No. 716,286. Patented Dec. 16, 1902.

C. B. SCHILLING.

WINDOW FRAME AND SASH.

(Application filed June 5, 1902.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

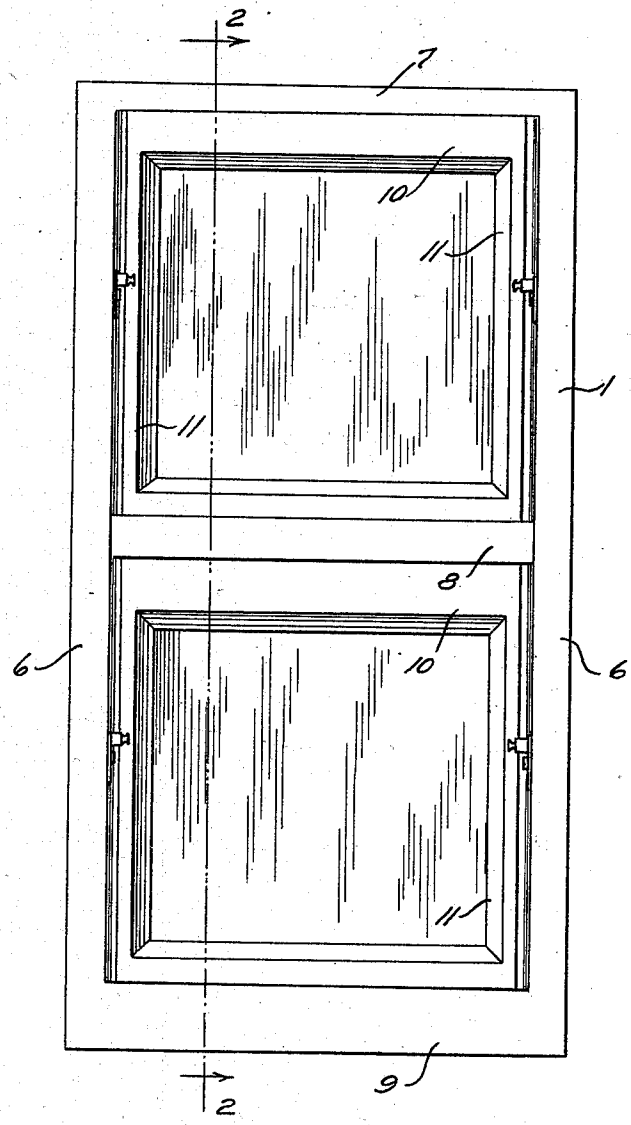
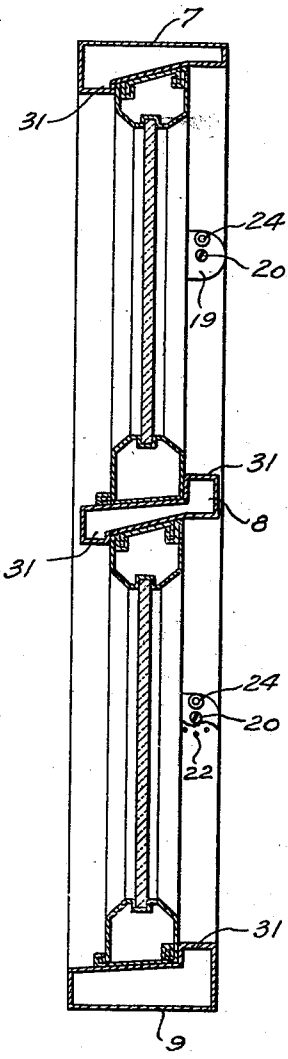


Fig. 2.



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Fig. 4.

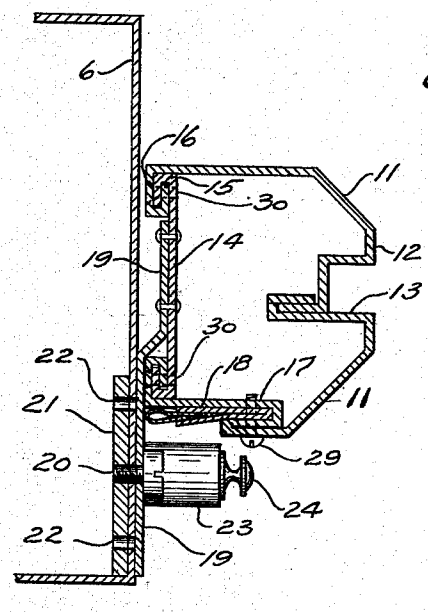


Fig. 3.

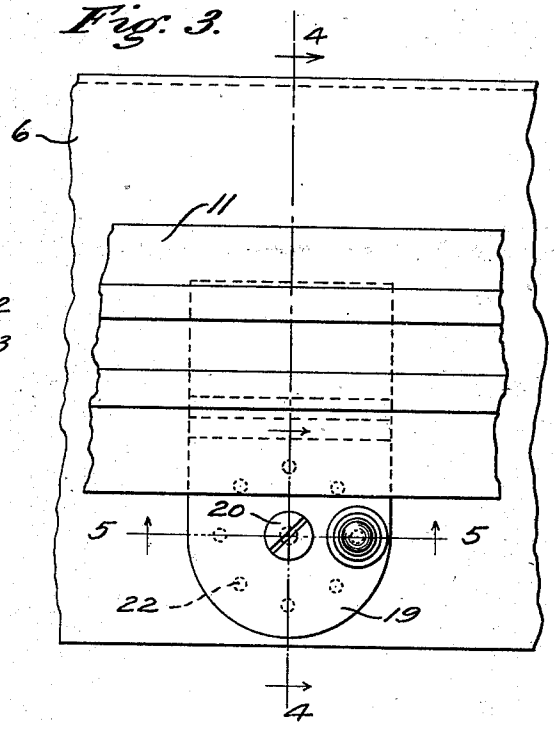


Fig. 5.

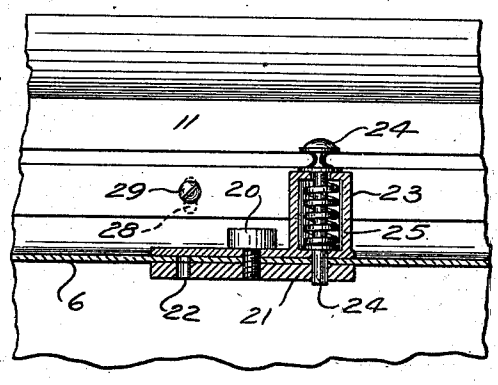
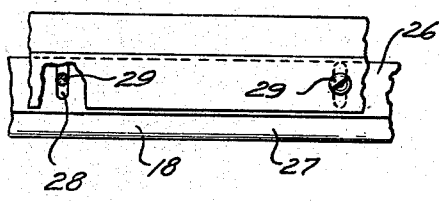


Fig. 6.



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UNITED STATES PATENT OFFICE.

CHARLES B. SCHILLING, OF CHICAGO, ILLINOIS.

WINDOW FRAME AND SASH.

SPECIFICATION forming part of Letters Patent No. 716,286, dated December 16, 1902.

Application filed June 5, 1902. Serial No. 110,359. (No model.)

To all whom it may concern:

Be it known that I, CHARLES B. SCHILLING, a citizen of the United States of America, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Window Frames and Sashes, of which the following is a specification.

The main objects of my invention are to provide an improved form of fireproof swinging window provided with a simple catch for securing the sash in a plurality of different positions and to provide simple means for causing the automatic release of said catch and the closing of the sash in case of fire in the immediate vicinity of same. I accomplish these objects by the device shown in the accompanying drawings, in which—

Figure 1 is an inside elevation of a window frame and sash constructed according to my invention. Fig. 2 is a vertical section of the same along the line 2 2 of Fig. 1. Fig. 3 is an elevation of the locking-catch, showing the adjacent sash and frame broken away. Fig. 4 is a section along the line 4 4 of Fig. 3. Fig. 5 is a section along the line 5 5 of Fig. 3. Fig. 6 is a fragmentary elevation of a portion of the sash, showing the means for adjusting the weather-strip.

In the construction shown the frame and sash are formed of sheet metal. The frame 1 consists of the side bars 6, connected by the cross-bars 7, 8, and 9. The sashes 10 are also constructed of sheet metal and are rectangular in form. The side bars 11 of the sashes are preferably formed of two parts—the main body 12, having a recess 13 for receiving a pane of glass, and the member 14, which is slidably secured to the main body 12. The member 14 is bent backward at its edges 15 and engages the curled edges 16 of the main body 12. The side bars 11 are also creased on their inner faces to form a recess 17 for receiving a weather-strip 18. A plate 19 is secured to each of the members 14 and pivoted by the screw 20 to the sides 6 of the frame, the frame being reinforced at this point by the backing-plate 21. A plurality of apertures 22 are drilled into the frame 6 at points which are radially equidistant from the pivot 20. The plate 19 is provided with a casing 23, within which is slidably mounted a pin 24, of fusible material. The pin 24 is normally urged toward the frame and into the apertures 22 by the spring 25. The weather-strip 18 consists of a V-shaped piece of material 26, having secured therein a strip of packing 27. The weather-strip 18 is provided with slots 28, which engage screws 29, located along the recesses 17 in the side bars 11 of the sash, thus providing means for adjusting the weather-strip 18.

The plates 19 are preferably located slightly above the middle of the sash 10, so that the sash will normally tend to close under its own weight. The members 14 after having been adjusted to their proper position, as will be hereinafter described, are secured in such position by means of screws, which are indicated by dotted lines at 30 in Fig. 4. The cross-bars 7, 8, and 9 are provided with suitable stops 31 for engaging the top and bottom bars of the sashes when same are in their closed position.

The operation of the device shown is as follows: After the plates 19 are securely fastened to the members 14 these members are slid endwise into engagement with the edges 16 of the main body 12 of the sash 10 and are carefully adjusted to bring the pivots 20 into exact alinement with each other. When this alinement is accomplished, holes are tapped into the adjacent part of the members 14 and 12 and the members 14 secured against longitudinal movement by means of screws 30. The holes for the pivots 20 and the apertures 22 are now drilled into the sides 6 of the frame, and the various parts are assembled as shown in the drawings. The drawings show the sashes in their closed position. If it is now desired to secure one of the sashes in an open position, the corresponding pins 24 are withdrawn from engagement with the frame and the sash is turned to the desired position, the pins 24 being now allowed to engage the corresponding apertures 22. If the structure is now exposed to intense heat, as in the case of an adjacent fire, the fusible pins 24 will soften and give way under the weight of the sash, permitting same to fall to its closed position, and thereby preventing the fire from spreading through same. Wear of the weather-strip 18 is compensated for by adjustment of the screws 29 in the slots 28, thus

insuring a close fit between the sash and frame.

It will be seen that numerous details of the construction shown may be altered without departing from the spirit of my invention. I therefore do not confine myself to such details except as hereinafter limited in the claims.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A window-frame having an aperture in one side of same; a sash pivotally mounted in said frame and arranged to normally assume a closed position; and a pin movably mounted on said sash and adapted to engage said aperture and hold said sash in an open position, said pin being of fusible material and adapted to release said sash when subjected to a certain temperature, substantially as described.

2. The combination of a window-frame; a sash fitting within said frame and pivoted on a horizontal axis above its center of gravity to the adjacent sides of said frame; a plurality of apertures in one side of said frame, arranged at equal radial distances from said pivotal axis; a fusible pin slidably mounted on said sash and adapted to engage one of said apertures, and a spring mounted on said sash and normally urging said pin toward said frame, substantially as and for the purpose described.

3. The combination of a window-frame, a sheet-metal sash fitting within said frame, each of the side bars of said sash having a member adjacent to the frame and longitudinally adjustable with respect to said bar; each of said members being pivotally secured to the adjacent part of the frame; a pin slidably mounted on said sash and a spring normally urging said pin toward the frame; said frame being provided with suitable apertures to engage said pin when the sash is turned to corresponding positions.

4. A window-sash having a side bar formed of a piece of sheet metal bent to form a groove for receiving the window-pane and being doubled upon itself upon one face to form a flange adapted to receive a weather-strip, and provided with suitable means for adjusting said weather-strip laterally.

5. The combination of a window-frame; a sash movably mounted within said frame, said sash having a side bar of sheet metal bent to form a recess opening toward said frame; and a weather-strip seated in said recess and adjustable toward said frame.

6. The combination of a window-sash having a side bar formed of sheet metal bent to form a groove for receiving a weather-strip; a weather-strip seated in said groove; and suitable means for urging the sides of said groove toward each other and clamping said weather-strip in position.

7. The combination of a window-sash, having a side bar formed of sheet metal bent to form a groove; a weather-strip seated in said groove and provided with a plurality of transverse slots; a screw or bolt seated in each of said slots and engaging said side bar at opposite sides of said groove and adapted to contract said groove and thereby clamp said weather-strip into position.

8. The combination of a window-frame; a sash movably mounted in said frame and arranged to normally assume a closed position; a movable pin adapted to hold said sash in an open position, said sash and frame being constructed of fireproof material and said pin being of readily-fusible material, substantially as described and for the purpose specified.

Signed at Chicago this 3d day of June, 1902.

CHARLES B. SCHILLING.

Witnesses:
WM. R. RUMMLER,
EUGENE A. RUMMLER.