

No. 679,538.

Patented July 30, 1901.

O. NELSON.
WINDOW SCREEN.

(Application filed Dec. 10, 1900.)

(No Model.)

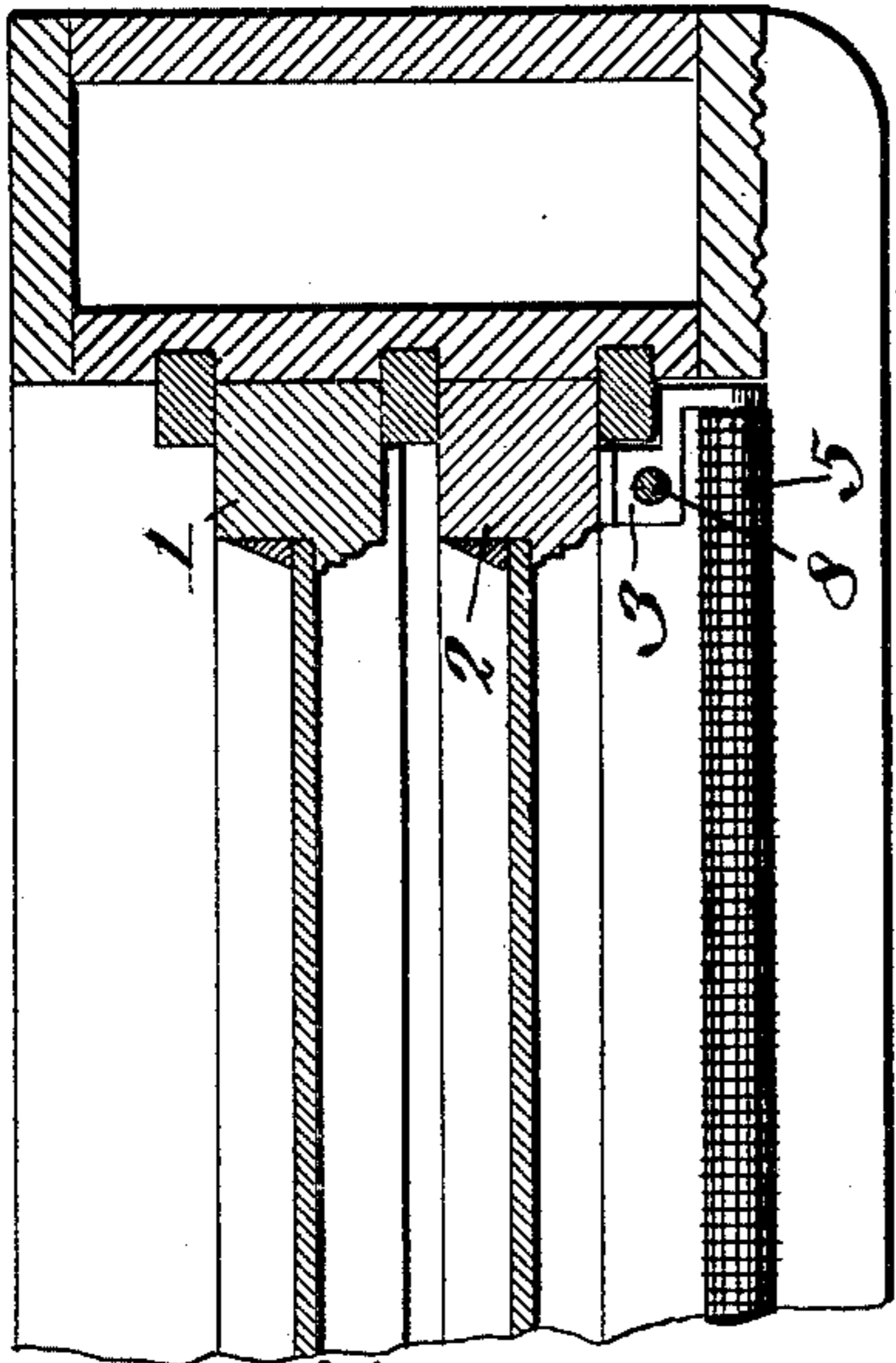


Fig. 3.

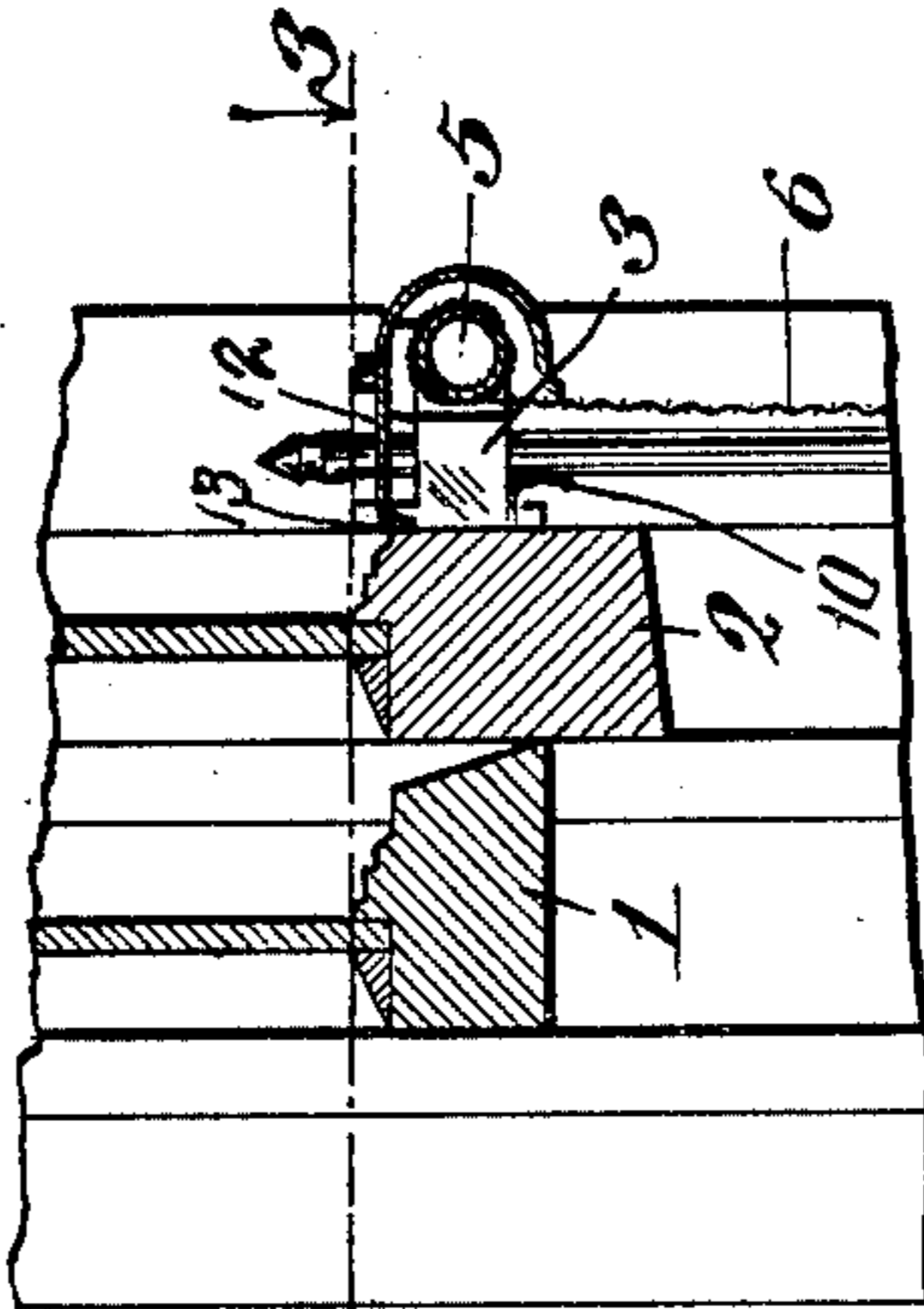


Fig. 4.

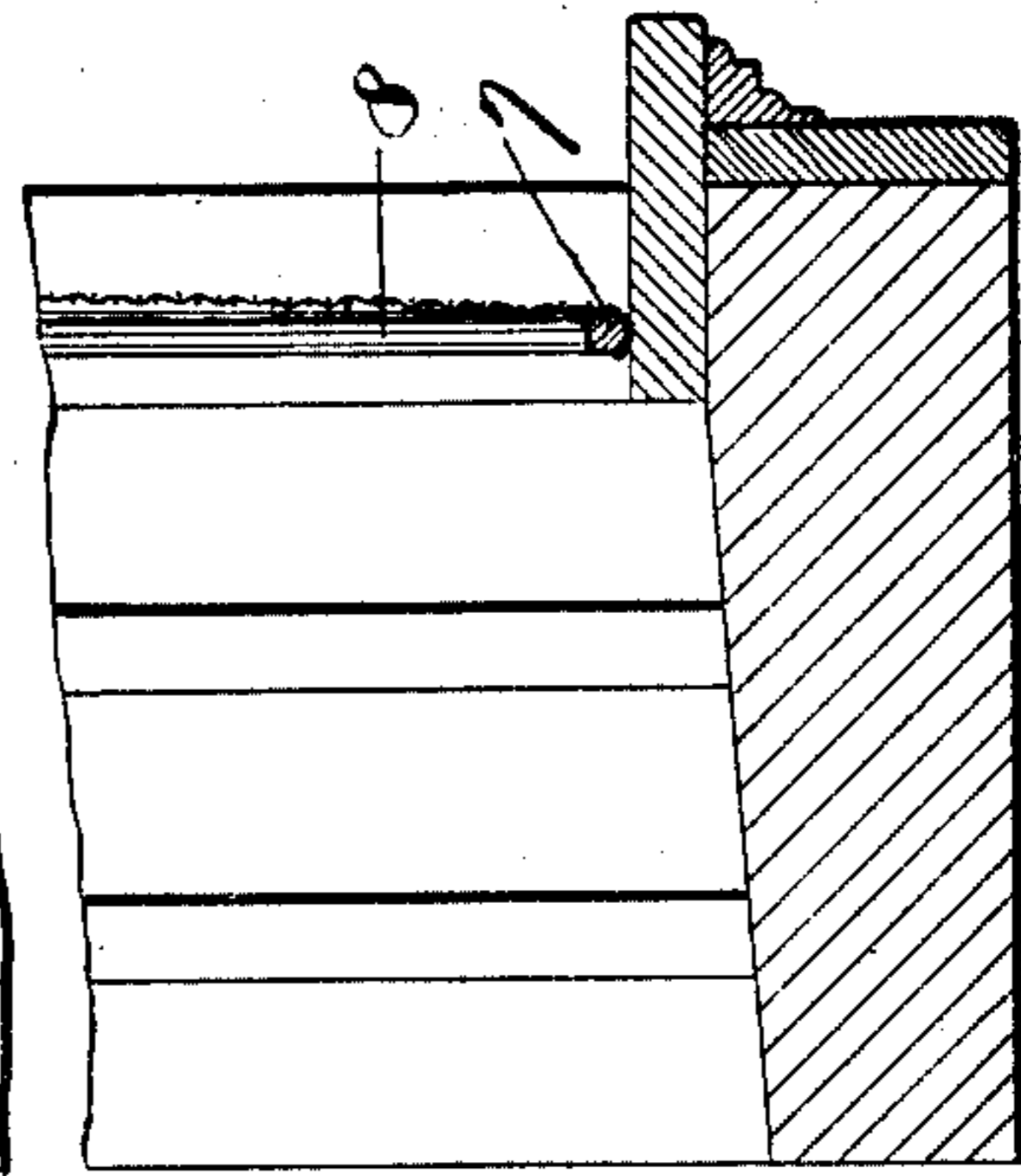


Fig. 5.

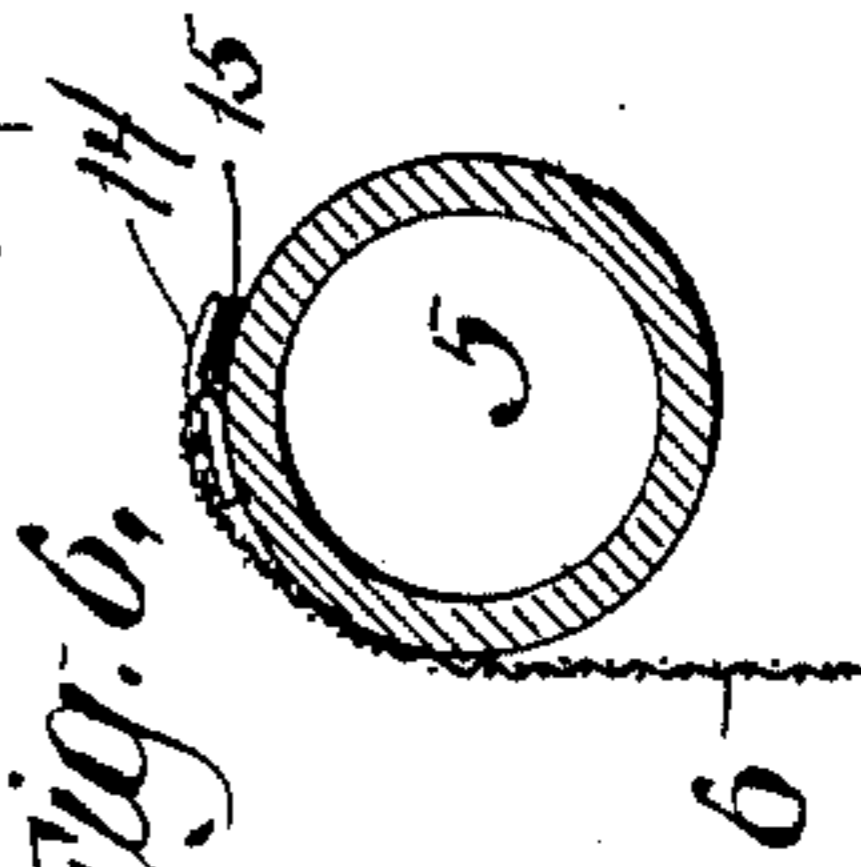


Fig. 6.

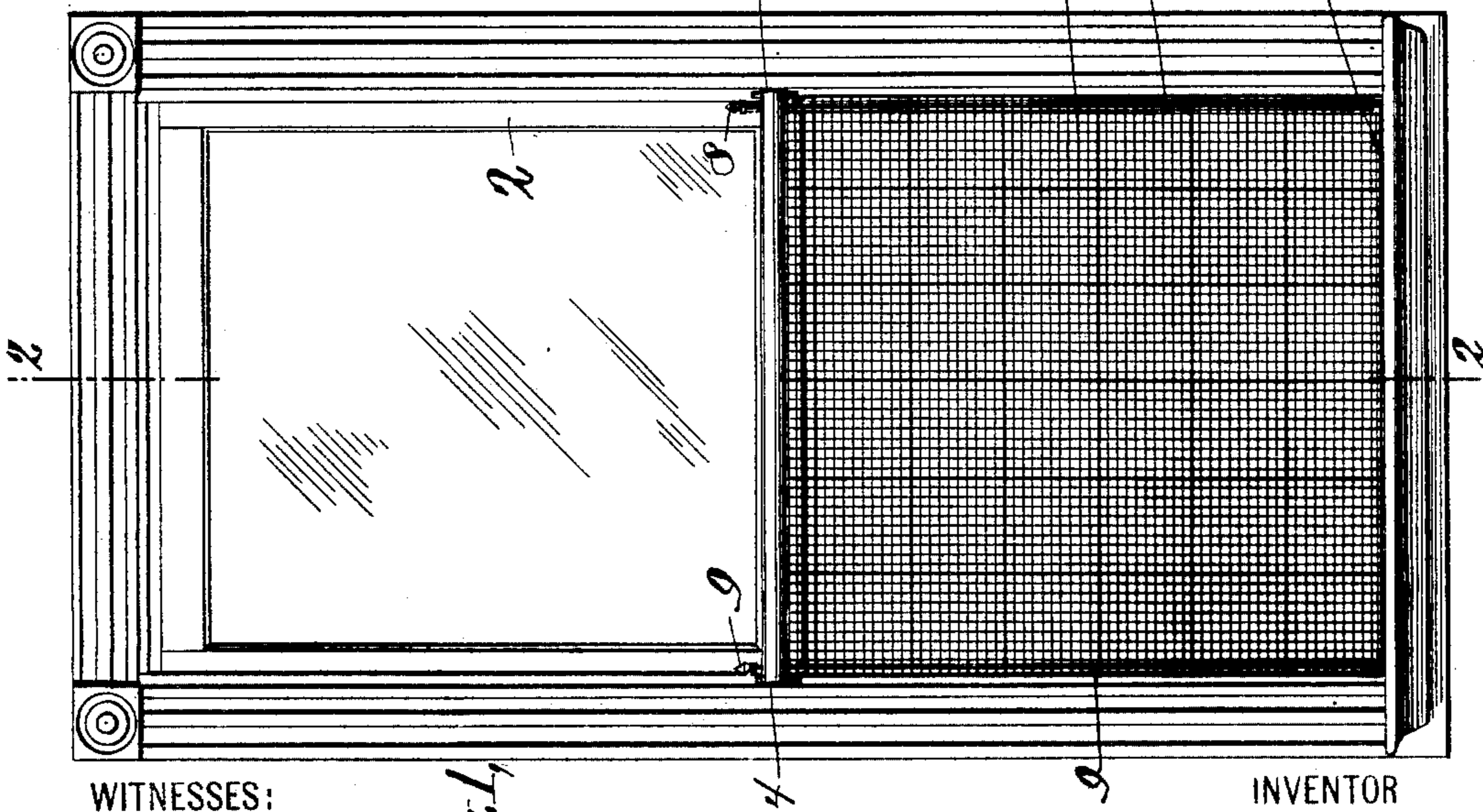


Fig. 7.

WITNESSES:

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WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 679,538, dated July 30, 1901.

Application filed December 10, 1900. Serial No. 39,269. (No model.)

To all whom it may concern:

Be it known that I, OSCAR NELSON, a citizen of the United States, and a resident of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Window-Screens, of which the following is a specification.

This invention relates to window-screens, and more particularly such as are designed and adapted to be wound on a spring-roller.

The invention consists of the construction hereinafter set forth, and specified in the claims.

In the drawings forming part of this specification, and in which like reference-numerals designate corresponding parts in the several views, Figure 1 is a front elevation of a window, showing my screen applied thereto. Fig. 2 is a central sectional elevation of the lower part of the structure shown in Fig. 1 and on the line 2 2 thereof. Fig. 3 is a sectional plan view taken on the line 3 3 of Fig. 2. Fig. 4 is a fragmental plan view showing one of the roller-brackets and associated parts. Fig. 5 is a fragmental side elevation of the structure shown in Fig. 4; and Fig. 6 is a cross-sectional elevation of the roller, showing the means of attaching the screen thereto.

Referring now more particularly to the specific embodiment of the invention as shown in the drawings, 1 and 2 are the upper and lower sashes, respectively, of the window. The brackets 3 and 4, secured to the lower rail of the lower sash 2, carry the screen spring-roller 5, to which the screen 6 at one end is secured. The lower end of the screen is secured to the cross-piece 7 of a guide-frame comprising the cross-piece 7 and the side pieces 8 and 9. The side pieces pass through apertures in the brackets 3 and 4. The aperture 16 in the bracket 3 is shown in Fig. 4. The guide-frame is preferably made of metal and may be made in one piece and is arranged to move up and down in winding and unwinding the screen, the movement of the frame being guided by the brackets 3 and 4. When the sash 2 is lowered, the screen is automatically wound on the roller 5, the frame guiding and keeping taut the screen as the brackets slide down on the side pieces 8 and

9. In raising the sash the screen and frame may be carried up therewith, and the screen may be then unwound by lowering the cross-piece 7 of the frame, or the cross-piece 7 may be held down while the sash is raised. For the purpose of counteracting the movement of roller 5, so as to enable the screen to remain unwound, I provide suitable devices, which may be the springs secured to the brackets 3 and 4 and bearing on the side pieces 8 and 9 of the frame, such as the spring 10 in Figs. 2 and 5.

12 is a casing for the roller 5, preferably made of sheet metal and made removable. As shown, its inner edge fits in slots 13, formed in the brackets 3 and 4 and is supported on said brackets. The brackets 3 and 4 are preferably made to extend outward around the tongues of the window-frame, as shown, so as to bring the side pieces 8 and 9 of the frame close to the window-frame.

In Fig. 6 is shown the means employed for securing the screen fabric to the roller. The roller is provided with a plurality of fingers 14, carried part way around the roller and each having one end secured to the roller and the other end free. These fingers preferably extend only part way around the roller and extend from their fixed ends in the same direction as that in which the spring winds the roller. I generally employ five or six of these fingers. They are preferably of flat spring metal. The screen fabric 6, which is preferably of fibrous material, is wrapped around a strip 15, generally of thin flat metal, and this strip is slipped under the finger 14, thus firmly securing the screen fabric 6 to the roller and in such a way as not to cumber the roller or interfere with the winding of the screen thereon. These means, moreover, enable the screen to be readily attached and detached from the roller and insure that it will always be secured evenly thereto.

Various changes may of course be made in the specific embodiment of the invention and still employ some of the features of the invention, with their attendant advantages.

I claim—

1. In a window-screen, the combination of a frame comprising a cross-piece and two side pieces; a roller; a screen having one end se-

cured to the roller so as to be wound thereon, and having its free end secured to the cross-piece of the frame, the side pieces of the frame being disconnected from the screen; 5 and means for guiding the frame in its movement when the screen is being wound or unwound on the roller.

2. In a window-screen, the combination of a frame comprising a cross-piece and two side 10 pieces; a roller; a window-sash carrying the roller; a screen having one end secured to the roller so as to be wound thereon, and having its free end secured to the cross-piece of the frame; and means for guiding the frame 15 in its movement when the screen is being wound or unwound on the roller.

3. In a window-screen, the combination of a frame comprising a cross-piece and two side pieces; a window-sash; a roller; brackets for 20 the roller secured to the sash and having guideways for the side pieces of the frame; and a screen having one end secured to the

roller so as to be wound thereon, and having its free end secured to the cross-piece of the frame. 25

4. In a window-screen, the combination of a frame comprising a cross-piece and two side pieces; a window - sash; a spring - roller; brackets for the roller secured to the sash and having guideways for the side pieces of the 30 frame; and a screen having one end secured to the roller so as to be wound thereon, and having its free end secured to the cross-piece of the frame, said brackets having friction-springs arranged to bear upon the side pieces 35 of the frame to counteract the movement of the spring-roller.

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

OSCAR NELSON.

Witnesses:

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JOHN O. GEMPLER.