No. 746,403. PATENTED DEC. 8, 1903.

S. U. TARNEY.

WINDOW SCREEN.

APPLICATION FILED JULY 13, 1903.

NO MODEL.

Fig. 1.

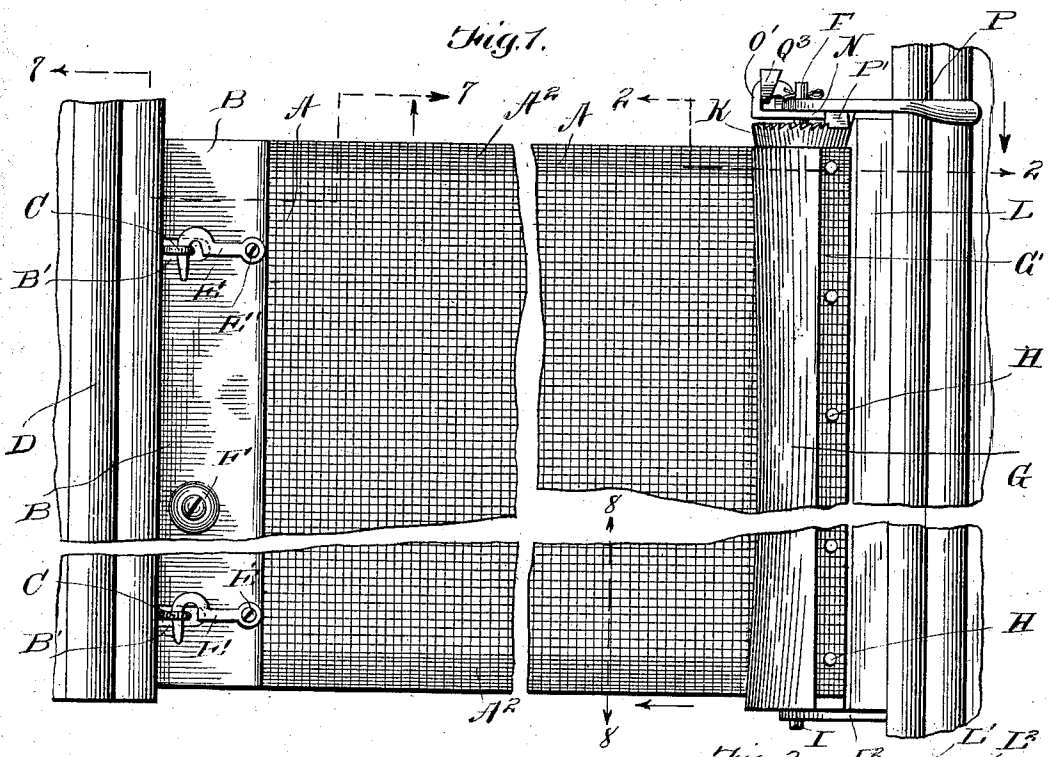


Fig. 2.

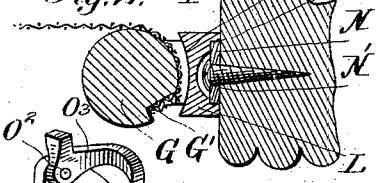


Fig. 4.

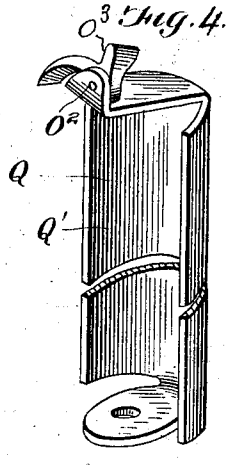


Fig. 3.

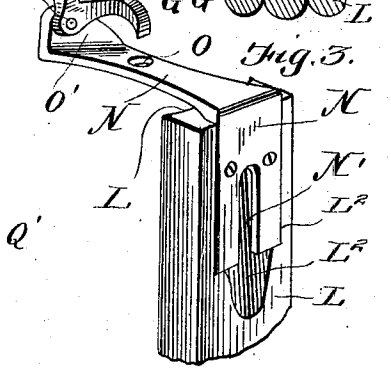


Fig. 6.

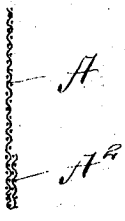
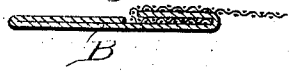


Fig. 5.



Witnesses

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No. 746,403. Patented December 8, 1903.

UNITED STATES PATENT OFFICE.

SIMEON U. TARNEY, OF AUBURN, INDIANA.

WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 746,403, dated December 8, 1903.

Application filed July 13, 1903. Serial No. 165,382. (No model.)

To all whom it may concern:

Be it known that I, SIMEON U. TARNEY, a citizen of the United States, residing at Auburn, in the county of Dekalb and State of Indiana, have invented certain new and useful Improvements in 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 letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in window-screens, and comprises an adjustable screen which is adapted to be held horizontally or lengthwise on a window, if desired, and so constructed as to be applicable to windows or doors of various widths and lengths and easily adjusted thereto.

More specifically the present invention consists in the provision of a strip of screen-cloth having one end thereof fastened to and adapted to wind about a roller and designed to be fastened at one side of the window-opening and provided with means for turning the roller to make the screen taut, while the other end of the latter is adapted to be held to screw-eyes fastened in the jamb of the window.

The invention consists, further, in the provision of an adjustable screen formed of woven-wire fabric, having its ends and sides protected, and the provision of a roller to which one end of the screen is fastened, and in the provision of novel means for holding the roller-supporting bracket to a window or door jamb.

The invention consists, further, in various details of construction, arrangements, and combinations of parts, which will be hereinafter fully described and then specifically defined in the appended claim.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation showing the manner of mounting my screen in the opposite jambs of a window or door, the central portion of the screen being broken away. Fig. 2 is a cross-sectional view on line 2 2 of Fig. 1. Fig. 3 is a detail perspective view of one of the bracket-arms which supports the roller. Fig. 4 is a detail view of the shield, in the ends of which spindles of the rollers have bearings. Fig. 5 is a section upon line 7 7 of Fig. 1. Fig. 6 is a detail view of one of the edges of the screen bent upon itself, forming a selvage, the same being taken upon line 8 8 of Fig. 1.

Reference now being had to the details of the drawings by letter, A designates a screen made, preferably, of woven wire, and B a metallic plate, one longitudinal edge of which is bent upon itself and adapted to receive an end of the wire screen, while the opposite longitudinal edge, which is also bent upon itself, has slots B′ formed therein to receive the screw-eyes C and which are adapted to be fastened into the jamb D of a window or door, and hooks E are pivotally mounted upon pins E′, which pass through one longitudinal edge of the screen, which is bent upon itself, and serve to hold said edge in clamping relation against the edge of the screen held thereby. A knob F is fixed to said plate, and it is utilized to adjust the screen in place. The longitudinal edges of the screen are preferably bent upon themselves, as at A^2, in order to protect said edges, and G designates a roller having a recess G′ therein, in which the other end of the screen is fastened by means of suitable screws or nails H, the edge being preferably turned upon itself in order to form more substantial hold upon the roller. The said roller has pintles I and I′ at its opposite ends, the lower of said pintles I having a bearing in bracket-arm I^2, while the upper pintle has a bearing in bracket-arm N. One end of the roller is provided with a circular ratchet-collar K, having teeth along its upper marginal edge, and L designates a bar having its inner face concaved, as at L′, (shown clearly in Fig. 2 of the drawings,) said bar having secured thereto the bracket-arm N, above referred to, which is clearly shown in Fig. 3 of the drawings, which arm is seated in a recess L^2 in the outer face of said bar L. The fixed end of said bracket-arm is slotted, as at N′, adapted to engage the head of the screw or nail, as shown in Fig. 2, whereby the bar may be fastened to the frame of a window or door

opening. In the horizontally-disposed portion of the bracket N is an aperture O, in which the pintle I′ is journaled, and the free end of said bracket-arm is bent at an angle, as at O′, and carries a pin O^2, on which the pawl O^3 is pivoted, one end of said pawl adapted to ride over and engage the teeth of the ratchet-collar K, while an operating-lever P is journaled upon the pintle I′ and has a projecting portion P′, designed to engage the teeth of the ratchet-collar for the purpose of imparting a rotary movement to the roller, whereby the screen may be made taut.

In Fig. 4 I have shown a slight modification in my invention in which I employ a concaved shield Q in place of the bar L, above referred to, which shield is made, preferably, of metal and has two wings Q′ (shown clearly in Fig. 4) and has its end bent at right angles, forming bearings for the pintles of the roller, while one of the ends has an upwardly-bent portion O^3, adapted to engage the teeth of the ratchet-collar K.

By the provision of the bar L or the modified form of the shield Q, which is made concaved, it will be observed that the screen is guided and may be readily wound upon the roller. When the form of shield illustrated in Fig. 4 is employed in place of the bar L, the bracket-arms N may be dispensed with and a screw provided for the purpose of providing a bearing for the pintle at the upper end of the roller.

In order to make the opposite longitudinal edges of the screen taut, I provide a winding-roller which is concaved with flaring ends, so that the diameter of the roller adjacent to the outer edges of the screen about which said edges wind will be of greater diameter than the intermediate portions of the roller, and by having the edges of the screen bent upon themselves more strength is produced by the two thicknesses, whereby extra strain comes upon the double folds of the cloth.

In adjusting my screen to a window or door the hooks E are caught in the screw-eyes C and the roller journaled to the jamb of the opposite side of the window, and said roller may be actuated by the handle P for the purpose of making the screen taut and adjusting the same to any width of window-opening, and by the employment of the bar L, having one face concaved or with the concaved shield, the screen may be guided and wound upon the roller without any obstructions.

While I have shown a particular construction of apparatus embodying my improved screen, it will be understood that I may make alterations in the detailed construction of the same without departing from the spirit of the invention.

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

An adjustable window-screen comprising a woven-wire fabric, a plate having its longitudinal edges bent upon themselves and clamping one end of said fabric, hooks carried by said plate, screw-eyes adapted for engagement with the frame of the window and receiving said hooks, a bar having a concaved surface, slotted bracket-arms seated in recesses in the rear of said bar, a roller having pintles journaled in said bracket-arms, and means for drawing and holding the fabric taut, as set forth.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

SIMEON U. TARNEY.

Witnesses:
ROMEO E. TARNEY,
A. J. RALSTON.