

Dec. 8, 1925.

1,564,191

R. L. AUSTIN ET AL

WINDOW SCREEN

Filed Oct. 15, 1923

2 Sheets-Sheet 1

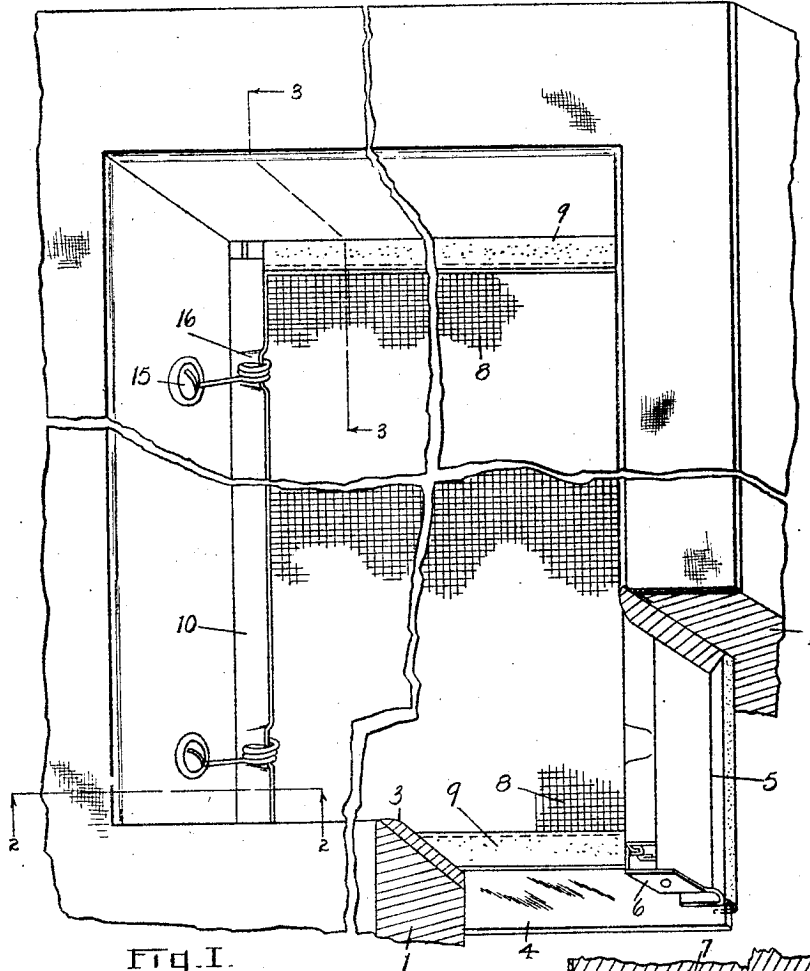


FIG. I.

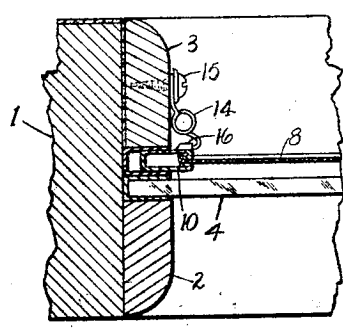


FIG. II.

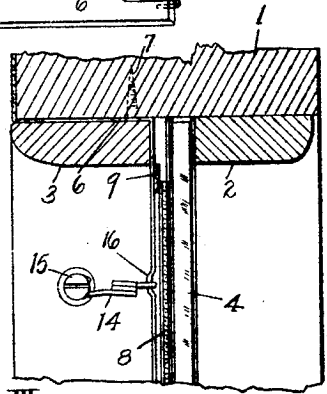


FIG. III.

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Roger L. Austin
Caryl H. Gall
BY *Chappell Deal*
ATTORNEYS

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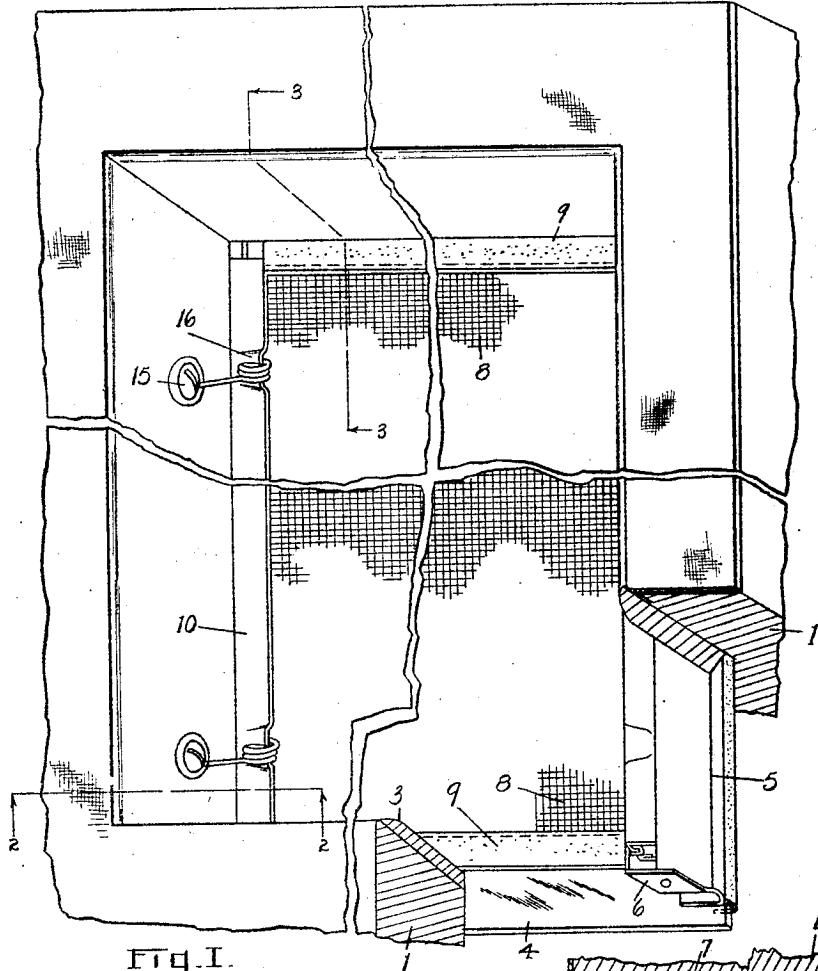


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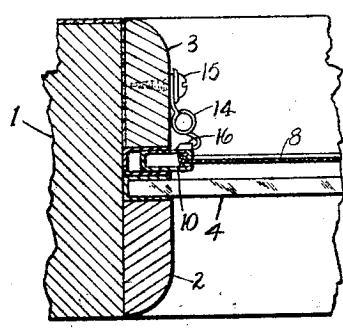


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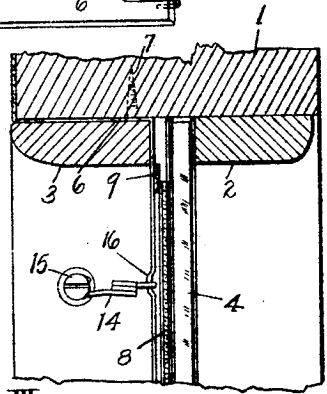


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UNITED STATES PATENT OFFICE.

ROGER L. AUSTIN AND CARYL H. GALL, OF LANSING, MICHIGAN.

WINDOW SCREEN.

Application filed October 15, 1923. Serial No. 668,614.

To all whom it may concern:

Be it known that we, ROGER L. AUSTIN and CARYL H. GALL, citizens of the United States, residing at Lansing, county of Ingham, State of Michigan, have invented certain new and useful Improvements in Window Screens, of which the following is a specification.

This invention relates to improvements in window screens.

Our improvements relate particularly to window screens for the doors and windows of automobiles although desirable and attractive for use in other relations.

The main objects of the invention are:

First, to provide an improved screen for automobile doors and windows which may be readily installed in vehicles as commonly constructed with little change or modification thereof.

Second, to provide an improved screen for the purpose indicated which can be quickly placed in or removed from the window openings.

Third, to provide an improved screen for the purpose indicated which is neat and attractive in appearance.

Fourth, to provide an improved screen for automobile bodies which is not racked by the torsional strains of the body and does not rattle.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

We accomplish the objects of our invention by the devices and means described in the following specification. The invention is clearly defined and pointed out in the claims.

A structure which is a preferred embodiment of our invention is clearly illustrated in the accompanying drawing, forming a part of this application, in which:

Fig. I is a fragmentary perspective view of our improved screen as embodied in a vehicle door.

Fig. II is a detail horizontal section through a window casing equipped with our screen on a line corresponding to line 2—2 of Fig. I.

Fig. III is a detail vertical section through the top of a window casing equipped with our improved screen.

Fig. IV is a perspective view of one of the improved channel-shaped holder mem-

bers which are adapted for attachment to the window casing.

Fig. V is a perspective view of a screen equipped with our improved side or frame pieces.

In the drawing similar reference numerals refer to similar parts throughout the several views.

In the accompanying drawing we have not attempted to illustrate the parts in their relative proportions and the casings illustrated are shown in simple form. In this specification we use the term "window casing" but it will be understood that in automobile structures the window casings are quite generally the upper part of the door frames or structures and the casing illustrated is in fact the door structure.

The casing or frame illustrated comprises the outer frame members 1, and strips 2 and 3 which slidably support the window panes 4 between them.

We provide channel-shaped holders 5 of sheet metal, the strips 3 being cut away at their inner edge so that the holders 5 may be inserted between the inner edges of these strips and the window panes. The holders 5 have attaching ears 6 at their ends which are secured to the top and bottom of the window frame as by screws 7. The screen 8 is provided with flexible bindings 9 of rubber or felt at its top and bottom edges, the purpose of this being to form a tight joint at the bottom of the casing. On the vertical or side edges of the screen are side pieces 10 formed of strips of sheet metal folded longitudinally upon itself. The edges of these strips are turned inwardly to provide seam members 11 with which the inturned edge 12 of the screen is engaged. The other folded edge 13 is clamped upon the screen so that a very secure attachment is provided therefor to the strips 10, this being necessary as the screen is supported under spring tension, the supporting springs engaging these strips.

The supporting springs 14 are in the form of spring rods and are secured to the casing by the screws 15, the upper ends engaging the lugs 16 struck out from the strips 10. These strips 10 are supported laterally by the channel-shaped holders 5 and are held within the channels by these springs which support the screen under yielding or spring tension. This obviates any rattling and also

permits the ready insertion and removal of the screen as may be desired.

The screen when removed can be rolled compactly for transportation.

5 In installing our improved screen it is only necessary to dress off the casing strip 3 sufficiently to permit the introduction of the holders 5 and of course on new work these strips would be formed to accomodate
10 the holders.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent, is:

1. In a structure of the class described, 15 the combination with a window casing, of channel-shaped holder members seated within and secured to said casing, a screen provided with flexible strips at the top and bottom edges thereof, side pieces for said
20 screen formed of strips of sheet metal folded longitudinally upon itself, the edges of said side pieces being folded inwardly, the edges of the screens being folded into one infolded edge and clamped by the other, said side
25 pieces having lugs struck out from one side thereof, and rod springs on said casing engaging said lugs to support said screen with said side pieces in engagement with said holder member.

30 2. In a structure of the class described, the combination with a window casing, of channel-shaped holder members seated within and secured to said casing, side pieces for said screen formed of strips of sheet metal

folded longitudinally upon itself, the edges 35 of said side pieces being folded inwardly, the edges of the screens being folded into one infolded edge and clamped by the other, said side pieces having lugs struck out from one side thereof, and rod springs on said
40 casing engaging said lugs to support said screen with said side pieces in engagement with said holder member.

3. In a structure of the class described, the combination with a window casing, of 45 channel-shaped holder members secured to said casing, a screen provided with flexible strips at the top and bottom edges thereof, side pieces for said screen disposed within said holder, and springs on said casing en-
50 gaging said side pieces to yieldingly support said screen.

4. In a structure of the class described, the combination with a window casing, of 55 channel-shaped holder members secured to said casing, side pieces for said screen disposed within said holder members, the top and bottom edges of said screen being with-
60 out frame members thereby permitting the flexing of the screen to engage and disengage it from said holder members, and springs on said casing engaging said side pieces to yieldingly support said screen.

In witness whereof, we have hereunto set our hands.

ROGER L. AUSTIN.
CARYL H. GALL.