

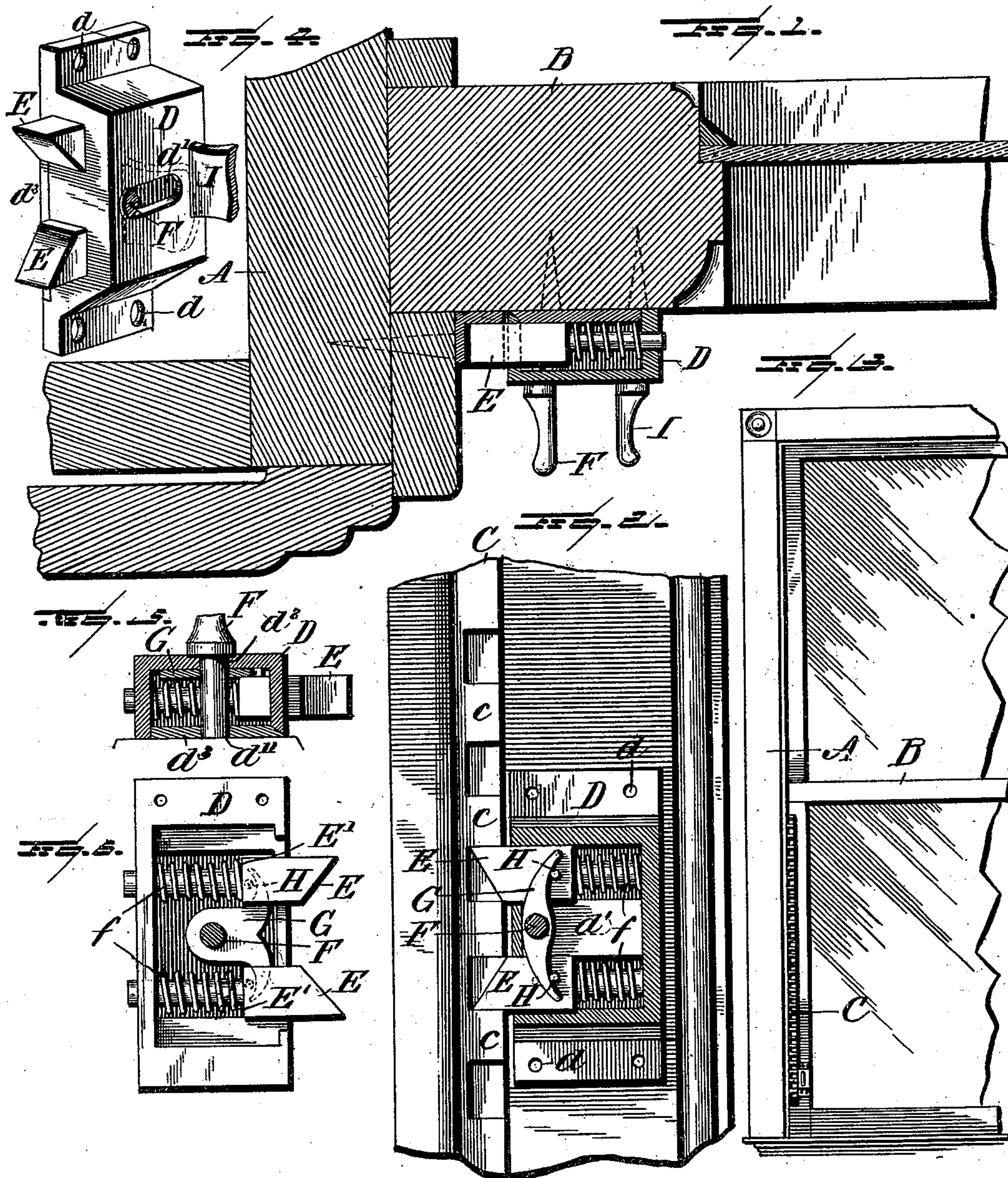
No. 684,017.

Patented Oct. 8, 1901.

S. G. WELLMAN.
SASH LOCK AND FASTENER.

(Application filed Jan. 9, 1901.)

(No Model.)



WITNESSES.

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SAMUEL G. WELLMAN, OF CORRY, PENNSYLVANIA.

SASH LOCK AND FASTENER.

SPECIFICATION forming part of Letters Patent No. 684,017, dated October 8, 1901.

Application filed January 9, 1901. Serial No. 42,664. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL G. WELLMAN, a citizen of the United States, residing at Corry, in the county of Erie, State of Pennsylvania, have invented certain new and useful Improvements in Sash Locks and Fasteners, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to a window-sash fastener and lock combined; and it has for its object the provision of such a device which is of a minimum cost of manufacture, capable of being made of cast parts requiring no
15 machine-work to complete them and forming when assembled a compact structure, with the least possible danger of disarrangement, and of such strength as to withstand the heavy sudden shocks to which such devices
20 are in use subjected and capable to constitute a self-locking device at all times and in all positions of the sash to which it is applied, whether it be partly raised for ventilation or wholly raised or closed.

25 Other advantages will appear in the following description, and the novel features of the invention will be particularly pointed out in the claims.

In the drawings, Figure 1 is a horizontal
30 section showing the fastener applied to a window sash and casing in position for use. Fig. 2 is a view in elevation with the top of the housing removed and the shaft of the operating-knob in cross-section. Fig. 3 is a
35 front elevation of a portion of a window with the invention in position. Fig. 4 is a perspective of the case and is inclosed part detached. Fig. 5 is a sectional detail of a modified form of the bolt-operating device, and
40 Fig. 6 shows a bottom view of this latter form.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A designates a window-frame,
45 and B a sash of known construction.

C is a rack, which may be of any length, adapted to be secured to the frame of the window in any suitable manner. It will be
50 observed upon reference to Fig. 2 that the teeth *c* of this rack are not inclined or beveled, but that they have parallel sides which are straight and that the bolts or dogs which

engage therewith have straight or flat faces a distance apart equal to three teeth of the rack-bar for engagement therewith, whereby
55 an extended bearing is provided, and other advantages will hereinafter appear.

D is a casing adapted to be secured to the sash in any suitable manner—for example, by screws passing through openings *d*—and
60 E are bolts adapted to slide therein and to project through suitable openings in the end wall of the same, as shown. These bolts have each one flat or straight face and a beveled or inclined face, as shown, the flat or straight
65 face being designed to engage with the flat or straight faces of the teeth or notches in the rack, as seen clearly in Fig. 2, and the beveled faces being disposed toward each other to adapt the bolts to ride freely over the rack-
70 teeth in one direction only.

F are springs around the shanks of the bolts and serve to normally project the bolts so they will engage with the rack. These springs are confined against the inner wall of
75 the housing and against shoulders *E'* on the bolts, as seen. As seen in Figs. 2 and 4, these bolts are designed to be actuated simultaneously by means of the rod or shaft F, which works through a slot *d'* in the housing
80 D, and this rod or shaft carries the rigidly-connected cross-bar G, which is designed to engage pins or projections H on the faces of the bolts, as seen best in Fig. 2, so that
85 when the rod or shaft is moved the said cross-bar engaging the bolts will actuate them in opposition to the force of the springs, and thus the bolts or dogs will be withdrawn from their engagement with the rack, as will be
90 readily understood. By this arrangement the bolts or dogs may be operated either together by reciprocating the shaft or one in one direction and the other in the other by turning the rod or shaft so that the cross-bar will be
95 swung, and thus move the one bolt outward while the other is being moved inward by its spring. The rod or shaft F should terminate outwardly in a suitable knob or handle, as
100 shown in Fig. 1, by which it may be manipulated. In Figs. 5 and 6 the housing is not provided with a slot *d'*, but merely with bearings *d''* for the shaft F, the opposite bearing being in a plate *d'''*, which may or may not be provided. In either construction of

the housing—that is, with the slot d' or bearing d^2 and with or without the bottom plate d^3 —the shaft F may be turned to operate the bolts individually, or in case the slot d' is
 5 formed in the housing the bolts may be withdrawn from the rack C simultaneously or individually in alternation, as desired. When
 10 operated individually, the foremost bolt as the sash is either moved up or down will by reason of the inward disposition of the beveled
 15 faces automatically be quickly forced by its spring inwardly between the teeth of the rack-bar, and this is done before the rear-
 20 most bolt has left the face of an adjacent tooth, because the straight faces of the bolts
 25 are separated a distance equal to three teeth of the rack. This construction insures a quick, positive, and firm locking of the sash at any desired point.

30 In Figs. 1 and 4 there is shown a projection I on the case D, which projection is intended as a fixed finger-piece to facilitate the movement of the shaft F in the slot d' ; but
 35 this feature is not essential to the novelty or usefulness of the invention, and therefore may be discarded.

Various modifications and changes in detail of proportions of the various parts may be made without a departure from the spirit of
 30 the invention.

What I claim is—

1. In a device of the class described the combination with a rack-bar having square
 35 teeth, of a pair of bolts having each an outer straight face and an inner beveled face and

spaced a distance equal to three teeth of said rack-bar means for moving said bolts simultaneously and positively in one direction and springs acting upon said bolts to move them in an opposite direction, substantially as
 40 specified.

2. A device of the class described, comprising a casing, a pair of bolts therein each having a beveled face, and means for re-
 45 tracting said bolts simultaneously or independently retracting either bolt and projecting the other; substantially as specified.

3. In a device of the class described the combination, of a square-tooth rack-bar, a pair of bolts spaced one tooth apart and be-
 50 veled at opposing faces, means for moving said bolts jointly out of mesh with said bar and means for automatically throwing one of said bolts into mesh with said rack-bar, sub-
 55 stantially as specified.

4. The combination with a rack-bar having a series of teeth, of sliding bolts having pro-
 60 jections thereon, means for projecting said bolts, a slidingly-mounted rotatable shaft, a bar carried thereby engaging said projections, and a suitable housing for all of said parts slotted to permit movement of said shaft; sub-
 65 stantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

SAMUEL G. WELLMAN.

Witnesses:

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 E. J. BEVERSTOCK.