May 20, 1941. L. DUCA 2,242,697

AWNING

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Fig. 2.

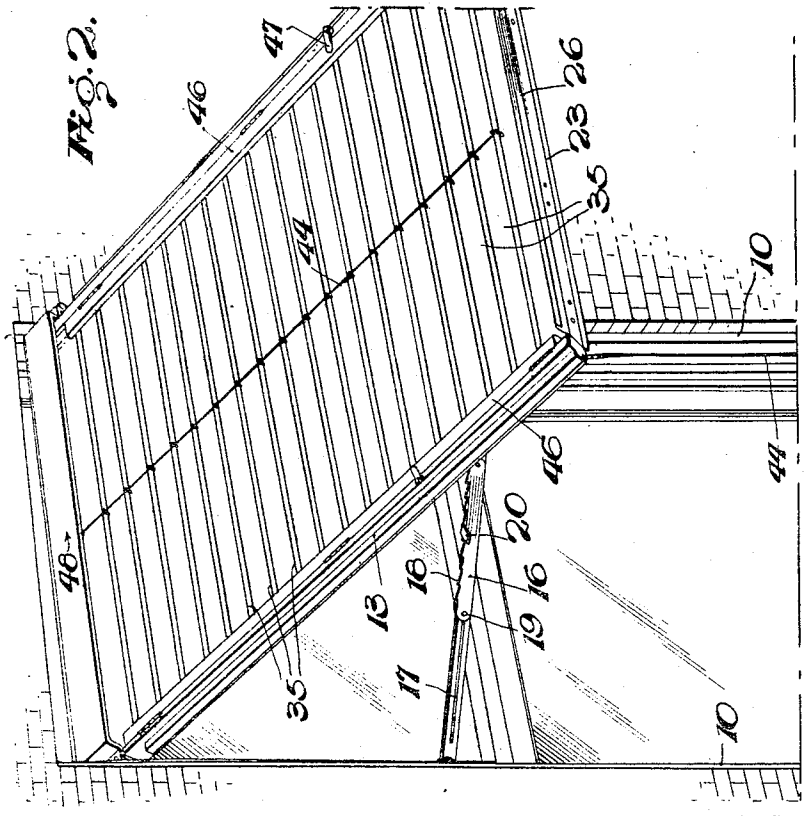
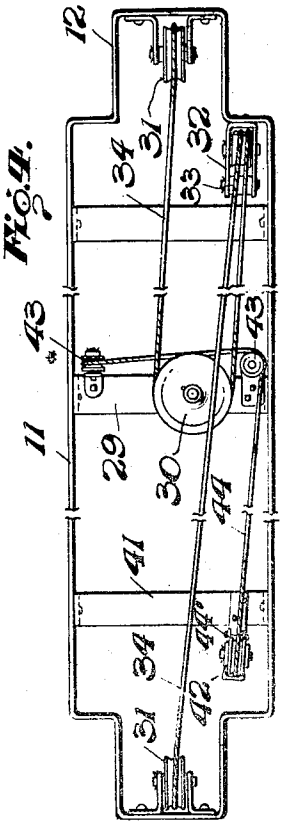


Fig. 4.



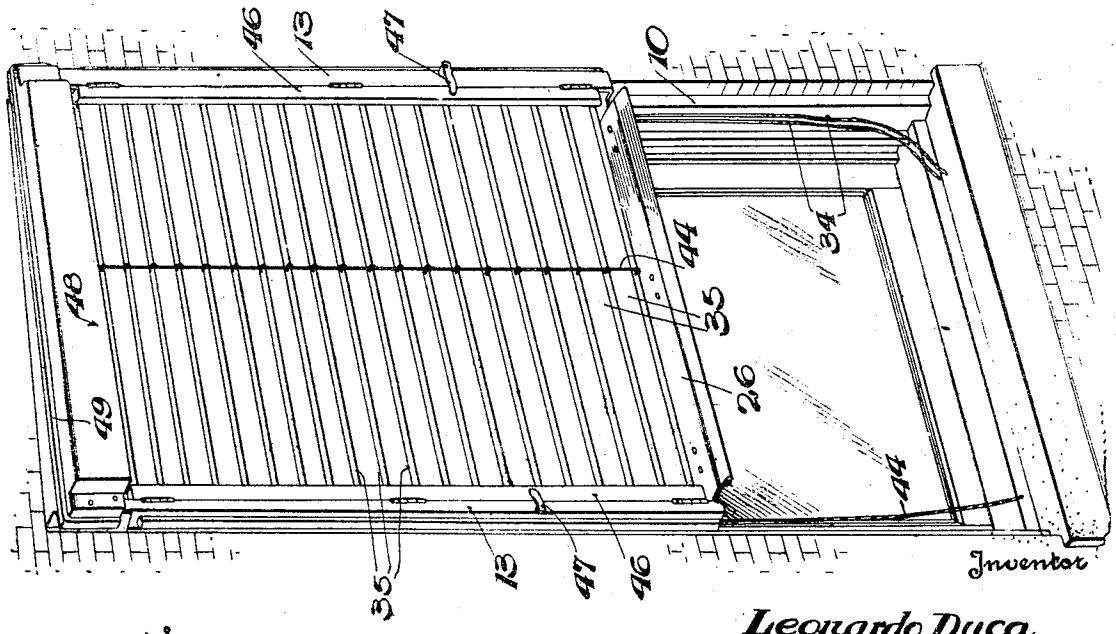


Fig. 1.

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Fig. 3.

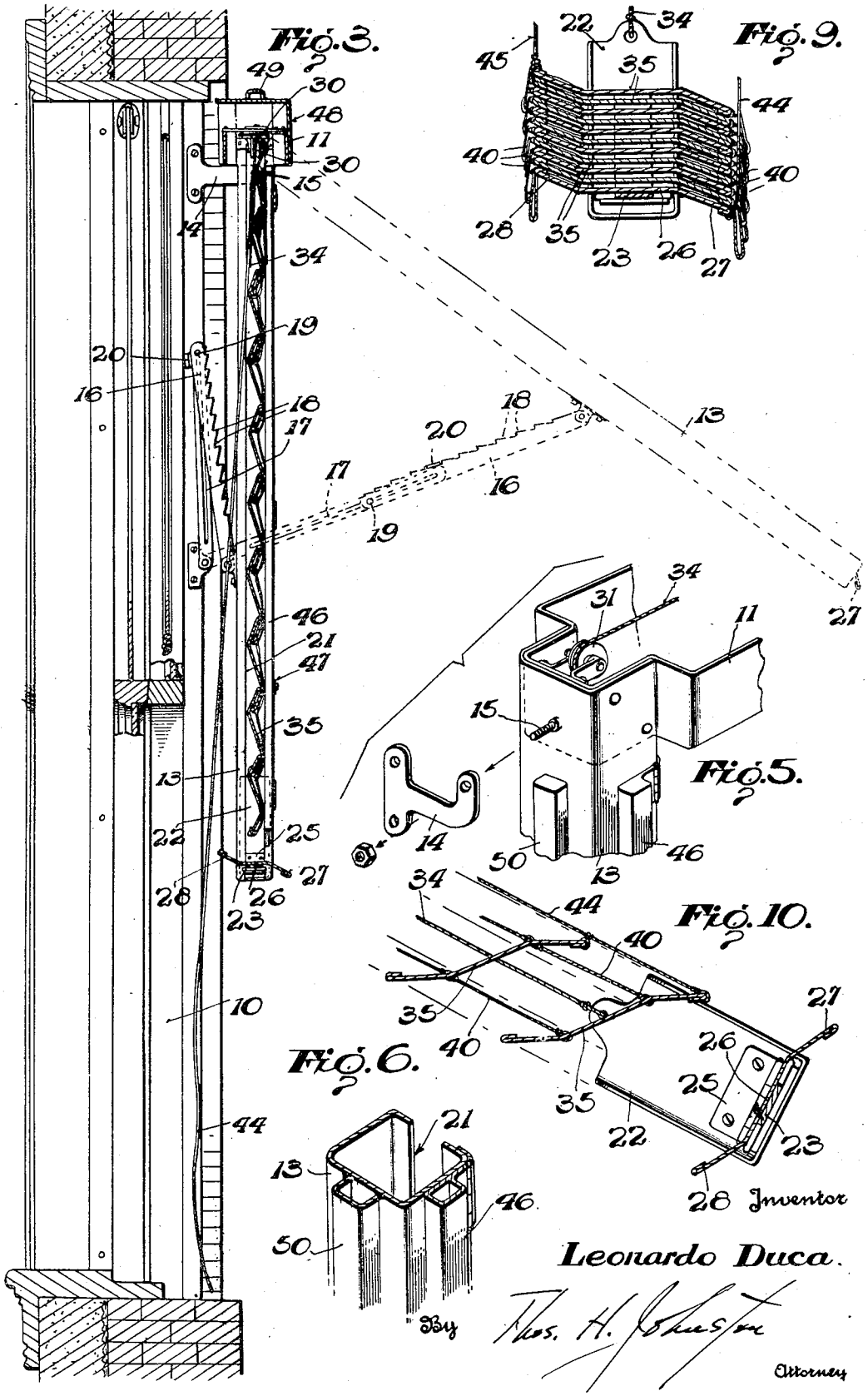


Fig. 9.

Fig. 5.

Fig. 10.

Fig. 6.

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Fig. 7.

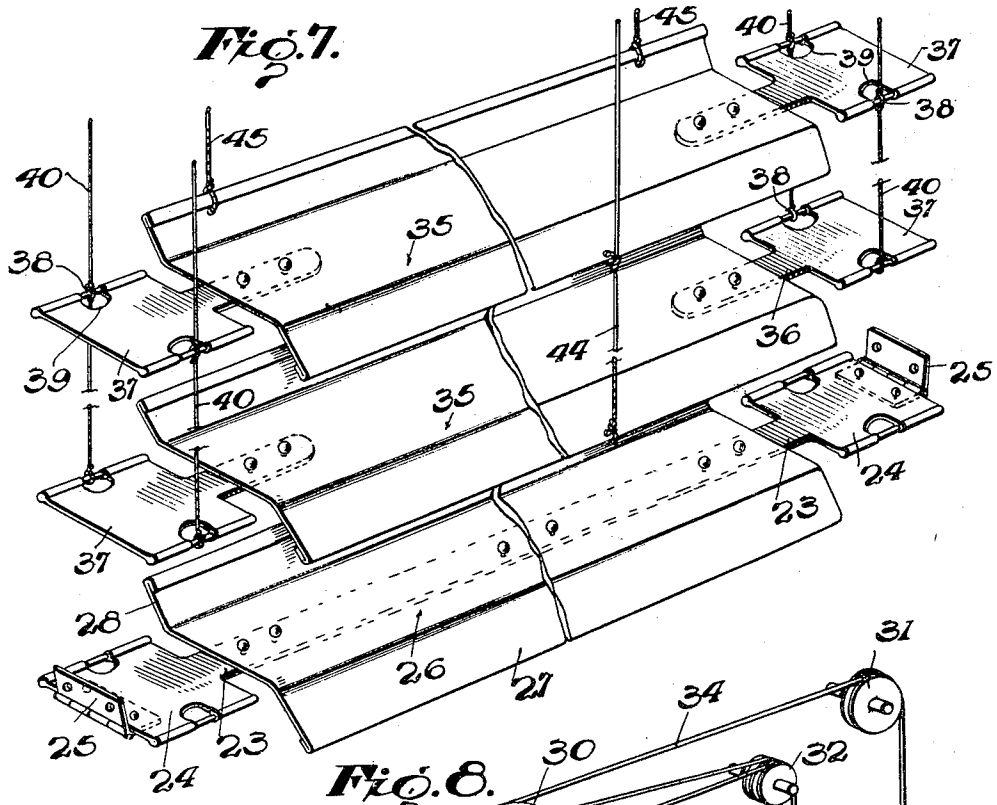
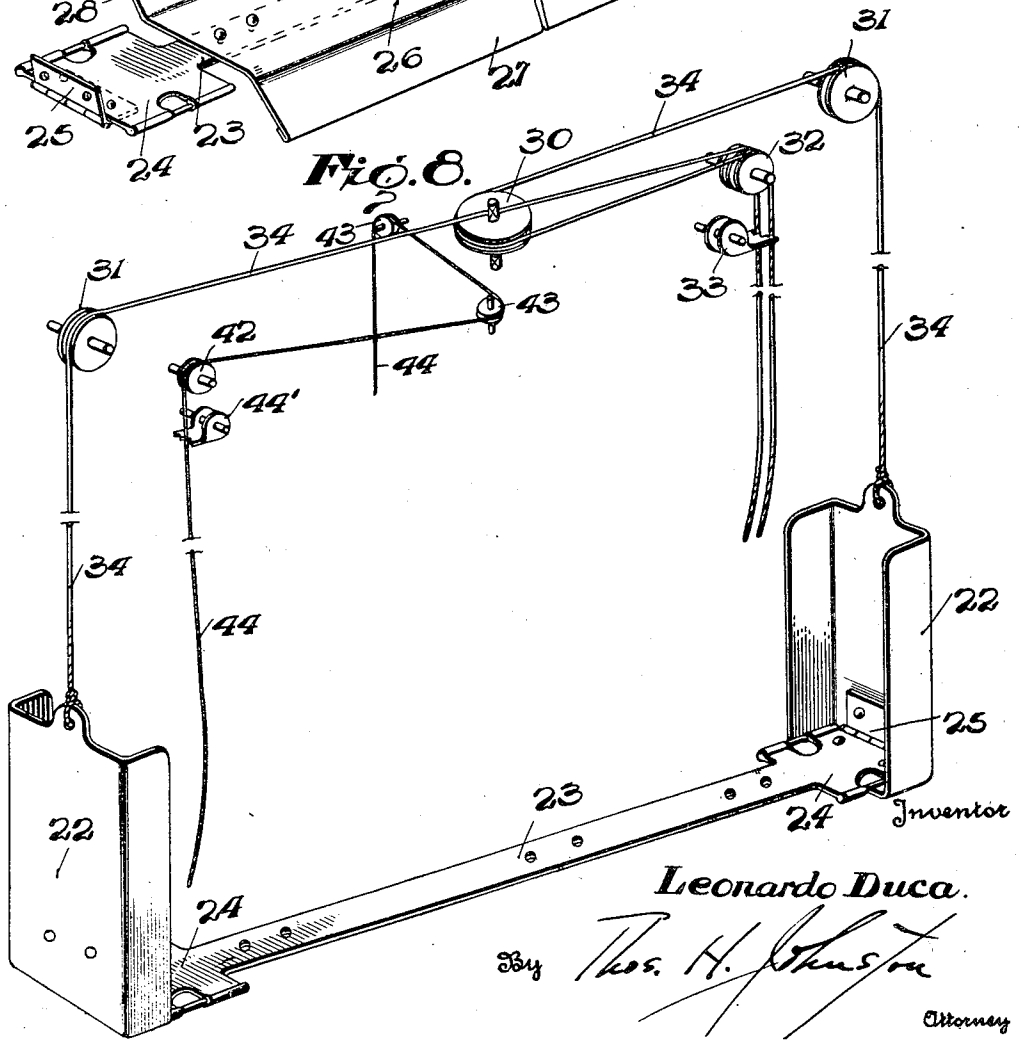


Fig. 8.



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Patented May 20, 1941 2,242,697

UNITED STATES PATENT OFFICE

2,242,697

AWNING

Leonardo Duca, Philadelphia, Pa.

Application February 27, 1940, Serial No. 321,128

5 Claims. (Cl. 156—17)

This invention relates to an improved awning.

As is well known, canvas awnings are subject to more or less quick deterioration by wind and water and it is accordingly an object of the present invention to provide an awning which, for the most part, will be constructed of sheet metal.

A further object of the invention is to provide an awning embodying a plurality of slats which may be adjustably swung as a unit to extend at an angle to a window to form a sun shade therefor or may be swung to lie parallel to the window casing close thereto to provide a storm blind for the window.

Still another object of the invention is to provide an awning wherein the slats may be adjustably tilted to control the admission of light through the awning, and wherein the slats may be locked in position lying flat against each other to present an unbroken surface.

A further object of the invention is to provide an awning wherein the slats may be adjustably raised or lowered to vary the effective length of the awning, and wherein a sling will be provided for successively picking up the slats or freeing them as the sling is raised or lowered so as to prevent jamming of the slats.

And the invention seeks, as a still further object, to provide an awning which may be readily mounted upon a window casing and which will present a neat and attractive appearance.

Other and incidental objects of the invention will appear during the course of the following description, and in the drawings:

Figure 1 is a perspective view showing the awning positioned to provide a storm blind.

Figure 2 is a perspective view showing the awning positioned to provide a sun shade.

Fig. 3 is a vertical section through the awning.

Figure 4 is a detail top plan view of the header of the device.

Figure 5 is a detail perspective view showing the manner in which the side bars of the awning frame are connected to the header.

Figure 6 is a fragmentary section particularly showing the shape of the side bars.

Figure 7 is a fragmentary perspective view showing typical slats.

Figure 8 is a perspective view showing the sling for the slats and the cords for raising and lowering said sling as well as the cord for tilting the slats.

Figure 9 is a fragmentary section showing the slats raised.

Figure 10 is a fragmentary section showing the slats lowered.

For convenience, I have shown my improved awning in connection with a conventional window embodying the usual casing 10.

In carrying the invention into effect, I employ, as best seen in Figure 4 of the drawings, an oblong header 11 having terminals 12 of reduced width, the header being preferably formed from a metal strip or the like bent into desired shape. Riveted or otherwise secured to the terminals 12 are preferably sheet metal side bars 13 formed at their upper ends, as seen in Figure 5, to embrace said terminals and cooperating with the header to provide a rigid frame. Secured to the sides of the window casing 10 near their upper ends are brackets 14 and extending through the terminals 12 of the header 11, through the upper ends of the side bars 13 and through said brackets are bolts 15 detachably mounting the frame to swing outwardly into angular relation to the window, as seen in Figure 2 of the drawings, or inwardly, as shown in Figure 3, to lie in vertical position parallel to the window casing close thereto.

Suitably pivoted at one end to the window casing and at the other end to the adjacent side bar 13 of the awning frame is an extension rod 16 which is formed of slidably connected sections one of which is provided with a slot 17 while the other of said sections is formed at its upper edge with rack teeth 18. Connecting the sections is a bolt 19 which is freely received in the slot 17 and preferably provided with a wing nut, and formed on the free end of the slotted section is a lateral lug 20 engaging over the upper edge of the toothed section to coact with the teeth 18 thereof. Thus, by swinging the rod sections upwardly at the bolt 19, the rod may be collapsed to permit the awning frame to swing to the position shown in Figure 3 of the drawings while, when the rod sections are disposed in alignment, as seen in Figure 2, the lug 20 will coact with the teeth 18 so that by tightening the nut of the bolt 19, the frame will be locked in outwardly adjusted position.

As best seen in Figure 6, the side bars 13 are substantially square in cross section and are provided at their inner sides with slots 21. Slidable in said bars are slat carriers 22, seen best in Figure 8 of the drawings, and extending between said carriers is a tie rod 23 cooperating therewith to form a sling for the slats employed. The rod 23 is freely received through the slots 21 of the side bars 13 and formed on said rod are T-shaped terminals 24 which fit within the carriers 22 at the lower ends thereof. Connect-

ing said terminals with the carriers are hinges 25. Thus, limited vertical movement of each carrier relative to the other will be permitted to obviate binding of the sling in the side bars 13. Fixed to the rod 23 is a sheet metal bottom slat 26 provided at its forward margin with an oblique downturned flange 27 and at its rear margin with a like upturned flange 28.

Extending transversely of the header 11, as seen in Figure 4 of the drawings, is a cross bar 29 on which is mounted a pulley 30, and mounted at the ends of the header are pulleys 31. Mounted near the right hand end of the header, as viewed in Figure 4, is a pulley 32 with which is associated a dog 33, and trained over said pulley are lifting cords 34 which extend over the pulleys 31, one of said cords being disposed about the pulley 30. These cords extend within the side bars 13 and, as best seen in Figure 8, are connected to the carriers 22 so that the cords may thus be manually manipulated for raising or lowering the sling formed by the carriers and the rod 23. The pulley 32 and dog 33 may be a unit of any approved construction and, as will be understood, the dog is disposed to coact with the cords 34 for securing the sling in adjustably elevated position.

Extending between the side bars 13 of the awning frame is a plurality of sheet metal slats 35 identical with the slat 26, and fixed to said slats are T-shaped terminals 36 which extend through the slots 21 of said side bars and are provided with heads 37 freely received within the bars. The terminals 36 are preferably of sheet metal and, as best seen in Figure 7, the side margins of the heads thereof are rolled to embrace side rods 38 exposed medially of the heads by notches 38. Extending between the heads 37 are pairs of flexible suspending wires or the like 40 secured to the rods 38 at said notches and fixed at their upper ends to the header 11 for supporting the slats in spaced parallel relation. Thus, as will be seen, the cords 34 may be manipulated for raising the carriers 22 and elevating the slats 35 when the heads 37 of the terminals 36 will be stacked within the carriers while, as shown in Figure 9, said slats will be stacked upon the slat 26 supported by the rod 23 of the slat sling.

Extending between the sides of the header 11 near the left hand end thereof, as viewed in Figure 4, is a cross bar 41 on which is mounted a pulley 42, and mounted on the cross bar 29 are similar pulleys 43. Trained over the pulleys 42 and 43 is a cord 44 attached to the forward edges of the slats 35 medially thereof and connected to the rear edge of the uppermost of said slats are flexible stop wires or the like 45.

It is now to be noted that those of the wires 40 connected to the forward edges of the heads 37 of the terminals 36 of the slats 35 are longer than the wires at the rear edges of said heads. Consequently, when the slats are lowered, the stop wires 45 will cause the uppermost of said slats to tilt downwardly with the result that all of the slats 35 will, as typified in Figure 10, be caused to tilt downwardly. However, as will be seen, by pulling on the cord 44, the slats may be adjustably tilted upwardly and mounted to coact with said cord is a dog 44' like the dog 33 for anchoring the cord and thus securing the slats in upwardly tilted position.

Hingedly connected to the side bars 13 of the awning frame are locking strips 46 which, as seen in Figures 1 and 2 of the drawings, are movable to overlie the ends of the slats 35, and mounted to coact with said strips are pivoted buttons 47. Thus, after the slats have been lowered, the strips 46 may be swung to active position and secured by the buttons 47 for locking the slats in mating closed relation, as best seen in Figure 3, to provide a storm blind.

Fitting over the header 11 is a sheet metal hood 48 which may be detachably secured in position in any appropriate manner and is intended to provide shelter for the several pulleys mounted upon the header as well as for the slats when raised. Preferably, the hood is provided with an ornamental cleat 49 which will serve as a reinforcement for the hood and secured to the outer sides of the bars 13 are like cleats 50 reinforcing said bars.

Having thus described my invention, what I claim as new is:

1. An awning including a header, side bars connected thereto to form a frame, slats suspended from the header and having terminals slidable in said side bars, slat carriers slidably fitting in said bars to coact with said terminals, a tie rod hinged to the carriers and connecting said carriers to form a sling for the slats, and means for raising or lowering said sling and raising or lowering the slats thereby.

2. An awning including a header, side bars connected thereto to form a frame, slats having terminals provided with heads slidable in said bars, side rods carried by said heads, flexible elements connected to said rods and suspending the slats upon the header, and means for raising or lowering the slats.

3. An awning including a header, tubular side bars connected thereto to form a frame and provided in their confronting walls with slots, slat carriers slidably fitting in said side bars, a tie rod extending between the carriers through said slots and hinged to the carriers to form a sling, means for raising or lowering said sling, and slats disposed between the side bars and having terminals extending through said slots and provided with heads slidably received within the side bars, the sling being movable for raising or lowering the slats.

4. An awning including a header, tubular side bars connected thereto to form a frame, slats having terminals provided with heads slidably received in said bars, flexible elements extending within the side bars and connected to the header and to said heads for suspending the slats upon the header, and means for raising or lowering the slats.

5. An awning including a header, side bars connected thereto to form a frame, slats disposed between the side bars and suspended upon the header, means flexibly connecting one of the slats with the header whereby when the slats are lowered said slats will be tilted downwardly, means connected to the slats and adjustable for tilting the slats upwardly when the slats are lowered, and means for raising or lowering the slats.

LEONARDO DUCA.