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ADJUSTABLE AWNING-SUPPORTING FRAME STRUCTURE

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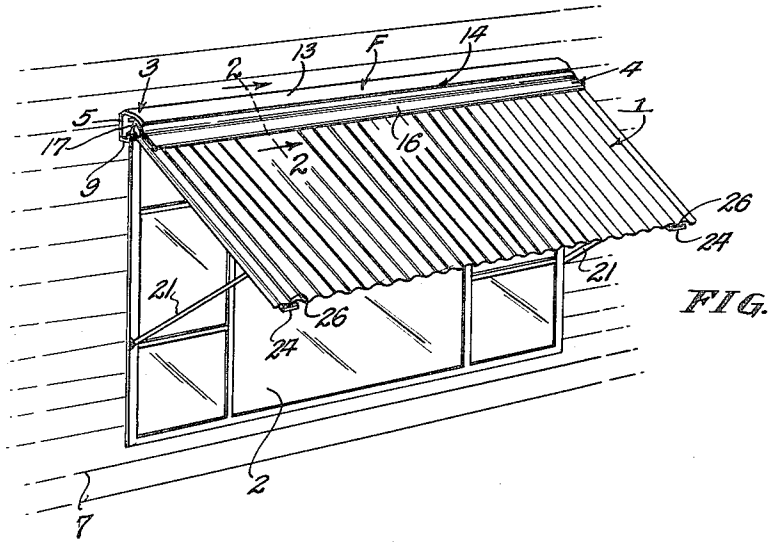


FIG. 1.

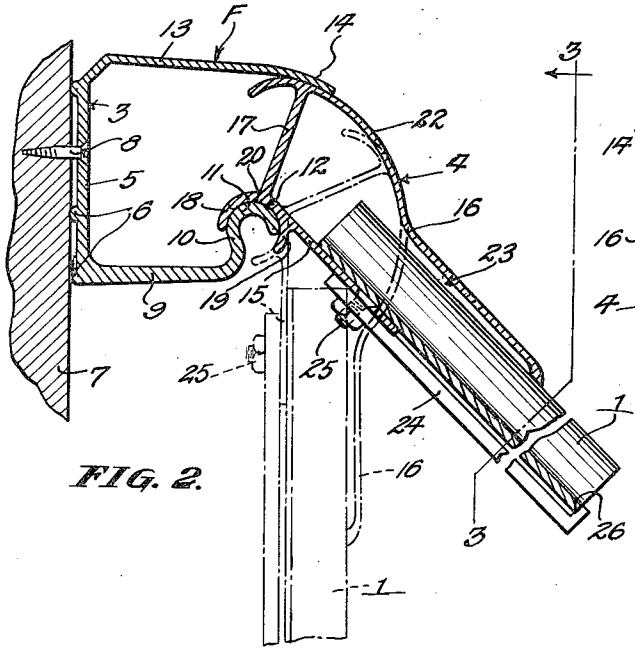


FIG. 2.

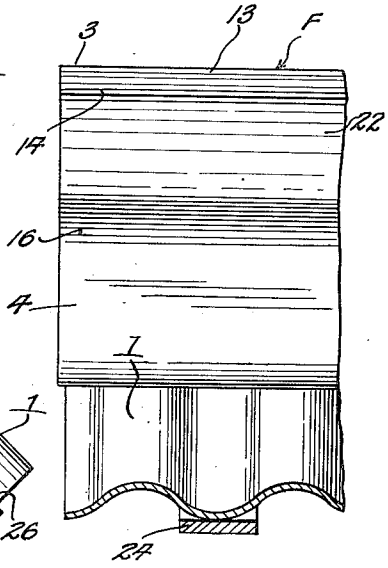


FIG. 3.

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ADJUSTABLE AWNING-SUPPORTING FRAME STRUCTURE

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3 Claims. (Cl. 20—57.5)

This invention is concerned with the mounting and support of awnings and other protective panels or appliances carried on the exteriors of building walls in registry with window and door openings formed therein, and for covering patios or the like.

Modern awnings, or other protective appliances for door and window openings, are formed quite commonly to comprise translucent or opaque, substantially rigid sheets or panels composed of synthetic resin compositions, fiber glass, aluminum, and the like. The mounting of such panel-type awnings in secure operative positions in connection with associated building walls and the dismounting thereof often present difficult, laborious, time-consuming, and hazardous working conditions. This is particularly true in providing securely mounted, water-excluding appliances wherein the panels or sheets thereof are maintained in desired angular planes of operation relative to the vertical planes of associated building walls, and wherein provision is made enabling rain water or the like to flow over the supporting frame without entering crevices or joints formed thereby.

Accordingly, the present invention has for one of its outstanding objects to provide an adjustable supporting frame which embodies a stationary, wall-mounted base section and a relatively movable panel-carrying section, the latter being mounted on the base section for swinging movement relative thereto about a substantially horizontal axis, whereby to provide for ready adjustment in the operative plane of the awning sheet or panel and to secure in all such operative positions of the base and panel sections a water-excluding union therebetween.

Another object is to provide an awning-supporting frame structure of this character wherein the base section is formed so that it may be first secured in its stationary operative position on the exterior of a building, and thereafter to permit of the pivotal attachment of the associated movable panel section therewith.

A further object is to provide a supporting frame structure for panel-type awnings wherein said structure is formed to embody a wall-mounted base section composed of a back wall having a forwardly projecting bottom flange which terminates outwardly in an upstanding, horizontal and longitudinally extending rib formed with an arcuate bearing surface, and wherein the frame structure further includes a movable panel-carrying section, the latter having its under surface formation longitudinally grooved for the reception of the rib, in order that the wall surfaces of the groove may have direct seating and rocking engagement with the arcuate bearing surfaces of the rib, whereby to enable the panel section to fulcrum on the rib of the base section in a manner maintaining an

awning panel or sheet carried by the panel section in a desired plane of operation angular to that of an associated building wall.

For a further understanding of the invention, including additional objects and advantages thereof and a detailed explanation of a preferred structural embodiment of the invention, reference may now be had to the following description and the accompanying drawing, wherein:

Fig. 1 is a perspective view of a panel-type window awning in an operative position and supported by the adjustable frame construction forming the present invention;

Fig. 2 is an enlarged detail cross-sectional view taken through the construction on the plane indicated by the line 2—2 of Fig. 1;

Fig. 3 is a detail vertical sectional view on the line 3—3 of Fig. 2.

Referring more particularly to the drawing, there has been disclosed at 1 a panel-type awning in the form of a corrugated, substantially rigid sheet of translucent material, such as a heat-cured, synthetic resin product, which may, if desired, be color tinted and have incorporated therein reinforcing fibers. Also, the awning may be formed from sheet aluminum or other lightweight, substantially opaque material, either plain or corrugated. The dimensions of the awning are controlled by those of the window 2, wall opening or area over and in registry with which the awning is used.

In effecting the support of such an awning in its operative position, use is made of a frame structure indicated at F. The frame structure in this instance embodies a stationary, wall-mounted base or cornice-forming section 3, hereinafter referred to as the base section, and a cooperative, pivotally movable and adjustable panel-carrying section 4, the latter being hereinafter referred to as the panel section.

Each of these sections comprises in its preferred form an elongated metallic extrusion, the parts of which are of the same length and of uniform transverse cross-sectional configuration. The base section 3 is formed, in the specific embodiment thereof illustrated, to comprise an elongated, vertically disposed back wall 5, the rear surface of which is formed with vertically spaced, longitudinally extending, parallel spacing beads 6. The latter engage with the outer surface of an associated building wall 7 in which a window or other wall opening 2 may be formed, spacing the major area of the rear surface of the rear wall 5 of the base section from the building wall so that when the attaching screws 8, or other equivalent fastening means, are tightened, firm and secure contact along parallel lines is produced between the base section and the building wall, while at the same time providing longitudinally coextensive grooves or recesses therebetween for the reception of a caulking or mastic compound.

In this instance the base section at the lower longitudinal edge region of the wall 5 thereof is formed with an ilntegral, forwardly and horizontally projecting bottom flange 9. The outer longitudinal regions of the flange 9 merge into a generally upstanding rib 10 which, in turn, terminates in a transversely semicircular, longitudinally extending lip 11 having its upper and outer portions formed to present an arcuate bearing surface 12. Also, integrally formed with and projecting forwardly and horizontally from the upper region of the back wall 5 of the base section 3 is an upper or cap flange 13, the

outer or free edge 14 of the latter possessing a slight downward curvature and having limited resiliency. The edge 14 of the upper flange is spaced from the bearing surface 12 of the lip 11, so that the base section 3 is formed with an open front.

The open front of the base section normally receives and is closed by the rear portion of the panel section 4. Advantageously, the panel section comprises an integral extruded body of metal, consisting of a bottom plate 15 and a cap plate 16, the plates 15 and 16 being united contiguous to their rear edge portions by a connecting web 17. At the region of juncture of the bottom plate 15 with the web 17, the panel section of the awning-supporting frame F includes a semicircular wall formation, formed by opposed, downwardly directed, arcuate flanges 18 and 19, which define a downwardly facing, longitudinally extending groove 20.

In the assembly of the frame structure, the base section is first secured in its stationary operative position on the building wall 7 above the window or door opening or area to be protected by a panel awning. When so positioned, the panel section 4 is adjustably united therewith by placing the panel section 4 in the vertical dependent position shown by broken lines in Fig. 2. When in this latter position, the curved lip 11 receives the grooved region 20 of the panel section, with the arcuate flange 18 of the panel section in supporting contact with the arcuate bearing surface 12 of said lip. Thereafter, the section 4, with the awning panel 1 securely united therewith, is turned bodily about the longitudinal pivotal or fulcrum axis provided by the lip surface 20, such bodily turning movement enabling the awning panel 1 to assume a desired operative position in which the panel is disposed in downwardly and outwardly extending angular order with respect to the building wall 7 and the frame structure F. The panel section may then be held in such operative position of adjustment by the employment of brace rods 21 carried by and extending between the wall 7 below the frame structure and the outer side regions of the awning panel 1. It will be understood that the angle of the awning panel relative to its supporting wall may be adjusted by varying the length or position of the associated brace rods 21.

It will be noted that when the panel 1 is operatively positioned, as shown in full lines in Fig. 2, the arcuate inner region 22 of the cap plate 16 has its upper surface arranged to engage frictionally and firmly the under surface of the curved and resilient outer edge region 14 of the cap flange 13. This relative engagement of the frame sections closes the open front of the base section and provides a water-shedding wall structure which prevents rain water and other moisture from entering the interior joints of the united frame sections. In securing the awning sheet or panel 1 to the frame section 4, the upper longitudinal edge regions of the corrugated sheet or panel 1 are inserted into the receiving pocket or recess 23 provided therefor between the relatively spaced bottom and cap plates 15 and 16 and the web 17. In this instance the sheet or panel 1 is securely retained in said recess by providing the plate 15 adjacent its ends with extension bars 24, the upper ends of the latter being fastened to the plate 15 by fastening devices 25, the shanks of the latter being received in registering openings formed in the plate 15 and the upper ends of the bars 24, and the lower and outer ends of said bars being shouldered, as at 26, to abut the lower and outer edges of the awning panel or sheet 1. This construction, in connection with the clamping action exerted on the sheet or panel 1 by the plates 15 and 16 of the frame section 4, holds the sheet or panel securely in its operative position of association with the frame structure. It will be appreciated that this construction applies to either plain or corrugated awning sheets or panels and to corrugated sheets in which the parallel ribs and grooves thereof extend either parallel or perpendicular to the plane of the frame structure.

I claim:

1. An adjustable supporting frame for awnings, comprising: a wall-mounted, relatively stationary base section composed of a vertical back wall from which projects spaced upper and lower cap and base flanges, said cap flange having a resilient outer edge portion, said base flange terminating along its outer longitudinally extending edge region in an upwardly directed rib having at the top thereof a rounded bearing surface; a complemental movable awning-carrying section embodying integrally joined upper and lower plates relatively spaced to provide between the same a confining pocket for the reception and retention of the upper longitudinal edge region of an associated awning, the lower plate of said awning-carrying section being formed with a longitudinally extending groove, the wall surfaces of said groove having freely acting pivotally movable seating engagement on the rounded bearing surfaces of said rib and the upper plate of said panel section having an arcuately formed, inner, longitudinally extending region having bearing contact with the outer edge region of the cap flange of said base section; and brace means arranged between an associated building wall and said awning-carrying section for maintaining the latter in various positions of swinging adjustment about the rounded bearing surface of said base section.

2. An awning-supporting frame comprising: a wall-mounted, relatively stationary base section, said section consisting of a one-piece metallic extrusion shaped to present a vertical rear wall and forwardly and substantially horizontally extending, vertically spaced and longitudinally disposed top and bottom flanges, said lower flange terminating outwardly in an upstanding rib having a rounded upper surface forming a bearing region, the upper flange of said base section overlying said bottom flange and terminating in a downwardly curved, substantially resilient, outer edge spaced from said rib to provide the base section with an open front; a movable awning-supporting section consisting of an integral metallic extrusion providing relatively spaced upper and lower plates between which is formed a pocket for the fixed reception and retention of the upper longitudinal edge region of an associated awning, the lower plate of said panel section being formed adjacent to its inner longitudinal edge with a groove receiving and engaging the bearing region of the upstanding rib of said base section and on which the panel section fulcrums freely for positional adjustment, the upper plate of said panel section having its inner longitudinally extending region projected into the open front of said base section for engagement with the complemental resilient outer edge region of the upper flange of said base section; and brace means joined with the awning-supporting section for maintaining its positional adjustment in relation to an associated building wall.

3. A supporting appliance for rigid shade panels comprising: an integral, channel-shaped, base member formed for stationary application to a building wall; said member including a substantially vertical back wall, vertically spaced, forwardly and outwardly projecting top and bottom walls, and an open front, the upper wall of said base member projecting in cantilever order from said back wall and having its forward longitudinal edge terminated above said bottom wall to provide the base member with an open front, the forward portion of the bottom wall of said base member being formed with an upstanding rib terminating in a lip formation having a rounded fulcrum-affording edge; a movable shade panel section including an integral, longitudinally extending body of a length corresponding with that of said base member, said panel section providing upper and lower plates united at the rear thereof by a transverse web, the lower of said plates at the rear thereof including a longitudinally ex-

tending groove receiving the lip formation of said member and providing for freely movable turning movement of the panel section thereon, said panel section at the rear thereof occupying the open front of said base member and having the rear portion of the upper plate thereof arcuately formed for engagement with the outer longitudinal edge of said upper plate; a rigid shade panel having an upper edge portion positioned and retained in a space formed between the plates of said panel section and outwardly of the web thereof; extension bars carried by and projecting forwardly from the lower plate of said panel section for supporting engagement with said shade panel; and brace devices disposed between said bars and

the associated building wall for maintaining positional adjustment of the panel and panel section with respect to the building wall.

References Cited in the file of this patent

UNITED STATES PATENTS

1,930,595	Moser	Oct. 17, 1933
2,251,572	Kuhn et al.	Aug. 5, 1941
2,365,378	Benson	Dec. 19, 1944
2,549,201	Hunter	Apr. 17, 1951
2,597,633	Graham	May 20, 1952