resting on the top of said mortar or like material, said structural member also including at least one third portion projecting from said first portion at right-angles thereto and extending between said mortar and the upper surface of said uppermost course, mortar or like material then being spread on the upper surface of the second portion of said structural member, and thereafter a row of bricks or like building materials being placed on said mortar on the second portion of said member so that they are inclined at an angle with respect to the remainder of the wall.

In order to prevent the bricks or like building materials from sliding downwardly before the mortar on the top of the second

portion of the structural member has set, it is preferred that a rough surface should be provided on said upper surface of said second portion. The structural member may be made, for example, of galvanised steel and in this case the roughened surface may be provided by attaching expanded metal to the upper surface of the second portion. However the structural member may also be made of a synthetic resin material such as a glass reinforced synthetic resin material, and in this case the roughened surface is provided in the moulding of the member.

It is to be understood that the row of bricks or like building materials laid on the structural member will project from the front face of the wall. Accordingly, if desired, the second portion of the structural member may also project either to the full extent of the bricks or to a lesser extent. In either case, clips may be provided for attachment to the outer edge of the second portion at intervals along the length of the member. These clips will be shaped in such a way as to provide support for the bricks to prevent them sliding downwardly while the mortar is setting. The extension of the second portion and the provision of the clips may be in addition to the roughening of the upper surface of the second portion, or may be an alternative method of preventing sliding of the bricks.

If desired, the lower surface of the second portion may also be roughened to facilitate adhesion to the mortar which is contained in the triangular space between the second portion and the top of the wall below the structural member. Once again, if the structural

member is made of metal, the roughening may be provided by the attachment of expanded metal to this surface of the second portion.

From another aspect the invention consists in any features of novelty, taken singly or in combination, of the structural member illustrated in the accompanying diagrammatic drawings, in which:

Fig. 1 is a perspective view of the structural member; and

Fig. 2 is a cross-sectional view showing the member in position in the wall of a building.

It will be seen from the drawings that the structural member includes a first portion 1 which is vertical when the member is in position in the wall of a building. The member also includes a second portion 2 which is inclined at an angle of approximately 60 degrees with respect to the first portion 1. The member also includes a plurality of portions 3 spaced along the length of the member. In the particular embodiment illustrated, a plurality of portions 3 is shown, but it should be understood that a single portion 3 may be formed to extend along almost the entire length of the member, with the first portion 1 extending below the portion 3 only at the ends of the member. The member shown in the figures is made from galvanised metal sheet, and expanded metal 4 is spot-welded to the upper surface of the portion 2. The particular expanded metal used in the member illustrated has a ridge 5 extending along the middle of the length of the material. When the member is made of sheet metal, the portion or portions 3 are pressed out of the portion 1 as can be seen in Fig. 1.

Fig. 2 shows the wall of a building including a plurality of horizontal courses of bricks 6 and a course of inclined bricks 7. A structural member in accordance with the invention is shown in position above the brick course 6. In constructing the wall, mortar 8 is spread above the bricks 6 and vertical channels are formed with a trowel in the mortar so that the structural member can be pressed down on to the mortar with the portions 3 passing through these channels. The quantity of mortar applied is sufficient for the mortar to be displaced as the structural member is pressed downwardly to fill the channels above the portions 3.

Once the structural member is in position, further mortar 9 is spread on the inclined upper surface of the member, and the row of bricks 7 is placed in position. Normally, if the bricks are laid at an angle shown in Fig. 2, there is sufficient adhesion between the brick and the expanded metal 4 to hold the bricks in position until the mortar sets. However, if the angle of inclination is required to be greater, the portion 2 can be extended outwardly so that it reaches substantially to the bottom outer edge of the bricks 7. Clips, made for example of synthetic resin material, can then be attached at intervals to the outer edge of the portion 2, said clips being shaped to prevent the bricks 7 from sliding.

As shown in Fig. 2, the upper righthand corner of each of the bricks 7 is cut away so that it provides a horizontal surface when the bricks are in position. A further row of bricks 10 may be laid on top of the inclined bricks 7 or, in the more normal case, the bricks 10 may be replaced by a window sill.

CLAIMS:

1. An elongated structural member characterised by comprising a first portion (1) for location against the inner face of the wall (6), a second portion (2) joined to the upper edge of said first portion (1) and inclined downwardly with respect thereto, said second portion (2) extending at least to the outer face of said wall (6), and at least one third portion (3) projecting from said first portion (1) in a plane perpendicular thereto and extending part way between the inner and outer faces of said wall (6).

2. An elongated structural member as claimed in claim 1, characterised in that a plurality of third portions (3) are spaced along the length of the member, and extend in a common plane.

3. An elongated structural member as claimed in claim 1 or 2, characterised in that the member is formed from metal sheet and the third portion (3) or portions are bent from the first portion (1).

4. An elongated structual member as claimed in claims 1,2 or 3, characterised in that the upper and/or lower surface of the second portion (2) is roughened.

5. An elongated structural member according to claim 4 as dependent on claim 3, characterised in that the roughening is achieved by fastening expanded metal (5) to the upper and/or lower surface of the second portion (2).

6. A method of building a wall constituted by a plurality of courses of bricks (6) or the like, joined by mortar, the method being characterised in that mortar or the like is spread on at least part of the uppermost course that has been laid and a structural member is

then placed in position on said wall, said structural member including a first portion (1) which is located against the inner face of the wall (6), a second portion (2) joined to the upper edge of said first portion (1) and inclined downwardly with respect thereto, said second portion (2) extending at least to the outer face of said wall (6) and resting on the top of said mortar or like material, said structural member also including at least one third portion (3) projecting from said first portion (1) at right-angles thereto and extending between said mortar and the upper surface of said uppermost course, mortar or like material then being spread on the upper surface of the second portion (2) of said structural member, and thereafter a row of bricks (7) or like building materials being placed on said mortar on the second portion (2) of said member so that they are inclined at an angle with respect to the remainder of the wall.

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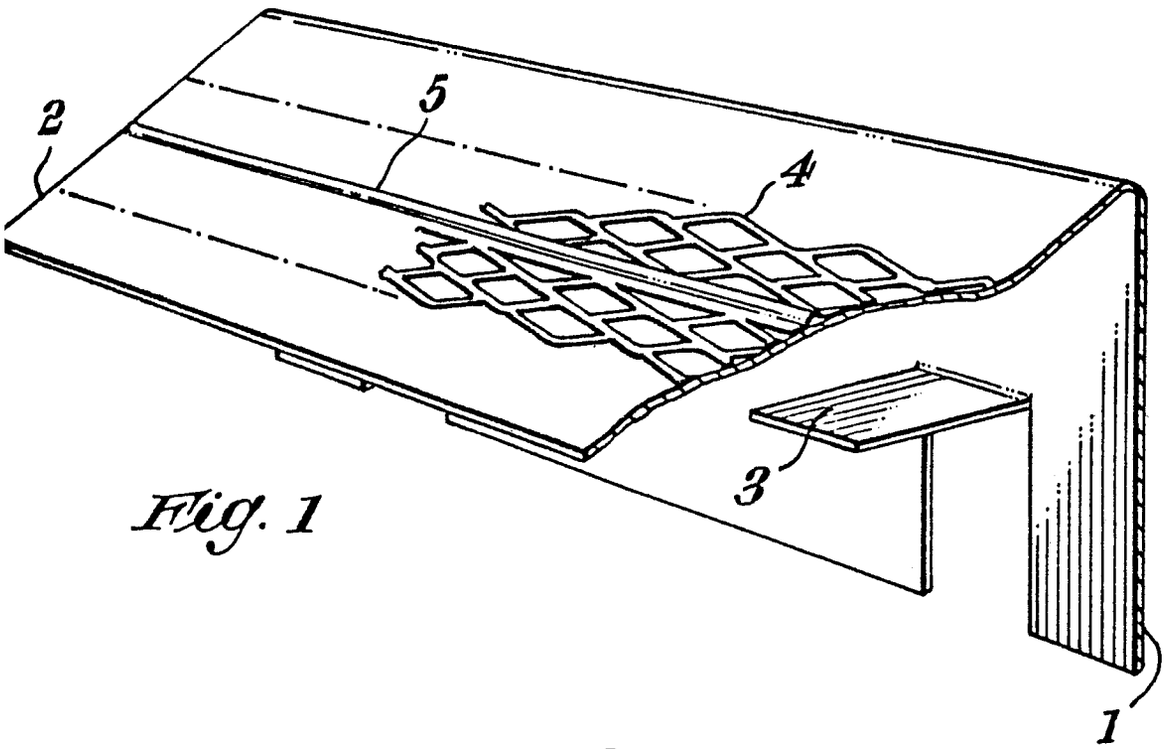

Fig. 1

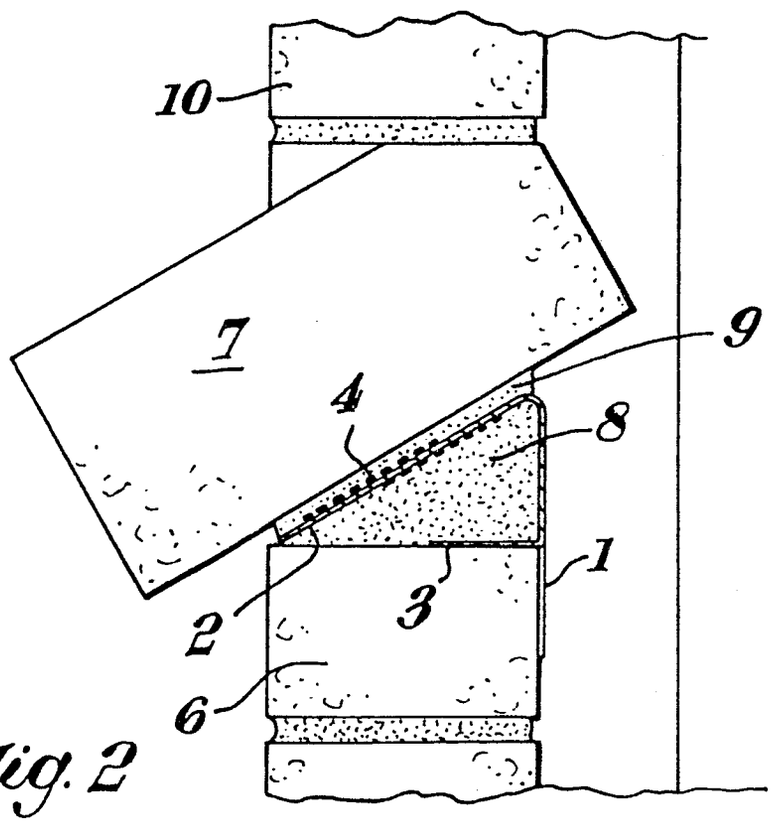

Fig. 2