Nov. 6, 1928. 1,690,649

R. L. RADFORD

ADJUSTABLE WINDOW SCREEN

Filed May 24, 1927

Fig. 1.

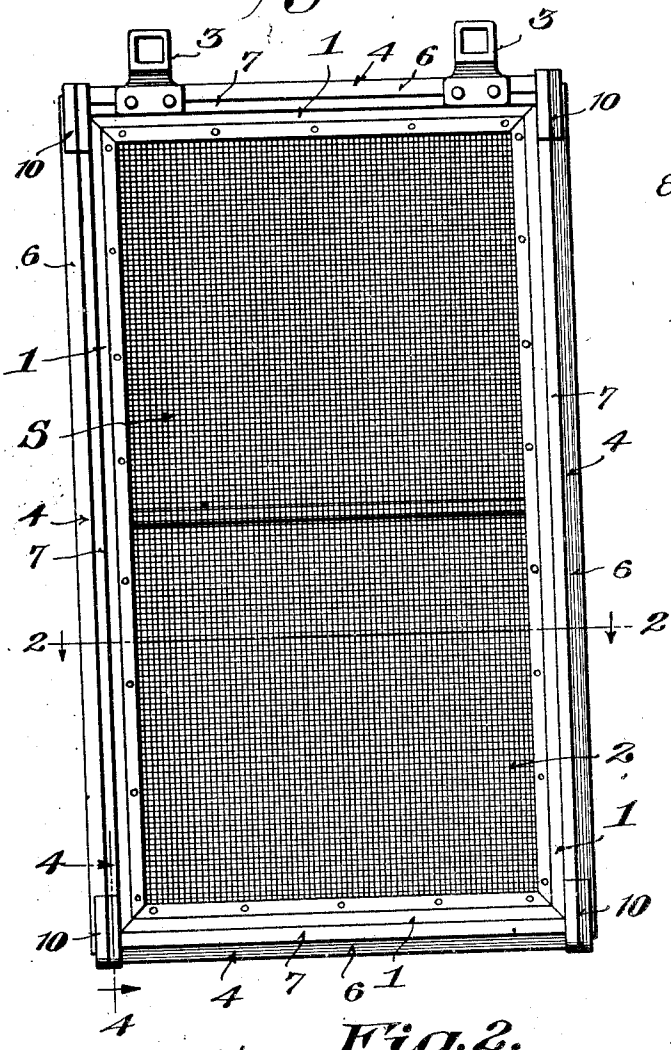


Fig. 3.

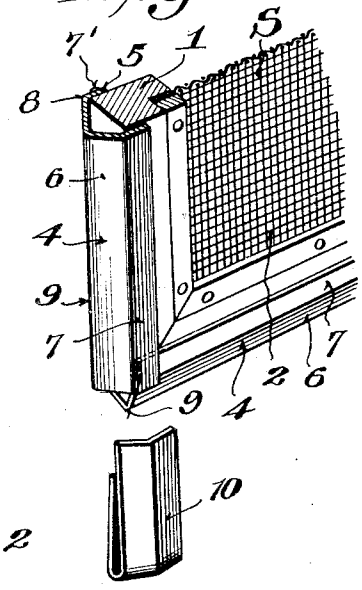


Fig. 4.

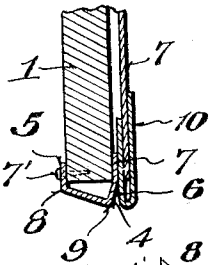
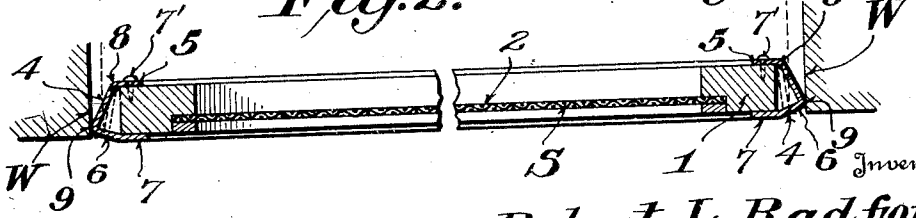


Fig. 2.



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UNITED STATES PATENT OFFICE.

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ADJUSTABLE WINDOW SCREEN.

Application filed May 24, 1927. Serial No. 193,837.

This invention relates to window screens, and more particularly to a novel improvement in screen frames whereby a frame of standard size may be readily adapted to fit standard window openings which may vary slightly in dimensions.

In the fitting of screens that cover the entire window opening it is usually necessary to make or build each screen to fit a particular window frame due to the fact that the frame of one window may have warped a little or was not finished to precisely the same width or height as another although all of the windows may have originally been standard stock sizes. Or perhaps, the "trim" of window frames made by different mills will vary one-half to one inch in size. Therefore, it is difficult if not impossible to make a screen frame for stock purposes that can be used without considerable cutting, planing and fitting to make a snug fit between the screen frame and the window frame.

Accordingly, one of the objects of the present invention is to provide a construction which includes a rigid and substantial main frame having means whereby the screen may be made to fit accurately within a window opening that is larger than the frame without the expenditure of time and labor in fitting the same. That is to say, the present invention contemplates, as its primary object, the provision of adjustable means on the screen frame adapted to be interposed between the frame and the window opening, and adapted to be automatically set by the mere act of placing the screen in the window opening.

A further and more specific object of the invention is to provide a novel substantial metallic filler and adjustment member which may be readily and economically manufactured and easily applied, thereby materially enhancing the value of the invention from a practical standpoint.

A further object of the invention is to provide novel means for covering the joint between the combined filler and adjustment members.

With the above and other objects in view which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated and claimed.

A preferred and practical embodiment of the invention is shown in the accompanying drawings in which:

Figure 1 is a front elevation of a screen embodying the present improvements.

Figure 2 is a transverse cross-sectional view taken on the line 2—2 of Figure 1.

Figure 3 is an enlarged detail perspective view of a corner of the screen construction, showing the corner clip detached.

Figure 4 is a detail, sectional view taken on the line 4—4 of Figure 1.

Similar reference characters designate corresponding parts throughout the several figures of the drawings.

In carrying the invention into effect, it is proposed to provide or equip the screen designated generally as S with a novel edge-construction for adapting the same to variations in the window opening, thereby avoiding the necessity of building up the window frame or cutting and fitting the screen to each particular window. This feature has the advantage of permitting the screen to be readily made to fit a window opening even though it is not entirely true, without the aid of special tools.

Accordingly, as will be observed from the drawings the screen S includes a rectangular frame 1 which may be made of metal or wood and has the wire mesh portion 2 secured thereto in any convenient and suitable manner. The screen shown in the drawings is of the swinging type, that is, the type which is hinged, one end to the window frame and swings into the window opening from the outside of the window, the hangers 3 being provided at the top of the frame for that purpose. At all sides the frame 1 is provided with a combined filler and adjustment strip designated generally as 4, the said strip being movable with reference to the outer edge of the frame 1 in such a way as to provide in effect an extensible and contractible edge portion for the frame.

As will be observed from Figure 2, the said strip 4 includes a body portion having the offset flanges 5 and 6, the flange 5 being secured to the rear side of the frame 1 by the fastenings 7, and the corner 8 between the flange 5 and the body constitutes a hinge. The other flange 6 is provided with a sliding angularly disposed portion 7 which frictionally engages the outer face of the frame 1. The flange 6—7 is wider than the flange 5 which is anchored to the frame, and, therefore, the body

4 of the combined filler and adjustment strip may have a fairly wide range of movement between the outer face of the screen frame 1 and the window opening W.

It will thus be seen that the nose or corner 9 between the flange 6 and the body 4 constitutes a window frame engaging edge which is formed by the meeting inclined body portion 4 and flange 6. Before the screen is fitted to the window frame, the member 4 is pulled outwardly so that the portion 7 of the flange 6 engages the frame 1 near its outer edge. When the screen is placed in the window and swung into the frame, the inclined body 4 will strike the outer edge of the window frame and move the entire strip inwardly toward the frame until the nose 9 slidably engages the inside of the window frame. The force of the frictional engagement between the flange 6—7 and the screen frame will hold the strip 4 in the proper set position so that the entire screen will properly fit all edges of the window opening, and in that way, the entire screen will become automatically fitted in place.

The ends of each strip 4 are cut square rather than mitered because a miter would leave a gap if all of the strips were not compressed to their fullest extent. And, in order to fill the gap at the corners and thereby secure a tight corner joint, a corner slip 10 is provided. This clip is carried by the vertical or side strips at each end thereof, and as shown in Figure 3 is of substantially U-shaped formation, so that it may frictionally and telescopically engage the ends of the strip to be adjustable thereon and thus completely fill the gap between the meeting edges of the strip members. Therefore, it will be apparent that adequate means is provided for rendering the screen tight at the corners as well as at the side and end edges. It will, of course, be understood that the clips 10 are of less width than the width of the flange 6 so that when the strips 4 are compressed they will not interfere with the lateral adjustment of the strips, and of course, since they telescopically engage the strips they will be readily adjustable lengthwise to enable the screen to adjust itself to the vertical height of the window opening.

From the foregoing it will be apparent that a distinctive feature of the present invention resides in the provision of a substantially channel shaped filler and adjustment strip comprising a body having offset flange portions, one of which is secured at or anchored to the screen frame and the other of which frictionally and adjustably engages the outer face of the screen frame. The adjustable filler strips 4 are preferably made of metal with sufficient inherent resiliency to keep them in extended or projected relation with reference to the screen frame to properly engage the sides of the window frame, thereby insuring a practical device under all conditions of use.

Without further description it is thought that the features and advantages of the invention will be readily apparent to those skilled in the art, and it will of course be understood that changes in the form, proportion and minor details of construction may be resorted to, without departing from the spirit of the invention and scope of the appended claims.

I claim:—

1. In a window screen, the combination with a frame member, a combined filler and adjustment strip including a yielding body having flanges of different length projecting from the same side thereof, fastenings for securing the short flange to the window frame and the opposite flange frictionally and slidably engaging the opposite side of the screen frame.

2. In a window screen, the combination with a frame member of a combined filler and adjustment strip comprising a yielding body, an attaching flange formed from one edge of the body, a cover flange formed from the other edge of the body and being of greater length than the attaching flange whereby the corner between the adjustment flange and the body provides a window-frame-engaging corner for forcing the cover flange over the outer face of the screen member, and fastenings for securing the attaching flange to the frame member.

3. In a window screen, the combination with a frame member, of a combined filler and adjustment strip located at the side of the frame member, and said strip including a yielding body of substantially channel shaped cross section, and having opposite parallel walls and obliquely disposed connecting walls, one of said parallel walls being secured to the inside of the frame, and the other parallel wall slidably engaging the outer side of the frame.

4. An adjustable window screen including a rigid frame, a vertical and a horizontal filler and adjustment strips said strips being resilient and of substantially channel formation and carried by the sides of the frame respectively, and one wall of each of said channel shaped strips adapted to be secured to the inside of the window screen frame and the other wall of each of said strip being free to slidably engage the face of the frame, and a U-shaped corner clip slidably carried by each end of the strip at the vertical side of the frame and adapted to fill the gap between the adjacent ends of the vertical and horizontal strip members.

In testimony whereof I hereunto affix my signature.

ROBERT L. RADFORD.