

No. 794,470.

PATENTED JULY 11, 1905.

W. E. SHERWOOD.  
WINDOW SCREEN.

APPLICATION FILED FEB. 15, 1905.

2 SHEETS—SHEET 1.

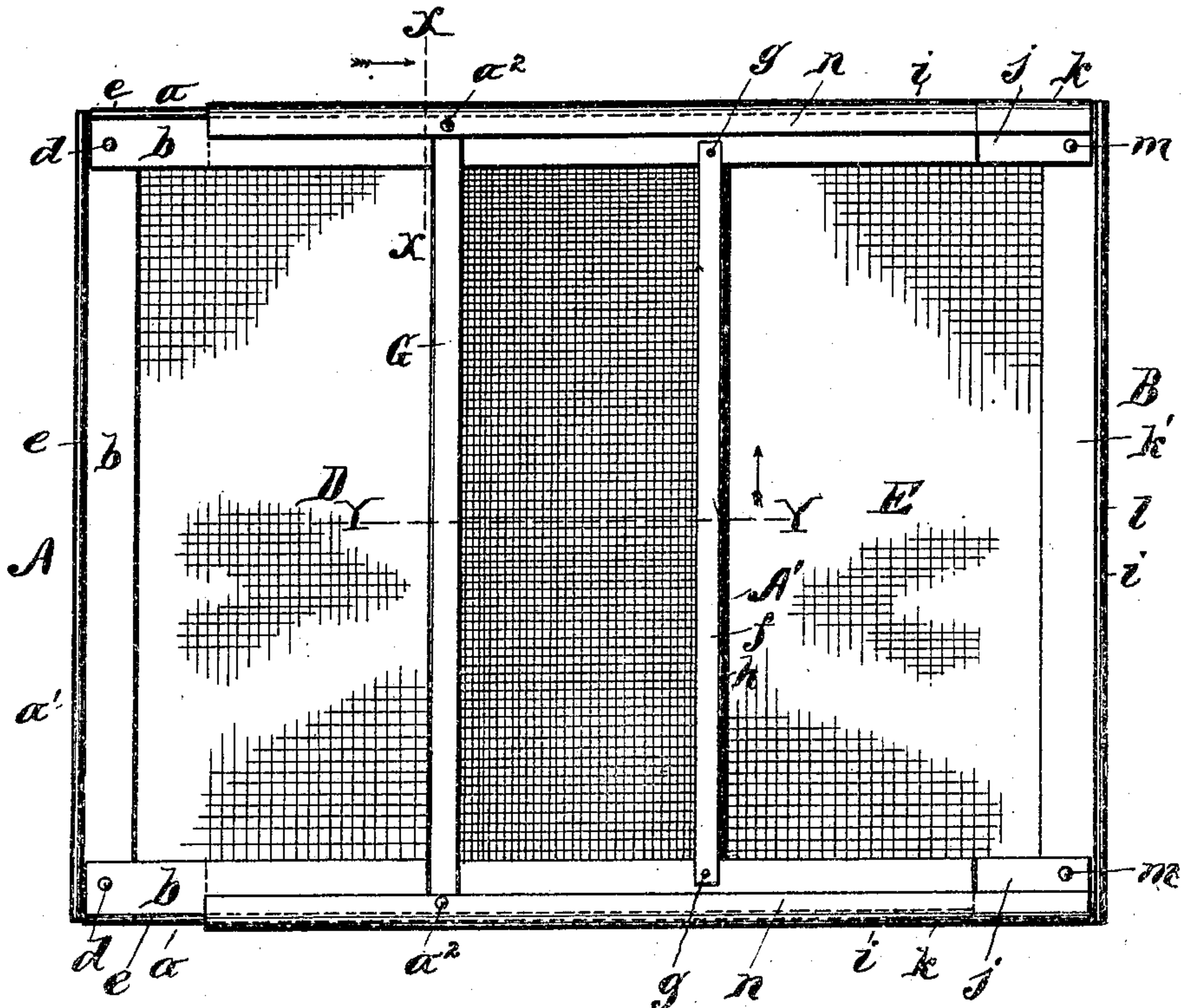


Fig. 1

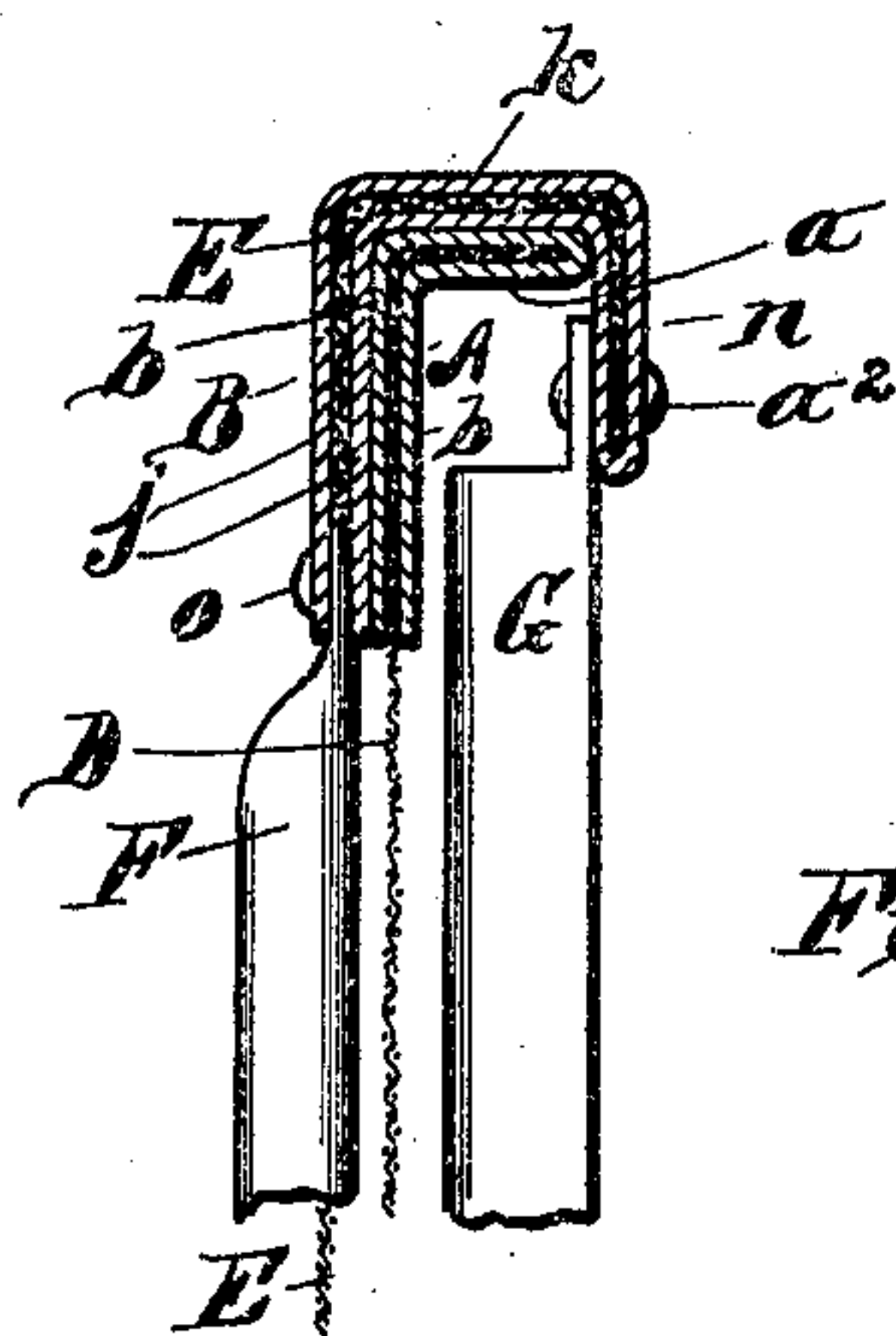


Fig. 2

WITNESSES:

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# UNITED STATES PATENT OFFICE.

WILLIAM E. SHERWOOD, OF ONEIDA, NEW YORK, ASSIGNOR TO SHERWOOD METAL WORKING COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

## WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 794,470, dated July 11, 1905.

Application filed February 15, 1905. Serial No. 245,668.

To all whom it may concern:

Be it known that I, WILLIAM E. SHERWOOD, of Oneida, in the county of Madison, in the State of New York, have invented new and useful Improvements in Window - Screens, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to the class of window-screens which comprise two frames each provided with a sheet of wire-cloth and which are joined slidably, thereby rendering them adjustable, so as to permit the same to be placed in window-frames of different widths, and the invention has special reference to the style of screens which have their members formed from sheet metal.

The main object of the present invention is to produce a screen of the character referred to which shall possess great strength, rigidity, and durability, and at the same time shall be inexpensive in its manufacture and also present a neat appearance.

To that end the invention consists in the novel construction and arrangement of the component parts of the screen, as hereinafter fully described, and set forth in the claims.

In the accompanying drawings, Figure 1 is a front view of a window-screen embodying my invention. Fig. 2 is an enlarged vertical section taken on the dotted line X X in Fig. 1. Fig. 3 is an enlarged longitudinal section taken on the line Y Y in Fig. 1 viewed in the direction indicated by the arrow. Fig. 4 is an enlarged perspective view of a corner portion of the inner screen-frame, and Fig. 5 is a like view of a corner portion of the outer screen-frame.

Similar letters of reference indicate corresponding parts.

This screen comprises two frames A B, sliding one in the other, whereby it can be lengthened or shortened horizontally to accommodate itself to window - frames of various widths, which frames are formed from sheet metal of any suitable kind. The inner frame A is composed of top and bottom members

a a and one side member a'. Each of these frame members consists of a plate which is primarily folded longitudinally upon itself to form two strips b b, one strip of each member being inserted between the two strips of the meeting member and abuts against the fold thereof.

D represents a sheet of the usual wire cloth or netting, which has its top, bottom, and one side margin inserted between said strips and also abutting against the said folds, through which overlapping strips pass rivets d d, which rigidly unite the frame members.

The said plates or members a a a', with the inserted strips of wire-cloth, are then bent longitudinally on lines parallel to the aforesaid folds, thereby producing flanges e e e, disposed at right angles thereto. The forming of flanges at the top and bottom causes the wire-cloth to be tightly stretched in one direction and securely clenches the same to the frame members and at the same time adds strength and rigidity to the frame. To the front of said inner frame I apply a vertical stay A', which consists of a metal plate folded in the manner aforesaid to form two strips f f, one of which is inserted between the strips b b of the top and bottom frame members A A and preferably secured by means of rivets g g. The other side margin of the wire-cloth D is inserted between the latter strips and abuts against the fold. The plate or stay is then bent at right angles on a line parallel to the line of fold to form a flange h, whereby the said wire-cloth is securely clenched and tightly stretched in the other direction. The outer frame B is composed of top and bottom members i i and a side member i'. Each of the said frame members i i consists of a plate that is primarily folded longitudinally upon itself at the center of the width to form two strips j j and thence bent at right angles on a line parallel to the fold to form a flange k. The side member i' is likewise folded and bent to form two strips k' k' and a flange l.

E represents the other sheet of wire cloth



or netting, which has its margin inserted between the strips  $j\ k'$  and clenched in the flanges  $k\ l$  the same manner as the aforesaid wire-cloth D. The strips  $j\ k'$  are lapped one  
 5 onto the other and rigidly united by means of rivets  $m\ m$ . The said flanges  $k\ l$  of the top and bottom members are further bent to form longitudinal guards, as indicated at  $n\ n$   
 10 and more clearly shown in Fig. 5 of the drawings. These guards engage the top and bottom flanges of the inner frame A and sustain said frame laterally in the outer frame.

By bending the upper and lower members of the outer frame, as aforesaid, they assume  
 15 a U shape in cross-section, and the wire-cloth is tightly stretched in one direction.

To the back of the outer frame is applied a vertical stay F, which consists of a metal plate, which is provided with a double fold in which  
 20 the other margin of the wire-cloth E is clenched, and thereby stretched in the other direction. The stay has its ends inserted between the strips  $j\ j$  and rigidly secured by rivets  $o\ o$ .

25 G represents an auxiliary vertical stay, which is disposed opposite the stay F and rigidly secured at its end to the guards in any suitable manner, preferably by means of rivets  $a^2\ a^2$ , between which stays the frame A  
 30 slides. This auxiliary stay is formed with an inwardly-projecting flange  $o'$ , which is adapted to engage the flange  $h$  of the stay A' on the inner frame when the frames are extended to limit their movements.

35 I preferably form the auxiliary stay G of a plate folded and bent longitudinally like the stay A'. The said stays A' G are designed to lie close to the wire-cloth to effectually exclude flies, insects, &c.

40 What I claim is—

1. A window-screen comprising two slidably-joined metallic frames, having their members composed of plates, each folded longitudinally at the center of its width to form two  
 45 strips, one strip of each plate being inserted between the strips of the meeting plate and rigidly united, and a sheet of wire-cloth secured between the strips of each frame, as set forth.

50 2. A window-screen comprising two slidably-joined metallic frames having their members composed of plates, each primarily folded longitudinally at the center of its width to form two contiguous strips, one strip of each plate  
 55 being inserted between the strips of the meeting plate and rigidly united, and each plate secondarily deflected at right angles on a line parallel to the fold to form marginal flanges, and the sheets of wire-cloth inserted with their  
 60 marginal portions between the strips of the respective members and clenched within the said flanges, as set forth.

3. A window-screen comprising two metallic frames sliding one in the other and each  
 65 having a top, bottom and one side member,

the inner frame having its members formed L in cross-section, the outer frame having its side member likewise formed and its top and bottom members formed U-shaped in cross-section, and the sheets of wire-cloth fastened  
 70 to the respective frames, as set forth.

4. A window-screen comprising two double metallic frames sliding one in the other and each having a top, bottom and one side member, the inner frame having its members  
 75 formed L-shaped in cross-section, the outer frame having its side member likewise formed and its top and bottom members formed U-shaped in cross-section, and the sheets of wire-cloth inserted into said frames and  
 80 clenched therein, as set forth.

5. A window-screen comprising two metallic frames sliding one in the other and each composed of a top, bottom and one side member, the inner frame having its members each  
 85 composed of a plate folded longitudinally at the center of its width to form two contiguous strips and one strip of each member inserted between the strips of the meeting member and rigidly fastened, the plates each de-  
 90 flected on a line parallel to the fold to form a flange, the members of the outer frame also composed of plates likewise folded and deflected, the top and bottom flanges of said outer frame terminating respectively with down-  
 95 wardly and upwardly deflected guards engaging the flanges of the top and bottom flanges on the inner frame, and the two sheets of wire-cloth having their marginal portions inserted between the strips of the respective frames  
 100 and clenched within the said flanges, as set forth.

6. A window-screen comprising two metallic frames sliding one in the other and having their members each composed of a plate folded  
 105 longitudinally upon itself at the center of its width to form two strips, a vertical stay rigidly connected at its end to the top and bottom members of the inner frame, a pair of vertical stays connected at their ends to the  
 110 top and bottom members of the outer frame and disposed respectively in front and back of the inner frame, and the sheets of wire-cloth secured between the strips of the respective frames, as set forth.  
 115

7. A window-screen comprising two metallic frames sliding one in the other and having their members each composed of two strips and rigidly united, the sheets of wire-cloth fastened between said strips, and vertical stays  
 120 having their ends inserted between the strips and rigidly secured thereto, as set forth.

8. A window-screen comprising two slidably-joined metallic frames having their members rigidly united and each composed of a  
 125 plate folded longitudinally upon itself at the center of its width to form two strips, the sheets of wire-cloth secured between said strips, vertical stays secured at their ends between the strips of the top and bottom mem-  
 130



bers of the frames, and arranged one in the path of the other to limit the outward movement of the frames, as set forth.

5 9. A window-screen comprising two slidably-joined metallic frames having their members rigidly united and each composed of a plate folded longitudinally at the center of its width to form two strips, vertical stays consisting of plates likewise folded and secured  
10 at their ends between the strips of the top and bottom members of the frames, and the sheets of wire-cloth having their margins inserted between the strips and clenched therein, as set forth.

15 10. A window-screen comprising two slidably-joined metallic frames each having a top and bottom member and one side member rigidly united, each member composed of a plate folded longitudinally upon itself at the center  
20 of the width thereof to form two strips, a vertical stay secured between the strips of the top and bottom members of each frame and each stay composed of a plate likewise folded, and two sheets of wire-cloth having their  
25 marginal portions secured between the strips of the frame members and stays of the respective frames as set forth.

30 11. A window-screen comprising two metallic frames sliding one in the other, said frames each having a top, bottom and one side member rigidly united and each member composed of a plate folded longitudinally upon itself at the center of the width thereof to form two strips, the members of the inner frame being

bent L-shaped in cross-section, the side member of the outer frame being likewise bent and the top and bottom members thereof bent U-shaped in cross-section, vertical braces disposed at the front of the inner frame and back of the outer frame respectively and each composed of a plate folded longitudinally as  
40 said to form strips and secured at their ends between the strips of the top and bottom members of the frame, sheets of the wire-cloth having their marginal portions inserted between the strips of the members and stays of  
45 the respective frames and secured therein, and an auxiliary vertical stay disposed at the front of the inner frame and opposite the other stay of the outer frame, and secured at its ends  
50 to the top and bottom members of the latter frame, as set forth.

12. A window-screen comprising a metallic frame having its members each composed of a plate folded longitudinally upon itself to  
55 form two strips, one strip of each member being inserted between the strips of the meeting member and rigidly secured thereto, each plate bent longitudinally on a line parallel to the fold to form a flange clenched the insert-  
60 ed strips and the sheet of wire-cloth having its marginal portions inserted between said strips and clenched with the inserted strips in the flanges, as set forth.

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Witnesses:

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