Aug. 11, 1953 M. P. KURTZ 2,648,105

AWNING AND FLASHING STRIP THEREFOR

Filed Nov. 21, 1950 2 Sheets-Sheet 1

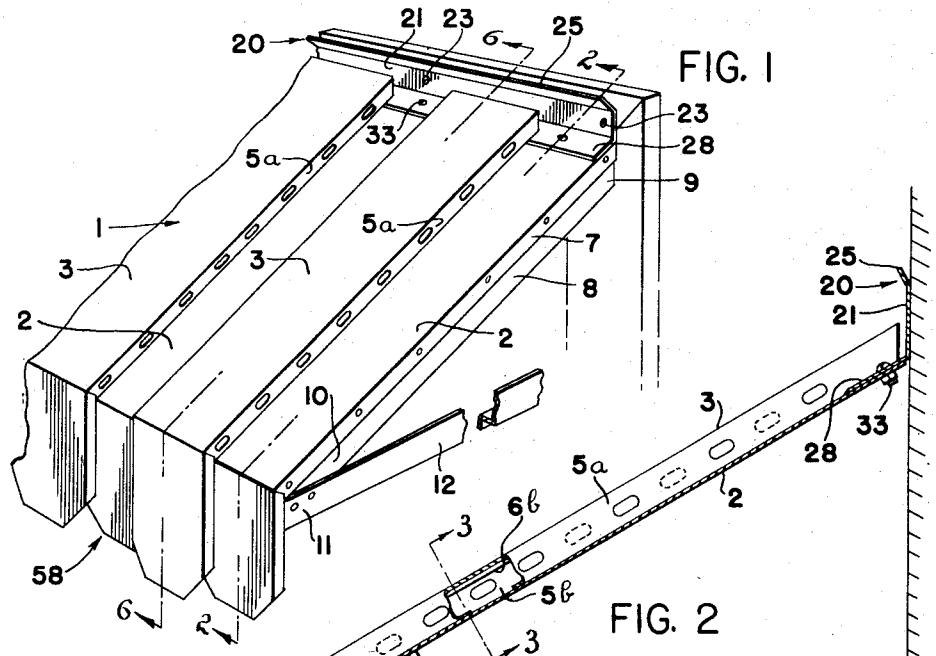


FIG. 1

FIG. 2

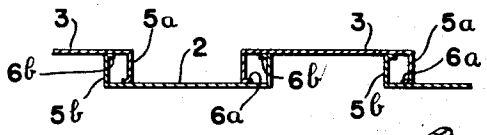


FIG. 3

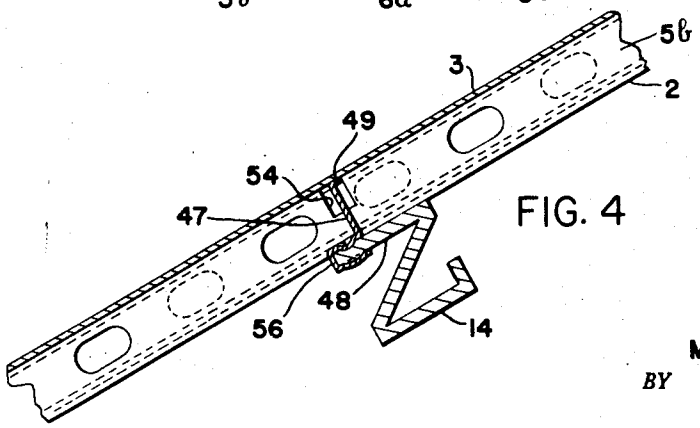


FIG. 4

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AWNING AND FLASHING STRIP THEREFOR

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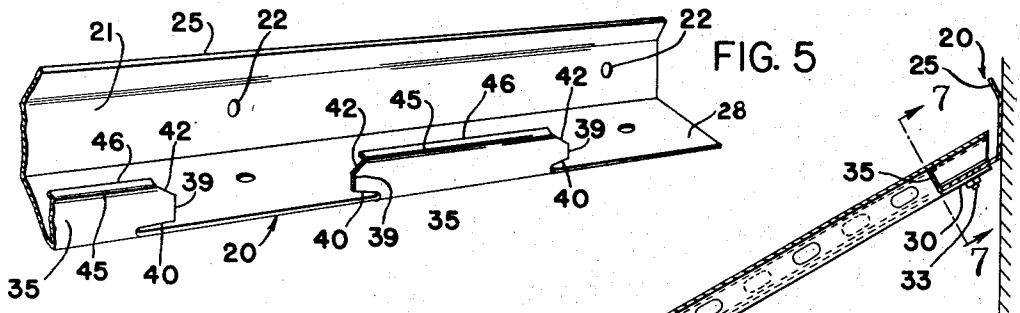
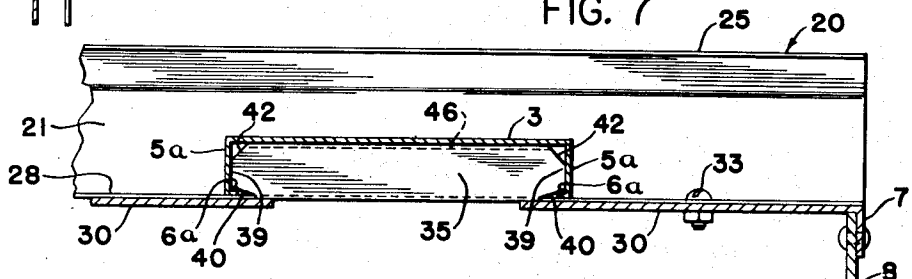


FIG. 5

FIG. 6

FIG. 7



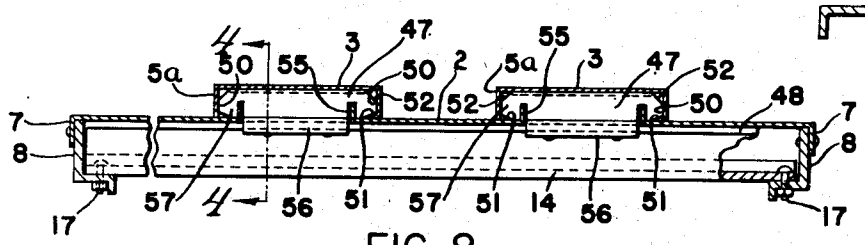


FIG. 8

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AWNING AND FLASHING STRIP THEREFOR

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8 Claims. (Cl. 20—57.5)

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This invention relates to an improved awning and flashing strip therefor.

The awning is of the type having a roof formed with sheet-metal, channel-shaped elements. These elements are assembled with the flashing strip on a frame structure which is fastened against a building. The channel elements are formed with parallel flanges along their longitudinal edges. Some of the channels in the roof are positioned with their flanges directed upwardly. These channels are spaced laterally from each other and are known to the trade as "drains." The other channels of the roof assembly are positioned with their flanges extending downwardly and each bridges over the space between two adjacent drains. These latter channels are referred to in the trade as "covers," and these too are spaced laterally from each other. According to this invention means is provided at the bottom of each edge of each cover to hold it to anchor means which will be described in what follows.

The flashing strip fits across the upper end of the roof. The flashing strip includes a vertical portion adapted to be fastened against a building and another portion which angles outwardly from the vertical portion with upwardly extending anchor means on which the covers are sprung to hold them in assembled relation with the drains. The anchor means on the flashing strip project upwardly between the downwardly extending flanges of each cover. Any complementary locking means may be provided on the cover flanges and the anchor means which prevents upward movement of the covers from the anchor means. The preferred anchor means maintains pressure contact with the inside upper surface of each flange to prevent the covers from rattling against the anchor means. The frictional engagement of the covers with the anchors holds them in place. The top corners of the anchor means are preferably beveled downwardly to facilitate the engagement of the cover with the anchor.

The supporting structure for the awning includes a cross member which is located on a part of the frame away from the building and is preferably parallel with the flashing strip. This member is provided with anchor means which extend upwardly into the covers through the space between the drains. These are generally the same shape as the anchor means employed on the flashing strip, and function in the same manner. The crossbar anchors hold the drains in proper position. The upper end of each drain may be fastened to the flashing strip in any suitable manner.

A preferred form of the invention is shown in the drawings. In the drawings—

Fig. 1 is a perspective view showing a fragmentary portion of the awning mounted on a building with a portion of the supporting structure broken away;

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Fig. 2 is a longitudinal cross section through the roof of the awning taken on the line 2—2 of Fig. 1;

Fig. 3 is a cross-sectional view through the roof taken on the line 3—3 of Fig. 2;

Fig. 4 is an enlarged cross-sectional view of the crossbar and its anchor means taken on the line 4—4 of Fig. 8;

Fig. 5 is a perspective view, partially broken away, of the preferred flashing strip;

Fig. 6 is a longitudinal cross-sectional view of the roof structure taken on the line 6—6 of Fig. 1;

Fig. 7 is an enlarged cross-sectional view taken on the line 7—7 of Fig. 6; and

Fig. 8 is a cross-sectional view taken on the line 8—8 of Fig. 6.

The sloping roof portion 1 is formed of the sheet-metal drains 2 and covers 3. Each of the covers is provided with parallel side flanges 5a (Fig. 3) and along the outer edge of each flange there is an inwardly turned lip 6a. The drains also have similar parallel side flanges 5b which terminate in inwardly turned lips 6b. As shown in Fig. 3 the drains 2 are positioned with their side flanges 5b directed upwardly and the drains are spaced apart from each other. The covers 3 are positioned above the drains so that each bridges the space between two adjacent drains. The outside flange 7 of each outside drain is turned down instead of up. There is no lip on these flanges. The flanges 5a of each cover are directed downwardly toward the drains. Although Fig. 3 shows each flange 5a of one cover vertically overlapping the adjacent upturned flange 5b on the adjacent drain, this is merely a preferred construction and is not essential. Both the drains and covers extend the full length of the sloping roof. The covers are in a plane parallel to the plane of the drains and the flanges of the covers and drains are mutually parallel in the roof assembly.

The roof is supported at each side by a sloping member 8 (Figs. 1 and 8), the upper end 9 of which is adapted to be fastened to the building. The lower, outer end 10 is connected to the end 11 of a horizontal brace member 12 which extends backwardly toward the building and its inner end (not shown) is adapted to be fastened to the building. The member 12 forms an acute angle with the member 8.

The crossbar 14 extends transversely under the roof assembly as shown in Figs. 2, 6 and 8. The ends of crossbar 14 are fastened to the inturned flanges at the bottoms of the sloping members 8 at the sides of the roof by bolts 17 (Fig. 8). The crossbar 14 is located toward the outer ends 10 of members 8 and it extends parallel to the building.

The preferred flashing strip 20 (Fig. 5) extends

across the upper edge of the roof of the awning, perpendicular to the drains and covers. This flashing strip is preferably shaped by stamping or the like from a single sheet of metal. The flashing strip includes a vertical portion 21 with holes 22 through it at spaced intervals through which suitable screws 23 (Fig. 1) may be inserted to fasten the flashing strip against the building. The upper edge 25 of the flashing is bent outwardly away from the vertical portion, and after the awning is mounted on the building the crack between the upper edge 25 and the building is caulked with suitable material to prevent water from seeping between the flashing and the building.

Adjoining the vertical portion 21 of the awning is a flat portion 28 which angles outwardly and downwardly at an obtuse angle with respect to the vertical portion 21, at the same angle as the sloping members 8. The upper end of each cover 3 extends over the upper surface of member 28 and the end of each cover may fit directly against the surface of the vertical portion 21 or it may terminate short of the vertical portion as shown in Fig. 6. The flanges 5*b* are cut away at the upper end of each drain leaving a flat projection 30 which fits under and flat against the undersurface of the member 28 (see Figs. 6 and 7). This projection is fastened to the member 28 by a bolt 33.

The upper end of each cover 3 is connected to the flashing strip by an anchor 35 which projects upward from the member 28. Preferably these anchor elements are formed as an integral part of the flashing. They are bent upwardly from the lower, outer edge of the member 28 and they are spaced the same distance apart as the covers.

Fig. 7 shows the manner in which a cover engages one of the anchors. The preferred anchor is flat and is of the same thickness as the member 28, it being a continuation of the member 28. The distance between the edges 39 of the anchor is substantially equal to the distance between the flanges 5*a* of the cover so that when the cover is assembled with the anchor the flanges 5*a* fit snugly against them. The anchor is continuous from one side to the other to prevent water from draining down the flat portion 28 of the flashing through the upper, open end of the cover. When the cover is engaged with the anchor the inwardly turned lips 6*a* of the cover fit in the recesses 40 formed near the lower end of the edges 39 of the anchor. Each lip 6*a* grips the top edge of its recess tightly.

The covers 3 are sprung over the anchors 35. To facilitate the engagement of each cover with its anchor both ends of its top edge are beveled downwardly, as at numeral 42. To engage the cover, it is positioned on the anchor with the lips 6*a* resting on the beveled edges 42. The cover is then pressed downwardly so that the lips 6*a* are spread outwardly as they slide over the slanting corners 42. They then move down the edges 39 of the anchor. When the lips reach the recesses 40 they snap into them due to the resilience of the flanges 5*a*. As shown in Fig. 7, the distance between each recess 40 and the upper edge 45 of the anchor is substantially equal to the height of the flanges 5*a* so that the edge 45 fits snugly against and supports the inside surface of the flat center area of the cover.

It is desirable to maintain pressure contact between the top of the anchor means and the inner surface of each cover. This is advantageously done by providing a spring, such as the spring

46 at the top of each anchor. This spring is formed by bending over a thin strip of the sheet metal across the top of the anchor, toward the vertical portion 21 of the flashing strip. This spring strip 46 angles slightly upwardly when it is formed, and it is somewhat springy. When a cover is engaged with the anchor, the spring strip 46 maintains pressure contact with the inside surface of the top of the cover. As shown in the drawings, this pressure contact bends the spring strip to a horizontal position. The resilience of the spring strip maintains upward pressure against the cover, thereby pressing the lips tightly against the roofs of the recesses. Thus, the spring strips hold the covers under tension and prevent them from vibrating and rattling, and from working loose.

Toward their lower or outer ends the drains and covers are secured to the crossbar 14 by fastening means best shown in Figs. 4, 6 and 8. Preferably this fastening means or anchor is in the form of a clip 47 which is sprung onto the upper ledge 48 of the crossbar 14. Each clip is located on the bar so that it projects upwardly through the space between two drains 2. The portion of the clip 47 above the crossbar 14 which engages the cover is shaped generally the same as the anchors 35 on the flashing strip. A spring strip 49 is formed along the top of clip 47 for the same purpose as spring strip 46 on the anchor. The edges 50 (Fig. 8) of each clip are cut away near the bottom, at 51. The upper corners 52 at each side of the clip are beveled. To fasten the covers they are positioned with the lips 6*a* on the beveled edges 52 and then pressed downwardly so that the flanges are sprung around the edges 50 and slide under the edges 51 in the same manner that the upper ends of the covers are engaged with the anchors 35. The spring strips 49 maintain pressure on the covers and keep them from rattling.

A portion of each upwardly extending flange 5*b* and lip 6*b* of each drain is cut away adjacent the clips 47 as shown in Fig. 4 to form the slot 54 in each flange 5*b*. Spaced inwardly from each edge 50 of each clip 47 is a slot 55 which extends upwardly from each edge of the portion 56 which clips over the ledge 48 of the crossbar. The slot 55 in the clip fits over the portion of the drain flange 5*b* remaining below the slot 54. The top of the slot 55 in the clip presses against the bottom of the slot 54 in the drain flange 5*b*. The wing portions 57 of each clip extend beyond the slots 54 in flanges 5*b* and slots 55 in the clip. This assembly holds the drains tightly against the crossbar 14. In assembling the awning the clips 47 are fastened to the crossbar 14 after the drains are positioned and the slots 55 are engaged with the portions of the flanges 5*b* which remain after cutting the slots 54. The clips 47 thereby fasten both the drains and the covers to the crossbar 14. No bolts, rivets or other fasteners are necessary.

In the awning which is illustrated the lips 6*b* of each drain fit flat against the inside surface of the cover above it except at clip 47 and at the flashing strip where the lips are cut away. The lips 6*a* of the covers fit against the inside surfaces of the drains in a similar manner. The improved structure for fastening the drains and covers, to which this invention relates, may be employed regardless of whether the drains and covers fit tightly against each other or are spaced apart as will be apparent to anyone familiar with awnings of this type. It is also evident

that as many drains **2** and covers **3** may be used as needed to obtain an awning of the desired width.

Any suitable type of side curtain may be fastened to the supporting frame at each side of the roof, although none is shown in the drawing, and none is necessary.

The outer, lower ends of the drains and covers are bent vertically downward in the preferred awning to form a valance **58** (Fig. 1) across the front of the roof. The improved awning structure of this invention is particularly economical to construct because it may be shipped in a knocked-down condition and assembled at the site where it is to be installed by men not skilled in riveting, etc.

The invention is defined in the following claims.

What I claim is:

1. An awning having a roof which includes at least two spaced parallel drains, a cover positioned above the drains and bridging the space between them, across one end of the roof portion a flashing strip having a vertical portion adapted to be connected to a building and another portion extending the whole width of the flashing strip and angling downwardly away from the vertical portion to which downwardly angling portion the drains are connected, and on said angling portion of the flashing strip parallel with the vertical portion, upwardly extending means frictionally engaged with the cover to hold the cover in position, the bottom portion of said upwardly extending means being imperforate and diverting into the drains water which drains against it from said downwardly angling portion of the flashing strip.

2. An awning having a roof which includes at least one sheet-metal cover which is channel-shaped in cross section and which is positioned in the roof assembly with the side flanges of the channel extending downwardly, across one end of the cover at a right angle thereto a flashing strip having a vertical portion adapted to be fastened to a building structure and another portion the width of the flashing strip angling downwardly away from the vertical portion, and, on said angling portion extending upwardly between the downwardly extending flanges of the cover, means to which the cover is connected, the bottom portion of said upwardly extending means being imperforate to divert to the sides thereof water which drains against it from said downwardly angling portion of the flashing strip.

3. A sheet-metal awning having a roof which includes at least one cover which is provided with a downwardly projecting flange along each side thereof and a lip on each flange, the cover being positioned in the roof assembly with its flanges directed downwardly, and under each side of the cover a drain member having a flange directed upwardly under the cover, across the end of the roof a flashing strip with a vertical portion adapted to be fastened to a building, angling downwardly and outwardly along the lower edge of the vertical portion a flat portion which extends the width of the flashing strip, the upper end of each drain having a flat projection which fits under and flat against the bottom surface of said flat portion, means fastening the upper ends of the drains to said flat portion, extending upwardly from the outer edge of said flat portion of the flashing an anchor having recesses to receive the lips along the cover flanges whereby the cover is interlocked with the anchor, the lower portion of the anchor being imperforate whereby water draining down said downwardly angling portion against the anchor is diverted into said drain members.

4. A sheet-metal flashing strip for a sheet-metal awning formed with spaced, overlapping drains and covers having ventilated side flanges, which flashing strip comprises a vertical portion adapted to be fastened against a building, angling downwardly away from the lower edge of the vertical portion a portion which includes a plurality of spaced anchor means turned upwardly from its lower edge, each adapted for engagement with the side flanges of the respective covers, the bottom of the flashing strip between the anchor means draining unobstructedly into the drains, the top corners of the anchor means slanting downwardly, the bottom portion of each anchor means being imperforate to divert into said drains water draining against it from the downwardly angling portion of the flashing strip.

5. The flashing strip of claim 4 in which each edge of each anchor means is recessed below the slanted portions to receive inturned lips on the flanges of the respective covers.

6. The flashing strip of claim 4 in which the anchor means is provided at the top with a spring which is adapted to press upwardly on the inside surface of the cover between its flanges when the cover is engaged with the anchor means.

7. A flashing strip for a sheet-metal awning formed with spaced covers having downwardly turned flanges, said flashing strip including a vertical portion adapted to be fastened against a building and a portion angling downward therefrom which extends the whole width of the flashing strip, and a plurality of imperforate anchor means angling up from the bottom edge thereof to project upwardly under the covers, there being nothing extending upwardly from said edge between said anchor means.

8. An awning having a roof portion which includes at least two spaced parallel drains, a cover positioned above the drains and bridging the space between them, said cover being fabricated from a single sheet of metal, having downwardly directed flanges, and presenting opposed surfaces on the under side thereof; across one end of the roof portion a flashing strip having a vertical portion adapted to be connected to a building and another portion extending the whole width of the flashing strip and angling downwardly away from the vertical portion to which downwardly angling portion the drains are connected; and on said angling portion of the flashing strip substantially parallel with the vertical portion, upwardly extending means pressing against two of said opposed surfaces whereby the cover is anchored to the flashing strip and placed under tension which prevents vibration thereof.

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