Oct. 13, 1936. W. A. WEAVER 2,057,462

FLASHING ASSEMBLY

Filed March 23, 1934

Fig. 2.

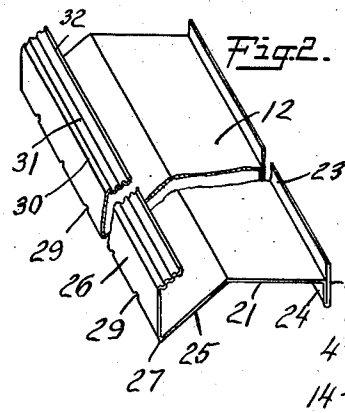


Fig. 1.

Fig. 6.

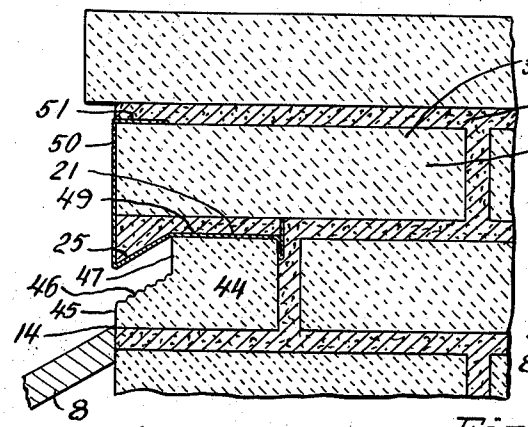


Fig. 7.

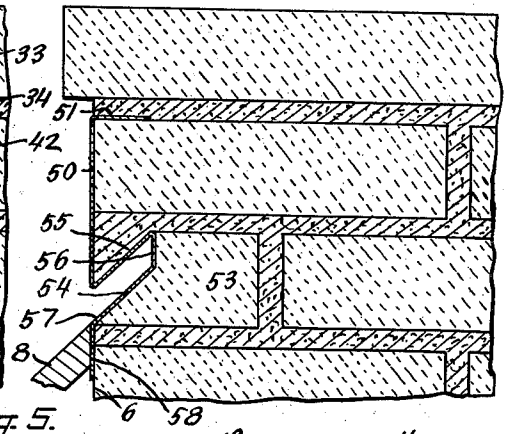


Fig. 5.

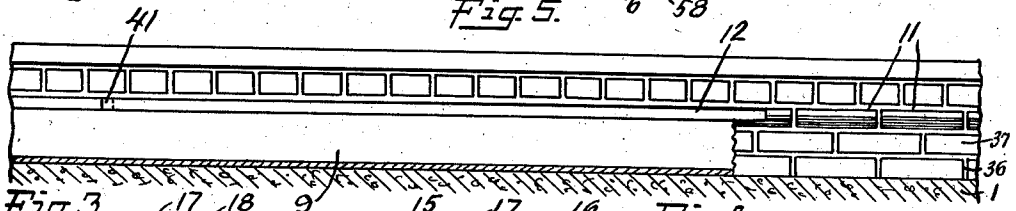


Fig. 3.

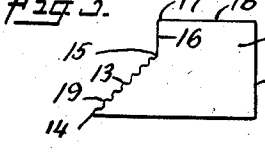
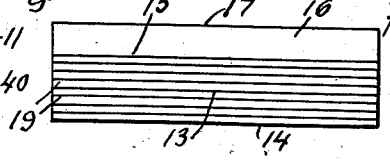


Fig. 4.



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FLASHING ASSEMBLY

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15 Claims. (Cl. 108—26)

This invention relates to roofs and more particularly to a flashing assembly for a roof.

It is an object of this invention to provide a flashing assembly for brick parapet walls in which a shaped brick or form cooperates with a special member to provide a flashing groove.

Another object of this invention is to provide a flashing assembly, which can readily be built into a brick wall, in which a recessed brick, having a composition and coefficient of expansion similar to that of common bricks, cooperates with an overlying metal section to provide a flashing groove.

Other objects and advantages will appear from the following detailed description of the invention.

In the formation of flashing assemblies, it has been common practice heretofore to cut out or chisel away a portion of the finished walls to form horizontal grooves for the reception of the edges of the flashing. Such cutting of walls is time-consuming and costly and weakens the walls to a considerable extent.

I have invented a flashing assembly which can be built into a brick wall during the ordinary construction of the wall and which provides a flashing groove for the insertion of any of the various types of flashings or roofings. This flashing assembly in its preferred embodiment comprises a brick and a cooperating member or section, preferably of metal, adapted to be placed over the brick and forming therewith the flashing groove. This brick may be specially fabricated, or where desired, it may readily be made by cutting away portions of ordinary brick. In either case it has no overhanging portion liable to fracture and requiring special handling in transportation. Self aligning metal sections may be employed and applied with their ends lapping to form a continuous flashing groove running the full extent of the parapet walls.

The invention will be understood from the following description taken in connection with the accompanying drawing illustrating a preferred embodiment of the invention and in which the same reference characters are used to designate the same parts in the different views.

In the drawing:

Fig. 1 is a vertical section through a brick wall having the flashing assembly of this invention built therein and showing the manner in which the shaped brick and metal member cooperate to form the flashing groove.

Fig. 2 is a perspective view showing the construction of the metal section.

Fig. 3 is an end view of the shaped brick member of this invention.

Fig. 4 is a view looking at the brick of Fig. 3 from the left.

Fig. 5 is a fragmentary small scale elevation looking at the wall of Fig. 1 from the left, the roof flashing and metal member being partly broken away at one end for the sake of clearness.

Fig. 6 is a vertical section through a portion of a brick wall showing a modified flashing assembly embodying this invention.

Fig. 7 is a vertical section through a portion of a brick wall showing another modified form of the flashing assembly.

Referring to the drawing and more particularly to Figs. 1 to 5, numeral 1 designates a roof deck covered with suitable roofing 2, such as the usual built-up sheet and pitch roofing. A contiguous parapet wall 3 rises, as is customary, above the roof deck. Flashing assembly 4, the component parts of which are more fully described below, is incorporated in wall 3 to provide a flashing groove or receptacle 5 extending upwardly and inwardly from face 6 of the wall 3 at a point a short distance above the roof deck 1.

A cant strip or board 8 may be placed in the angle between the roof deck 1 and the brick wall 3. Roofing 2 extends up over the top of the cant strip. As shown in Fig. 1, the cant strip may be so placed that the surface of the roofing on the cant strip is substantially in alignment with the bottom face of the flashing groove 5. Flashing 9 overlies the roofing 2 and extends into the flashing groove as shown on the drawing.

The flashing assembly 4 of this invention comprises a shaped brick 11 having a recess therein and a member or section 12 adapted to cooperate with the brick to form the groove 5 for the reception of the flashing.

Brick 11, shown more fully in Figs. 3 and 4, may be of generally rectangular shape and, although not limited thereto, in the case of a wall built with common bricks may have overall dimensions equal to those of common rectangular building bricks. In the embodiment of the invention shown in Fig. 3, portion 13 of the brick 11 extends upward at an angle to the perpendicular from edge 14 to a point 15 some distance inward where it joins face 16 rising vertically to edge 17 on horizontal upper face 18. There is thus provided an inwardly and upwardly inclined surface 13, constituting the lower face or bottom of groove 5, and a vertical face 16 constituting the inner end of groove 5. Surface 13 is preferably inclined at an angle of 45°

to the vertical although it may be inclined at any desired angle.

Inclined area 13 may be provided with a series of corrugations 19 preferably extending lengthwise of the brick (Fig. 4) and lying parallel to each other and to the forward edge 14. These corrugations tend to hold the pitch, asphalt, or other waterproof composition which may be used for cementing the flashing to the inclined groove and thereby aid in procuring a durable waterproof joint.

Member or section 12 is preferably made of metal, such as sheet copper or galvanized sheet iron, of sufficient rigidity to retain its shape when bent into the desired shape. As shown in Figs. 1 and 2, member 12 may comprise a flat portion 21 adapted to lie horizontally on the face 18 of a recessed brick 11. Extending from portion 21 is a perpendicular offset 22 having an upwardly-extending flange 23 and a downwardly-directed flange 24. A depending portion 25 extends at an obtuse angle to the flat portion 21, and forms the upper face of inclined groove 5. Depending portion 25 extends preferably at an angle of 135° to portion 21 so that when the metal section and the shaped brick are assembled in the proper relationship, the depending portion 25 will lie substantially parallel to the inclined surface 13 of the shaped brick.

A face 26, adapted to lie in the plane of the face 6 of the wall, extends vertically upward from edge 27 of the depending portion. As shown in Fig. 2, edge 27 of the metal section is provided with a plurality of spaced perforations or holes 29. On line 30 the face 26 bends inwardly with respect to the exposed face of the wall and upwardly in a direction substantially parallel to the depending portion 25. This upwardly-inclined portion or offset, designated by numeral 31, is preferably provided with a series of corrugations or ribs 32 extending longitudinally of the section. Each metal member 12 is preferably made of a length that it may be readily handled, e. g., 6 to 8 feet.

The flashing assembly, i. e., the brick and the metal member, is adapted to be incorporated into a brick wall as follows: Bricks 33, which may be the usual clay bricks each 8 inches long, 2¼ inches high, and 4 inches wide, or of any size or shape employed in building construction, are laid in the usual manner with mortar 34 to provide horizontal courses designated by numerals 36, 37, and 38. Instead, however, of forming the inner longitudinal row of course 38 of standard or common bricks 33, shaped bricks 11 are employed. Bricks 11 are laid end to end with edges 14 in line with the face 6 of the wall.

After bricks 11 have been set in place, metal members 12 are disposed thereon in such manner that the flat portion 21 of each metal member rests on the surface 18 of an underlying shaped brick, and the depending portion 25 of each member extends in spaced parallel relationship to the inclined face 13 of a shaped brick to form the intermediate upwardly inclined groove 5. Flange 24 abuts against face 40 of brick 11 and provides a means for readily placing the two parts of the assembly in the proper alignment and for holding the member 12 in position. The face 26 of each section should lie in the plane of the face 6 of the wall. Since each metal member or section is preferably about 6 to 8 feet in length, one section covers a plurality of the shaped bricks, each of which may be only 8 inches long. The ends of adjacent metal sections may be overlapped or locked as indicated by reference character 41 shown in Fig. 5. There is thus formed what may be considered a continuous metal surface extending over the underlying course of shaped bricks and providing a leak-proof flashing to a depth of 4 inches into the wall in the case of a wall made with bricks 4 inches wide. After setting the metal sections in place they are filled with mortar to provide a bond for an overlying course 42 of bricks 33, shown in Fig. 1 as a header course.

When the wall is formed in this manner the edge of flange 23 abuts against the underface of the overlying brick course 42 and acts as a guide in laying this course. Flange 23 also acts as a water stop and directs any water which may seep into the wall above the metal section back over the depending portion 25 of the section and out through perforations 29 onto the face of the flashing. Upwardly inclined portion or offset 31 also has the tendency to direct water which may get into the wall back toward the face 6 of the wall. Corrugations 32 on this inclined portion also aid in holding the mortar lying thereover which is used to point up the face of the wall. If desired, the corrugated inclined portion may be bent upward so that its edge will abut against the lower face of the overlying course 42, thereby preventing the mortar used in filling the metal section from running out over the face of the wall before it has set sufficiently to retain its shape. This is especially desirable if a thin mortar is used.

Fig. 6 shows a modified flashing assembly. Brick 44, shown in this figure, is similar to brick 11, described above, with the exception that the inclined surface, forming the bottom of the flashing groove, does not begin at the forward edge 14 of the unit. This brick has a portion 45 rising vertically from edge 14, an inclined corrugated surface 46 extending inwardly from portion 45, and a second vertical portion 47 constituting the inner end of the groove. Metal section 49, which cooperates with brick 44, is provided with a relatively long face 50 extending vertically upward from depending portion 25, and a short flange or offset 51 extending perpendicularly to face 50. Face 50 is of such a length that the flange 51 will lie over and contact with the upper surface of the bricks 33 in the next overlying course 42.

In Fig. 7 is shown another type of assembly embodying this invention. Shaped brick 53, shown in this modification, is similar to brick 11 with the exception that its inclined face, denoted by numeral 54, has a flat or plane surface instead of a corrugated surface. Metal section 55 is similar to section 49 of Fig. 6 with the exception that the flat portion 21, adapted to rest on the shaped brick, is omitted. In its place member 55 is provided with a vertical face 56 adapted to fit against vertical surface 16 of the brick, an inclined face 57 adapted to fit over the inclined face 54 of the brick, and a vertical flange 58 adapted to fit against the face 6 of the wall. Cant board 8 is shown in Fig. 7 in alignment with the lower face of the inclined groove. This position of the cant board is especially desirable when the roofing itself is to be inserted in the inclined groove rather than ending at the face 6 of the wall as shown in Fig. 1.

It will be apparent from the above description of this invention that my flashing assembly is both simple and durable in construction and involves the use of readily obtainable materials. The assembly can readily be installed during the nor-

mal construction of a wall without detriment to the crushing strength of the finished wall. Since the shaped bricks may have the same coefficient of expansion as standard bricks, in forming the wall with such bricks in accordance with the invention the occurrence of cracks and fissures in the wall, due to uneven expansion and contraction, will not take place. It will be noted that water seepage into the inner mortar joints of the wall is hindered by the vertical water stop at the inner edge of the metal section and by the inclined offset near the face of the metal section.

The term "brick" is used in this specification in a broad sense and is intended to include all stone, metal or other structural elements irrespective of shape, employed in building construction to form structural members such as walls.

It should be understood that various modifications of the forms and arrangements of the co-operating parts may be made without departing from the invention.

I claim:

1. A flashing assembly adapted to be built into a brick wall, comprising a brick having a face inclined inwardly with respect to the perpendicular, and a member adapted to be placed on said brick, said member having a portion adapted to overlie the inclined face of the brick to form a flashing groove and a portion extending upwardly from the outer end of said groove forming portion and forming therewith a receptacle for the reception of mortar.

2. A flashing assembly adapted to be incorporated in a brick wall, comprising a brick having a portion of one face inclined to the perpendicular, and a metal section adapted to be placed over said brick, said metal section having a horizontal portion provided with a perpendicular flange, an inclined portion adapted to extend in spaced parallel relationship to the inclined portion of the brick, a vertical face adapted to lie in the plane of the face of the wall, and an offset on said vertical face adapted to extend into the wall.

3. A flashing assembly adapted to be incorporated in a brick wall, comprising a brick having a corrugated inwardly-inclined portion, and a metal section adapted to be placed over said brick, said metal section having a flat horizontal portion adapted to contact with the brick, a guide flange extending perpendicular to the horizontal portion, a depending portion adapted to lie in spaced relationship to the inwardly-inclined portion of the brick, a vertical face adapted to lie in the plane of the face of the wall and a corrugated offset on said vertical face adapted to extend into the wall.

4. A flashing assembly adapted to be incorporated in a brick wall, comprising a brick of generally rectangular shape having an inclined surface extending inward from one edge thereof, and a metal section adapted to be placed against said brick, said metal section having a vertical upper portion adapted to lie against the face of the wall, an upwardly inclined portion extending from said vertical portion toward the interior of the wall, an inclined portion extending in spaced parallel relationship to said first-mentioned inclined portion adapted to lie against the inclined surface of the brick and forming a flashing groove with the first-mentioned inclined portion, and a vertical flange extending downward from the second-mentioned inclined portion adapted to lie against the face of the wall.

5. In combination with a roof and a contiguous wall, a brick of substantially rectangular shape having on one face a perpendicular portion and a portion inclined to the perpendicular, and a metal member lying over said brick, said metal member having a horizontal portion resting on the brick, an inclined portion extending in spaced relationship to the inclined portion of the brick, a vertical face lying in the plane of the face of the wall and an offset on said vertical face extending into the wall.

6. A flashing structure adapted to be incorporated in a wall, comprising a brick and a section of sheet material, said brick being provided with a recessed portion, said section of sheet material comprising a portion adapted to overlie the recessed portion of said brick to form therewith a groove for the reception of flashing and a second portion extending upwardly from the portion adapted to overlie said brick, said portions of said section of sheet material forming a receptacle for the reception and retention of cementing material.

7. A flashing assembly adapted to be incorporated in a brick wall comprising a brick having a depressed portion and a bent metal section comprising a portion adapted to overlie the depressed portion of said brick and to co-operate therewith to form a groove for the reception of flashing, said metal section having another portion extending substantially vertically from the outer end of said groove forming portion thereof, and co-operating with said groove forming portion to form a receptacle for the reception of cementing material.

8. A flashing assembly adapted to be built into a wall during the construction thereof, comprising a brick and a sheet metal section, said brick having a corrugated inclined surface extending inwardly from one side thereof, a horizontal upper surface, said sheet metal section comprising a portion adapted to overlie the upper horizontal surface of said brick, a portion extending in spaced, substantially parallel relation to the inclined surface of said brick and forming with said inclined surface an upwardly inclined flashing groove, said metal section also including a third portion extending from said groove defining portion vertically upwardly substantially in the plane of the vertical surface of said wall.

9. A building construction comprising a wall having incorporated therein a brick having a recessed portion, said recessed portion having an inclined surface, and a metal section comprising a portion overlying said inclined surface and forming therewith a flashing groove, said metal section also comprising a portion extending upwardly along the face of the wall and co-operating with the groove forming portion of said section to hold mortar contiguous to said brick in place.

10. In combination with a roof and a contiguous wall, a brick having an upper surface comprising a substantially horizontal portion and a downwardly inclined portion, said brick lying substantially entirely within the vertical faces of said wall, and a sheet metal member having a downwardly inclined portion overlying the inclined portion of said brick and extending in spaced, substantially parallel relation thereto to form a downwardly inclined groove for the reception of flashing and a portion extending upwardly from the downwardly inclined portion along a face of said wall.

11. In combination with a roof and a contiguous wall, a brick of substantially rectangular shape having an upper surface comprising a substantially horizontal portion and a portion inclined with respect to said horizontal portion, a

sheet metal member having a portion overlying the horizontal portion of said brick, a second portion extending above and in spaced relation to the inclined surface of said brick and a third portion extending upwardly from said second portion against the vertical face of said wall, said third portion being provided with an offset extending into the wall.

12. A building construction comprising a brick and contiguous wall, said brick lying substantially within the planes of the vertical surfaces of said wall and provided with a depressed portion having an inclined surface terminating substantially at one of the vertical surfaces of the wall, a sheet metal member provided with an inclined portion extending in spaced parallel relation to the inclined surface of said brick and having another portion extending from said inclined portion along the face of said wall.

13. A building construction comprising a wall having incorporated therein a brick which has one face lying within the outer plane of the wall and the remainder thereof lying within the wall, said brick having a recessed portion in the face thereof lying in the plane of the wall and a sheet member disposed on the top of said brick and having a portion thereof overlying the recessed portion of said brick and cooperating therewith to provide a groove for the reception of flashing.

14. A building construction comprising a wall having incorporated therein a brick which has one face lying within the outer plane of the wall and the remainder thereof lying within the wall, said brick having a recessed portion in the face thereof lying in the plane of the wall, said recessed portion extending upwardly and terminating short of the opposite face of the brick and a bent sheet member disposed on top of said brick and having a downwardly inclined portion overlying the recessed portion in said brick and cooperating therewith to provide an upwardly inclined groove for the reception of flashing.

15. A flashing assembly for incorporation in a wall comprising a brick adapted to be placed within the confines of the wall, said brick having a recessed portion, and a sheet member having a portion extending into said wall and overlying said recessed portion of said brick to form a flashing groove within said wall, one side of said flashing groove being defined by said portion of said sheet member.

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