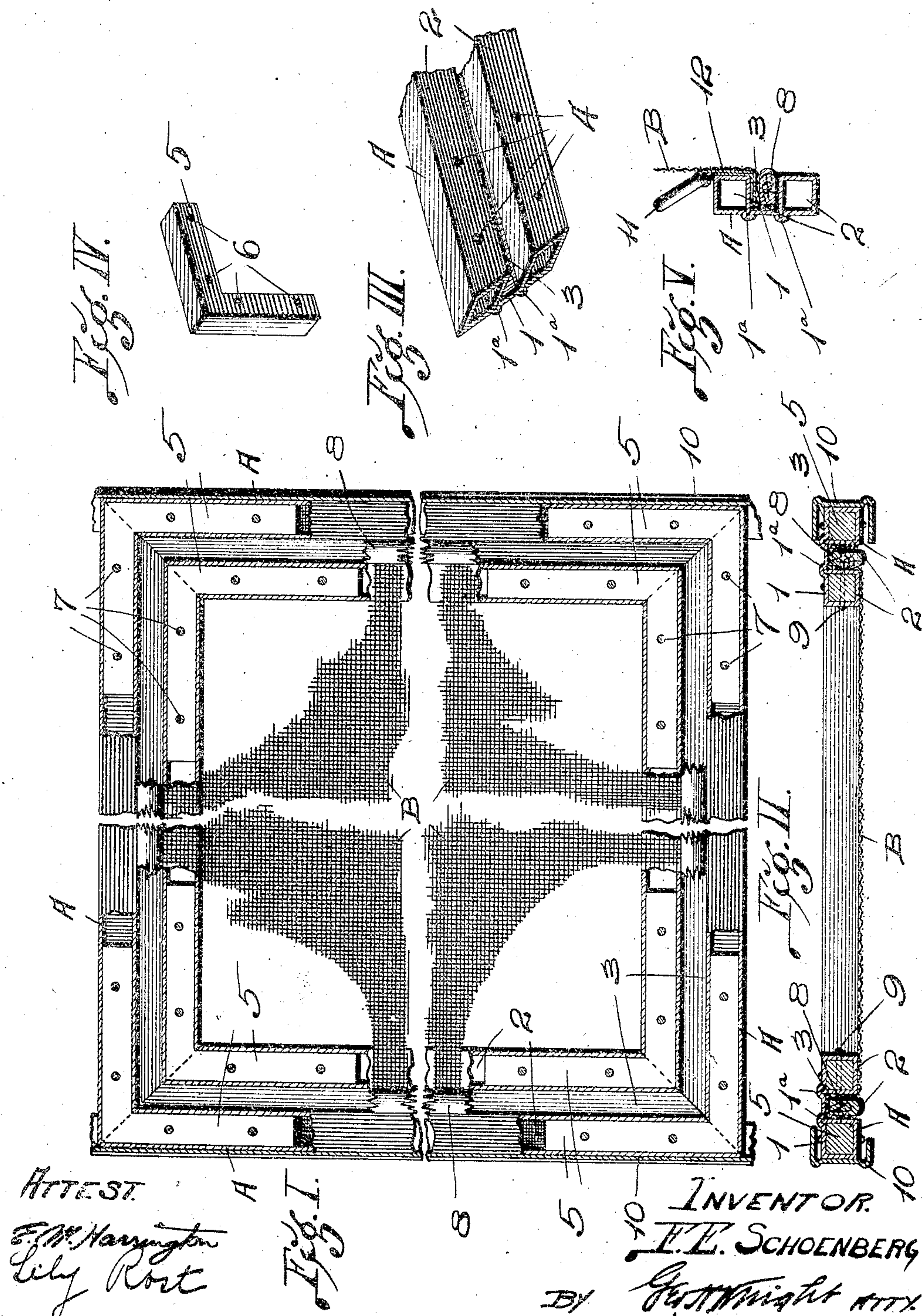


F. E. SCHOENBERG.
METAL AND WOOD WINDOW SCREEN FRAME.
APPLICATION FILED OCT. 5, 1908.

929,251.

Patented July 27, 1909.



UNITED STATES PATENT OFFICE.

FREDRICH E. SCHOENBERG, OF ST. LOUIS, MISSOURI.

METAL-AND-WOOD WINDOW-SCREEN FRAME.

No. 929,251.

Specification of Letters Patent.

Patented July 27, 1909.

Application filed October 5, 1908. Serial No. 456,313.

To all whom it may concern:

Be it known that I, FREDRICH E. SCHOENBERG, a citizen of the United States of America, residing at the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Metal-and-Wood Window-Screen Frames, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a metal and wood frame for window screens and has for its object the production of a frame of this description embodying a maximum degree of strength and rigidity, thus furnishing a frame which is of marked durability.

Figure I is in part an elevation and in part a vertical section of my window screen frame. Fig. II is a cross section taken through the frame. Fig. III is a perspective view of a fragment of one of the cross pieces or side pieces of the frame. Fig. IV is a perspective view of one of the corner pieces. Fig. V is a cross section taken through the bottom cross piece of the frame at the location of one of the lifts applied to the frame.

In the accompanying drawings: A designates the side pieces and top and bottom cross pieces of my metal window screen frame. All of these pieces A are constructed of sheet metal and each piece comprises a back member 1 extending the full width of the piece, and a pair of inner and outer box members 2 located upon said back piece and spaced apart from each other to furnish a groove 3 extending longitudinally between the inner and outer box members and which is adapted to receive strips to be hereinafter more particularly mentioned. The several frame pieces A are mitered at their ends so that they may be fitted together to produce a frame of rectangular shape and in each box member 2 of the frame pieces A are perforations 4 that register with perforations in the back member of said frame piece.

5 designates inner and outer metal angular corner pieces by which the frame pieces A are connected to each other. There are two of these corner pieces located at each corner of the screen frame, one corner piece having its arms located in the boxes of the inner coinciding box members that abut against each other, and the other corner piece having its arms located in the boxes of the outer box members of the abutting frame pieces A.

The two corner pieces at each corner of the frame by being mounted in the box members of the frame pieces A separate from each other and in different lines serve to hold the frame pieces A in accurate relations to each other and to brace the entire frame in an efficient manner. The corner pieces are connected to the frame pieces A by rivets 7 that are introduced through the perforations 4 in the box members 2 of said frame pieces and through perforations 6 in the corner pieces that are adapted to register with the perforations 4.

The grooves 3 in the frame pieces A serve to receive the screen cloth B which is stretched across the frame pieces A and this screen cloth is formed with pockets at its edges confined in said grooves by wooden retainer strips 8 of such dimensions as will cause them to fit snugly in the grooves after the screen cloth has been laid therein. The retainer strips 8 extend the full lengths of the grooves 3 in the various frame pieces A and, being of wood, they are naturally yielding to a certain degree in order that they will tightly bind the screen cloth in the grooves to prevent slippage thereof after the retainer strips have been put in place. The retainer strips are held in the grooves in the frame pieces by nails or brads 9 which are driven transversely through holes drilled in the sides of the box members of the frame pieces and which nails or brads, by entering into the retainer strips, serve to hold them rigidly in the grooves in order that they will effectually retain the portions of the screen cloth in the grooves and cause the sheet of screen cloth to be held tightly stretched upon the frame.

The herein described window screen frame is adapted to be mounted in metal channel guide strips 10, see Figs. I and II, that are adapted to be secured to a window frame and in which the screen frame may be raised and lowered.

11, see Fig. V, is a lift, of which there are preferably two, attached to the screen frame at the bottom thereof, this lift being secured to the frame by a strap 12 of pliable material, such as thin sheet metal and which is folded into the groove in the bottom frame piece A and is adapted to be held confined therein by the retainer strip 8 in said bottom frame piece.

The back member 1 of each frame piece A is provided with grooves extending longitu-

dinally of the frame piece, and the outer portions of the box members 2 are so bent that the inner wings of these members extend rearwardly, (as seen in Figs. II, III, and V,) each wing being seated in one of the grooves 1^a properly disposed to receive it. By furnishing the back members of the frame pieces with the longitudinal grooves and extending the inner wings of the box members into said grooves, I provide for said wings being so seated that they will not yield laterally when the retainer strips 8 are introduced into the grooves 3 between the box members 2.

15 I claim:

1. A window screen frame comprising frame pieces each having a back member and an inner box member and an outer box member spaced apart so as to provide a 20 groove between them, inner angular corner pieces connecting the inner box members, outer angular corner pieces connecting the

outer box members, a sheet of screen cloth formed with pockets at its edges occupying the grooves, and retainer strips inserted in the pockets for securing the screen cloth. 25

2. A window screen frame comprising frame pieces each having a back member formed with parallel longitudinal grooves, and an inner box member and an outer box member spaced apart so as to provide a groove between them, and each having the edge of its inner wall inserted into a respective longitudinal groove in the back member, a sheet of screen cloth formed with 35 pockets at its edges occupying the grooves between the inner and outer box members, and retainer strips inserted into the pockets for securing the screen cloth.

FREDRICH E. SCHOENBERG.

In the presence of—

LILY ROST,

EDNA LINN.