(Model.)

J. D. PRICE.

SASH FASTENER.

No. 309,094. Patented Dec. 9, 1884.

Fig. 1.

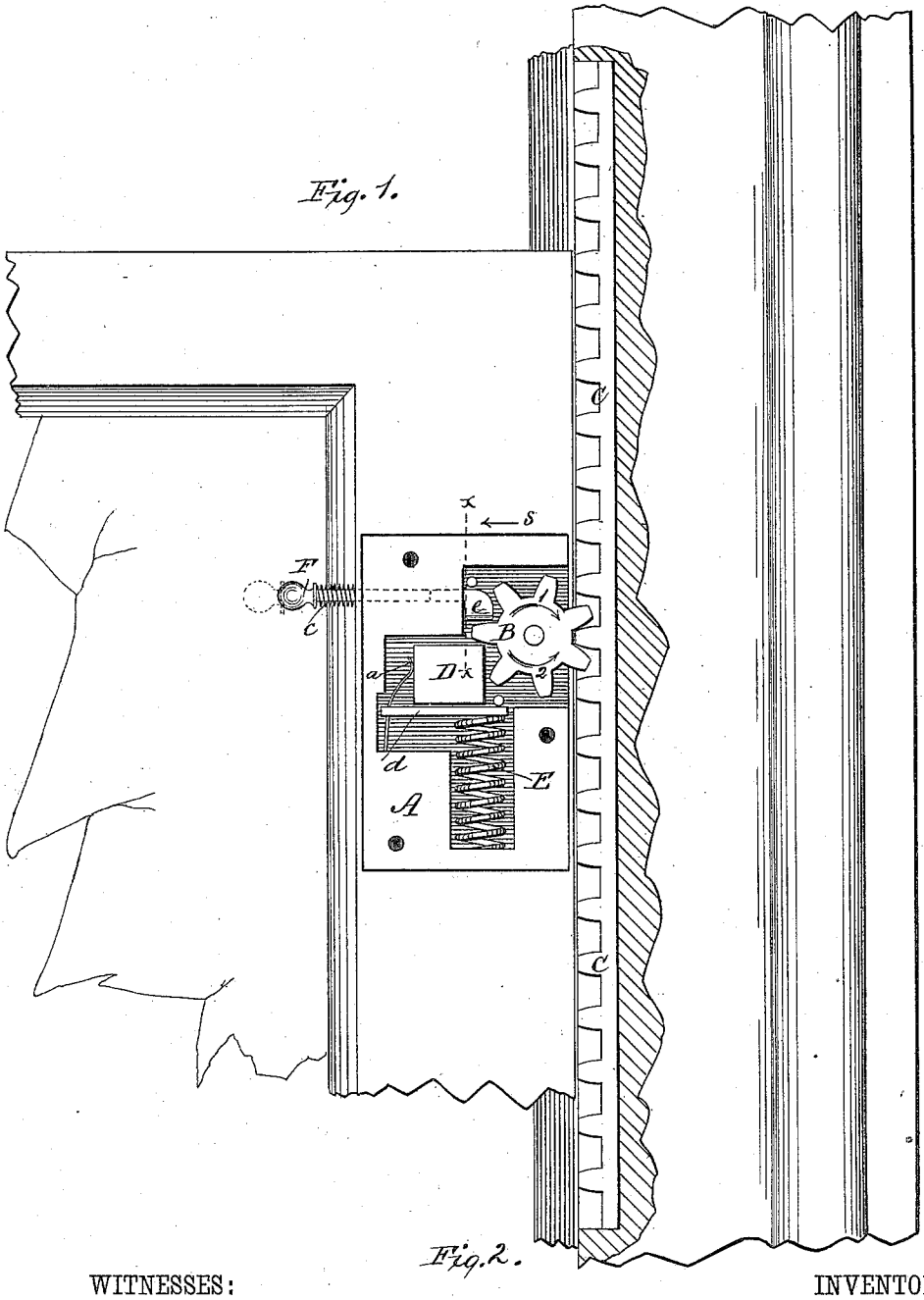
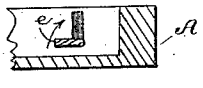


Fig. 2.



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SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 309,094, dated December 9, 1884.

Application filed February 5, 1884. (Model.)

To all whom it may concern:

Be it known that I, JONATHAN DAVID PRICE, a citizen of the United States, residing at Cherokee, in the county of Cherokee and State of Iowa, have invented a new and useful Improvement in Window-Sash Supporter and Lock, of which the following is a description.

Figure 1 is a view of my sash-support applied to a portion of a sash, with the face-plate removed from the supporting device, and showing also the relation of the toothed rack on the window-frame; and Fig. 2 is a sectional detail through line *x x* of Fig. 1, looking in the direction of the arrow *s*.

My invention relates to a device to be applied to a window, a sash for supporting the same, and permitting it to be raised or lowered at will or locked in any of its adjustments.

It consists in a frame or plate having a small cog-wheel projecting at its edge and working against a loose block-shaped detent which bears on one side against one spring, and on the other side against another spring, and which detent locks the cog-wheel strongly enough to cause it to sustain the sash through a rack or toothed bar attached to the frame, and yet does not hold said wheel so strongly but that a pressure applied in either direction to the sash will cause the detent to yield in either direction and the sash to move up or down.

It also consists in means for locking the cog-wheel to render the sash immovable, as hereinafter fully described.

In the drawings, A represents the frame or containing-plate of my sash support and lock, in which is journaled a cog-wheel, B, whose teeth project beyond the edge of the frame-plate, and engage a rack or toothed bar, C, on the window-frame, or project into teeth or notches formed in the frame itself. In a recess back of the cog-wheel B is contained a square block, D, whose right-angular edge projects into the space between the teeth of the cog-wheel. Just beside or rather behind this block there is a spring, *a*, which holds the block against the cog-wheel, in which relation it acts as a detent. Immediately below the block, however, there is a plate, *d*, and below this a strong spiral spring, E, whose tension is strong enough to hold the block or detent D up against the cog-wheel, and hold the cog-wheel so as to sustain the weight of the sash on the other side of its center. It will therefore be seen that the function of the small spring *a* is to hold the detent to the cog-wheel, while the function of the larger spring E is to balance or sustain the weight of the sash at any point. Now, to raise the sash, the cog-wheel revolves in the direction of arrow 1, and the spring *a* yields; but when the sash is to be lowered, force applied to it in a downward direction causes the cog-wheel to revolve in the direction of arrow 2 and the spring E to yield, the detent moving downward, and when the sash is moved in either direction the revolution of the cog-wheel against the block-shaped detent makes a clicking noise, which acts as an alarm-signal in the event of the entrance of a burglar. From this construction it will be seen that the sash may be supported at any height without any other adjustment than simply raising or lowering it to the desired point.

To lock the sash so that it can neither be raised nor lowered, I provide a locking-bolt, F, which has a knob on the outside, which is pressed outwardly by a spiral spring, *c*, wound about the shank of the said bolt. This spring serves to hold the bolt away from the cog-wheel, and in this position allows the cog-wheel to have uninterrupted revolution. Said bolt is, however, formed with a hook or projection, *e*, on its inner end, and when the bolt is forced in toward the wheel, as shown, and turned axially, this hook or shoulder catches against the edge of the frame-plate, as in Fig. 2, and keeps the spring from pulling it out, and in this position the inner end of said bolt enters the space between the teeth of the cog-wheel and locks the latter, so that it can turn in neither direction.

Instead of leaving the face-plate of the frame A exposed on the side of the sash, as contemplated in the illustration given, said frame A may be mortised into the edge of the sash, so as to be entirely out of sight, leaving only the locking-bar F visible.

Instead of placing the frame A on the sash and the rack on the window-frame, I may also reverse this relation by putting the frame A on the window-frame and the rack on the

sash, in which case the frame-plate A must be turned upside down.

Having thus described my invention, what I claim as new is—

1. The containing frame or case having cog-wheel B, and a spring-seated detent arranged, as described, for two movements at right angles to each other, one of said movements accommodating the revolution of the cog-wheel in one direction and the other movement accommodating the revolution of the cog-wheel in the other direction, in combination with a set of teeth or notched bar, the said teeth and containing-case being located one upon the sash and the other upon the window-frame, as and for the purpose described.

2. A window-sash supporter consisting of a frame-plate having a cog-wheel adapted to engage with teeth or notches, and a double-acting detent having a spring on one side to hold it against the cog-wheel, and another spring bearing substantially at right angles to the first to balance the sash, as and for the purpose described.

3. The frame-plate A, in combination with the cog-wheel B, the loose double-acting detent block D, the spring *a*, plate *d*, and spring E, as and for the purpose described.

4. The combination, with the frame-plate A and the cog-wheel B, of the axially-adjustable spring locking-bolt F, having a hooked or shouldered inner end, *e*, and a bearing to hold it to its inward adjustment against the tension of the spring and engage and lock the wheel, as set forth.

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