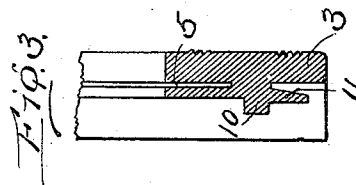
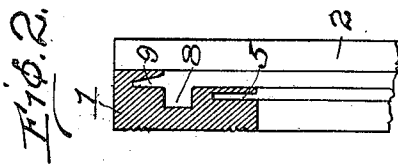
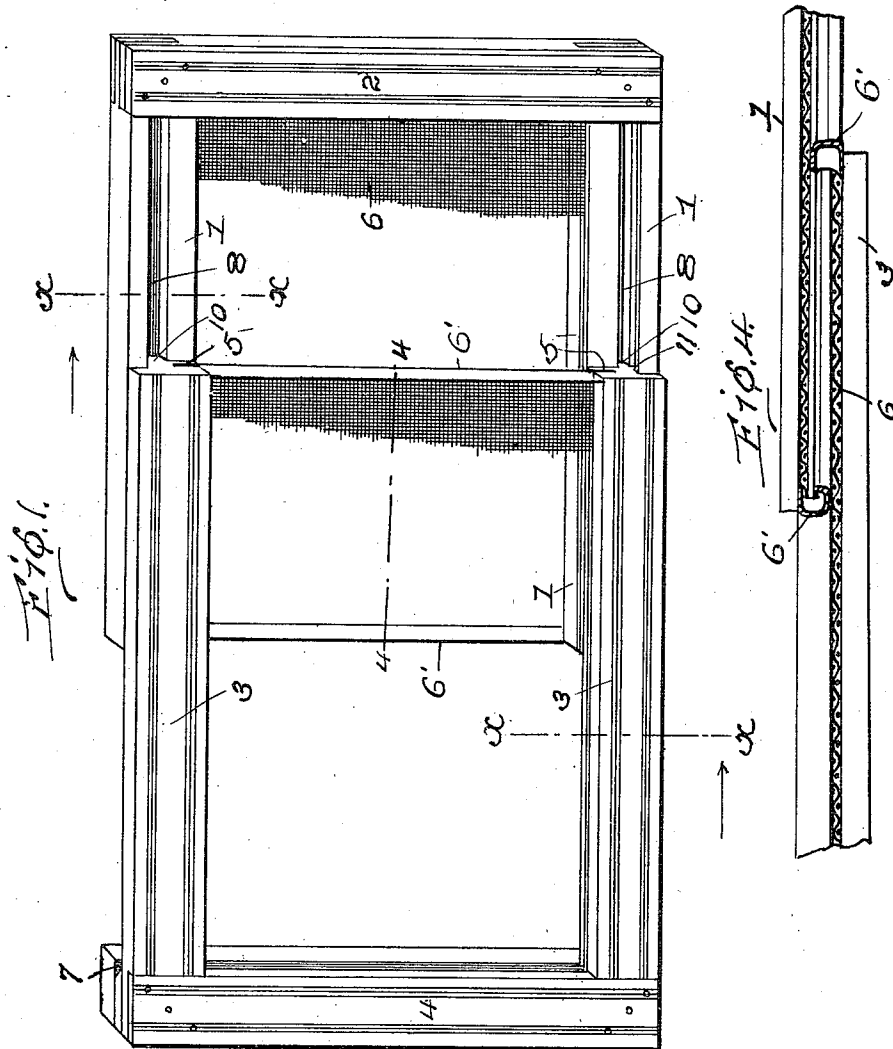


F. SPRAGUE.
WINDOW SCREEN.
APPLICATION FILED APR. 29, 1909.

972,481.

Patented Oct. 11, 1910.



WITNESSES:

S. C. Walter
Lionel Roberts

INVENTOR:

Frank Sprague,
J. M. Hall, atty.

UNITED STATES PATENT OFFICE.

FRANK SPRAGUE, OF HILLSDALE, MICHIGAN, ASSIGNOR TO THE HILLSDALE SCREEN COMPANY, OF HILLSDALE, MICHIGAN.

WINDOW-SCREEN.

972,481.

Specification of Letters Patent.

Patented Oct. 11, 1910.

Application filed April 29, 1909. Serial No. 492,808.

To all whom it may concern:

Be it known that I, FRANK SPRAGUE, a citizen of the United States, residing at Hillsdale, in the county of Hillsdale and State of Michigan, have invented certain new and useful Improvements in Window-Screens; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

In the manufacture and use of window screens, a familiar difficulty encountered is the proper securing of the ragged edges of the wire screen cloth in place so that these edges shall be completely concealed and so that they shall not become loosened.

One of the objects of my invention is to overcome this objection, and at the same time to dispense with the usual wood strip which is tacked or nailed on to secure and conceal the edge of the wire cloth.

Another common difficulty met with in the use of adjustable wire screens is the tendency of the two frame-parts to lose their alinement and to bind, one upon the other, so that it is sometimes found almost impossible to open or close the screen to exactly the required dimensions.

Another object of my invention is to overcome this objection and to provide an adjustable screen, the parts of which will, at all times, readily slide one upon the other so that any required adjustment of the screen parts may be quickly and conveniently made.

My invention is also designed to furnish a construction for an adjustable window screen, which shall be cheap, durable, simple, and strong.

I attain these objects by means of the construction and arrangement of parts hereinafter described, and shown and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my window screen assembled,—the greater part of the wire cloth being for convenience removed,—and the screen-frame being partly extended; Fig. 2 a transverse sectional elevation of one of the stiles of one of the frame-parts, taken on line X—X Fig. 1,

and Fig. 3 a transverse sectional elevation 55 of one of the stiles of the other frame-part, taken on line X'—X'. Fig. 4 is a section through Fig. 1 on line 4—4.

Corresponding numerals of reference indicate like parts throughout the drawings. 60

In the drawings, 1—1 are two stiles connected at their outer ends by a rail 2. The stiles and rails may be connected, as shown, by mortise and tenon and pins, or by any other suitable or preferred means. The 65 parts 1—1, 2 constitute one of the frame-parts of my device.

3—3 are stiles, connected at their outer ends by any suitable or preferred means with rail 4. The parts 3—3, 4 constitute 70 the other frame-part of my device. These two frame-parts are of like width and length, and are adapted and arranged to slide,—one part upon the other,—so that when the frame is collapsed, the ends of the 75 pair of stiles of either frame-part will abut against the rail of the other frame-part.

The neighboring inner edges of each of the stiles 1—1, 3—3, have formed therein a deep narrow slot or kerf 5, adapted to receive 80 with a snug fit, the edge of the wire screen cloth 6. When the margins of the cloth 6 are slipped in the kerfs 5, the cloth is secured in place by means of a few tacks or brads driven into the wood and through the 85 cloth. The cloth is now securely held in place with its rough edges completely concealed and without the use of the usual strip of wood employed for this purpose. The edge of the piece of cloth next to the rail slips 90 into a groove 7 formed in the rail, and is there secured by means of suitable tacks or the like.

In the sides of the stile-pieces 1—1, next to the stile-pieces 3—3, are formed rabbets 95 or grooves 8 having an undercut recess 9, as clearly illustrated in Fig. 2. In or upon the faces of the rails 3, opposed to the rabbeted faces of the stile-pieces 1, are formed tongues 10, adapted to fit with a sliding fit 100 in the groove or channel 8, also a thin flange 11 adapted to fit with a sliding fit in the undercut recess 9.

It will be seen that when the inner ends of the two frame-parts are brought together, 105 the tongues and flanges 10—11 will fit into and slide within the corresponding grooves and undercut recesses 8—9; that the flanges

11 in the undercut recesses 9 prevent the two frame-parts from separating laterally, and that the tongues 10 in the grooves 8 hold the stiles in constant parallel relation, preventing either of the frame-parts from binding upon the other. The wire screen, cloth, or mesh 6 of the frames are provided at their inner ends with metallic strips 6'—6' designed to fill the space between the screens for preventing insects from passing in between the screens.

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

15 1. A window screen formed in a plurality of parts, one of said parts being formed with a dependent tongue having an overhanging flange extending at right angles thereto on one side, and a projection on the other side
20 for defining, together with the remaining part of the frame, a screen receiving slot, and the other of said parts being formed with a groove for receiving the lower end of said tongue, a recess for receiving said over-
25 hanging flange, and a projecting flange for defining a screen receiving slot arranged in

a parallel plane to the screen receiving slot of the first mentioned part.

2. A window screen formed of a pair of sliding frames, one of said frames being formed with a tongue projecting therefrom arranged with a bearing surface at the outer edge thereof, a flange extending at right angles to said tongue and medially of the side thereof, and a flange extending from said tongue opposite said first mentioned flange for defining, with the remaining part of the frame, a screen receiving slot, and a second frame formed with a groove for receiving the bearing surface of said tongue for guiding the tongue in its reciprocatory movement, a recess extending at right angles to said groove for accommodating said overhanging flange, and a slot arranged to be in a parallel plane to the plane of the slot of said first mentioned frame.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK SPRAGUE.

Witnesses:

SYLVIA SMITH,
C. M. BARRE.