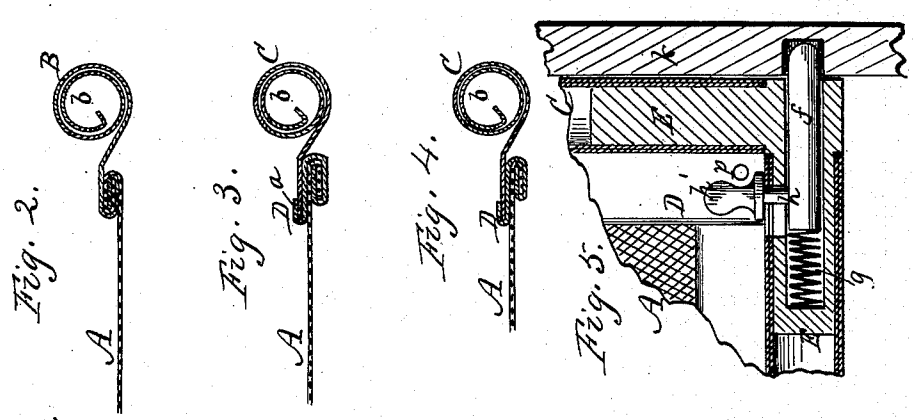
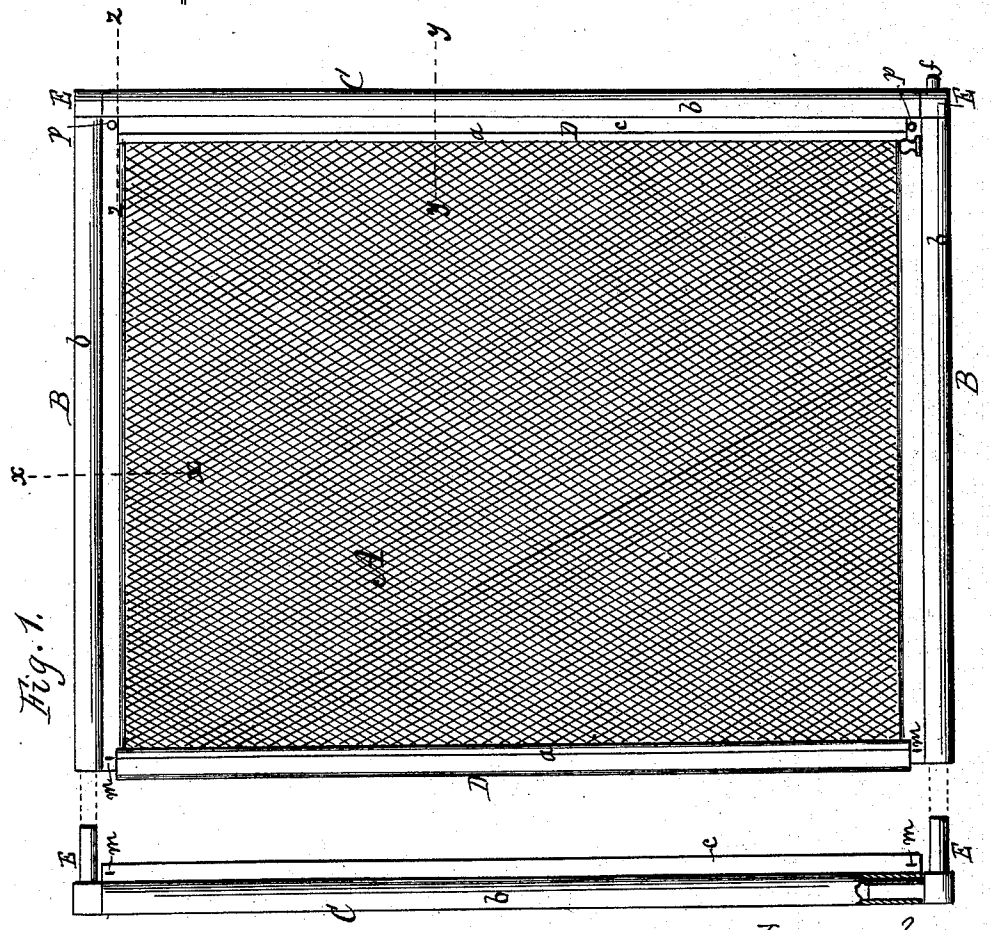
(No Model.) 2 Sheets—Sheet 1.

D. STONE.

WINDOW SCREEN.

No. 410,217. Patented Sept. 3, 1889.





Attest.
John H. Hopkins
P. A. Couch

Inventor.
Draper Stone,
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N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

D. STONE.

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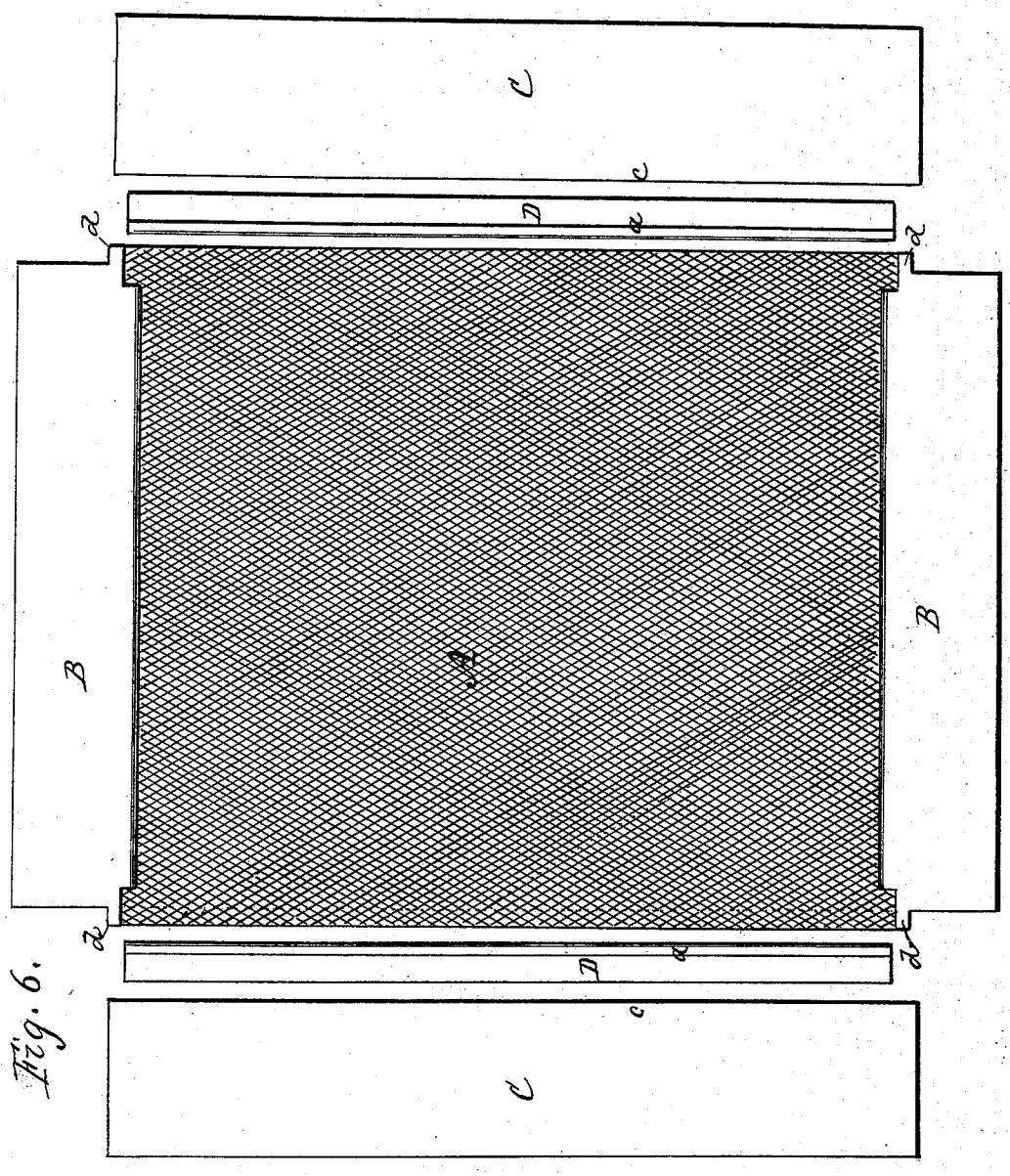


Fig. 6.

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UNITED STATES PATENT OFFICE.

DRAPER STONE, OF PITTSFORD, NEW YORK.

WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 410,217, dated September 3, 1889.

Application filed January 30, 1889. Serial No. 298,068. (No model.)

To all whom it may concern:

Be it known that I, DRAPER STONE, of Pittsford, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Window-Screens; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the drawings accompanying this specification.

The object of my invention is to make a window-screen in which the wire net is seamed to the frame on all four sides, so that its edges shall be perfectly covered and protected. To do this, it is necessary to seam the edges to the blanks forming the frame in the act of making the screen, and not after the frame is made.

My invention consists in the construction and arrangement of parts, hereinafter described and claimed.

In the drawings, Figure 1 is a face view of the screen with one side of the frame removed. Figs. 2, 3, and 4 are enlarged cross-sections of the sides of the frame, respectively, in lines *x x*, *y y*, and *z z* of Fig. 1. Fig. 5 is a section of one corner of the screen, showing the bolt for securing the screen at any height in the window-frame. Fig. 6 is a face view of the several parts composing the screen, designed to illustrate the process of making.

A indicates the wire net; B B, the end pieces of the frame; C C, the side pieces of the same, and D D the binding-strips at the sides.

The method of making the screen is as follows: The wire net A is at first double-seamed to the edges of the two end pieces B B, the latter being blanks of sheet metal, and the end pieces are then turned out flatwise, as indicated in Fig. 6. The separate binding-strips D D are next double-seamed to the sides of the wire net in the same manner as the end pieces above described, and turned inward to overlap the edges of the screen, as shown in the sectional view, Fig. 3. The inner overturned edge has a fold *a* to receive the edge of the separate side piece. The end pieces B B and side pieces C C are next rolled up at their outer edges, forming tubular scrolls *b b*, being preferably rolled around twice, making a double thickness, to give strength to the frame. The end pieces B B, being permanently attached to the wire net, are rolled up after being seamed; but the side pieces being separate are rolled before being attached. After the side pieces have been rolled, right-angled corner-pieces E E are inserted in the ends, as shown at the left in Fig. 1, one end of a corner-piece fitting in the side piece, the other projecting outward, ready to be inserted in the end pieces. The inner edges of the side pieces C C are straight, as shown at *c c*, and are adapted to fit in the overturned folds *a a* of the binding-strips D D. Next the separate side pieces C C are brought up to the sides of the screen, the projecting ends of the corner-pieces E E entering the tubular ends of the end pieces B B, and the flanges *c c*, projecting over the binding-strips D D and entering the folds *a a*, which binding-strips were previously seamed to the wire net. This completes the frame, which presents a scroll all around on the outside, a flange or backing on the inside, and a wire screen in the center, double-seamed all around and having no raw or exposed edge. The end pieces B B are formed with projecting lips *d d* in the blank form, as shown in Fig. 6. In the act of seaming the binding-strips D D to the net these lips are turned into the seams with the wire, and coming at the corners they fill out at that point and prevent exposure of the raw edge of the wire, making the corner stronger and with better finish. After the parts have been fitted together, as described, holes *m* are punched through the flanges of the end and side pieces at the corners, and rivets or pins *p p* are inserted through the same for fastening them together. By making the seam in the way above described the wire is double-seamed all around, and a stiff metallic frame is produced which is as cheap as or cheaper than wood, and is much stronger and more enduring.

Fig. 5 shows one of the corner-pieces E made hollow in one of its arms and provided with a bolt *f*, thrown out by a coiled spring *g* behind it, and having a stem *h* projecting up through a slot in the corner-piece and molding, surmounted by a finger-piece *h'*, by which it is retracted. The outer end of the bolt rests and slides against a wood molding or stop *k*, that holds the screen in place and

strikes into sockets at intervals in the molding, by which means the screen can be locked at any desired position.

Having described my invention, I do not claim, simply and broadly, a metallic screen having rolled edges and a wire-screen body, as shown in my pending application, Serial No. 266,010; but

What I claim as new, and desire to secure by Letters Patent, is—

The screen herein described, consisting of a wire net, end pieces seamed to two of the sides, separate binding-strips seamed to the other two sides, and separate side pieces provided with corner-pieces attached to the sides, having the binding-strips, the outer edges of the end and side pieces being rolled up in tubular form, as shown and described, and for the purpose specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

DRAPER STONE.

Witnesses:
R. F. OSGOOD,
P. A. COSTICH.