(No Model.) 2 Sheets—Sheet 1.

A. L. BENEDICT.

WINDOW SCREEN.

No. 305,370. Patented Sept. 16, 1884.

Fig 1

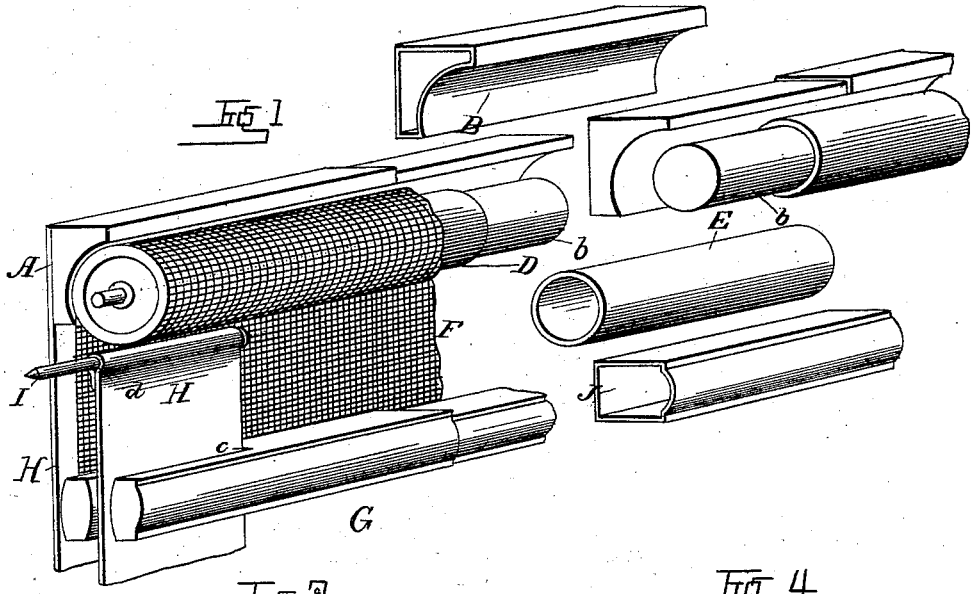


Fig 2

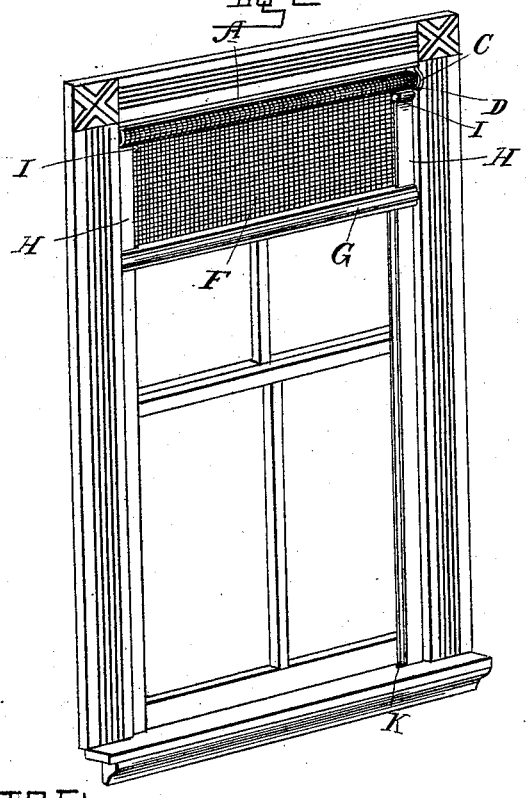
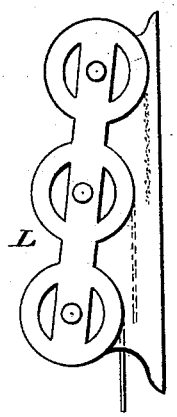


Fig 4



Witnesses:
John F. Winkel.
Florence Beardsley.

A. L. Benedict
Inventor:
By Foster & Freeman
Attys

(No Model.) 2 Sheets—Sheet 2.

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Fig 3

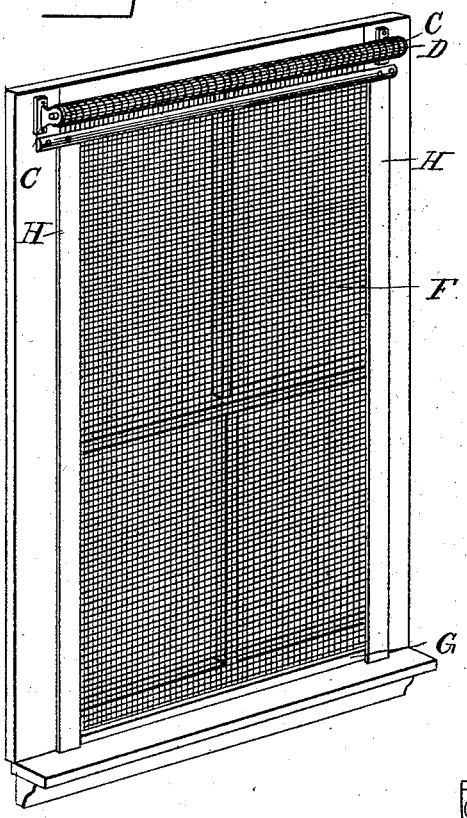


Fig 5

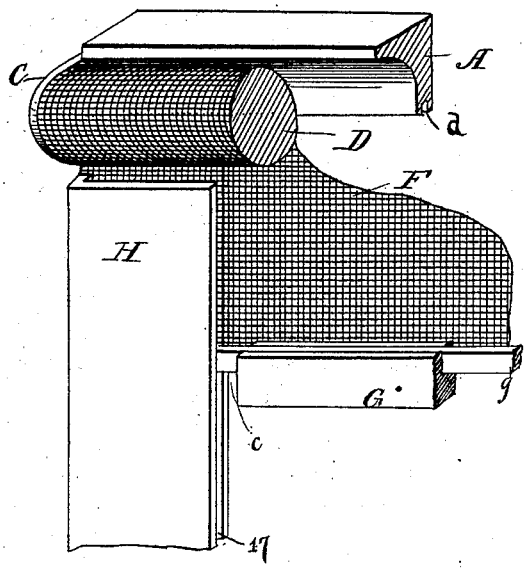
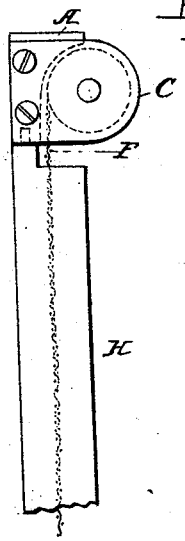


Fig 6



Witnesses:
John F. Hinkel
Florence Beardsley.

A. L. Benedict
Inventor:
By Fish & Freeman
Attys

UNITED STATES PATENT OFFICE.

ARTHUR L. BENEDICT, OF OCEAN BEACH, NEW JERSEY.

WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 305,370, dated September 16, 1884.

Application filed December 1, 1883. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR L. BENEDICT, a citizen of the United States, and a resident of Ocean Beach, Monmouth county, New Jersey, have invented certain new and useful Improvements in Screens, of which the following is a specification.

My invention relates, particularly, to screens for windows, doors, and like objects, although it may be employed in connection with curtains, Venetian blinds, and like shades for windows, and has for its object to provide for such openings a covering combined with supporting devices therefor, which may be adjusted to different widths of openings, and with means which will aid in preventing the covering from being pushed or forced out beyond the opening, and which will also prevent the passage of insects and other small objects through any open space that may accidentally be formed between the edge of the covering and side of the casing to the opening; and it consists in the construction and combination of parts hereinafter particularly described, and then sought to be specifically defined by the claims.

In the drawings, Figure 1 is a perspective view of a screen embodying my invention detached from a window-casing, and having parts broken away. Fig. 2 is a perspective of a window-casing with the screen applied thereto. Fig. 3 is a similar view showing a modification in the application of the screen. Fig. 4 is a side elevation of a bracket in which the screen-roller, blind-roller, and curtain-roller may be journaled. Fig. 5 is a perspective view of another modification. Fig. 6 is a detached edge view of part of Fig. 5.

In the drawings, the letter A indicates a molding of any approved design, made in two parts, each part being reduced in thickness at its inner end to fit into a sheath, B, (shown detached in Fig. 1,) which will wholly or partially encircle the ends of the molding and be flush with the exterior surface thereof. This sheath will permit the molding to be extended, so as to be adjusted to the width of the opening to be covered by the screening curtain or shade, as the two parts of the molding will slide therein. To each outer end of the molding there will be attached brackets C, in which will be journaled the two outer ends of a roller, D, which will preferably be an ordinary spring-actuated roller. This roller will be in two parts or sections, with their inner ends, *b*, reduced in diameter to fit adjustably into a hollow cylindrical sheath, E, (shown as detached in Fig. 1,) encircling the said ends, so as to permit the sections of the roller to slide therein, in order that the roller may be extended in the same manner and for the same purpose as the molding. To this roller there will be secured in any well-known manner the upper edge of a blind, curtain, or screen—in this instance a screen—F, the lower end of which will be secured in any suitable manner to a strip or bar, G, which may be of any desired form. The ends of this bar will be formed with longitudinal slots *c*, through which will pass the strips or bands H, made of thin metal, wood, webbing, or other suitable material. One end of these strips or bands will be formed across its width preferably with a loop or eye, *d*, through which a metallic or other pin, I, will pass, while the other end, after passing through the slots in the bar G, will pass upward and be connected by any suitable fastenings to the rear side of the molding A. If desired, recesses may be formed in the rear side of the bar G, so as to receive the strips or bands, in order that they may lie flush with the rear surface of the bar.

The bar G will be made in two parts or sections, the same as the molding and roller, and provided with a sheath, J, (shown detached in Fig. 1,) in which the sections may slide, so as to permit of their adjustment with the other parts. The slide in all cases will fit snug or close enough to the parts to prevent the parts from slipping out of the same; or, if desired, any suitable fastenings may be used to hold the parts to the sheaths after the adjustment of the several parts has been effected. By making the molding, roller, and bar in sections, they can be adjusted to any width of window, and the screen, curtain, or blinds then at-

tached, and the several parts can be made and put upon the market complete for application without skilled labor.

When the parts are constructed as described, they are applied by securing the molding, by screws or other suitable means, to the under side of the bead of the sash-frame. The pins I will then be driven into the sides of the frame below the roller, preferably quite close thereto and to the screen, curtain, or blind. The lower looped portion of the bands will be secured to the sill of the frame by means of staples K; but instead of the staples two parallel slots may be made in the sill and the bands passed down through one and up through the other, and be held in place by the intervening strip or rod.

When the parts are applied as described, the side edges of the screen, curtain, or blind will be between the bands, as shown in Fig. 1, so that if it should be accidentally drawn to one side, to leave an open space between it and the frame, the projecting strips or bands will cover such space and prevent insects or other small objects from passing through the same. The strips or bands will also prevent the screen, curtain, or blind from flapping inwardly and outwardly by wind-currents, and will further serve to guide the screen in its vertical movement.

If desired, the molding A may be dispensed with and the roller be journaled in brackets on the face of the sides of the frame, as shown in Fig. 3, instead of inside of the frame or the molding, as in Fig. 2. When this last method of attaching the roller is adopted, the side edges of the screen, curtain, or blind will lap over onto the face of the side pieces of the frame, and in that case a single band, instead of a folded or looped band on each side of the screen, can be employed. When a single instead of a folded band is used, a strip of wood or other suitable material will be extended across the frame just below the roller, and will project far enough out from the frame to permit the screen to pass freely between it and the frame. The strip will be secured to the frame just outside of the screen, and will hold the bands secured to it to their places by means of screws or other suitable means passed through the strips into the frame. The lower ends of the bands may be secured to the sill of the frame by staples or other suitable means. Under this last method of attaching the rollers the face of the sides of the frame takes the place of one extension of the strips, and the parts operate to exclude small objects and to prevent the screen, curtain, or blind from flapping, the same as in the other case. The brackets may be the ordinary curtain-roller brackets.

If it is desired to use the screen, the curtain, and the blind on the window all at the same time, the brackets will be formed with the inclined bars L, in which the bearings for the journals will be formed, so that the rollers will be set one above the other, each lower one projecting farther out than the one next above, so that the screen, blind, and curtain may each respectively pass downward without interference with the other. When such arrangement is adopted, the projecting bands may be set so as to inclose the edges of all three coverings, or only one, as seen fit, preferably the screen, which will be next to the frame, and such construction may be used with or without the sectional molding.

When the parts are arranged in any of the manners alluded to, the covering will be operated—that is, raised and lowered—like an ordinary window-curtain, and the screen can be lowered as far as is necessary to close the opening made by the adjustment of the window-sash, and if lowered to the sill it may be temporarily secured thereto by any suitable fastening device.

It is obvious that, if preferred or desirable, the molding and roller may be secured to the sill, instead of to the bead of the frame, in which event the movement will be just the reverse of that in the other arrangement.

It is obvious that many changes may be made without departing from the spirit of my invention.

The device described is simple, cheap, and efficient.

In the modification illustrated in Fig. 5 the protecting strip or band H is made of one piece of wood or other suitable material, with a groove, 17, along its inner edge, to receive the edge of the screen or covering F and end of bar G. The upper end of the rear portion of the strip or band is extended up above the front portion, so as to enter a groove, *d*, made in the lower edge of the molding. The slots *c* in the bar G may in this modification be made by cutting pieces out of the front face of the bar, or, as illustrated, by forming a groove in the top face of the bar and setting a strip, *g*, in the groove, so that its ends will extend beyond the bar proper and enter the space between the two sides of the strips or bands. The recesses in the rear face of the bar may be formed in the same way. The slots thus formed answer the same purpose as when otherwise formed, and the operation of the parts is substantially the same. If desired, under this last-described construction, the parts may be made continuous instead of sectional, and can be cut to suit the size of openings to which they are to be applied; but they can also be made extensible. The strips may be attached at their lower ends by any suitable means—for instance, by brackets.

Having described my invention, what I claim is—

1. The combination of the brackets, the series of rollers journaled in the brackets—one above the other—and each provided with its respective covering having at one end a slot-

ted bar, and the side protecting strips or bands, substantially as and for the purpose set forth.

2. The combination of the extensible molding, the extensible roller carried by said molding, the extensible bar, the covering connected at opposite ends to the roller and the bar, and the protecting strips or bands connected at one end to the molding and at the other to a support, and extending into slots in the bar, substantially as and for the purpose set forth.

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

ARTHUR L. BENEDICT.

Witnesses:

HENRY J. STAHLKE,

NEIL H. MILLER.