

Feb. 12, 1952

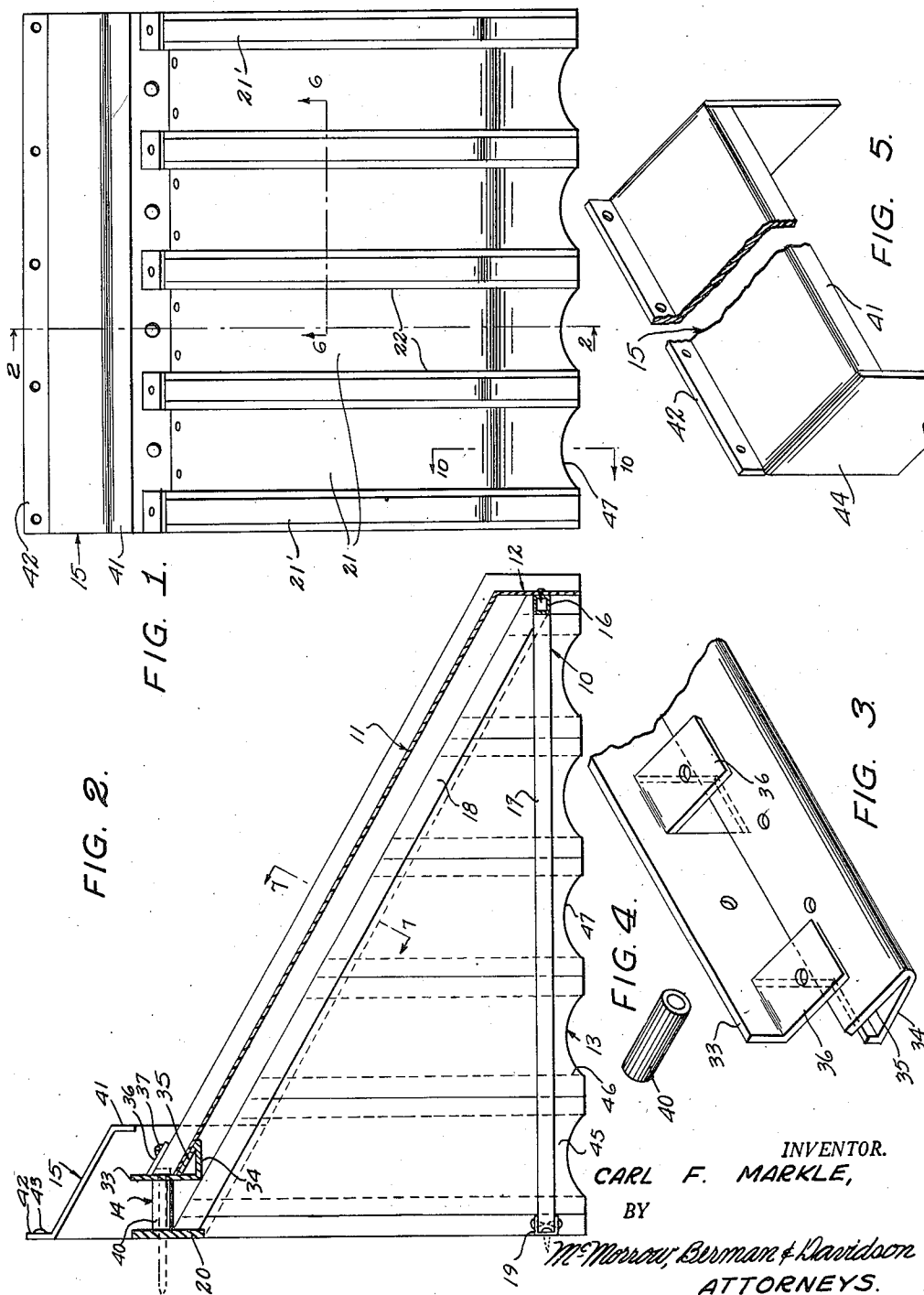
C. F. MARKLE

2,585,147

METAL AWNING

Filed May 28, 1948

2 SHEETS—SHEET 1



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C. F. MARKLE
METAL AWNING

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2 SHEETS—SHEET 2

FIG. 11.

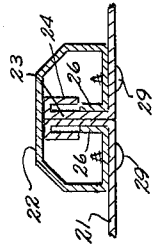


FIG. 6.

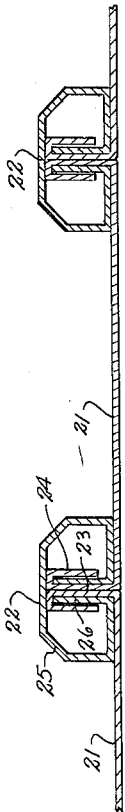


FIG. 9.

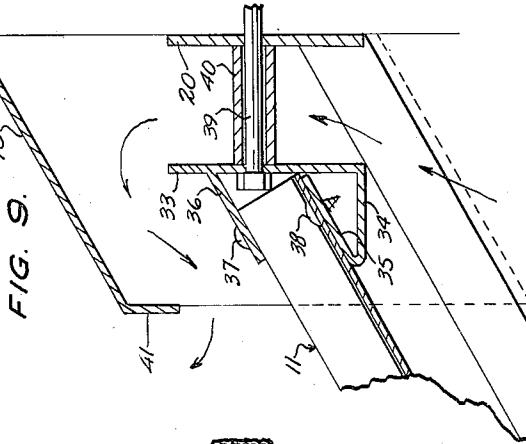


FIG. 8.

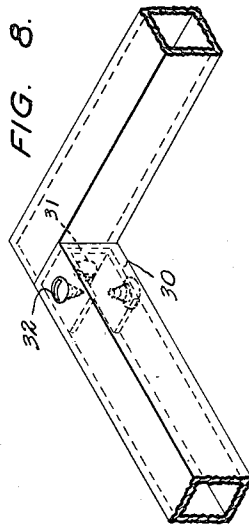


FIG. 7.

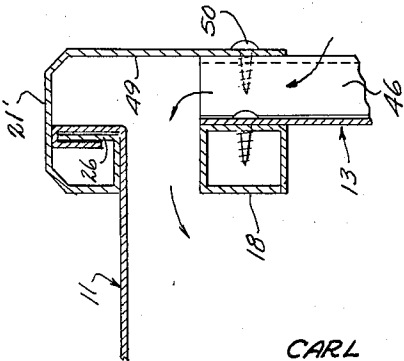


FIG. 12.

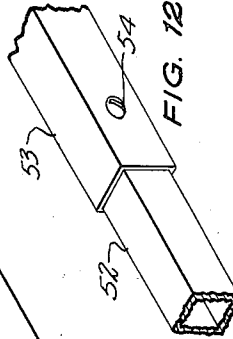
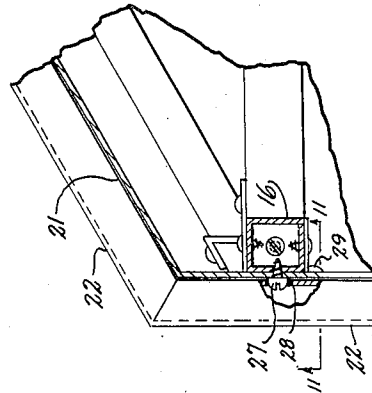


FIG. 10.



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METAL AWNING

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2 Claims. (Cl. 20—57.5)

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This invention relates to improvements in window awnings and similar structures and more particularly to an improved sheet metal awning.

It is among the objects of the invention to provide an improved sheet metal awning which provides ample ventilation, is easy and economical to manufacture and assemble, easily variable in size, can be firmly attached to a building wall surrounding a window opening, and is neat and attractive in appearance.

Other objects and advantages will become apparent from a consideration of the following description and appended claims in conjunction with the accompanying drawings, wherein:

Figure 1 is a front elevation of an awning illustrative of the invention;

Figure 2 is a longitudinal cross-section taken substantially on the line 2—2 of Figure 1;

Figure 3 is a perspective view of a fragmentary portion of a supporting element of the awning;

Figure 4 is a perspective view of a tubular spacer;

Figure 5 is a perspective view of fragmentary end portions of a rain excluding hood for the awning;

Figure 6 is a transverse cross-section of a fragmentary part of the top wall of the awning taken substantially on the line 6—6 of Figure 1;

Figure 7 is a transverse cross-section of fragmentary portions of the top and side walls of the awning taken substantially on the line 7—7 of Figure 2;

Figure 8 is a perspective view of a fragmentary corner portion of the awning frame;

Figure 9 is a transverse cross-section on an enlarged scale of a fragmentary portion of the upper part of the awning showing the manner in which ventilating air flows therethrough;

Figure 10 is a longitudinal cross-section on an enlarged scale of a fragmentary outer portion of the awning at the junction of the top and front walls thereof;

Figure 11 is a transverse cross-section of a fragmentary portion of the awning front wall, taken substantially on the line 11—11 of Figure 10; and

Figure 12 is a perspective view of a fragmentary portion of a modified frame construction.

With continued reference to the drawings, the improved awning comprises, in general, a frame 10, a top wall 11 disposed above the frame, a front wall 12 continuous with the top wall and secured to the front of the frame, a pair of side walls 13, a supporting structure 14 for the upper edge of the top wall 11 and a hood 15 disposed

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above the supporting structure 14 to exclude rain from a ventilating passage provided by the support structure.

The frame 10 is particularly illustrated in Figures 2, 7, 8 and 10 and comprises a front bar 16 of substantially square, tubular formation, a pair of substantially horizontal side bars 17 of the same form as the front bar and each secured at one end to a corresponding end of the front bar, and a pair of inclined side bars 18 which are also of the same form as the front bar and each of which is secured at one end to a corresponding end of the front bar 16. The horizontal bars 17 are substantially perpendicular to the front bar 16 and each inclined bar 18 is disposed at an acute angle to the corresponding horizontal bar 17.

The horizontal side bars 17 are provided at their ends opposite the front bar 16 with respective clips 19 for attachment to the window opening surrounding portion of a building wall to which the awning is attached, and the ends of the inclined frame bars 18 opposite the front bars 16 are connected to the corresponding ends of a flat plate 20 which is attached to the building wall immediately above the window opening and constitutes a part of the support structure generally indicated at 14.

The top wall of the awning, as particularly illustrated in Figures 1, 2 and 6, comprises a plurality of elongated panel strips 21 having parallel edges and arranged in side-by-side relationship and a plurality of cap strips 22 each disposed over the junction between two adjacent panel strips and interlocked therewith. Each panel strip is provided along each longitudinal edge thereof with an upstanding flange 23 having a turned-down or reversed portion 24 terminating short of the adjacent surface of the panel strip to provide a slot along the inner side of each panel strip flange. Each cap strip 22 is a generally tubular member of substantially rectangular cross-sectional shape but preferably having bevelled outer corners 25 and having a pair of parallel, centrally-located, internal flanges 26 receivable in the slots provided by the reversed portions 24 of two adjacent panel strip flanges 23, as is clearly illustrated in Figure 6. Each cap strip may be operatively assembled with the corresponding adjacent panel strips by inserting the internal flanges 26 at one end of the cap strip into the adjacent ends of the slots provided between the panel strip flanges 23 and the corresponding reversed flange portions 24 and sliding the cap strip longitudinally of the panel

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strips until the cap strip is coterminous with the panel strips, the cap strips being started at the ends of the top wall panel strips from which the front wall 12 depends.

The front wall 12 comprises continuations of the top wall panel strips and cap strips but the internal flanges 26 of the cap strips are cutaway, as clearly illustrated in Figure 11 so that when the end portions of the cap strips forming the front wall are bent downwardly the flanges 26 may be snapped under the reversed portions 24 of the panel strip flanges 23.

The panel strips are secured to the frame front bar 16 by screws 27 inserted through portions of the panel strips covered by the corresponding cap strips 22 before the cap strips are snapped down into place, suitable apertures 28 being provided in the inner wall portions of the cap strips to receive the heads of screws 27. These screws are tapered, spirally-threaded screws conventionally used to secure sheet metal parts together. After the end wall portions of the panel strips 21 have been firmly secured to the front frame bar 16 the front wall portions of the cap strips are snapped into place and secured to the panel strips by screws 29, Figure 11, inserted through the panel strips into the inner wall portions of the cap strips immediately below the frame bar 16.

The frame bars may be secured together at their ends by suitable means such as illustrated in Figure 8, wherein a U-shaped clip 30 has an apertured web portion secured to one of the bars by a screw 31 and a pair of legs received in the end of the other bar and secured thereto by screws 32.

The outer portion of top wall 11 is supported above the inclined frame members 18 by the front wall 12, as is clearly apparent from an inspection of Figure 2 and the inner or upper edge of the top wall is supported above the inclined side bars of the frame by the supporting structure 14. In addition to the plate 20 this supporting structure comprises a support strip 33 having along its lower edge an outwardly extending flange 34 provided with a reversed portion 35 which is inclined to the flange 34 at an angle substantially equal to the acute angle between each frame side bar 17 and corresponding inclined bar 13. The inner edge of the top wall 11 rests upon the reversed portion 35 of the support strip flange and a plurality of tongues 36 struck out of the support strip overlie the upper surface of the top wall and are secured to the top wall cap strips by screws 37, as particularly illustrated in Figure 9, the panel strips of the top wall being secured to the reversed portion 35 of the flange by similar screws 38. Strip 33 and plate 20 are provided with registering apertures and suitable screws or bolts 39 extend through these apertures and into the building wall to carry the support strip 33, suitable tubular spacers 40 respectively surrounding the screws 39 between the support strip 33 and the plate 20 to space the support strip from the plate and provide a ventilating air passage between the inner or upper edge of the top wall 11 and the building wall contacting plate 20.

The upper edge of the support strip 33 extends above the top edge of the top wall 11 and the hood 15 is provided along its outer edge with a depending flange 41 which overlaps the upper edge of support strip 33 to provide a labyrinth passage leading to the top of the ventilating space between the support strip and plate 20 to prevent

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rain or other moisture, such as snow and sleet, from being driven under the hood and downwardly through the ventilating passage.

At its upper edge the hood 15 is provided with a flange 42 apertured to receive screws 43 by means of which the hood is secured to the building wall in operative position above the upper edge of the awning top wall 11.

The hood 15 is also provided with downwardly extending end walls 44, Figure 5, which close the opposite ends of the ventilating passage.

Each end wall 13 comprises a plurality of flanged panel strips 45 and cap strips 46 of the same construction as described above in connection with the top wall 11 and interlocked in the same manner.

The panel strips and cap strips of the end walls are cut off to terminate along a line spaced just below and substantially parallel to the corresponding horizontal frame side members 17, the bottom edges of the panel strips being preferably concavely curved, as indicated at 47, as are also the panel strips of the front wall 12. At their upper ends the panel and cap strips of the side walls are diagonally cut to terminate substantially flush with the upper surfaces of the corresponding inclined frame side members 18, which places the upper ends of the side walls below the under-surface of the top wall 11. The two marginal top wall cap strips 21' are different from the intermediate cap strips 21 in that they have depending outer wall portions 49 and only one internal flange 26. The depending outer wall 49 of each marginal cap strip 21' extends downwardly below the upper edge of the corresponding end wall 13 and overlies the outer surfaces of the corresponding cap strips 46 to which it is secured by screws 50. This construction provides ventilating spaces between the side wall cap strips which extend within the depending side walls 49 of the marginal top wall cap strips and to the under-surface of the top wall 11. Air flowing through these last-mentioned ventilating spaces cools the end walls of the awning and flows along the under-surface of the top wall to the ventilating space between plate 20 and supporting strip 33 and out of the awning beneath the hood 15.

To facilitate mounting of the awning the two horizontal frame side members 17 may each be formed in two telescopically associated portions, as indicated at 52 and 53 and particularly illustrated in Figure 12. By means of this telescopic construction the awning may be adjusted to the desired angle and the length of the lower or horizontal frame side bars adjusted to accommodate any variations in the angle of the awning or any qualities in the surface of the building wall and the two portions then secured in fixed position relative to each other by a suitable means such as the screw 54.

The invention may be embodied in other specific forms without departing from the spirit or essential characteristics thereof. The present embodiments are, therefore, to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description, and all changes which come within the meaning and range of equivalency of the claims are, therefore, intended to be embraced therein.

What is claimed is:

1. A sheet metal awning comprising a frame including a front bar, a pair of side bars each secured at one end to a corresponding end of said

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front bar and extending substantially perpendicular to the latter, and a pair of inclined bars each secured at one end to a corresponding end of said front bar and disposed at an acute angle to the corresponding side bar, a top and front wall supported on said frame and comprising a plurality of panel strips and a plurality of cap strips provided with interlocking flanges, said front wall being secured to said front frame bar and said top wall being supported above said inclined frame bars, a pair of side walls each secured to the side bar and inclined bar at the corresponding end of said frame and comprising interlocking panel strips and cap strips, the cap strips at each edge of said top wall having at one side an extension overlapping and secured to the corresponding side wall cap strips to provide ventilating spaces from the outside of said side walls to the underside of said top wall, means supporting the upper edge of said top wall at a spaced distance from the plane of a building wall to provide a ventilating space at the upper edge of said top wall, and a hood spaced above and overlying said last-mentioned ventilating space to exclude rain from the latter, said means supporting the upper edge of said top wall comprising a flat plate adapted to rest against the awning-supporting wall, a supporting strip having along one edge a reversed, inclined flange underlying and secured to said top wall and struck out tongues overlying and secured to said top wall at the upper edge of the latter, screw fasteners extending through said supporting strip and said plate, and tubular spacers surrounding each screw fastener between said strip and said plate.

2. A sheet metal awning comprising a frame including a front bar, a pair of side bars each secured at one end to a corresponding end of said front bar and extending substantially perpendicular to the latter, and a pair of inclined bars each secured at one end to a corresponding end of said front bar and disposed at an acute angle to the corresponding side bar, a top and front wall supported on said frame and comprising a plurality of panel strips and a plurality of cap strips provided with interlocking flanges, said front wall being secured to said front frame bar and said

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top wall being supported above said inclined frame bars, a pair of side walls each secured to the side bar and inclined bar at the corresponding end of said frame and comprising interlocking panel strips and cap strips, the cap strips at each edge of said top wall having at one side an extension overlapping and secured to the corresponding side wall cap strips to provide ventilating spaces from the outside of said side walls to the underside of said top wall, means supporting the upper edge of said top wall at a spaced distance from the plane of a building wall to provide a ventilating space at the upper edge of said top wall, and a hood spaced above and overlying said last-mentioned ventilating space to exclude rain from the latter, said means supporting the upper edge of said top wall comprising a flat plate adapted to rest against the awning-supporting wall, a supporting strip having along one edge a reversed, inclined flange underlying and secured to said top wall and struck out tongues overlying and secured to said top wall at the upper edge of the latter, screw fasteners extending through said supporting strip and said plate, and tubular spaces surrounding each screw fastener between said strip and said plate, and said hood having a flange on its outer edge extending below the top edge of said support strip to provide a rain-excluding labyrinth air passage between said hood and the upper edge of said top wall.

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