

J. W. VAN NEWKIRK.
WINDOW PANE FASTENER.

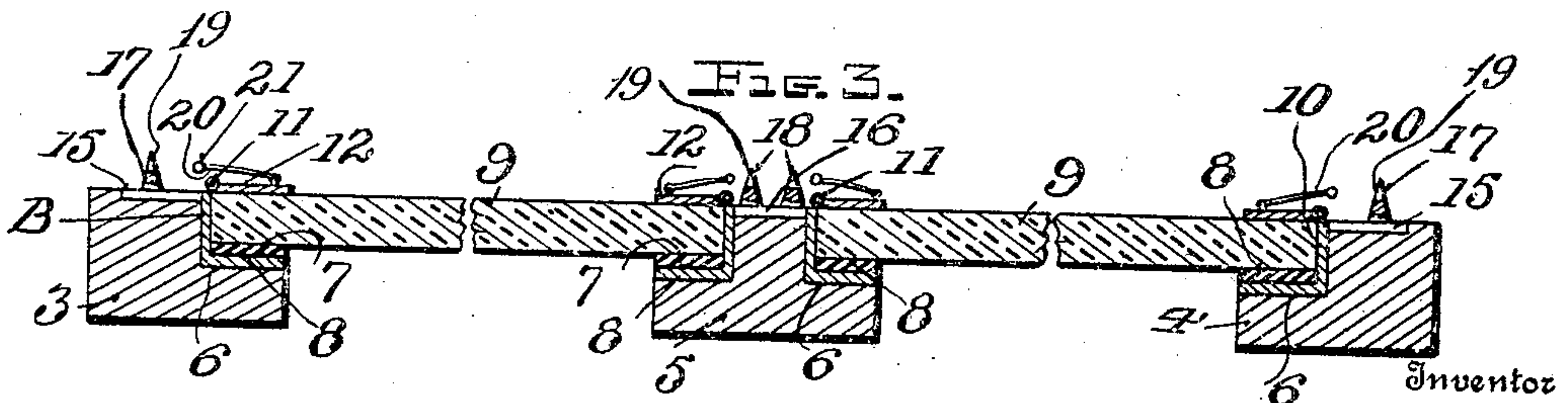
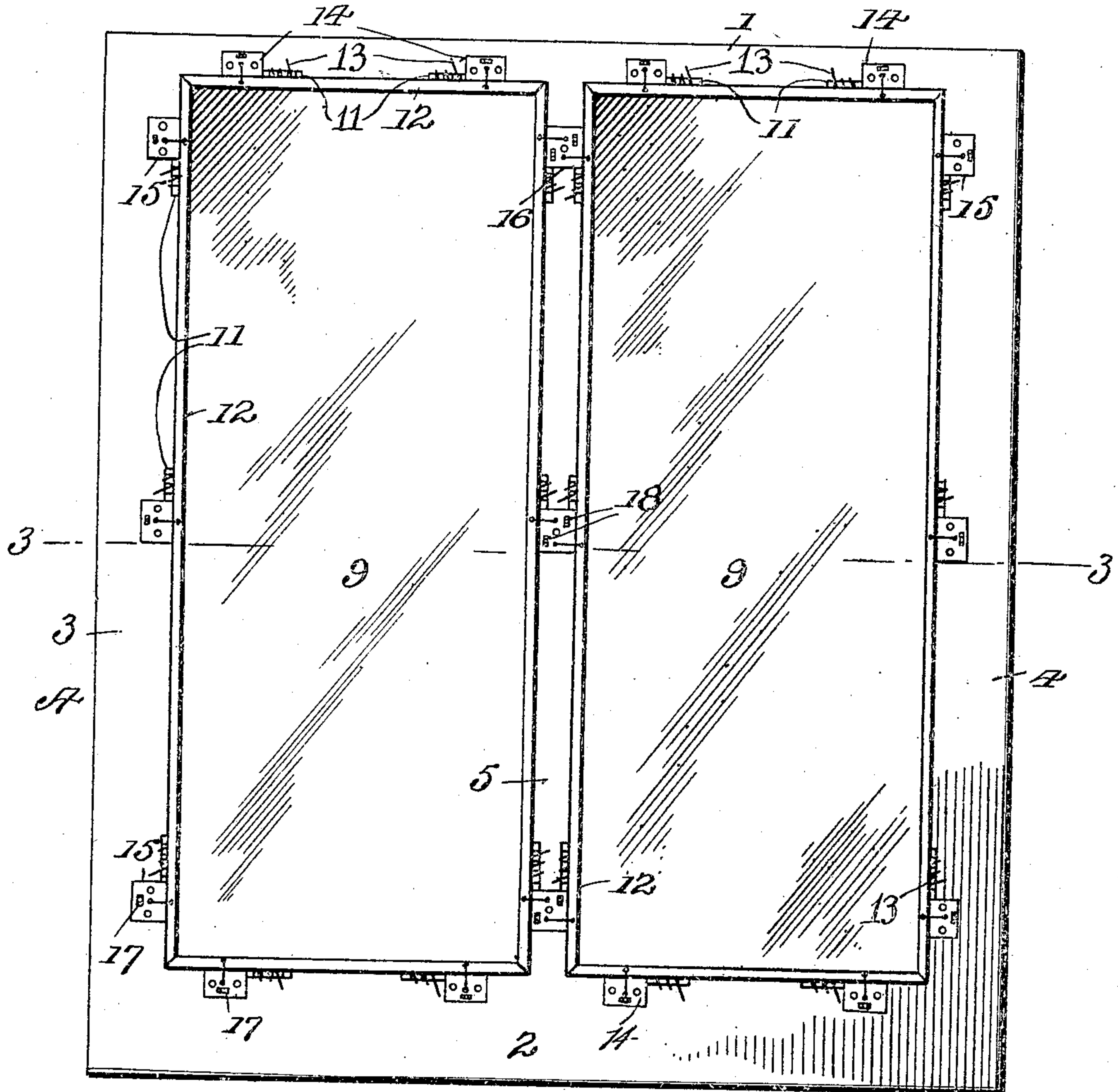
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954,484.

Patented Apr. 12, 1910.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses
Helen Murray
H. C. McCarty

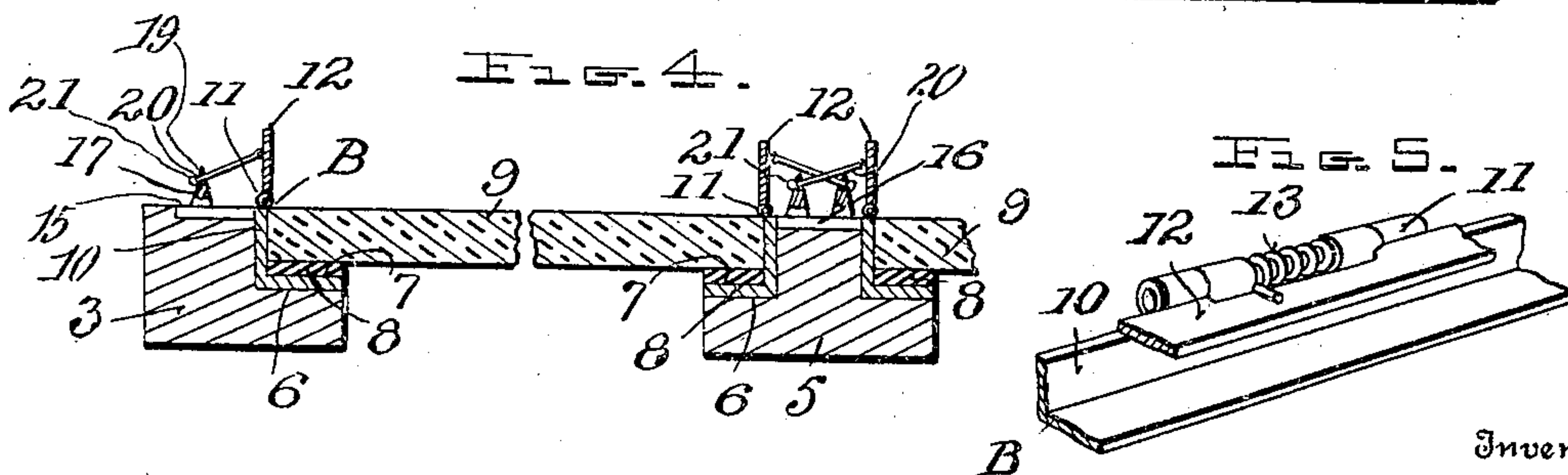
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

JAMES W. VAN NEWKIRK, OF OSHKOSH, NEBRASKA.

WINDOW-PANE FASTENER.

954,484.

Specification of Letters Patent.

Patented Apr. 12, 1910.

Application filed October 8, 1908, Serial No. 456,752. Renewed September 11, 1909. Serial No. 517,289.

To all whom it may concern:

Be it known that I, JAMES W. VAN NEWKIRK, a citizen of the United States, residing at Oshkosh, in the county of Deuel, State of Nebraska, have invented certain new and useful Improvements in Window-Pane Fasteners; and I 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.

The present invention relates to improvements in window-pane fasteners, and it has for its general object the provision of an exceedingly simple and inexpensive device of that nature designed for effectively retaining a pane of glass in place in the rabbeted portion of a sash, the device being constructed in such a manner as to permit a cracked or broken pane to be readily and quickly removed and a new one substituted therefor without necessitating the removal of the device itself.

To this end, the fastener comprises a rectangular skeleton base frame arranged to fit in the rabbeted portion of the sash, and to receive the pane of glass against its inner face, and a locking strip hinged to each member of the frame and adapted to be folded against the outer face of the glass, to retain the latter in place upon said frame, displacement of the strips themselves being prevented by means of springs with which said strips are connected.

The invention further resides in the provision of wires for raising the locking strips out of contact with the glass, to permit the same to be removed, the wires being arranged for engagement with notched spurs formed upon lateral lugs with which the base frame is provided, the strips being retained in their raised or inoperative position during such engagement.

The preferred embodiment of the invention is illustrated in the accompanying drawings, in which corresponding parts or features, as the case may be, are designated by the same reference characters throughout the several views.

Of the said drawings, Figure 1 is a front elevation of a window sash equipped with the improved fasteners, which latter are shown in closed position. Fig. 2 is a similar view showing the fasteners in open position. Figs. 3 and 4 are transverse sections

taken, respectively, on the lines 3—3 and 4—4 of Figs. 1 and 2. Fig. 5 is an enlarged detail perspective view of one of the hinge plates.

Referring more particularly to the drawings, 1 and 2 designate, respectively, the top and bottom rails of the window sash A, 3 and 4 the left and right-hand side rails thereof, and 5 the vertical cross-rail which connects the centers of the first-mentioned pair of rails, and thus divides the sash into two sections, the inner face of each section being formed in the usual manner with a continuous rabbet 6. Each rabbet is designed to snugly receive the rectangular skeleton base frame B of the corresponding fastener, the frames being each constructed of thin strips of angle iron or tin, the faces of each strip resting against the corresponding faces of the adjacent walls of the rabbet, as shown. The glass-receiving face of the inner wall 7 of each frame is lined throughout its entire extent with soft rubber, the provision of this lining, which is indicated by the numeral 8, preventing the passage of air around the edges of the pane of glass 9. The outer wall 10 of each member of the frame has connected to its free edge, by means of a series of hinges 11, a metal locking strip 12 whose length is co-extensive with that of the corresponding frame member, the arrangement being such that when the panes of glass have been disposed in place against the inner wall 7 of the two frames, the locking strips may be folded inwardly, so as to rest against the outer faces of the panes, which latter are thus held in such position, displacement of the strips being prevented by means of the expansible coil spring 13 with which the hinges are provided, the tension of the springs upon said strips holding them normally in their operative position. The top and bottom members of the outer walls of both frames are each formed with a pair of laterally projecting lugs 14 arranged to fit in seats formed in the outer faces of the top and bottom rails 1 and 2 of the sash, in which seats they are held by means of bolts or rivets. The outer vertical members of the two frames, *i. e.* the left-hand member of the left-hand frame, and the right-hand member of the right-hand frame, are likewise each formed with a series of three similar lugs 15 arranged to fit in seats

formed in the sash rails 3 and 4. The inner vertical members of the two frames are connected by a series of these lugs 16 arranged to fit in seats formed in the cross-rail 5.

5 The lugs 15 are each formed with a laterally-projecting spur 17, while the central lugs 16 are each provided in like manner with a pair of spurs 18, each of the several spurs having its outer end notched, as indicated by the numeral 19. These spurs serve

10 as retainers for the wires 20 which are secured centrally to the vertical locking strips, and are arranged for engagement in the notches 19 when said strips are swung outwardly into inoperative position, *i. e.*, away from the panes of glass, the formation of a bead or head 21 upon the free end of each wire preventing the wires from being accidentally released from such engagement.

20 The horizontal or top and bottom locking strips are each likewise provided with a similar wire, the several wires thus serving as handles for swinging the locking strips out of contact with the panes of glass.

25 In fitting the panes of glass in the sash, it is only necessary to move the two vertical locking strips of each frame into inoperative position by means of their wires, and to retain the same in such position by engaging

30 the wires with the corresponding spurs; the horizontal locking strips may then be moved outwardly and the panes of glass fitted in the base frames, after which the locking strips will move into operative position

35 against the glass owing to their connection with the coil springs, the wires connected with the vertical locking strips having been previously released from their engagement with the spurs.

40 What is claimed, is:—

1. The combination, with a window sash formed with a continuous rabbet, of a rectangular base frame fitted in the rabbet and secured to the sash, said frame having its

45 members formed of strips of angle-metal; a pane of glass arranged to fit in said frame and to rest upon the inner wall thereof; and a locking strip hinged to the outer edge of the outer wall of each member of the frame,

50 said locking strips being arranged for movement against the outer face of the glass, to hold the same against displacement from said frame.

2. The combination, with a window sash

55 formed with a continuous rabbet, of a rectangular base frame fitted in the rabbet and secured to the sash, said frame having its members formed of strips of angle-metal; a pane of glass arranged to fit in said frame

60 and to rest upon the inner wall thereof; a locking strip hinged to the outer edge of the outer wall of each member of the frame and arranged for movement into contact with the outer face of the glass, to hold the same

65 against displacement from said frame; and

means for holding the locking strips normally in such position.

3. The combination, with a window sash formed with a continuous rabbet, of a rectangular base frame fitted in the rabbet and

70 secured to the sash, said frame having its members formed of strips of angle-metal; a pane of glass arranged to fit in said frame and to rest upon the inner wall thereof; a locking strip hinged to the outer edge of the

75 outer wall of each member of the frame and arranged for movement into and out of contact with the outer face of the glass; means for normally holding the locking strips in the first-mentioned position; and means for

80 holding said strips in the last-mentioned position against the action of said means.

4. The combination, with a window sash formed with a continuous rabbet, of a rectangular base frame fitted in the rabbet and

85 secured to the sash, said frame having its members formed of strips of angle-metal; a pane of glass arranged to fit in said frame and to rest upon the inner wall thereof; a locking strip hinged to the outer wall of

90 each member of the frame and arranged for movement into and out of contact with the outer face of the glass; means for normally holding the locking strips in the first-mentioned position; a handle secured to each

95 locking strip for moving the same into the last-mentioned position against the action of said retaining means; and means arranged for engagement with the handles to hold said strips in the last-mentioned position.

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5. The combination, with a window sash formed with a continuous rabbet, of a rectangular base frame fitted in the rabbet and provided with a plurality of lugs arranged for attachment to the sash, said frame having its members formed of strips of angle-

105 metal; a pane of glass arranged to fit in said frame and to rest upon the inner wall thereof; a locking strip hinged to the outer wall of each member of the frame and arranged

110 for movement into and out of contact with the outer face of the glass; means for normally holding the locking strips in the first-mentioned position; a handle secured to each locking strip; and means provided

115 upon certain of said lugs and arranged for engagement with the adjacent handles, to retain the locking strips in the last-mentioned position.

6. The combination, with a window sash

120 formed with a continuous rabbet, of a rectangular base frame fitted in the rabbet and provided with a plurality of lugs arranged for attachment to the sash, said frame having its members formed of strips of angle-

125 metal; a pane of glass arranged to fit in said frame and to rest upon the inner wall thereof; a locking strip hinged to the outer wall of each member of the frame and arranged for movement into and out of con-

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tact with the outer face of the glass; means
for normally holding the locking strips in
the first-mentioned position; a wire secured
to each locking strip for moving the same
5 into the last-mentioned position against the
action of said holding means; and notched
spurs provided upon certain of said locking
strips and arranged for engagement with
the adjacent wires; to hold the correspond-

ing locking strips in said last-mentioned 10
position.

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

JAMES W. VAN NEWKIRK.

Witnesses:

AUGUST SUDMAN,
W. C. HEIDENREICH.