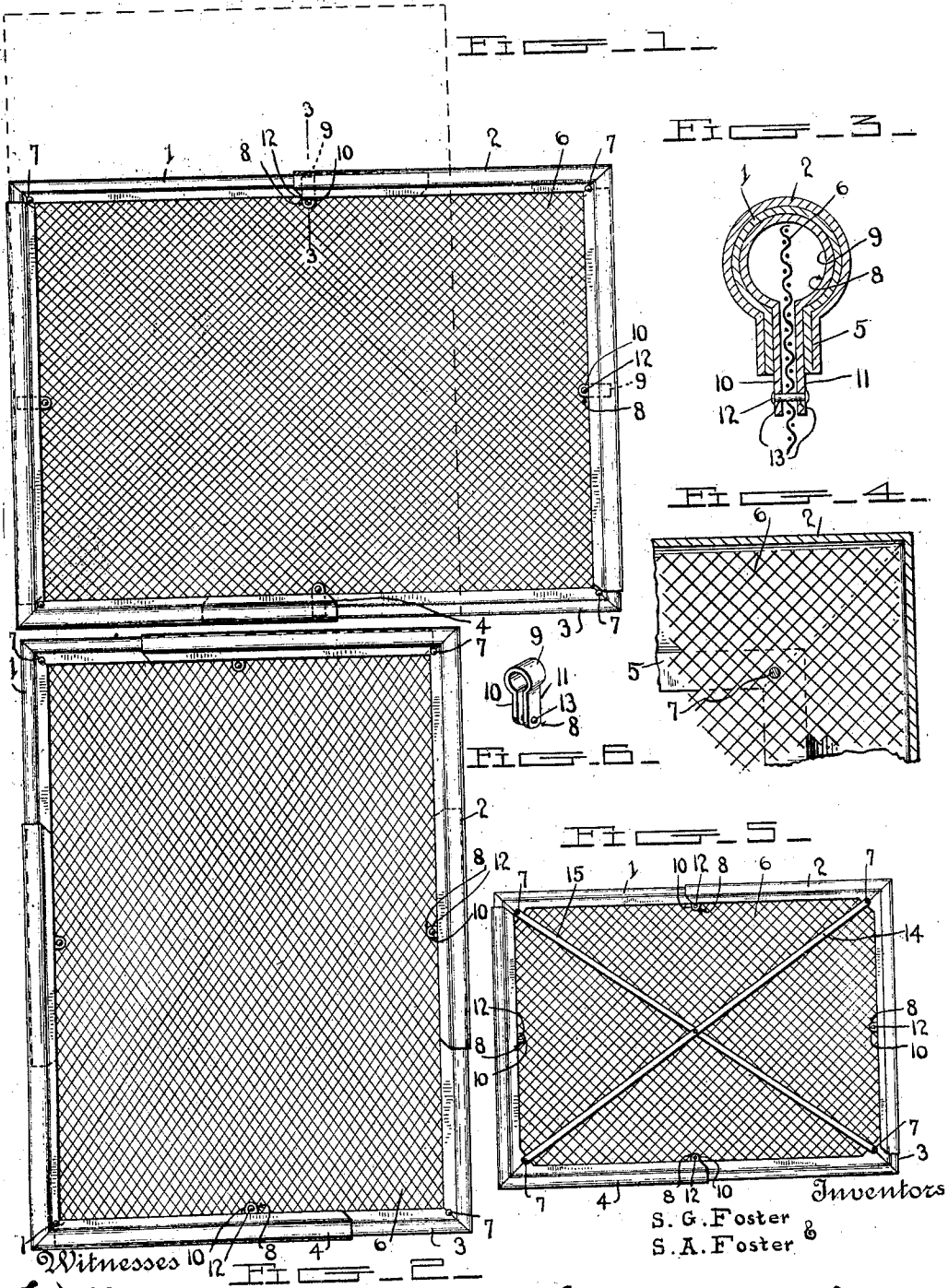


S. G. & S. A. FOSTER.
ADJUSTABLE WINDOW SCREEN.
APPLICATION FILED FEB. 14, 1911.

1,022,312.

Patented Apr. 2, 1912.



Witnesses
I. B. James
G. B. Hopkins.

by *H. B. Wilson & Co.*
S. G. Foster
S. A. Foster
Attorneys

UNITED STATES PATENT OFFICE.

SAMUEL G. FOSTER, OF WESTFIELD, AND SAMUEL A. FOSTER, OF RAHWAY, NEW JERSEY.

ADJUSTABLE WINDOW-SCREEN.

1,022,312.

Specification of Letters Patent.

Patented Apr. 2, 1912.

Application filed February 14, 1911. Serial No. 698,563.

To all whom it may concern:

Be it known that we, SAMUEL G. FOSTER, a citizen of the United States, residing at Westfield, Union county, and SAMUEL A. FOSTER, a citizen of the United States, residing at Rahway, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Adjustable Window-Screens; and we 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.

This invention relates to an improved adjustable window screen.

The main object of the invention is to provide a window screen composed of a single sheet of woven wire which may be adjusted to fit windows of varying sizes.

Another object of the invention is to provide a screen, the side and end members of the frame of which are adjustable in planes at right angles to each other to change the shape and dimensions thereof, the woven wire fabric being automatically adjusted simultaneously with the frame.

With these and other objects in view the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings: Figure 1 is a front elevation of this improved screen shown extended to its extreme width in full lines and retracted to its narrowest width in dotted lines; Fig. 2 is a similar view with the parts in the position they assume when in the dotted line position of Fig. 1; Fig. 3 is a transverse section taken on the line 3-3 of Fig. 1; Fig. 4 is an enlarged detail vertical section through one corner of the screen; Fig. 5 is a front elevation of a slightly modified form of the invention; Fig. 6 is a perspective view of one of the wire securing clips detached.

In the embodiment illustrated a frame is shown composed of four slidably engaged right angular members 1, 2, 3 and 4 which are preferably composed of L-shaped tubular sections telescopically engaged and slotted longitudinally on their inner sides as shown at 5 to receive the loosely woven screen wire 6 which is of rectangular shape and loosely secured thereto in any suitable manner.

This sheet of screen wire is cut with the strands of wire running diagonally or on the bias and preferably from a sheet of galvanized screen wire fabric of any suitable mesh the wires forming said fabric being unsecured at their points of intersection. The edges of this sheet are inserted in the slots 5 of the frame members and are secured to the corners of said members by screws or rivets as 7 which extend transversely through the frame members and the wire. Clips as 8 preferably constructed in the form shown in Figs. 3 and 6 are mounted in the free ends of the arms of the members 1 and 3. The circular intermediate portion 9 of these clips fits snugly within the tubular arms or sections of the frame members and the parallel arms 10 and 11 of said clips extend on opposite sides of the screen wire 6 and are secured thereto by rivets as 12 which extend through aligned apertures as 13 in said arms 10 and 11 and through the screen wire thereby holding said clips in the same position relative to the wire during the sliding movement of the frame sections.

In the form shown the telescopically engaged L-shaped sections are preferably connected by engaging the short arm of the section 2 with the long arm of section 1, said long arm sliding in said short arm and the long arm of section 2 slides over the short arm of section 3 and the long arm of section 3 slides within the short arm of section 4, being limited in its inward movement by the transversely extending fastening device 7 at the corner of the section 4. The long arm of section 1 is similarly limited by the fastening device 7 at the corner of section 3. The short arm of section 1 slides within the long arm of section 4.

From the above construction it will be obvious that when the screen is extended to its extreme width the long arms of the members 2 and 4 will engage the corners of the members 1 and 3 and prevent further expansion of the members. When the telescoping sections are adjusted the strands of the screen wire are shifted, said shifting being permitted by reason of the diagonal arrangement of the wire threads forming the mesh and the loose connection of the cut edges of the fabric with the frame sections.

In the use of this device when the upper and lower telescoping members are moved outwardly relatively to each other the simi-

larly engaged side members are moved inward as shown in full lines in Fig. 1. When the upper and lower telescoping members are moved inwardly to reduce the width of the screen the correspondingly engaged side members move outwardly into the position shown in Fig. 2, thus as the width of the screen is reduced the height is increased and vice versa, the strands of the screen shifting as the frame members slide on each other.

By this construction a screen may be obtained having a single unwrinkled sheet of screen wire, the frame and wire being adjustable in planes at right angles to each other to vary the length and breadth of the screen and in which there are no spaces for the entrance of insects. This screen when contracted has no double thicknesses or folds of wire to obstruct the passage of the air.

In the form shown in Fig. 5 the screen is constructed in the same manner as the form above described except that two bracing or guiding members 14 and 15 are shown in the form of wire rods arranged diagonally across the screen and connected at their opposite ends with the diagonally opposite corners of the screen being pivotally connected therewith. These rods are also pivotally connected with each other at their crossing point and they serve to hold the sections in the proper relation to each other during the adjusting of the frame and thereby bracing the frame and reinforcing the screen wire.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as defined in the appended claims.

We claim as our invention:

1. A window screen including a single sheet of woven wire fabric, having the strands thereof disconnected relatively to each other and running diagonally to provide for the adjustment of the mesh of the fabric in planes at right angles to vary the length and breadth of the screen.

2. A window screen comprising an adjustable frame having a single sheet of screen fabric loosely connected therewith and the strands of said fabric being disconnected relatively to each other to permit said frame and fabric to be adjusted together in the same directions in planes at right angles to vary the length and breadth of the screen.

3. An adjustable window screen comprising a frame, composed of sections adjustably connected to vary the dimensions of the frame, and a single sheet of screen fabric

loosely connected with said frame sections and adjustable simultaneously therewith to conform to the contour of the frame and present a smooth unwrinkled screen surface in all of its positions.

4. An adjustable window screen comprising a frame composed of sections connected for adjustment in planes at right angles to vary the dimensions of the frame, and a single sheet of screen wire connected to said frame sections and adjustable simultaneously therewith and in the same directions, the fabric conforming continuously in contour to the contour of the frame and presenting a smooth unwrinkled screen surface.

5. A window screen comprising a frame adjustable in size, a single sheet of woven wire screen fabric adjustable in size without wrinkling, and means for securing the cut unbound edges of the screen sheet to the edges of the frame to permit the screen fabric to be adjusted in size simultaneously with the frame, whereby the screen fabric will at all times fit the frame without buckling.

6. A window screen comprising a single rectangular sheet of woven screen wire having its strands unsecured at their points of intersection and at their ends, said strands running diagonally to permit the sheet to be stretched in planes at right angles to each other to vary the dimensions of the sheet, and means for stretching the screen to fit windows of varying sizes.

7. A window screen comprising a rectangular frame adjustable longitudinally and transversely, a single sheet of woven wire having its strands unsecured at their points of intersection and running diagonally to enable the sheet to be stretched longitudinally and transversely, and means loosely securing the screen fabric in the frame to permit the screen to be adjusted in length and width simultaneously with the frame.

8. A window screen comprising a frame composed of L-shaped sections having slidably engaged tubular members slotted longitudinally on their inner faces, a single sheet of woven wire screen fabric having its edges unbound and loosely housed in the tubular members of the frame sections, corner pins securing said frame sections to said screen fabric, and clips loosely connecting the edges of said screen fabric to said sections immediately of their corners.

9. A window screen comprising a rectangular frame adjustable longitudinally and transversely, a single sheet of woven wire having its strands unsecured at their points of intersection and at their ends and running diagonally to enable the sheet to be adjusted longitudinally and transversely without buckling and means loosely securing the screen fabric in the frame to permit the screen to be adjusted in length and width

simultaneously with the frame, and cross
bars disposed diagonally on opposite sides
of said screen fabric and pivotally connected
at their opposite ends to the diagonal cor-
5 ners of said frame sections, one of said cross
bars being connected with two of said cor-
ners, and the other cross bar with the other
two corners.

In testimony whereof we have hereunto
set our hands in presence of two subscrib- 10
ing witnesses.

SAMUEL G. FOSTER.
SAMUEL A. FOSTER.

Witnesses:

LIZZIE L. HART,
LEVI E. HART.