No. 791,909. PATENTED JUNE 6, 1905.

C. H. HOPMANN.

METALLIC WINDOW.

APPLICATION FILED DEC. 5, 1904.

2 SHEETS—SHEET 1.

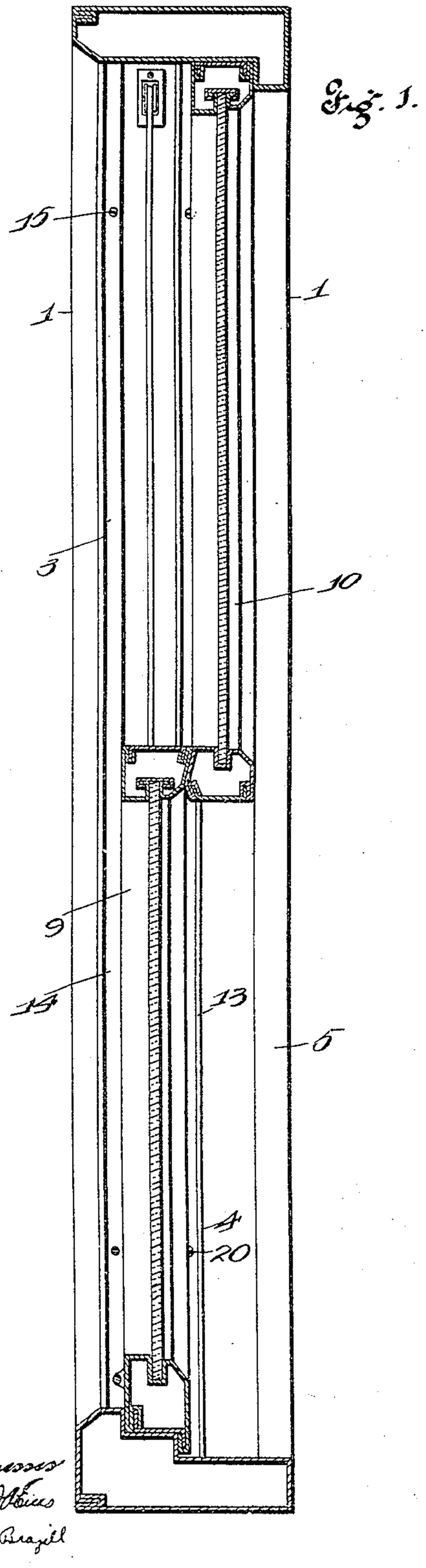

Fig. 1.

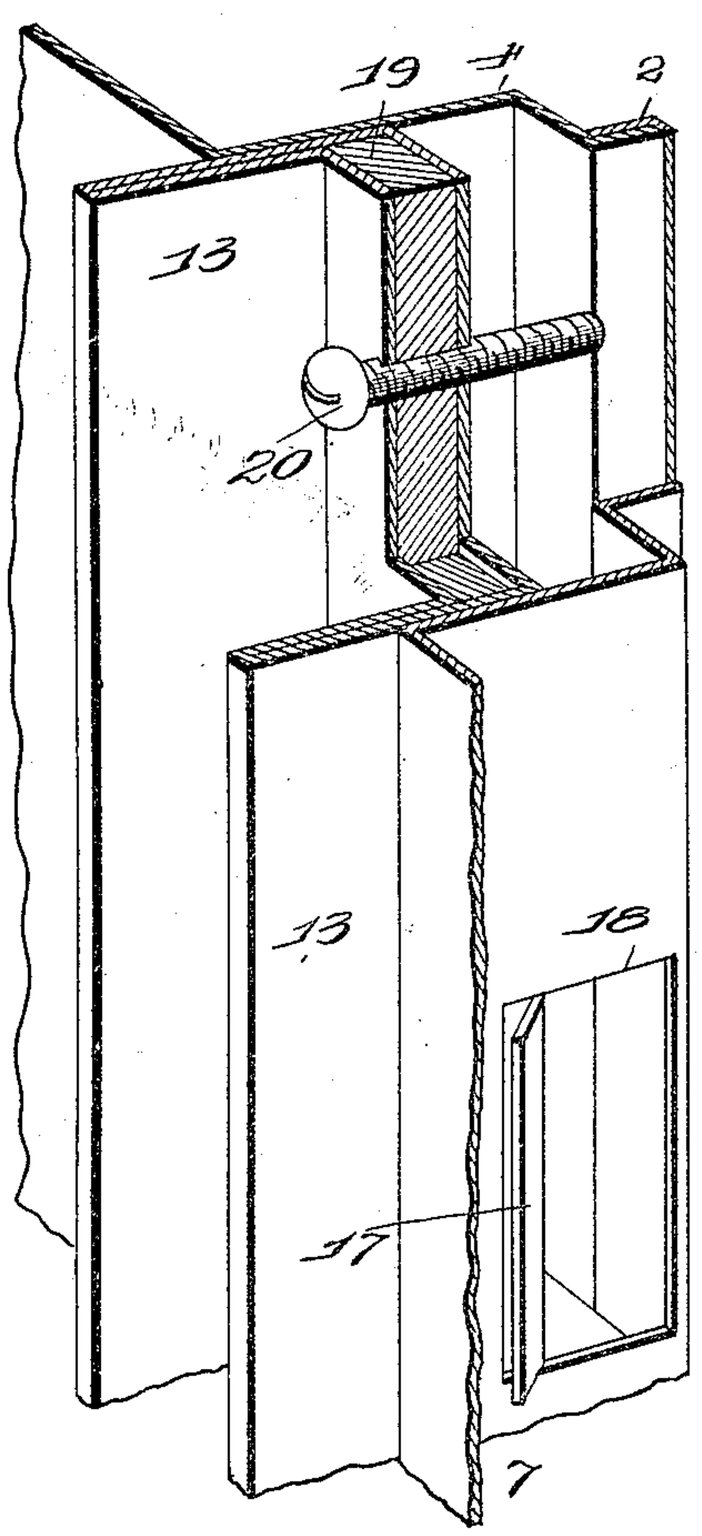

Fig. 2.

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Fig. 3.

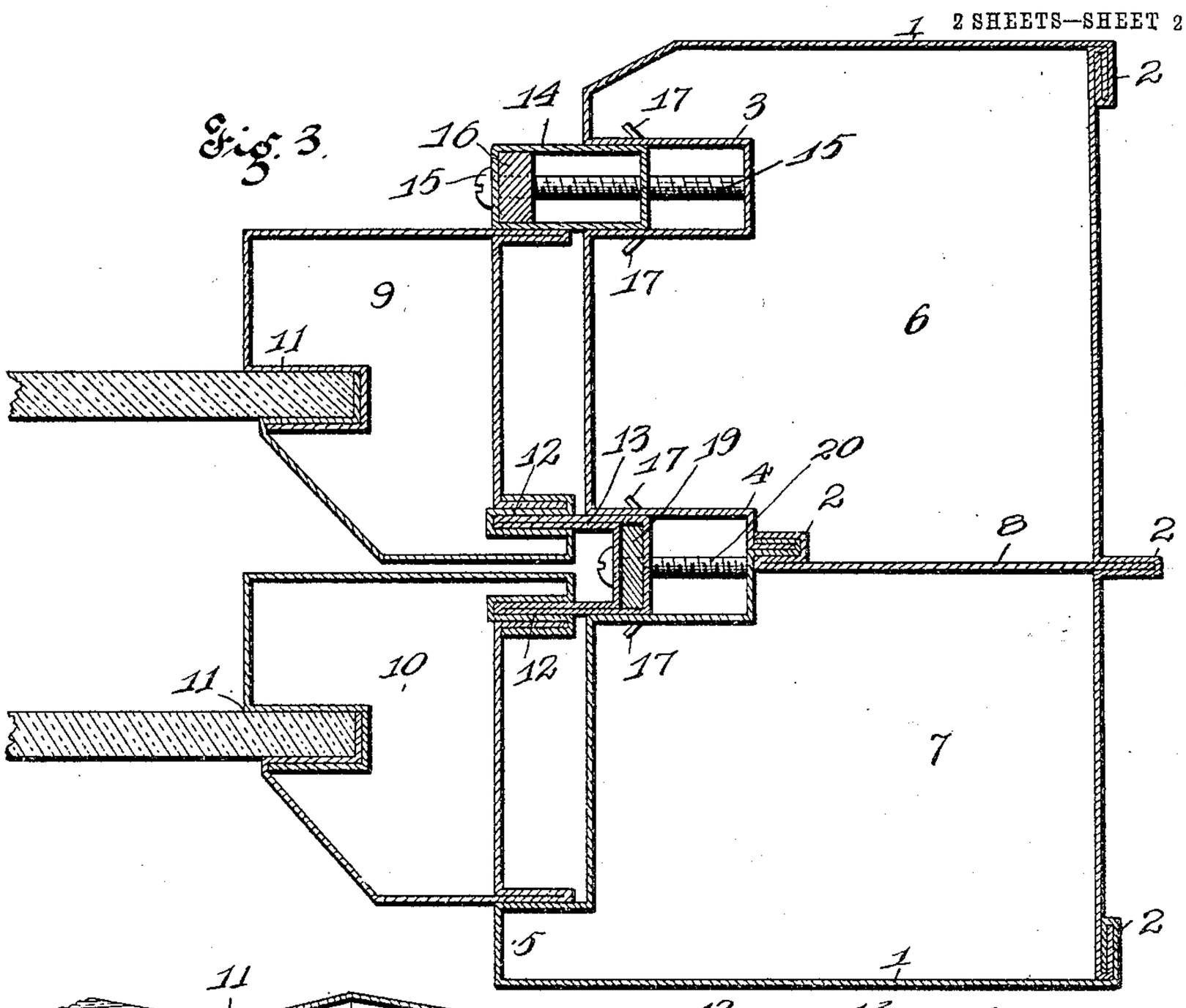
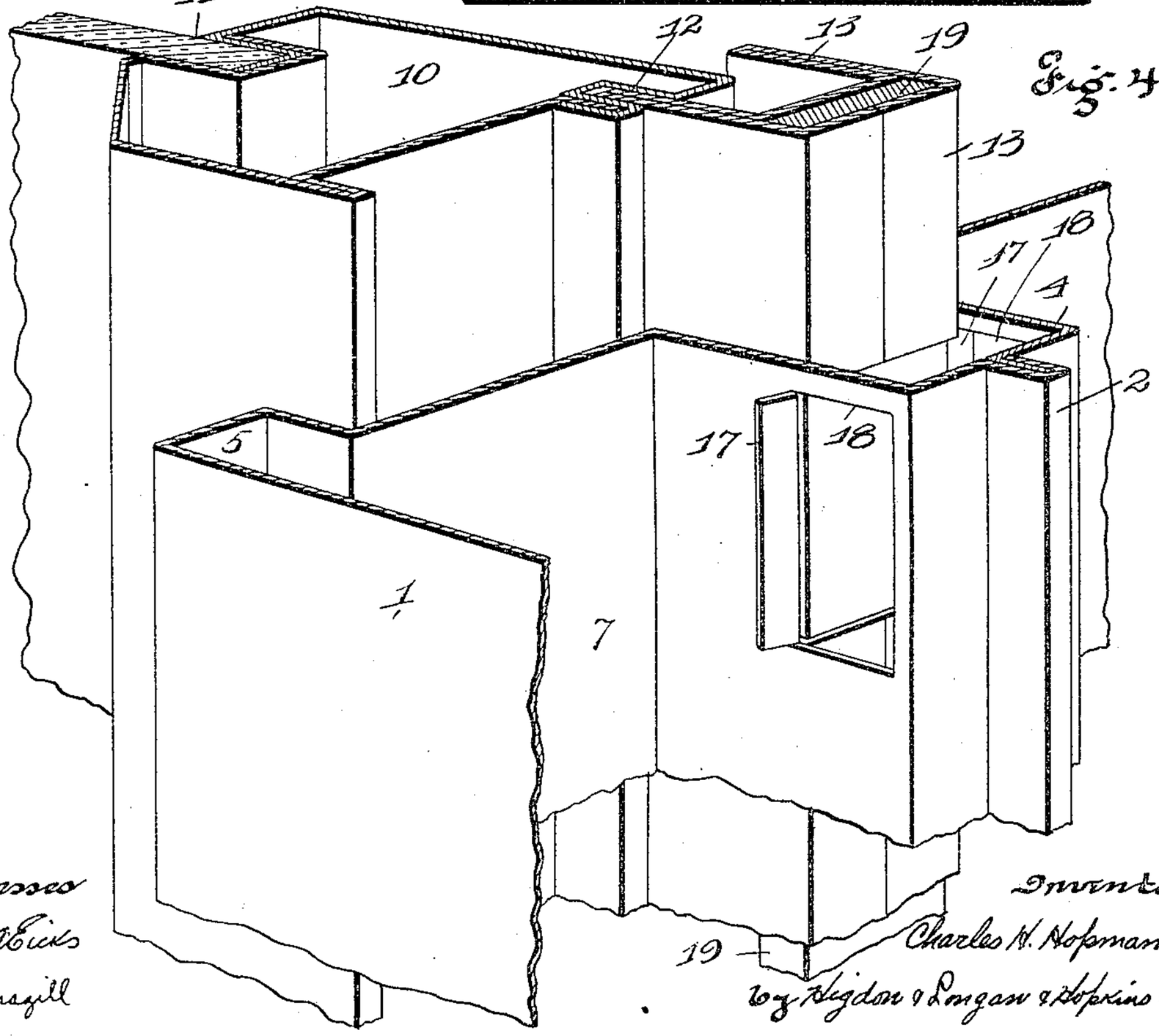


Fig. 4.



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No. 791,909. Patented June 6, 1905.

UNITED STATES PATENT OFFICE.

CHARLES H. HOPMANN, OF ST. LOUIS, MISSOURI.

METALLIC WINDOW.

SPECIFICATION forming part of Letters Patent No. 791,909, dated June 6, 1905.

Application filed December 5, 1904. Serial No. 235,602.

To all whom it may concern:

Be it known that I, CHARLES H. HOPMANN, a citizen of the United States, and a resident of St. Louis, Missouri, have invented certain new and useful Improvements in Metallic Windows, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in metallic windows; and it consists of the novel features herein shown, described, and claimed.

The object of my invention is to provide an improved metallic window frame and sash in which the parting-strips and the detachable sash-stops may be temporarily or bodily moved into suitable pockets in the frame while the sash is being placed in or removed from the frame and which parting-strips and detachable stops may be quickly projected in order to retain the sash.

In the drawings, Figure 1 is a sectional side elevation of a window embodying my invention. Fig. 2 is a detail sectional perspective view of a portion of the frame. Fig. 3 is a detail sectional plan view, the section being taken through both sash. Fig. 4 is a detail sectional view in perspective, showing a portion of the frame and one sash.

The vertical sides of the frame are indicated by the numeral 1, and these are composed entirely of sheet metal and are preferably made in two or more pieces connected by suitable seams 2. The inner opposite faces of the two vertical sides of the window-frame are bent to form integral pockets 3 and 4 and fixed sash-stops 5. The interior of the said vertical sides is divided into two sections 6 and 7 by means of a vertical partition 8, which latter is connected at one edge to the central pocket 4 and at its opposite edge to the outer wall of the window-frame. (See Fig. 3.) The usual sash weights and cords (not shown) will operate in the sections 6 and 7.

9 and 10 indicate the sash, which are made of sheet metal, suitably bent to form the glass-receiving grooves 11, and in the vertical outer wall of each sash is formed a guide-pocket 12. The sash 10 rests against the fixed stop 5, while its guide-pocket 12 is engaged by one arm of the U-shaped or double parting-strip 13, which is loosely mounted in the parting-strip pocket 4. The other arm of the double parting-strip 13 is located within the guide-pocket 12 of the other sash 9, and said sash is held in the frame by the adjustable stop 14. The adjustable stop 14 is mounted within the pocket 3 and is adjustably held therein by screws, such as 15, which pass through said stop and engage screw-threads formed in a vertical metallic strengthening-strip 16, which latter is contained within said stop and secured therein by means of solder or in any other suitable manner at the inner edge of said strip. (See Fig. 3.) Projecting oppositely from the outer edge of said adjustable stop 14 and said double parting-strip 13 is a series of pairs of integral sheet-metal wings 17, which extend through opposite slots or apertures 18, formed oppositely in the walls of the stop-pockets 3 and 4, and said wings act as stops to limit the outward movement of said adjustable stop 14 and the double parting-strip 13. Said double parting-strip 13 carries a vertical strengthening-bar 19, through which is threaded a series of screws 20. The outer ends of the screws 15 and 20 bear against the bottom of the pockets 3 and 4.

The operation is as follows: With the parts in the position in which they are shown in Fig. 3 the sash 9 and 10 may be freely moved vertically when in use, and the double parting-strip 13 will prevent the adjacent surfaces of the sash from coming into actual contact. When it is desired to remove the sash 9, it will only be necessary to turn the screws 15 in the proper direction to force the adjustable stops 14 into their pockets 3 until they are out of the path of the sash. Then the screws 20 should be turned in such manner that the double parting-strip 13 will be drawn into its pocket 4, and thereby withdraw its arms from the guide-pockets 12 of both sash, after which both sash may be quickly removed from the frame. When it is desired to replace the sash, the same should be placed within the frame and the double parting-strip 13 and the adjustable stop 14 projected until

they occupy the position in which they are shown in Fig. 3, thereby securely holding the sash within the frame. The wings 17 act as stops to limit the outward movement of the adjustable stops 14 and the double parting-strip 13, and thereby prevent the accidental detachment of said devices.

What I claim is—

1. A metallic window-frame having vertical pockets formed in its opposite walls, and within which sash-stops and parting-strips are bodily retractable for the purpose of permitting the sash to be inserted or withdrawn, in combination with stops and parting-strips located within said pockets, and suitable sash, substantially as specified.

2. A metallic window-frame having vertical pockets formed in its opposite walls, and within which sash-stops and parting-strips are bodily retractable for the purpose of permitting the sash to be inserted or withdrawn, in combination with stops and parting-strips located within said pockets, suitable sash, and means for retaining said stops at the desired adjustment within said pockets, substantially as specified.

3. A metallic window-frame having vertical pockets formed in its opposite walls, and within which sash-stops and parting-strips are bodily retractable for the purpose of permitting the sash to be inserted or withdrawn, in combination with stops and parting-strips located within said pockets, suitable sash, said parting-strips having double arms which simultaneously engage a pocket in both sash of the window-frame, substantially as specified.

4. A metallic window-frame having vertical pockets formed in its opposite walls, and within which sash-stops and parting-strips are bodily retractable for the purpose of permitting the sash to be inserted or withdrawn, in combination with stops and parting-strips located within said pockets, suitable sash, said parting-strips having double arms which simultaneously engage a pocket in both sash of the window-frame, and wings formed on said stops and parting-strips for limiting their movement, substantially as specified.

5. A metallic window-frame having vertical pockets formed in its opposite walls, and within which sash-stops and parting-strips are bodily retractable for the purpose of permitting the sash to be inserted or withdrawn, in combination with stops and parting-strips located within said pockets, suitable sash, strengthening-strips within said stops and parting-strips, and screws threaded through said strengthening-strips, and passing through said stops and parting-strips, and engaging the bottom of said pockets, substantially as specified.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

CHARLES H. HOPMANN.

Witnesses:

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M. D. SCHULZE.