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AWNING SUPPORTING FRAME

Filed Jan. 9, 1929

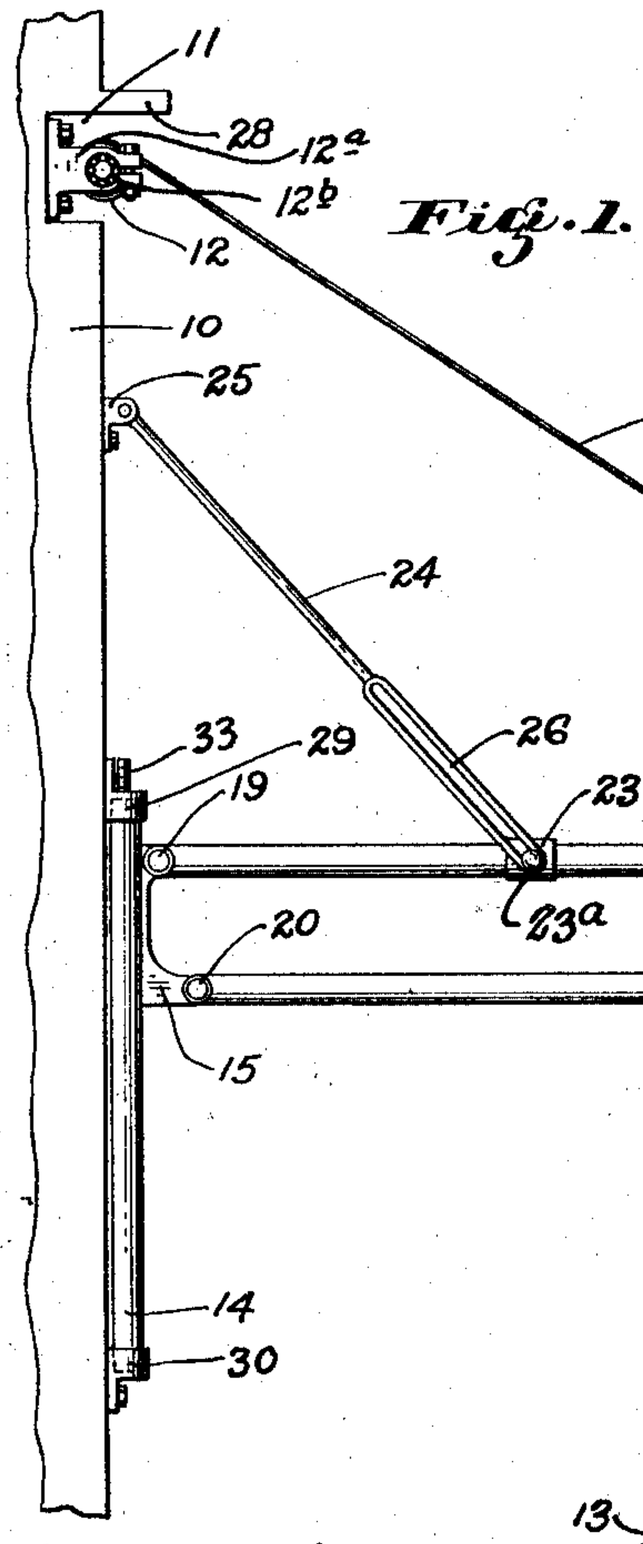


Fig. 1.

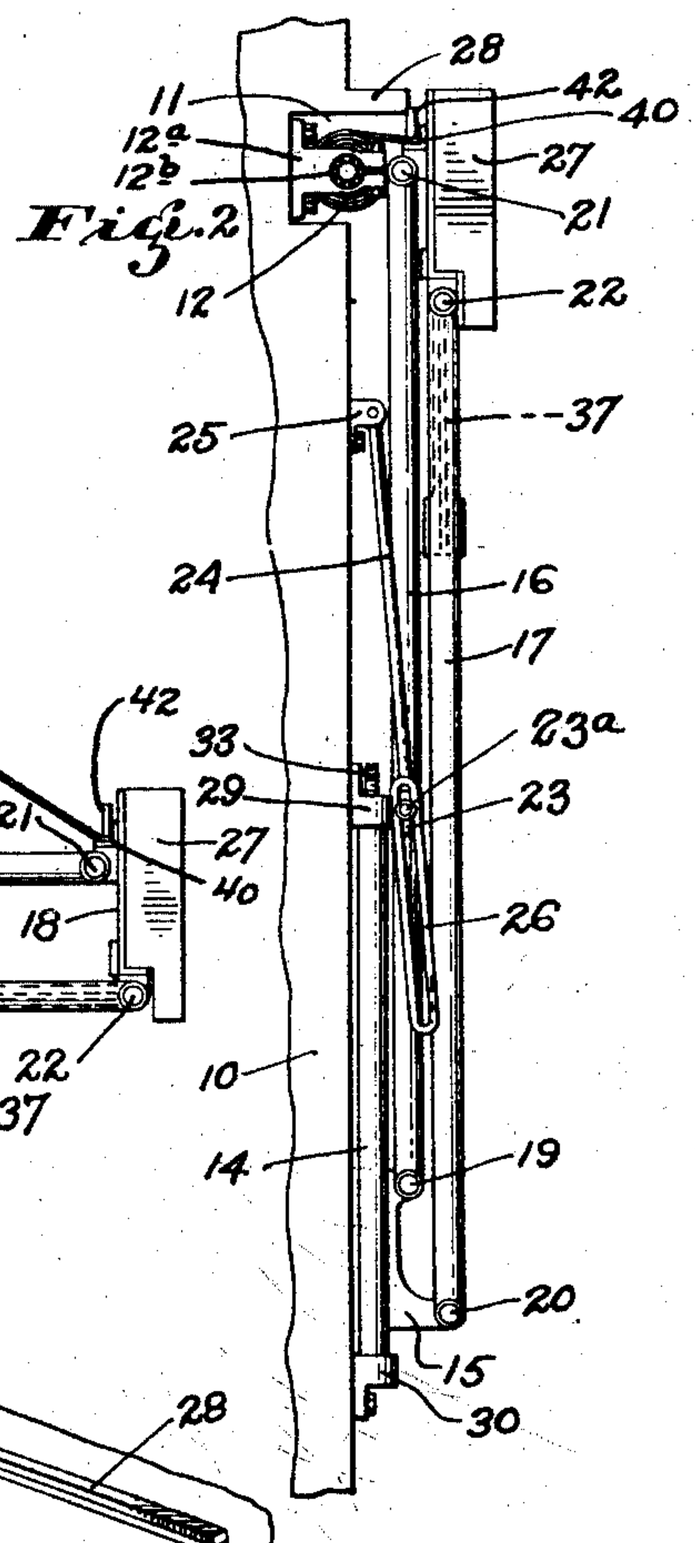


Fig. 2.

Fig. 3.

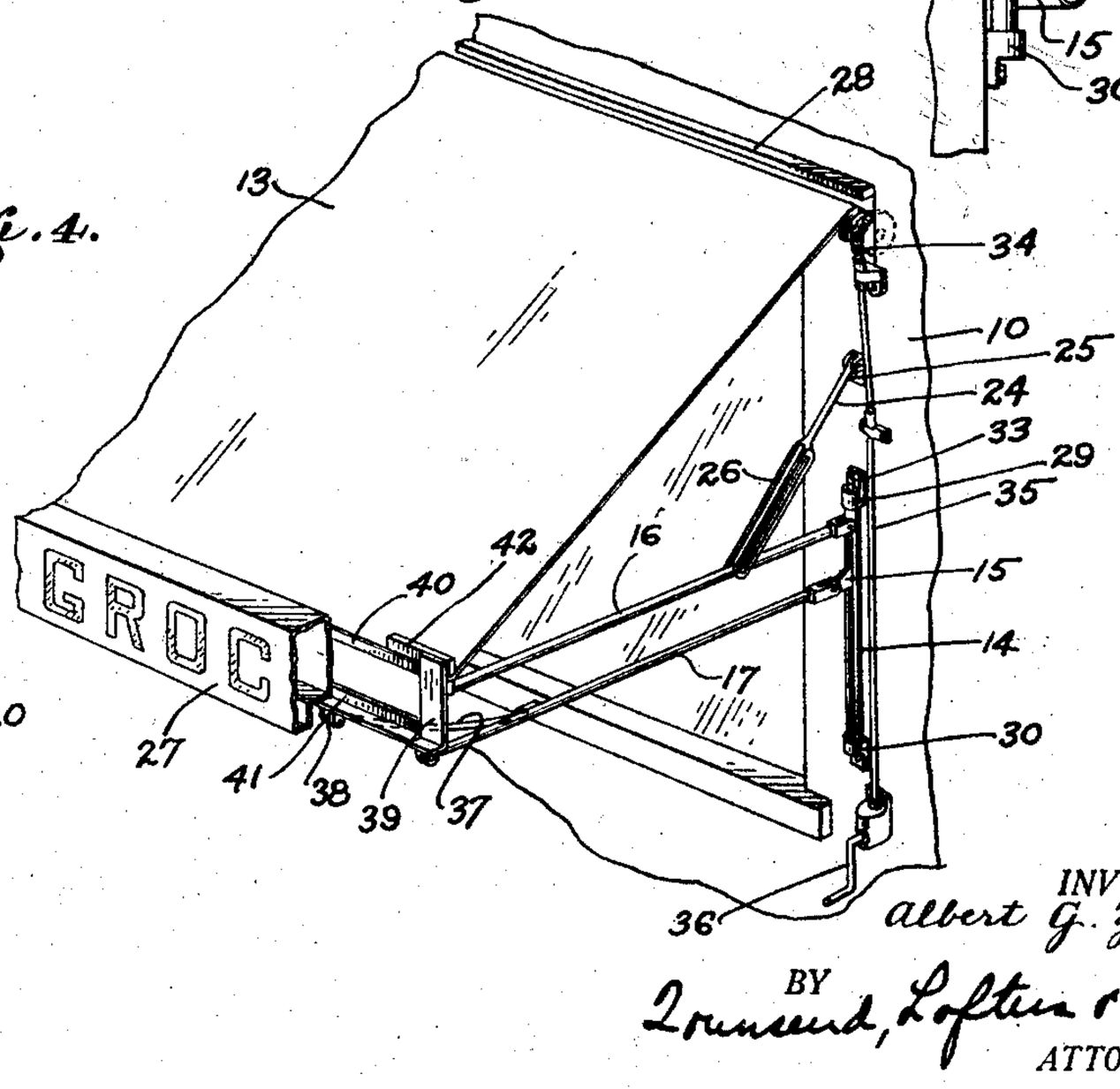
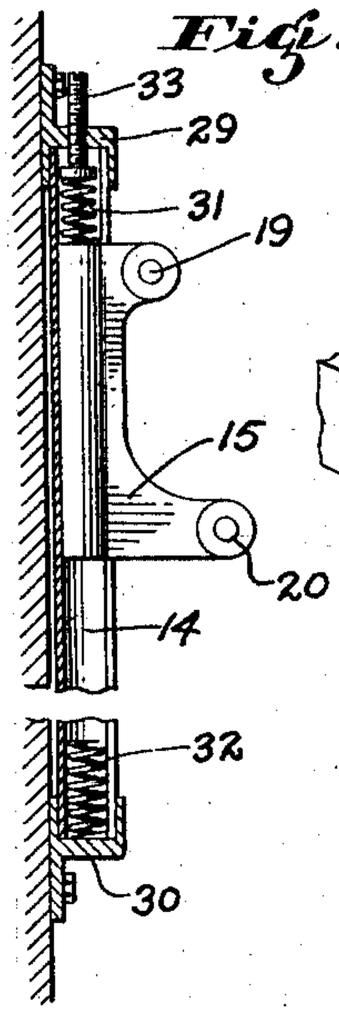


Fig. 4.



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UNITED STATES PATENT OFFICE

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AWNING-SUPPORTING FRAME

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My present invention relates to an improved awning frame and more particularly to a frame for the roll type awning adapted to support a sign or the like.

An object of my invention is to provide an improved type of support for awnings which is adapted to carry a sign and hold the same in an operative position when the awning is both in its open and closed positions.

A further object of my invention is to provide an improved arrangement of supporting members which is simple, effective and one which will not interfere with the awning.

Other objects and advantages of my invention will be pointed out in more detail hereinafter as the description proceeds.

For a better understanding of my invention reference should be had to the accompanying drawing, wherein—

Figure 1 is an end elevation of an awning supported in accordance with my invention with the awning open,

Figure 2 is a view similar to Figure 1 showing the awning in its closed position,

Figure 3 is a fragmentary, perspective view of my awning showing various details, and

Figure 4 is a fragmentary view, partially in section, of a detail of my invention.

In Figure 1, 10 designates the side of a building having the usual recess 11 into which awnings of the roll type are mounted. Mounted within the recess 11 upon suitable trunnions I show an awning roll 12 which is adapted to carry awning fabric 13. Secured to the side of the building 10 and below the ends of the awning roll 12, I provide a pair of vertically extending cylindrical receptacles 14 and slidably mounted in each of these receptacles 14 there is a rider 15. The riders 15 are adapted to carry the inner ends of parallel extending side arms 16 and 17 which project outwardly therefrom and carry at their outer ends a suitable frame member 18. The parallel side arms 16 and 17 are pivoted to the riders 15 at the points 19 and 20 and the frame member 18 is pivoted upon these side arms at the points 21 and 22. It should be noted that the pivots 19, 20 and 21, 22 are offset from the vertical so that, irrespective of the opening of the awning, the frame member 18 will always remain in a vertical position as will hereinafter appear.

Attached to the upper parallel side arm 16 at a point intermediate its ends, I provide a bearing member 23 having pins 23ª projecting outwardly on both sides thereof and engaging this bearing member 23 I show a supporting link 24. This link 24 is pivotally secured to the building 10 by means of a bracket 25 and at its lower end it is provided with a pair of parallel extending elongated eyelets 26 which pass one on each side of the side arm 16 and over the projections or pins 23ª of the bearing member 23. As shown in this figure of the drawing, the weight of the side arms 16 and 17 and the framework 18 is supported entirely by the supporting link 24 in cooperation with the cylindrical guide 14 so that no tension is placed upon the awning fabric 13. The framework 18 is shown in this figure of the drawing as supporting an advertising sign 27. This sign 27 may be of any suitable construction. It may be an electric sign or simply a flat surface upon which the advertising may be painted.

By referring now to Figure 2, it will be seen that when the awning is closed, the parallel extending arms 16 and 17 will project upwardly substantially parallel with each other and with the side of the building and at the same time carry the supporting frame 18 to a position where it will support the sign in a prefectly normal and upright position where it will be visible. In connection with this showing, it should be noted that the recess 11 is provided with an overhanging eave 28 against which the sign 27 engages so that when the awning is closed, the awning roll will be protected from the weather. It will also be seen from an inspection of this figure of the drawing that when the awning is in this position the weight of the side arms 16 and 17 and the framework 18 is supported entirely by the cylindrical guide 14 and that all weight has been removed from the sup-

porting link 24, the forked ends of this supporting link, by reason of their elongated eyelets, having permitted the bearing member 23 with its outward projections or pins 23ª to slide upwardly within the opening of the eyelets.

In connection with the cylindrical guide member 14, reference should be had to Figure 4 wherein it will be seen that this guide member is supported upon the side wall of the building by means of end pieces 29 and 30 and that it is provided with a slot extending throughout its length through which a portion of the rider 15 extends outwardly, the rider 15 being provided with a cylindrical base portion of dimensions substantially equal to the interior of the cylindrical supporting member 14 so that it will slide freely therein. In the ends of this guide member 14 I have provided springs 31 and 32 which are arranged respectively in the top and bottom thereof. The spring 31 is shown as mounted upon an adjustable screw 33 so that it can be adjusted for the purpose of leveling the awning support so that a uniform tension will be placed upon the awning fabric 13 when the awning is fully opened.

By referring now to Figure 3, it will be seen that the awning roll 12 is provided with the usual operating mechanism which comprises a set of gears 34, a shaft 35, and a crank mechanism 36 by means of which the roll is rotated for the purpose of winding and unwinding the awning. This view of the drawing also very clearly shows the additional feature of my invention in the provision of a brace or bracket 37 at the outer ends of the parallel members 17 which extends diagonally therebetween and the frame member 18. The point of attachment of the diagonal member 37 with the frame 18 is provided with a hinge 38 and the function of this brace is to prevent lateral swinging of the awning in the event of pressure being exerted in this direction thereupon as in the case of a wind storm. The frame member 18 is here shown as provided with L-shaped end members 39 between which laterally extending members 40 and 41 extend. The member 41 is preferably of angle iron with its root projecting inwardly so that it will form a step upon which the sign 27 may be mounted. The awning is shown as secured to the frame 18 adjacent the member 40 by means of an additional laterally extending member 42 which, for the purpose of facilitating the securing of the awning thereto, is preferably of wood or like material.

The operation of my device is as follows: It will be assumed that the awning is extended as shown in Figures 1 and 3 and that the operator is about to roll the same up into its closed position. By turning the crank 36 the roll 12 will be rotated so as to recoil the awning fabric 13. During the initial movement of the awning fabric, the weight of the parallel extending side members 16, 17, the frame member 18, and sign 27 will be carried by the supporting link 24 and, as a result, the rider 15 will move downwardly within the cylindrical guide 14 until it contacts with the spring 32 in the lower end thereof. After the spring 32 is compressed to its maximum degree, the weight will then be transferred to this spring and the eyelets on the forked ends of the link 24 will slide down over the projections on the bearing member 23 where it will assume a position substantially as shown in Figure 2, the entire weight of the parallel extending side arms 16 and 17, the frmework 18, and the sign 27 being then carried upon the spring 32 within the cylindrical guide 14. Upon referring to Figure 2, it will be seen that by reason of the displacement of the pivot points 19 and 20 upon the rider 15, the parallel side members will remain parallel in their uppermost position and at the same time continue to support the sign in its normal and operative position. When the awning is completely closed, as shown in this figure of the drawing, it will be seen that the only strains placed upon the awning fabric will be those required to maintain the awning in its uppermost position, the weight of the frame being carried substantially entirely upon the spring 32 within the cylindrical guides 14.

The roll 12 is journaled at its ends in supporting brackets 12ª by means of a double row of ball bearings 12ᵇ. This considerably reduces the friction, and permits of comparatively easy operation of the awning, even with the added weight of the sign.

It will be noted that the upper angle bar 40, forming a part of the front frame, has one of its flanges turned inwardly, and to this inturned flange the awning-cloth is secured. The lower angle bar 41 has one of its flanges turned outwardly, which out-turned flange forms a support for the sign 27. This greatly simplifies the construction of the front frame, and facilitates attaching the awning-cloth and the sign thereto.

While I have shown the preferred form of my invention as now known to me, it is to be understood that various changes may be made in its construction without departing from the spirit of the invention as defined in the appended claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:—

1. A support for roll type awnings comprising a frame adapted to be attached to the end of the awning, a pair of parallel extending side arms pivotally connected at the ends of said frame, vertically disposed guides mounted upon a supporting structure at the ends of said awning, riders adapted to slide freely in said guides and carry the inner ends

of said side arms, and a member pivotally connected to the supporting structure having a sliding connection with said side arms and cooperating therewith to support said frame independently of the awning when the latter is fully extended.

2. In a support for awnings of the roll type, the combination of an awning roll adapted to carry the awning fabric, a frame for supporting the extended end of the awning comprising a frame member and side arms pivotally connected therewith, a pair of vertically disposed guides mounted upon a supporting structure at the ends of the awning, stops at the ends of said guides, and links pivotally connected to the supporting structure between said guides and said roll and slidably engaging said side arms and cooperating with said guides to hold the awning frame with the awning extended independently of the awning fabric.

3. In an awning support of the character described, the combination of a sign supporting frame adapted to carry the outer end of the awning, a pair of parallel extending side arms pivotally connected to said frame, and a bracket member extending diagonally from one of said parallel side arms and pivotally connected to said framework at a point removed from the pivotal connection of said side arm to said frame, whereby lateral movement of said frame upon said side arms will be prevented.

4. In an awning support of the character described, the combination of a pair of parallel outwardly extending side arms adapted to support the outer end of the awning, a rider upon which said parallel arms are pivotally connected, a vertically disposed guide for said rider, a member pivotally mounted upon a supporting structure adapted to hold said parallel side arms in their extended position, a stop at the upper end of said guide against which said rider will abut when the side arms are extended, and means whereby said stop may be adjusted to effect a leveling of the side arms with respect to each other.

5. A foldable awning having a front frame, said frame comprising longitudinally extending angle bars in vertically spaced relation, the upper one having one flange directed inwardly and the lower one having one flange directed outwardly, an awning cloth secured to the inturned flange of the upper bar, said out-turned flange of the lower bar being adapted to support a sign and means for maintaining the bar in position to hold the sign vertical in both the folded and the extended positions of the awning.

6. A foldable awning, including a front frame, vertically spaced parallel bars pivotally connected to each end of said front frame, and a guide for the inner ends of said parallel bars, comprising a vertically disposed tubular member formed with a slot, a rider slidably positioned in said tubular member and having ears projecting through said slot to pivotally receive the inner ends of said parallel bars, and spring means at each end of said tubular member forming a cushion for said rider.

7. A foldable awning, including a front frame, vertically spaced parallel bars pivotally connected to each end of said front frame, and a guide for the inner ends of said parallel bars, comprising a vertically disposed tubular member formed with a slot, a rider slidably positioned in said tubular member and having ears projecting through said slot to pivotally receive the inner ends of said parallel bars, spring means at each end of said tubular member forming a cushion for said rider, and a suspension link pivotally connected at its upper end to a supporting wall and having a slotted connection at its lower end with one of said parallel bars intermediate the ends of the latter.

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