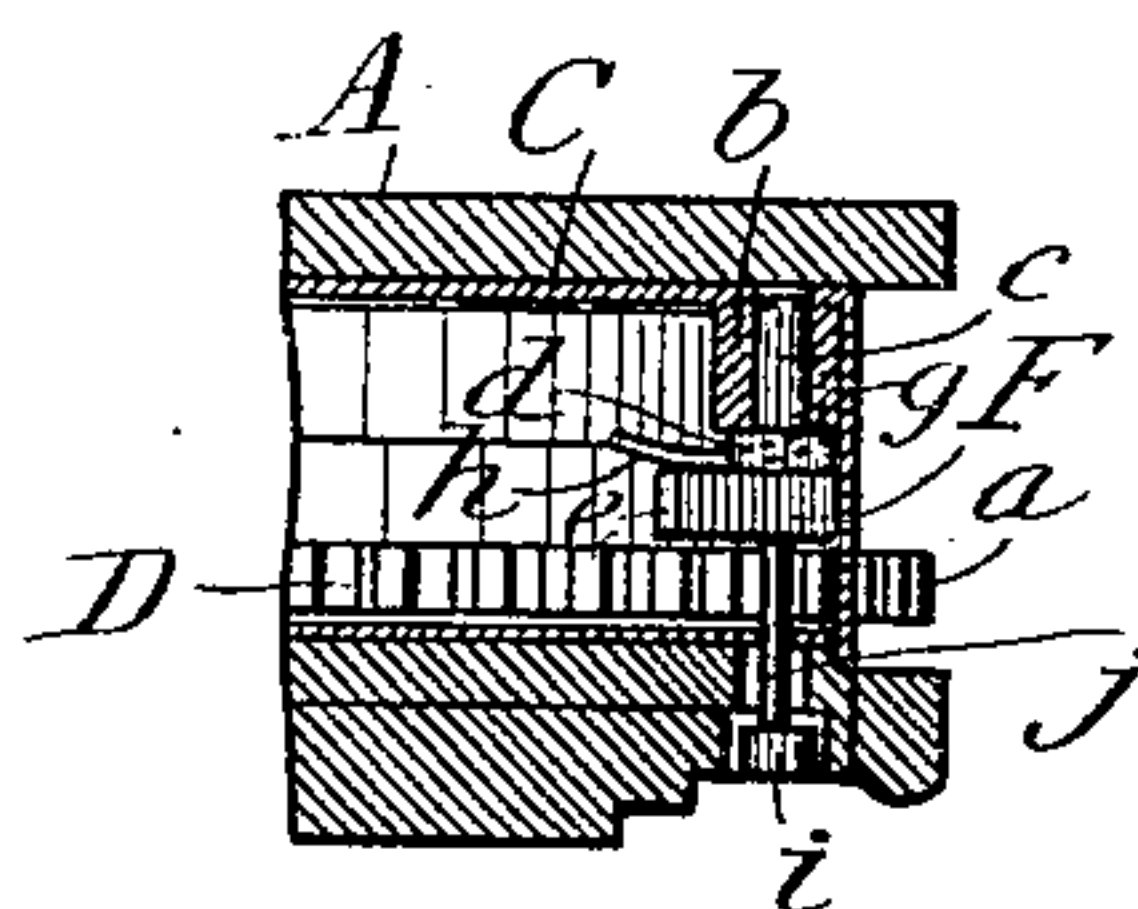
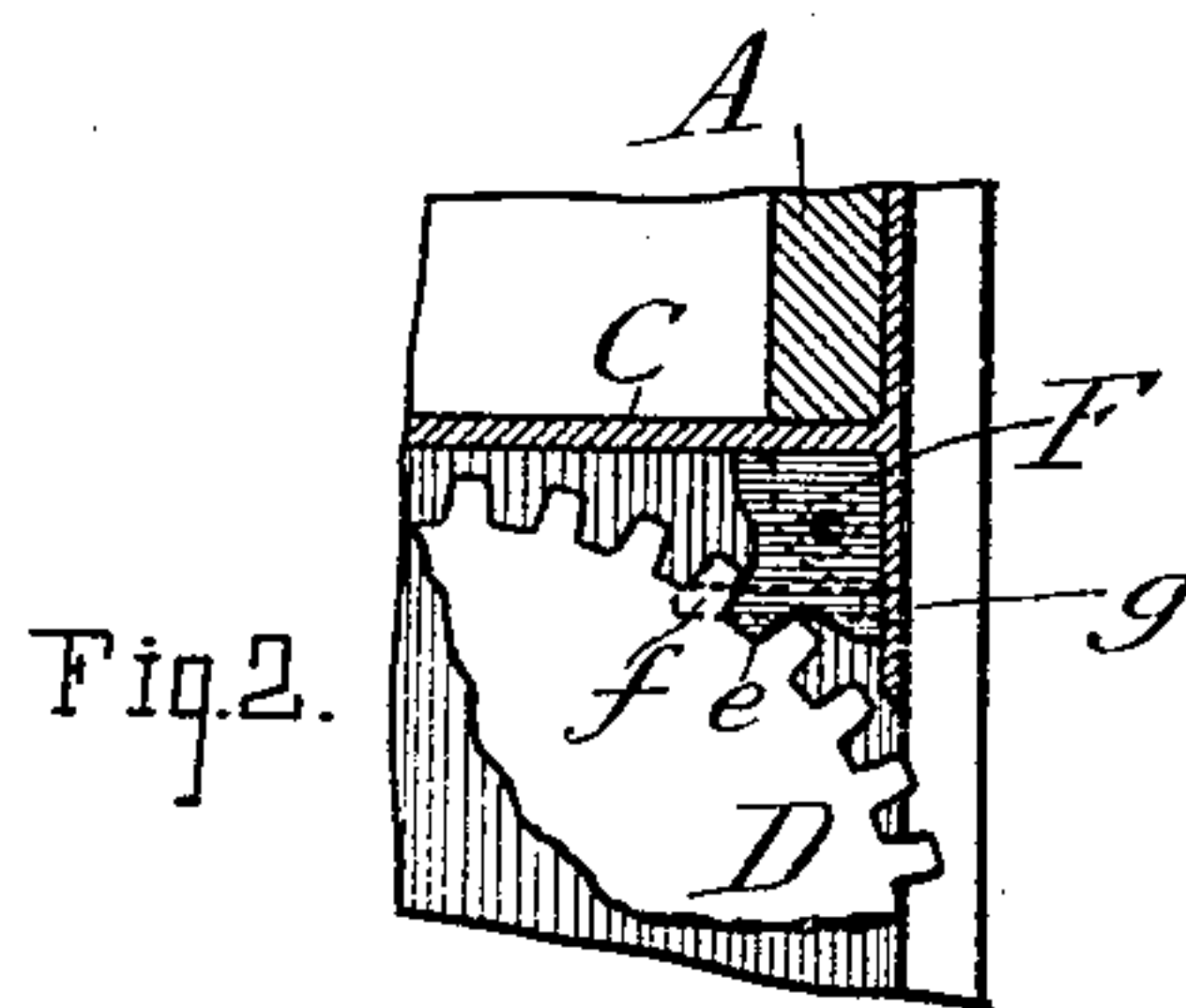
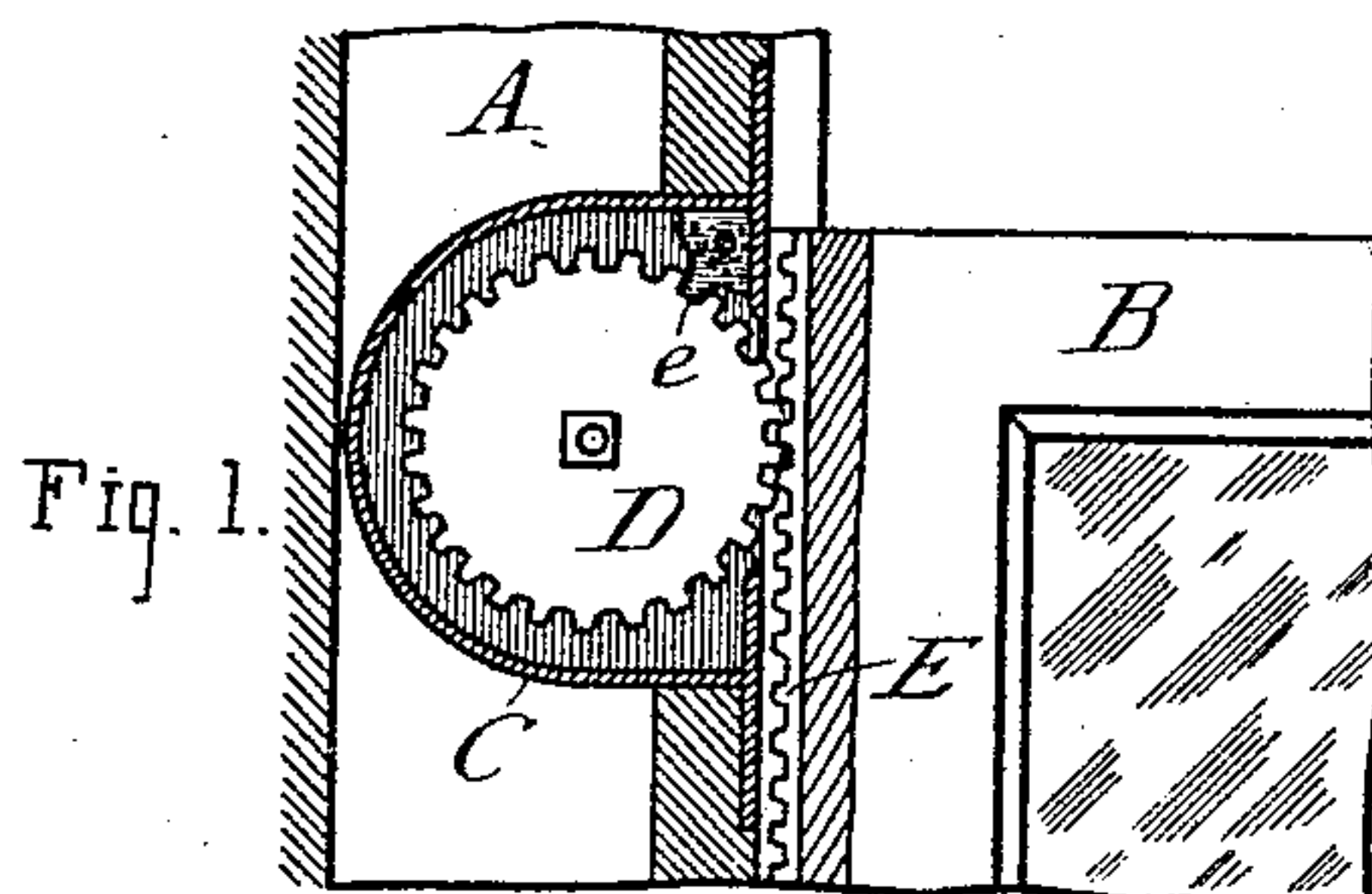


(No Model.)

J. P. MAGNEY.  
SASH BALANCE.

No. 481,145.

Patented Aug. 16, 1892.



Witnesses:

*E. H. Gladden*

*M. R. Bryan*

Inventor

*Joseph P. Magney*

by *Spaul & Seely* Attys

# UNITED STATES PATENT OFFICE.

JOSEPH P. MAGNEY, OF OAKLAND, ASSIGNOR TO THE MAGNEY SASH  
BALANCE COMPANY, OF SAN FRANCISCO, CALIFORNIA.

## SASH-BALANCE.

SPECIFICATION forming part of Letters Patent No. 481,145, dated August 16, 1892.

Application filed August 28, 1891. Serial No. 403,976. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH P. MAGNEY, a citizen of the United States, and a resident of the city of Oakland, county of Alameda, State of California, have invented certain new and useful Improvements in Sash-Locks; and I do hereby declare that the following is a full, clear, and exact description of the said invention.

My invention relates to devices for locking window-sashes at any point in their vertical travel. It is particularly adapted, however, to sashes which are balanced by a spring or springs which act upon a rack-and-pinion movement between the sash and its casing.

The object of my invention is to produce a simple, cheap, and effective sash-lock which engages automatically with the spring-actuated pinion excepting when positively released therefrom.

My invention consists in certain novel details of construction, which are fully hereinafter described and claimed, and are illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section of part of a window-casing and one of its sashes. Fig. 2 is a similar section somewhat enlarged to exhibit details of the lock more fully. Fig. 3 is a horizontal section.

The drawings are intended to illustrate the location of my sash-lock for the lower sash at a point near the meeting rails of the two sashes; but it will be understood that a similar device is employed for the upper sash and preferably placed, also, in proximity to the meeting rails.

The construction of spring sash-balances being now well understood, I have not considered it necessary in this case to show more of the operative features of such a balance than are necessary to make clear the relation of my sash-lock to them.

A represents the window-casing, and B the vertically-sliding sash. The casing is provided with a box C, secured in its edge adjacent to the sash-runway and having journaled within it a pinion D, the teeth of which project through the box C and engage with a rack E in the edge of the sash. This pinion, as will be understood, is connected to a helical spring which, put under strain by the descent of the sash, communicates its stored-up force to the

pinion when the window is raised and thus assists in lifting the latter. By reference to Fig. 3, it will be seen that the teeth of the pinion occupy only a small part of the thickness of the pinion, being formed in a projecting flange *a* at one side of the latter.

In one corner of the box C is cast or otherwise secured a block *b*, in which is formed a guide for the sliding sash-lock F. The latter is of a general triangular shape, as shown in Fig. 2, so that it is partly guided by the walls of the box C and partly by a projecting pin *c*, which enters and slides within the guide-hole in the block *b*. A shoulder *d* bears against the block *b* when the lock is pushed in, as shown in Fig. 3, and limits its movement. The triangular part of the lock is provided with an obliquely-set tooth *e*, which engages automatically with the pinion, a spring *f*, attached to the box C at *g* or other point of support, bearing with its free end *h* against the tooth *e* and pressing it constantly toward the pinion.

The sash-lock is operated from within a room by a push-button *i*, sunk in the face of the window-casing and having a rod *j*, which bears upon or is secured to the lock itself. A passage is formed in the casing and the box C to permit the entrance of the rod. In operating the lock to release it it is only necessary, therefore, to push in the button, which will cause the lock to slide inward against the pressure of the spring *f* until the tooth *e* is disengaged from the pinion, or, in other words, has passed beyond the flange *a*. The window may now be raised or lowered, and when pressure is removed from the button the spring will force the tooth into engagement with the pinion again at whatever point the sash may be. For the upper sash the construction of the lock is precisely similar, excepting, of course, that the rod *j* must be longer, as the upper sash works in a runway outside of that which guides the movement of the lower sash.

What I claim is—

In a sash-lock, and in combination with the rack and pinion, the box in which the pinion is held, having in its corner and at one side of the pinion a guiding-block, a triangular locking-piece having a stem projecting from its side into the guiding-block and having its



right-angular edges fitting in the corner of  
the box to be guided by the walls thereof and  
the spur on its free side, the spring for forc-  
ing the locking-piece into engagement with  
5 the pinion, and the stem projecting through  
the casing, substantially as described.

In testimony whereof I have hereunto set

my hand, this 21st day of August, 1891, in the  
presence of witnesses.

JOSEPH P. MAGNEY.

Witnesses:

L. W. SEELY,  
GEO. T. KNOX.