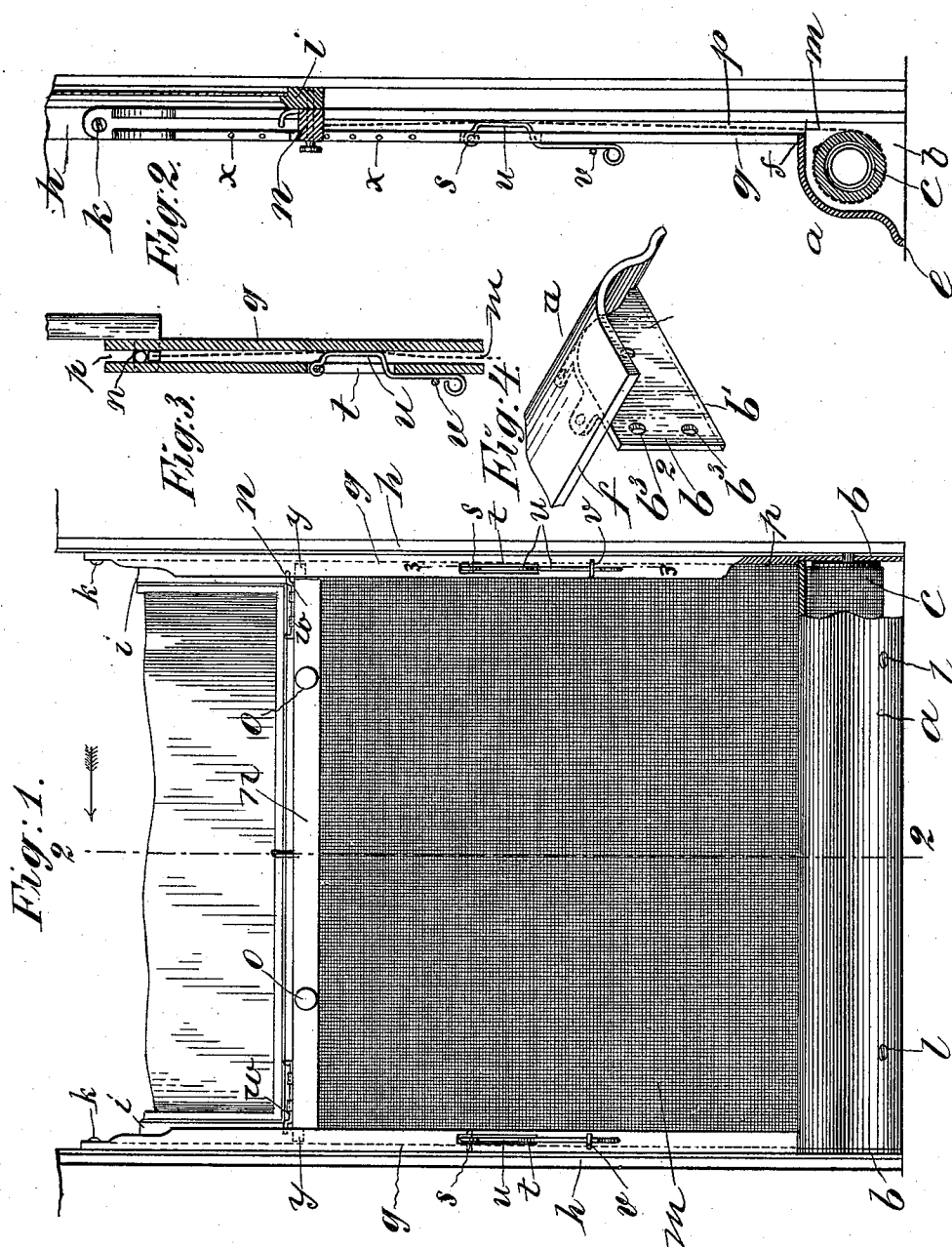


(No Model.)

E. LARSON.
WINDOW SCREEN.

No. 578,571.

Patented Mar. 9, 1897.



WITNESSES:

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By

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UNITED STATES PATENT OFFICE.

EMANUEL LARSON, OF TRAVER, CALIFORNIA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF TWO-THIRDS TO ALEXANDER HILLSTROM, OF TULARE COUNTY, AND GEORGE X. WENDLING, OF HANFORD, CALIFORNIA.

WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 578,571, dated March 9, 1897.

Application filed June 13, 1896. Serial No. 595,426. (No model.)

To all whom it may concern:

Be it known that I, EMANUEL LARSON, a citizen of the United States, and a resident of Traver, in the county of Tulare and State of California, have invented certain new and useful Improvements in Window-Screens, of which the following is a specification.

My invention relates to window-screens for taking the place of the sash when raised and being displaced therefrom when the sash is closed; and it consists of the improved screen apparatus for detachable application to the window, as hereinafter described, reference being made to the accompanying drawings, in which—

Figure 1 is an inside elevation of part of a window with my improved screen attachment applied and with the screen adjusted for use, a part of the roller-case and one of the guides for the edges of the screen being sectioned. Fig. 2 is a sectional elevation on line 2 2, Fig. 1. Fig. 3 is a detail in sectional elevation on line 3 3, Fig. 1. Fig. 4 is a perspective view of part of the roller-case.

I provide a spring-roller case consisting of a transversely-curved cover-plate *a* and end plates *b*, and fit within said case a spring-roller *c* of the common form used for curtains, said roller being pivoted in the end plates *b*, and said case being adapted to be placed on the window-sill *E* between the jamb-linings *h*, with the top and back edge *f* of the cover not quite reaching to the sash-frame to leave free space for the screen and with the end plates *b* bearing against the jamb-linings when not obstructed by sash-stops. In case there are sash-stops to interfere the end plates may set back in the cover-plate, as *b'*, Fig. 4, and have the inward extension *b²* to lap on the sides of the stops and be fastened thereto by screws, as indicated at *b³*.

To each end of the cover is attached an upright bar *g*, suitable to stand in the angles between the jamb-linings *h* and the lower sash *i* and extending upward a suitable distance above the top of the lower sash when down in its normal position. These bars *g* are firmly attached to the cover-plate *a* and the end plates *b*, and are secured at the upper ends to the jamb-linings *h* by screws *k*,

and the cover-plate is fastened to the sill *e* by screws *l*, the arrangement being such that with the roller and its case being made of proper length they can be readily applied to and removed from any window.

The roller carries a screen *m* of cloth or netting of any approved material and prepared in any approved way, the free end of which is attached to a bar *n*, which is secured to the lower sash-bar by thumb-screws *o* or other approved means whereby it may be readily applied and removed, said screen being a little wider than the space between the upright bars *g*, and said bars being grooved in the faces fronting each other, as at *p*, for guide-ways for the edges of the screen, wherein said edges will be confined to prevent ingress of insects, and spring-wire clamps *u* are provided to clamp the edges of the screen and prevent them from being forced out of the grooves when the wind blows, said clamps consisting of suitably-bent spring-wires pivoted at *s* on the upright bars at the upper ends of the slots *t*, through which the clamping parts *u* extend inward suitably to press the screen against the back walls of the grooves and bind it thereto to hold it against the effect of the wind, the lower arms of the clamp being pressed under and secured by hook-studs *v*.

The screen may be of cloth, netting, or a fabric made out of silk, ramie, woven glass, fine wire, or any approved material. If made of cloth, it should be oiled or varnished.

In case the sash does not balance and there is need of any means of securing it in position when raised the bar *n* may be provided with one or more latch-bolts, as *w*, and the bars *g* may have holes *x* along them for the latch-bolts to engage in. The screen may be employed with good results without the guide-bars for the edges, and I will so arrange it when desired.

The bar *n* is preferably made with studs *y*, projecting into the grooves *m*, for supporting the edges of the screen.

The holes *x* may be in the bottom of the groove, if preferred.

I claim—

The improved screen attachment for windows consisting of the roller-case adapted for

application on the window-sill between the jamb-linings with free space between its upper inner edge and the sash-frame, the spring-roller concealed in the case and pivoted in
5 the end plates of the case, the screen carried on the roller, the bar attached to the end of the screen and provided with means for detachable connection with the window-sash, the upright bars attached to the ends of the
10 roller-case suitably for lodgment in the angles between the sash and the jamb-linings and being grooved for the edges of the screen,

and slotted for the clamps, and the clamps in the said slots of the bars and adapted for gripping the screen against the groove-walls, said
15 screen having its edges extended into the grooves substantially as described.

Signed at Traver, in the county of Tulare and State of California, this 13th day of April, A. D. 1896.

EMANUEL LARSON.

Witnesses:

ALEX. HILLSTROM,
J. D. PILLSBURY.