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METAL FLASHING REGLET FOR CONCRETE CONSTRUCTION

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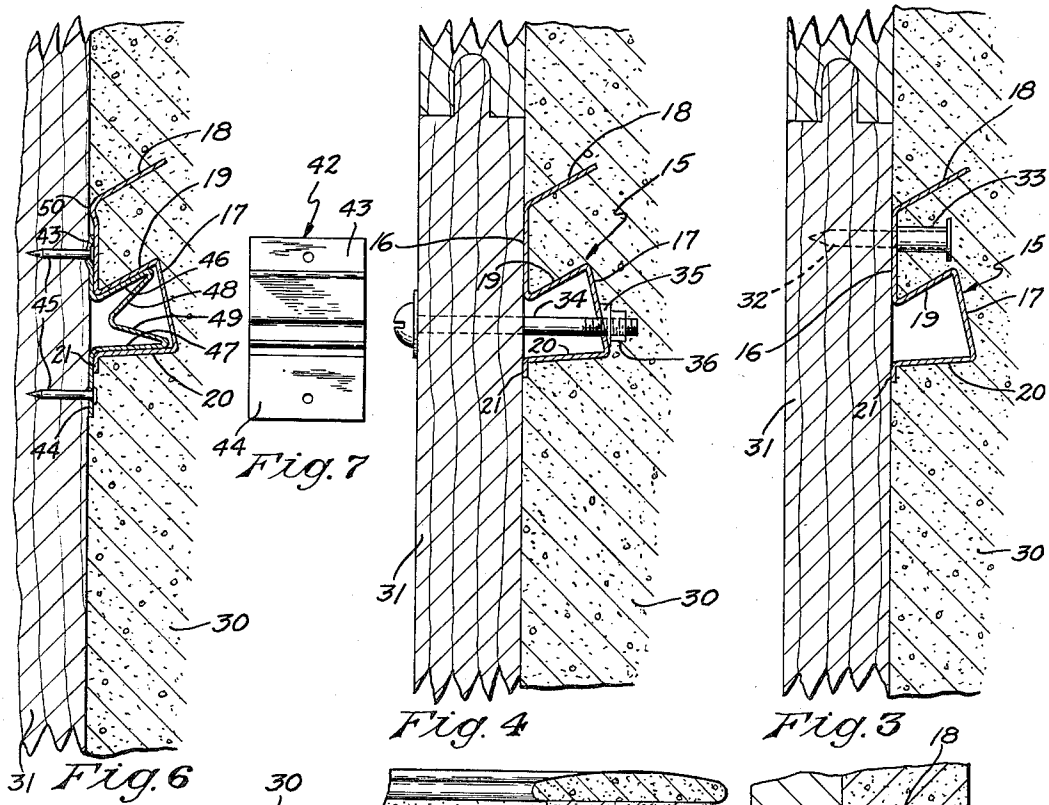


Fig. 7

Fig. 6

Fig. 4

Fig. 3

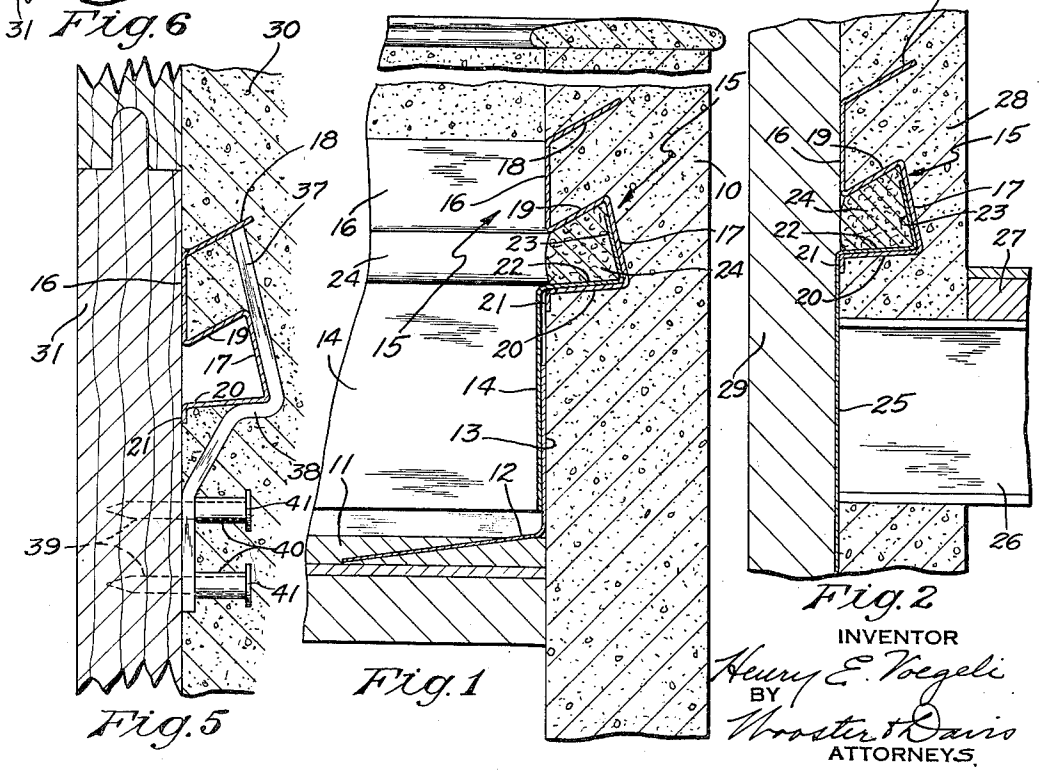


Fig. 5

Fig. 1

Fig. 2

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METAL FLASHING REGLET FOR CONCRETE CONSTRUCTION

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7 Claims. (Cl. 108—26)

This invention relates to metal flashing constructions for concrete walls, and particularly to a metal reglet for molding in the concrete to serve as a mounting or anchorage for a metal flashing, and has for an object to provide an improved metal reglet which will be of simple and rigid construction whereby danger of damage in molding the concrete is reduced to a minimum. It is also an object to provide an improved reglet construction which will have an additional protective means above the dovetail anchoring groove for the flashing which will be in a position to receive blows of a slice bar or spade which is rammed down into the concrete aggregate during the pouring of the concrete.

Other objects and advantages will be apparent from a more detailed description of the invention taken in connection with the accompanying drawing forming a part of this specification. It will, however, be understood that I am not limited to the specific details shown but various changes and modifications may be employed within the scope of the invention.

In this drawing:

Fig. 1 is a vertical section through a vertical wall or parapet at the junction of the roof with the vertical wall showing my improved reglet in position in the parapet wall to support the roof flashing;

Fig. 2 is a similar section showing how the reglet may be employed in a concrete wall faced with brick or other material to support a flashing in front of the end of a spandrel beam of metal or concrete to prevent seepage of moisture through the wall to the beam or inner wall;

Figs. 3, 4, 5, and 6 are sections through a portion of a form for molding a concrete wall showing various means for securing the reglet to the form during the pouring of the concrete; and

Fig. 7 is a front elevation of the reglet securing device shown in Fig. 6.

Referring first to Fig. 1 the vertical parapet wall of concrete is shown at 10 with a roof construction 11 abutting this wall. The joint between the roof and the wall must be protected by a metal flashing to prevent seepage of water through the joint. In the arrangement shown this comprises a base flashing 12 of sheet metal, preferably sheet copper having a vertical portion 13 extending above the top of the roof against the face of the wall 10. In front of this is a counter flashing 14 also of sheet metal such as copper extending above the upper edge of the base flashing 12 and secured to the face of the concrete wall by the reglet 15 embedded in the wall when the concrete is poured. My improved reglet comprises a vertical wall portion 16 connecting the generally dovetail shaped portion 17 and an upwardly and inwardly inclined protecting flange 18 which is preferably substantially parallel with upper inclined wall 19 of the dovetail portion and extends inwardly from the face of the wall preferably about the same distance as the dovetail portion 17 to protect the same. As this flange is inclined it also leads moisture entering the wall back to the front surface thereof. Leading downwardly and inwardly from the inner edge of the lower somewhat inclined wall 20 of the dovetail is a short flange 21 positioned against the face of the wall 10. Inclining the lower wall 20 drains out any moisture which may enter the dovetail slot. The upper portion of the counter flashing 14 is offset laterally as shown at 22 to rest on the bottom wall 20 of the dovetail and then is extended upwardly as shown at 23 at the inner side of the connecting wall of the dovetail 17. After the flashing has been so inserted it is secured in place and the open side of the dovetail groove or slot is closed by filling the groove with a suitable calking 24. This may be of any suitable calking material such for example as a lead wool calking, lead wool being used in spaced wads and then the whole groove filled out with suitable calking material. It will be evident that the reglet is effectively anchored in the concrete wall and will hold the flashing in proper position.

In Fig. 2 the reglet is shown as supporting a flashing 25 in front of a spandrel beam 26 which may be of metal or concrete supporting a floor 27 in a building to prevent seepage of moisture into the building and the beam at this point. In this construction the inner portion of the wall 28 is shown of concrete in which the reglet 15 is anchored and embedded and after the flashing is mounted the outer face may be covered with a layer of brick or other facing 29. This reglet is of very strong and rigid construction preferably made of about 24 oz. gauge sheet copper.

Figs. 3 to 6 inclusive show various ways which may be employed in mounting the reglet on the wooden forms in which the concrete wall is poured. In these views the concrete is indicated at 30 and may be either the wall 10 or 28, or other wall for masonry construction. In the arrangement in Fig. 3 the reglet 15 is secured to the face of the wooden form 31 by means of nails 32 driven through the upper wall 16 of the reglet between the protective flange 18 and the inclined wall 19. It is also preferred to use a pipe sleeve 33 about the nail under the head to

space the head from the metal so that it is embedded in the concrete. These nails hold the reglet in place while the concrete is being poured, and after the concrete has set the form 31 can be readily stripped off and then the projecting ends of the nails cut off with snippers. It will be clear that this locates the reglet at its desired location in the face of the finished concrete wall in readiness for mounting any flashing it is desired, such for example as those shown in Figs. 1 and 2, and it will also be evident that the reglet is left embedded and also effectively anchored in the concrete of the wall after the concrete has set. During the pouring of the concrete it is common practice for the workmen to jam slice bars or spades down into the soft wet concrete mixture to settle it and eliminate voids in the finished concrete. Especially is this done near the forms to secure a smooth finished surface. During this operation the common type of reglet is often injured or bent out of shape and perhaps loosened from the form, permitting concrete to enter the groove in the reglet which must be later removed after the concrete is set before the flashing can be mounted in the reglet. This liability to injury or deformation is greatly reduced or obviated by the protective flange 18, which it will be seen extends above the dovetail portion 17 and protects it against the blows of the slice bar or spade, and it also protects the securing means.

In Fig. 4 the reglet is secured to the form 31 by bolts 34 instead of the nails 32, using a lead washer 35 under the nut 36. After the concrete is set these bolts may be readily removed leaving the reglet embedded and anchored in place in the concrete wall.

In Fig. 5 is shown still another means that may be used in securing the reglet to the form 31. As indicated above, when the workmen shove their spades or slice bars down into the soft mixture they sometimes jam down the protective flange 18 which is used to protect the dovetail portion. To prevent this in the form shown in Fig. 5 there are shown steel supporting straps 37 which are offset at 38, in which offset is seated the lower wall 20, these holding straps being secured to the wooden form 31 by the nails 39 and using the pipe sleeves 40 to keep the heads 41 of the nails spaced from the strap and embedded in the concrete. The upper portion of the strap 37 extends along the back of the wall 17 with its upper end under the flange 18 to support it against the blows of the spade or other tool used in consolidating the concrete. These straps may be about $\frac{3}{32}$ inch thick by about 1 inch wide although of course I am not limited to these dimensions. After the form 31 is stripped off the projecting ends of the nails 39 may be cut off with suitable snippers.

In the form shown in Figs. 6 and 7 no projecting nails or studs are left to be removed or snipped off after the form is stripped from the concrete. In this arrangement are used sheet metal clips 42. These may be clips of about an inch wide of suitable gauge sheet metal, and have flanges 43 and 44 by which they may be fastened to the face of the wooden form 31 by suitable nails 45. Intermediate these flanges the metal strip is bent outwardly at 46 and 47 and between these two portions is a sort of V-shaped portion formed by the walls 48 and 49. The walls 46 and 47 are inclined to correspond with the walls 19 and 20 of the dovetail portion of the reglet and the V-shaped portion 48 and 49 permits their free ends to yield inwardly toward each other to permit sliding of the reglet over these clips so that the reglet is securely mounted on the face of the wooden form during the pouring of the concrete. After the concrete has set the wooden form may be readily stripped from the face of the concrete wall, the walls 46 and 47 yielding inwardly to permit withdrawing of the clips from the dovetail groove. The clips 42 may be spaced any suitable distance to properly hold the reglet during the pouring of the concrete. As the reglet is seated against the outer surface of the flange 43 its upright wall 16 would be spaced a short distance from the wooden form, and to prevent concrete running down into this space during the pouring operation the reglet may be offset or formed with a bead 50 at the juncture of the inclined flange 18 and the upright wall 16, this bead being about the height of the thickness of the flange 43 so as to engage the surface of the wooden form 31 and prevent the concrete flowing down into that space.

This reglet has been found to be very efficient and to possess a number of desirable qualities. It is strong because of its compactness and because of the exceptional stiffness given to the reglet by its shape. The reglet is weathertight and cannot be easily damaged by a coarse aggregate of the concrete when poured into the form nor by being rammed by a slice bar or spade when the concrete is worked into the space in the form so as to show solid without honeycomb when the form is removed. This reglet meets these requirements very well because of the upper flange or guard 18 which extends into the wall and protects the dovetail portion of the reglet below it from a direct blow of any of the forces mentioned above. This reglet can be made in various lengths as desired, and is preferably made of heavy sheet metal of about 24 oz. gauge copper in lengths up to about 10 feet, and has been found to be very efficient and satisfactory for the purposes for which it has been employed.

Having thus set forth the nature of my invention, what I claim is:

1. A reglet construction for supporting a flashing comprising a sheet metal member having an upright wall portion to lie in the face of a concrete wall, a substantially dovetail shaped portion at the lower edge of said upright portion and extending rearwardly therefrom to be embedded in the concrete, and a protective flange extending backwardly and upwardly from the upper edge of said upright portion over the dovetail portion.

2. A reglet construction comprising a sheet metal member having an upright wall portion to lie in the face of a concrete wall, a wall extending upwardly and rearwardly from the lower edge of said wall, a rear wall extending downwardly and rearwardly from the upper edge of said first inclined wall and a bottom wall extending forwardly and downwardly from the lower edge of said rear wall, said latter three walls forming a substantially dovetail portion to anchor the reglet in a concrete wall and having an entrance slot for insertion of a flashing, and a protecting flange extending rearwardly from the upper edge of said upright wall over the dovetail portion.

3. In a reglet for a concrete wall construction, a sheet metal member having an upright front wall for location at the face of a concrete form,

a substantially dovetail portion extending rearwardly from the lowere edge of said wall to anchor the member in the concrete, a protective flange extending rearwardly from the upper edge of the wall over the dovetailed portion, and means for mounting said member on a form for molding a concrete wall with said upright wall at substantially the face of the form.

4. In a reglet for a concrete wall construction, a sheet metal member having an upright front wall to rest against a concrete form, a substantially dovetailed portion extending rearwardly from the lower edge of said wall to anchor the reglet in the concrete, a protective flange extending rearwardly from the upper edge of said wall over the dovetailed portion, and means for mounting the reglet on a wooden form comprising a metal member having a lower portion adapted to be fastened to the form with an offset forming a seat for the dovetailed portion to rest on and an upper portion extending upwardly at the back of the dovetail with its upper end under the flange to support it.

5. In a reglet for a concrete wall construction, a sheet metal member including a substantially dovetail portion for anchoring the member in the concrete and forming an open groove at the face of the wall for mounting a flashing, and means for mounting said member on a form for molding the concrete wall comprising a resilient metal clip having a flange portion for fastening it to the face of the form and a forwardly projecting tapered spring portion to enter the groove formed by the dovetailed portion of the sheet metal member to retain it in position on the form.

6. In a reglet for a concrete wall construction, a sheet metal member including a substantially dovetail portion for anchoring the member in the concrete and forming an open groove at the face of the wall for mounting a flashing, and means for mounting said member on a form for molding a concrete wall comprising a resilient metal clip having a flange portion for fastening it to the face of a form and forwardly extending inclined walls to enter the groove formed by the said dovetailed portion with the outer ends of said inclined walls connected by a looped portion permitting the walls to yield for insertion in and removal of the clip from said groove.

7. In a reglet for a concrete wall construction, a sheet metal member including a substantially dovetail portion for anchoring the member in the concrete and forming an open groove at the face of the wall for mounting a flashing, and means for mounting said member on a form for molding a concrete wall comprising a resilient metal clip having flange portions for fastening it to the face of the form and an intermediate portion joining said flanges comprising walls extending forwardly from the flanges and inclined in opposite directions similar to the side walls of the said dovetailed portion, and a substantially V-shaped loop connecting the outer ends of said inclined walls to permit them to yield for insertion of the clip in and its removal from the groove of the dovetail.

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