Dec. 4, 1951 F. A. RAY 2,577,482

AWNING STRUCTURE

Filed Aug. 6, 1948

FIG. 1.

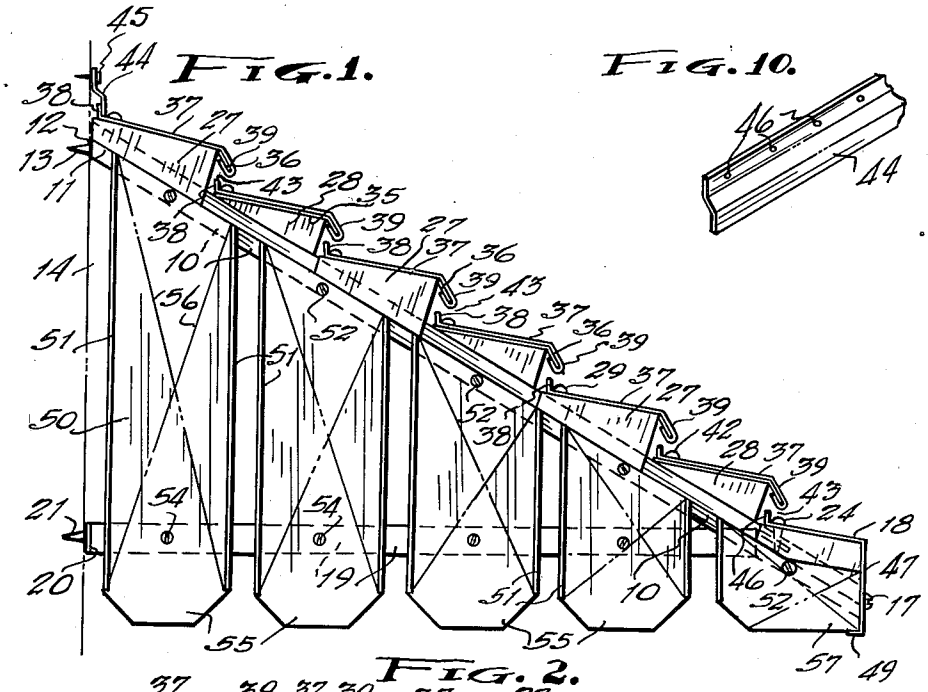


FIG. 10.

FIG. 2.

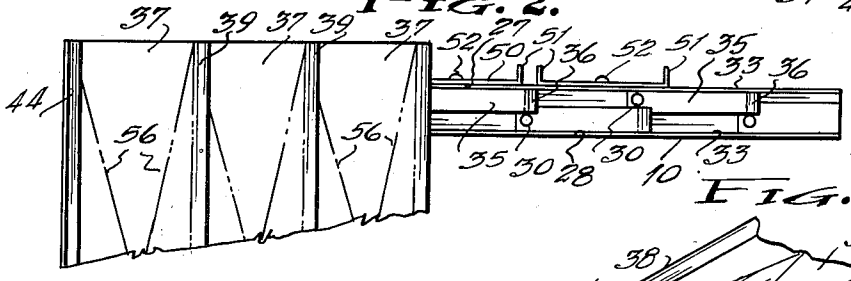


FIG. 3

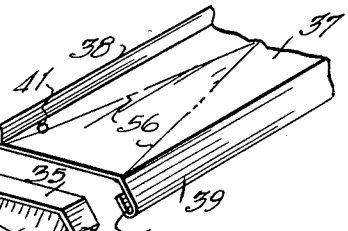


FIG. 5.

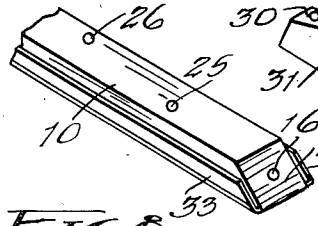


FIG. 4.

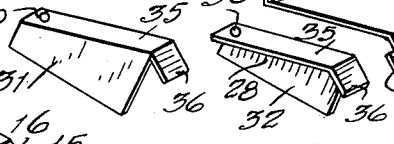


FIG. 7.

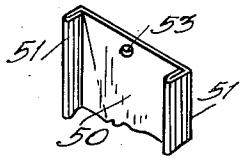


FIG. 8.

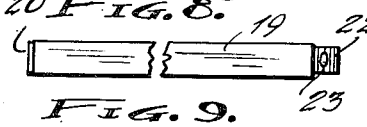
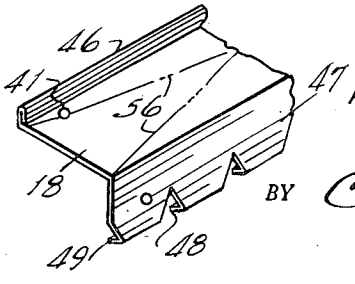


FIG. 9.



FIG. 6.



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AWNING STRUCTURE

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2 Claims. (Cl. 20—57.5)

1

This invention relates to awnings or canopies of the type employed over windows, doorways, and the like, and it has particular reference to an awning structure preferably of light metal, such as aluminum, or plastics, and its principal object resides in the provision of an economical structure capable of deflecting the direct rays of the sun and providing a protection against the elements, such as rain and hail, while yet affording ample ventilation, being formed with protected air passages whereby the area beneath the awning can remain moderately cool at all times.

An object of the invention is that of affording an attractive awning structure which is rigid and durable and, by reason of its adaptability to be formed of metal or plastics, can be made light and requires a minimum of care and attention in maintaining its longevity and appearance, it being unnecessary to paint the structure unless it is desirable to do so.

Broadly, the invention contemplates the provision of a ventilated awning structure which, by reason of its arrangement of parts, may be disassembled and arranged in compact packages for shipping or storing and its simplicity of design will enable an unskilled person to assemble and install the device with a minimum of effort.

While the foregoing objects are paramount, other and lesser objects will become manifest as the description proceeds, taken in connection with the appended drawings wherein:

Figure 1 is an end elevational view of the invention shown attached to a wall, illustrated in broken lines, and depicting the overlapping but angular arrangement of the transverse strips arranged between the inclined supports.

Figure 2 is a fragmentary plan view of a number of the transverse strips shown attached to one of the inclined frame members, shown in plan, and having the mounting brackets for the said strips attached thereto.

Figure 3 is a fragmentary perspective view of one end of one of the transverse strips and one of the mounting brackets by which the same is secured to the inclined supports.

Figure 4 is a perspective view of one of the mounting brackets for the transverse strips.

Figure 5 is a fragmentary perspective view of the outer end of one of the inclined frame members.

Figure 6 is a fragmentary perspective view of one end of the outer eave strip showing the scalloped depending flange formed thereon.

2

Figure 7 is a fragmentary perspective view of the upper end of one of the vertical end slats, showing its right-angular flanges.

Figure 8 is a plan view of one of the horizontal bracing members.

Figure 9 is a side elevational view thereof, and

Figure 10 is a fragmentary perspective view of one end of the flashing strip applied along the uppermost transverse strip at the wall, as shown in Figure 1.

In its preferred form the invention comprises two or more inclined frame members 10, shown in detail in Figure 5, which are formed in inverted channels and each has one of its ends 11 formed with a depending tab 12 through which nails or screws 13 are arranged for attaching the same to a wall 14, illustrated in broken lines in Figure 1. The outer or lower ends of the frame members 10 have tabs 15 formed thereon which are inclined downwardly, as shown in Figure 5, and have perforations 16 through which screws 17 can be arranged for attaching the eave strips 18 along the front edge of the awning, as shown in Figure 1. The eave strip 18 is shown fragmentarily in Figure 6, and will be described in greater detail presently.

The inclined frame members 10 are supported by horizontal bracing members 19, shown in detail in Figures 8 and 9, and each has a depending tab 20 formed on its inner end which is perforated to receive a nail or screw 21 for attaching the same to the wall 14, as illustrated in Figure 1. The opposite ends of the members 19 have outwardly and downwardly inclined tabs 22 which have perforations 23 through which screws 24 are arranged and which extend through the members 18, the frame members 10, through the apertures 25 therein, and into the tabs 22, as illustrated in Figure 1.

Each of the inclined frame members 10 has a series of staggeredly arranged and spaced apertures 26 longitudinally thereof, as shown in Figure 5, by which a series of right and left hand brackets 27 and 28 can be secured thereto through the medium of screws 29 arranged through the apertures 30 near the rearmost ends of the brackets 27 and 28. The series of brackets 27 are arranged along the outer edges of the inclined members 10, as illustrated in Figures 1 and 2, while the members 28 are arranged along the inner edges thereof, in alternate or staggered relationship, the depending flanges 31 and 32 of the members 27 and 28 extending into channels 33 and 34 formed on each side of the members 10 by turning back the under edges thereof, in the manner illustrated in Figure 5.

The brackets 27 and 28 have their depending flanges 31 and 32 substantially wedge-shaped, tapering rearwardly, the laterally extending shelf portions 35 being inclined forwardly of the awning structure, as indicated in Figure 1, when the members are attached to the supports 10. The portion 35 of the brackets 27 and 28 have extended tabs 36 which are inclined downwardly and forwardly, as shown in Figure 4, and function in a manner which will presently become manifest.

The transverse strips 37, shown fragmentarily in detail in Figure 3, have their rear edges turned upwardly providing flanges 38, while their forward edges 39 are inclined downwardly and forwardly, as shown in Figure 3, and turned backwardly upon themselves providing narrow channels 40 beneath their under edges to receive the forwardly inclined tabs 36 of the brackets 27 and 28 in assembling the structure in the manner illustrated in Figure 1. Apertures 41 are arranged on each end of the members 37 in which screws 42 are arranged and extend through the apertures 30 in the brackets 27 and 28 and into the apertures 26 of the inclined frame members 10. In this assembly the strips 37 have their forwardly inclined front edges 39 over-reaching the vertical flanges 38 of the adjacent members, as illustrated in Figure 1, so that rain will drain off the structure and be baffled by the flanges 38 and 39 while air is admitted through the longitudinal openings between the strips 37 to ventilate the area beneath the awning.

A flashing strip 44, illustrated in detail in Figure 10, is arranged along the uppermost of the transverse strips 37, being secured to the wall 14 by screws or nails 45 through apertures 46 along the upper flange of the member 44 while the latter depends and overreaches the upper flange 38 of the uppermost strip 37. The eave strip 18 has a vertical flange 46 formed along its rearmost edge, which simulates the flange 38 along the rearmost edges of the transverse strips 37, and extends upwardly beneath the rearmost of the strips 37 so that the lower flange 39 thereof will extend beyond the flange 46, in the same manner that the strips 37 are associated, providing an air passage 43 between the rearmost of the strips 37 and the eave strip 18. A depending flange 47 is formed on the eave strip 18 which may be provided with notches or scallops 48, or other decorative arrangement, and have its lower edge 49 turned at right angles for rigidity and to present a more attractive appearance.

Each end of the awning structure may be closed by vertical slats or channelled strips 50, as illustrated in Figure 1, whose opposing edges are turned at right angles providing flanges 51, as shown in fragmentary detail in Figure 7. The upper ends of the members 50 may be cut at an angle to correspond to the angle of the frame members 10 and secured thereto by screws 52 arranged through apertures 53. These members 50 can be secured at their lowermost ends by screws 54 to the horizontal bracing members 19. The lower ends 55 of the members 50 may be

formed in any fanciful manner for decorative purposes. Diagonal or criss-cross brakes 56 are sometimes desirable to lend rigidity to the strips 37 and the vertical slats 50 if desired. Especially designed end plates 57 are arranged on each end of the structure and attached to the lower ends of the frame members 10 and immediately behind the eave strip 18, in the manner shown in Figure 1.

Manifestly, the structure herein shown and described is capable of considerable modification from time to time, by persons skilled in the art, without departing from the spirit and intent of the invention or the scope of the appended claims.

What is claimed is:

1. In a metal awning structure, the combination comprising a plurality of spaced inclined frame members having means on their inner ends for attachment to a wall, an upturned flange formed along each side of each frame member defining channels, a horizontal bracing member connecting the outer end of each of said frame members to said wall, a series of overlapping strips arranged transversely of said frame members and having rigid connection therewith, each of said strips having lesser inclination forwardly of said structure than the inclination of said frame members, an inclined flange formed along the forward edge of each of said strips, and a bracket having a depending flange formed therewith extending into said channels on alternate sides of said frame members providing connection for each end of each of said strips to said frame members.

2 .In a metal awning, in combination with a pair of inclined frame members having means for attachment at their upper ends to a wall, an upturned flange formed along each side of each of said frame members defining channels therealong, a series of longitudinally over-lapping strips arranged transversely of said frame members and spaced therefrom at each end, each of said strips being formed along its rear edge with an upwardly extending flange and having a downwardly inclined flange along its forward edge, and mounting brackets for the ends of said strips providing rigid connection therefor with said frame members, each having a flange formed thereon extending into said channels on alternate sides of said frame members.

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