Aug. 3, 1954 P. L. LUNDGREN 2,685,111

AWNING

Filed Jan. 9, 1950

FIG. 1

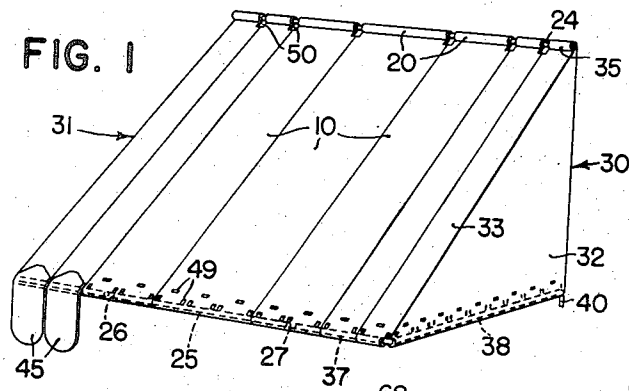


FIG. 2

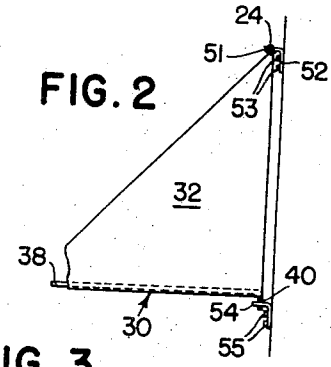


FIG. 3

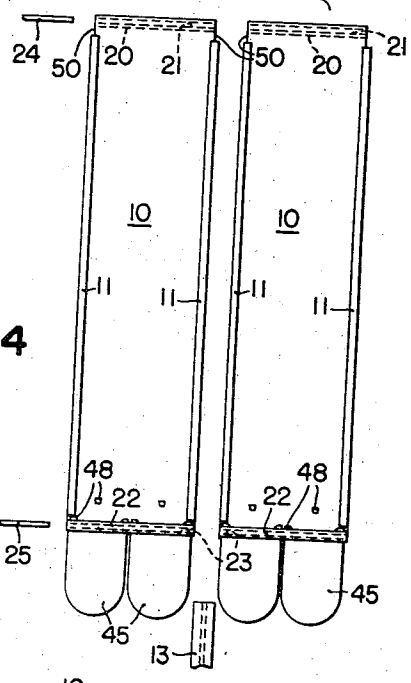


FIG. 4

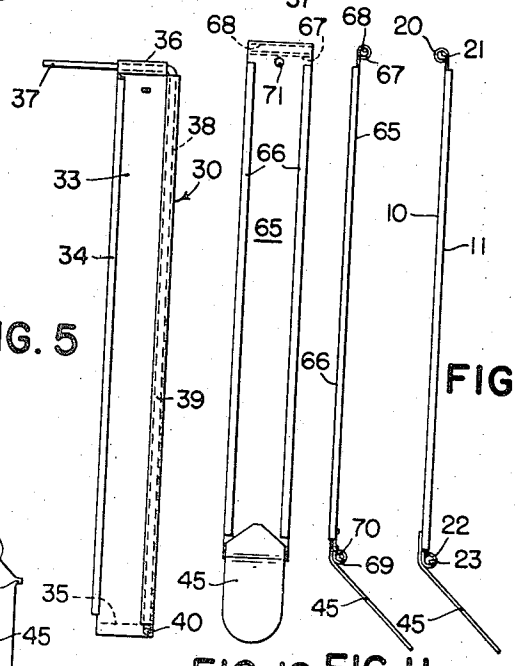


FIG. 5

FIG. 10

FIG. 11

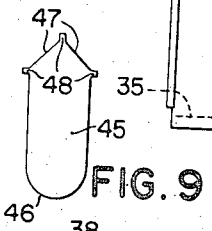


FIG. 9

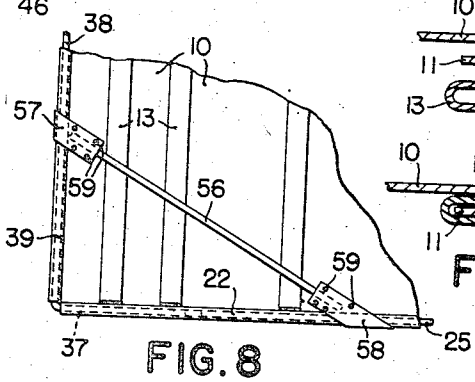


FIG. 8

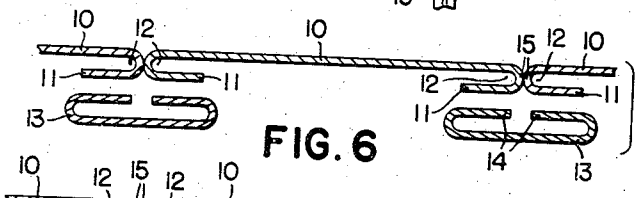


FIG. 6

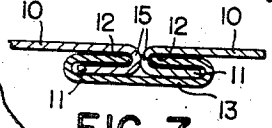


FIG. 7

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AWNING

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5 Claims. (Cl. 20—57.5)

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The present invention relates to awnings and is particularly applicable, although not necessarily limited, to sheet metal awnings. The principal object of the invention has to do with the provision of an awning composed of a number of standardized parts including panels, end walls, and interlocking securing elements, which can be quickly and easily assembled in any desired width without any special tools. A further object relates to the provision of a sheet metal awning comprising an assembly of simple parts which are inexpensive to manufacture and which are readily interchangeable and can be assembled in any desired combination of colors. Still another object relates to the provision of a metal awning that is light in weight but strong and durable in service.

These and other objects and advantages of the invention will become apparent to those skilled in the art after a consideration of the following description, in which reference is made to the drawings appended hereto, in which

Figure 1 is a perspective view of an awning embodying the principles of this invention.

Figure 2 is a side elevational view of the awning.

Figure 3 is an exploded view looking toward the bottom of the awning showing the parts disassembled and drawn to an enlarged scale.

Figure 4 is a side view of one of the panels of the awning.

Figure 5 is a bottom plan view of one of the end sections.

Figure 6 is a sectional view taken transversely through a number of panels with the securing strips disassembled and drawn to an enlarged scale.

Figure 7 is a sectional view of one of the assembled joints between panels.

Figure 8 is a detail of one of the corner braces.

Figure 9 is a plan view of one of the scallops.

Figure 10 is a top plan view of a modified panel.

Figure 11 is a side view of the panel shown in Figure 10.

Referring now to the drawings, the awning comprises a number of sheet metal panels 10 disposed side by side in longitudinally inclined position. Each of the two opposite longitudinal edges of each panel 10 is folded inwardly upon the panel 10, as indicated by reference numeral 11, to form longitudinally extending grooves 12 beneath the panel. The panels are joined together at their adjacent edges by means of securing strips 13, each strip having its longitudinal edges 14 folded inwardly toward each other to form a C-shaped cross section.

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As indicated in Figure 7, the panels 10 are joined by placing them together with folded edges 15 substantially in contacting relation, whereupon the securing strip 13 is slidable longitudinally into interlocking relation, with the folded edges 14 of the securing strip inserted into the two grooves 12 in adjacent panels. The width of the strip 13 is substantially equal to the width of the two adjacent edge folds 11, thereby locking the contacting panel edges 15 in contacting relation.

The upper edge of each panel is rolled upwardly as indicated at 20 to provide a transversely extending tubular passage 21 above the plane of the panel, best shown in Figure 4. Likewise, the lower edge of each panel 10 is rolled downwardly as indicated at 22 to form a transversely extending tubular passage 23 below the plane of the panel. When the panels are assembled, the upper passages 21 of the several panels are disposed in transverse alignment to receive a straight rod 24 extending through the aligned passages throughout the entire width of the awning. Similarly, a straight lower rod 25 is inserted through the aligned lower passages 23, but terminates short of the sides of the awning, as indicated by reference numerals 26, 27.

The awning further includes a pair of opposite sheet metal end sections 30, 31. Inasmuch as these two end sections are similar except that they are right-hand and left-hand sections, only one section need be described in detail. The right-hand end section 30 includes a generally triangular, normally vertical side wall 32 and an inclined panel portion 33 integral therewith along the hypotenuse. The panel section 33 is normally disposed in the plane of the panels 10 and has a longitudinal edge 34 that is folded beneath the panel section 33 to form an interlocking groove similar to the grooves 12 on the panels 10 to provide for joining the end section 30 to the adjacent panel 10 by a securing strip 13.

The panel portion 33 is also provided with a rolled upper edge 35 to form a tubular passage adapted to align with the upper passage 21 to receive the upper rod 24. The lower edge of the panel portion 33 is also rolled, as indicated at 36, to receive one leg 37 of a rod, which is bent at right angles and has another leg 38 extending through the passage formed by the lower rolled edge 39 of the side wall 32. The rear end of the rod leg 38 is bent downwardly to form a hook 40, which is provided for purposes of mounting, as will be made evident later. The rod 37, 38 is rolled into the edge of the end section dur-

ing manufacture and is, therefore, not removable.

The leg 37 of the rod projects from the rolled edge 36 and can be inserted into the lower passage 23 of the adjacent panel 10. The lower rod 25 terminates short of the outer end of the passage 23, at 27, as explained previously, to provide room for the end of the rod leg 37.

A row of scallops 45 extends around the bottom edge of the awning. Each scallop, as best seen in Figure 9, is formed of sheet metal and has a curved lower edge 46 and a pair of converging upper edges 47. Three tabs 48 are integrally formed in the upper portion of the scallop for securing the latter to the awning. The tabs are bent downwardly perpendicular to the scallop and are inserted through small slots 49 in the panels and side walls, after which the tabs can be bent over flat against the panel to clinch them in locking relation.

An awning can be quickly and easily assembled by placing the required number of panels on a table, bottom side up. The scallops can then be clipped to the lower panel edge and the upper and lower rods 24, 25 inserted through the aligned tubular passages 21, 23, respectively. The securing strips 13 are next slipped over the pairs of adjacent panel edges at the upper edge of the awning and pushed into place. It will be noted in this connection that it is important to have the upper rolled edge 20 on the side of the panels opposite the folded longitudinal edges to permit the securing strips to slide into place. The lower rolled edges 22 must be below the plane of the panels in installed position in order that the scallops will lie smoothly over the lower edge of the awning.

Each of the two end wall sections is then brought into position and the end of the rod leg 37 is inserted into the tubular passage 23 while the upper rod 24 is inserted into the upper rolled edge 35. The last two securing strips 13 are then slipped into place to hold the end wall sections and panels together. The awning is now ready for hanging.

Each panel is notched inwardly at both upper corners, as indicated at 50 to provide a slot under the rod 24 to receive a supporting hook 51. Any desired number of hooks 51 can be used, depending on the number of panels in the awning. Preferably, two hooks 51 are secured to the window casing, one at each side, although a third hook at the center of a wide awning is recommended. The hooks 51 are provided with shanks 52 turned down against the window and secured by suitable screws 53.

A pair of lower brackets 54, apertured to receive the hooked ends 40 of rods 38, are secured to the casing by screws 55.

For wide awnings, diagonal brace rods 56 are provided as indicated in Figure 8. Each brace rod is attached between the lower edge of a side wall 32 and the front edge of the awning. Attachment is made by suitable clamping members 57, 58, secured by bolts 59 to grip the rolled edges 39, 22, respectively.

The awning can be removed simply by lifting it from the hooks 51 and brackets 54 and can be stored either assembled or disassembled. However, since the awning is of metal it will withstand the winter weather and may be left in place the entire year, if so desired.

The panels 10 may be made in several widths to provide for assembling awnings of various widths. For example, the panels may be made in widths of 3, 6 and 9 inches, from which awnings of any width in multiples of 3 inches may be assembled. The scallops should then be made 3 inches in width. The panels and scallops may also be enameled in several colors, thus permitting the assembly of awnings either of one color or of several different colors of panels. No special tools are needed for assembling or installing the awning, nor are there a large number of small parts such as bolts, nuts, etc., to become lost.

In the modified form of the invention illustrated in Figures 10 and 11, the longitudinal edges 66 of each panel 65 are folded inwardly toward each other on top of the panel to position the edges 66 and hence the securing strips 13 on the top side of the awning above the plane of the panels. In this embodiment, the securing strips are slid into securing position from the top of the awning, as in the first-described embodiment. This necessitates that the top edge of each panel be rolled downwardly, as indicated at 67, to provide a transversely extending tubular passage 68 below the plane of the panel 65. The lower edge 69 of the panel is also rolled downwardly to form a tubular passage 70 below the plane of the panel. Thus, the scallops 45 bend smoothly over the rolled edge 69, as in Figure 4.

An advantage of this embodiment is that the securing strips 13 lie over the crack between the joined edges and prevent water from entering the crack. A hole 71 is provided in the panel near the upper end thereof to receive the supporting hook 51, in which case it is not necessary to notch the corners of the panel.

Although two embodiments of the invention have been described above, it is not intended to limit the invention to the particular details shown and described, except as set forth in the claims which follow.

I claim:

1. A metal awning comprising, in combination, at least one sheet metal panel inclined longitudinally and having upper and lower edges rolled to provide transverse tubular passages, a pair of opposed sheet metal end sections, each comprising a generally triangular vertical side wall and an inclined panel portion along the hypotenuse lying in the plane of said panel, the upper and lower edges of said panel portion being rolled to provide tubular passages in alignment with said passages on said sheet metal panel, and rods extending through said aligned passages to provide a rigid awning, the bottom edge of each of said side walls being rolled to provide a tubular passage and a rod bent in a right angle extending through the tubular passage in the side wall and turning through the tubular passage in the lower end of said panel portion of the end section and projecting from the latter into the adjacent end of the lower tubular passage in said sheet metal panel.

2. The combination set forth in claim 1, including the further provision that the adjacent longitudinal edges of said panel and said panel portions are folded inwardly upon the panel and panel portions, respectively, to define longitudinally extending grooves, and securing strips joining said adjacent edges, each of said strips having opposite longitudinal edges folded inwardly to form a C-shaped cross section, said strips being slidable longitudinally into interlocking engagement with said grooves on adjacent panel edges.

3. The combination set forth in claim 2, including the further provision that said lower rolled edges are rolled downwardly under said

panels, thus positioning the lower tubular passages below the plane of the panels, said upper rolled edges are rolled upwardly to position the upper tubular passages above the plane of the panels, and said longitudinal panel edges are folded beneath the panels to position the grooves beneath the panel, whereby said securing strips are slidable under the upper rolled edges into engagement with said grooves, and down the full length of the panels into abutment with the lower rolled edges, which stop said strips from slipping beyond the lower ends of the panels.

4. The combination set forth in claim 3, including the further provision of scallops overlapping the lower ends of said panels and bending downwardly around the lower rolled edges in depending relation.

5. The combination set forth in claim 4, including the further provision that the portions of said scallops overlapping said panels are provided with projecting tabs bent downwardly, and said panels

are provided with perforations positioned to receive said tabs, said tabs being adapted to be bent under the panels to secure the scallops in position.

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