No. 842,243. PATENTED JAN. 29, 1907.

W. B. PHILLIPS.

ADJUSTABLE WINDOW SCREEN.

APPLICATION FILED OCT. 14, 1904.

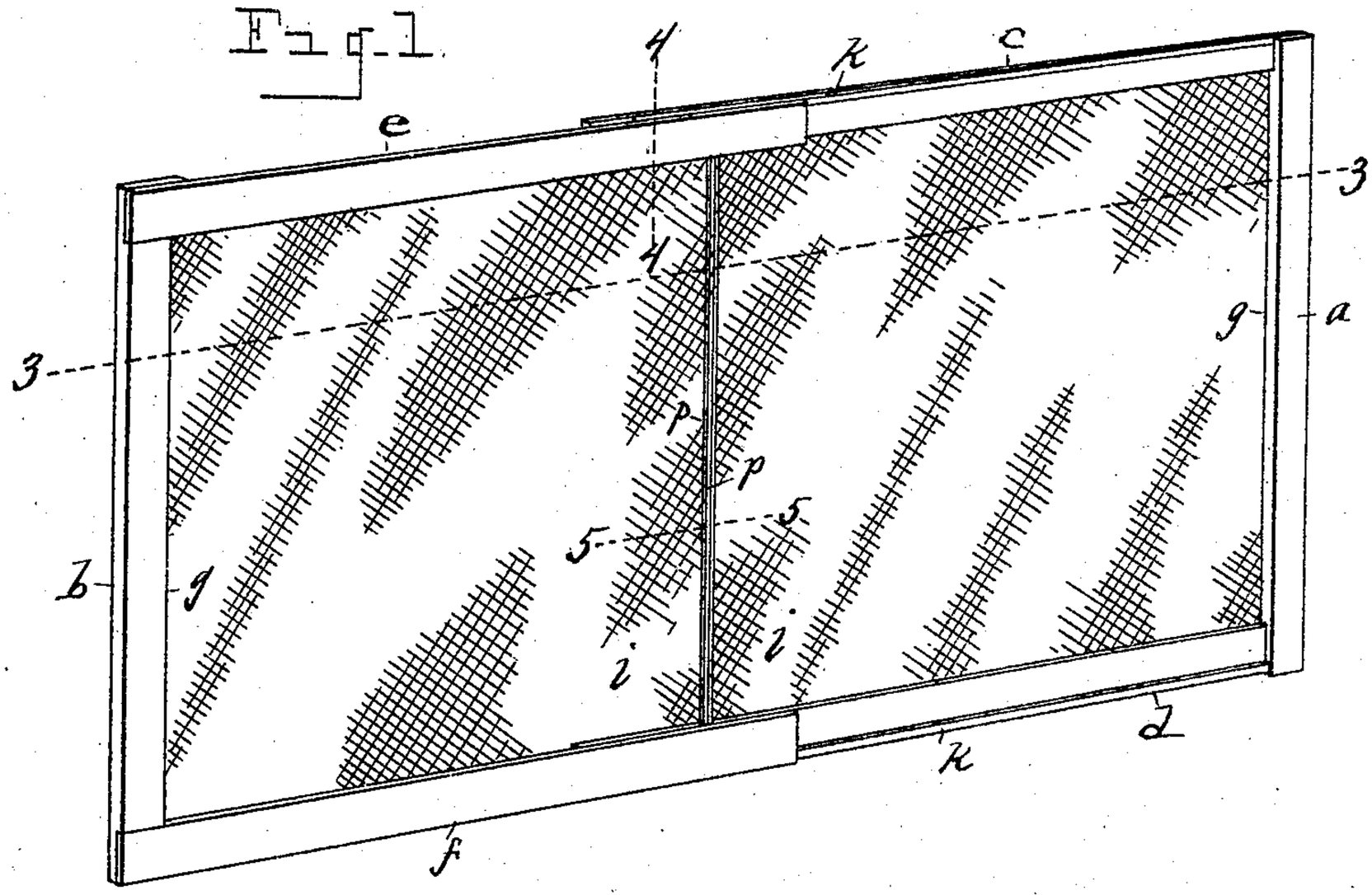

Fig. 1.

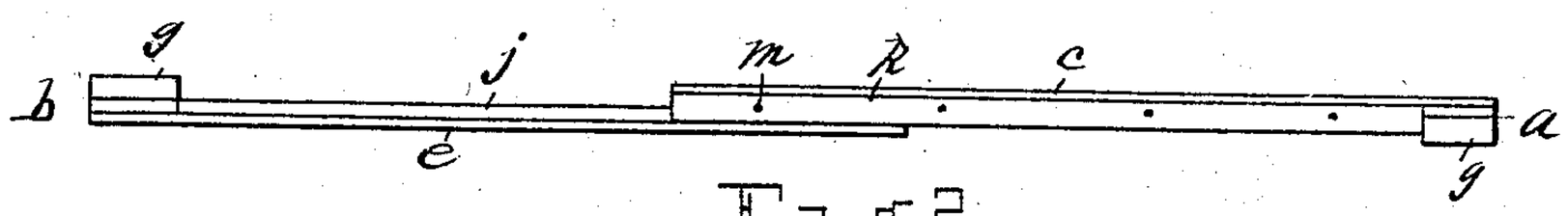

Fig. 2.

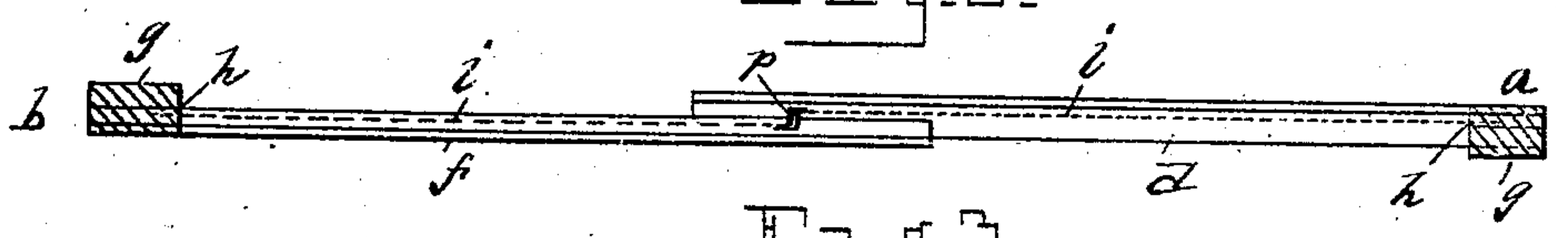

Fig. 3.

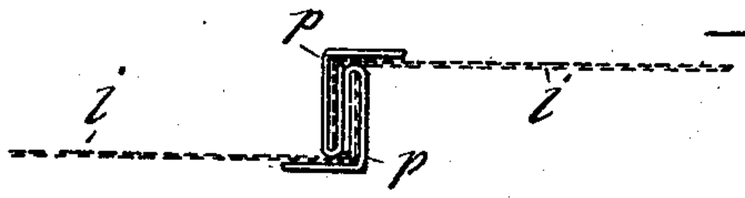

Fig. 5.

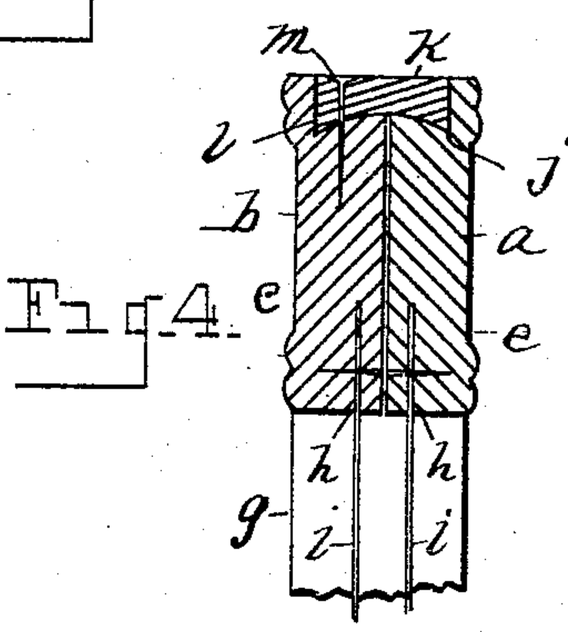

Fig. 4.

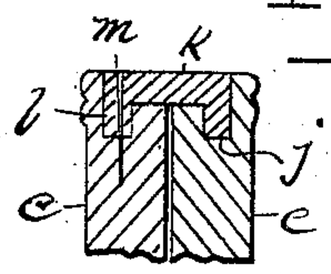

Fig. 6.

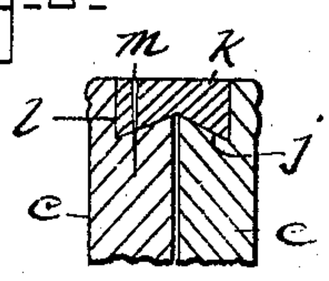

Fig. 7.

Witnesses:
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By his Attorney
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UNITED STATES PATENT OFFICE.

WINFIELD B. PHILLIPS, OF FENTON, MICHIGAN.

ADJUSTABLE WINDOW-SCREEN.

No. 842,243. Specification of Letters Patent. Patented Jan. 29, 1907.

Application filed October 14 1904. Serial No. 228,428.

To all whom it may concern:

Be it known that I, WINFIELD B. PHILLIPS, a citizen of the United States, residing at Fenton, county of Genesee, State of Michigan, have invented a certain new and useful Improvement in Adjustable Window-Screens, of which the following is a specification, reference being had to the accompanying drawings, which form a part of this specification.

My present invention aims to provide an improved window-screen of superior construction and utility, and I carry out my invention as hereinafter more fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective showing two portions of a screen-frame expanded. Fig. 2 is a plan view of the same. Fig. 3 is a horizontal section on the line 3 3, Fig. 1. Figs. 2 and 3 also show the two portions of the screen-frame extended. Fig. 4 is a detail view in section on the line 4 4, Fig. 1. Fig. 5 is a detail view on the line 5 5, Fig. 1. Fig. 6 is a view similar to Fig. 4, but showing a modification. Fig. 7 is a view similar to Fig. 6, but showing another modification.

As in my pending application, filed July 13, 1904, Serial No. 216,403, for an adjustable window-screen, my present invention has for its object to do away with the employment of metal caps in the construction of adjustable window-screens; to employ only wood in the construction of the frames; to engage the wire-netting in suitable kerfs in the frames; to construct window-screens with the fewest possible number of pieces and with the most complete symmetry and beauty attainable in adjustable screens; also, to provide adjustable window-screen frames with plain or ornamental surfaces.

The window-screen frame, as a whole, embodied in my present invention is composed of two portions *a b*, the one composed of upper and lower frame-bars *c d* and the other with upper and lower frame-bars *e f* and end connecting-bars *g*. The upper and lower bars *c d* and *e f* and the end connecting bars are kerfed, as indicated at *h*, to receive the screen fabric, indicated at *i*. The upper and lower bars of one of the portions *a b*—as, for example, the bars *e f*—are grooved on their outer edges, as indicated at *j*, the grooves preferably extending the whole length of the bars *e f*, the grooves at least extending from the adjacent connecting-bar *g* to or nearly to the opposite ends of said upper and lower bars. It will be convenient, as will readily be seen, in the construction of said upper and lower bars to run the groove from end to end. The upper and lower bars of the other portion of the frame, as the bars *c d*, are each provided with a wooden cap or slide, indicated at *k*, said caps or slides preferably extending from the adjacent end connecting bar *g* to the opposite ends of said upper and lower bars, the wooden caps or slides *k k* running in the corresponding grooves *j* on the top and bottom of the adjacent auxiliary frame or portion *b*. I prefer in the application of said caps or slides to also groove the upper and lower edges of the corresponding upper and lower bars to receive the corresponding caps, as indicated at *l*.

It will be apparent that the two grooves *j l* are adjacent to each other. The caps or slides *k* are constructed to extend over and into the grooves *j*. The grooves *j l* thus extend over and above the adjacent bars at the top and bottom thereof, and I prefer also that said grooves should be convexed at the base thereof, as shown more particularly in Fig. 4, although I do not limit myself thereto. I prefer also that adjacent grooves *j l* should be formed between the lateral surfaces of the companion bars, so that when the caps or slides *k* are engaged in the said grooves the slides will be entirely concealed from one face of the frame looking at the screen in elevation, the upper surface of the slide being preferably on a plane with the outside edges of the companion bars. The slides *k* are readily secured in the grooves *l* in any suitable manner, as by brads *m*, the opposite edge of the cap or slide having movable engagement in the groove of the companion bar. The caps are preferably constructed concave on their under surfaces to correspond with the shape of the grooves. The caps and grooves being so formed on their adjacent edges it will be seen that the extremities of the arc of the slide extend into the corresponding depressions at the lateral edges of the corresponding groove so as to hold the two auxiliary frames in position and from lateral displacement, the frames being prevented from spreading laterally. The wooden caps being so arranged and engaged in place are not visible in viewing the frame in front elevation when the frames are closed together, and the faces of the bars of the

frame, it will be evident, are not defaced by any adjusting devices.

The caps and grooves being so elongated, as above described, permit the frame to be expanded to the fullest practicable extent. The frames are prevented from being pulled apart lengthwise by the use of angle-irons *p* on the adjacent edges of the screen fabric. These angle-iron center bars *p* may be formed of sheet metal, one edge of which is engaged with the adjacent edge of the fabric, the opposite edge of said center bar being bent over essentially at right angles so as to form a stop when the center bars of the two frames are in contact, as indicated more particularly in Fig. 5. When the two auxiliary screens are expanded to their limit, it is obvious that the angle-iron center bars will thus contact and afford less obstruction to the view than when not in contact. As in my application above referred to it will be seen that the edges of the wire fabric are concealed in the kerfs of the bars of the frame. In frames so constructed it will be seen that all adjusting devices are eliminated from observation from the faces of the closed bars. It is obvious that the wooden caps or slides will run freely in the corresponding grooves or surfaces of the companion bars, the wooden slides operating more effectually, more freely, and more satisfactorily than if made of metal, while the rust of metal is also avoided.

While the grooves and caps are not visible in front elevation when the two frames are closed together, when drawn apart they become visible to some extent on opposite sides; but if the faces of the frames are beaded the slight depressions forming the grooves and the projecting edges of the caps which are visible will appear unless examined closely to be but a continuation of the beads of the bar in front.

In Fig. 7 the cap is shown with a V-shaped groove on its under surface to fit into the corresponding groove in the frames *a b*. In Fig. 6 the cap is shown essentially U-shaped in cross-section on its under surface to fit into the corresponding groove in the frames *a b*. I do not limit myself exclusively to any particular shape of the grooved under surface of the cap or of the grooves in the frames *a b*.

What I claim as my invention is—

A window-screen embodying two frames each having a top and bottom bar and a connecting-bar at one end, the top and bottom bars of each of said frames being grooved on their outer edges, a cap or slide secured to each of the top and bottom bars of one of said frames and disposed within the groove thereof and projecting laterally from said bars to slidably engage with the groove of the top and bottom bars of the adjacent frame, said caps extending from the end bar of the frame to which they pertain to the inner extremities of the top and bottom bars thereof and having their outer, lateral faces lying substantially flush with the outer faces of the top and bottom bars of the adjacent frame, whereby the space between the end bar of one frame and the ends of the top and bottom bar of said adjacent frame is closed against the entrance of insects when the window-screen is flush against the rail of the sash, substantially as specified.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WINFIELD B. PHILLIPS.

Witnesses:
R. B. RENWICK,
E. C. FOOTE