Aug. 13, 1968 G. B. ROBERTS 3,396,496

ADJUSTABLE AWNINGS

Filed Sept. 2, 1966

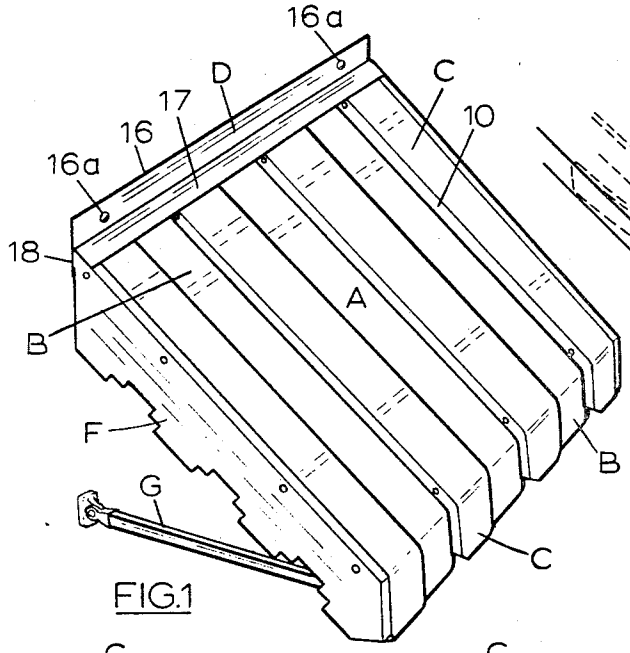


FIG. 1

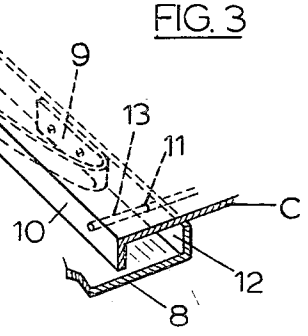


FIG. 3

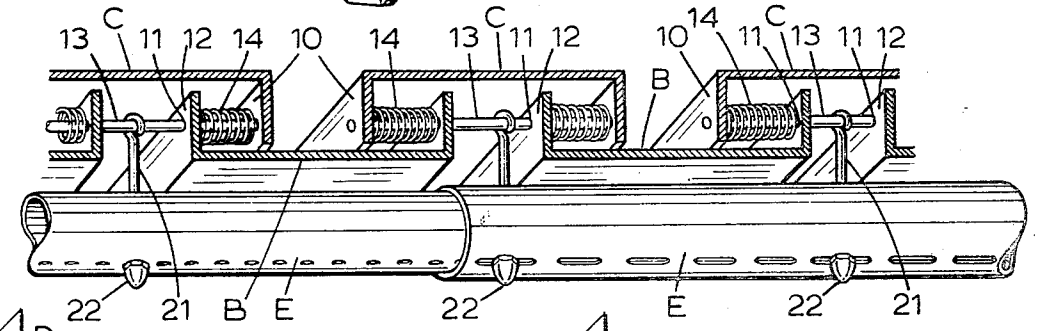


FIG. 2

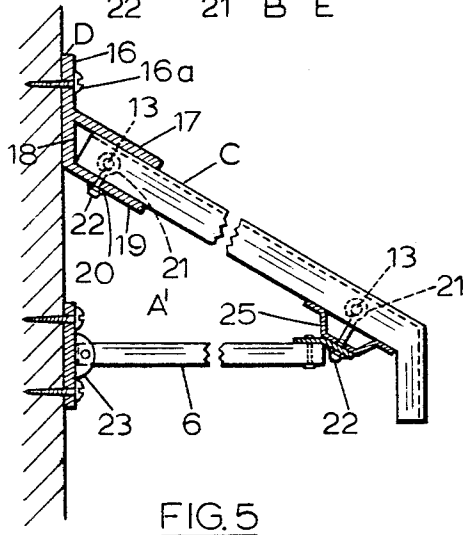


FIG. 5

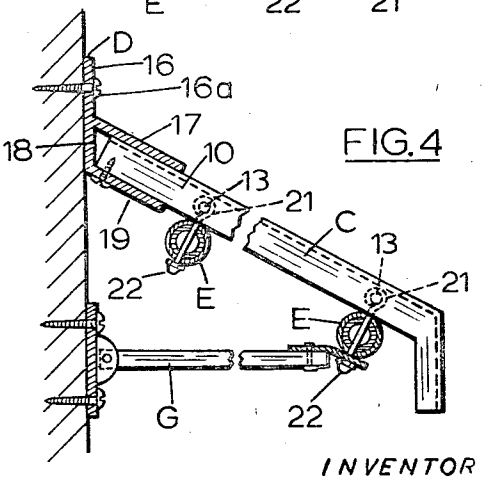


FIG. 4

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ADJUSTABLE AWNINGS

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3 Claims. (Cl. 52—75)

ABSTRACT OF THE DISCLOSURE

The invention essentially consists of an awning having two sets of channels with the side walls of the upper set of channels being received between the side walls of the lower, and carrying rods extending between the side walls of the upper set of channels and passing through orifices in the side walls of the lower set of channels. Springs are positioned between adjacent side walls from the upper and lower channels as to normally bias the side walls apart.

This invention relates to adjustable awnings of the rigid or semi-rigid type capable of use on windiws, balconies, verandahs, etc.

I am aware that rigid awnings have been fabricated, but these present many difficulties and have not always been satisfactory.

The principal object of my invention is to construct a sectional metallic awning which may be transversely adjustable, and in which the several sections will always maintain their desired spacing irrespective of changing atmospheric conditions, such as wind or rain.

A further object of my invention is to construct the awning with relatively fixed sections and intermediate movable sections, and in which the relationship of the movable sections to the fixed sections will at all times remain constant.

Another object of my invention is to construct the several sections of the awning of a metal, preferably aluminum or an alloy thereof, which metal can be readily extruded or rolled in channel form which I find suitable for the fabrication of the awning.

A further object still of my invention is to utilize a metal which is resistant to corrosion and to the elements and which may be readily anodized or painted to add to the aesthetic appearance of the building on which the awning is installed.

Another object still of my invention is to fabricate the awning of rigidly supported spaced members which co-act with and support similar spaced movable members so that the spacing of the several members relatively to each other will remain as prearranged.

A further object of my invention is to construct the awning so that it is readily adjustable in width to suit any width of window frame or other frame to which the awning may be installed. While the channel members used in the construction of my awning are referred to, in the art, as "pans"; nevertheless, I have referred to them as channel members as emphasizing the use of the side walls of the channel, which side walls are so necessary in the construction of my awning.

Further objects of my invention will be made clear as the specification develops.

So that the nature of my invention will be clearly understood, I have illustrated a specific form of the same which I shall describe in detail; but I wish it to be understood that I do not limit my invention to this specific form, but reserve the right to modify the structural parts in keeping with the scope of my appended claims and without departing from the spirit of my invention.

In the drawings:

FIGURE 1 is a perspective view of one form of my improved awning with depending lateral walls.

FIGURE 2 is a transverse section of the upper portion of the awning showing the operative arrangement of the channel members and the tension springs co-operating with the sections.

FIGURE 3 is a fragmentary perspective view of the parts of two co-acting channels showing the use of a leaf spring therebetween.

FIGURE 4 is an end view of the awning showing the bracket for securing the awning to a window frame.

FIGURE 5 shows an alternative method of assembling my awining.

Like characters of reference refer to like parts, in the several figures of the drawings.

Referring to the drawings, A represents my improved awning which is formed of a plurality of channel members which are arranged in a transverse spaced relation to each other, and these members may be formed of rolled aluminum strips or the like. These channel members are angularly disposed from the back of the awning to the front to provide for an adequate drainage of rain which may fall on the awning.

There are two sets of channels arranged in confronting arrangement, namely the upper set C, which are downwardly disposed, that is to say the web of the channel constitutes part of the roof of the awning, and the lower set of channels, B, which co-acts with the first set C are upwardly disposed, that is to say the outer face of their webs form part of the under face of the awning.

These two sets of channels are staggered relatively to each other, as shown clearly in FIGURE 2, so that the side walls **10** of the upper set of channels C depend into and are located within the lower channel members B. The sidewalls **10** of each channel of the upper set C depend into and lie within the channels B, having side walls **12**, and these side walls **12** are formed with aligned orifices **11**. The vertical side walls **12** of the lower set of channels B are upwardly disposed.

Each channel C is provided intermediate of the height of its side walls with transversely extending rods **13**, which extend across the said channels C and the ends of these rods are rigidly connected to the side walls **10** of the upper channels C by any suitable means. These rods pass through the aligned orifices **11** in the side walls of adjacent channels B, so that the roof or upper wall of the awning may be expanded laterally and this expansion is resiliently controlled. On each rod **13**, between the adjacent side walls of the channels B and C, two coiled springs **14** are provided, encircling the rods **13** and these springs are located between the inner faces of the channel side walls **12** of the channel B and the inner faces of the side walls **10** of channels C.

Any suitable bracket may be used to secure my awning in place, but in FIG. 4, I have shown a conventional bracket in extensive use in the art, the description of which follows.

Across the upper end of the awning A, a transversely extending elongated bracket D is provided which is preferably formed of aluminum, and this bracket has an upwardly angularly disposed wall **16**, adapted to be secured to a support by securing means **16*a***, from which extends an outwardly projecting cover plate **17**, which engages the upper face of the awning A, and from this bracket there depends a downwardly extending longitudinal plate **18** which is offset, constituting a shelf or support **19** for the lower face of the awning A.

It will be clear that the upper end of the awning A is embraced between the cover plate **17** and the shelving support **19**, and rigidly attached thereto.

When the awning A is of the adjustable type (see FIG. 4), I provide telescopic tubes functioning as reach rods E which are connected to the sides F of the awning, and these telescopic tubes, or reach rods are located adjacent the upper under face of the awning A and adjacent the lower end of the under face of the awning, and are attached thereto by eye-bolts or hangers **21** engaging the rods **13** and passing through the reach rods E, the lower end of the eye-bolts being provided with nuts **22**, as clearly shown in FIGURE 4.

The sides F of the awning are attached to the side walls of the channels C by any suitable means; and a pair of rods G which are in parallel relationship extend rearwardly from the lower end of the awning and provide a means for connecting and spacing the lower end of the awning A relatively to a window frame, and hingedly attached thereto by means of a frame **23**.

It will be observed that the lower end of the channels B and C are offset downwardly forming a valance, which not only adds artistic beauty to the finished awning, but also provides a drip wall for water draining off the awning in wet weather.

Attention is directed to FIGURE 5, in which a rigid form of awning A' is illustrated.

This awning A' is constructed in a manner similar to that described with awning A, but in this case the telescopic reach rods E are dispensed with, and in lieu thereof, I provide a rigid transverse member **25** which is of channel shape so that it is relatively light, and this channel has flanged side walls with the said side walls flared and the channel makes a broad bearing surface for the overhead channels B and C. The channels are interconnected in the same manner as described with respect to the channels B and C, that is the rods **13** are used in this form of the awning, but the springs **14** are dispensed with; however, the eye-bolts **21** are mounted on the rods **13** and the stems pass through the web of the transverse channel **25** and the shelving support **19**, which is provided with a plurality of equidistantly spaced orifices **20** through which the threaded stem of the eye-bolt or hanger **21** passes, and are securely attached to the transverse channel **25** and shelving support **19** by nuts **22**, so imparting to this form of awning a desired rigidity.

The awning is extremely light and is strong and durable, and will not sag, and may be constructed to suit every form of standard window.

In FIGURE 3, I have illustrated a portion of two

adjacent channels B and C in which the coiled springs **14** are dispensed with, and in lieu thereof I provide a leaf spring **9** between the adjacent channels B and C and this provides the desired resiliency between the assembled channels. Either the coiled springs or leaf spring can be used with equal effect.

As windows are usually of varied sizes, it will be realized that these awnings can be manufactured and carried in stock and shipped to the building the windows of which require such an awning.

The baked-on enamel finish is not marred or scratched in the expansion or contraction of this awning.

What I claim as my invention is:

1. An awning comprising a first set of spaced downwardly disposed channels having webs and side walls, a second set of spaced upwardly disposed channels having webs and side walls, the two sets of channels being in confronting relation and staggered relatively to each other, the adjacent side walls of one set of channels extending into the underlying channels of the other set, each channel of said first set of channels being provided, intermediate of the height of its side walls, with a plurality of rods extending between and fixed to its side walls, the side walls of said second set of channels being provided with aligned orifices which are larger than the diameter of said rods, said rods being passed through said orifices whereby said second set of channels are carried by said rods for sliding movement thereon, and springs coacting with adjacent sidewalls from said upper and lower channels as to normally urge said adjacent side walls away from one another.

2. An awning as claimed in claim **1** in which said springs are leaf springs.

3. An awning as claimed in claim **1** in which said springs are spiral springs and are carried on said rods.

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