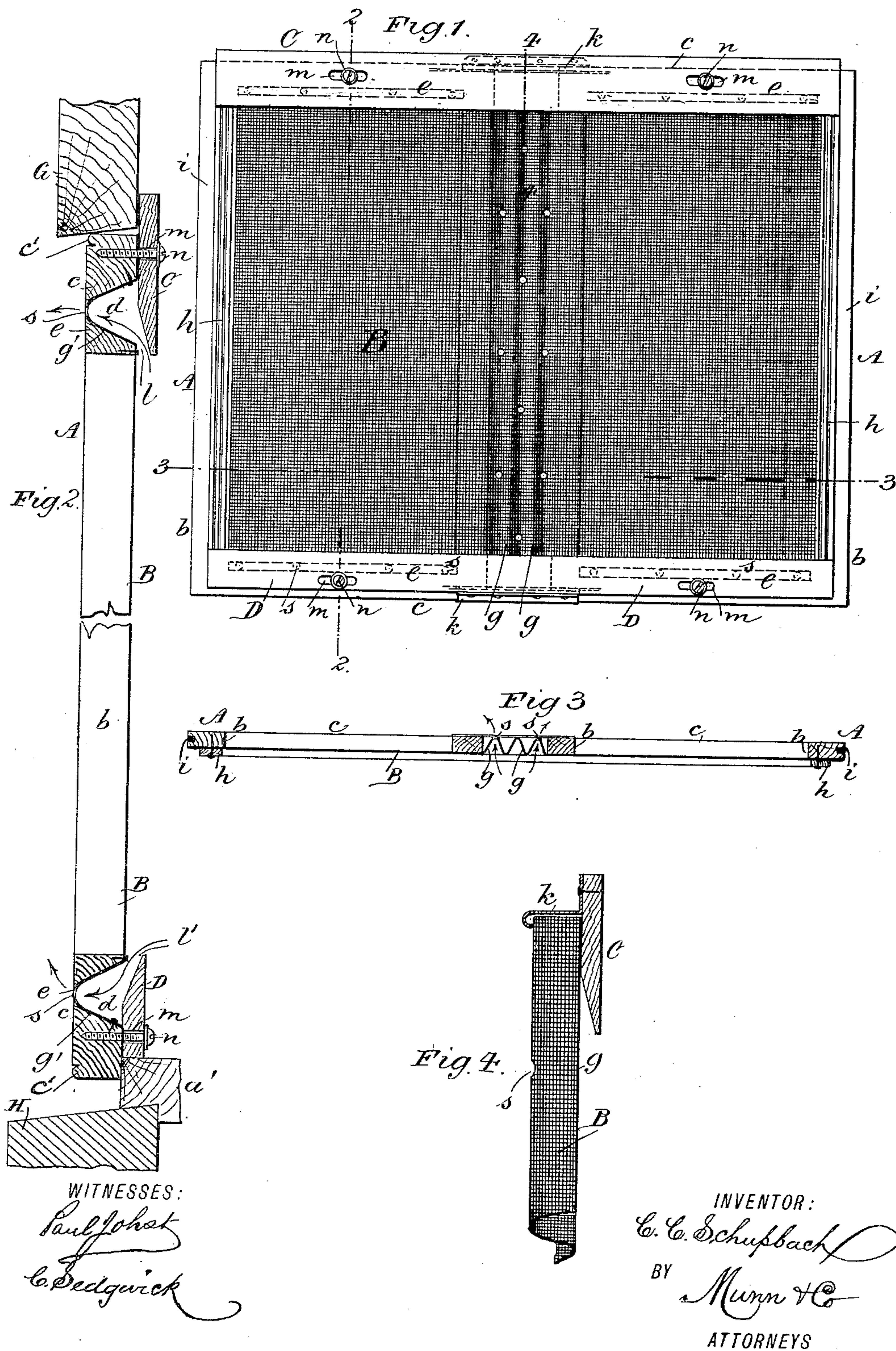


(No Model.)

C. C. SCHUPBACH.
WINDOW SCREEN.

No. 442,495.

Patented Dec. 9, 1890.



UNITED STATES PATENT OFFICE.

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WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 442,495, dated December 9, 1890.

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To all whom it may concern:

Be it known that I, CHRISTIAN C. SCHUPBACH, of Grand Island, in the county of Hall and State of Nebraska, have invented a new and useful Improvement in Window-Screens, of which the following is a full, clear, and exact description.

This invention consists in a wire-cloth screen of novel construction, applicable either as a stationary or sliding device to windows of different kinds, also to ventilators or screen-doors, and which can be quickly put in position and will be rigid when there, not liable to be blown or shaken out, is made specially adjustable to fit windows of different widths, and specially provides not merely for the exclusion of flies from an apartment, but for the escape of any flies that may be there without letting in others, substantially as hereinafter described, and more particularly pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents an inside face view of a window-screen embodying my invention and Fig. 2, a vertical section of the same upon a larger scale on the line 2 2 in Fig. 1, showing the screen, by way of one instance of its application, as used on the lower openings of a window between the window-sill and raised lower sash. Fig. 3 is a horizontal section upon the line 3 3 in Fig. 1, and Fig. 4 a partial vertical section upon the line 4 4 in Fig. 1.

The screen is partly composed of two upright frames A A, arranged side by side but separate from one another, and adjustable, as will be hereinafter described, toward or from each other to fit different widths of windows and to provide for expansion or contraction of the screen, so as to make it fit or work freely, as damp or dry weather, producing swelling or contraction of the wood-work, may require. Said frames, which may be made of any suitable wood and of any desired size, are each composed of two opposite side uprights *b b* and top and bottom cross-pieces *c c*, which latter are cut away from their inside faces throughout their length so as to virtually form upper and lower bars at both top and bottom of the frames, leaving a space *d*

between them of tapering shape, diminishing outward and presenting a clear longitudinal opening *e* between them on the outer face side of each frame, as shown in Fig. 2.

B is a wire-cloth of any suitable kind extending over and across both frames A A and tacked both to the sides and top and bottom thereof. Said wire-cloth covering is corrugated or pressed into upright folds *g g* to fill the space between the two frames A A, and it is further bent or made with cross-folds *g' g'* to conform to the tapering spaces *d* in the top and bottom cross-bars *c c* of said frames.

The back or inside of the screen has upright strips *h h* on opposite marginal portions of it, which are within the outer edges of the outer side uprights *b b*, and serve to cover the ends of the wire-cloth and to hold the screen when adjusting it. The outer surfaces of the side uprights *b b* are grooved, as at *i i*, to slide on strips on the window-frame, if desired, and to keep the screen from falling against the top sash if raised above the bottom sash.

The wire-cloth covered frames A A are adjustably united on the back or inner face of the screen at top and bottom by independent cleats C D and bent central or intermediate boxes or guides *k k*, secured to said cleats for the frames A A to work widthwise within to provide for their adjustment toward or from each other for the purpose of adapting them to different widths of windows and to enable the screen to fit or work easy, as moisture or dryness of the weather swells or contracts the wood-work. As shown, the outer edges of the boxes *k* are bent over to engage beads *c'* on the screen-bars *c*. The upper one C of these inner cleats is made sufficiently deep to project up above the frames A A and level with or below the bottoms of the upper cross-bars *c c*, and said cleat is chamfered off along the bottom of its inside surface to form a contracted opening *l*, leading to the upper space *d*, which the cleat C serves to shade or darken. The lower cleat D is similarly but reversely constructed—that is, it is made to lie above the bottoms of the lower cross-bars *c c* and to extend in depth up to or above the tops of said cross-bars—and is chamfered off along the top of its inside surface to form a contracted passage or opening *l'*, leading to

the lower space *d*, which said cleat serves to shade or darken. These cleats C D have longitudinal slots *m m* in them, through which screws *n n*, uniting them with the frames A A, are made to pass, and whereby on slackening and afterward tightening up said screws with a small screw-driver the frames A A may be adjusted toward or farther from each other, as required, for the purposes hereinbefore specified, the wire-cloth covering at its folds *g g* yielding with a spring-like action to such adjustment.

Both the folds *g g* and *g' g'* in the wire-cloth covering are made with any desired number of small holes *s* in them sufficiently large to permit of the passage of a fly through them. When the screen is in position, closing the window, should a fly on the inside of the apartment get in behind or on the outer sides of the cleats C D it will not be apt to come back, as it will see light through the longitudinal opening *e e*, and generally go out through the apertures *s* in the folds *g'*, and flies similarly situated and lighting on the inner surfaces of the upright folds *g* of the wire-cloth will go out through the apertures *s* in said folds and not return by reason of the comparative darkened condition of the room.

To apply the screen, as shown in the drawings, the lower sash G of the window is first raised, then the screen, with its cleats C D on the inside, is let in behind the inside of the window-stops with the lower cleat D resting on the stool *a'* of the sill H, then the screen pulled toward the person on the inside fixing the screen, and afterward the sash G lowered so that the upper cleat C will be above the

bottom of the sash G and lap over on the inside of said bottom sash. The window shade or blind should then be lowered down to the bottom of the lower sash to suitably darken the upper portion of the window, the screen in no way interfering with the shade.

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

1. The combination of the separated adjustable frames A A, having longitudinal openings *e* in their upper and lower cross-bars and tapering spaces *d* on the inner faces of said bars in communication with said openings, the wire-cloth covering B, applied to said frames, having upright folds *g* in between the frames with fly-escape apertures in them, and folds *g'*, entering within the spaces *d* of the cross bars, having also fly-escape apertures in them, and the upper and lower cleats C D back of or on the inside of the frames, constructed to form passages *l* to the interior of the spaces *d* and arranged in relation to the upper and lower cross bars of the frames, substantially as and for the purposes specified.

2. The combination, with the adjustable frames A A and their wire-cloth covering B, of the back or inside cleats C D, having center guides or boxes *k* for the frames and longitudinal slots *m*, and the screws *n*, adapted to hold the frames when adjusted, essentially as shown and described.

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Witnesses:

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