

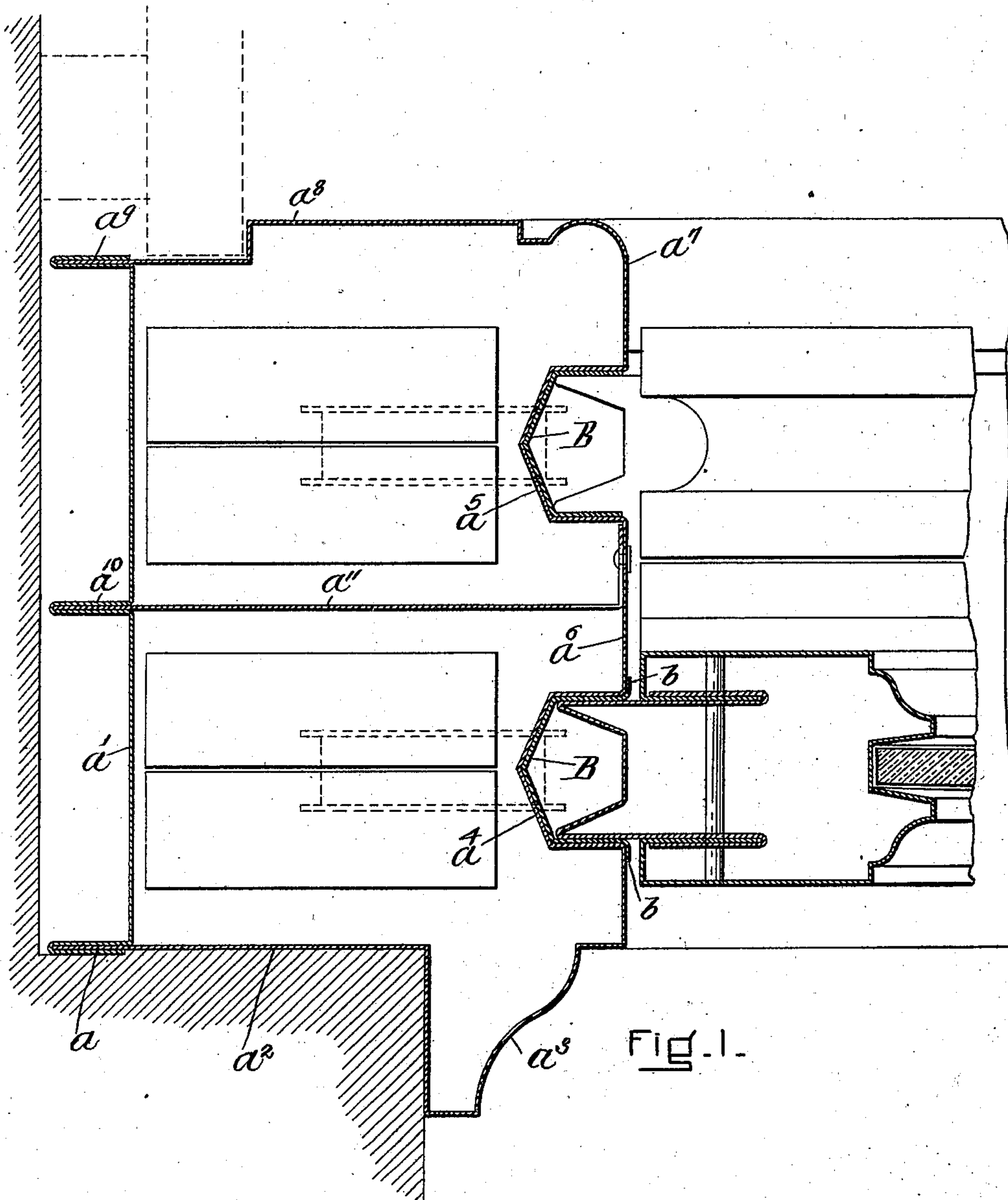
No. 724,139.

PATENTED MAR. 31, 1903.

H. C. SMITH.
METAL WINDOW FRAME.
APPLICATION FILED JULY 18, 1902.

NO MODEL.

2 SHEETS--SHEET 1.



WITNESSES:

J. E. R. Hayen
Saul Suppstein

INVENTOR:

Henry C. Smith
by his atty.
Clarke & Raymond

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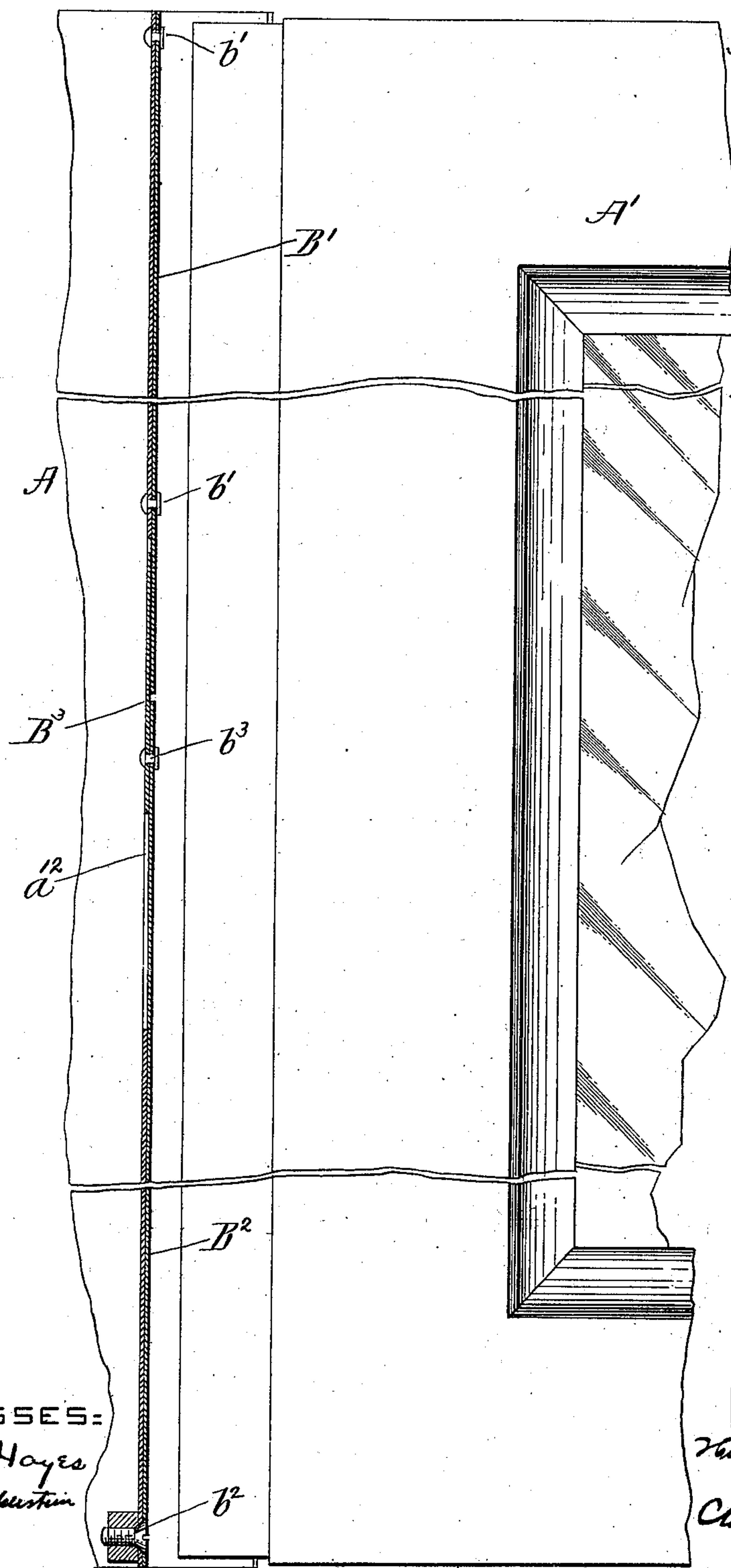
H. C. SMITH.

METAL WINDOW FRAME.

APPLICATION FILED JULY 18, 1902.

NO MODEL.

2 SHEETS—SHEET 2.



WITNESSES:
J. E. R. Hayes
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Charles Raymond

UNITED STATES PATENT OFFICE.

HENRY C. SMITH, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO SMITH-WARREN COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

METAL WINDOW-FRAME.

SPECIFICATION forming part of Letters Patent No. 724,139, dated March 31, 1903.

Application filed July 18, 1902. Serial No. 116,025. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. SMITH, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Metal Window-Frames, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

My invention relates to an improvement in metal window-frames; and it consists in the novel construction and arrangement of parts hereinafter set forth.

I will now describe the invention in conjunction with the drawings forming a part of this specification, wherein—

Figure 1 shows my improved frame in horizontal cross-section through the casing. Fig. 2 shows a vertical section thereof.

In the drawings, A represents a portion of the frame; A', a portion of the sash.

As shown, my invention pertains especially to the side of the frame or the part which forms the casing for the weights and furnishes the runways for the sash or sashes. Instead of having a built-up construction of independent parts at this point the outside, inside, and interior facings of the frame are formed from a single piece of sheet-metal plate.

Referring to Fig. 1, to follow the conformation of this plate and starting from the point a where the turned edge of the plate makes an interlocking connection with the outside edge of the back plate a' , thence the plate extends to form the outside facing a^2 and the outside edge molding a^3 , both of which may be of any desired conformation or design. Thence the plate extends to form the interior facing of the frame, which comprises the runways a^4 a^5 , separated by the bead-forming fold in the metal a^6 , and thence the plate extends to form the inside molded edge a^7 and inside facing a^8 and makes an interlocking connection with the inside edge of the back plate at the point a^9 . The back plate is folded at about the center of its width, forming a recess a^{10} , which receives the back edge of the division-plate a^{11} , the front edge of

which is bent to rest within the pocket formed by the beading a^6 . This division-plate separates the casing into two separate compartments, which contain the window-weights.

Access may be obtained to the window-weights through the slotted openings a^{12} . These openings are cut through the bottoms of the runways and are of sufficient length and width to admit of the ready insertion or removal of the window-weights, which may be made relatively long and narrow, with especial aptitude for such insertion, or even made in sections, which may be inserted one at a time.

The slotted openings in the runways are covered by the supplementary pieces B. These pieces extend the length of the frame and lie within the runways a^4 a^5 , their conformation being substantially like that of the runways, although they may have the out-turned edges b , which turn or lap over to rest flange-like along the adjacent interior facing. In point of fact the pieces B form false runways for the sashes and, besides covering the openings to the weights, provide also detachable wearing parts, which may be removed as occasion may require. These supplementary pieces B may be made in sections, one of which may be fixed, the other detachable. I have shown this construction in Fig. 2, the pieces being made in sections B^1 B^2 . The section B^1 is fixed along the upper part of the runway by suitable bolts or rivets b^1 . The section B^2 below is detachably secured, which method of retention may be obtained by the screw connection b^2 at the bottom of the piece and by having the upper part of the piece held in place by being mounted at b^3 to the extension B^3 , which extends up to rest in back of the downward-projecting end of the fixed section. This method of retention is a desirable one, for the two sections may be brought together at their ends with abutting edges and a smooth and continuous inside surfacing secured for the edge of the sash. Another advantage of the two-section piece consists in the fact that to reach the window-weights in the casing the sashes need not be taken out. This is because the detachable part of the supplementary piece

alone covers the opening in the runway, and inasmuch as this opening may come below the sashes, the upper sash when in closed position being the lower sash when raised, there
5 need be no interference.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. A metallic window-frame having a casing providing a runway or runways within which the edges of the sash or sashes are adapted to be contained and slide, an opening cut through said runway or runways through which access may be obtained to the interior
10 of the casing, and a supplementary piece adapted to be inserted along within said runway or runways, contiguous with the wall containing said slotted opening, and made to cover the same, and simultaneously to provide a detachable wearing part for this portion of the frame substantially as described.
15

2. A metallic window-frame having a casing providing a runway for the sliding edges of the sash contained therein, a slotted opening cut along the runway through which access may be had to the interior of the casing, and a supplementary piece adapted to be inserted along within the runway of substantially its length, and conformation adapted
20 to cover said opening, and provide a detachable wearing part for this portion of the frame substantially as described.
25

3. A metallic window-frame having a casing, the outside, inside and interior facing of which together with the runways for the sash or sashes is made of a single piece of sheet-metal plate, a slotted opening through said runways by which access may be obtained to the interior of said casing, and a supplementary piece adapted to be inserted along within
35 the runways of substantially their length and conformation and provided with outwardly-turned edges which rest flange-like along the adjacent interior facing.
40

4. A metallic window-frame having a casing providing a runway for the sliding edges of the sash contained therein, a slotted opening along the bottom of the runway through which access may be had to the interior of the said casing, and a supplementary wearing strip or section adapted to be inserted along said runway, a section of which, relatively to the slotted opening, is made detachable, by which access may be had to said opening
45 without the removal of the sash, and means for the securing of said detachable section, whereby the sections comprising said supplementary piece may present a smooth facing to the edge of the sash substantially as described.
50

HENRY C. SMITH.

Witnesses:

F. G. CUTTER,
E. B. LAMPMAN.