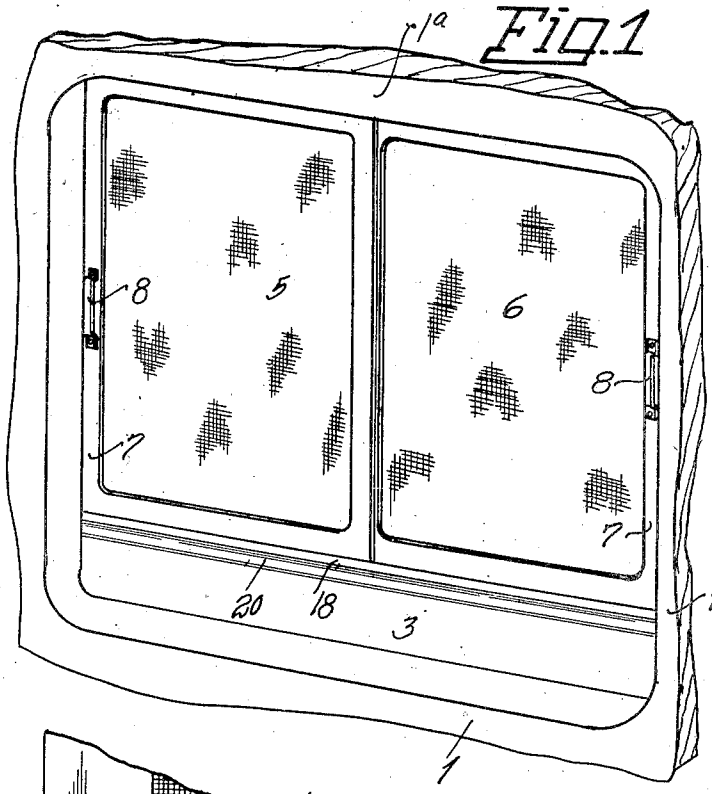
Nov. 30, 1926. 1,608,785

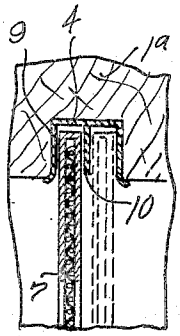
R. W. EVANS

DUPLEX SLIDING SCREEN

Filed Oct. 10, 1925

Fig. 1





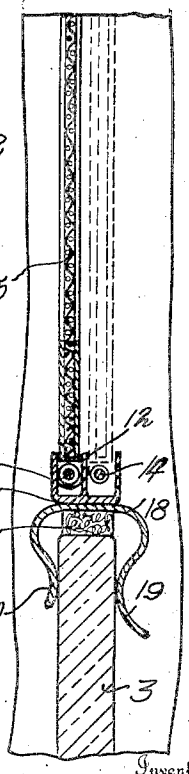


Fig. 2

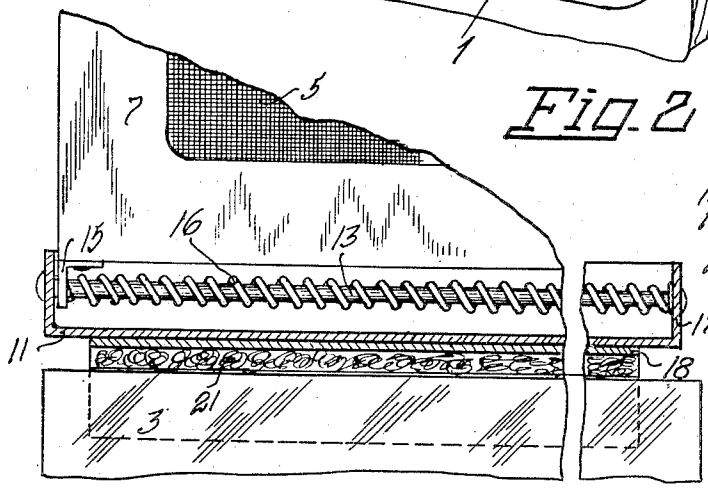


Fig. 3

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UNITED STATES PATENT OFFICE.

RICHARD WALTER EVANS, OF SPOKANE, WASHINGTON.

DUPLEX SLIDING SCREEN.

Application filed October 10, 1925. Serial No. 61,721.

My present invention relates to improvements in duplex sliding screens for automobiles of the closed car type, which screens are adapted especially for use in the ventilating openings of the car body as well as the ventilating openings in the hinged doors of the car. The detachable screens are designed for use in connection with the glass window panels used in the doors and car sides or body when the glass panels are not in closed position and are substituted for the glass panels when the latter are opened.

Each window opening is provided with a screen and the latter is so constructed that it may readily be placed in position in the window opening when the glass panel is lowered for the purpose of breaking up drafts or air currents caused by the moving vehicle and for preventing ingress of dust, insects, etc., to the interior of the car. The screens may with equal facility be removed from the window openings to permit raising or closing of the glass panels when required, as in case of rain or other unfavorable weather conditions.

The screens are of the duplex variety and the screen sections are relatively slidable for opening to permit projection of the hand or arm of the car driver for giving traffic signals and for other purposes. Automatic or spring actuated means are employed for returning the relatively movable sections to normal position and for holding said sections in position to prevent rattling. Means are also provided for co-action with the glass panel for retaining the duplex screen in position in the window opening and for permitting facile detachment and bodily removal of the screen from the window opening when required.

The invention consists in certain novel combinations and arrangements of parts in connection with the lowered glass window panel and window frame of the duplex screen as will hereinafter be more fully pointed out and claimed. In the accompanying drawings I have illustrated one complete example of the physical embodiment of my invention wherein the parts are combined and arranged with a window structure according to one mode I have devised for the practical application of the principles of my invention. While I have herein illustrated the screen in connection with one window opening and its glass panel it will be understood that the screens are applicable for use with the window openings in the hinged doors as well as with the usual window openings and glass panels in the sides of the car body.

Figure 1 is a perspective view of a portion of a closed car as seen from the interior of the car showing a duplex screen in place.

Figure 2 is a vertical sectional view broken away showing the top and bottom retaining means for the duplex screen. Figure 3 is a sectional detail view broken away illustrating the manner of attachment to the glass panel and one of the spring actuated or automatically closing screen sections.

In order that the general relation of parts may readily be understood I have indicated in Figure 1 a portion of a closed car body as 1 with a side window opening 2 and its glass panel 3, the latter adapted to be lowered within a pocket of the car side for open position and elevated within the window opening 2 to closed position. In the upper or top bar 1^a of the window frame the usual groove 4 is provided, and this groove, as well as other grooves that guide the glass panel, is used in carrying out my invention.

The duplex screen includes a pair of relatively slidable screen sections 5 and 6 to occupy the window opening when the glass panel is lowered, and each screen has a rectangular metal frame 7 and handle 8 the latter for convenience in sliding the section.

The groove 4 is utilized for the reception of a hollow guide rail 9, somewhat less in length than the width of the opening. This rail is fashioned with a central longitudinal partition 10 which divides the rail into two guideways or runways for the respective screen sections 5 and 6 in order that these sections may be relatively moved.

The hollow bottom rail 11 of the duplex screen also of less length than the width of the window opening, is also provided with a central longitudinal partition 12 which provides a pair of guideways complementary to the upper guideways for the two screen sections. In the lower or bottom guide rail, and also in the upper guide rail if desired, are secured a pair of guide rods 13 and 14 extending longitudinally of the rails and located in the respective guideways, one at each side of the central partition.

The screen sections, preferably at a corner, are provided with angular, perforated lugs

15 secured in suitable manner to the screen frames 7 and these slidable lugs are supported on the respective rods 13 and 14. Each rod is provided with a coiled spring 16 interposed between the perforated lug and an end, as 17, of the hollow rail, and in this manner the screen section is normally urged toward the outer side of the screen and into operative relation to the side walls of the window opening. By grasping a handle 8 of a screen section it will be apparent that this section may be slid to open position, as for the purpose of projecting the hand for a traffic signal, and when the handle is released, or the signal hand withdrawn, the spring will return the screen section to normal position.

The upper portions of the screen sections are supported and guided in the hollow rail 4 and the outer side edges of the screen sections are supported in grooves in the side walls of the window frame. The lower portion of the duplex screen, through the instrumentality of the lower guide rail, is supported on the top edge of glass panel 3 when the latter is in lowered position. For this purpose I employ an attaching bar 18 which is rigid with the underside of the bottom guide rail 11 and of generally inverted U-shape. This hollow attaching bar is fashioned with a pair of resilient jaws 19 and 20, the former preferably wider than the latter in order that the attaching bar may be slipped over the top edge of the glass panel, and both jaws are curved outwardly for the purpose of guiding the attaching bar to proper position on the glass panel.

Within the hollow attaching bar is carried a cushion or pad 21 of rubber or other cushioning material which deadens any rattling sound, prevents transmission of vibrations, and affords a cushioned seat on the glass panel for the duplex screen.

In placing the duplex screen in position, with the panel 3 in lowered position, the screen as a whole may be grasped by the two handles 8, 8, the two sections pushed in opposite directions, that is inwardly, for a slight overlapping of the sections, and then the tops of the sections are inserted in position in the grooved upper rail 4. The attaching bar 18 is now slipped over the top edge of the glass panel to engage the cushion on the top edge of the panel and the jaws in frictional contact with the outer and inner sides of the panel. Or the panel may be slightly lowered to permit attachment of the bar and then the panel slightly elevated to engage the bar. After the handles 8 are released, the springs project the screen sections to proper position and the duplex screen is thus rigidly held in the window opening.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent is—

1. A duplex window screen as described having a bottom guide rail comprising parallel guideways, a pair of screen sections, supporting rods in said guideways and slidable lugs on said sections supported on said rods, springs for co-action with said lugs, and an attaching bar on said guide rail adapted to frictionally engage a glass panel.

2. A duplex automobile window screen comprising relatively slidable screen sections and a bottom guide rail therefor, means in said guide rail for supporting and projecting said sections, an attaching bar secured to said guide rail and a cushion pad on said bar, and opposed resilient jaws on said bar for frictional engagement with a glass panel.

3. The combination with a grooved window frame and vertically movable glass panel therefor, of an upper grooved guide rail and a pair of relatively slidable screen sections, a lower grooved guide rail for said sections, means for supporting and projecting said screen sections in the lower guide rail, an attaching bar secured to the lower guide rail, and opposed resilient jaws on said attaching bar for frictional engagement with said glass panel.

4. The combination with a grooved window frame and a glass panel therefor, of an upper grooved guide rail and a pair of relatively slidable screen sections each having perforated lugs, a lower guide rail having a pair of rods for said lugs and springs on said rods for engagement with said lugs, an attaching bar secured to the lower guide rail, and opposed resilient jaws on said attaching bar for engagement with said glass panel.

In testimony whereof, I affix my signature.

RICHARD WALTER EVANS.