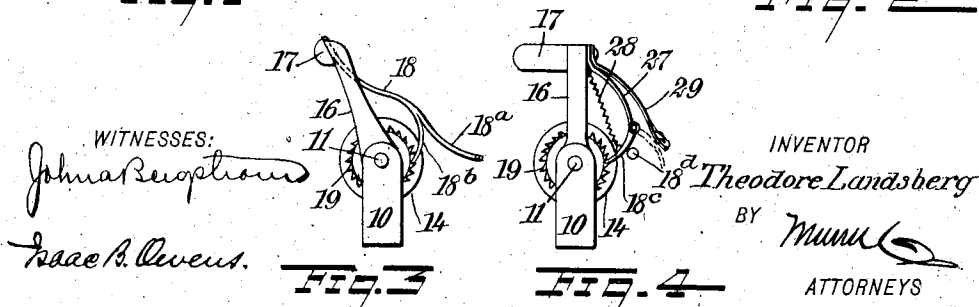
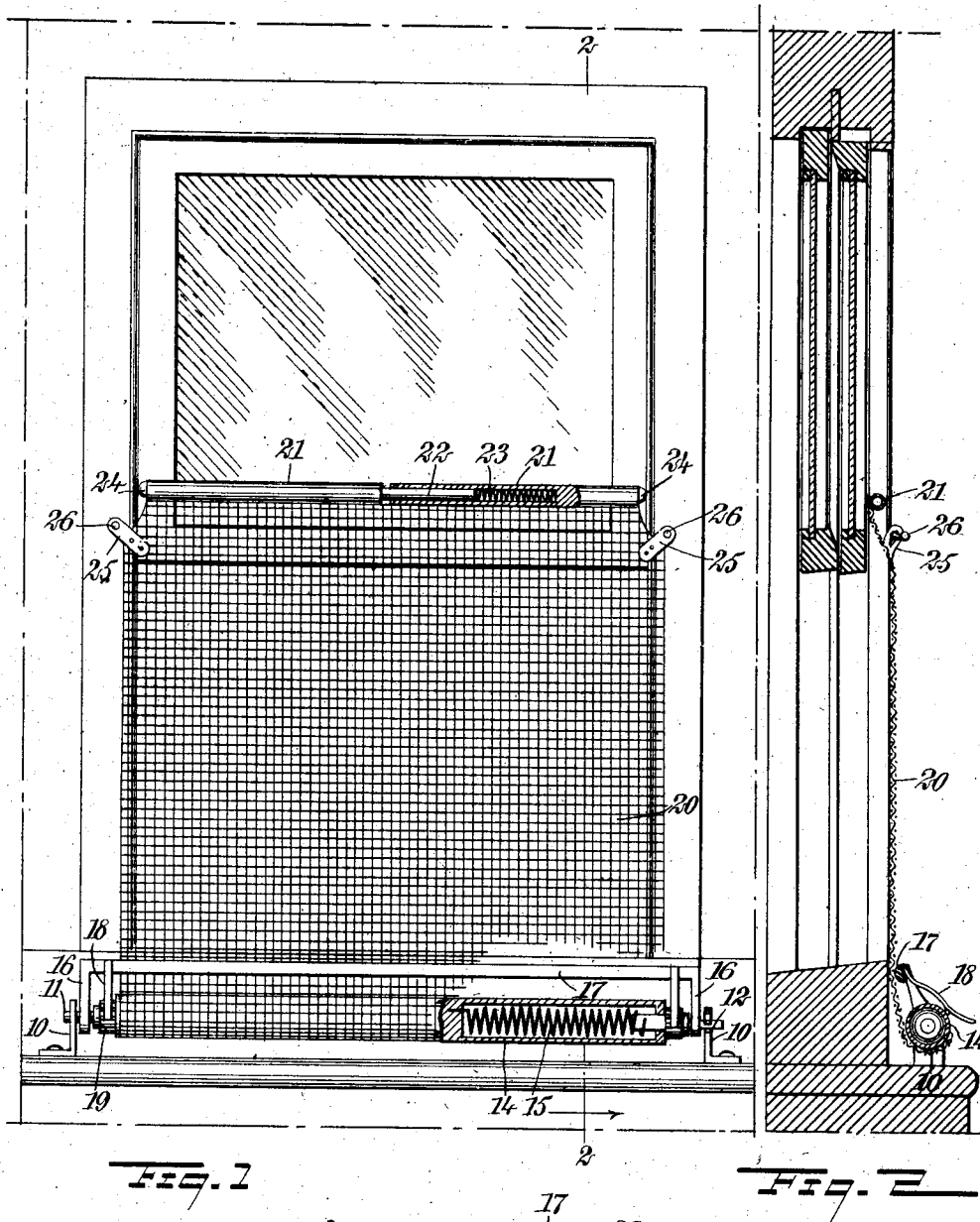


No. 834,145.

PATENTED OCT. 23, 1906.

T. LANDSBERG.
WINDOW SCREEN.
APPLICATION FILED OCT. 19, 1905.



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THEODORE LANDSBERG, OF NEW BRUNSWICK, NEW JERSEY.

WINDOW-SCREEN.

No. 834,145.

Specification of Letters Patent.

Patented Oct. 23, 1906.

Application filed October 19, 1905. Serial No. 283,408.

To all whom it may concern:

Be it known that I, THEODORE LANDSBERG, a citizen of the United States, and a resident of New Brunswick, in the county of Middlesex and State of New Jersey, have invented a new and Improved Window-Screen, of which the following is a full, clear, and exact description.

The object of my invention is to improve the arrangement of window-screens which are provided with means for automatically returning them to folded position.

It is also an object of my invention so to construct and arrange the screen and its co-acting parts that the connection between the screen and the window-frame will be such as to insure at all times the exclusion of flies and other insects.

Other objects are contemplated of major or minor importance, and all will be fully set forth hereinafter.

Reference is to be had to the accompanying drawings, which illustrate as an example the preferred manner of carrying out my invention, in which—

Figure 1 is a front view of the window having my screen applied and showing certain of the parts broken away. Fig. 2 is a vertical section on the line 2 2 of Fig. 1. Fig. 3 is an enlarged side view showing the presser-bar and the pawl and ratchet, and Fig. 4 is an elevation of a modified form of the same.

Referring particularly to Figs. 1 to 3, 10 indicates two brackets respectively mounting the journals 11 and 12 of a roller 14. The journal 11 is revolubly mounted in its bracket 10 and is fastened to the roller 14, while the journal 12 is non-rotatable in its bracket 10 and has the roller 14 revolubly fastened thereon.

15 indicates a spring which is contained within the roller and is connected thereto and to the journal 12 so as to cause the roller to turn on the journal. Mounted to swing on the journals 11 and 12 are arms 16, which carry the presser-bar 17. This bar extends longitudinally of the roller above the same. Attached to the bar 17 is a spring-arm 18, which is forked in its free end to form a finger-piece 18^a and pawl 18^b, the pawl coacting with a ratchet 19, carried at the end of the roller adjacent to the journal 11. When the pawl 18^b is engaged with the ratchet 19, the presser-bar 17 is run into en-

gagement with the sash, and through the medium of the parts 19, 18, and 17 rotation of the roller 14 under the action of the spring 15 is prevented. By lifting the pawl 18^b out of engagement with the ratchet 19 the roller 14 will be released and the spring 15 will be permitted to assert itself, so as to turn the roller in one direction.

Attached to the roller is a screen 20, which may be formed of wire, cotton, or other material, but which is sufficiently flexible to enable it to be wound over the roller 14. The screen extends the full width of the window-frame and has at its upper end a bar formed in two sections 21, having a telescopic connection, as indicated at 22, with a spring 23, tending to spread the sections of the bar apart. At the outer ends the bar-sections are provided with rubber or other knobs 24, which are adapted to engage the inner sides of the window-frame, as shown in the drawings, the parts being held firmly in this position by the pressure of the spring 23. The upper corners of the screen are cut away slightly to reduce the width of the screen at its extreme upper end, enabling it to be entered between the inner surfaces of the sides of the window-frame and bearing snugly against the sash. At said cut-away portions the screen is provided with tongues 25, which are adapted to engage pins 26, fastened to the window-frame, these devices holding the side edges of the screen firmly engaged with the inner face of the window-frame. It will thus be seen that when the screen is extended into position its side edges are held by the tongues 25 and pins 26 tightly against the inner face of the frame, while the reduced upper extremity of the screen enables it to be moved inward into actual contact with the sash. This makes a strictly fly or other insect tight connection between the screen and the frame and sash at the upper part of the screen. The upper part of the screen is held firmly against the sash by the presser-bar 17, which assures a fly or other insect tight connection at this point.

In the use of the invention to extend the screen the bar formed of the sections 21 should be grasped and the screen moved upward, the roller 14 unwinding against the tension of the spring 15. The sections of the bar 21 should then be forced together, so that the bar may be introduced inside of the win-

dow-frame against the sash and the spring 23 then permitted to expand to hold the bar-sections in place. The tongues 25 should then be engaged with the pins 26. The pawl 18^b is continuously engaged with the ratchet 19, and owing to the action of the spring 15 said pawl and ratchet throw the presser-bar 17 over and the screen is held firmly against the lower part of the sash. In order to furl up the screen, it is only necessary to disconnect the tongues 25 from the pins 26, release the bar 21, and lift the pawl 18^b from engagement with the ratchet 19, the spring 15 then acting to rewind the screen on the roller. It will be seen that this invention enables the screen to be rolled up snugly out of the way when not in use, and the screen when set is held effectually engaged with the frame and sash, so as to prevent the entry of flies or other insects at any point.

The modification of the invention illustrated in Fig. 4 involves the use of a pawl 18^c, which is pivoted on a relatively rigid arm 27 and which is held yieldingly in active position by a spring 28. Said pawl 18^c has a finger-knob 18^d, facilitating its operation, and the finger-knob also serves to engage a loop or holder 29, which retains the pawl in inactive position when desired. The device shown in Fig. 4 is applied and operated essentially the same as the corresponding device shown in Fig. 3 and described above. Either of these devices or their equivalent may be employed at will.

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

1. The combination of a window-screen reduced in width at one extremity, an expansion-bar connected with the reduced end of the screen and adapted to bear against the window-sash between the inner side faces of the frame, and means adjacent to said reduced end for connecting the side edges of the screen with the inner face of the window-frame.

2. The combination of a window-screen having one end reduced in width, means in connection with said end and adapted to lie between the inner side faces of the window-frame in engagement with the sash, and means at the side edges of the screen adjacent to the reduced end for connecting the screen with the inner face of the window-frame.

3. The combination of a window-screen having one end reduced in width, a means in connection with said reduced end and adapted to lie between the inner side faces of the window-frame in engagement with the window-sash, tongues attached to the side edges of the screen adjacent to the reduced end, and pins attached to the inner face of the window-frame and adapted to be engaged by the tongues.

4. The combination of a roller, a spring actuating the roller in one direction, a screen wound on the roller, a presser-bar, means for mounting the presser-bar to swing around the center of rotation of the roller, devices connecting the roller and presser-bar, for the purpose specified, said devices comprising a ratchet in connection with the roller, an arm attached to the presser-bar, a pawl pivoted to the arm, a spring actuating the pawl, and a means for releasably holding the pawl in inactive position against the tension of the spring.

5. The combination of a roller, a spring actuating the roller in one direction, a screen wound on the roller, a presser-bar, means for mounting the presser-bar to swing around the center of rotation of the roller, devices connecting the roller and presser-bar, for the purpose specified, said devices comprising a ratchet in connection with the roller, an arm attached to the presser-bar, a pawl pivoted to the arm, a spring actuating the pawl, and a loop also attached to the presser-bar and adapted to be engaged by the pawl releasably to hold the pawl in inactive position.

6. The combination with a window frame and sash, of a roller mounted at the base of the frame, a spring tending to turn the roller in one direction, a screen wound over the roller, the free or upper end of the screen being reduced in width, means in connection with said reduced end and adapted to lie between the inner side faces of the frame against the sash, means connected to the side edges of the screen adjacent to the reduced end and adapted to connect said edges with the inner face of the frame, a presser-bar movably mounted adjacent to the roller and adapted to hold the screen in engagement with the lower part of the frame, and devices for connecting the presser-bar and roller, for the purpose specified.

7. The combination with a window frame and sash, of a roller mounted at the base of the frame, a spring actuating the roller to turn in one direction, a screen wound over the roller, a presser-bar adapted to hold the screen in engagement with the lower part of the sash, the presser-bar being mounted to turn around the axis of rotation of the roller, devices connecting the roller and presser-bar, for the purpose specified, the free or upper end of the screen being reduced in width, an expansion-bar in connection with the reduced end of the screen and adapted to lie against the inner side faces of the frame against the sash, and tongues attached to the side faces of the screen adjacent to the reduced portion and adapted to connect the side edges of the screen with the inner face of the frame.

8. The combination with a window-frame, of a spring-actuated roller journaled on the sill thereof, a screen having one end wound

upon the roller, a presser-bar for holding the
screen against the frame, said bar extending
parallel with the roller and provided at each
end with arms pivoted to the ends of said
5 roller, a ratchet-wheel on the roller, and a
pawl connected to the presser-bar and en-
gaging the ratchet-wheel.

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

THEODORE LANDSBERG.

Witnesses:

CLARENCE C. SHERWOOD,
WM. RICHTER.