No. 843,061. PATENTED FEB. 5, 1907.

A. J. BAKER.

ADJUSTABLE ROLLER WINDOW SCREEN.

APPLICATION FILED MAY 23, 1905.

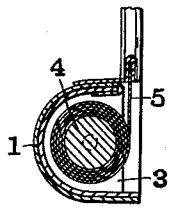


Fig. 7.

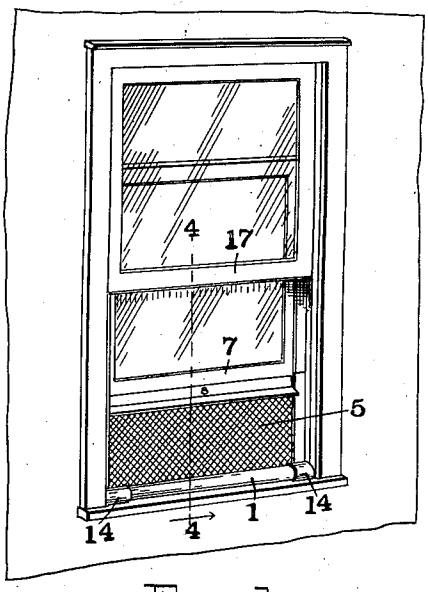


Fig. 1.

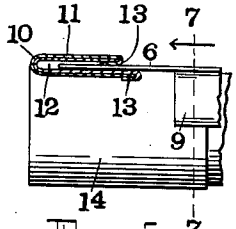


Fig. 6.

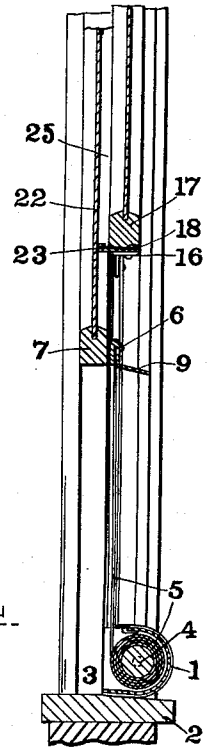


Fig. 4.

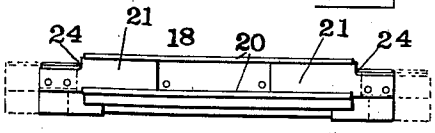


Fig. 3.

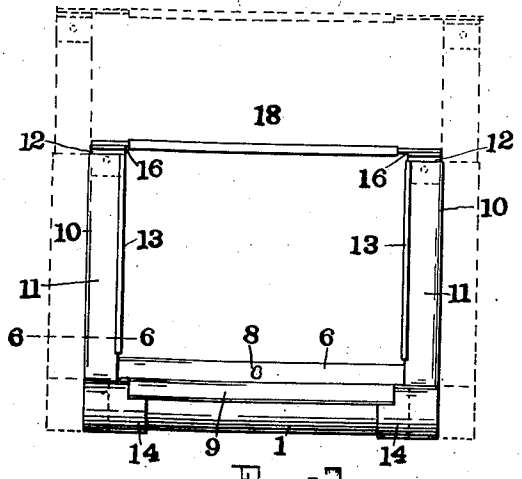


Fig. 2.

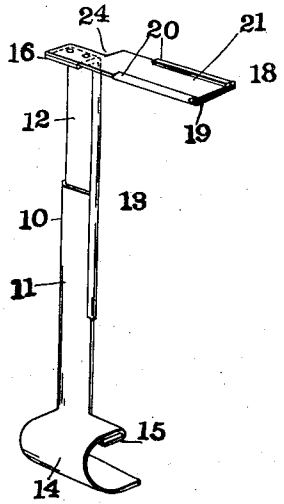


Fig. 5.

Witnesses:

O. B. Baenziger.

I. G. Howlett.

Inventor

Andrew J. Baker,

By His Attorneys

E. W. Wheeler & Co.

UNITED STATES PATENT OFFICE.

ANDREW J. BAKER, OF ADRIAN, MICHIGAN, ASSIGNOR TO JOHN W. PAGE, OF ADRIAN, MICHIGAN.

ADJUSTABLE ROLLER WINDOW-SCREEN.

No. 843,061. Specification of Letters Patent. Patented Feb. 5, 1907.

Application filed May 23, 1905. Serial No. 261,754.

To all whom it may concern:

Be it known that I, ANDREW J. BAKER, a citizen of the United States, residing at Adrian, in the county of Lenawee, State of Michigan, have invented certain new and useful Improvements in Adjustable Roller Window-Screens; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to adjustable window-screens of the roller type, and consists in the construction and arrangement of parts hereinafter fully set forth, and pointed out particularly in the claims.

The object of the invention is to produce a window-screen of the character described wherein arrangement is made for adjustment of the screen-frame both laterally and vertically without impairing the efficacy of the screen or interfering with the operation of the spring-roller upon which the screen is wound and wherein provision is made for excluding insects from between the lower rail of the upper sash and the glass in the lower sash when said lower sash is raised and the screen fills the opening between its lower edge and the window-sill.

The above object is attained by the structure illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view showing my improved screen applied to a window. Fig. 2 is an elevation of the screen-frame, showing by dotted lines the vertical and lateral adjustment thereof. Fig. 3 is a plan view of Fig. 2. Fig. 4 is an enlarged vertical section as on line 4 4 of Fig. 1. Fig. 5 is a perspective view of one of the vertical telescopic guides of the frame and the telescopic cross-bar at the top, which latter appears in cross-section. Fig. 6 is an enlarged fragmentary view, in horizontal section, as on line 6 6 of Fig. 2. Fig. 7 is a transverse section as on line 7 7 of Fig. 6.

Referring to the characters of reference, 1 designates a semicylindrical case, preferably formed of sheet metal and adapted to be secured to the sill 2 of the window, said case having closed ends 3, in which is journaled the ordinary spring-actuated roller 4, on which the screen 5 is wound. The upper edge of the screen is secured to a cross-bar 6, detachably secured to the bottom rail 7 of the lower sash by passing a screw through the keyhole-shaped opening 8 in said cross-bar. Other means of attaching said cross-bar to the rail of the sash may be employed, if desired. Projecting from the lower edge of the cross-bar 6 is a flange 9, adapted to lie upon the case 1 when the window is closed and serve as a water-shed to prevent the entrance of water into said case.

The ends of the cross-bar are directed in their vertical movements in vertical guides 10, forming the sides of the screen-frame and consisting of the lower members 11 and the upper members 12, said members being U shape in cross-section and fitted one into the other to render them telescopic, there being a rolled flange 13 upon one edge of each member, which engages the straight edge of the other member to hold said members against lateral separation. At the bottom of each of the lower members 11 of said guides is a semicylindrical hood 14. These hoods are adapted to telescopically embrace the opposite ends of the case 1 and are adjustably retained in place by the marginal flange 15 at the upper edge thereof, which engages over the upper edge of the case 1. By means of these embracing adjustable hoods which engage over the ends of the case the screen-frame may be regulated in width to compensate for any variation in the width of windows, and by means of the telescopic guides the screen-frame may be adjusted in length to compensate for any variation in the size of the window-sash, as shown by dotted lines in Fig. 2.

The upper ends of the upper members of the vertical guides are provided with the laterally-extending brackets 16, adapted to be attached to the bottom rail 17 of the upper sash, and crossing between said brackets to tie the upper end of the frame together is a telescopic cross-piece 18, comprising the central portion 19, having the turned marginal flanges 20, and the end pieces 21, adapted to slide longitudinally under said flanges. Said cross-piece 18 not only serves as a brace for the upper ends of the telescopic guides, but is of such width when secured to the under face of the bottom rail of the upper sash as to project inwardly across the space between said rail and the glass 22 of the lower sash,

as shown at 23 in Fig. 4, thereby preventing insects entering the house by passing between the bottom rail of the upper sash and the glass of the lower sash when said lower sash is raised. To enable the cross-piece 18 to be so employed, the end portions of the end pieces 21 are cut out, as shown at 24 in Figs. 3 and 5, to receive the stiles 25 of the upper sash, as will be well understood.

It will now be understood that as the lower sash is raised and lowered the screen 5 will roll off from and onto the spring-roller 4 and at all times close the window-opening, enabling the size of said opening to be regulated at pleasure. It will also be understood that by means of the adjustment provided for of the screen-frame said frame may be readily employed upon windows of various sizes. The extent to which the ends of the cross-bar 6 project into the vertical guides permits of the maximum lateral adjustment of said guides without disengaging the ends of the cross-bar therefrom, and by reason of the telescopic hoods 14, which embrace the ends of the case 1, said case may be made integral and the lateral adjustment of the frame accomplished without interfering in any way with the operation of the roller.

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

1. In a window-screen, the combination of a case, a spring-actuated roller journaled therein, a screen upon said roller, a cross-bar attached to said screen, vertical, telescopic guides confining the ends of said cross-bar, said guides having a telescopic union with the ends of said case.

2. In a window-screen, the combination of a case, a spring-actuated roller therein, a screen upon said roller, a cross-bar attached to said screen, vertical telescopic guides confining the ends of said cross-bar, said case having telescopic end extensions to which said guides are rigidly secured.

In testimony whereof I sign this specification in the presence of two witnesses.

ANDREW J. BAKER.

Witnesses:
F. B. STEBBINS,
MERTON E. SMITH.