

April 10, 1945.

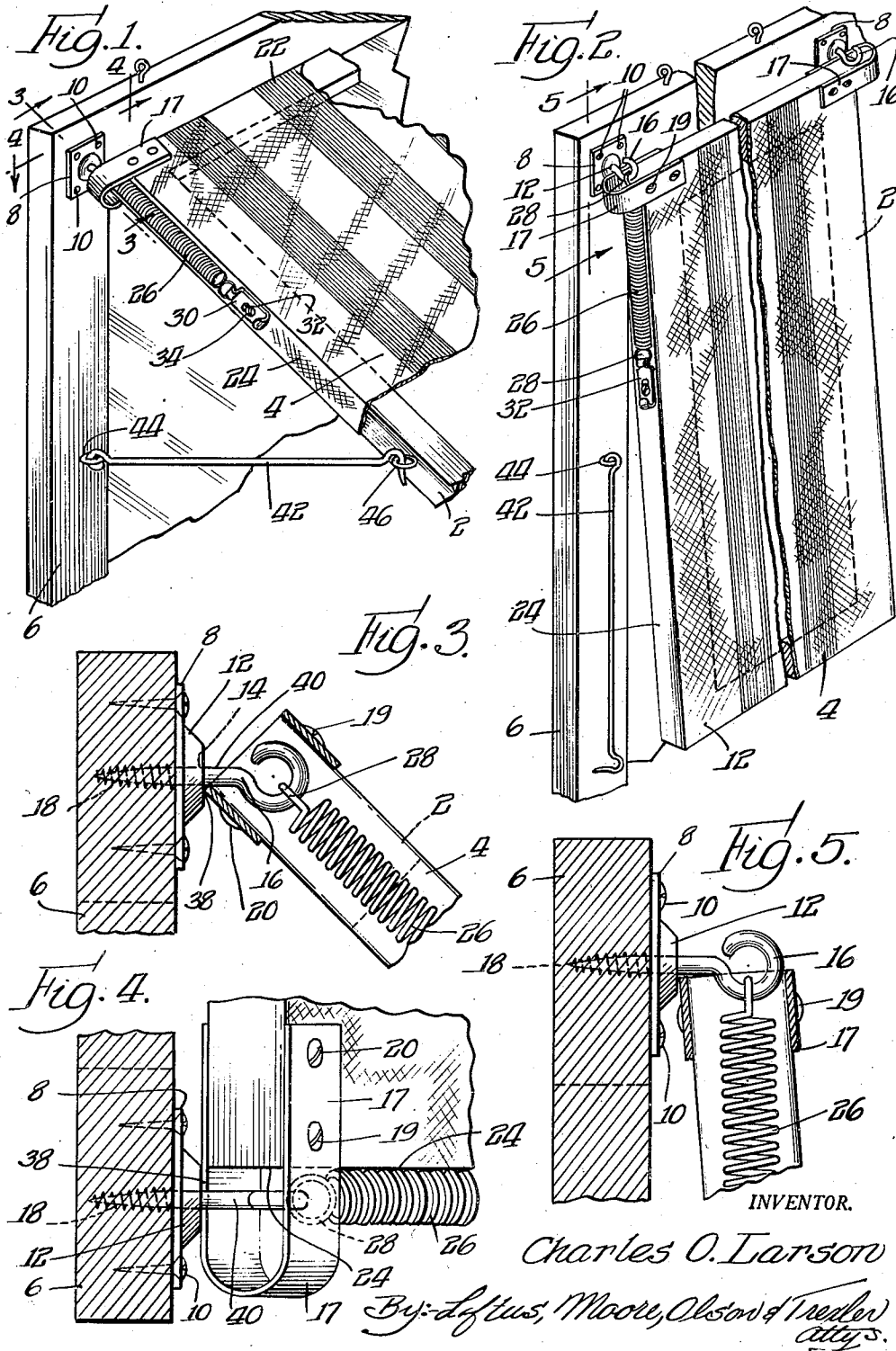
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PIVOTAL AWNING OR SHADE

Filed Jan. 17, 1944

2 Sheets-Sheet 1



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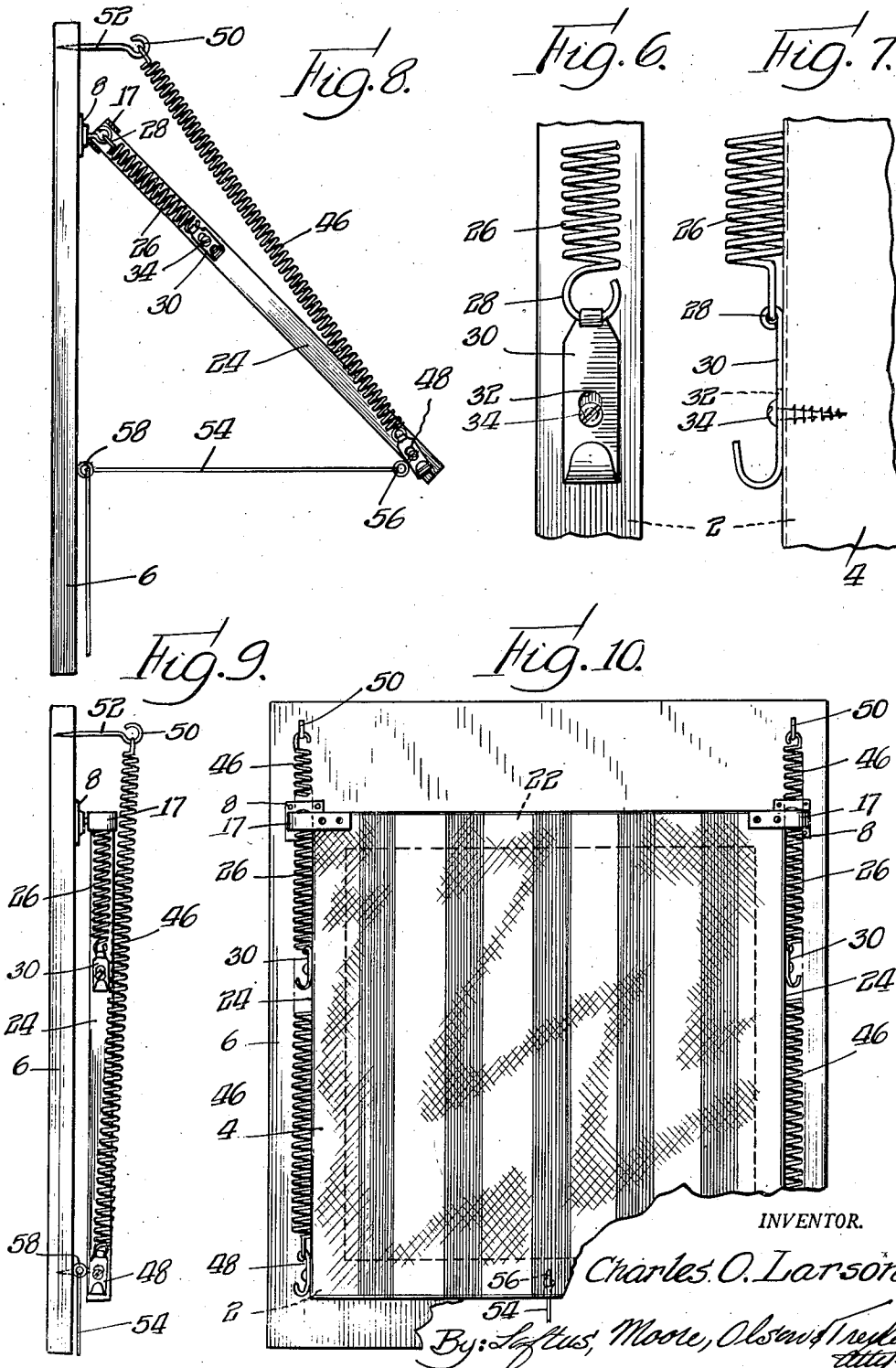
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UNITED STATES PATENT OFFICE

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PIVOTAL AWNING OR SHADE

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11 Claims. (Cl. 160—77)

This invention relates to detachable sash hangers which are mounted for pivotal adjustment with respect to a window or other opening frame, and which sash hangers are adapted to mount thereon awnings, shades, or other analogous devices.

Among the objects of the present invention is to provide a simple, quick, detachable or demountable awning or other shade which may be easily mounted and adjusted in any angularly pivoted position with respect to the opening, such as being mounted on the window frame, whereby the awning may be held either in flat closed position or may be held in any angularly disposed position with respect to the window frame.

Another object of the invention resides in providing an awning hardware kit furnishing the necessary springs, hangers, screws, plates, fasteners, and other accessories which can be sold to the person desiring to install an awning, who can, by simply fastening the hardware in place on the window frame and on the edge of the awning or shade frame, quickly install the awning frame in position so that it can be swingably adjusted as desired.

Yet another object of the invention resides in providing a new type of detachable spring hinge connection between the rigid awning frame and the window or other frame whereby the awning is held resiliently in mounted position but in such a manner as to permit the awning frame to be pivoted to any other desired open position with respect to the window frame.

Yet another object of the invention resides in providing a modified construction including a second spring and a flexible connection from the awning frame, whereby the awning is normally maintained in open position but may be held in any desired open or closed position by means of the flexible fastening member.

Other and further objects of the invention will be apparent from a perusal of the following specification when taken in connection with the accompanying drawings, wherein:

Figure 1 is a fragmentary perspective view of one form of my invention as applied to the awning frame;

Figure 2 is a view similar to Figure 1, showing the awning frame as partially closed;

Figure 3 is a section taken on the line 3—3 of Figure 1;

Figure 4 is a section taken on the line 4—4 of Figure 1;

Figure 5 is a section taken on the line 5—5 of Figure 2;

Figures 6 and 7 are views of the means for detachably fastening the spring finger hold to the frame;

Figure 8 is a side view of a modified construction of the form shown in Figures 1 to 5;

Figure 9 is a view similar to Figure 8, showing the awning shade in closed position; and

Figure 10 is a front view of the device as shown in Figure 9.

Referring now to the drawings in detail, the awning frame hanger comprises in general a rigid frame preferably rectangular in shape and preferably formed of wood, such as the frame 2 of Figures 1 and 2. This wooden frame has mounted thereon any type of fabric awning or any other type of shade 4. In addition the invention includes a set of accessories for pivotally and quickly detachably mounting this awning or shade frame with respect to the frame 6 herein shown as a window frame, whereby the awning may be held in variously adjusted positions, such for instance as the open position shown in Figure 1, with respect to the frame 6. The hardware utilized in this connection comprises the flat plate 8 substantially square in cross section, which is screwed or otherwise nailed as at 10 to the framework. This flat plate 8 has a central, upstanding, partly conical integral shoulder 12, having the top opening 14. The opening 14 provides a circular hollow seat. Into this opening is screwed the eye screw 16, the shank 18 of the screw passing into the window frame 6. A complementary portion of the hardware comprises a fitting 17 which is substantially a U-shaped strap of sheet metal disposed with its two legs suitably screwed as at 19 and 20 into the front and rear walls of the upper frame member 22 of the rigid awning frame. One of these straps 17 is affixed to each one of the upper corners of the frame 6, as shown in Figure 2, and the loop of the strap is spaced somewhat from the lateral face 24 of the awning frame 6 whereby to permit the passage therethrough of a coil spring 26, the inner end 28 of which fastens through the eye of the eye screw 16. The spring 26 is disposed along and lies snugly against the outer wall of the frame 2, and the opposite end of the spring is fastened as at 28 to a fitting 30 having a bayonet slot 32 the larger portion of which is adapted to pass over a pin 34 in the side 24 of the awning screen, whereby when so inserted the spring 26 will pull the screw into the narrower slot of the bayonet slot, whereby to hold the spring by its own tension assembled on the framework. It will be noted that the

end or corner portion 32 of the U-shaped strap 17 rests upon the top surface of the conical shoulder 12 and also rests against the shank 40 of the screw bolt 16 whereby to form a pivotal fulcrum about which the awning frame swings when shifted either manually as in the case of Figures 1 and 2, or by the flexible cord, as shown in the modified form. It will be apparent that the shade is duplicated on the other side of the awning, as shown in Figure 2, and as thus duplicated these springs and the fittings serve pivotally to hold the awning frame snugly against the window frame, while at the same time permitting it to shift or pivot as desired. The usual type of long eye bolt hook 42, fastened as at 44, to the window frame for hooking, as at 46, to the awning frame, serves to hold the awning in the desired open position to shade the window.

In the modified structure, as shown in Figures 8, 9 and 10 an additional spring 46 is fastened by a fitting 48 similar to fitting 30 to the bottom sides 24 of the awning frame and the upper end of the spring 46 slips over an eye 50 of a relatively long screw bolt 52 screwing into the window frame. A flexible cord 54 is attached as at 56 to the bottom of the awning frame and passes through an eyebolt 58 on the window frame, as shown, whereby the cord may be manipulated to allow the spring 46 to raise the awning frame to any desired elevated position, or may be utilized to shift it, and when tied holds the awning shade down or in closed position as shown in Figure 9, wherein the awning frame is shown shifted to extreme low position, at which position the spring 46 serves to hold the awning frame in such lowered position.

Obviously the invention is not limited to the specific details of construction disclosed herein but is capable of other modifications and changes without departing from the spirit and scope of the appended claims.

The invention is hereby claimed as follows:

1. In combination with a stationary frame, a pair of spaced posts disposed in said stationary frame, a rigid frame having its uppermost edge disposed between said posts, a pair of fittings one of which is mounted at each upper corner of the rigid frame and having a portion projecting beyond the lateral wall of said frame and beyond the axis of each post, and having an edge portion engaging a post, a pair of springs, one each of said springs having one end connected to the rigid frame and the other end being connected to a post to hold the edge of said fitting on said frame against said post to provide a resilient pivotal connection between the rigid frame and the stationary frame, a shade mounted on said rigid frame, and means interconnecting the stationary frame and the rigid frame whereby to maintain the rigid frame in an open position relative to the stationary frame.

2. In combination, a stationary frame, a pair of spaced posts disposed on and projecting outwardly from said stationary frame, a shade-carrying rigid frame having its upper edge disposed between said posts, and a pair of springs, one each of said springs being connected at one end to said shade frame and having its other end connected to one of said posts whereby resiliently to hold the upper inner edge at the corners of the upper edge of said frame against said posts to form a fulcrum about which said shade frame may swing in various positions of adjustment, and means interconnecting said shade frame with said stationary frame to hold said

shade frame in a desired open position with respect to said stationary frame.

3. In combination with a frame for a building opening, a pair of fittings mounted in spaced relation at the upper portion of the stationary frame, each fitting including an outstanding boss, a post passing through said boss and engaging said frame whereby said post projects normally with respect to said frame, a rigid shade frame having its upper edge disposed between said posts and a strap mounted on the upper edge corner portions of said shade frame and adapted to contact the post and the outer face of said boss, and spring means interconnecting the outer portion of said posts and said shade frame whereby to maintain said shade frame resiliently against said posts and said boss to cause the shade frame to swing about said post and said strap as a fulcrum, and means interconnecting the stationary frame and the shade frame to hold the shade frame in open position with respect to said stationary frame.

4. In combination with a frame for a building opening, a pair of fittings mounted in spaced relation at the upper portion of the stationary frame, each fitting including an outstanding boss, a post passing through said boss and engaging said frame whereby said post projects normally with respect to said frame, a rigid shade frame having its upper edge disposed between said posts and a strap mounted on the upper edge corner portions of said shade frame, said strap extending beyond and having a portion bent around and enclosing a part of said post, a spring connected to the outer end of said post and passing through said enclosing strap portion and connected to said shade frame, whereby said strap maintains said spring in engagement with said shade frame so that the strap engages the post and the outer surface of said boss to form a fulcrum about which the shade frame may swing to open and closed positions relatively to the stationary frame, and means adapted to interconnect the shade frame with the stationary frame to hold the shade frame in desired open position relative to the stationary frame.

5. In combination with a frame of a building opening, a pair of fittings mounted on the outer surface of the window frame adjacent the upper corner openings thereof, each fitting having an outstanding boss and a post passing through said boss and attaching into the frame, whereby said post projects normally outwardly from the face of said frame, a shade frame having its upper edge disposed between said posts, the upper corners of said frame having U-shaped straps carried thereby projecting outwardly and respectively surrounding said posts, a coil spring having its upper end connected to the outer end of said post and having its lower end connected to the shade frame, whereby to hold the shade frame yieldingly and pivotally with the inside lower corner edge portion of the strap engaging the post and the boss to form a fulcrum about which the shade frame may swing relatively to the window frame, and means interconnecting the shade frame and window frame to hold the shade frame into a swung open position.

6. In combination with a window frame, a pair of fittings mounted at the upper corners of the window frame adjacent the upper corner openings, said fittings each having an outstanding circular hollow boss, an eye screw passing through said boss and screwing into the wood of the window frame, a shade frame having its

upper bar lying between the posts, a strap on each upper corner of said bar and having a portion enclosing the adjacent post, a fitting having a bayonet slot and a finger hold, a tension spring having its upper end connected to the eye screw and having its lower end connected to the fitting, a screw extending into the side wall of the shade frame on each side thereof and engaging in the bayonet slot whereby detachably to hold the spring under tension whereby to cause the strap on each corner of the shade frame to engage firmly against the wall of the outstanding post and the outer portion of the boss to provide a pair of fulcrums for the shade frame, and fastener means interconnecting the window frame and the shade frame in an open position of the shade frame with respect to the window frame.

7. In combination with a stationary window frame, a pair of fittings mounted at the upper edge of the window frame adjacent the upper corners of the openings thereof, each fitting having an outstanding hollow boss, an eye screw passing through each boss and into the body of the window frame, whereby the post of each eye screw is normal to the face of the window frame, a rigid shade frame having its upper bar lying between the posts of the eye screws, and a pair of U-shaped straps, one at each upper corner of the shade frame and fastened to the front and back faces of the upper bar, the closed portion of the bar encompassing the projecting eye screw when the shade frame is in open position to cause the strap to swing clear of the eye when said shade frame swings to closed position substantially parallel with the plane of the window frame and reversely facilitate the swinging of the shade frame outwardly angularly with respect to the window frame, and means interconnecting the window frame and the shade frame to hold the shade frame in open position.

8. In combination with a stationary frame, a pair of spaced posts disposed in said stationary frame, a rigid frame having its uppermost edge disposed between said posts, a pair of fittings, one of which is mounted at each upper corner of the rigid frame and having a portion projecting beyond the lateral wall of said frame and beyond the outwardly projecting axis of said post, and having an edge portion engaging said post, a pair of springs, one each of said springs having one end connected to the rigid frame and the other end being connected to the post to hold the edge of said fitting on said rigid frame against said post to provide a resilient pivotal connection between the rigid frame and the stationary frame, a shade mounted on said rigid frame, means interconnecting the stationary frame and the rigid frame whereby to maintain the rigid frame in an open position relative to the stationary frame, a second post projecting outwardly from the stationary frame above said first mentioned post, a second spring having its outer end connected

to said second post and its lower end connected to a portion of the shade frame adjacent its lower edge, a guide member attached to a lower portion of said window frame, and a flexible member having one end connected to a lower portion of the shade frame and passing through the guide member, whereby said second spring serves to pull the shade frame outwardly away from said window frame and whereby said shade frame may be adjusted and maintained in any adjusted angular position with respect to said window frame.

9. In combination, a stationary frame, a pair of spaced posts disposed on and projecting outwardly from said stationary frame, a shade-carrying rigid frame having its upper edge disposed between said posts, and a pair of springs, one each of said springs being connected at one end to said shade frame and having its other end connected to one of said projecting posts whereby resiliently to hold the upper inner edge at the corners of the upper edge of said frame, against said posts to form a fulcrum about which said shade frame may swing in various positions of adjustment, means interconnecting said shade frame with said stationary frame to hold said shade frame in a desired open position with respect to said stationary frame, a second post projecting outwardly from the stationary frame above said first mentioned post, a second spring having its outer end connected to said second post and its lower end connected to a portion of the shade frame adjacent its lower edge, a guide member attached to a lower portion of said window frame, and a flexible member having one end connected to a lower portion of the shade frame and passing through the guide member, whereby said second spring serves to pull the shade frame outwardly away from said window frame and whereby said shade frame may be adjusted and maintained in any adjusted angular position with respect to said window frame.

10. In combination, a window frame, a rigid shade frame, fulcrum means mounted on the outer face of the window frame, fittings mounted on the upper edge of the shade frame for pivotal engagement with said fulcrum means, and spring means interconnecting each one of said fulcrum means with the shade frame for resiliently holding said fittings in pivotal contact with said fulcrum means.

11. In combination, a window frame, a rigid shade frame, spaced fulcrum means mounted on the outer upper corners of the window frame and cooperative fittings mounted on the upper faces of the sides of the shade frame for pivotal swinging movement, spring means interconnecting each one of said fulcrum means with the shade frame for resiliently holding said fittings in pivotal contact, and means interconnecting the window frame and the shade frame for holding said shade frame in pivotally adjusted, open position with respect to said window frame.

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