Jan. 8, 1957 T. J. BOTTOM 2,776,460

METAL AWNINGS

Filed March 24, 1954

FIG. 1.

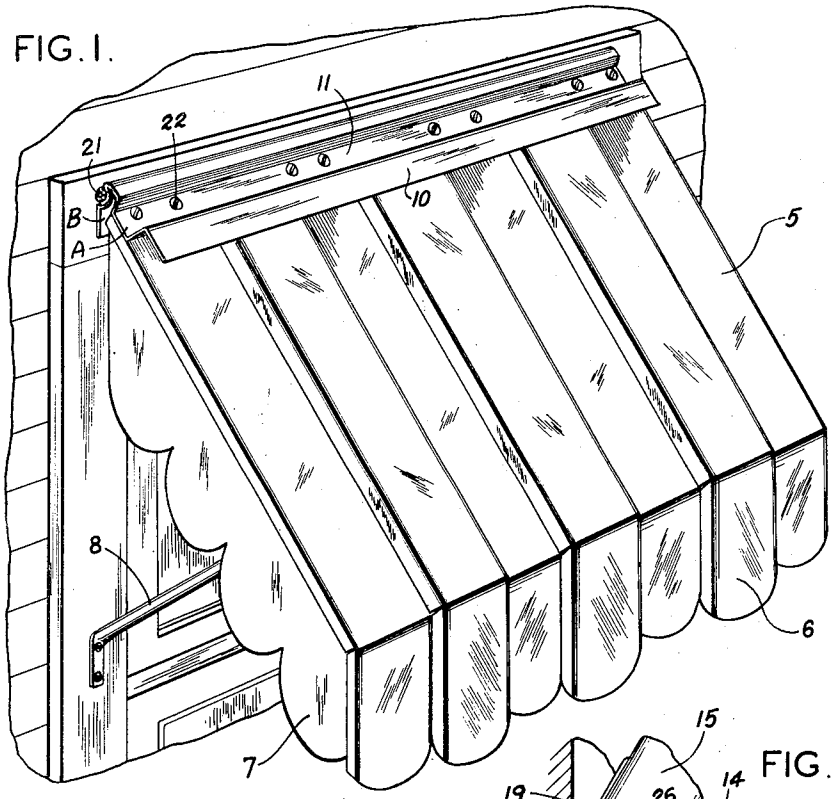


FIG. 2.

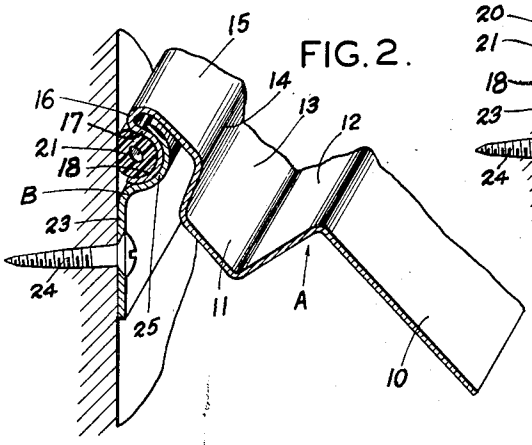
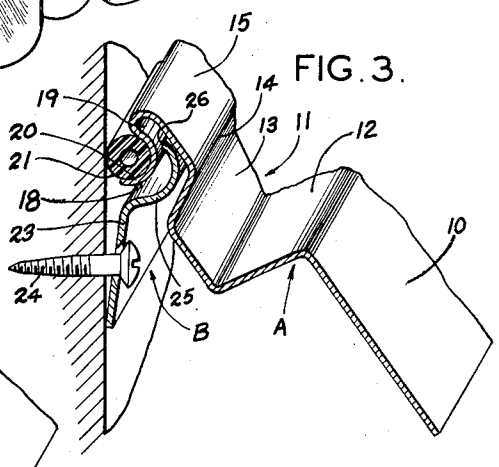


FIG. 3.



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METAL AWNINGS

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This invention relates generally to rigid awnings fabricated from sheet material such as metal, and has particular reference to improvements in mounting and flashing means for such awnings.

An important object of the invention is directed to the provision of improved mounting and sealing means that greatly reduce the labor and eliminate much of the difficulty that normally attends the installation of metal and other rigid awnings. Heretofore the installation practice has been, as necessitated by prevailing type of mountings, to hold and support the entire awning structure in its ultimate position on the building wall while screws or other fasteners are driven into place. The installation of an awning in this manner, especially one of large size and weight, is a difficult and arduous operation. The improved means of the present invention greatly facilitates the work of installing awnings.

Another object is achieved in the provision of an improved flashing strip having self-contained weather sealing means. With the former practice it has been customary to fasten a flashing strip to the building wall after the awning is mounted, and thereafter to apply caulking or sealing compound to the said strip to prevent water leakage at the point of connection with the building surface. An object of the present invention is the provision of mounting means to eliminate those separate installation items.

A further and important object is to provide an adjustable flashing and mounting strip combination that may be used for awnings of different slope or pitch. The manufacturer and dealer are thus saved the necessity of making or stocking a variety of different flashing strips, one for each particular roof pitch.

The means of the present invention comprise a flashing and mounting strip assembly composed essentially of two separable complementary strip members which are attached independently to the roof structure and to the building wall. The flashing member, on the roof structure of the awning, has what may be termed self-contained water sealing provisions, and the flashing member is adapted to be readily inserted into a socket groove formed by the mounting strip member which has previously been attached to the building wall.

A practical embodiment of my invention is illustrated in the accompanying drawing,

Fig. 1 of which is a perspective view showing an awning installed on a building with the use of the mounting and flashing means hereof;

Fig. 2 is a fragmentary sectional view illustrating the means of the present invention in normal operating position, and

Fig. 3 is a view similar to that of Fig. 2, but showing the parts in partial disassembly to illustrate their relative arrangement at an early stage in the installation process.

Referring now to the drawing, 5 indicates generally an awning of the type to which the mounting means of the present invention are particularly applicable. Such awning may be made of a series of channel-shaped elements arranged in side-by-side relation and secured in that relative position by underlying transverse members (not shown). Such awnings are customarily provided with a front drop or valance 6 and side curtain members 7. They are usually secured along their upper or inner margins to the building wall above the opening to be protected, such as the window or door opening, and are held in the desired angular position by suitable braces, one of which is indicated at 8 in Fig. 1. It is also customary to provide flashing means to prevent water from leaking through the crevice at the point where the awning joins the building surface and such flashing means, usually in the form of a metal strip, is often employed as a structural or mounting element for the awning roof. It is the mounting and weather sealing means with which the present invention is chiefly concerned.

The means of the present invention consist essentially of two separable, complementary parts. Whereas these parts cooperate in both flashing and mounting functions, for convenience of description one thereof, designated A, is termed the flashing strip and the other, B, the mounting strip. Both of these parts are fabricated from sheet metal of appropriate gauge to afford the required strength and rigidity. Referring now to strip A this member has a number of longitudinal bends that form and define its parts. These include a skirt portion 10 that extends the full length of the strip and is arranged to overlie the upper ends of the channel elements that make up the roof structure of the awning. A depressed portion of the strip, forming a continuation of the skirt portion 10, provides a trough or gutter 11 for carrying off rainwater that is intercepted by the awning roof at the building wall, discharging the water at the ends of the awning. The gutter 11 includes a front side portion 12 that extends downwardly from the upper edge of the skirt 10 at approximately a right angle to the plane of the said skirt. The bottom of the gutter 11 is designated 13 and the back side wall 14 of the gutter is of lesser height than the front side wall portion 12.

The flashing strip continues upwardly or backwardly beyond the gutter forming portion in the provision of a relatively narrow section 15, which section is preferably parallel to the skirt portion 10 and the gutter bottom 13.

A depending flange 16 at the rear edge of section 15 is characterized by a reverse or S-shaped bend formed by turning the flange material under and forwardly as indicated at 17, and thence backwardly again in a more sweeping curve, as indicated at 18. There is thus produced a groove or channel 19 on the forward side of the flange, and below it a groove or channel 20 of greater radius of curvature on the rear side of the flange.

It will appear from Figs. 2 and 3 that portion 18 of the flange which defines the groove or channel 20 is arcuate, or concavo-convex in transverse section. The rear or concave side of this flange portion 18 is adapted to accommodate a caulking or sealing element 21. Such sealing element may consist of thick walled tubing preferably of elastic or flexible material such as rubber, or vinyl or other plastic composition, or ordinary caulking compound may be used. The element 21 is adhesively attached to the surface of channel portion 20 to hold it in place during installation. The said element projects laterally from the channel, as best appears in Fig. 3, so that it may engage and be pressed tightly against the wall surface of the building on which the awning is to be installed. The described flashing strip, which may be regarded as a structural part of the awning roof, is fastened to the upper edge thereof by screws 22, passing through the bottom of the gutter portion and engage the roof elements.

Describing now the mounting strip B, this element consists of an elongate plate portion 23 which is pro-

vided with apertures at spaced intervals along its length to accommodate the mounting screws 24. The upper portion of the strip B is reversely bent to form a channelled flange 25 of arcuate transverse section. The curvature of the concave side of the said flange is such as to conform to that of the convex side of the flange portion 18 on the flashing strip. In assembly, as shown in Fig. 2, these flange portions fit one within the other in nesting relation and their center of curvature is located on the longitudinal axes of the sealing element 21. The concave side of flange portion 25 affords a bearing seat for the curved flange portion 18, such as to enable the flashing strip to be angularly or pivotally adjusted relative to the mounting strip.

The erection of an awning is a relatively simple process with the use of the described mounting and flashing strips. First, the mounting strip B is attached in a horizontal position over the door or window, the screws or other form of fasteners 24 being only partially driven in place, as best appears from Fig. 3, so that the upper edge 26 of the flange 25 is spaced from the wall surface. The roof structure with the described flashing strip attached thereto is then raised to a position over the wall opening, and is manipulated to cause the flange part 18 and the sealing element 21 to be dropped into the socket or cavity formed between the wall surface and the flange portion 25 of the mounting strip. Thereafter the mounting screws 24 are tightened until the flange 25 engages its companion flange on the flashing strip, and causes the sealing element 21 to become tightly clamped against the wall surface, holding the element 21 in compression against the wall, as shown in Fig. 2

It will be understood that the flashing strip and its associated roof structure may be set at the desired angle to the wall surface, the weather seal at the point of attachment being effective for a wide range of angular positions of the flashing strip A.

While I have described my invention with reference to a practical embodiment thereof, it will be understood that changes may be made in the parts herein shown and described without departing from the spirit and full intendment of the invention described in the appended claims.

I claim:

1. In combination, an awning roof structure, a flashing strip secured to and extending horizontally along the inner margin of said roof structure, said flashing strip having a depending, channeled flange extending lengthwise thereof, caulking means disposed and retained within the channel of said flange, a mounting strip for securing said flashing strip to a supporting surface, said mounting and flashing strips having transversely curved interengaging bearing surfaces whereby said flashing strip is adapted to be adjusted angularly with respect to said mounting strip.

2. In an awning including a roof structure, means for attaching a longitudinal margin of the roof structure to a wall or other support comprising a flashing strip secured along the said margin of the roof structure, said flashing strip having a longitudinal, depending, concavo-convex flange, sealing means disposed and retained in and projecting laterally from the concave side of said flange, said sealing means being adapted to contact the said wall or other support for the awning, a mounting strip, means for securing said mounting strip to the wall or other support, the upper portion of said mounting strip being formed to provide a concavo-convex flange, said mounting strip flange receiving therein the convex side of said flashing stripe flange, said mounting strip flange forming an upwardly opened socket adapted to support said roof structure before and during tightening of said securing means.

3. In an awning including a roof structure, a flashing strip extending along and secured to one margin of said roof structure, a depending longitudinal concavo-convex flange on said flashing strip, yieldable sealing means disposed in and projecting laterally from the concave side of said flange, a mounting strip, a concavo-convex flange on said mounting strip disposed in nesting relation with the convex side of said flashing strip flange, and means for securing said mounting strip to a wall or other supporting structure, said mounting strip flange forming an upwardly opened socket with the wall adapted to support said roof structure before and during tightening of said securing means.

4. In an awning including a roof structure, a flashing strip extending along and secured to a marginal portion of said roof structure, a flange, arcuate in transverse section, extending the length of said flashing strip, sealing means of caulking compound retained by the concave outer face of said arcuate flange, a mounting element having an arcuate groove to receive the convex inner face of flashing strip flange therein, and means for securing said mounting means to a supporting surface with said sealing means pressed tightly against said surface, said groove forming an upwardly opened socket with the supporting surface adapted to support said roof structure before and during tightening of said securing means.

5. In an awning, a roof structure adapted to be supported slopingly from the side of a building, a flashing strip secured to the upper edge of said roof structure, said strip having a depending flange of concavo-convex transverse section, the concave side of said flange facing toward the side surface of the building and forming therewith a pocket for the reception and retention of a water sealing material, a mounting strip having an upstanding flange, said mounting strip flange having a transversely concave surface adapted nestingly to receive the convex surface of said flashing strip flange, said mounting strip flange forming an upwardly opened socket with the building surface, and threaded elements for fastening said mounting strip to the building, said fastening elements being adapted to clamp said sealing material tightly against the building surface, said socket being adapted to support said roof structure before and during tightening of said fastening elements.

6. In an awning, including a roof structure adapted to be supported on the side of a building, a flashing strip secured to the inner edge of said roof structure, a depending flange on said flashing strip, said flange being formed to provide longitudinal recesses in the front and rear sides of said flange, a gasket element in the said front side recess, adapted to make sealing contact with the building, a mounting strip, fastening means for securing said mounting strip to the building, and a flange on said mounting strip engaging the rear side of said flashing strip flange and extending into said rear side recess, said mounting strip flange forming a socket with the building adapted to support said roof structure before and during tightening of said fastening means.

7. An awning comprising a roof structure, mounting means including a flashing strip and a mounting strip, fastening elements securing said flashing strip to the upper edge of said roof structure, said flashing strip being bent to provide a longitudinal trough, a skirt projecting from the upper edge of one side of said trough in overlying relation to the upper margin of the roof structure, a flange extending downwardly from the upper edge of the opposite side of said trough, said flange having an arcuate concavo-convex portion, a caulking compound retained in the concave side of said flange portion, said mounting strip having an arcuate concavo-convex flange extending upwardly, the concave side of said flange fitting nestingly against the convex side of said flashing strip flange portion, and fastening elements for securing said mounting strip to a building and causing said caulking compound to be pressed sealingly against the said building.

8. An awning comprising a roof structure, mounting means including a flashing strip and a mounting strip, fastening elements securing said flashing strip to the upper edge of said roof structure, said flashing strip being bent to provide a longitudinal trough, a skirt projecting from the upper edge of one side of said trough in overlying relation to the upper margin of the roof structure, a flange extending from the upper edge of the opposite side of said trough, said flange having a depending arcuate, concavo-convex portion, a caulking means seated and retained in the concave side of said flange portion, said mounting strip having an upstanding arcuate concavo-convex flange, the concave side of said flange fitting nestingly against the convex side of said flashing strip flange portion, and fastening elements for securing said mounting strip to a building and causing said caulking means to be pressed sealingly against the said building, said mounting strip flange forming a socket with the building adapted to support said roof structure before and during tightening of said fastening elements.

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