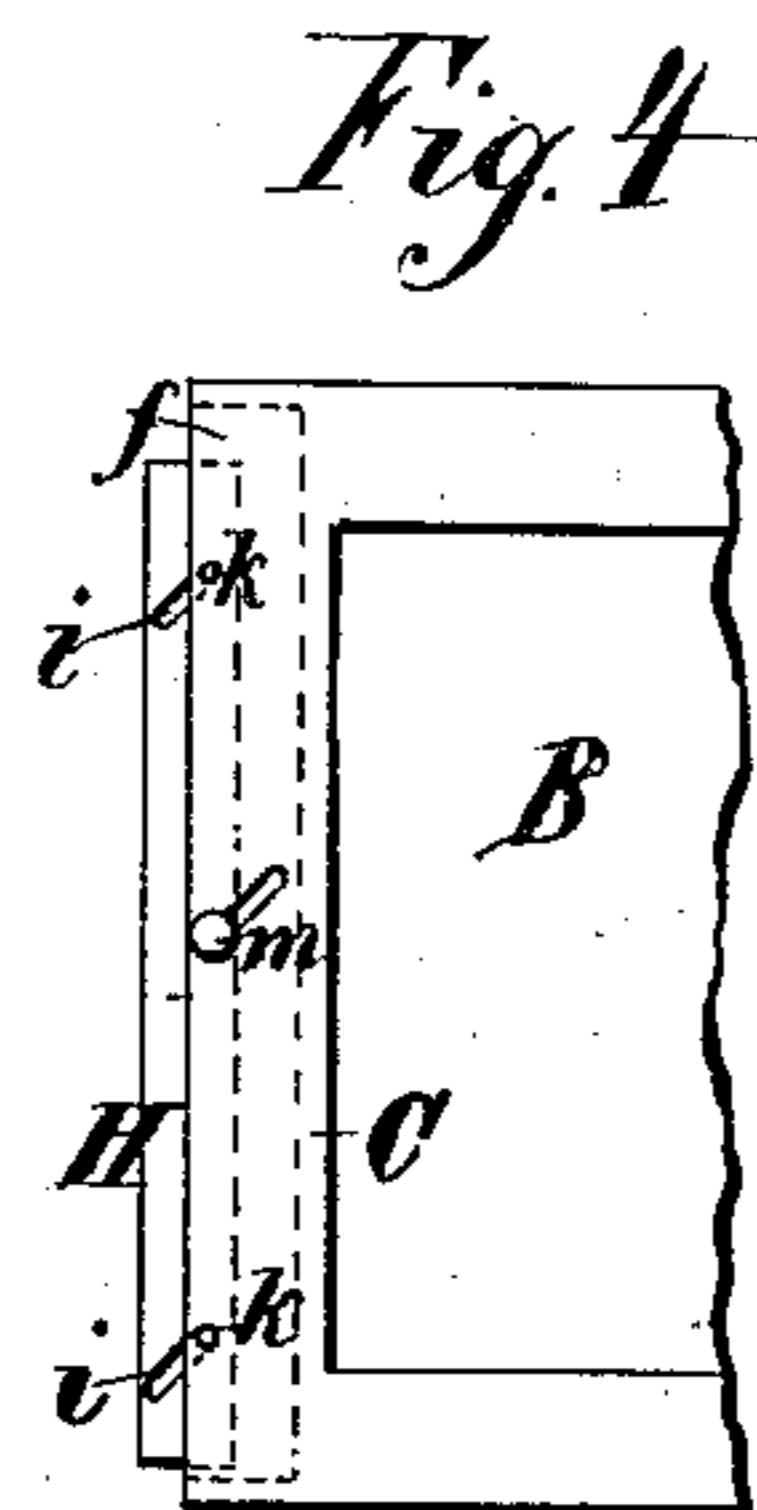
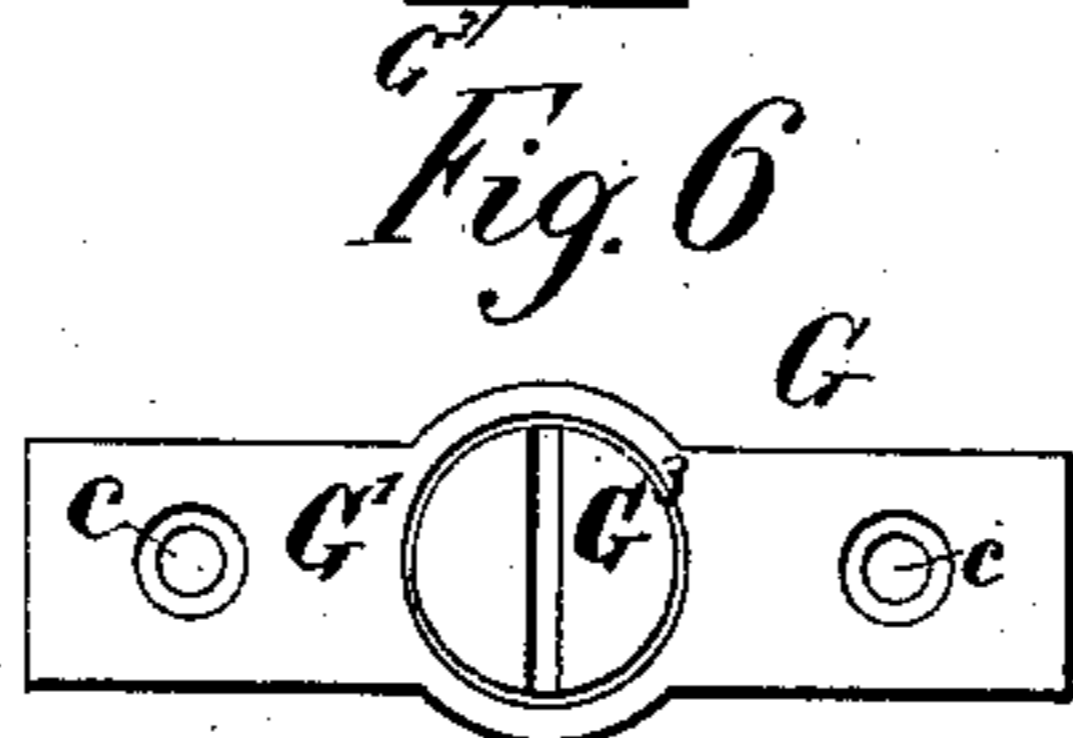
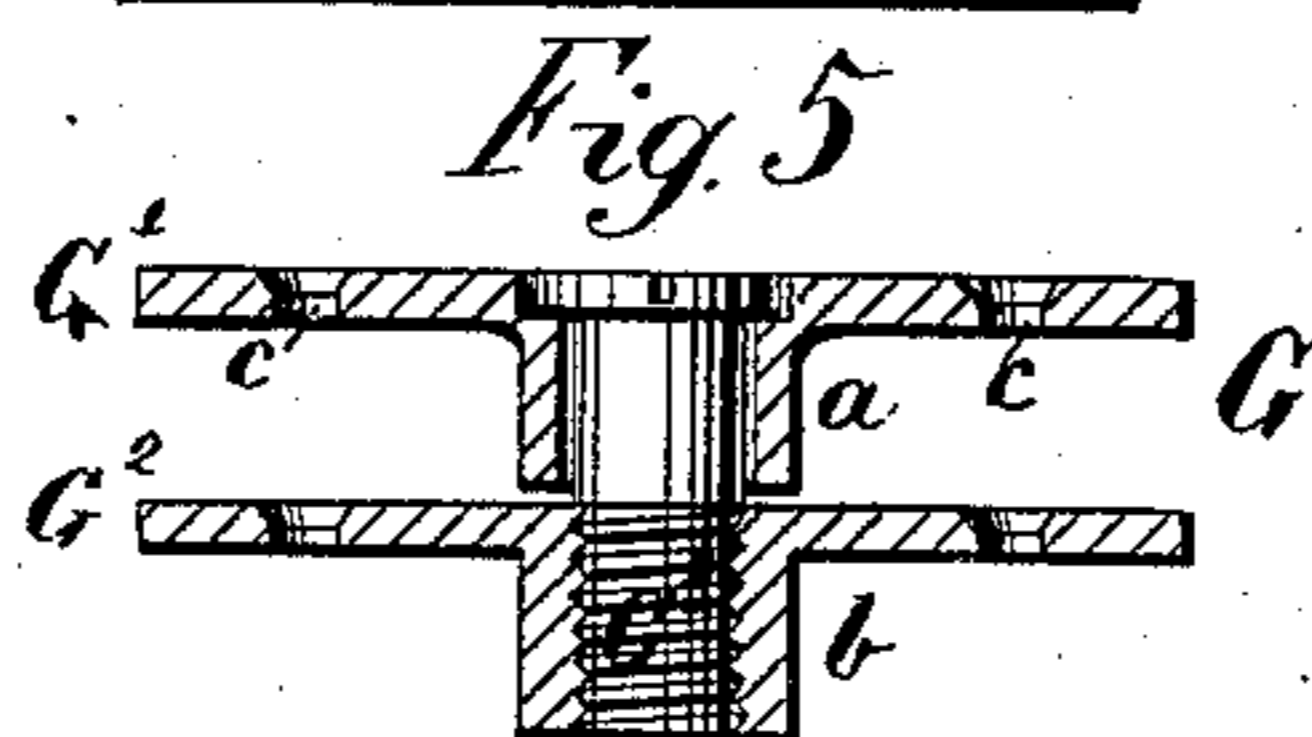
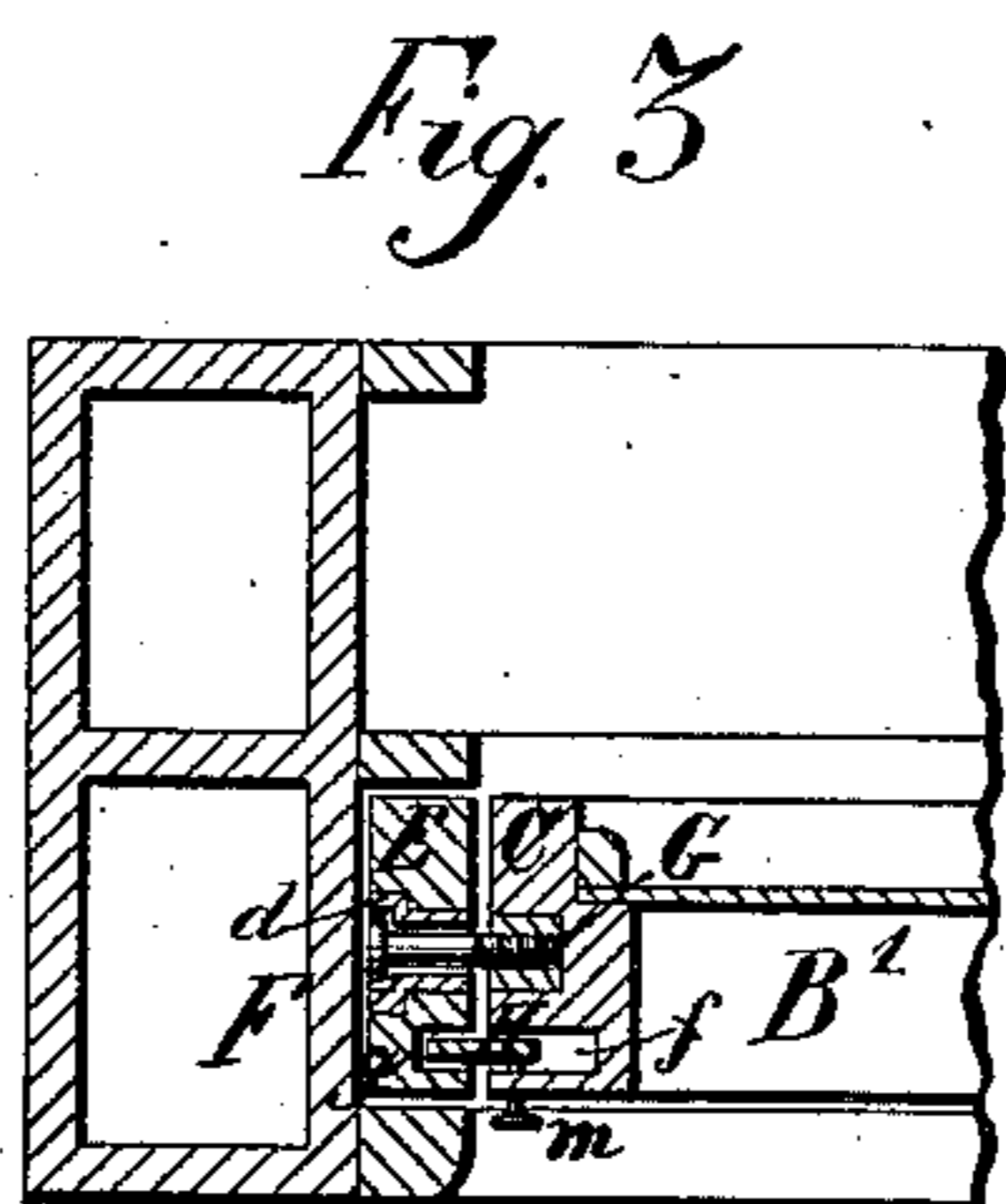
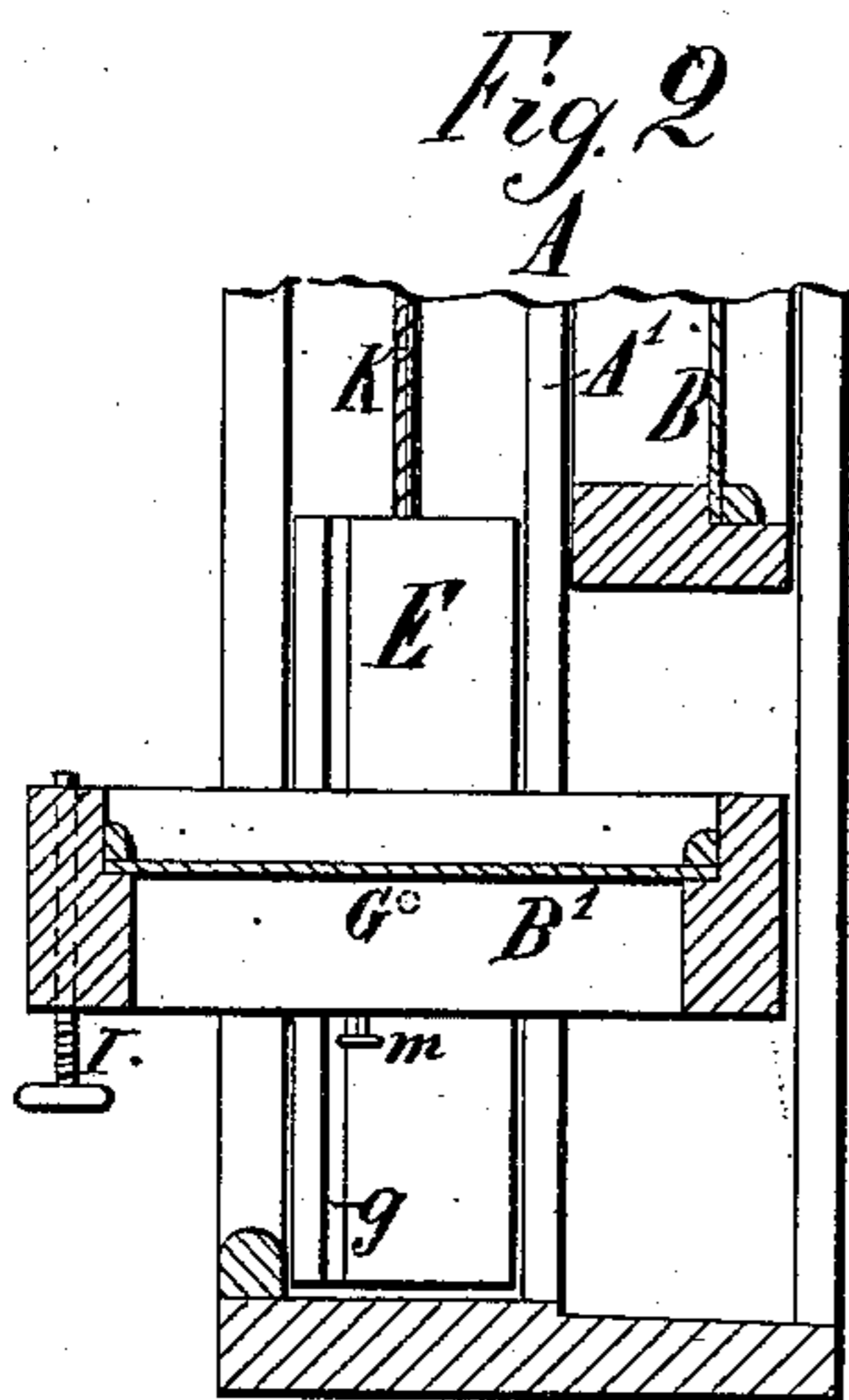
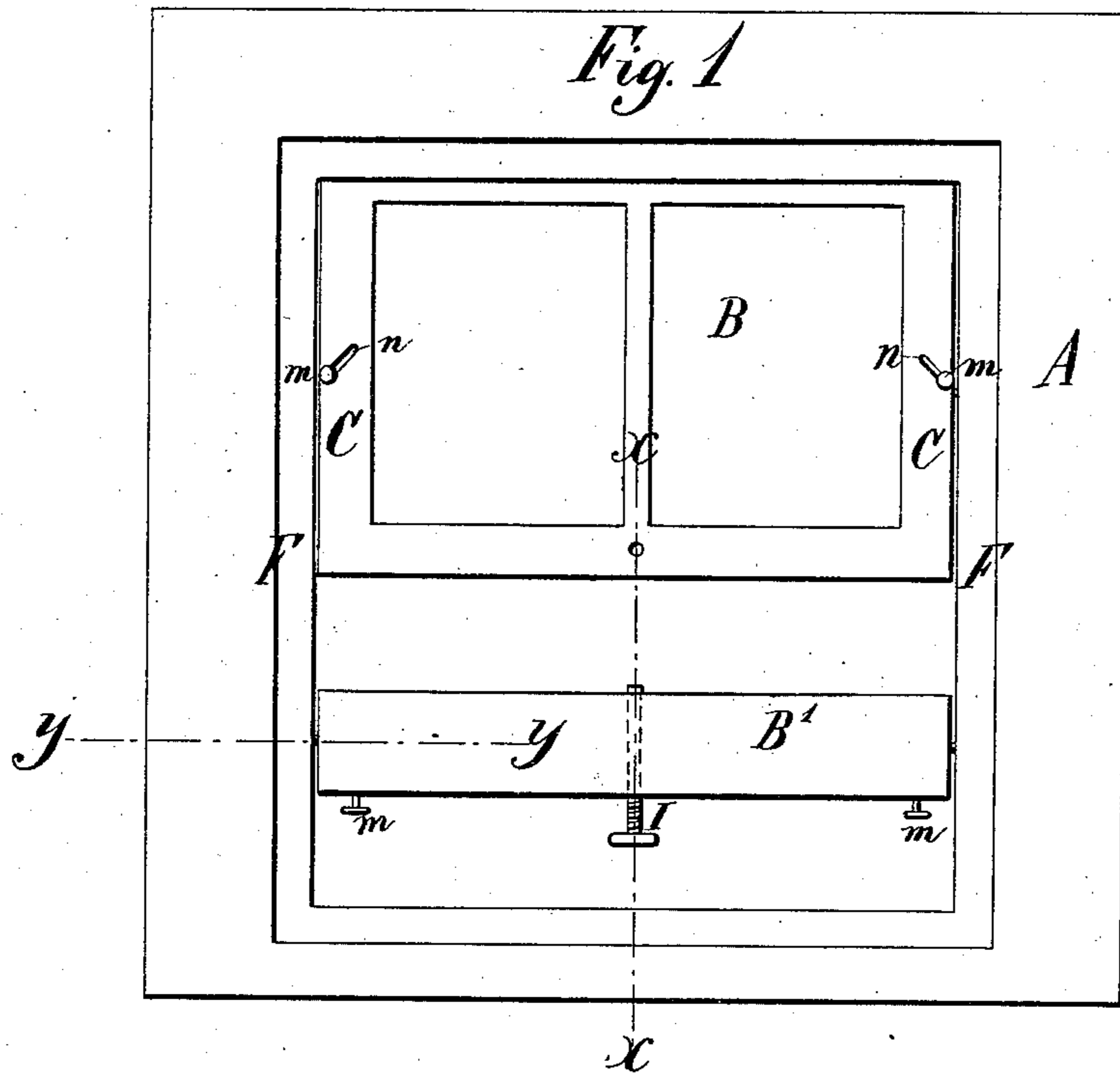


(No Model.)

J. F. COX.
WINDOW SASH.

No. 256,644.

Patented Apr. 18, 1882.



Witnesses:
W. T. Whelpley
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UNITED STATES PATENT OFFICE.

JOHN F. COX, OF BROOKLYN, NEW YORK.

WINDOW-SASH.

SPECIFICATION forming part of Letters Patent No. 256,644, dated April 18, 1882.

Application filed February 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. COX, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Window-Sashes, of which the following is a specification.

The object of this invention is to facilitate the work of cleaning and glazing window-sashes and the ventilation of rooms.

The invention relates to that class of window-sashes that may be turned on side pivots; and it consists in centrally pivoting to the edges of the hanging stiles, by means of a novel device, sliding pieces that move in the pulley-stiles, and to which the sash counterbalance-weights may be connected; and, further, of a sash pivoting or swiveling device of novel construction, and a novel diagonally-moving sash fastening and a locking device, all of which will be hereinafter set forth.

Figure 1 is a front elevation of a window-frame with my improved sash in position. Fig. 2 is a sectional elevation of a portion of the same on line *x x*, Fig. 1. Fig. 3 is a cross-section of a portion of the same on line *y y*, Fig. 1. Fig. 4 is an elevation of a portion of a sash, showing the sash-fastening device in position. Fig. 5 is a sectional elevation of my improved sash swiveling or pivoting device. Fig. 6 is a plan of the same.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents a window-sash frame, of which A' are the lining parting-strip beads, and B B' represent the upper and lower sashes, respectively.

It will be seen that the hanging stiles C of the sashes B B' are reduced or cut away to enable them to swing clear of the parting-strip beads A'. In order to secure the said sashes B B' in place, sliding strips or pieces E E, adapted to fit in the pulley-stiles F, are provided of equal depths and widths with the hanging stiles C, and to these strips E the sashes B B' are centrally pivoted on either side by the pivoting or swiveling devices G.

A swiveling or pivoting device, G, consists of a centrally-perforated plate, G', having on its under side a collar, *a*, of smooth interior,

of a second centrally-perforated plate, G², having on its under side a collar, *b*, of screw-threaded interior, and of a screw-bolt, G³, designed to enter through both plates G' G², and to screw fast in the collar *b* of the latter, while the plate G' may turn or swivel freely about the smooth upper portion of the said screw-bolt shank.

The plates G' are secured to the outside faces of the sliding strips E E by screws (not shown) passing through the plate-holes *c c*, the collar *a* being inserted in a corresponding socket, *d*, formed in said strips E, and the plates G² are in like manner secured upon the outer faces or edges of the sash-hanging stiles C. Then the screw-bolts G³ are inserted in place, as indicated in Figs. 3, 5, and 6, and screwed in as tightly as may be consistent with the free swiveling of the said sashes B B'. The sashes B B', with their connected side strips, E E, are then set in place, and, if desired, the usual cord and counterbalance-weight may be attached in the customary manner to the said strips, as indicated at K, Fig. 2, for holding the sashes at any desired elevation.

In the edge of each sash-hanging stile, and throughout nearly the whole length thereof, is formed a mortise or socket, *f*, while in each opposite strip, E, is formed a corresponding socket or mortise, *g*. Fastening-tongues H, having diagonal slots *i*, are held in the mortises *f* by means of pins *k*, that pass through the sash-stiles and the slots *i*, so that said tongues H may be moved diagonally upward entirely within the mortises *f*, that the said sashes B B' may be turned freely on their pivots G³; or said tongues H, when the sashes are restored to a vertical position, may fall of their own gravity diagonally downward, as indicated in Figs. 3 and 4, into the opposite mortises, *g*, thereby holding said sashes and the strips E E locked and parallel with each other and closing the joints between them to keep out the weather.

A knob or lifter, *m*, secured in each tongue H, and projecting out through a diagonal slot, *n*, in the face of each hanging stile, serves as a handle by which to move the tongue H when it is desired to fix the sashes in vertical posi-

tion, or to unfasten and turn them in any other position.

When the sashes B B' are closed they may be firmly held together, so that they cannot be opened from the outside nor be rattled by the wind, by means of a thumb-screw, I, that is passed from the inside through the horizontal meeting stiles, as indicated in Fig. 1.

Window-sashes constructed and arranged in this manner can readily be turned at any desired angle and be reversed for the purposes of ventilation, cleaning, or glazing, whereby greater comfort to the occupants of the room and the safety of those working upon the windows are assured.

I am aware that it is not new to swivel or pivot window-sashes; hence I do not broadly claim a pivoted or swiveled window-sash; but

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

1. A window-sash constructed substantially as herein shown and described, consisting of mortised sash B, mortised sliding strips

E, diagonally-moving tongues H, and pivoting devices G, all arranged and operated as set forth.

2. The combination, with the sash B, having edge-mortises *f*, diagonal slots *n*, and pins *k*, and sliding strips E, having vertical mortises *g*, of the tongues H, having diagonal slots *i*, substantially as herein shown and described, said tongues being adapted for holding the sash and sliding strips parallel with each other, as set forth.

3. In a window-sash, as a means for pivoting the sash to the side sliding strips, the combination therewith of the pivoting device G, consisting of plate G', provided with collar *a*, of smooth interior plate, G², provided with collar *b*, of screw-threaded interior and screw-bolt G³, arranged and operating substantially as herein shown and described.

JOHN F. COX.

Witnesses:

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