

No. 655,590.

Patented Aug. 7, 1900.

J. O. THOMAS & B. F. STARK.
WINDOW SCREEN.

(Application filed Sept. 28, 1899.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

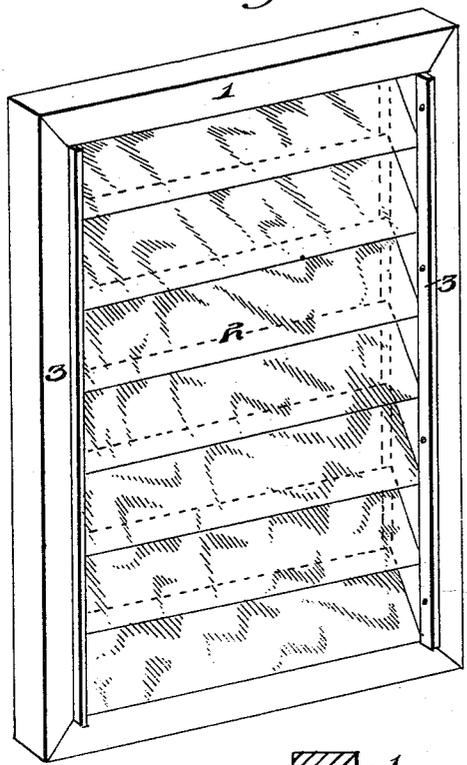


Fig. 2.

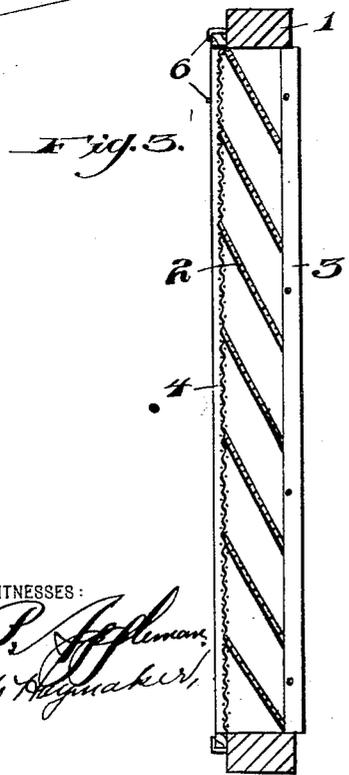
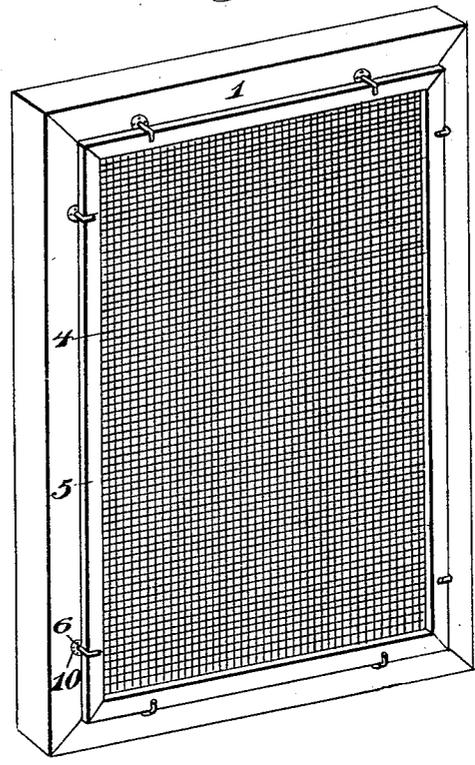


Fig. 4.

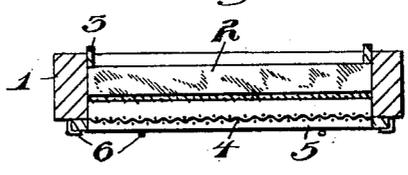


Fig. 5.



Fig. 6.

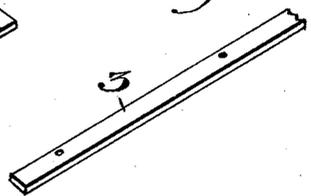
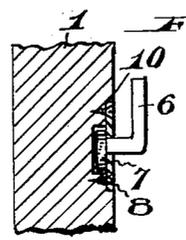


Fig. 7.



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2 Sheets—Sheet 2.

Fig. 8.

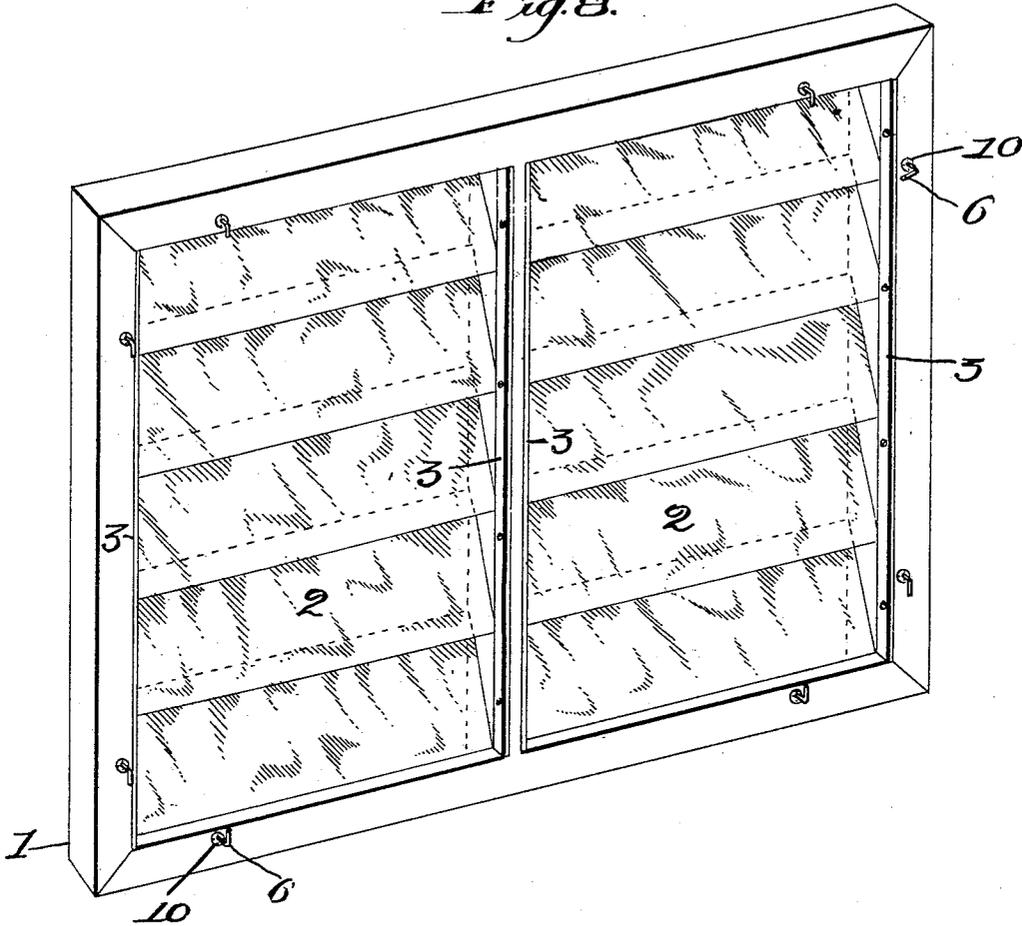


Fig. 9.

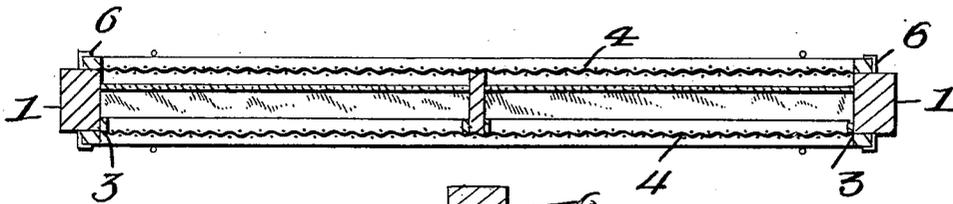
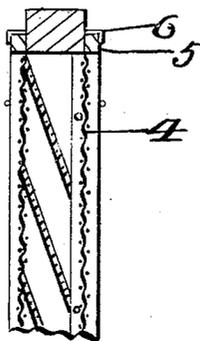


Fig. 10.



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UNITED STATES PATENT OFFICE.

JOHN O. THOMAS AND BENJAMIN F. STARK, OF HOMESTEAD,
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WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 655,590, dated August 7, 1900.

Application filed September 28, 1899. Serial No. 731,948. (No model.)

To all whom it may concern:

Be it known that we, JOHN O. THOMAS and BENJAMIN F. STARK, citizens of the United States of America, residing at Homestead, (post-office address 306 Amity street,) in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Window-Screens, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in window-screens, and has for its object to construct a screen with a protecting means for shielding the screen and room or other place where the same is used from rain, &c., and at the same time allow a free circulation of air through the same.

In windows and the like where the screen is usually placed within the window-frame after the whole or lower half of the sash has been removed or elevated it is necessary during a storm to remove the screen and lower or close the window in order to prevent rain, hail, &c., being driven through the screen into the room, car, or coach. This avoids the necessity of lowering or closing the window, thereby shutting off the draft which is obtained when the screen is in position. We aim to overcome this objection and provide means whereby a free circulation of air through the screen may be maintained and the screen, room, car, or coach at the same time protected from the elements. We accomplish this result by means of a suitable frame which is adapted to fit in the window-frame and has the screen removably attached thereto. Arranged within this frame is a series of transparent slats composed of glass or like material, which are arranged at the same incline, one above the other from the bottom to the top of the frame, the air passing freely between these slats, yet the latter fully protecting the screen, room, car, or coach from the elements of the weather.

The slats used may be made in divisions or single and provided with proper dividing-strips for the retention or support of the same, as by the width of the window it is necessary to make the same in a substantial manner.

In describing the invention in detail reference is had to the accompanying drawings,

forming a part of this specification, wherein like numerals of reference indicate corresponding parts throughout the several views, and in which—

Figure 1 is a perspective view of our improved window-screen, showing the outer face or slatted side of the same. Fig. 2 is a perspective view of the reverse side, showing the screen. Fig. 3 is a transverse vertical sectional view of the screen. Fig. 4 is a horizontal sectional view of the same. Fig. 5 is a perspective view of one of the transparent slats. Fig. 6 is a perspective view of a part of one of the strips which hold the slats in position. Fig. 7 is a sectional view of a part of one of the rails, showing one of the swiveled hooks which hold the screen to the frame. Fig. 8 is a perspective view of our improved window-screen, showing a division-strip connecting the slatted sides. Fig. 9 is a horizontal sectional view of the same, showing two sections, one screen in the front and one in the rear of the slats. Fig. 10 is a transverse vertical sectional view of the same, partly broken away.

To put our invention into practice, we provide a frame 1, the rails of which may be mortised and tenoned together, as in sash construction, or the ends thereof cut at an incline to fit neatly together and nailed, which is the cheaper construction and that which we have shown herein. This frame or sash is made of the desired size to fit in the window-frame, where it may be held in any of the ordinary styles in which screens are secured in place. On the inner faces of the two vertical or side rails of this frame or sash we seat the ends of the slats 2, which are spaced an equal distance apart and are preferably composed of glass, though other transparent material which will not exclude the light may be employed. These slats are arranged in the frame at an angle to suit the necessity of the construction of the screen and the object and purpose obtained. They are spaced such a distance apart that on a horizontal line the lower edge of one slat will overlap the upper edge of the adjacent under slat the distance desired or required, and thus cause the rain, &c., when beating against the slats to be shed from the same and prevented

from passing between them to and through the screen to the room or other place where it is necessary to use the screen. These slats may be conveniently held in position by two small strips 3 or other suitable fastenings in any manner by which they are adapted to fit neatly against the inner faces of the side rails of the sash, between the upper and lower rails thereof, where they are fastened by screws or other suitable means, and besides acting as a retaining means for holding the transparent slats in position they act as weatherstrips to close the lower ends of the inclined slots in the side rails of the sash.

The screen 4 is adapted to be placed in front of the slats on the inside of the window, and it is arranged in a frame 5, which is of less dimensions than the frame or sash 1 and is adapted to fit neatly against the inner face of the latter. This sash or frame for the screen may also be mortised and tenoned together; or it may be constructed cheaply, as shown, by beveling the ends of the rails so as to fit and be nailed or otherwise fastened together. The screen may, of course, be secured to this frame or sash in any convenient and desirable manner. For the purpose of holding the screen firmly in position when thus secured in its frame or sash and to permit its removal therefrom, if desired, we provide a number of swiveled hooks or catches, which are rotatably mounted in the frame or sash 1, so as to be moved into or out of engagement with the sash or frame of the screen. These hooks or catches 6 are substantially L-shaped and are provided on one end with a screw-thread or with a head 7, which engages in a seat or recess 8, provided therefor in the rails of the frame or

sash 1, where they are securely held by a plate 10, countersunk in the face of the plate and secured by screws or other suitable means.

It is thought that the foregoing description when taken in connection with the accompanying drawings will enable others skilled in the art to clearly understand the invention and that a further detailed description is unnecessary.

The advantages of the invention will be readily apparent, as the slats, being of glass or other transparent material, will in no manner interfere with the light and will still thoroughly protect the screen, room, or car from rain, hail, &c., and at the same time a free circulation of the outside air to the room, car, or place used is permitted while a storm is in progress.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The combination, with the frame 1, of the transparent slats having their ends seated at an incline in said frame, the strips 3 secured to the inner faces of the two vertical rails of said frame for holding the slats in position, a screen secured to the inner face of said frame 1 and a series of swiveled hooks mounted for rotation in the frame 1 and engaging the frame of the screen to hold the latter in position, as and for the purpose specified.

In testimony whereof we affix our signatures in the presence of witnesses.

JOHN O. THOMAS.

BENJAMIN F. STARK.

Witnesses:

H. M. BLACKLEY,
C. W. MORTON,
ED. H. MORTON.