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S. G. BOND

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METAL WINDOW AWNING

Filed Nov. 11, 1929

Fig 1

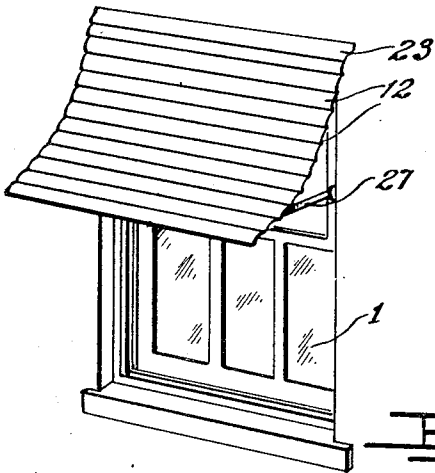


Fig 2

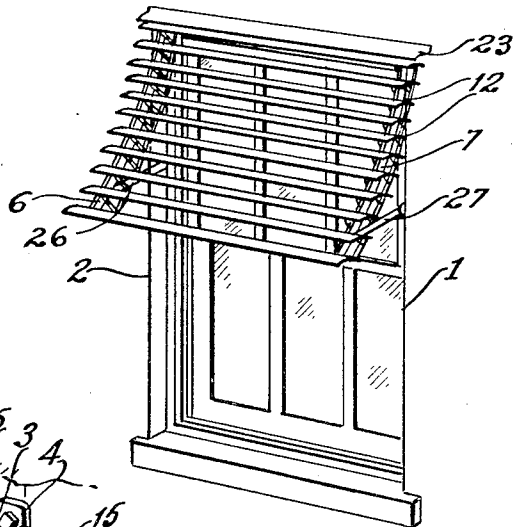
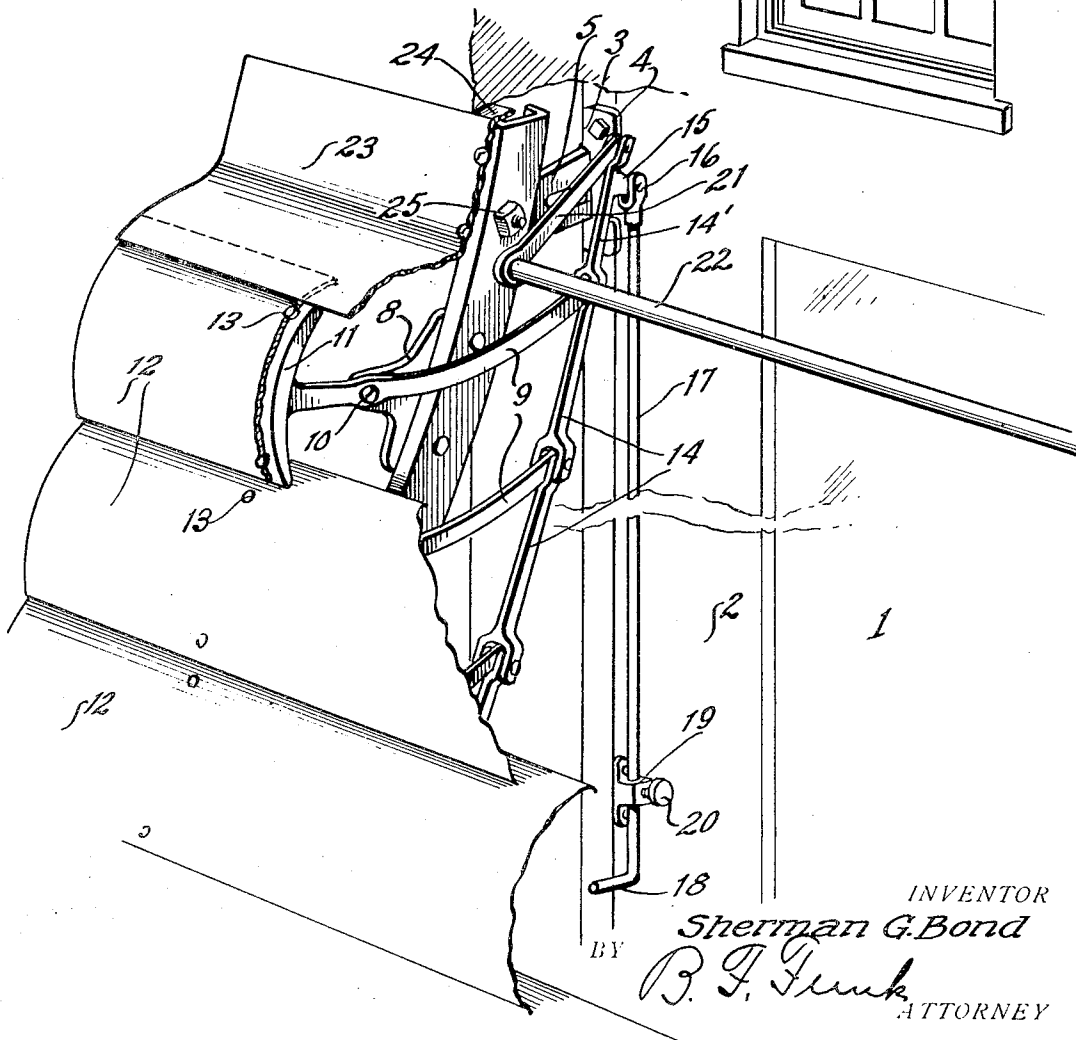


Fig 3



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METAL WINDOW AWNING

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This invention relates to metal window awnings and the prime object of the invention is to provide on all-weather awning which may be permanently fastened to a building and which will not deteriorate due to the action of the elements. It is also the purpose of the invention to provide an awning which is adapted to admit light through the window opening when desired or which may be operated to protect the window opening from rain, sleet and snow. I prefer to construct the awning of metal throughout because a more desirable structure can be provided where the entire device is made up of metal parts but I do not wish to be limited entirely to the use of metal where other material will serve the purpose.

The novelty of the invention will be clearly apparent by reference to the following description in connection with the accompanying drawings in which:

Fig. 1 is a perspective view of an awning constructed in accordance with my invention, showing the parts in position to resist or shed rain, sleet and snow.

Fig. 2 is a similar view showing the parts in position to admit light through the awning structure and

Fig. 3 is a fragmentary perspective view of one end of the awning structure.

Referring now to the drawings by numerals of reference, 1 designates the usual window opening, to the window frame 2 to which are secured brackets such as is indicated at 3, Figure 3. There are two of these brackets near the upper ends of the sides of the window frame and each consists of a flat plate 4 having a forward extension 5 to which is fastened a curved arm. The arms are indicated at 6 and 7. Each is shown as comprising an arcuate or curved channel which carries outstanding brackets 8, supporting pivoted levers 9. The levers are pivoted to the brackets 8 intermediate their ends as at 10. The levers are curved and each carries on its outer end a curved or arcuate head 11 so that alining heads on each side of the awning support channel-shaped slats 12 which may be fastened thereto by suitable fastening devices 13.

The rear ends of the levers 9 are connected to a plurality of links 14, the upper link 14' having an offset lateral extension 15 to which the bifurcated end 16 of an operating rod 17 is secured. The lower end of the operating rod has an outwardly projecting extension 18 to provide a handle so that the rod can be moved longitudinally in the guide 19 fastened to the window frame and it may be held in any adjusted position by the set screw 20. The upper link 14' is pivoted to a crank arm 21 rigidly secured to the rock shaft 22 revolvably mounted in the channel-shaped arms 6 and 7. The end of the rock shaft 22, opposite to that shown in Figure 3, carries a lever arm like 21, connected to a link like 14' except that the link on the other end need not be provided with an offset part 15 since no provision need be made for an actuating rod 17. In other respects, both sides of the awning structure are alike.

At the top of the structure is a sheet 23 fastened to the outer flanges of the arms 6 and 7 and it has a lip or flange 24 which extends in under the top edge of the window opening as shown in Figure 3. The lower edge of the sheet 23 overlaps the first or uppermost channel-shaped slat sheet 12.

It will be noted that the arms 6 and 7 are bolted to the brackets 3 as shown at 25. The reason for this is to permit swinging adjustments of the arms 6 and 7 on the brackets 3 when the structure is first set up so that the awning can be set at the proper angle. When the proper angle has been determined, the arms 6 and 7 will be made rigid with respect to the window frame through the medium of the transverse braces 26 and 27 so that the entire structure except the adjustable slats and the link mechanism will be held rigid. In other words, the brackets 3, the arms 6 and 7 and their braces 26 and 27 will construct two rigid end frames upon which the movable parts will be carried. It will be noticed that the links 14, as well as the link 14', are provided with split or bifurcated ends which may overlap and which may receive the rear ends of the levers 9 between them.

When the parts are assembled and the operator releases the set screw 20, the operating rod 17 may be moved longitudinally, that is, up or down to actuate the links 14 and 14' to swing the levers 9 on their pivots 10 to move the slats 12 either in closing or opening positions as shown in Figures 1 and 2. When the link 14' is pulled down, for example, it will rock the shaft 22 to swing a lever like 21 on the opposite end and since such lever is connected to a series of links like 14 carried by arm 7 and since such links operate levers similar to 9, each slat 12 will be operated from opposite ends. This will prevent torsional strains being communicated to the slats to thereby eliminate possibility of binding.

It will be apparent that if the device is constructed entirely of metal, it may be permanently fastened to the building about the window opening or about a door opening and that in fair weather, the slats can assume the position shown in Figure 2 while in stormy weather, they can be caused to assume the position shown in Figure 1 and since the lower edge of each slat, except the lower most, overlaps the upper edge of the next succeeding lower slat when the parts are in the position shown in Figure 1, the awning will present an apparently unbroken sheet to protect the opening from the elements. Where the device is used instead of the ordinary canvas now generally used, it has the advantage over such awnings in that it can be made rigid enough so that it will not be affected by the wind and danger of fire from matches, lighted cigarettes or cigars dropped from windows above it will be entirely eliminated.

What I claim and desire to secure by Letters-Patent is:—

1. An awning comprising transversely alining brackets, end frame bars pivoted to the brackets, means for rigidly fastening the bars to a support, a set of levers pivotally carried by each of the bars, two sets of links, one set connected to each set of levers, slats connecting alining levers on the respective bars, means for actuating one set of links, a rock shaft pivotally mounted in the respective end frame bars and crank arms on the rock shaft connected to the two sets of links.

2. An awning comprising transversely alining brackets, curved channel-shaped bars carried by the brackets, a top sheet fastened to the upper ends of the bars having a lip extending over the ends of the bars, two sets of levers supported between their ends on the respective bars, slats carried by the outer ends of alining pairs of levers on the respective bars, two sets of links connecting the inner ends of the respective sets of levers, a rock shaft mounted in the respective bars, arms carried by the rock shaft connect-

ing the two sets of links to the rock shaft and an actuator connected to one set of links.

3. An awning comprising transversely alining brackets, curved channel-shaped bars carried by the brackets, a top sheet fastened to the upper ends of the bars having a lip extending over the ends of the bars, two sets of levers supported between their ends on the bars, slats carried by the outer ends of alining pairs of levers on the respective bars, two sets of links one set each connecting the inner ends of one set of levers, a rock shaft mounted in the respective bars, arms carried by the rock shaft connecting the two sets of links to the rock shaft, an actuator connected to one set of links and means for holding the actuator rigid.

4. An awning comprising downwardly and outwardly curved channel shaped bars in spaced relation, a set of levers pivotally carried by one of the bars, a similar set of levers pivotally carried by the other bar, said levers being pivoted between their ends; slats connecting the outer end of complementary levers in spaced relation to the bars, the other end of the levers extending inwardly past the bars; links connecting the ends of at least one set of levers, a rock shaft carried by the bars, and an arm on the rock shaft connected to the links.

5. An awning comprising downwardly and outwardly curved channel shaped bars in spaced relation, a set of levers pivotally carried by one of the bars, a similar set of levers pivotally carried by the other bar, said levers being pivoted between their ends; slats connecting the outer end of complementary levers in spaced relation to the bars, the slats being arcuate in transverse cross sections and fastened to the levers intermediate ends of the arcs, the other end of the levers extending inwardly past the bars, links connecting the ends of at least one set of levers, a rock shaft carried by the bars, and an arm on the rock shaft connected to the links.

In testimony whereof I affix my signature.
SHERMAN G. BOND.