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J. P. HAMEL

1,615,580

WINDOW SCREEN

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Fig. 1.

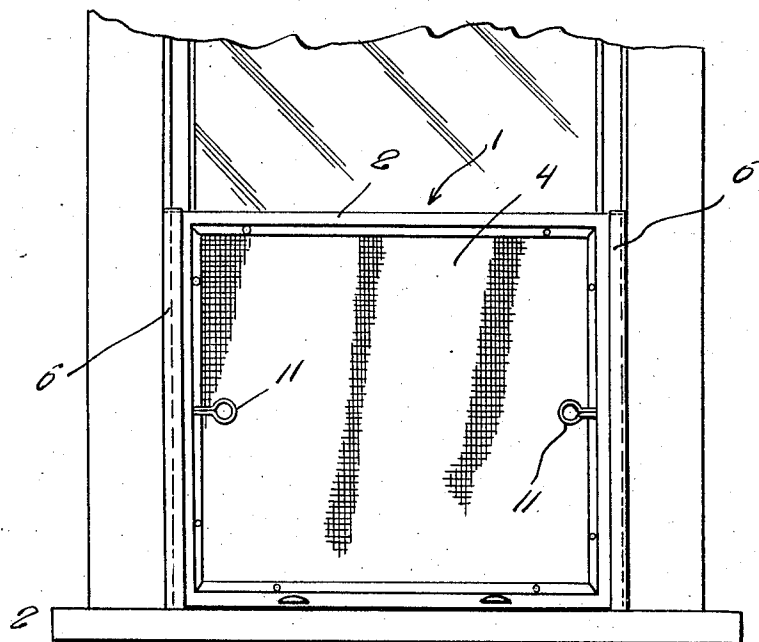


Fig. 2.

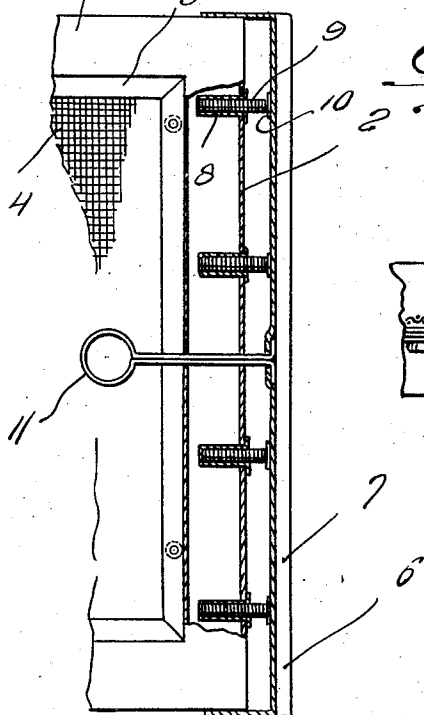
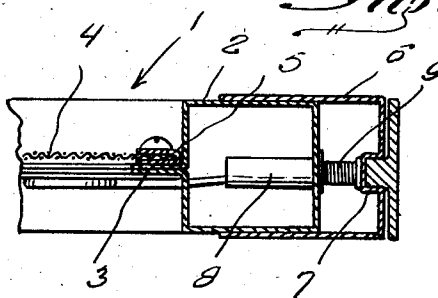


Fig. 3.



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WINDOW SCREEN.

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This invention relates broadly to an improved closure, but it has more specific reference to a window screen, one feature of which is spring pressed means for adapting the screen to irregular window frames, and another feature of which is a removable screen panel.

More specifically, the spring pressed means comprises two metallic boxings which are telescopically fitted on the vertical side bars of the screen frame and adapted to be pressed into contact with the guide channels of the window frame by spring means, whereby to permit the screen to be accurately fitted into the window opening, to accommodate irregularities in the construction of the window frame, and to provide effective and tight contact between the boxings and window frame.

The screen frame embodies hollow metallic side bars, and it follows that these are constructed in a specific manner to accommodate a removable screen panel including a metallic rim.

Other features and advantages of the invention will become apparent from the following description and drawings.

In the accompanying drawings forming a part of this application and in which like numerals are employed to designate like parts throughout the same:

Figure 1 is a fragmentary elevation of a portion of a window showing the improved screen located therein.

Figure 2 is an enlarged detail elevation and section of one edge portion of the improved screen.

Figure 3 is a detail section showing one of the spring pressed boxes and the method of mounting the screen panel.

Referring to the drawings in detail, it will be seen that the reference character 1 designates the metal frame of the improved screen. This is made up of sheet metal bent to provide a frame having substantially hollow rectangular side bars 2. As shown in Figure 3 each side bar is so constructed that the free end portions of the metal come together as at 3 to provide an attaching flange for the screen panel. This panel embodies a suitable screen fabric 4 having a rim 5 in the form of metal channel, the same being secured by appropriate fasteners to the flange 3. This allows the panel to be removed and readily replaced each season, if occasion demands.

Directing attention now more particularly to Figures 2 and 3, it will be seen that the spring pressed means hereinbefore referred to comprises in each instance, a metal box 6 which is fitted slidably upon one vertical side of the screen frame 1. Each box is formed with a longitudinal channel 7 to accommodate the bead of the window frame as shown in Figure 3. The outer side wall of the adjacent side bar of the screen frame is formed at vertically spaced points with holes and small cylinders or spring receptacles 8 are fitted into these and confine within the bar as shown. The outer end of each cylinder is provided with a flange to hold its place. Seated in each cylinder is an elongated expansion spring 9, and fitted into the outer end of the spring is the stem of a headed pin 10. The head of the pin is pressed against the rib provided by the guide channel 7, as plainly shown in Figure 3. I have shown a series of four of these rings and spring cups and these provide an equal outward yieldable pressure upon the box 6, and force it into firm contact with the window frame for guide bead of the frame as the case may be. It is yet to be pointed out that a finger operated member 11 comprising a ring and stem is connected to the central portion of the spring pressed boxing, so that by grasping both of these members and pulling them inwardly toward each other, the boxing may be released from frictional contact with window frames to facilitate removal of the screen.

It is obvious from the foregoing description that by placing the fingers in the finger ring of the operating member 11 and pulling them toward each other, the spring pressed boxing may be moved toward each other and the screen removed. By releasing these however, the plurality of springs will force the metal boxings out into firm yielding engagement with the window frame so as to hold the screen effectively in place. The coil springs will permit the boxing to accommodate slight irregularities in the window frame construction. Moreover the springs are such that they simultaneously serve to hold the headed pin 10 in place and in contact with the boxing and the receptacles or cups 8 in place in the screen frame side bar. This is a novel unit comprising an elongated flange cup, a coiled spring seated therein, and a headed pin,

the stem of which is fitted into the coils of the spring and the head of which bears against the outermost coils to afford firm contact with the metal boxing.

5 It is believed that by considering the description in connection with the drawings, persons familiar with structures of this class will be able to obtain a clear understanding of the invention. Therefore, a more lengthy description is thought unnecessary.

10 While the preferred embodiment of the invention has been shown and described, it is to be understood that minor changes coming within the field of invention claimed may be resorted to if desired.

15 Having thus described the invention, what I claim as new is:—

In a structure of the class described, a

screen frame having hollow side bars which 20 are substantially rectangular in cross-section, and a pair of metal boxes of channel-shaped cross-section fitted slidably upon the opposite end bars of said frame, said boxes being adapted to bear against the window 25 frame, and spring means interposed between the boxes and the adjacent side bars of the screen frame for maintaining the boxes in yieldable contact with the window frame, said boxes each comprising a flanged cylinder 30 fitted into an opening in the complemental frame bar, a coiled spring fitted into said cylinder, and a headed pin, the stem of which is fitted into the spring and is in contact with the box. 35

In testimony whereof I affix my signature.

JOSEPH P. HAMEL.