Nov. 24, 1936. H. CALLAWAY 2,062,050

METAL FLASHING

Filed June 12, 1935 2 Sheets-Sheet 1

Fig. 1

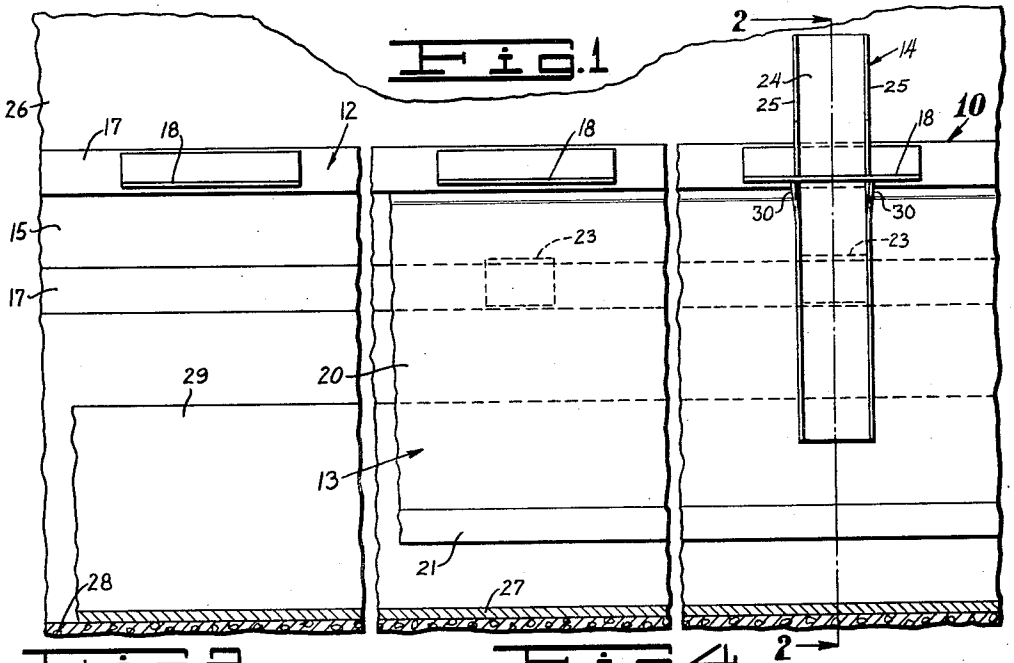


Fig. 2

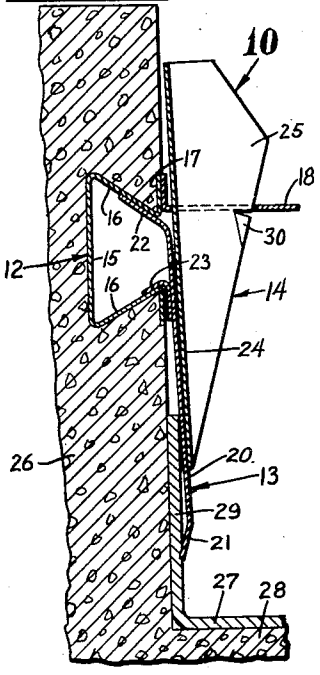


Fig. 4

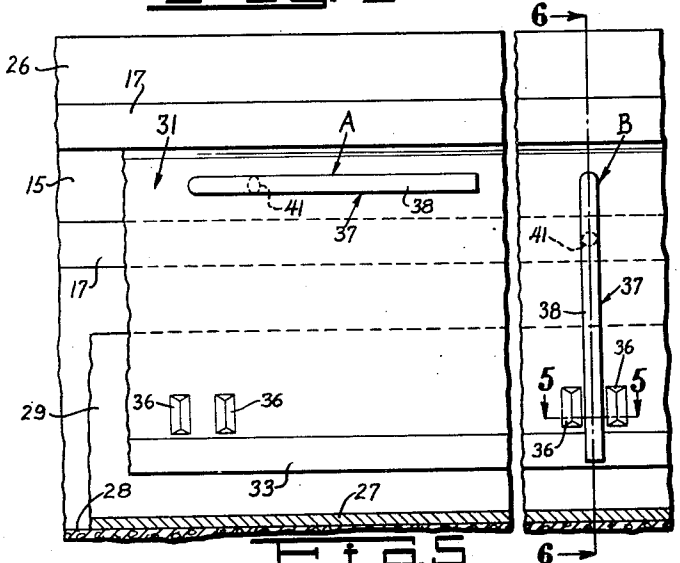


Fig. 5

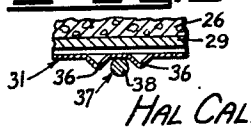
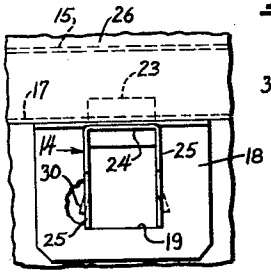


Fig. 3



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Nov. 24, 1936. H. CALLAWAY 2,062,050

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Filed June 12, 1935 2 Sheets-Sheet 2

Fig. 6

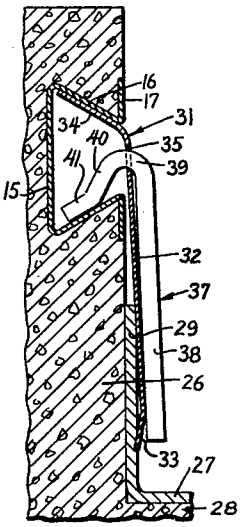


Fig. 7

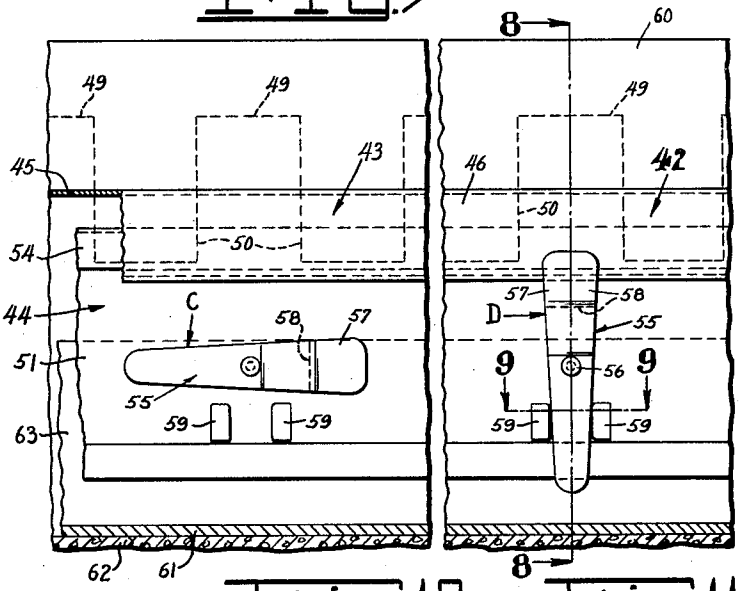


Fig. 8

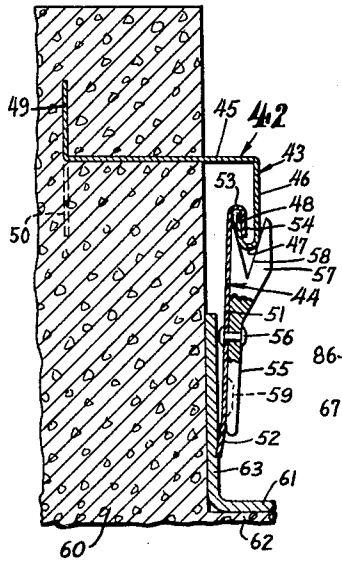


Fig. 10

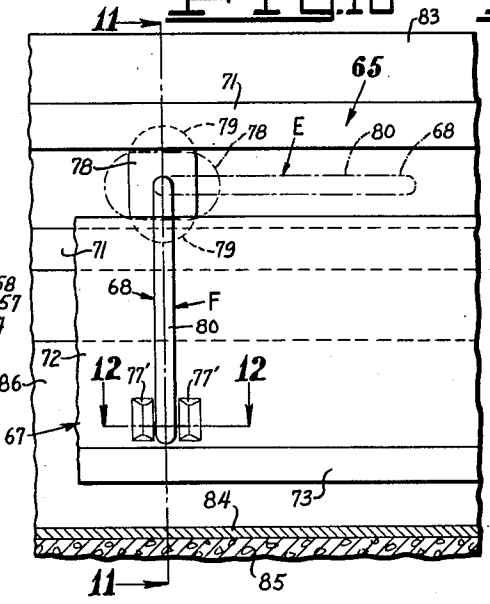


Fig. 11

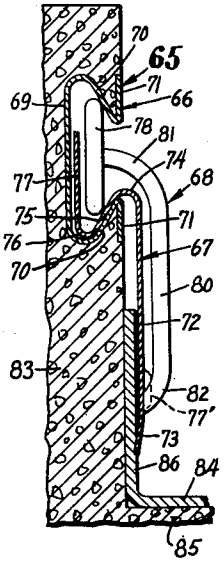


Fig. 9

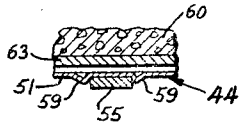
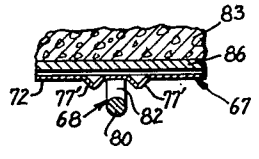


Fig. 12



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2,062,050

METAL FLASHING

Hal Callaway, Hollywood, Calif.

Application June 12, 1935, Serial No. 26,158

10 Claims. (Cl. 108—26)

This invention relates to improvements in metal flashings for roof structures.

The general object of this invention is to provide an improved metal flashing for roofs.

Another object of this invention is to provide a novel metal flashing device which securely retains the roofing proper in water tight engagement with the parapet wall.

A further object of the invention is to provide a novel metal flashing wherein the roofing paper engaging portion is removable.

Other objects and the advantages of this invention will be apparent from the following description taken in connection with the accompanying drawings, wherein:

Fig. 1 is a fragmentary front view showing my improved flashing device;

Fig. 2 is a section taken on line 2—2 of Fig. 1;

Fig. 3 is a fragmentary top plan view of the flashing device;

Fig. 4 is a front view of a modified form of flashing device;

Fig. 5 is a fragmentary section taken on line 5—5 of Fig. 4;

Fig. 6 is a fragmentary section taken on line 6—6 of Fig. 4;

Fig. 7 is a face view of another modified form of flashing device;

Fig. 8 is a section taken on line 8—8 of Fig. 7;

Fig. 9 is a fragmentary section taken on line 9—9 of Fig. 7;

Fig. 10 is a face view of a further modified form of flashing device;

Fig. 11 is a section taken on line 11—11 of Fig. 10, and

Fig. 12 is a section taken on line 12—12 of Fig. 10.

Referring to the drawings by reference characters I have indicated my improved flashing generally at 10. The flashing 10 comprises a trough member 12, a skirt member 13 and wedges 14. The trough member 12 is made of metal and includes a back wall 15 and top and bottom walls 16. The top and bottom walls 16 converge towards the front and the ends thereof are bent in opposite directions to form front flanges 17. Spaced at predetermined positions along the top flange 17 the trough member 12 has bracket members 18 thereon which are made of metal and each of which has an aperture 19 therein.

The skirt member 13 is made of metal and includes a face portion 20, the lower portion of which is bent to form an inclined flange 21 and the top portion is bent in the same direction as the flange 21 but at a sharper angle to form a flange portion 22. The skirt member 13 on the rear face thereof has spaced metal hook members 23 thereon.

The wedge member 14 is made of metal and includes a back wall 24, and opposite forwardly extending side walls 25, the front edges of which are inclined convergently towards the lower edge of the back wall.

In operation the trough member 12 is preferably embedded in the parapet wall 26 at the time the wall is poured with the front flanges 17 flush with the inner face of the wall 26. Thus when the wall forms are removed after the wall hardens the trough member 12 forms a metal reglet in the wall 26. Thereafter roofing paper 27 is laid on the roof deck 28 in the usual manner with the edges thereof turned up against the inner face of the parapet wall 26 as at 29. The flange 22 is then inserted in the trough 12 in engagement with the inner surface of the top wall 16 of the trough and the hook members 23 engaging the inner surface of the bottom wall 16 of the trough and with the lower flange 21 overlaying the upwardly extending portion 29 of the roofing paper as clearly shown in Fig. 2.

The wedges 14 are then positioned in the apertures 19 of the brackets 18 with the rear wall 24 of each wedge engaging the front surface of the face 20 of the skirt 13. As the wedge is forced downward it forces the face portion 20 of the skirt 13 towards the wall 26 thereby causing the flange 21 to firmly engage the upturned portion 29 of the roofing paper 27. After the wedge is firmly in position the operator may snip the front edges of the wedge walls 25 with a pair of tin shears just below the bracket 18 and then bend a portion of the side wall outward to form locking fingers 30. The fingers 30 prevent the wedges from accidentally moving upward. When it is desired to remove the wedges 14 the operator flexes the side walls 25 towards each other to bring the fingers 30 within the limits of the bracket aperture 19 and then moves the wedge upward.

In Figs. 4, 5, and 6 I have indicated a modified form of skirt generally at 31. As shown the skirt 31 is made of metal and includes a front face portion 32, the lower end of which is bent to form an inclined flange 33. The upper portion of the skirt 31 is bent in the same direction as the lower flange 33 but at a sharper angle to form an inclined flange 34. At predetermined positions along the face portion 32 the skirt 31 has apertures 35 therein adjacent the top flange 34. Positioned below each of the apertures 35 in the front face 32 adjacent the lower

flange 33 the skirt has a pair of spaced outwardly depressed lug members 36.

Positioned in each of the apertures 35 I provide a locking bar 37. The locking bar 37 is shown as cylindrical and includes a handle portion 38 which at one end is rounded over and back as at 39 to form an inclined portion 40 the end of which is bent at an angle away from the handle to form a foot portion 41. The locking bar 37 is placed on the skirt 31 with the handle 38 adjacent the front surface of the face 32 and the curved portion positioned in the skirt aperture 35.

In operation the locking bars 37 are turned horizontal so that they are parallel with the top of the skirt as shown at A in Fig. 4. Then the flange 34 of the skirt 32 is positioned in the trough 12 in engagement with the inner face of the top wall 16 and with the flange 33 over the upturned portion 29 of the roofing paper. Thereafter the handles 38 of the locking bars 37 are turned downward to vertical positions between the lugs 36 as shown in Fig. 6 and at B in Fig. 4.

As the handle 38 of a locking bar is swung downward the foot portion 41 thereof firmly engages the inner face of the bottom wall 16 of the trough 12 and the handle portion 38 firmly engages the face 32 of the skirt 31 and forces it towards the wall 25 thereby pressing the lower skirt flange 33 into tight engagement with the upturned portion 29 of the roofing paper as clearly shown in Fig. 6. The lugs 36 prevent the handles of the locking bars 37 from accidentally turning.

In Figs. 7, 8, and 9 I have indicated a modified form of flashing generally at 42. As shown the flashing 42 comprises a holder member 43 and a skirt member 44. As shown the holder 43 is made of sheet metal and includes a horizontal body portion 45, a portion of which is bent downward to form a depending flange 46 which at its lower edge is curved upward as at 47 to form an upturned flange 48 which is of less height than the flange 46. The edge of the body opposite the flange 46 is slit inward at spaced intervals throughout its length and alternate portions of the body between the slits are bent upward to form upwardly extending spaced fingers 49 while the remaining portions of the body between the slits are bent downward to form depending spaced fingers 50.

The skirt 44 includes a body portion 51 which at its lower end is bent to form an inclined flange 52 and at the upper end is rounded over as at 53 in a direction opposite to the inclined flange 52, to form a depending flange 54.

Spaced at predetermined intervals along the skirt 44 I provide a plurality of metal locking bars 55. As shown each of the locking bars 55 is suitably pivotally secured intermediate its length to the skirt 44 as indicated at 56. The locking bar 55 includes an enlarged head 57 which has a V-shaped recess 58 opening through the end thereof.

Below each of the pivots 56 adjacent the flange 52 the skirt 44 includes a pair of spaced outwardly depressed lugs 59.

In operation the body portion 45 of the holder 43 is embedded in the parapet wall 60 at the time the wall is poured and is positioned with the fingers 49 and 50 within the wall and with the flange 46 spaced a predetermined distance outward from the inner face of the wall. After the parapet wall 60 has hardened, roofing paper 61 is laid on the roof deck 62 in the usual manner with the ends of the paper extending upward against the inner face of the wall 60 as indicated at 63. Before placing the skirt 44 in an operative position the operator swings all of the locking bars 55 to a position wherein their axes parallel the lower edge of the skirt as shown at C in Fig. 7. Thereafter the skirt flange 54 is positioned between the upturned flange 48 and the depending flange 46 of the holder in which position the skirt 44 is supported by the holder 42 with the skirt flange 52 overlying the upturned portion 63 of the roofing paper 61.

The operator then swings each of the locking bars 55 to a vertical position as shown at D in Fig. 7 wherein the end of the locking bar opposite the head 58 thereof is positioned between the lugs 59. As the locking bar 44 is swung to a vertical position the portions of the head 58 on each side of the V groove 57 straddle the rounded portion 47 of the holder and firmly engage it thereby forcing the skirt 44 towards the wall 60 thereby forcing the skirt flange 52 into tight engagement with the upturned portion 63 of the roofing paper. The lugs 59 prevent the locking bars 55 from accidentally swinging from their horizontal locking position.

In Figs. 10, 11, and 12 I have indicated a further modified form of flashing generally at 65. As shown the flashing 65 comprises a trough member 66, a skirt member 67 and locking members 68. The trough member 66 is made of sheet metal and is similar to the trough member 12 and includes a rear wall 69 and spaced top and bottom walls 70. The top and bottom walls 70 converge towards the front where they are oppositely bent to form front flanges 71.

The skirt member 67 is made of sheet metal and includes a face portion 72, the lower portion of which is bent to form an inclined flange 73. Spaced from the flange 73 the skirt is curved over and downward as at 74 in the same direction as the flange 73 to form an inclined flange 75 and is then curved upward as at 76 to form a vertical flange 77. Adjacent the flange 73 and at predetermined positions along the face 72 the skirt 67 includes pairs of outwardly extending depressed lugs 77'.

Each of the locking members 68 include an approximately flat head portion 78 which is longer in one direction than in the other and has the lengthwise ends curved as indicated at 79. The locking member further includes a handle portion 80 which at one end curves outward from the head as at 81 and at the opposite end includes a curved portion 82 curved in the same direction as the curvature 81.

In operation the trough 66 is embedded in the parapet wall 83 at the time the wall is poured and is positioned with the front flanges 71 flush with the inner face of the parapet wall. After the wall 83 hardens, roofing paper 84 is laid on the roof deck 85 in the usual manner with the ends thereof turned upward against the inner face of the parapet wall 83 as indicated at 86.

Thereafter the skirt member 67 is positioned with the flange 75 thereof engaging the bottom wall 70 of the trough member 66 and with the flange 73 overlying the upturned portion 86 of the roofing paper 84. The operator then placed the locking members 68 in an operative position by first turning a locking member to a position wherein the lengthwise axis of the head 78 parallels the upper edge of the trough as at E in

Fig. 10 and then inserting the head 78 in the trough and thereafter turning the locking member downwardly to a vertical position as at F wherein the curved end 82 of the handle 80 is positioned between a pair of the lugs 77'.

When the locking member is swung to this position one of the curved ends 79 of the head 78 engages the inner surface of the top wall 70 of the trough and the other curved end 79 engages the inclined flange 75 of the skirt 67 and firmly presses it against the bottom wall 70 of the trough. In this position the curved end 82 of the locking member urges the face portion 72 of the skirt towards the wall 83 thereby forcing the skirt flange 73 into tight engagement with the upturned portion 86 of the roofing paper.

From the foregoing description it will be apparent that I have provided a novel metal flashing which is simple in construction and highly efficient in use.

Having thus described my invention I claim:

1. For use with a parapet wall and a roof deck having a covering of roofing paper thereon, a flashing device comprising a trough member embedded in said parapet wall, said trough member including apertured brackets, a skirt member including a face portion having its lower end inclined to form a bottom flange, the opposite end of said face portion of said skirt being bent to form an inclined upper flange, said upper flange being positioned in said trough in engagement with the upper wall of said trough, said skirt member having members thereon engaging said lower wall of said trough, and wedge members positioned in said apertures of said trough brackets.

2. For use with a parapet wall and a roof deck having a covering of roofing paper thereon, a flashing device comprising a trough member embedded in said parapet wall, said member having upper and lower walls and having front flanges approximately flush with the surface of said parapet wall, apertured brackets on said trough member, a skirt member made of sheet metal and including a face portion having its lower end inclined to form a bottom flange to engage said roofing papers, the opposite end of said face portion of said skirt being bent to form an inclined upper flange, said upper flange being positioned in said trough in engagement with the upper wall of said trough, said skirt member having a plurality of hook members thereon positioned in said trough and engaging said lower wall of said trough, and wedge members including a rear wall having side walls bent forward at approximately right angles thereto, the forward edges of said side walls being inclined downwards towards said rear wall, one of said wedge members being positioned in each of said apertures of said trough brackets with their rear walls engaging said skirt and forcing said skirt towards said parapet wall.

3. In combination with a roof deck and a parapet wall, said roof deck having a covering of roofing paper thereon with a portion of said roofing paper being turned up against said parapet wall, a flashing device comprising a trough member including a back wall, top and bottom walls, and front flange members, said top and bottom walls converging forward and said front flange members extending in opposite directions, said trough member having a plurality of bracket members on said upper front flange and each of said brackets having a polygonal aperture therein, said trough member being embedded in said parapet wall with the front flanges thereof approximately flush with the surface of said parapet wall engaged by said upturned portion of said roofing paper, a skirt member being made of sheet metal and including a face portion having its lower end inclined to form a bottom flange to engage said upturned portion of said roofing paper, the opposite end of said face portion of said skirt being bent to form an inclined upper flange, said upper flange being positioned in said trough in engagement with the upper wall of said trough, said skirt member having a plurality of hook members thereon positioned in said trough and engaging said lower wall of said trough, and a wedge member made of sheet metal and including a rear wall having side walls bent forward at approximately right angles thereto, the forward edges of said side walls being inclined downwards towards said rear wall, one of said wedge members being positioned in each of said apertures of said trough brackets with their rear walls engaging said skirt and forcing said skirt towards said parapet wall, the side walls of said wedge members having outturned lugs thereon adjacent the under surfaces of said brackets to prevent accidental dislodgement of said wedges.

4. For use with a parapet wall and a roof deck having a covering of roofing paper thereon, a flashing device comprising a trough member embedded in said wall, said device including an apertured portion, a skirt member including a face portion having its lower end inclined to form a bottom flange, the opposite end of said face portion of said skirt being bent to form an inclined upper flange, said upper flange being positioned in said trough in engagement with said upper wall of said trough and wedge members positioned in said apertures and engaging said skirt member.

5. For use with a parapet wall and a roof deck having a paper covering thereon, a flashing device comprising a trough member having converging walls and embedded in said parapet wall, a skirt including a face portion having its lower end inclined to form a bottom flange to engage said upturned portion of said roofing paper, the opposite end of said face portion of said skirt being bent to form an upper flange, said upper flange being positioned in said trough in engagement with one wall of said trough, said skirt member having spaced means thereon engaging the other wall of the trough.

6. In a flashing, a trough member adapted to be secured in a wall, said trough member being dovetailed shape in cross section with the entrance at the narrow portion of the dovetail, a plurality of bracket members associated with said trough member, a skirt member having its lower end adapted to engage roofing paper and having its upper end engaging said trough member against the inner surface of the upper wall of the trough, holding means mounted on said skirt member and extending into the trough and engaging the upper surface of the lower wall, and clamping means engaging said bracket and said skirt member.

7. In a flashing, a trough member adapted to be secured in a wall, said trough member being dovetailed shape in cross section with the entrance at the narrow portion of the dovetail, a plurality of bracket members integral with said trough member, a skirt member having its lower end adapted to engage roofing paper and having its upper end bent to form an inclined flange

which engages said trough member against the inner surface of one wall of the trough, holding means mounted on said skirt member and extending into the trough and engaging the other wall of said trough, and clamping means engaging said bracket and said skirt.

8. In combination with a roof deck and a parapet wall, said roof deck having a covering of roofing paper thereon with a portion of said roofing paper being turned up against said parapet wall, a flashing device comprising a trough member including a back wall, top and bottom walls, and front flange members, said top and bottom walls converging forward and said front flange members extending in opposite directions, said trough member having a plurality of bracket members on said upper front flange and each of said brackets having a polygonal aperture therein, said trough member being embedded in said parapet wall with the front flanges thereof approximately flush with the surface of said parapet wall engaged by said upturned portion of said roofing paper, a skirt member being made of sheet metal and including a face portion having its lower end engaging said upturned portion of said roofing paper, the opposite end of said face portion of said skirt being bent to form an inclined upper flange, said upper flange being positioned in said trough in engagement with the upper wall of said trough, and a wedge member positioned in each of said apertures of said trough brackets and forcing said skirt towards said parapet wall.

9. In combination with a roof deck and a parapet wall, said roof deck having a covering of roofing paper thereon with a portion of said roofing paper being turned up against said parapet wall, a flashing device comprising a trough member including a back wall, top and bottom walls, and front flange members, said top and bottom walls converging forward and said front flange members extending in opposite directions, said trough member having a plurality of bracket members on said upper front flange and each of said brackets having an aperture therein, said trough member being embedded in said parapet wall with the front flanges thereof approximately flush with the surface of said parapet wall engaged by said upturned portion of said roofing paper, a skirt member being made of sheet metal and including a face portion having its lower end engaging said upturned portion of said roofing paper, the opposite end of said face portion of said skirt being bent to form an inclined upper flange, said upper flange being positioned in said trough in engagement with the upper wall of said trough, said skirt member having a plurality of hook members thereon positioned in said trough and engaging said lower wall of said trough, and a wedge member positioned in each of said apertures of said trough brackets.

10. In a flashing, a trough member adapted to be secured in a wall, said trough member being of dovetailed shape in cross section with the entrance at the narrow end of the dovetail, a plurality of outwardly directed apertured bracket members associated with said trough member, a skirt member, said skirt member having its lower end adapted to engage roofing paper and having holding portions at its upper end disposed within said trough member and engaging against the inner surface of a portion of the trough member, and a clamping member fitted in each of said bracket apertures and extending downwardly and engaging the skirt member.

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