June 15, 1954 P. RIMMEIR 2,680,887

AWNING STRUCTURE

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FIG. 1.

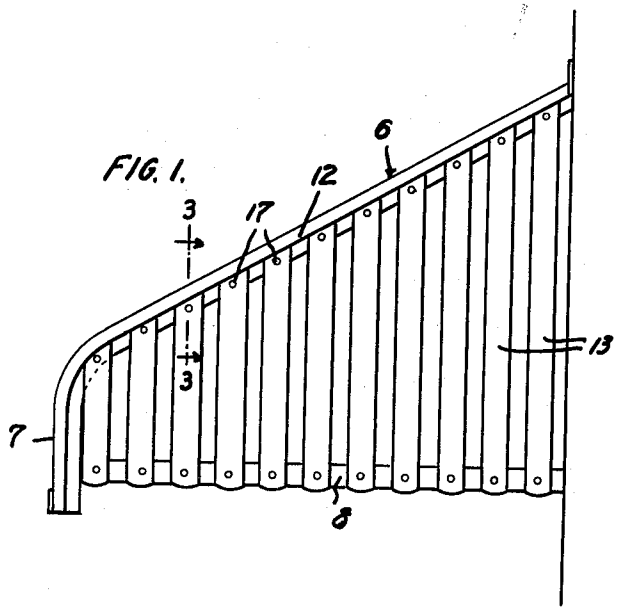
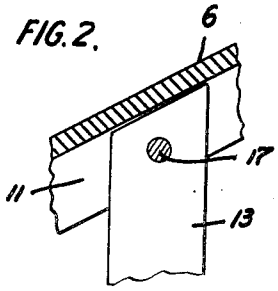


FIG. 2.



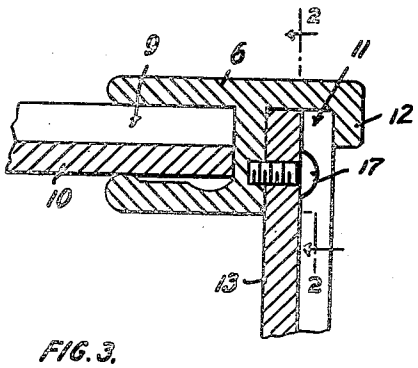


FIG. 3.

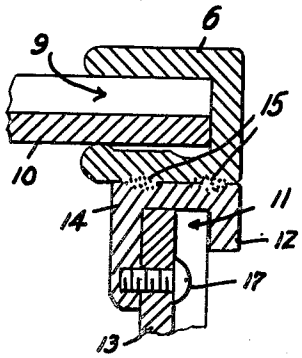


FIG. 4.

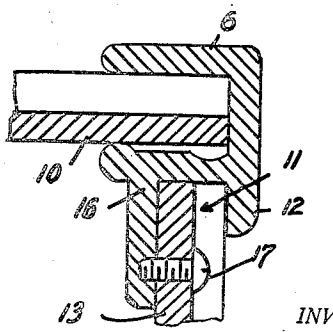


FIG. 5.

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AWNING STRUCTURE

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2 Claims. (Cl. 20—57.5)

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This invention is an awning structure and pertains particularly to awnings made of metal, plastic or other materials for use in connection with windows, doors or other building structures.

Awnings fabricated of metal, plastic or other synthetic materials usually comprise a frame formed of spaced parallel supporting bars to be attached at one end to the building adjacent to the window or door opening therein and to extend outwardly therefrom, the frame also includes top slats extending crossways of the frame and usually side slats or panels at the ends thereof. As stated, these supporting bars and the slats associated therewith may be formed of metal, plastic, fibreglass or other synthetic materials and may be perfectly plain or flat or fluted longitudinally for ornamental as well as utilitarian effects. The main supporting bars are usually of channel formation with the channel openings extending toward one another, and the top slats have their ends confined within the said channels for support thereby. In instances where side or end slats are used, these slats extend vertically and are attached by rivets or bolts at their tops either to the exterior or the interior surfaces of the channel members. In instances where these side panels are of fibreglass or other synthetic material, the exposed ends are subject to deterioration or disintegration due to ready access of the elements thereto. Moreover, in instances where the side panels are secured to the exterior of the channel member, extreme accuracy in cutting the ends of the side panels is necessary in order to bring about a satisfactory appearance of the slat in its finished form.

The primary object of the present invention is to provide an awning structure wherein the main supporting bars are constructed in such manner that the vertically disposed side slats may be at all times adequately housed and protected against deterioration by the weather, and wherein precise accuracy in cutting the upper ends of the side panels is not necessary as these upper ends are at all times obscured from view by the improved supporting structure.

A further object of the invention is to provide main supporting bars equipped with supplementary channels for the accommodation of the upper ends of the end panels affording means whereby the end panels may be easily and quickly applied to the awning structure and held at all times rigidly in proper position in the awning in set-up or completed condition.

From the foregoing objects in view, together with others which will appear as the description proceeds, the invention resides in the novel construction, combination and arrangement of parts, all as will be described more fully hereinafter, illustrated in the drawings and particularly pointed out in the claims.

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In the drawing:

Fig. 1 is a side elevation of an awning structure embodying the invention,

Fig. 2 is an enlarged fragmentary sectional view through the awning shown in Fig. 1, the view being taken substantially upon line 2—2 of Fig. 3,

Fig. 3 is an enlarged fragmentary transverse sectional view through the supporting bar taken upon line 3—3 of Fig. 1,

Fig. 4 is a view similar to Fig. 3 and illustrating a modified form of the invention, and

Fig. 5 is a view also similar to Fig. 3 and disclosing a further modification.

Referring now more particularly to the drawing, the awning structure comprises elongated supporting bars 6 to be secured in spaced parallelism against the side of the building with which it is to be associated and with proper respect to the window or door opening thereof. These bars are straight throughout a substantial part of their length and in the present instance curves downwardly into substantially vertical position as indicated at 7. It will be understood that these spaced parallel bars will constitute a frame for the support of the top and side slats, the structure being strengthened or reenforced by the strut plate indicated at 8 and connecting the end of the bar 7 with the building as shown. These bars, as well as the struts, may be formed of aluminum or other metal or may be formed of plastic or other synthetic materials.

These supporting bars are provided upon their inner surfaces with channels indicated at 9 and extending throughout the lengths of the bars to receive and support the ends of the top or cross slats 10 of the awning structure. The breadth of the channel 9 will be governed by the thickness of the slats as well as any increased lateral dimension caused by fluting or corrugating the slats lengthwise as is sometimes the case. It will be understood that the bars constituting the frame members will be in spaced parallelism with their channels 9 facing one another so as to receive the laterally disposed slats 10 as indicated.

The bars or supports 6 as shown in Figs. 1, 2 and 3, are each provided with a supplemental channel represented generally at 11. This channel is formed in the base of each of the bars 6 and is substantially coextensive therewith, the

said channels having their open ends disposed at substantially right angles to the main channels 9 of the bars. The channel 11 at its outer side is defined by the lip portion 12 spaced outwardly from the base of the bar 6 and substantially coextensive therewith. In instances where the supporting bars 6 are formed of suitable material, they may be formed by extruding process so that the right angularly disposed channels are formed in one piece and of an integral structure.

In Fig. 4 of the drawing, there is illustrated a modified form of the invention, wherein the supplementary channel for the accommodation of the upstanding side slats or panels 13 is formed of a separate member 14 of channel formation which may be secured to one side of the supporting bar 6 by spot welding or similar securing means indicated at 15. It will be observed in this instance that the channel member 14 has its opening disposed at substantially right angles to the channel opening 9 of the supporting bar 6.

Fig. 5 of the drawings discloses a further modification of the invention wherein the supporting bars 6 are of extruded form with the supplemental channel portion 16 formed integral with the main supporting bar 6 and at a side thereof instead of at the bottom as shown in Fig. 3.

In assembling the awning structure, the top slats 10 have their ends inserted in the main channels 9 in the usual way, after which the vertical slats or panels 13 are applied. It will be noted that the upper ends of these panels 13 are housed within the supplemental channels 11 so as to be protected at all times against the weather. These panels may be secured to the bar 6 by passing screws or bolts 17 through the slats and into suitable threaded openings provided in the main supporting bars 6. The downturned lip 12 defining the outer side of the supplemental channel in each instance will not only protect the upper edges of the panels or slats but will hide these upper ends from view. For this reason, extreme accuracy in the length or finish of the upper edges of these vertical panels is unnecessary. The breadth of the supplemental channels 11 will correspond substantially to the thickness of the vertically disposed panels and any increased breadth thereof caused by fluting, lateral concaving or other distortion which may be present in the slats for ornamental purposes.

From the foregoing it is apparent that I have provided an awning structure of extremely simple construction which may be manufactured and produced by improved processes and whose fabrication is simplified and yet results in a finished structure of sturdy construction and highly ornamental and attractive in appearance. By adequately housing the upper ends or edges of the vertical slats or panels, it is apparent that deterioration of these elements will be guarded against and a neat side appearance of the awning structure is at all times maintained. This is of particular importance in instances where the panels are formed of fibreglass or other such material as might readily deteriorate if moisture has ready access thereto. It will be understood that the vertically disposed slats or panels may be formed of various synthetic materials or of aluminum, steel or other metals. The side slats in the present instance are shown as spaced apart, but it will be understood that they may be brought together or in overlapping relationship if desired.

I claim:

1. An awning comprising spaced parallel supporting bars, said bars having channels on their inner surfaces and coextensive therewith, slats extending between said bars with their ends engaged in said channels, said bars each having a second channel coextensive therewith with its open side disposed at substantially right angles to the openings of said first named channels, panel members depending from said bars and having their upper ends disposed within said second channels, means for securing the upper ends of said panel members in the said channels, and struts secured at their outer ends to the ends of said parallel bars and connected to the lower ends of said depending panel members.

2. In an awning structure, a bar secured at one end to a building and projecting outwardly therefrom, said bar having a channel coextensive therewith and said channel having its opening at a side of said bar, said bar having a second channel coextensive therewith and with its opening disposed at right angles to said first named channel opening, top slats supported at their ends in said first named channel and enclosed thereby, side slats having their upper ends disposed in and enclosed by said second channel, means to secure the upper ends of said side slats in said second channel, a strut secured at its inner end to said building and disposed beneath said bar and at its outer end to the free end of said bar, and the lower ends of said panels secured to said strut.

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