

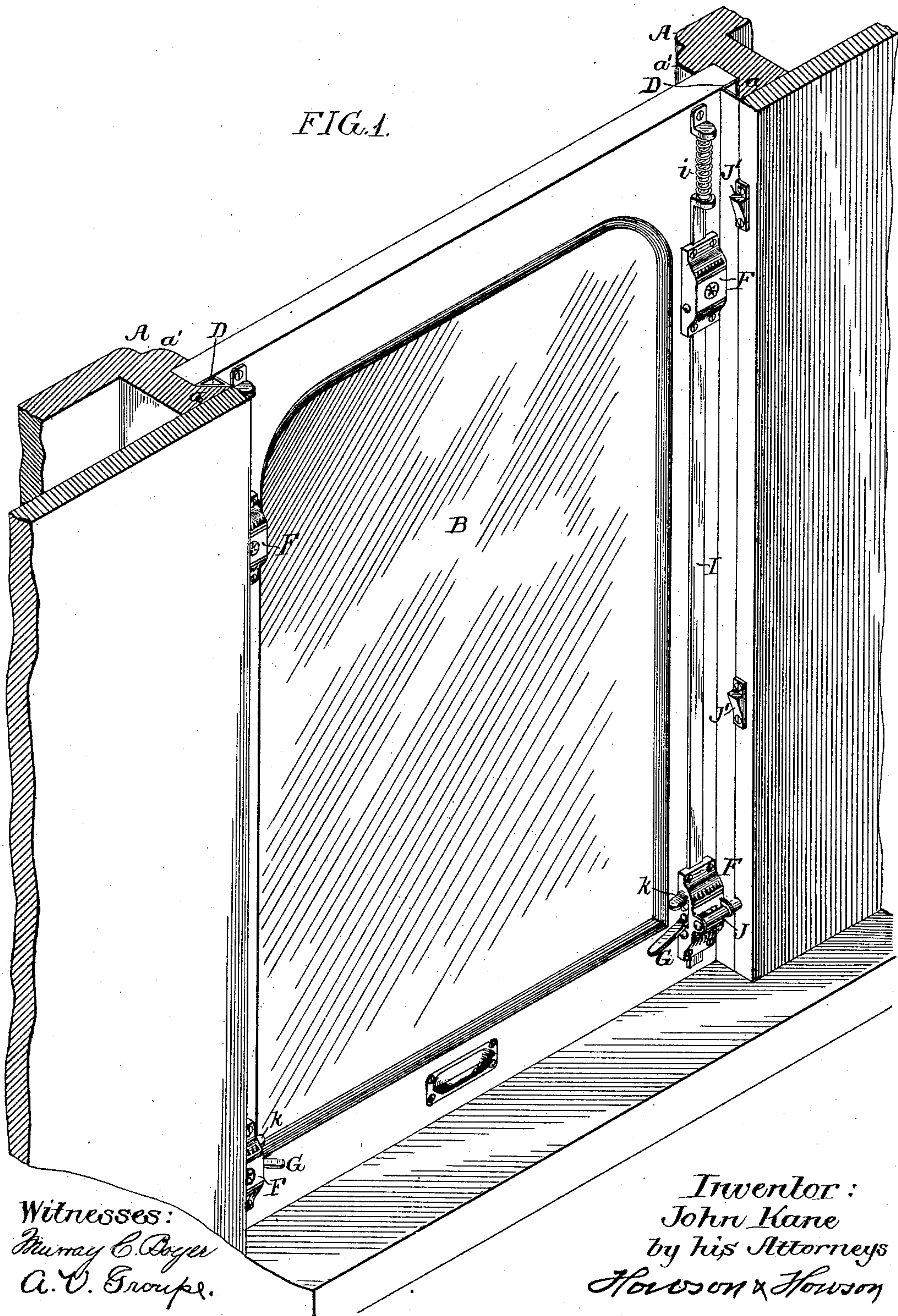
(No Model.)

2 Sheets—Sheet 1.

J. KANE.
SASH FASTENER.

No. 473,757.

Patented Apr. 26, 1892.



Witnesses:
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Inventor:
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by his Attorneys
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(No Model.)

2 Sheets—Sheet 2.

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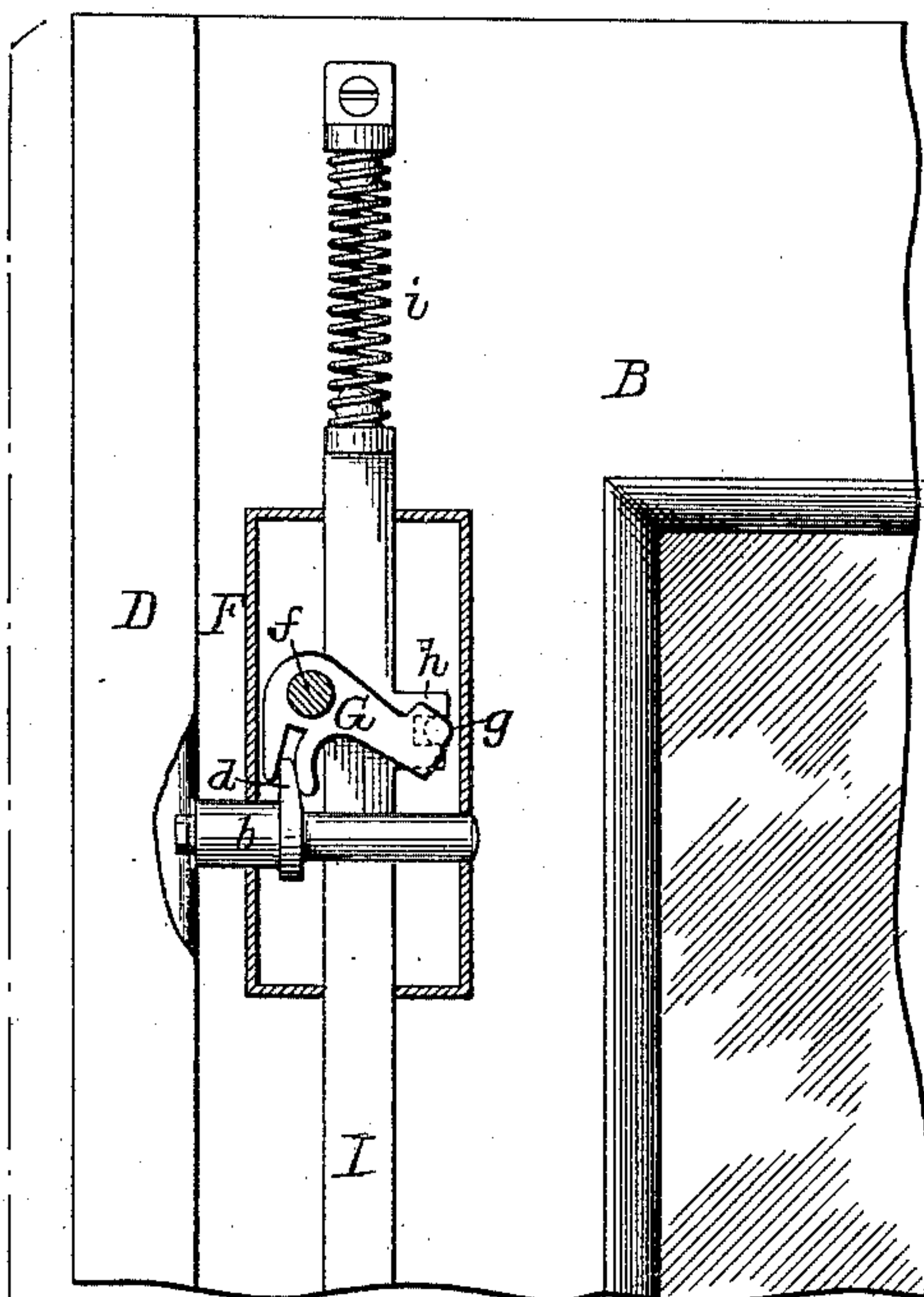


FIG. 2.

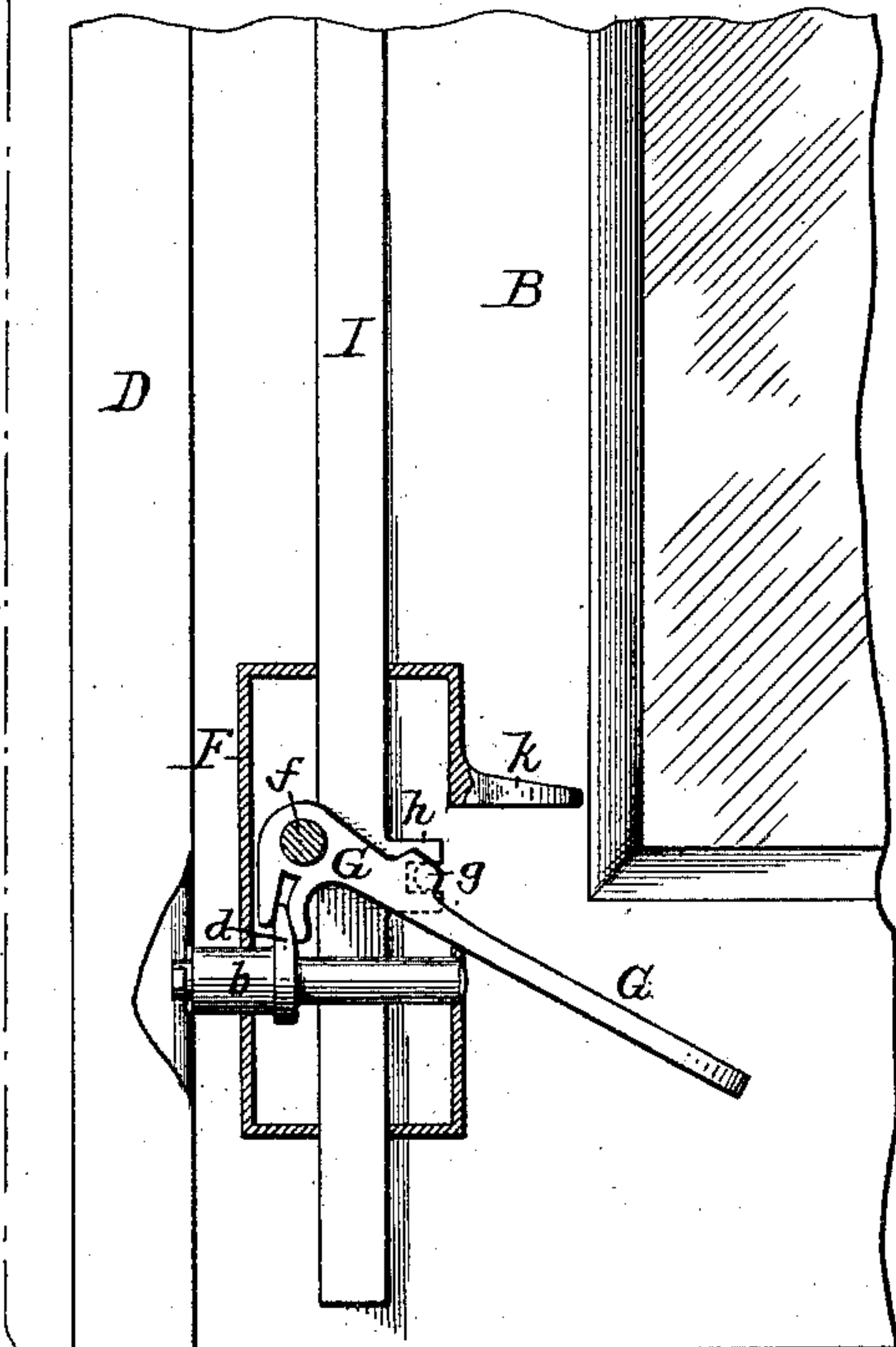


FIG. 3.

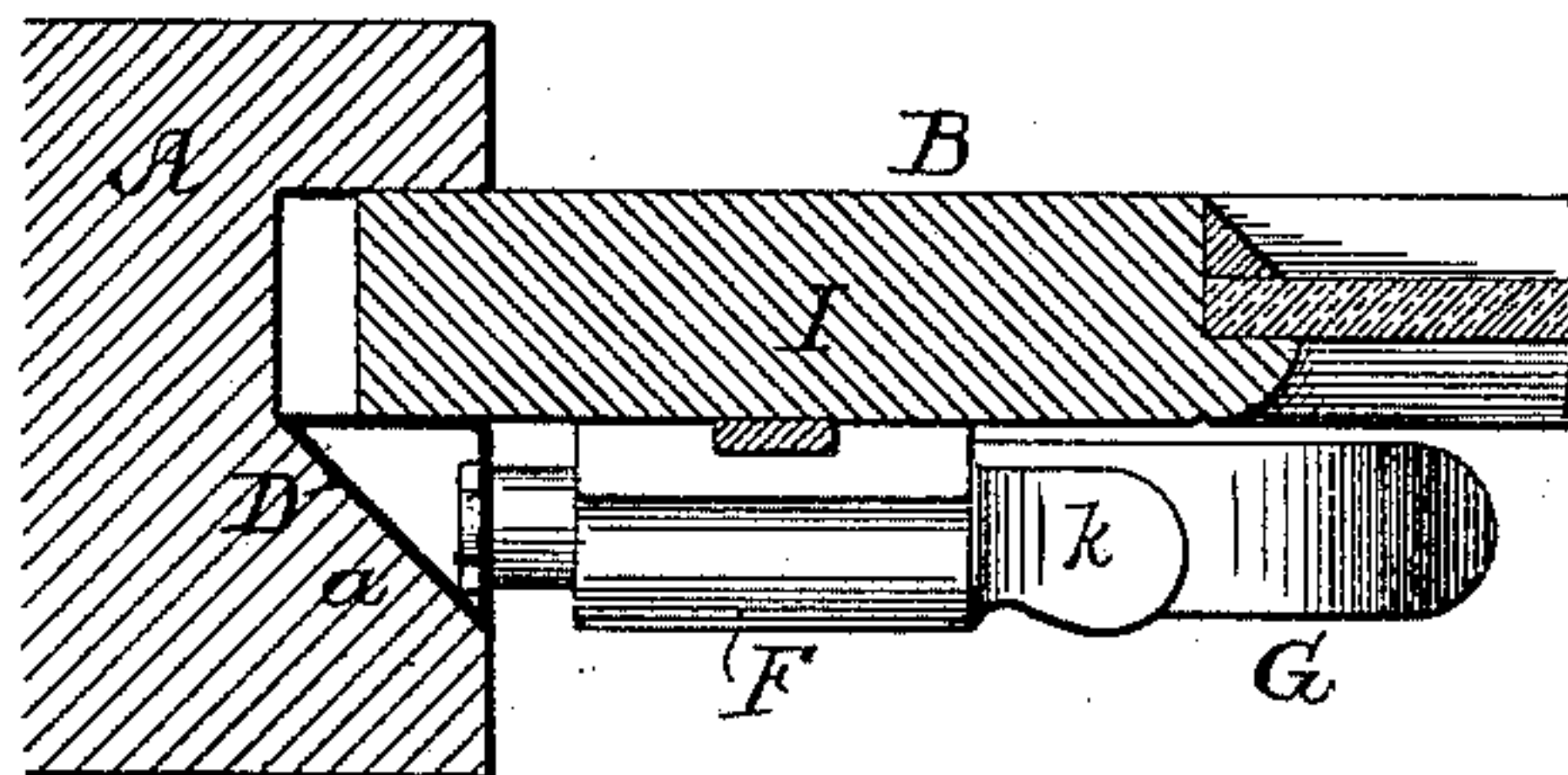


FIG. 4.

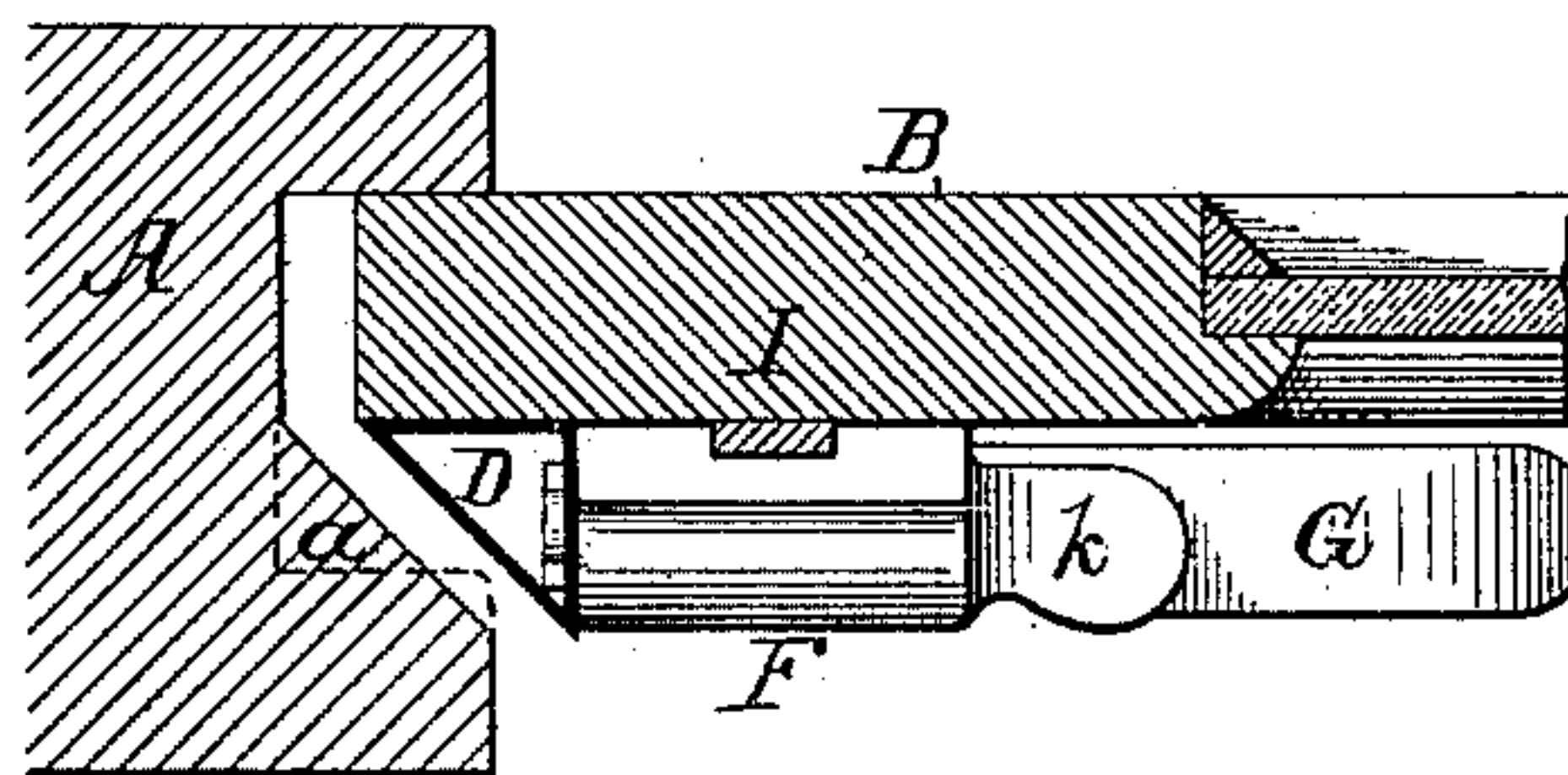
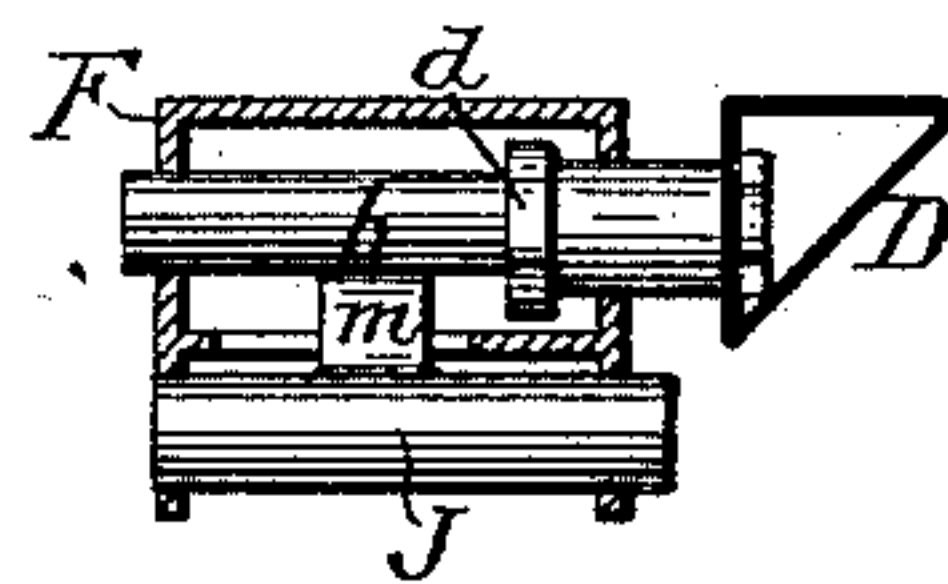


FIG. 5.



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UNITED STATES PATENT OFFICE.

JOHN KANE, OF PHILADELPHIA, PENNSYLVANIA.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 473,757, dated April 26, 1892.

Application filed May 11, 1891. Serial No. 392,336. (No model.)

To all whom it may concern:

Be it known that I, JOHN KANE, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Window-Sash Tighteners, of which the following is a specification.

The object of my invention is to provide simple and efficient means for firmly tightening and preventing the rattling of a window-sash when the same is either closed or open and at the same time to permit of the ready release of the sash when it is desired to raise or lower it. This object I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 represents a perspective view of part of the window frame and sash of a railway-car, illustrating the application of my improved sash-tightening device thereto. Fig. 2 is an enlarged side view, partly in section, of part of the sash and its retainer. Figs. 3 and 4 are sectional plan views of part of the sash and frame with the tightener, Fig. 3 showing the latter in position for holding the sash, and Fig. 4 showing the tightener retracted, so as to permit free movement of the sash; and Fig. 5 is a sectional plan view illustrating the use of a locking or supporting bolt in combination with the tightener.

A represents part of the window-frame, having suitable guide-strips *a a'*, between which the sash B can slide vertically in opening and closing, these guide-strips, however, being such that they do not closely confine or embrace the side rails of the sash, one of the guide-strips *a* being, by preference, beveled, as shown in Fig. 1 and more fully in Figs. 3 and 4.

On each of the side rails of the sash is a beveled bar D, which may extend throughout the entire length of the sash or throughout only a portion of such length, or which may be in sections, if desired. The bar D is adapted to engage with the beveled guide-strip *a* of the window-frame, so as to tighten the sash in its guides, as shown in Fig. 3; but the bar can be withdrawn, as shown in Fig. 4, so as to loosen the sash and permit of the ready raising or lowering of the same. Each bar D is carried by a pair of bolts *b*, guided in casings F on the side rail of the sash, one

near the upper end of the same and the other near the lower end, and each of these bolts *b* has a projecting finger *d*, which is engaged by the forked short arm of a lever G, hung to a stud *f* in the casing F, as shown in Fig. 2. The long arms of the upper and lower levers F have pins *g*, which engage with slotted projections *h* on a bar *l*, extending from the upper to the lower casing, the upper end of this bar projecting beyond the upper case and being acted upon by a spring *i*, tending to depress it, and thus actuate the levers G, so as to project the bolts *b* and move the tightening-bars D outward or into operative position, as shown in Fig. 3. The lower lever G projects laterally beyond the casing, so that it can be conveniently manipulated, a laterally-projecting lug *k* on the lower casing forming a rest for the thumb or finger in operating the lever G.

On the outside of one of the lower casings F is a bolt J, connected by a web *m*, Fig. 5, to the bolt *b* in said lower casing, so as to move therewith, this outer bolt J being adapted to engage with the usual stops *J'* on the window-frame, so as to hold the window in different positions and prevent the closing of the same by the shaking or jarring movement of the car. In ordinary cases, however, the action of the beveled bars D upon the sash will be sufficient to hold the sash in any desired position of adjustment, the bearing-surfaces of the guide-strips *a* being of uniform character from top to bottom of said strips, so that the tightening-bars will properly engage with said bearing-surfaces in whatever position the sash may be.

Although it is preferable to bevel both the guide-strip *a* of the window-frame and the tightening-bar D of the sash, but one of these may be beveled, if desired. For instance the strip *a* may be shaped as shown by dotted lines in Fig. 4 or the beveled strip may be used in connection with a rectangular bar on the sash.

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

1. The combination of the frame having guide-strips, the sash, the tightening-bar mounted on the sash and engaging with one of the guide-strips of the frame, and means for advancing and retracting said bar, one of

the engaging parts being beveled, and the bearing-surface of the guide-strip being uniform from top to bottom, substantially as specified.

5 2. The combination of the frame having guide-strips, the sash, the tightening-bar engaging with one of the guide-strips, one or other of said parts being beveled, retracting devices engaging with the upper and lower
10 portions of said tightening-bar, and a bar for connecting said retracting devices, substantially as specified.

15 3. The combination of the frame having guide-strips, the sash, the tightening-bar engaging with one of the guide-strips of the frame, one or other of said parts being beveled, bolts carrying said tightening-bar, levers engaging with said bolts, a bar connecting

said levers, and a spring acting on said bar, substantially as specified. 20

4. The combination of the window-frame having guide-strips, the sash, the tightening-bar mounted on the sash and engaging with one of the guide-strips, one or other of said parts being beveled, a locking-bolt adapted
25 to engage with stops on the window-frame, and means for simultaneously advancing and retracting the tightening-bar and the locking-bolt, substantially as specified.

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

JOHN KANE.

Witnesses:

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THOS. A. LYNN.