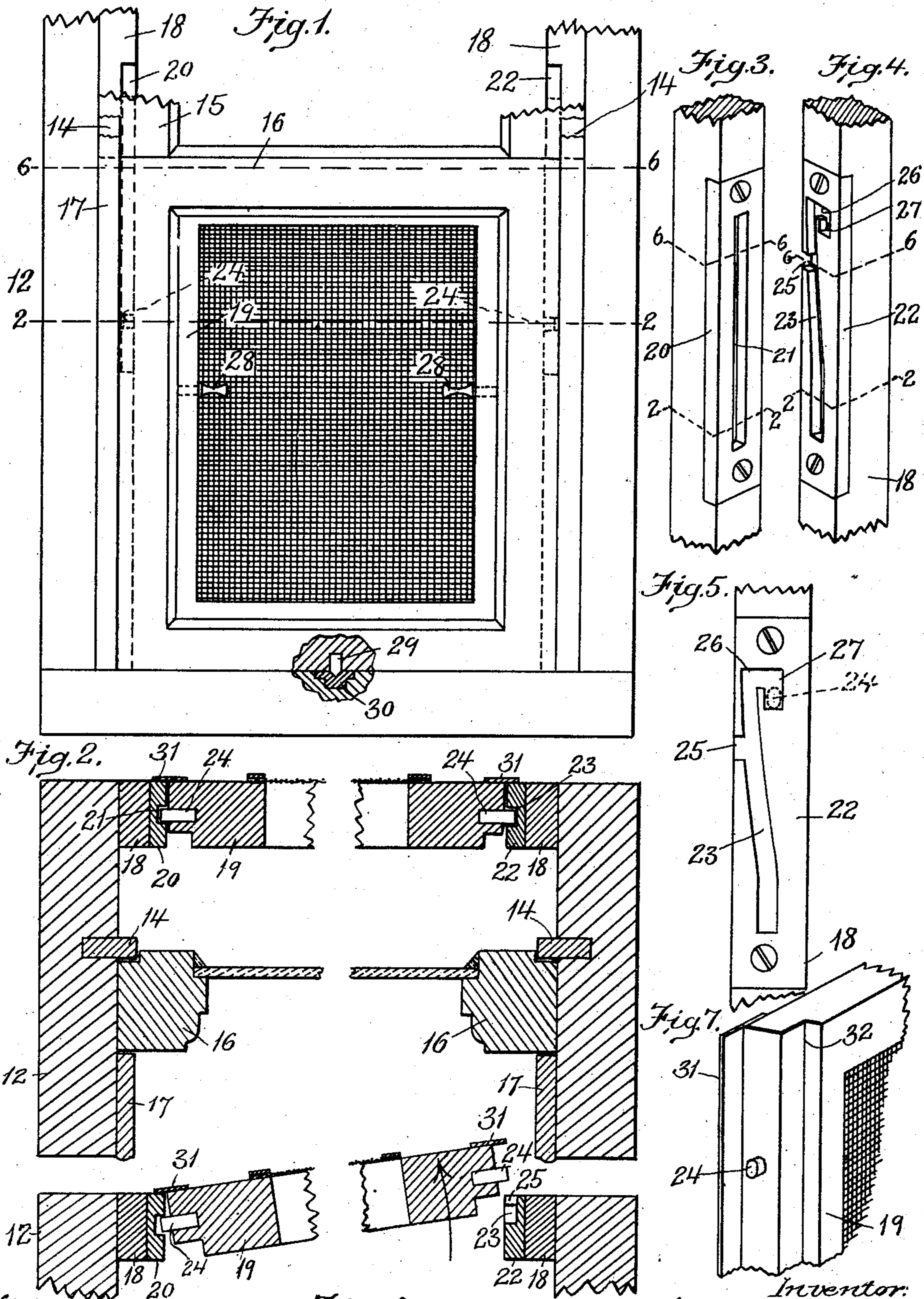


C. F. DUDLEY.
WINDOW SCREEN.

APPLICATION FILED NOV. 24, 1909.

992,760.

Patented May 23, 1911.



Witnesses:
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Fig. 6.

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UNITED STATES PATENT OFFICE.

CHARLES F. DUDLEY, OF READING, MASSACHUSETTS.

WINDOW-SCREEN.

992,760.

Specification of Letters Patent.

Patented May 23, 1911.

Application filed November 24, 1909. Serial No. 529,721.

To all whom it may concern:

Be it known that I, CHARLES F. DUDLEY, of Reading, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Window-Screens, of which the following is a specification.

This invention has for its object to provide improved means for detachably securing the frame of a window screen to a window casing in such manner that the screen may be readily applied and removed from the inner side of the casing, and may be temporarily supported in a raised position, if desired, to permit the opening and closing of the outside window blinds without the employment of special screen guides or tracks on the window casing.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification,—Figure 1 represents a view taken from the inner side of a window casing, showing portions of the casing, the upper and lower sashes, and a screen connected with the casing in accordance with my invention. Fig. 2 represents a section on line 2—2 of Fig. 1. Figs. 3 and 4 represent perspective views of portions of the upright guides on which the screen and the upper sash slide. Fig. 5 represents a side view of a portion of one of said guides. Fig. 6 represents a sectional view on the plane of line 6—6, Fig. 1, and Figs. 3 and 4. Fig. 7 represents a perspective view of a portion of the screen.

The same reference characters indicate the same parts in all the figures.

In the drawings,—12 represents a window casing of ordinary construction, having in its vertical members the usual stop beads 14 which engage the upper sash 15 and the lower sash 16, the said upright members having also the usual outside guides 18 for the upper sash, and inside guides 17 for the lower sash.

19 represents the frame of a window screen, the outer edges of the vertical members of which are in sliding contact with the outside guides 18. Instead of providing said outside guides with the usual tracks or beads adapted to engage the edges of the screen frame, I omit such tracks or beads, and insert in one of the guides a plate 20, having a guide groove 21, and in the other guide

a plate 22 having a guide groove 23. I also provide the vertical members of the screen frame with studs 24, projecting from the outer edges of said members between their front and rear faces, adapted to enter and slide in the grooves 21 and 23.

The groove 21 is vertical and has continuous walls, as shown in Fig. 3, while the groove 22 is inclined at its upper portion toward the outer edge of the plate 22, and has the continuity of its outer side interrupted by an opening 25 (Fig. 4) which permits the screen to be removed by raising it until the stud 24 occupying the groove 23 coincides with the opening 25, and then swinging one edge of the screen outwardly, as indicated in Fig. 6, one of the studs 24 passing through said opening. The screen may be applied by a reversal of the described steps. The opening 25 is located below the upper end of the groove 23, and the stud occupying said groove is adapted to be moved across and above said opening without passing through the same.

The upper end of the groove 23 has an inwardly extending portion 26 and a downwardly extending portion 27, these portions permitting the stud 24 to be moved inwardly through the portion 26, and downwardly into the portion 27, the lower end of the latter constituting a stop adapted to engage the stud and thus support the screen in a raised position with its lower edge sufficiently elevated above the window sill to permit a person to reach through the space to open or close the outside blinds or shutters.

The vertical members of the screen frame are provided with grips or handles 28 for convenience in manipulating the screen in the manner described.

29 represents a tenon affixed to the bottom member of the screen frame, and projecting downwardly therefrom into engagement with a socket 30 in the sill member of the casing, the projecting portion of the tenon 29 being preferably conical, and the socket being formed in a metallic bushing. The function of the tenon 29 is to prevent sidewise movement of the lower portion of the screen frame, or in other words, a swinging movement of the frame on the studs 24.

I prefer to provide the vertical members of the screen frame with thin metallic flange strips 31 attached to the outer sides of said members, and projecting outwardly there-

from far enough to overlap and engage the outer sides of the outside guides 18, said flange strips being so thin that they do not interfere with the usual window blinds or shutters. The flange strips 31 prevent the entrance of insects between the outside guides 18 and the screen frame, when the latter is lowered, and act to prevent side-wise inward displacement of the screen frame when it is being raised and lowered.

The screen frame not only has the studs 24 permanently projecting therefrom, but also carries the strips 31, which latter are, of course, of a length substantially the same as that of the vertical side members of the screen frame. The studs 24, therefore, serve to hold the strips 31 in engagement with the outer surface of the outside guides 18, so as to prevent the entrance of insects, even when there is considerable space left at the sides so as to permit the screen frame to fit loosely.

The inner sides of the vertical members of the screen frame are preferably rabbeted to form vertical recesses 32 to receive the screw-eyes commonly inserted in the outside guides 18 near their upper and lower ends for engagement with hooks on a storm or outside window sash. The recesses 32 permit the screen to be applied to the guides and adjusted thereon without the necessity of removing the said screw-eyes.

The described construction is extremely simple and involves no adaptation of the window casing beyond the insertion of the grooved plates 20 and 22 in the guides 17, and of the socket bushing 30 in the sill member of the casing when the stud 29 is used.

It is obvious that each of the guides 18 may be provided with a plate having the characteristics of the plate 22, so that the studs of the screen may be applied and removed from the guide grooves at the same time, and each may bear on a stop at the upper end portion of its guide groove when the screen is raised.

When the screen frame is made of wood, the strips 31, by bridging over the crevices between the outer edges of the screen frame and the guides 18, enable the screen frame to fit loosely between said guides, so that it may slide easily without frictional resistance, and when made of wood, may be fitted so loosely that any expansion of the frame caused by the swelling of its wooden parts will not cause the frame to stick or bind on the guides. The strips constitute extensions increasing the width of the outer side of the screen frame, and causing the frame to overlap the outer sides of the vertical guides 18. The screen frame may be made of metal if desired.

I claim:

1. A window screen frame having vertical

side members adapted to slide between fixed guides on a window casing, and provided with thin vertical strips attached to the outer sides of said members and projecting outwardly across their outer edges to bridge the crevices between said edges and the fixed guides, whereby the frame may have a loose fit between the guides, without permitting the entrance of insects between the outer edges of its vertical side members and the opposed edges of the guides, the said strips constituting lateral extensions which increase the width of the outer side of the screen frame, causing the frame to overlap the outer sides of the fixed guides, and being adapted to slide on said guides.

2. In combination, a window casing having guide grooves in immovable portions of its outer sash guides, and a screen frame having outwardly projecting studs on its side members adapted to enter the guide grooves, a stud-supporting socket being provided which communicates with one of said guide grooves.

3. In combination, a window casing having guide grooves in immovable portions of its outer sash guides and a socket in its sill, a screen frame having outwardly projecting studs on its side members adapted to enter the guide grooves, a stud-supporting socket being provided which communicates with one of said guide grooves, and a downwardly projecting tenon on its lower end member adapted to engage said socket.

4. In combination, a window casing having fixed outside sash guides provided with guide grooves, and a screen frame having outwardly projecting studs on its vertical members adapted to enter said grooves, means being provided for permitting the movement of one of said studs through the outer wall of its guide groove, the said guide grooves being of a length to permit the screen to be raised to enable outside blinds to be reached.

5. In combination, a window casing having fixed outside sash guides provided with guide grooves, and a screen frame having outwardly projecting studs on its vertical members adapted to enter said grooves, one of said grooves being formed at its upper end portion with a stud-supporting socket to engage the corresponding stud and support the screen frame in a raised position.

6. In combination, a window casing having fixed outside sash guides provided with guide grooves, and a screen frame having outwardly projecting studs on its vertical members adapted to enter said grooves, one of said grooves being inclined from its lower end toward the outer side of the guide in which it is located, and extended inwardly and downwardly at its upper portion to form a stud supporting bracket.

7. In combination, a window casing hav-

ing fixed outside sash guides provided with
guide grooves, and a screen frame having
outwardly projecting studs on its vertical
members adapted to enter said grooves, one
5 of said grooves having an opening in its
outer wall between its ends to permit the re-
moval and insertion of the corresponding
stud, the said guide grooves being of a

length to permit the screen to be raised to
enable outside blinds to be reached. 10

In testimony whereof I have affixed my
signature, in presence of two witnesses.

CHARLES F. DUDLEY.

Witnesses:

C. F. BROWN,
P. W. PEZZETTI.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
