

(Model.)

J. H. LYNCH.
Sash Holder.

No. 241,038.

Patented May 3, 1881.

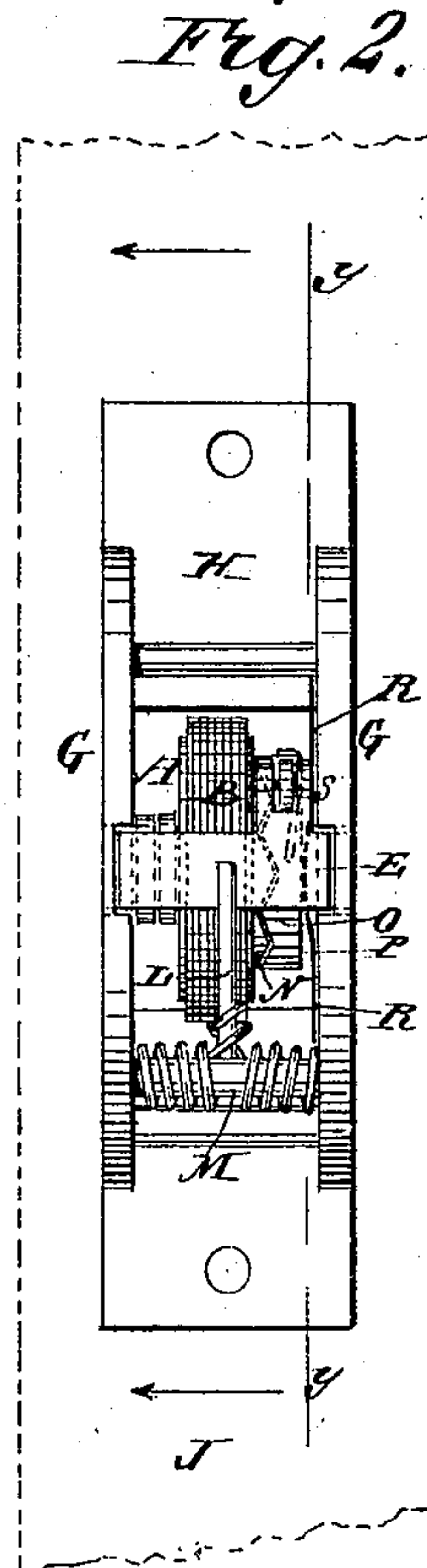
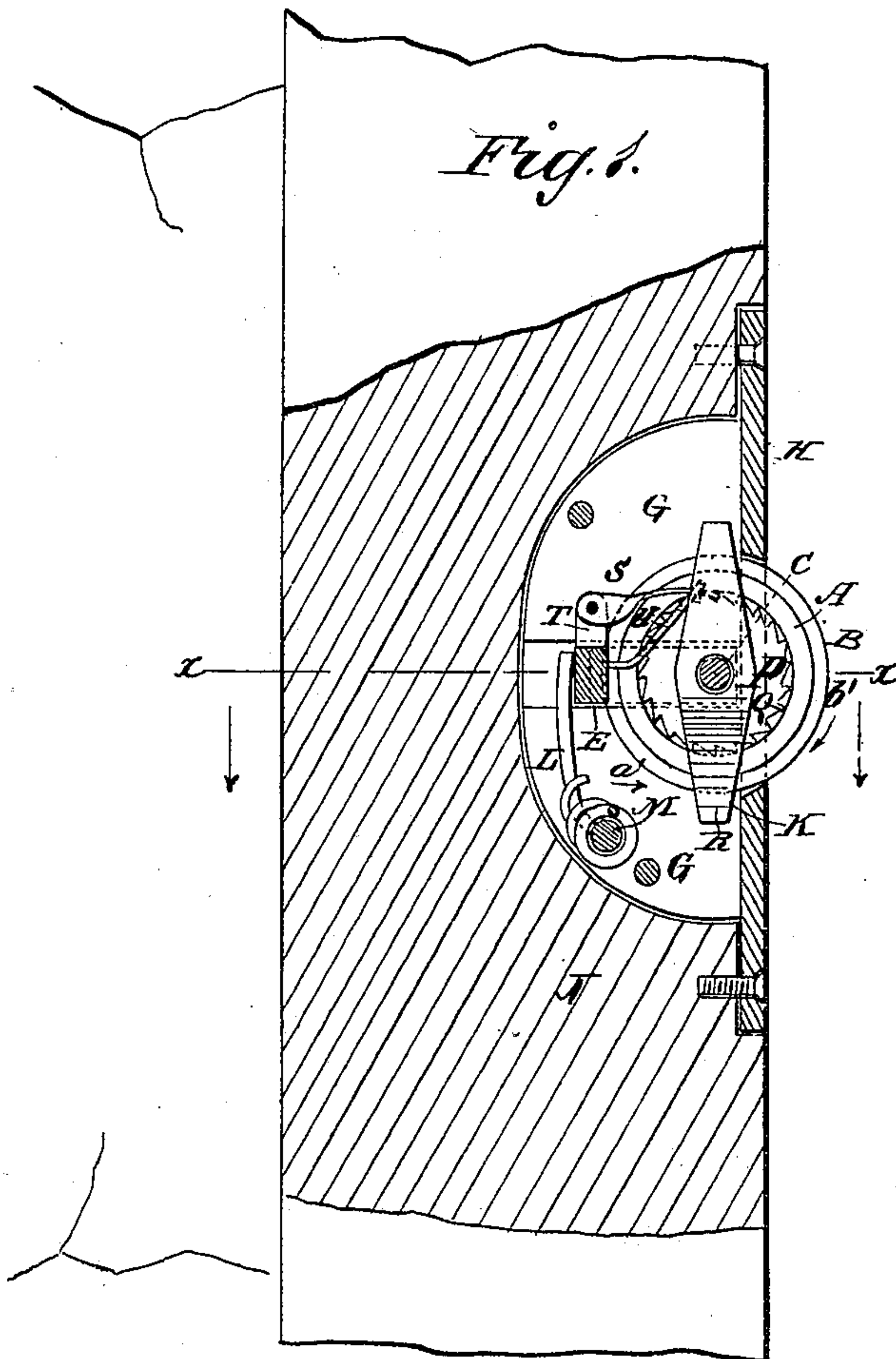
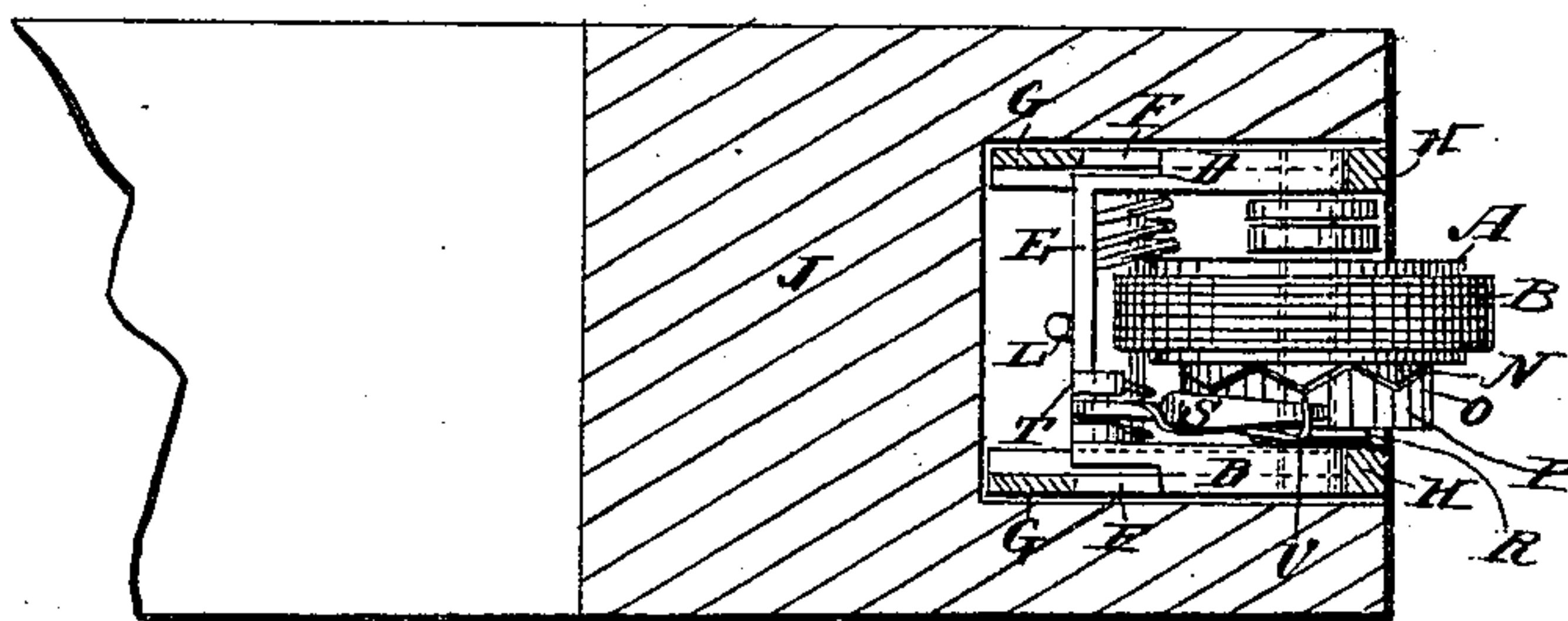


Fig. 3



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN H. LYNCH, OF LOWELL, MASSACHUSETTS.

SASH-HOLDER.

SPECIFICATION forming part of Letters Patent No. 241,038, dated May 3, 1881.

Application filed March 10, 1881. (Model.)

To all whom it may concern:

Be it known that I, JOHN H. LYNCH, of Lowell, Middlesex county, Massachusetts, have invented a new and Improved Sash-Holder, of which the following is a specification.

The object of my invention is to provide a new and improved device for holding a sash at any desired height.

The invention consists in a roller-wheel pivoted in journals sliding horizontally in the lugs of a plate attached to the outer surface of one of the side rails of a sash, which wheel is pressed against the pulley-stile of the window-frame by a spring, and is provided on one of its sides with a ring of ratchet-teeth, which engage with like teeth of a peripherically-ratcheted wheel loosely mounted on the shaft of the rubber wheel, which ratchet-wheel is acted upon by a spring-pawl, that permits both the ratchet-wheel and rubber wheel to rotate when the sash is being raised, but locks the ratchet-wheel and the rubber wheel as soon as the sash is released, and thus holds the same in place; but if force is exerted the rubber wheel is disengaged from the ratchet-wheel and the rubber wheel can rotate, thus permitting the sash to descend.

In the accompanying drawings, Figure 1 is a longitudinal sectional elevation of my improved sash-holder on the line *yy*, Fig. 2. Fig. 2 is a rear elevation of the same; and Fig. 3 is a partial plan view and horizontal sectional view of the same on the line *xx*, Fig. 1.

Similar letters of reference indicate corresponding parts.

A wheel, A, provided with an outer ring, B, of rubber or analogous substance, is rigidly mounted on a shaft, C, journaled in the boxes D D, connected at the rear ends by a cross-piece, E, and sliding in horizontal slots or grooves F in the lugs or jaws G G of a plate, H, which is fastened flush to the lower end of the outer surface of the side bar, J, of a sash, which side bar is mortised to receive the lugs G G. This plate H is provided with a longitudinal slot, K, through which the wheel A projects, as shown in Figs. 1 and 3. A spring, L, is attached to a cross-piece, M, of the jaws G G, and this spring presses against the cross-piece E E of the journal-boxes D D, and presses the wheel A against the pulley-stile

of the window-frame in the direction of the arrow *a'*. The wheel H is provided at one side surface with a ring, N, of ratchet-teeth, which are not steep and have both sides beveled alike, which ring of ratchet-teeth engage with a like ring, O, of ratchet-teeth on the side of a wheel, P, loosely mounted on the shaft C, provided with ratchet-teeth Q on the circumference, and is pressed against the wheel A by a spring, R, resting against the inner surface of one of the lugs or jaws G. A pawl, S, is pivoted to a projection, T, of the cross-piece E of the journal-boxes D D, and the front end of this pawl T is pressed upon the teeth Q of the wheel by a spring, U, attached to the cross-piece E; or the pawl S may be made of spring material and may be rigidly fastened to the projection T.

If the device is attached to the pulley-stile instead of to the sash-rail, it will have to be inverted.

The surface of the rubber B of the wheel A may be serrated, transversely grooved, or plain.

The operation is as follows: If the sash is moved upward, the friction of the rubber ring B will cause the wheel A to rotate in the direction of the arrow *b'*, and the ratchet-wheel P will rotate with it. If the sash is released, its weight will tend to draw it downward, and the friction will tend to rotate the wheel in the inverse direction of the arrow *b'*; but the pawl S will lock the ratchet-wheel P and prevent it from rotating, and the sash is locked in its position; but if some force is exerted the teeth of the ratchet-rings N O will glide on each other, and the spring R is flattened against the side of the jaw or lug G, and the wheel A can rotate in the inverse direction of the arrow *b'*, permitting the window to descend. The sash can thus be held at any desired height. One of these devices is attached to each sash, or in case the sashes are very heavy a sash-holder is attached to each end rail of the sash, or to the corresponding pulley-stile.

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

1. A sash-holder made substantially as herein shown and described, and consisting of a friction-wheel provided with ratchet-teeth on the side, engaging with teeth on the side of a circumferentially-ratcheted wheel loosely

mounted on the shaft of the friction-wheel and acted upon by a spring-pawl, as set forth.

2. In a sash-holder, the combination, with the slotted lugs G G of a plate, H, of the sliding journal-boxes D, connected by a cross-piece, E, the spring L, the pivoted wheel A, journaled in the boxes D D, and provided with ratchet-teeth on the side of the circumferentially-ratcheted wheel P, the spring-pawl S, and the spring R, substantially as herein shown and described, and for the purpose set forth.

3. In a sash-holder, the ratchet-wheel P, constructed substantially as herein shown and described, with circumferential ratchet-teeth Q, and with a ring, O, of ratchet-teeth on one side, as set forth.

JOHN HENRY LYNCH.

Witnesses:

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