S. ROEBUCK.

ADJUSTABLE WINDOW-SCREEN.

No. 191,473 Patented May 29, 1877.

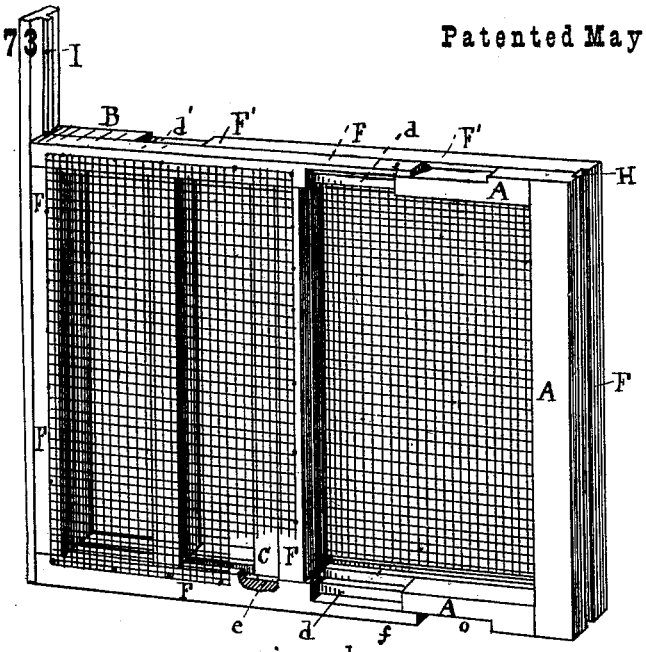

Fig. 1

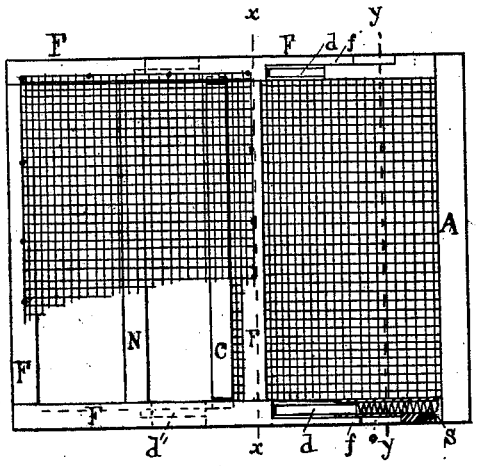

Fig. 2.

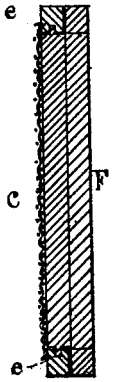

Fig. 3

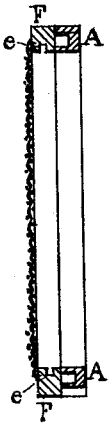

Fig. 4.

WITNESSES

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SAMUEL ROEBUCK, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN ADJUSTABLE WINDOW-SCREENS.

Specification forming part of Letters Patent No. **191,473**, dated May 29, 1877; application filed June 17, 1876.

To all whom it may concern:

Be it known that I, SAMUEL ROEBUCK, of Brooklyn, in the county of Kings and State of New York, have invented an Improved Adjustable Window-Screen Frame, of which the following is a specification:

The object of my invention is to produce a durable and readily-adjustable window-screen frame, adapted to be securely fitted in open windows of different widths without the necessity of using any fastening devices; and the invention consists in the employment of adjustable screen-sections, adapted to be applied to window-frames of different widths, and provided with plungers, an extension-piece, and guide and stop rails, in combination with auxiliary frames, provided with openings for the reception of coiled springs and the plungers, as hereinafter more fully set forth.

Referring to the drawings, Figure 1 represents a perspective view of my invention. Fig. 2 is an elevation of the same, with a portion broken away to show the construction of certain parts. Fig. 3 is a section on the line *x x* of Fig. 2; and Fig. 4 is a section on line *y y* of the same.

Similar letters indicate like parts in the several figures.

F F′ represent the two sections of the frame, constructed alike, and made to slide in parallel ways. To each section F F′ is attached, respectively, an auxiliary frame, A B, and forming a part of the same.

Within the upper and lower portions of the auxiliary frames A B, at each end, is a recess or space, in which is placed a spiral spring, *s*, as seen in Fig. 2, a portion being broken away to show the same.

On the inner ends of the corresponding central portions of frames F F′, at the top and bottom, are bars or plungers *d*, Figs. 1 and 2, which are fitted to move freely in the recesses which hold the springs *s*, so that the said springs will act upon the bars or plungers to press them outward, and thus exert a constant force upon the sectional frames, to keep their outer perpendicular sides pressed against the sides of the window-frames, and thus hold the whole frame securely in position without the necessity of any extraneous fastening. A portion, *f*, of the frame F F′ extends over and under the plungers at the top and bottom of the frame, and fit in recesses *o* in the corresponding portions of the auxiliary portions of the frame, the object being to prevent any opening for the entrance of insects.

To the central or inner bars or rails of the sectional frames F F′ are attached auxiliary guide-rails *c*. These rails are provided with tenons at each end, which are fitted to move in grooves formed in the inner edges of the top and bottom rails of the sectional frames, as shown at *e* in Figs. 3 and 4, and also in Fig. 1. These auxiliary rails perform an important function in the construction and operation of the whole frame, inasmuch as they impart a steadiness of bearing to the frames, and insure a parallelism of movement of the two sections. They are made flush with the frame, and are in such close proximity to the gauze screens as to prevent the entrance of insects between the gauze and the main frame. They also serve to prevent the longitudinal separation of the sections F F′, as the auxiliary guide-rail of one section of the frame abuts against, and is stopped by, the inner rail of the opposite section when the plunger is forced out by the spring *s*. Lateral separation of the two sections is likewise prevented.

To the center of each section F F′ may be attached one or more vertical bars or rods, N, as seen in Figs. 1 and 2, for the purpose of preventing children from falling out of the window.

The screen-frame may be placed in the upper or lower part of the window-frame, as desired.

Grooves H may be formed in the outer sides of the screen-frame, as shown in Fig. 1, which are fitted to slide on guides I, attached to the stop-bead of the window, as shown.

In the construction of screen-frames, as above described, I am enabled to dispense with the use of any metallic substances, with the exception of the spring, which is concealed from view, such metallic substances upon a screen-frame being objectionable in appearance, as well as adding to the expense of manufacture.

I am aware that window-screen frames have been made in two parts, which were caused

to extend longitudinally by means of rubber springs; but it is found in practice that such springs are objectionable, for the reason that, after being used any considerable time, they gradually lose their elasticity and consequent efficiency, rubber in the form of springs for this purpose being necessarily perishable; whereas coiled springs such as are used in my invention will last as long as the wood-work of the frame, and require no renewal.

What I claim as my invention, and desire to secure by Letters Patent, is—

The adjustable sections F F′, adapted to be applied to window-frames of different widths, and provided with the plungers *d*, extension *f*, and guide and stop rails *c*, having end tenons sliding in grooves *e*, in combination with the auxiliary frames A B, provided with openings for the reception of the coiled springs *s* and recesses *o*, substantially as described, and for the purpose set forth.

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

SAMUEL ROEBUCK.

Witnesses:

J. H. ADAMS,

C. W. TUTTLE.