

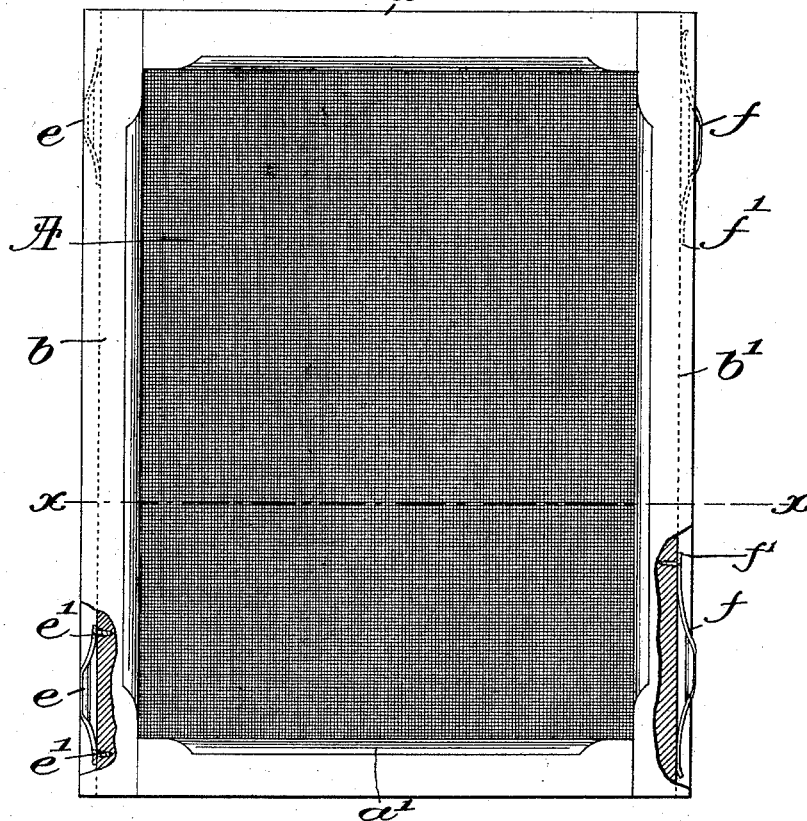
(No Model.)

B. R. PARKER & C. A. FREEMAN.  
WINDOW SCREEN.

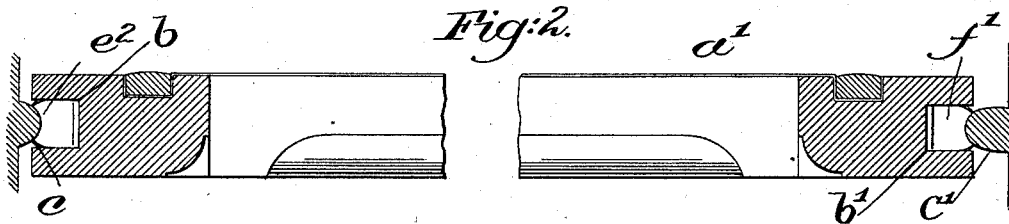
No. 524,608.

Patented Aug. 14, 1894.

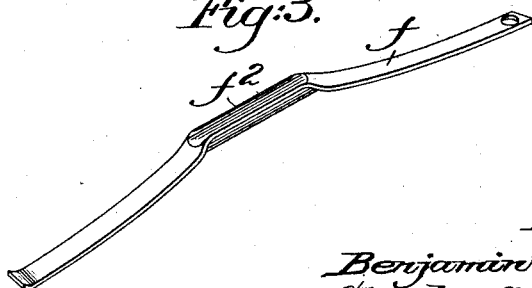
*Fig:1.*  
*a*



*Fig:2.*



*Fig:3.*



*Witnesses.*

*Thomas J. Drummond.*  
*Fred. S. Grunlof.*

*Inventors.*

*Benjamin R. Parker*  
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*by Crosby Gregory Atty.*

# UNITED STATES PATENT OFFICE.

BENJAMIN ROSWELL PARKER AND CHARLES ALVIN FREEMAN, OF WESTON,  
MASSACHUSETTS.

## WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 524,608, dated August 14, 1894.

Application filed February 9, 1894. Serial No 499,633. (No model.)

*To all whom it may concern:*

Be it known that we, BENJAMIN ROSWELL PARKER and CHARLES ALVIN FREEMAN, both of Weston, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Window-Screens, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to sliding window screens adapted to be applied either at the inside or outside of the window.

Prior to this invention we are aware that sliding window screens have either been made from wood and made to slide upon tracks or beads also of wood, or the screens for the sake of greater durability have been made from metal and made to slide upon metal tracks or beads, the tracks or beads in either case being secured to the window casing. The metal screens sliding upon metal tracks are objectionable principally because it is objectionable to have metallic track beads attached to the window casings, for the said side tracks or beads can never match the wood-work, and they become so easily rusted as to make them at all times objectionable. Frames made of wood and sliding upon tracks or beads also of wood are apt to stick or run with difficulty when the tracks or the frame become wet or damp from any cause. In our efforts to improve screens in this respect and to provide screens with frames of wood and adapted to run on tracks also of wood, yet without the objectionable sticking referred to, we have discovered that, by providing the wooden frame with guide-ways or grooves formed in metal let into the material of the frame, the metal running upon the wooden tracks obviates all difficulty.

In carrying out our invention, we prefer to employ a screen frame provided at one side with a groove deeper than the groove at the opposite side, springs being arranged within the deeper groove, which enable the frame to be inserted in and removed from the tracks in usual manner, and in accordance with this invention we provide such springs with hollowed bearing surfaces to run upon the wooden tracks and guide the screen frame

thereon, said grooved bearing surfaces at all times keeping the wood of the frame away from the wood of the track.

In the drawings, Figure 1 represents, in side elevation partially broken away, a screen embodying our invention; Fig. 2, a cross section on the dotted line  $x-x$  on a much enlarged scale, the metallic portion of the frame being broken away to admit of the figure being placed upon the sheet, and Fig. 3, in perspective, shows one of the springs by itself.

Referring to the drawings, the screen frame A, consisting of the top and bottom members  $a, a'$ , and the side members  $b, b'$ , may be constructed in usual or desired manner, and the screen  $s$  may also be applied to the said frame in suitable manner.

$c, c'$ , represent the wooden tracks or beads, properly secured to the inner faces of the window casing.

The side members  $b, b'$  of the screen are grooved longitudinally at their outer edges, the groove in one of the members, as for instance the member  $b$ , being preferably more shallow than that in the member  $b'$ , for a purpose to be described.

Within the groove in the member  $b$ , we have arranged two metallic bearing strips  $e, e'$ , only one of which is shown in full lines in Fig. 1, said strips being arch-like in form and secured in the bottom of the groove by screws  $e'$ , the crowns of the said arch strips being hollowed or grooved, as best shown at  $e^2$  Fig. 2, to constitute a guide surface to co-operate with one of the track beads on which the screen is made to slide. Within the deeper groove in the member  $b'$ , we arrange two metallic springs  $f, f'$ , also arch-like in form, and secured by screws  $f'$  at one of their ends only, the other ends of the said springs being free to move longitudinally in the groove. The crowns of the springs  $f, f'$  are also made trough-shaped or hollow, as at  $f^2$ , see Fig. 3, to co-operate with the other of the tracks  $c$  at the opposite side of the screen and to constitute a bearing surface to slide on the said track.

By grooving the crowns of the springs  $f$  and the metallic strips  $e$ , the said crowns serve not only as bearings for the screen in sliding upon the tracks, but the said grooved crowns also fulfill the added function of guides to

prevent the lateral movement of the screen frame upon its tracks, thereby keeping the wood-work of the screen frame at all times out of frictional contact with the wood of the tracks. It will thus be seen that there is a contact of metal upon wood instead of wood to wood, or metal to metal, as in screens as heretofore generally constructed, with the result that dampening of the tracks or the screen frame does not cause the latter to stick and run hard, for the metal always slides easily upon the wood. The metal, however, is at all times concealed within the grooves of the frame, and should they rust or corrode, they are not visible to the eye, the screen to all appearances appearing precisely like the usual screens made from wood, and sliding upon tracks also of wood.

This invention is not restricted to the particular shape or formation of the springs or bearing plates, for it is evident the same may be varied without departing from the spirit and scope of this invention. The bearing strips *e* may be constituted springs, if desired.

We claim—

1. In a sliding window screen, the combination with two tracks, of a screen frame adapted to slide thereon and provided at one side with a groove and one or more metallic

springs arranged in said groove said springs being formed to present integral hollow bearing surfaces to receive one of the said tracks and to guide the screen thereon, substantially as described.

2. In a sliding window screen, the combination with two tracks, of a screen frame provided at one side with a groove and one or more metallic arched springs arranged in said groove and provided with hollowed crowns to receive one of the said tracks and to guide the screen frame thereon, substantially as described.

3. In a sliding window screen, the combination with two tracks, of a screen frame adapted to slide thereon and grooved at its opposite sides to receive said tracks, springs having integral hollow bearing surfaces located in one of said grooves, and metallic bearing strips sunk and concealed in the other of said grooves and having hollow bearing surfaces, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

BENJAMIN ROSWELL PARKER.

CHARLES ALVIN FREEMAN.

Witnesses:

CHARLES H. FISKE,

MARY A. ELLARD.