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WINDOW AWNING

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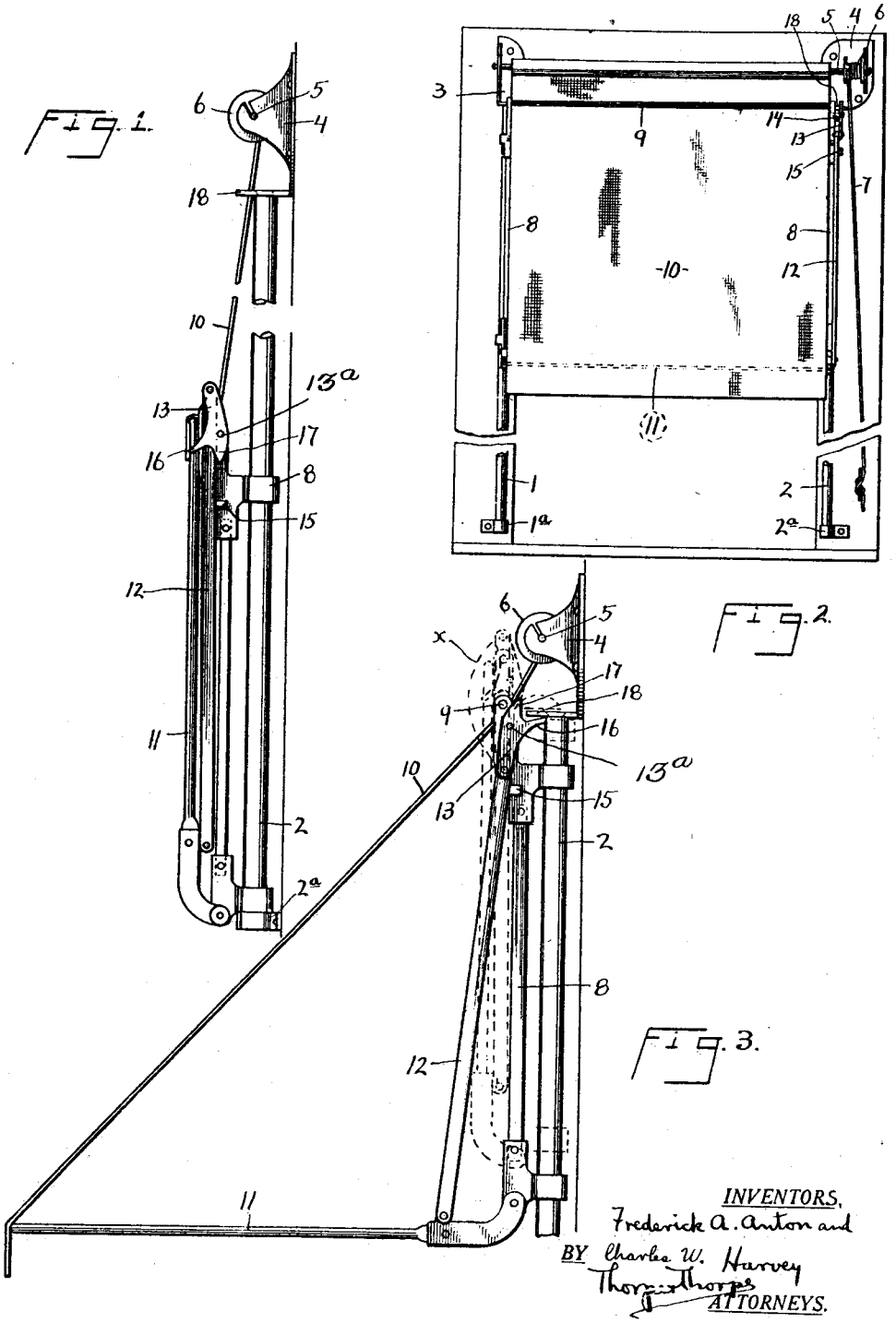


FIG. 1.

FIG. 2.

FIG. 3.

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WINDOW AWNING

Application filed May 31, 1927. Serial No. 195,178.

This invention relates to window awnings of that character in which the awning fabric is wound or unwound upon a roller, and adapted in the latter condition, to provide an upright or straight portion and an inclined visor portion, this application being an improved construction over that shown in a copending application filed February 14, 1927, Serial No. 168,035.

One of the objects of the invention is to provide an awning of the general character outlined in which the visor when formed may be positioned at any desired point intermediate the height of the window and in which the visor is positively locked against accidental collapse by strong gusts of wind or the like.

Another object is to provide means for sustaining the weight of the awning frame during the collapsing movement of the visor, as with all awnings, except that shown in the application above identified, of this general character with which I am familiar, the awning frame is free to fall downwardly, usually before the visor has been half collapsed. It will be readily apparent that with a large awning, where the awning frame weighs considerably, the sudden arrest of the frame by the fabric leads to rapid deterioration and also leads to the breaking of parts and the loosening of the roller supports from the frame of the building to which the awning is attached.

With the general objects named in view and with the specific object of producing an improved and simplified construction over that shown in the application above identified, the invention consists in certain novel and useful features of construction and organization of parts as hereinafter described and claimed; and in order that it may be fully understood reference is to be had to the accompanying drawing, in which:—

Figure 1 is a side elevation of the awning as it will appear in collapsed condition and just ready to be swung to open position.

Figure 2 is a front view of the awning in open position, on a reduced scale.

Figure 3 is a similar view of the awning in open position, as it will appear when the visor is formed at any point intermediate the height of the window.

Referring now to the drawing in detail, where like reference characters identify corresponding parts in all of the figures, 1 and 2 respectively indicate a pair of parallel side bars secured to opposite sides of a window opening at their lower ends by suitable brackets 1^a and 2^a respectively, said bars comprising a support upon which the awning frame is adapted to slide. The bar 1 is secured at its upper end to the lower end of a bracket 3 secured to the window frame at the top of the window opening, and the bar 2 is secured to a bracket 4 fastened to the front of the window frame in the same horizontal plane as the bracket 3. Journaled in said brackets 3 and 4 is a roller 5 on which the fabric of the awning is rolled, said roller being supplied with a suitable pulley 6 for reception of the operating cord or cable 7.

Slidably mounted on the bars 1 and 2 is a pair of similar awning frames 8, the upper ends of said awning frames being interconnected by a cross bar 9, under which the fabric 10 of the awning is adapted to be passed, the free end of the fabric being secured to the U-shaped visor frame 11 pivoted at its ends to the lower ends of the awning frames 8. The visor frame 11 is adapted to swing in an arc as common, and when in substantially horizontal position is braced by a "buggy brace" comprising a pair of links 12 and 13. The lower end of the brace 12 is pivoted to one of the arms of the U-shaped frame and in substantially the same vertical plane, while the upper end of said brace is pivoted to the lower end of the link 13 and between said link and the upper part of the frame 8. The link 13 is pivoted at a point 13^a intermediate its ends on the frame 8, and is spaced therefrom by a spacing sleeve 14 (Figure 2), so that the brace 12, when in folded position, may be received between said members as shown in Figure 2.

It will be evident that a similar brace construction may be provided, if desired, for the opposite side arm of the visor frame 11 and that a double brace will probably be found the preferred construction for large awn-

ings. The brace construction is such that if force is applied to the visor bar 11 to pivot or collapse the same, the common pivot of the braces 12 and 13 tends to break inwardly toward the window opening, but such breaking action is prevented as the upper end of the frame 8 carrying the brace, is provided with a projecting stop 15 against which the link 12 is adapted to abut and thus, together with the link 13, providing a rigid brace. The joint cannot break upwardly as the gravitative weight of the visor frame 11 resists such movement.

When the parts are in collapsed position as illustrated in Figure 1, it will be noted that practically all of the awning fabric may be rolled on the roller 5 when rotated in the proper direction. When the roller is released the window awning frames 8 slide downwardly by their own weight or may be pulled downwardly if a spring roller is employed, the frames sliding on and being guided by the parallel bars 1 and 2. When the awning frame 8 carrying the brace reaches the limit of its downward travel and is stopped by abutment with the bracket 2^a (Figure 1), the weight of the pivoted visor frame 11 is sufficient to cause the formation of the visor as illustrated in full lines Figures 2 and 3, the buggy brace 12—13 immediately assuming its operative position as shown in Figure 2. With the visor thus formed, it will be apparent that the operator may roll up the straight portion of the fabric between the bar 9 and the roller 5 to effect elevation of the visor to the desired point intermediate the height of the window opening, and that gusts of wind and the like cannot break the joint between the links 12 and 13 as such strain tends to break the joint inwardly due to the angle of inclination of the brace, and this movement is resisted by the stop 15.

In order to provide automatic means whereby the visor may be collapsed when the awning has reached its upper limit of travel, the link 13 above its pivot point is formed with a laterally projecting trip portion 16 and with a vertically projecting supporting portion 17, the trip 16 projects inwardly toward the window frame and its path of travel is intercepted by an extension 18 on the bracket 4 so that continued movement upward effects swinging movement of the link 13 around its pivot to break the buggy brace upwardly, the pivotal point between the links 12 and 13 travelling in an arc as indicated by the dotted line x in Figure 2, until the parts have reached the positions shown in full lines Figure 1, it being noted that the link 12 has practically assumed a vertical position, the stop 15 functioning to prevent it from moving beyond a predetermined point so that it shall not pass center and interfere or prevent the proper opening movement of the awning frame when the same is lowered.

As soon as the joint between the links 12—13 has been broken as described, the visor commences to collapse as visor frame 11 swings upwardly and inwardly, and if the awning frames 8 are unrestrained, a point will soon be reached where the weight of said frames overbalances the weight of the visor frame 11. When the weight of the awning frames overbalances the weight of the visor frame, the entire structure will immediately fall downwardly on the bars 1 and 2 and effect an immediate collapse of the visor. The jar or jerk which will be placed on the fabric 10 incident to permitting the fabric to catch and stop the falling parts, places a great strain on the awning and on the supports for the roller 5. To prevent the falling of the frames as described, the supporting extension 17 of the link 13 above referred to is provided, to sustain the weight of the structure on the extension 18 of the bracket 4 during the collapsing movement of the visor. When the joint is broken by contact of the stop portion 16 with the extension 18, the upper or supporting portion 17 immediately overlies and contacts with the upper surfaces of said extension and bears the entire weight of the awning structure. As the operator continues to roll up the fabric, the supporting portion 17 continuously maintains the weight of the structure as it fulcrums or rocks on the face of the extension 18, the brackets 8 sliding upwardly on 1 and 2 as shown in dotted lines, Figure 3, during this movement. The parts are so proportioned that just as the visor is completely collapsed and all of the fabric is rolled on the roller 5, the link 13 has been practically completely inverted as shown in full lines, Figure 1, and in dotted lines, Figure 2, at which time the supporting portion 17 passes off the extension 18 and the upper portion of the frame 8 is practically in contact with the lower face of the bracket extension 18. The operator may now permit the parts to slide downward until the frame 8 abuts the bracket 2^a to effect opening movement of the visor, or he may secure the awning in folded position by fastening the cord 7 at the sides.

It is believed the construction and operation of the awning has been so set forth as to obviate further recapitulation. It is understood, however, that while we have described and claimed the preferred embodiment of the invention, we reserve the right to make all changes properly falling within the spirit and scope of the appended claims.

We claim:

1. In an awning, a support, an awning frame for sliding on said support, a visor frame pivoted to said awning frame, and a break joint brace between said awning and visor frames; one of said break-joint brace members being formed with means to effect breaking of the joint when the awning frame has reached a predetermined point in its up-

ward travel and to support said awning frame during the collapse of the visor frame.

2. In an awning, a support, an awning frame for sliding on said support, a visor frame pivoted to said awning frame, means for locking the visor frame against collapse until the awning frame has reached a predetermined point in its upward travel, said means comprising a member pivoted to the awning frame and a second member pivoted to the visor frame, the two members being pivotally interconnected, and stop means for limiting movement of the member pivoted to said visor frame, one of said members being integrally formed with supporting means for the awning during the collapse of the visor frame.

3. In an awning, a support, an awning frame for sliding on said support, a visor frame pivoted to said awning frame, and a two-part brace for locking the visor frame against collapse until the awning frame has reached a predetermined point in its upward travel; one of said brace members being integrally formed with supporting means for the awning during collapse of the visor frame.

In testimony whereof we affix our signatures.

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