No. 745,731. PATENTED DEC. 1, 1903.

D. J. LA DUE.

WINDOW SCREEN.

APPLICATION FILED APR. 9, 1901. RENEWED OCT. 14, 1903.

NO MODEL.

Fig. 1.

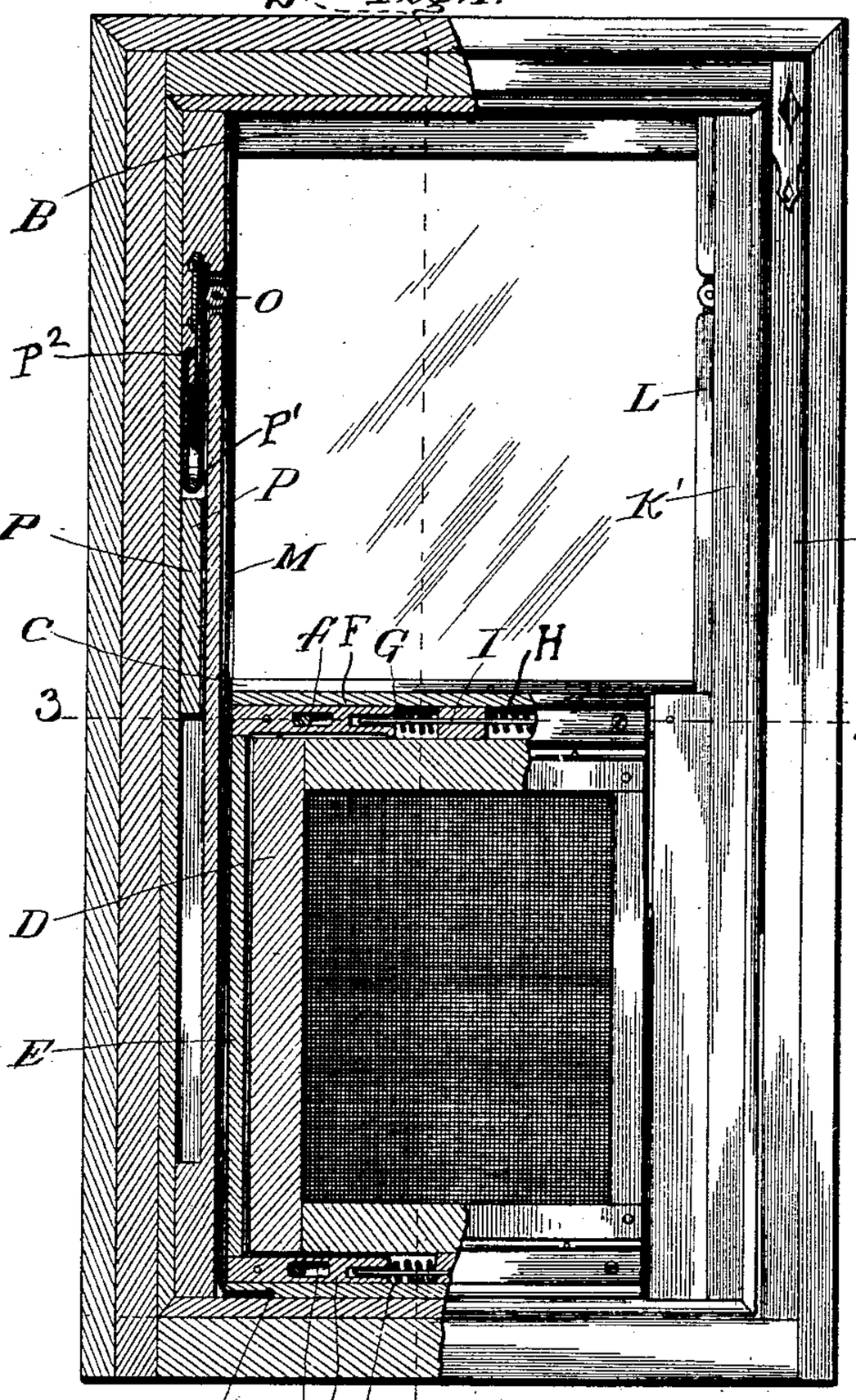


Fig. 2.

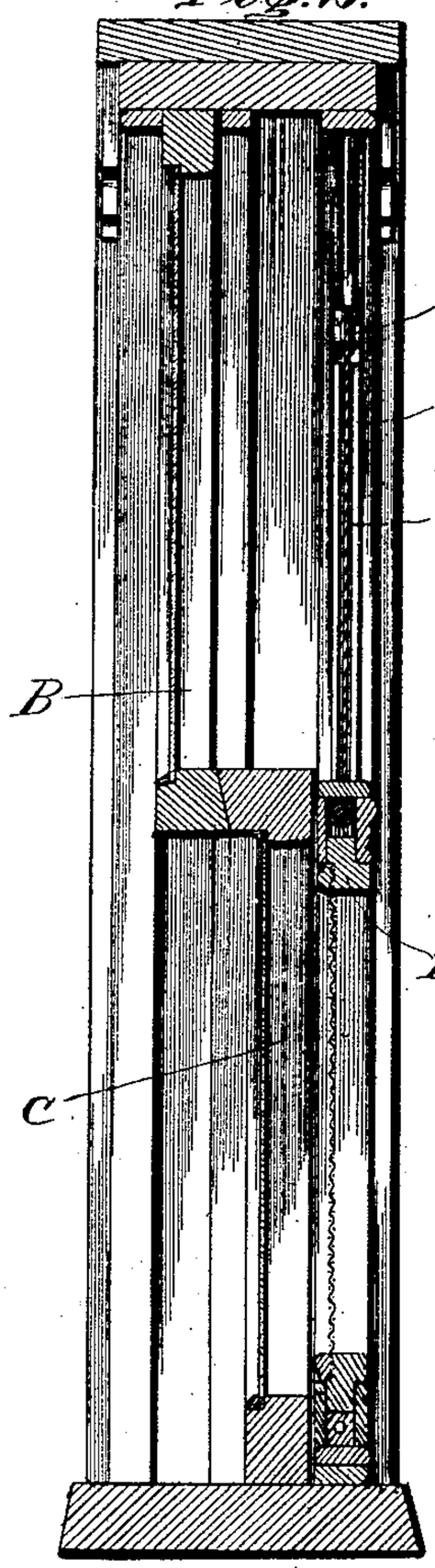
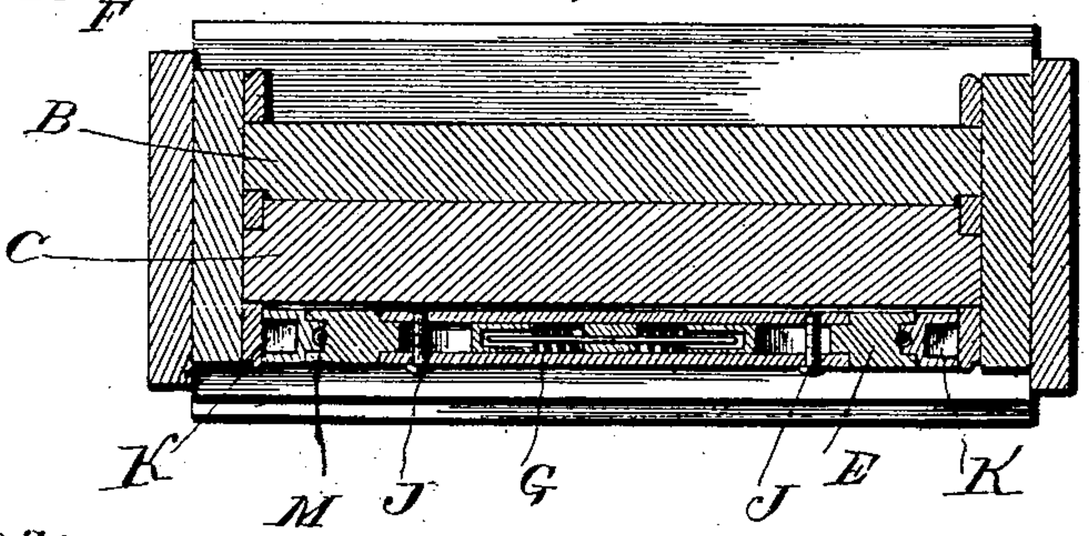


Fig. 3.



Witnesses;
H. B. Hallock.
L. H. Morrison.

Inventor.
Daniel J. La Due.
By W. Preston Williamson.
Atty.

No. 745,731. Patented December 1, 1903.

UNITED STATES PATENT OFFICE.

DANIEL J. LA DUE, OF PHILADELPHIA, PENNSYLVANIA.

WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 745,731, dated December 1, 1903.

Application filed April 9, 1901. Renewed October 14, 1903. Serial No. 177,007. (No model.)

To all whom it may concern:

Be it known that I, DANIEL J. LA DUE, a citizen of the United States, residing at Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a certain new and useful Improvement in Window-Screens, of which the following is a specification.

My invention relates to a new and useful improvement in window-screens, and has for its object to provide a screen which can be made to fit upon the inside frame instead of under the sash, and thereby allow the window to be raised and lowered without interfering with or removing the screen.

A further object of my invention is to provide guideways for the screen and weights and ropes secured to the screen for counterbalancing the same, so that the screen can be raised or lowered and will stay in any position it is placed.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claim.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, the construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a front view of a window-casing, showing my screen applied thereto, part of said casing and frame of screen being shown in section. Fig. 2 is a section taken on the line 2 2 of Fig. 1, and Fig. 3 a section taken on the line 3 3 of Fig. 1.

In carrying out my invention as here embodied A represents the window-casing, and B and C the upper and lower sash.

D is the screen-frame proper, to which the wire cloth is secured.

E represents grooved strips extending up and down the length of the screen upon each side thereof. Each of these strips have at their top and bottom projections F, which extend into guideways G, formed in the upper and lower part of the screen-frame D. The inner ends of these projections F abut against springs H, which lie within the guideways G. A rod I, secured in the screen-frame, passes through the springs and a short distance in the projections F for the purpose of affording a better guide for the said projections. The purpose of the springs is to keep the grooved strips E forced outward, and to prevent the projections F from being forced entirely out of the guideways G, I form slots *f* through the projections F, and screws J pass through the screen-frame and through the slots *f*, and thus limit the motion of the side grooved strips E.

Upon the inside of the window-casing I provide guideways K, which have the tongue L, projecting from the outside thereof. This tongue extends from the top to the bottom of the guideway-strip K′. The grooves in the side strip E of the screen are adapted to embrace this tongue L, and by reason of the springs always tending to press the strips E outward the screen will be held upon the tongue and is at liberty to slide up and down the same. When it is desired to remove the screen from the guideway-strip K, either one or both of the side strips E are pressed inward against the tension of the spings, when the screen can be easily removed.

For the purpose of holding the screen in any position it may be placed vertically upon the guideway I provide cords M, which are secured to the lower end of the screen-frame at the point N and pass upward between the vertical side strips E and the tongues L and pass over a small roller O, provided in the guideways K, into a cavity which is formed in the rear of the guideway-strip K. These cords M then pass downward in the cavity and around a small roller P′, journaled in the upper end of the counterbalancing-weights P. The cords then pass upward and are attached to the framework at the point P^2.

Small grooves are formed in the faces of the tongue L, in which the cords M are adapted to lie, and thus prevent the vertical strips E from pressing against the cord and injuring it in any way.

While I have described the vertical guide-strips K as being added to the window-frame, it would only be necessary to add these guideways when it was desired to place my screen in houses already constructed.

The advantages of my invention are that the screen can be made comparatively cheap and yet will be strong and durable in every

way, and while providing a sliding screen it is also easily removable, and by reason of attaching weights to the screen the screen will be held in the position it is placed, and thus the windows can be cleaned without the necessity of removing the screen.

Slight modifications could be made in the construction and arrangements of the several parts without materially affecting the spirit of my invention.

Having thus fully described my invention, what I claim as new and useful is—

In a window-screen, a frame having guideways formed in its upper and lower sections, springs within the guideways, grooved strips extending the length of the frame, projections at the top and bottom of each strip extending into the guideways formed in the upper and lower parts of the screen-frame; the inner ends of such projections abutting the springs in the guideways, a rod passing through the springs and a short distance into the projections; said projections having slots, screws in the slot and frame, guideway-strips, tongues on the strips embraced by the grooves in the side strips of the screen, cords secured to the lower end of the screen-frame passing between the side strips and tongues, and weights in the casing on the cords, substantially as described.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

DANIEL J. LA DUE.

Witnesses:
ROBT. N. THOMAS,
JOHN MCCLOSKEY.