

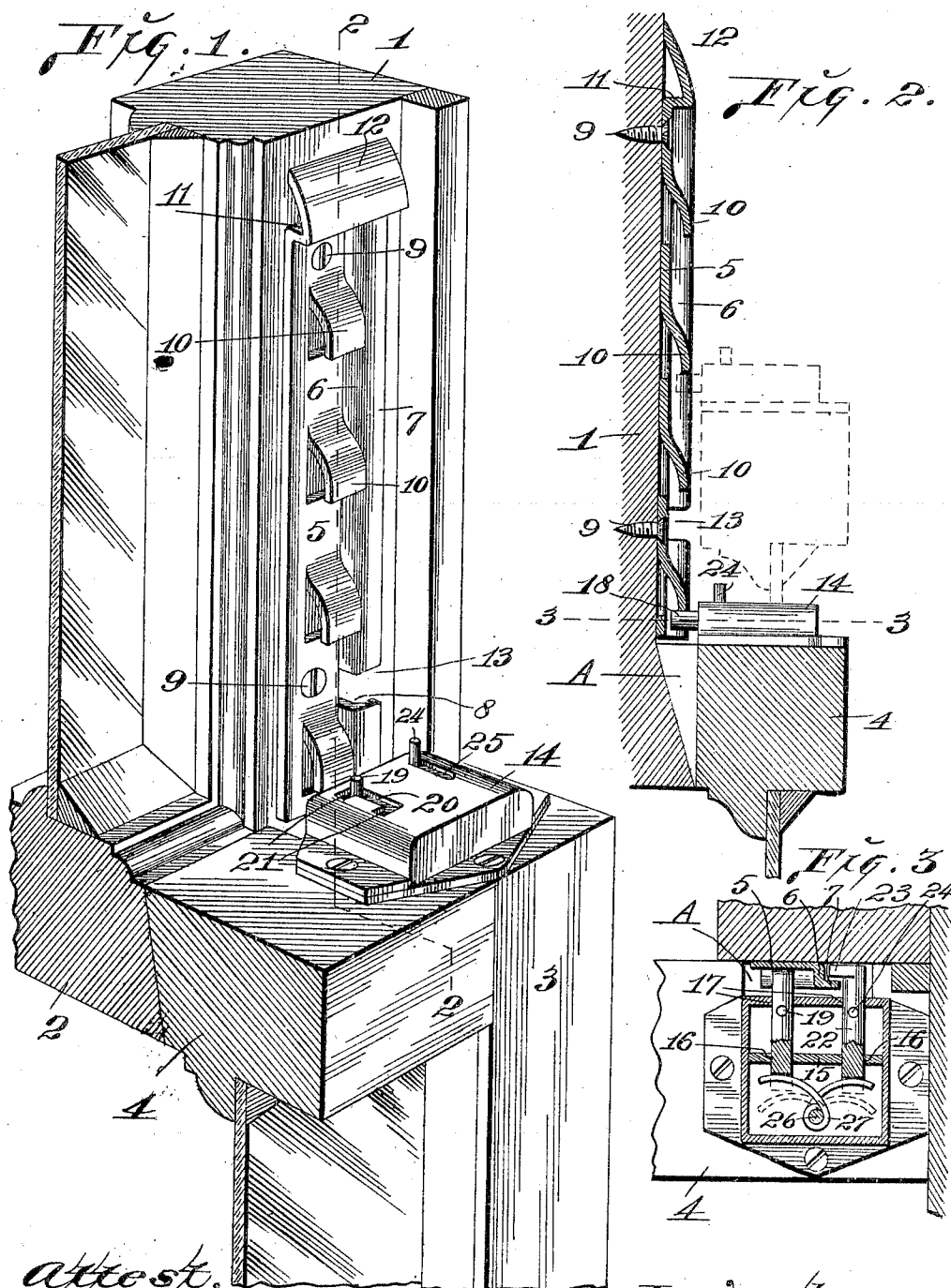
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D. G. SAUNDERS, JR.

SASH FASTENER.

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UNITED STATES PATENT OFFICE.

DANIEL GREEN SAUNDERS, JR., OF KANSAS CITY, MISSOURI.

SASH-FASTENER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, DANIEL GREEN SAUNDERS, Jr., a citizen of the United States, and a resident of Kansas City, Missouri, have invented certain new and useful Improvements in Sash-Fasteners, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to sash-fasteners; and the object of my invention is to construct a simple inexpensive sash-fastener that will readily permit either one or both of the sash of a window to be opened a short distance for the purposes of ventilation and which will at the same time very effectively lock the sash together and prevent their being opened to a sufficient degree to permit the entrance of an intruder.

My invention consists in a ratchet-plate which is secured to the side rail of the upper sash and a pair of spring-actuated pins carried in a housing that is fixed to the top of the rail of the lower sash and which pins engage the plate by the upper sash.

My invention further consists in certain novel features of construction and arrangement of parts that will be hereinafter more fully shown, specified, and claimed.

In the drawings, Figure 1 is a perspective view of the meeting corners of a pair of sash, the same being equipped with my improved fastener. Fig. 2 is a vertical section taken approximately on the line 2 2 of Fig. 1. Fig. 3 is a horizontal section taken approximately on the line 3 3 of Fig. 2.

Referring by numerals to the accompanying drawings, 1 indicates the side rail of the upper sash; 2, the lower meeting-rail thereof; 3, the side rail of the lower sash; and 4 the top meeting-rail thereof.

The ratchet-plate of the fastener is preferably constructed of a heavy piece of sheet metal, although it may be cast, if desired, and comprises a plate 5, the right-hand end of which is bent outwardly at right angles to the body portion, as indicated by 6, and then laterally parallel with the body portion 5, as indicated by 7, thus forming a groove 8 beneath the right-hand edge of said plate. This plate is positioned on the face of the lower end of the right-hand side rail 1 of the upper sash and is secured thereto by means of screws 9 or in any other suitable manner.

A series of downwardly-projecting teeth

10 is formed on the face of the plate 5 by cutting a pair of vertical slits through said plate and then cutting a slit transversely between the lower ends of said vertical slits and bending the material between said slits outwardly to form these teeth. The outer ends of these teeth occupy the same plane as that occupied by the laterally-bent edge 7, previously described. The upper end of plate 5 is bent forwardly, as indicated by 11, and thence upwardly and rearwardly, as indicated by 12, the extreme upper end resting directly against the edge of the rail 1, thus forming a wedge-shaped upper end for the plate 5. A notch or opening 13 is formed in the bent portions 6 and 7 of the plate at a point between the two lowermost teeth 10, the purpose of which opening will be hereinafter shown.

14 indicates a rectangular metallic housing that is located on top of the right-hand end of the top meeting-rail 4 of the lower sash, and arranged transversely within this housing is a partition 15, having a pair of apertures 16 therein, and formed in the front wall of this housing 14 in alinement with these apertures 16 is a pair of apertures 17. Arranged for horizontal movement through the left-hand pair of alined apertures 16 and 17 is a pin 18, the forward end of which is intended to engage beneath the teeth 10 of the plate 5. A small pin 19 is vertically arranged in the body of this pin 18 and projects upwardly through the horizontally-arranged slot 20, formed in the top of the housing 14, the ends of which slot are extended slightly at right angles toward the left-hand side of said housing, as indicated by 21. Arranged to slide through the right-hand pair of alined apertures 16 and 17 is a pin 22, the forward end of which travels along the edge of the portion 7 of the plate 5, and a lug 23 is formed integral with the forward end of said pin 22, which lug normally travels in the groove or space 8 beneath the portion 7. Seated in this pin 22 is a vertical guide-pin 24, that travels through the slot 25, formed in the top of the housing 14. Located upon the pin 26 in the rear end of the housing 14 is a coil-spring 27, the ends of which are extended outwardly away from one another, and the rear ends of the pins 18 and 22 bear directly against the ends of this spring.

In the use of my improved sash-fastener and when it is desired to open either one of the sash for the purpose of ventilation the pin 18 is moved rearwardly by engaging the

small pin 19, that projects through the slot 20, so that the point of said pin 18 is free from the teeth 10. Then the lower sash is elevated or the upper sash is lowered to the desired point, and as the pin 18 is allowed to move outwardly to its limited movement by the action of the coil-spring 27 the forward end thereof will engage beneath one of the teeth 10, and thus hold the sash locked. The lug 23 on the end of the pin 22 during this movement moves upwardly or downwardly behind the laterally-bent edge 7. The lug being so positioned prevents the sash from being separated even to the slightest degree.

When it is desired to move either one or both of the sash upwardly or downwardly to their limit of movement, which is of course much greater than the limit of movement allowed by the sash-fastener, the pin 18 is moved rearwardly by means of the pin 19, and the pin 18 is slightly rocked, and said pin 19 is engaged in the rear one of the laterally-extended ends of the slot 20. This action holds the pin 18 locked against forward movement. When the lower sash is elevated so that the pin 22 is in alinement with the notched or cut-away portion 13, said pin 22 is moved rearwardly by engaging the pin 24, and thus the lug 23 passes out of the groove or space 8 through the notched or cut-away portion 13, and as both of the locked pins are now disengaged from the plate 5 each sash may be moved upwardly or downwardly to its limit of movement.

A sash-fastener of my improved construction is very simple, inexpensive, may be readily applied to sash already in a window-frame, and said sash-fastener even when locked allows the sash to shift laterally a slight distance in either direction during their

movement up and down, and said fastener forms a very effective lock for the two sash when the same are opened slightly to allow ventilation.

I claim—

1. In a sash-fastener, the combination with a toothed plate secured to the upper sash, and having one edge upwardly turned and outwardly bent, of a housing secured to the opposite sash, a spring-actuated pin for engaging the teeth of the first-mentioned plate; a second spring-actuated pin arranged in the housing, and a lug integral with the forward end of said last-mentioned pin for engaging beneath the upwardly-turned outwardly-bent edge of the toothed plate; substantially as specified.

2. In a sash-fastener, the combination with a toothed plate fixed to one of the sash and having an upwardly-bent and outwardly-turned edge, of a housing secured to the opposite sash, a pair of spring-actuated pins arranged in said housing, one of which pins engages beneath the teeth of the plate, a lug integral with the point of the opposite pin for engagement beneath the upwardly-bent and outwardly-turned edge, and operating-pins seated in the spring-actuated pins and passing upwardly through slots formed in the top of the housing for withdrawing the spring-actuated pins; substantially as specified.

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

DANIEL GREEN SAUNDERS, JR.

Witnesses:

S. H. STRIEBY,
D. G. SAUNDERS.