No. 698,816. Patented Apr. 29, 1902.

W. R. COCHRAN, JR.

SCREEN.

(Application filed June 17, 1901.)

(No Model.) 2 Sheets—Sheet 1.

FIG. 1.

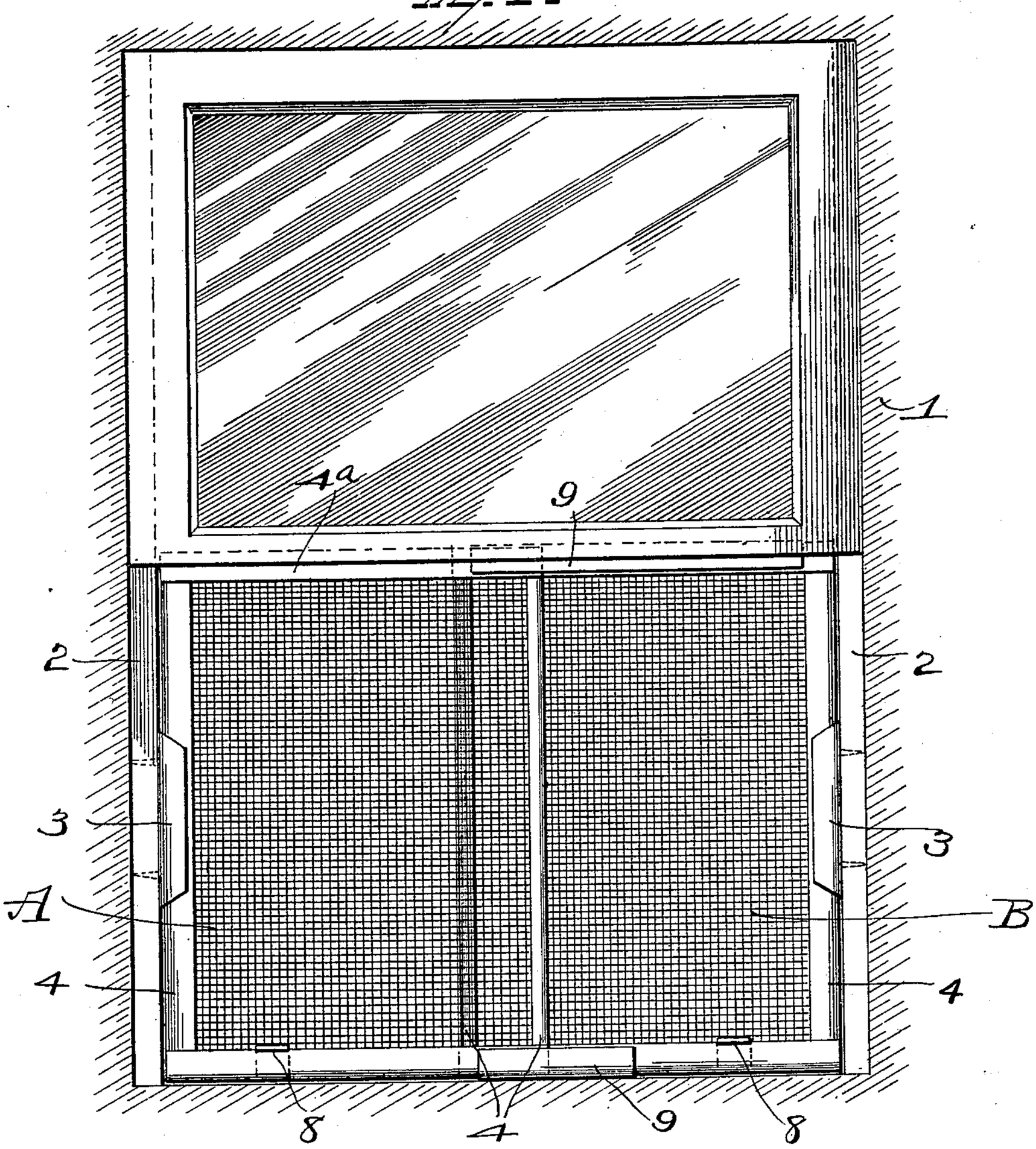


FIG. 3.

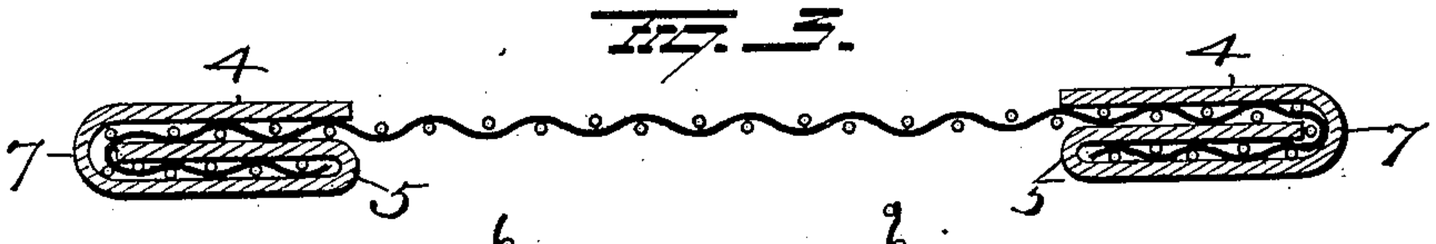


FIG. 4.

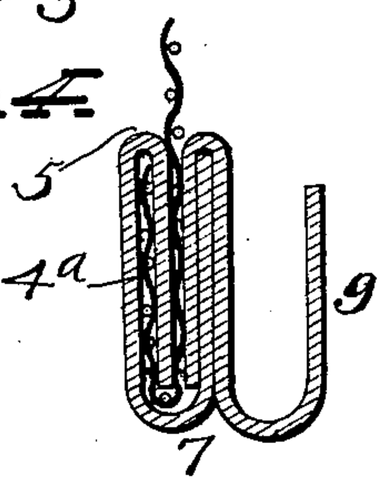
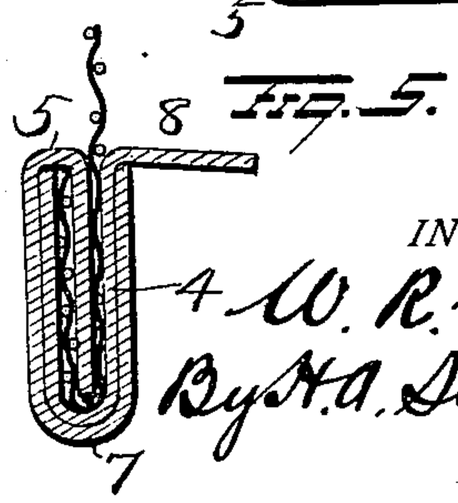


FIG. 5.



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No. 698,816. Patented Apr. 29, 1902.

W. R. COCHRAN, JR.

SCREEN.

(Application filed June 17, 1901.)

(No Model.) 2 Sheets—Sheet 2.

FIG. 2.

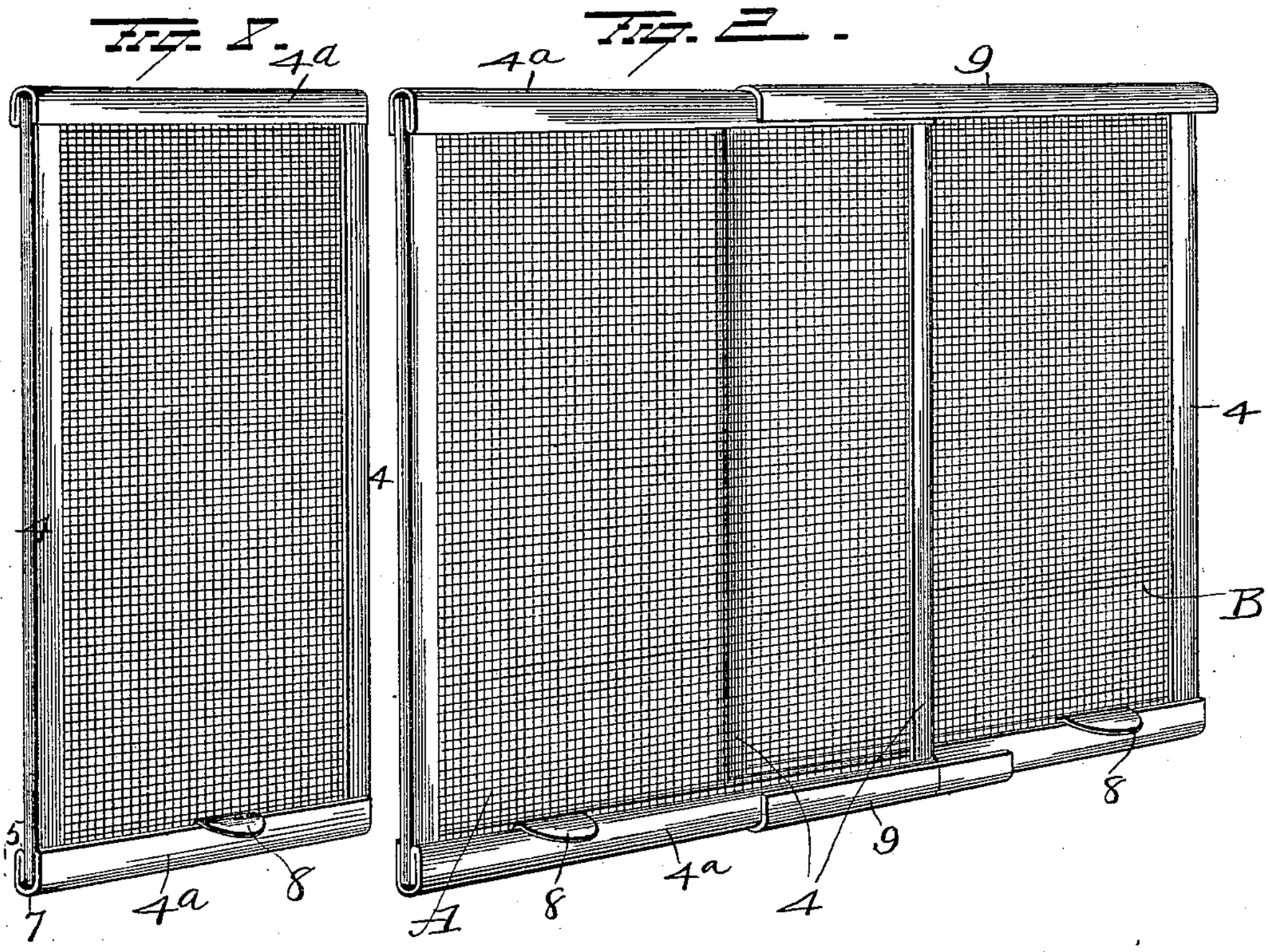


FIG. 5.

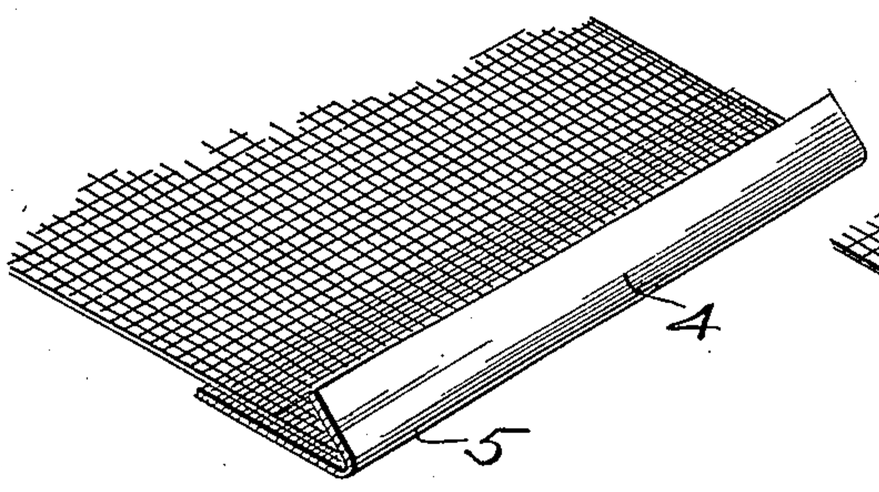
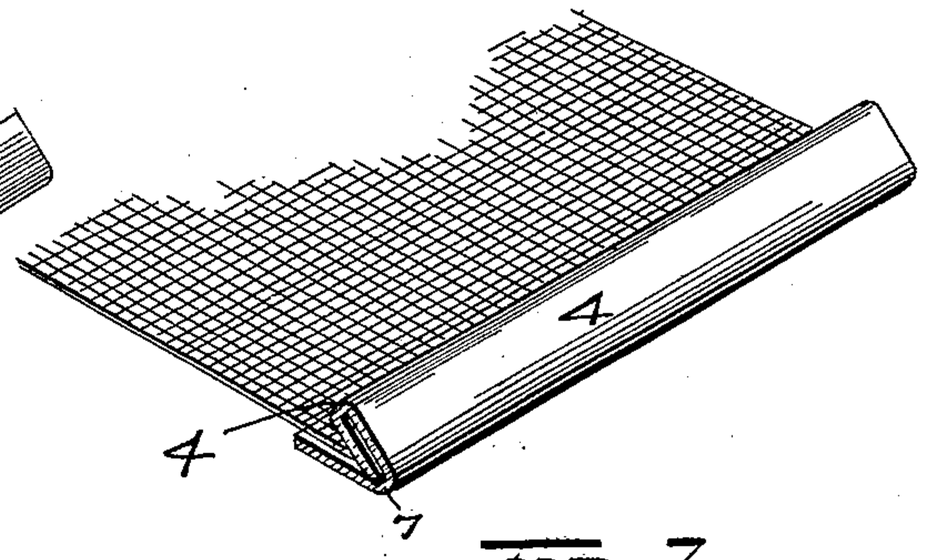


FIG. 7.



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UNITED STATES PATENT OFFICE.

WILLIAM R. COCHRAN, JR., OF DELPHOS, OHIO, ASSIGNOR OF TWO-THIRDS TO JOHN S. BOWERS, OF DECATUR, INDIANA.

SCREEN.

SPECIFICATION forming part of Letters Patent No. 698,816, dated April 29, 1902.

Application filed June 17, 1901. Serial No. 64,913. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. COCHRAN, Jr., a resident of Delphos, in the county of Allen and State of Ohio, have invented certain new and useful Improvements in Screens; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in screens, the object of the invention being to construct a screen entirely of metal in such manner as to insure the secure fastening of the frame to the wire-netting.

A further object is to provide an improved screen which can be readily adjusted to fit varying sizes of window-frames.

A further object is to provide improved means for securing the screen lifts or pulls to the frame of the screen.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view illustrating my improved screen in position in a window-frame. Fig. 2 is a view of the screen removed. Figs. 3, 4, and 5 are views in section of the screen. Figs. 6 and 7 are views illustrating the manner of folding the strips, and Fig. 8 is a view of a modified form of my invention.

1 represents a window-frame, and 2 the outside bead of the frame between the upper sash and the outside shutters. To this bead 2 guide-rails 3 are secured and are preferably formed from sheet metal bent into U shape to receive the upright side strips 4 of the screen and permit the latter to be raised and lowered.

The screen comprises two members A and B, having sliding connection one upon the other, as will be hereinafter explained, and each member is composed of sheet-metal strips at the top and bottom 4^a and at the sides 4, as shown. In forming the screen the side members 4 of the frame are bent longitudinally, as shown at 5, to receive the edge of wire-netting 6, and the strips 4 are then again bent longitudinally, as shown at 7, to securely clamp the same to the netting. The top and bottom strips 4^a are secured to the netting in like manner, the last fold thereof inclosing the ends of the side strips so as to make a rigid frame, and the lifts 8, which are composed of sheet metal, are secured to the bottom strip of the screen-frame while being folded and clamped therein simultaneously with the securing of the netting.

To the top and bottom strips 4^a of member B guides 9, composed of sheet metal, are secured by bending the guides longitudinally and inserting the bent edge thereof between the bent edge of the strip 4^a and securely clamping the same without the use of solder or other means. The guides are then bent longitudinally into U shape to receive the top and bottom strips of member A and permit the members to slide one upon the other and adjust the screen to fit various sizes of windows, and when it has been adjusted to the proper dimensions a sharp blow upon the guides 9 where they overlap member A will serve to clamp the members together and prevent accidental independent movement. The upper guide 9 extends from end to end of member B, so as to form a flush surface and fit tightly against the lower rail of the upper sash to keep out all flies or other insects; but the lower guide 9 can be made much shorter, as no flies can enter beneath the screen.

Instead of making an adjustable screen, as above explained, I might make a rigid frame, as shown in Fig. 8. In this form of my invention the top, bottom, and side strips are secured together and to the wire-netting precisely like the member A of the preferred form of my invention, the lifts being secured to the bottom strip in the manner above described.

Various slight changes might be resorted to in the general form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I would have it understood that I do not wish to limit myself to the precise details set forth, but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. A screen comprising a wire-netting and sheet-metal strips bent longitudinally to clamp the side edges and the top and bottom thereof, the top and bottom strips being again bent and inclosing the ends of the side strips.

2. A screen comprising wire-netting, a sheet-metal frame, each member of which is bent to clamp an edge of the wire-netting and a lift or pull having a part inserted between the folds of a member of the frame and clamped in place thereby.

3. In a window-screen, the combination with two members, each comprising a sheet-metal frame clamped to the edges of the wire-netting, of guides clamped with the netting to the top and bottom strips of one of said members and embracing the top and bottom strips of the other member and a lift clamped to the bottom strip of each member.

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

WILLIAM R. COCHRAN, JR.

Witnesses:
S. W. FOSTER,
R. S. FERGUSON.