(No Model.)

C. H. BENOIT & A. PILLOT.

WINDOW SCREEN.

No. 447,423. Patented Mar. 3, 1891.

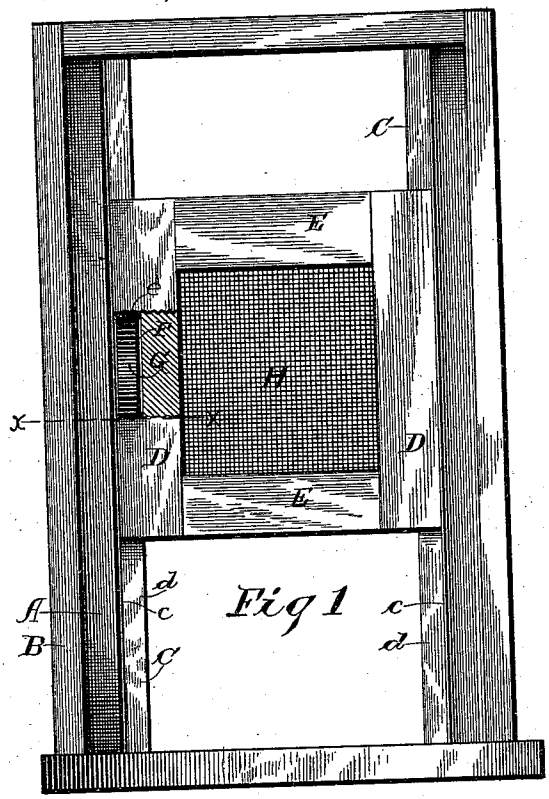


Fig 1

Fig 2

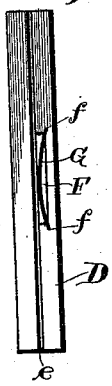


Fig 3

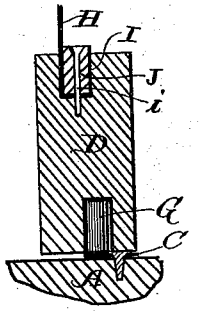


Fig 4

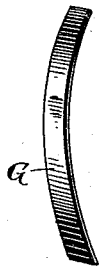


Fig 5

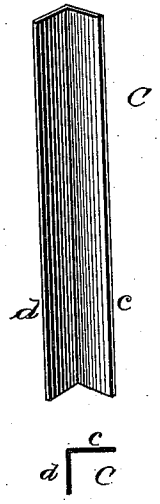
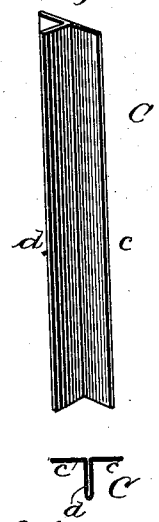


Fig 6



Witnesses

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F. D. Davis.

Inventor

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES H. BENOIT AND ALEXANDRE PILLOT, OF SAN JOSÉ, CALIFORNIA.

WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 447,423, dated March 3, 1891.

Application filed March 22, 1890. Serial No. 344,864. (No model.)

To all whom it may concern:

Be it known that we, CHARLES H. BENOIT and ALEXANDRE PILLOT, citizens of the United States, residing at San José, in the county of Santa Clara and State of California, have invented certain new and useful Improvements in Window-Screens; and we do hereby 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.

Our invention relates to that class of window-screens which are arranged to slide on ways secured to the casing and to be fixed at various adjustments on the same. It is well known that devices of this kind have heretofore been constructed in which a flat spring is placed in the side of a groove in the casing or jamb and has pressure on the head of the screen-sash to hold the latter at various positions.

Our invention contemplates an improvement over this construction by which we are enabled to produce a more cheap, simple, efficient, and durable arrangement of parts which will overcome the difficulties hitherto encountered; and to this end our invention consists in certain peculiarities and combinations of features, which will be more fully set forth hereinafter, and pointed out in the claims.

Referring to the accompanying drawings, making parts of this specification, Figure 1 is an inside front elevation of our complete arrangement; Fig. 2, a side view of the sash removed; Fig. 3, a sectional view taken on line *x x* of Fig. 1; Figs. 4 and 5, detail views of the spring and way or track, and Fig. 6 a modification.

The screen is arranged to be placed on either side of the window-sash, and slides between the jambs A of the window-casing B. The ways C are secured to these jambs and consist of strips of suitable metal, having the faces *c d* at right angles to each other, the face or plate *c* constituting the portion bearing upon the jamb and secured to it, and the part *d* the track on which the screen-sash travels. This form of track has been found most cheap and simple, although it might be varied, as shown in the modification in Fig. 6 and in other ways.

The screen-sash is constructed of the side and end pieces D and E, secured together in any suitable manner, and the side pieces D are provided with vertical grooves *e*, extending their entire length and of sufficient width and depth to contain the strips or ways C. About half-way between the ends of each side piece a chamber F is formed in one side of the groove, and this chamber has a depth equal to that of the groove and a width and length sufficient to contain the spring G. This spring is a simple flat curved piece of resilient metal of the same width as the portion *d* of the track, and is adapted to be placed in the chamber F with its curved or convex surface projecting out into the groove and its opposite ends fitting in small notches *f* in the chamber F to prevent the spring from becoming accidentally displaced.

The sash is fitted in the window, with the track portions *d* of the ways C engaging the grooves *e*, said tracks fitting between the convex surfaces of the springs G and the opposite walls of the grooves. It will thus be seen that the springs will have a constant pressure on the strips, and to whatever position the sash is raised it will be retained in place by reason of the friction created between these parts.

The screen proper H is secured in the sash by means of grooves I in the inside faces of the side and end pieces D and E of the latter. The screen is placed in these grooves to bear against the bottom and side walls of the same, and is secured in place by blocks or strips J, which fit said grooves and are driven into the same, thus tightly wedging the screen between them and the walls of the grooves. The strips project slightly from the inside faces of the side and end pieces of the sash, and are secured in the grooves of the same by means of nails *i* driven through them from their inner faces into the bottoms of the grooves, as seen more clearly in Fig. 3.

It is evident that many slight changes which might suggest themselves to a skilled mechanic could be resorted to without departing from the spirit and scope of our invention. Hence we do not limit ourselves to the precise

construction herein shown, but consider ourselves entitled to all such slight variations.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination of tracks or ways secured to the inside faces of the side pieces of the window frame or casing and extending the length of the same, the screen-sash provided with lengthwise grooves for containing said tracks, and also chambers in the sides of said grooves, and curved flat springs loosely contained within said chambers, their central curved portions having pressure against the sides of said tracks or ways to hold the sash in the desired position, substantially as set forth.

2. The combination of tracks or ways secured to the inside faces of the side pieces of the window frame or casing, the screen-sash provided with lengthwise grooves for containing tracks, and also chambers in the sides of said grooves, having recesses in their opposite ends, and curved flat springs fitting loosely in said chambers, their ends being contained within said recesses, respectively, and their central curved portions having pressure against the sides of said tracks to hold the screen at the desired position, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES H. BENOIT.
ALEXANDRE PILLOT.

Witnesses:
FLORENS GAIMAUD,
O. G. BONA.