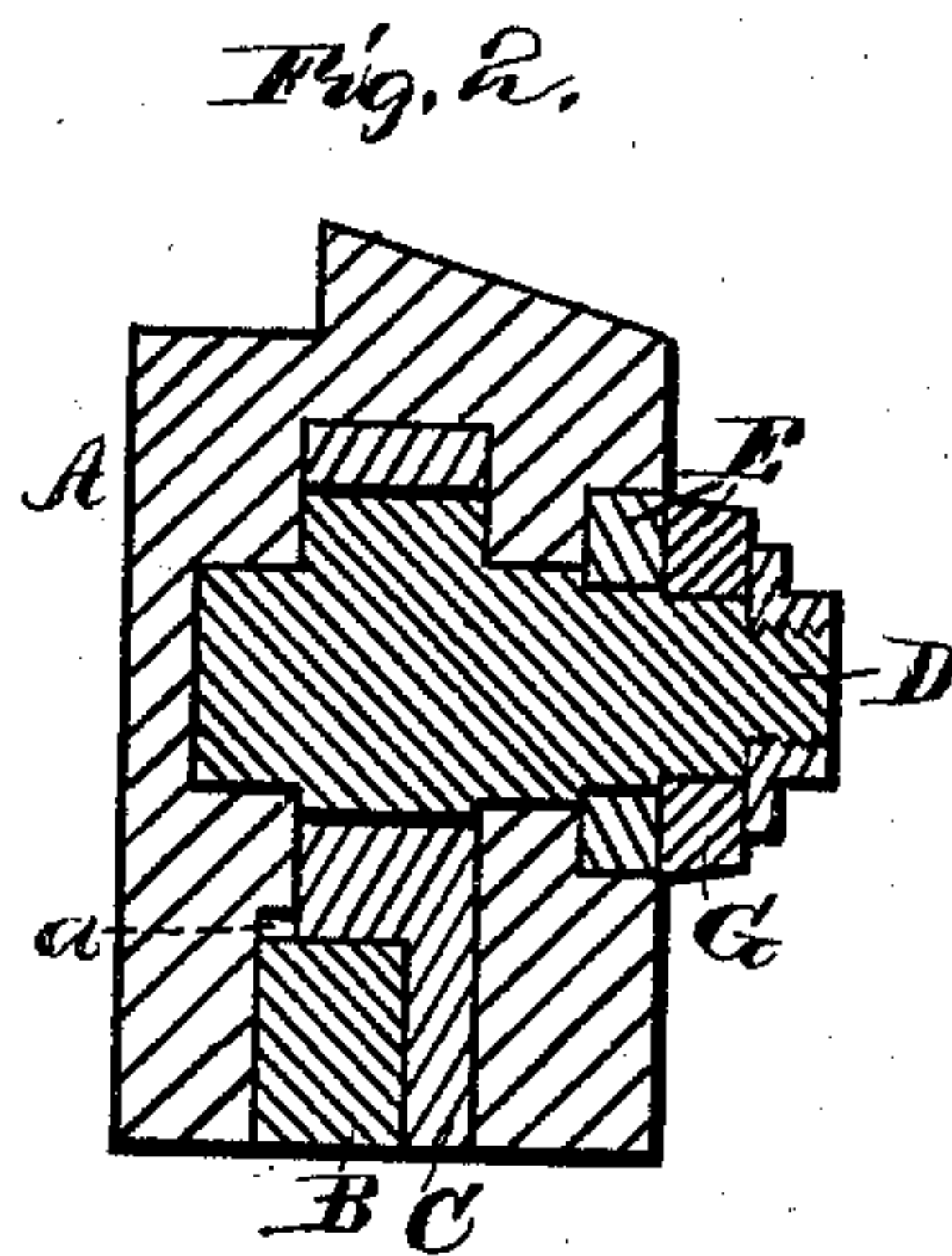
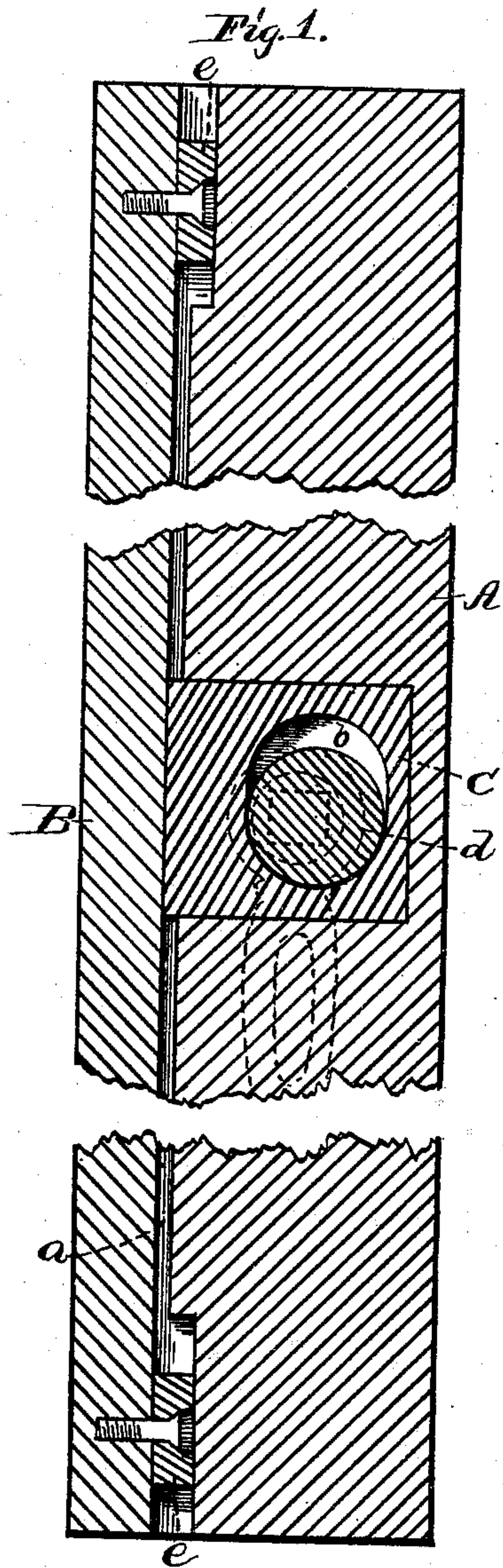


S. E. MINER.
SASH-HOLDER.

No. 173,803.

Patented Feb. 22, 1876.



WITNESSES:

Jas. F. Duhamel.
Thomas. Byrne.

INVENTOR:

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UNITED STATES PATENT OFFICE.

SAMUEL E. MINER, OF MONROE, WISCONSIN.

IMPROVEMENT IN SASH-HOLDERS.

Specification forming part of Letters Patent No. **173,803**, dated February 22, 1876; application filed October 11, 1875.

To all whom it may concern:

Be it known that I, SAMUEL E. MINER, of Monroe, county of Green and State of Wisconsin, have invented certain new and useful Improvements in Window Balance and Lock, of which the following is a specification:

The nature of my invention consists in the construction and arrangement of a friction window balance and lock, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which forms a part of this specification, and in which—

Figure 1 is a longitudinal section of my invention. Fig. 2 is a cross-section of the same.

A represents the right-hand stile of a window-sash, which is provided with a longitudinal groove, *a*, on its outer edge extending the entire length of the stile. In this groove is placed a strip, B, which is provided in the center with a casting, C, extending inward into a mortise in the stile.

In the casting C is an aperture, *b*, in which works a cam, *d*, formed on the side of a shaft, D, said shaft being placed from the front side into a mortise formed in the stile A. This shaft D is held in said mortise by means of a plate, E, and on the outer end of the shaft is fastened a crank or lever, G, for turning the same.

The strip B, when forced outward by the

arm *d* against the frame, acts in a twofold capacity—first, as a lock or catch to hold the window in position at any point desired; and, second, as a weather-strip to exclude air and dust.

At each end of the groove *a*, in the stile back of the strip B, is placed a bumper, *e*, of india-rubber, leather, or other suitable material, to press the strip out against the sides of the frame and take off the weight of the window by the friction thus secured.

Thus the window moves by a very light pressure of the operator either up or down, and the cam can be tightened at any point, and the window held in position.

The strip and bumpers may be held in position by screws or pins properly passed through them.

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

The combination of the mortised stile A, having longitudinal groove *a*, the strip B, casting C, with aperture *b*, and the shaft D, with cam *d*, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my invention I hereunto affix my signature this 8th day of October, 1875.

SAMUEL E. MINER.

Witnesses:

EDMUND BARTLETT,
C. E. TANBERG.