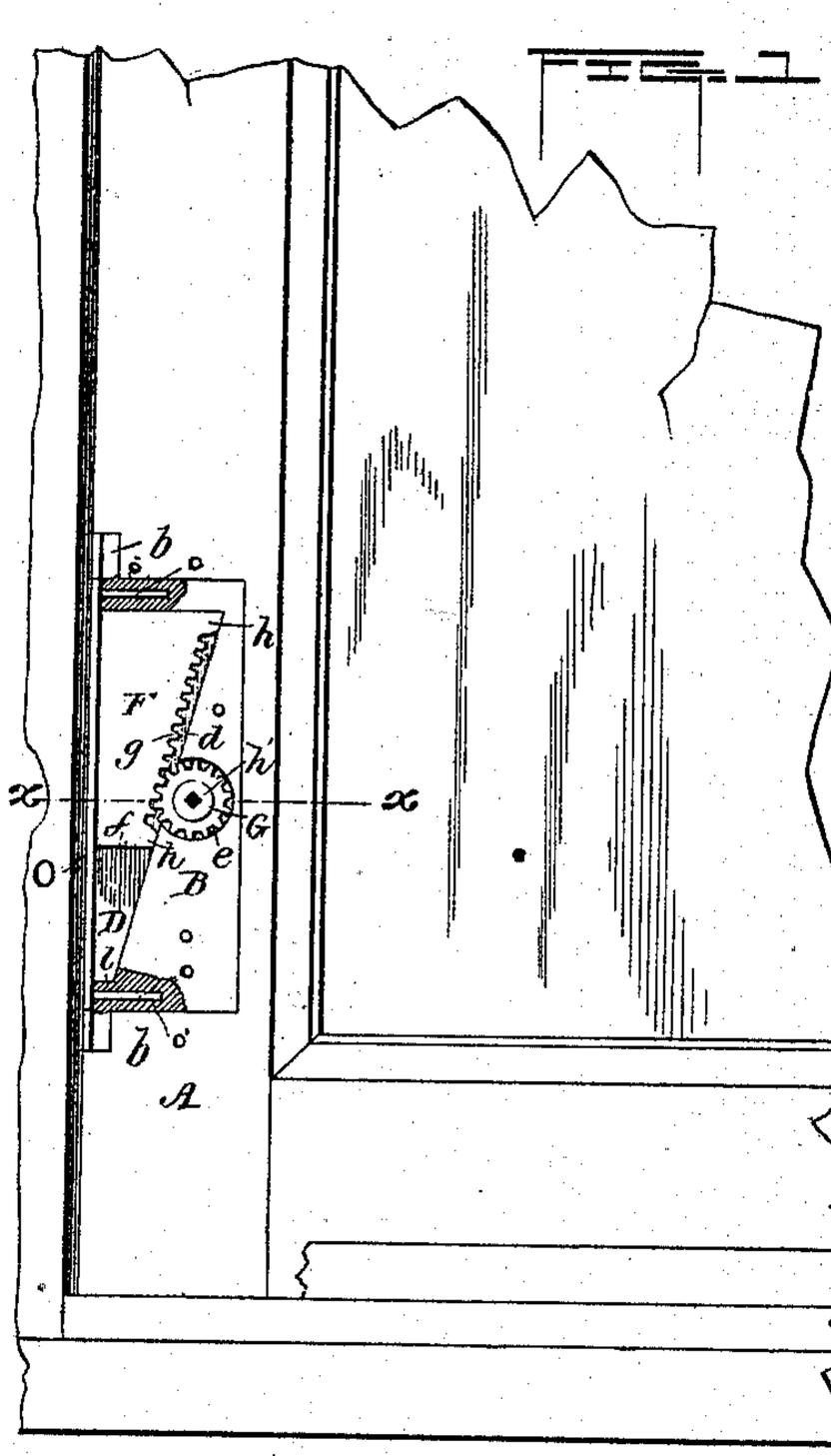
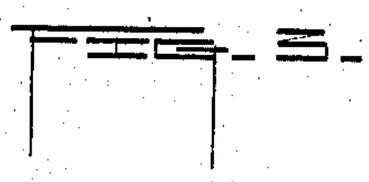
(No Model.)

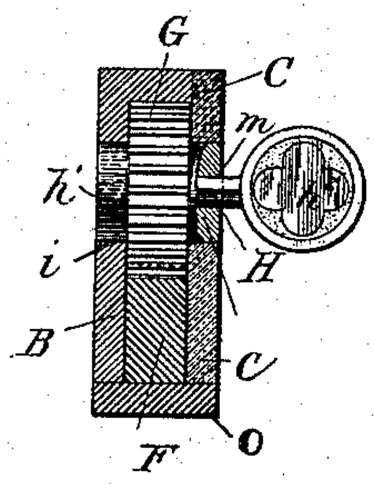
W. L. DEMPSEY.

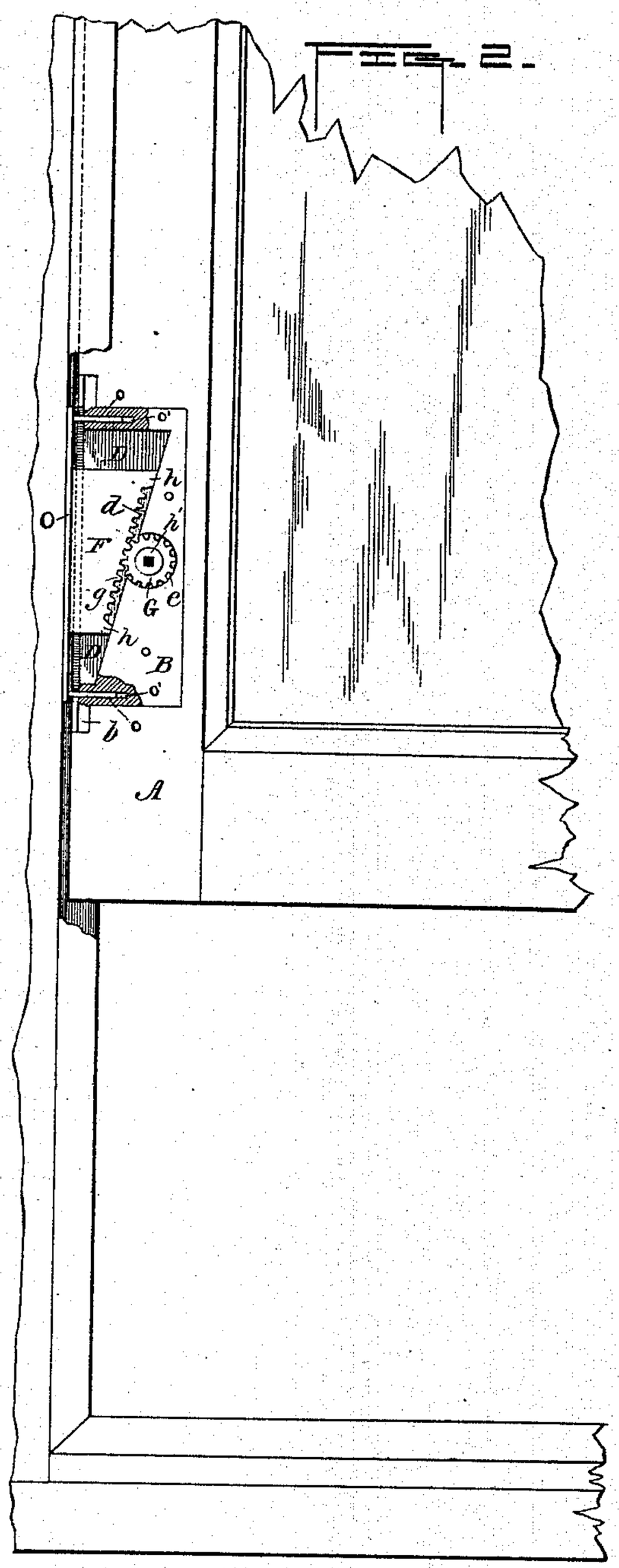
SASH HOLDER.

No. 413,362. Patented Oct. 22, 1889.









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SASH-HOLDER.

SPECIFICATION forming part of Letters Patent No. 413,362, dated October 22, 1889.

Application filed April 1, 1889. Serial No. 305,780. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. DEMPSEY, a citizen of the United States of America, residing at Warsaw, in the county of Benton and State of Missouri, have invented certain new and useful Improvements in Sash-Locks, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to sash-locks, and more especially to that class in which a rack and pinion are employed.

The object I have in view is to produce a more simple, cheap, and effective lock or fastener than has heretofore been in use.

With these ends in view my invention consists in the peculiar features and combinations of parts more fully described hereinafter, and pointed out in the claims.

Referring to the accompanying drawings, Figure 1 represents a side elevation, in cross-section, of a portion of a window-sash provided with my improved lock; Fig. 2, a similar view showing the window raised and locked in position; and Fig. 3, a sectional view of the lock, taken on line *x x* of Fig. 1.

The reference-letter A indicates an ordinary window-sash in which my improved lock is countersunk. The outer casing of the lock is formed in two pieces B and C. The main portion B is provided with a pair of ears or projections *b*, by means of which it is screwed or otherwise securely fastened in the sash, and has a recess or chamber D cut out of its interior. The main portion of this recess has substantially the form of a right-angle triangle, its rear wall *d* sloping back at an angle to the sash. The lower portion of this chamber is made the shallowest. Near the center of the back wall of the recess is formed another smaller circular recess or chamber *e*. This chamber does not form an entire circle, a segment of the same being cut off by the sloping wall *d* of the main recess. A sliding wedge F is introduced into the main recess and has substantially the form of the same, its lower portion, however, being cut off square at *f*, to allow a play of the wedge therein. The lower portion of the said angular recess does not come to a point, but an abutment *l* is formed, against which the squared end of the wedge bears when it reaches the limit of its downward play. The upper end of the wedge is of the same length as the upper wall of the recess, so that when the wedge is at the limit of its upward movement its outer surface will lie in the same plane as the outer surface of the main casing B. The back side of the wedge is made sloping to correspond with the rear wall of the recess and is provided with a rack *g*. At either end of the wedge feet *h h* are formed, which project beyond the plane of the rack *g*, and by means of which the wedge slides on the sloping wall of the recess. The rack *g* is engaged by a pinion G, which is contained within the circular recess *e*. This recess being a segment of a circle, a portion of the pinion will project out of it and engage the teeth of the rack. On either side of the pinion G are formed trunnions *h'*, which turn in bearings *i*, formed in the plates B and C. Through the center of the pinion a squared aperture *m* is made for the reception of a corresponding key H, having a head h^2 on its outer end, by means of which it is turned, as shown more clearly in Fig. 3.

This mechanism just described is covered and confined by the plate C, which is secured on the main portion B of the lock-casing in any desired manner. The front portion of the lock is covered by an elongated plate or facing O, having guides *o o*, secured in either end, which slide in apertures *o' o'*, formed in the plate B.

The preferred manner of constructing my invention having been set forth, I will now describe its operation. When it is desired to lock the window in position, the key H is introduced into the slot *m* in the pinion G and turned. The teeth of the pinion engaging those of the rack, it will readily be seen that the wedge will be slid down the inclined plane of the rear wall *d*, and consequently out of the recess and against the plate O, and thus force the said plate against the window-casing and lock the window in position by being wedged between the plate O and the window.

It is evident that various slight changes

might be made in the construction and operation of my device; hence I do not confine myself to the precise construction herein shown, but consider myself entitled to all such changes as come within the scope and spirit of my invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a sash-lock, the combination of a wedge, a pinion for actuating the same, and a separate facing arranged to be forced out by said wedge, in the manner and for the purpose described.

2. In a sash-lock, the combination of a wedge, a pinion for actuating the same, a key fitting said pinion, a separate facing arranged to be forced out by said wedge, and guides for said facing, substantially as described.

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

WILLIAM L. DEMPSEY.

Witnesses:
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