June 16, 1931. J. F. ROESLER 1,810,791

SLIDING WINDOW SCREEN

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Fig. 1.

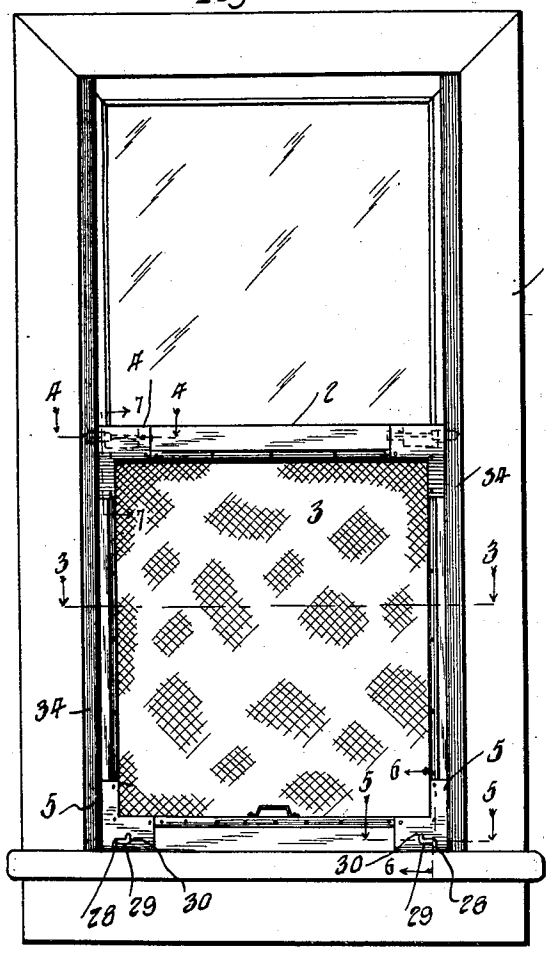


Fig. 2.

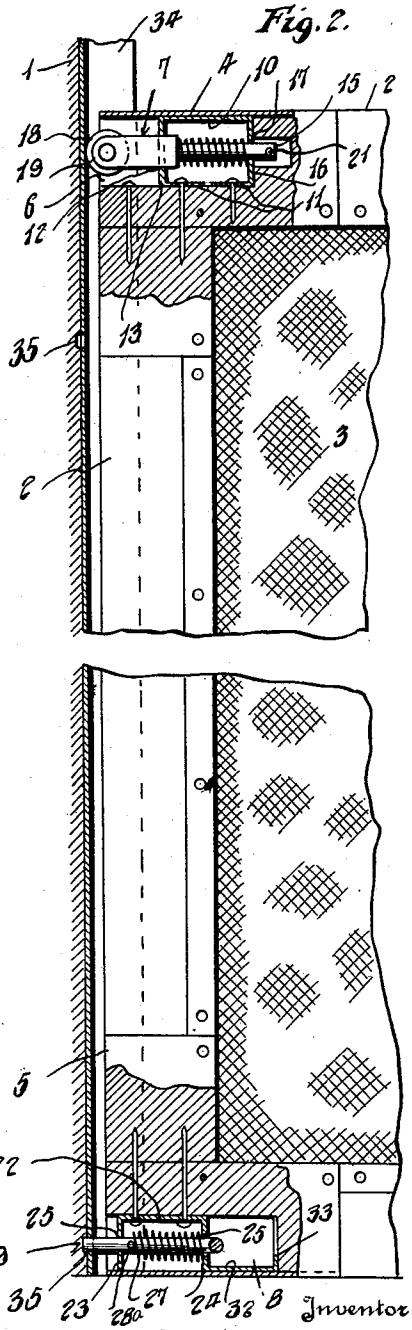
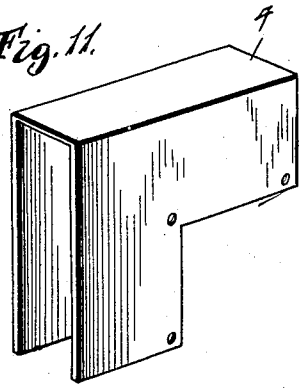


Fig. 11.



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Fig. 3.

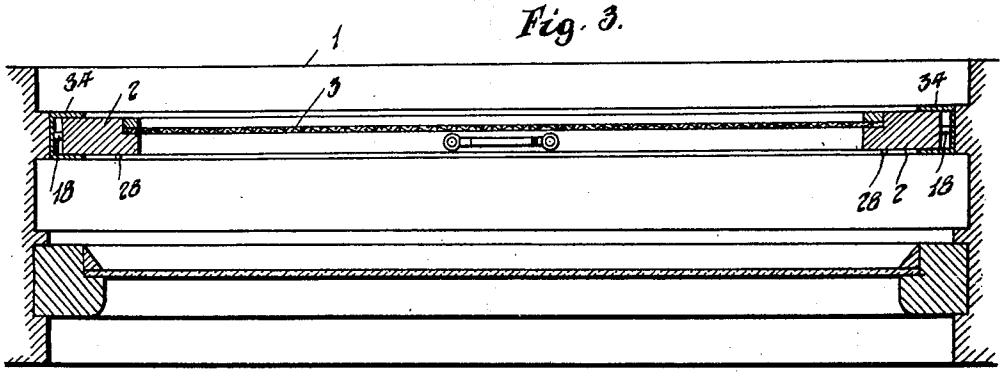


Fig. 4.

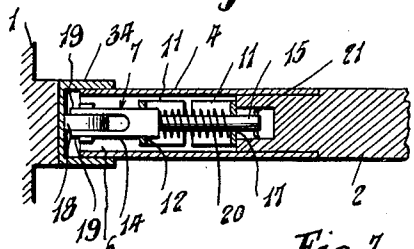


Fig. 5.

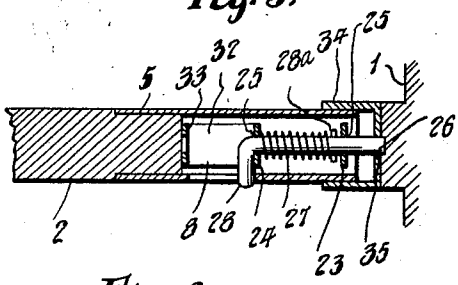


Fig. 6.

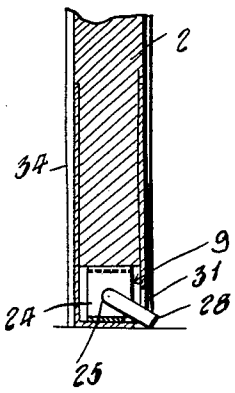


Fig. 7.

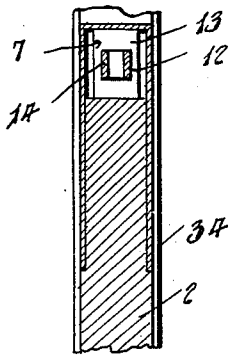


Fig. 8.

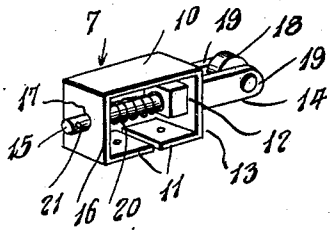


Fig. 9.

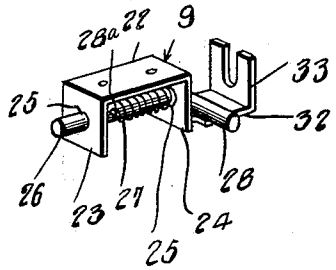
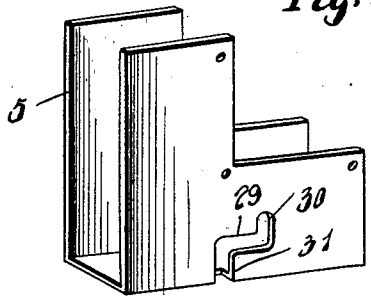


Fig. 10.



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UNITED STATES PATENT OFFICE

JOSEPH F. ROESLER, OF LUFKIN, TEXAS

SLIDING WINDOW SCREEN

Application filed August 21, 1930. Serial No. 476,918.

The invention relates to window screens and has for its principal object the provision of a reinforcing means for the corners of the frame, said reinforcing means comprising U-shaped members secured over the corners and providing housings for roller guides on the upper portion of the frame and for latching devices on the lower portion of the frame, the invention also including specific supporting means for the rollers and for the latches.

The invention will be described in detail hereinafter and will be found illustrated in the accompanying drawings in which

Figure 1 is a front view in elevation of a window frame showing the improved screen frame applied thereto,

Figure 2 is a fragmentary view on an enlarged scale of one side of the frame shown partly in section and showing the casing in section,

Figure 3 is a transverse sectional view on a plane indicated by the line 3—3 of Figure 1,

Figures 4, 5, 6, and 7 are sectional details on planes indicated by the lines 4—4, 5—5, 6—6, and 7—7, respectively,

Figure 8 is a view in perspective of one of the roller guide members,

Figure 9 is a similar view of one of the latch members,

Figure 10 is a view in perspective of one of the reinforcing members for the lower portion of the frame, and

Figure 11 is a similar view of one of the reinforcing members for the upper portion of the frame.

In the drawings similar reference characters are used to designate corresponding parts in all the views.

The improved screen frame may obviously be made of any shape and dimensions to accommodate the window frame 1 in which it is to be mounted and comprises a frame 2 carrying the screen fabric 3 that is secured in the frame in any suitable manner. The corners of the frame are reinforced by U-shaped angular members 4 and 5, that are made preferably of sheet metal and bent into the U form shown in Figures 10 and 11. The upper corners of the frame 2 are provided with recesses 6 to receive roller members 7, and the lower corners provided with recesses 8 to receive latch members 9, the reinforcing members 4 and 5 forming housings for said roller members 7 and latch members 9. The guide members comprise rectangular frames 10 preferably formed of sheet metal and having their inbent ends 11 secured to the frame 2 by means of driven fastenings as shown in Figure 2. The end walls of rectangular frames 10 are provided with openings, the opening 12 in the end wall 13 being rectangular to receive the rectangular head 14 of a slidable rod 15, while the rear wall of the frame 10 designated 16 is provided with a circular opening 17 to engage the rod 15 that is circular in cross section. 18 indicates a roller journaled between the bifurcated ends 19 of the head 14, and 20 is an expansible coil spring on the rod 15 and terminally engaging the end of the head 14 and the rear wall 16 of the frame 10 to normally hold the roller in engagement with the window casing 1. 21 is a transverse pin adjacent to the extremity of rod 15 to limit the outward movement of the rod and roller when the frame is removed from the window casing.

The latch member comprises a U-shaped frame 22 that is adapted to be secured by driven fastenings to the screen frame as shown in Figure 2 and having its side members 23 and 24 provided with circular openings 25 to slidably form a latch bolt 26, 27 indicating an expansible coil spring mounted on the latch bolt and terminally engaging a pin 28^a and the side wall 24 to normally hold the latch bolt 26 in projected position. The inner end of the latch bolt 26 has a laterally extending portion 28 for manual operation of the latch bolt 26, and the base members 5 are provided with slots 29 having angular extensions 30 and 31 in which the end 28 is movable, the extension 30 of the slot 29 being provided to engage the member 28 when the bolt is in its retracted position to hold it from movement by the spring 27, while the angular extension 31 is designed to receive the member 28 when the bolt is in locked position to hold the bolt from retraction. The wall or side 24 is extended outwardly as shown at 32 and upwardly as

shown at 33, said slots providing room for movement of the member 28 as above described.

Secured to the sides of the window casing 1 are U-shaped guide members 34 that are provided with openings 35 at different elevations to receive the latch bolt 26 to hold the frame in lowered or adjusted raised position, said U-shaped members 34 providing tracks between the sides of which the frame 2 is slidably mounted and the rollers 18 bear against the secured wall of the guide members as shown in Figures 2 and 4.

What is claimed is:—

1. In a window screen construction, a rectangular frame having recesses in its four corners, reinforcing members for said corners comprising U-shaped members having their side members secured to the opposite sides of the frame, said U-shaped members providing walls for three sides of said recesses, and the frame providing the remaining side wall, said recesses providing housing for guide members and latches for the frame.

2. A bearing member for window screens comprising a rectangular supporting member, a bar slidably mounted by said member and having one end polygonal in cross section and the other end reduced and circular in cross section, the member provided with openings slidably receiving the bar and corresponding in shape to the respective ends of the bar, a roller journaled in the polygonal end of the bar, and spring means engaging the bar and normally projecting said roller.

3. A latch for window screens, comprising a U-shaped member having alined circular openings in the sides thereof and adapted to be secured to a screen frame, one of said side members having a laterally projecting flange having its extremity bent in the direction of the attached side member, a bolt slidably and rotatably mounted in said openings, spring means normally projecting the bolt, means engaging one end of said bolt and cooperating therewith to provide a latch, the other end of said bolt having a lateral extension providing means for manual movement of the bolt, and means engaging said lateral extension to hold the bolt in adjusted positions.

In testimony whereof I affix my signature.

JOSEPH F. ROESLER.