March 29, 1927. 1,622,927

M. S. SERPA

WINDOW SCREEN HANGER

Filed May 18, 1925

Fig. 1.

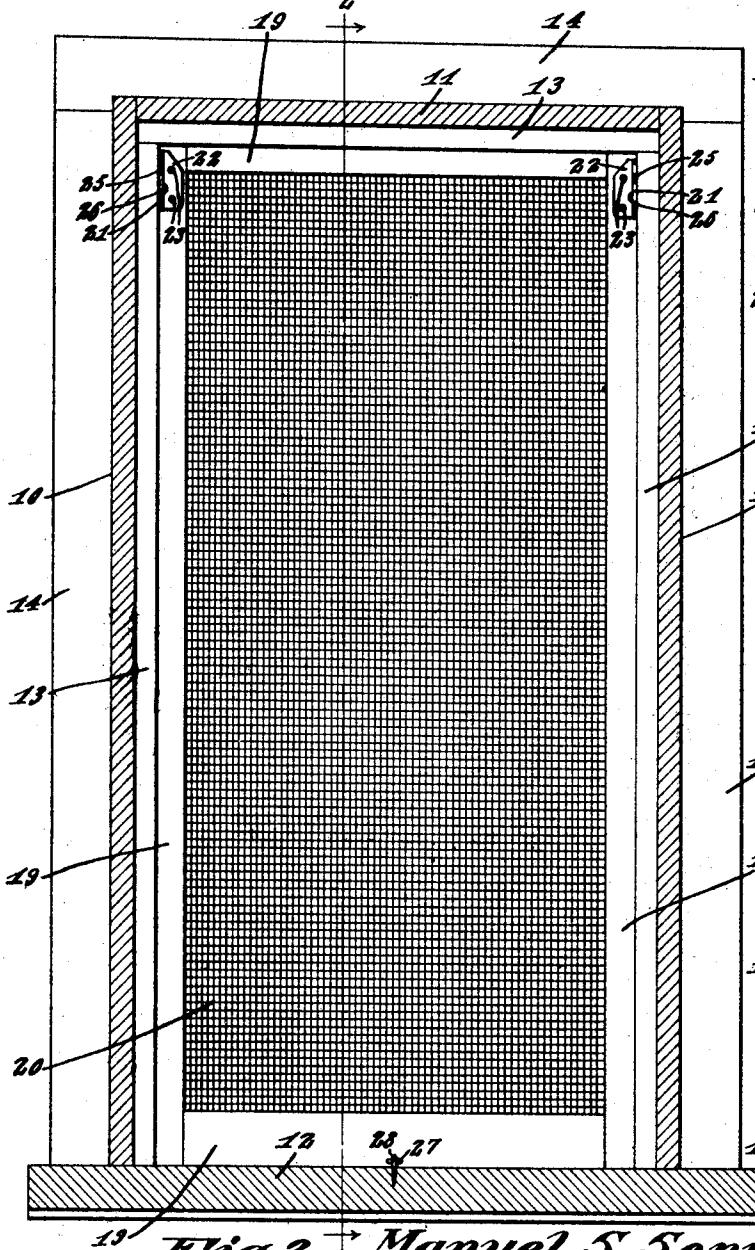


Fig. 2.

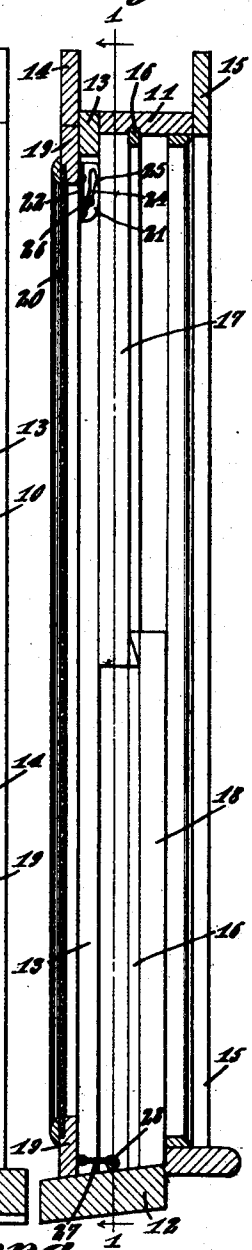
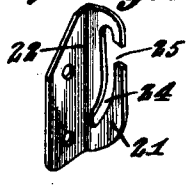


Fig. 3.



Manuel S. Serpa, INVENTOR.

BY

Geo. P. Kimmel. ATTORNEY.

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UNITED STATES PATENT OFFICE.

MANUEL S. SERPA, OF RODEO, CALIFORNIA.

WINDOW-SCREEN HANGER.

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This invention relates to fastening devices whereby screen frames, storm sash, and the like are secured in position in a window frame, and has for one of its objects to improve and simplify the construction and increase the efficiency and utility of devices of this character.

Another object of the invention is to provide a device of this character having means whereby the screen frame is supported at the upper end and with means whereby the frame is prevented from premature displacement when being applied to or removed from the window.

With these and other objects in view, the invention consists in certain novel features of construction as hereinafter shown and described and then specifically pointed out in the claim, and in the drawings illustrative of the preferred embodiment of the invention.

Figure 1 is a vertical section from the inside, of a window and screen frame with the improved fastening devices applied, the window frame being in section on the line 1—1 of Figure 1.

Figure 2 is a vertical section on the line 2—2 of Figure 1.

Figure 3 is an enlarged perspective view of one of the fastening devices.

The improved fastening devices may be applied without material structural change to window frames and screen frames of various sizes and forms, but for the purpose of illustration is shown applied to conventional structures of this character in which 10 represents the side members of a window frame, 11 the header, 12 the sill, 13 the outside stops, 14 the outside casing, 15 the inside casing, 16 the parting stops, 17 the upper sash, and 18 the lower sash, of the usual form. The screen frame is represented at 19 with the screen material at 20 and engages between the sill 12, outside casing 14, and against the outside stop 13, as shown in Figure 2.

The improved fastening device comprises a sheet metal plate 21 having a laterally directed perforated attaching flange 22 whereby the plate is attached to the screen frame by screws 23 or the like.

One of the fastening devices is attached to each side rail of the screen frame near the top, as shown, and are alike except that the attaching flanges are rights and lefts, the outer faces of the plates bearing against the confronting faces of vertical portions of the outside stops.

Each of the plates 21 is formed with an elongated opening 24 closed at the ends and curving downwardly and inwardly toward the attaching flange 22.

A passage 25 leads through the outer edge of each of the plates 21 and communicates with the opening 24 intermediate the ends thereof, as shown more clearly in Figure 3.

Extending from the confronting faces of the outside stops 13 are pins 26 in position to be received into the openings 24 through the passages 25 when the screen frame is to be coupled to the window.

A suitable fastening device, such as a hook 27 and a screw eye 28, are employed to hold the bottom of the screen frame in closed position.

With an attachment thus described, when the screen frame is to be applied to the window, from the inside, for instance, the lower sash 18 is raised and the screen frame turned on edge and passed through the window below the upper sash and turned into vertical position and entered at the upper end between the outer stops and engaged with the pins 26 by inserting the pins into the openings 24 through the passages 25 and permitting the screen frame to move downwardly until the upper portions of the openings above the passages engage the pins. This action suspends the screen frame upon the pins and requires no further care on the part of the operator to bodily support the frame, but the latter can be moved into position at the lower end upon the sill 12.

As the lower end of the screen frame is drawn inwardly over the inclined face of the sill, the frame is forced upwardly and this movement causes the curved portion of the openings to draw the upper part of the frame into closed position against the outer parting stop 13.

When the screen frame is to be removed, the operator raises the lower sash as before, detaches the hook 27 and the lower end of the screen frame pushed outwardly, which movement causes the frame to drop until the upper ends of the openings 24 engage the pins 26, the curved form of the openings causing the upper ends of the frames to move outwardly and it is thus supported swingingly to a limited extent on the pins.

This outward movement of the screen frame disposes its lower portion outside of the line of the outside casing 14, to enable the operator to grasp the side edges of the frame, elevate it manually until the pins 26 are opposite the passages 25, when the frame can be readily detached, turned on edge and passed through the window below the lower sash.

The portions of the openings 24 above the passages 25 thus serve as suspension hooks to temporarily support the screen frame while being manually attached to or removed from the window and materially reduces the labor required to apply or remove the frames.

While the improved device is shown and described as applied to a screen frame, it will be equally applicable to storm sashes and without change of structure.

The members 21—22 will preferably be struck from sheet metal, preferably steel.

The preferred embodiment of the invention is disclosed in the drawings and set forth in the specification, but it will be understood that modifications within the scope of the claimed invention may be made in the construction without departing from the principle of the invention or sacrificing any of its advantages.

Having thus described my invention what I claim is:

A window screen hanger, comprising an elongated member substantially L-shaped in cross section, one portion thereof being adapted to be secured to the inner face of a screen frame at an upper corner thereof and the other portion being provided with a longitudinally extending slot, said slot being relatively straight at the upper end and lying adjacent to and substantially parallel with the free longitudinal edge of the portion, the lower portion of said slot curving downwardly and inwardly and terminating adjacent the lower end of the frame contacting portion, said other portion further having a passage cut into the free longitudinal edge thereof and merging with said slot intermediate the ends of said straight portion, and said other portion being designed to lie against the inner face of a window frame to slidably engage a supporting pin therein.

In testimony whereof, I affix my signature hereto.

MANUEL S. SERPA.