H. W. JOHNSON.

METAL WINDOW SCREEN.

APPLICATION FILED MAY 21, 1908.

918,676.

Patented Apr. 20, 1909.

Fig. 2.

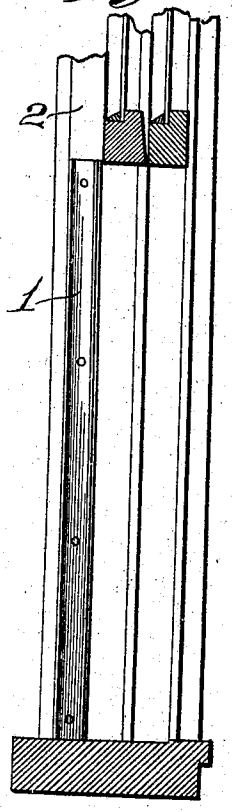


Fig. 1.

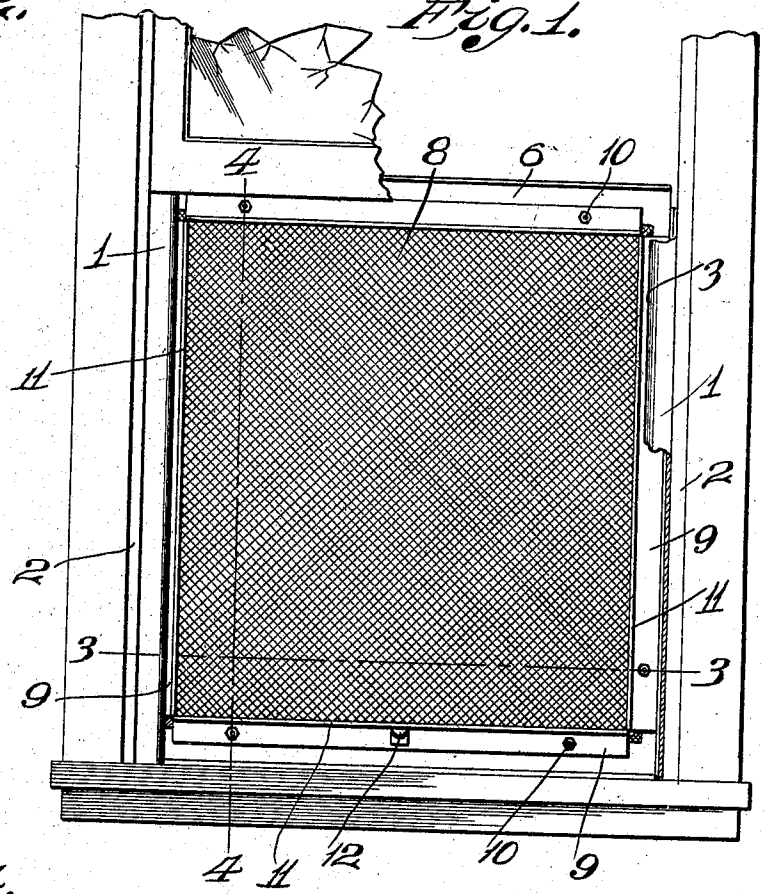


Fig. 4.

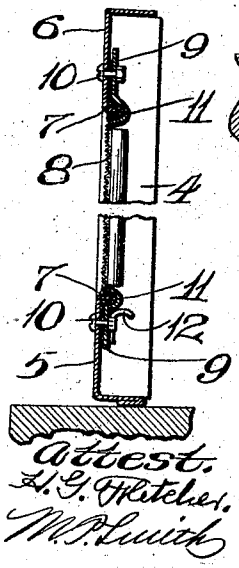
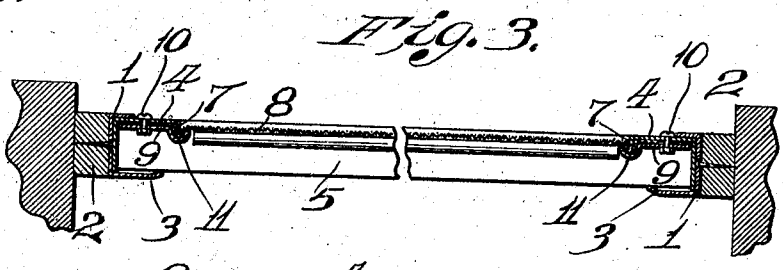


Fig. 3.



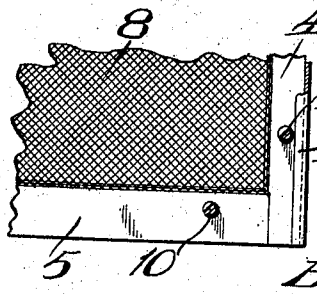


Fig. 5.

Attest.

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UNITED STATES PATENT OFFICE.

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METAL WINDOW-SCREEN.

No. 918,676. Specification of Letters Patent. Patented April 20, 1909.

Application filed May 21, 1908. Serial No. 434,411.

To all whom it may concern:

Be it known that I, HERMAN W. JOHNSON, a citizen of the United States, and resident of St. Louis, Missouri, have invented certain new and useful Improvements in Metal Window-Screens, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to a metal window-screen, my object being to construct an inexpensive, strong and durable window-screen which is readily assembled, and which is arranged to operate freely in guides fixed on the outside stops of the window-frame.

To the above purposes, my invention consists in certain novel features of construction and arrangement of parts, which will be hereinafter more fully set forth, pointed out in the claim, and illustrated in the accompanying drawings, in which:

Figure 1 is an elevation of the lower portion of a window frame and showing my improved metal screen applied thereto; Fig. 2 is a vertical section through the lower portion of window frame and showing one of the screen guides attached to the outside stop; Fig. 3 is an enlarged horizontal section taken on the line 3—3 of Fig. 1, with parts broken away; Fig. 4 is an enlarged vertical section taken on the line 4—4 of Fig. 1, and with parts broken away; and Fig. 5 is an elevation of one of the lower corners of the screen showing the outer face thereof.

Referring by numerals to the accompanying drawings: 1 designates the guides in which the screen is positioned, which guides are preferably constructed of sheet metal in the form of channels, and said guides being fixed in any suitable manner to the lower portions of the outside stops 2, which are positioned in the usual manner on the jambs of the window frame. The edges of the inner flanges of these channel guides are bent slightly outward, as designated by 3 and said bent edges bear on portions of the upper and lower rails of the screen frame which is positioned and operates in said channel guides.

The screen frame is composed of side rails 4, lower rail 5 and top rail 6, which rails are preferably constructed of sheet metal, L-shaped in cross section, and the ends of said rails are united in any suitable manner and form a rectangular frame, which slides freely through the channel guides 1. The inner edges of all of the rails forming this frame are bent at right angles, as designated by 7, and positioned upon said bent edges are the edges of a section of wire netting 8. Retaining strips 9, of sheet metal, are fixed by means of bolts or screws 10 to the inner faces of the rails forming the frame of the screen, and the inner edges of said retaining strips 9 are bent into U-shape, as designated by 11, and said bent portions engage over the bent edges 7 of the rails of the screen frame, and thus clamp the edges of the wire netting between said bent edges 7 and bent portions 11.

Fixed to the central portion of the retaining strip 9 on the lower rail 5 of the screen frame is a finger hold 12, by means of which the screen is raised and lowered. The bent edges 3 of the channel guides 1 bear on the horizontal flanges on the rails 5 and 6 of the screen frame, during the vertical movement of said frame, and for this reason will maintain said frame at any desired elevation.

When the section of wire netting is arranged on the frame, its edges rest on the bent edges 7 of the rails of the frame; and when the retaining strips 9 are applied to the rails, the U-shaped bent edges 11 of said retaining strips bear directly upon the edges of the wire netting, and the portions of the wire netting within the U-shaped edges will be tightly drawn down onto the bent edges 7, thus stretching the entire section of wire netting, and maintaining it in a perfectly taut condition on the frame. The retaining strips 9 are easily and quickly removed and replaced when it is desired to renew the screen of wire netting on the frame.

My improved window-screen is constructed entirely of metal, is light, strong, and durable, is easily assembled, can be very cheaply manufactured, and the edges of the wire netting are very firmly clamped to the rails of the frame.

I claim:

The herein described window screen, comprising a rectangular frame formed of sheet metal rails which are L-shaped in cross section, and the inner edges of all of said rails being bent at right angles to the body portions of said rails, a section of wire netting applied to the frame with its edges overlying the bent inner edges of the rails, sheet metal retaining strips applied directly to the faces of the main body portions of the rails, the inner edges of which retaining strips are of in-

verted U-shape in cross section, and which inner edges overlie the clamping edges of the wire netting and the bent inner edges of the rails of the frame, and fastening devices passing through the main body portions of the rails and through the body portions of the strips.

In testimony whereof, I have signed my name to this specification, in presence of two subscribing witnesses.

HERMAN W. JOHNSON.

Witnesses:
M. P. SMITH,
E. L. WALLACE.