

G. B. SARCHET & G. W. DICKINSON.

SASH-BALANCE.

No. 177,016.

Patented May 2, 1876.

Fig. 1.

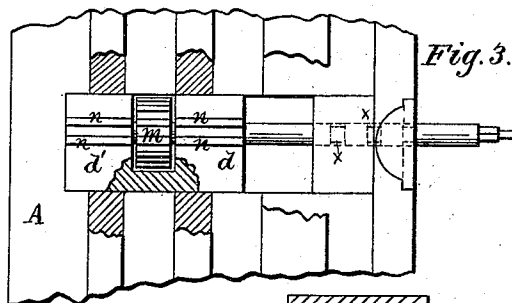
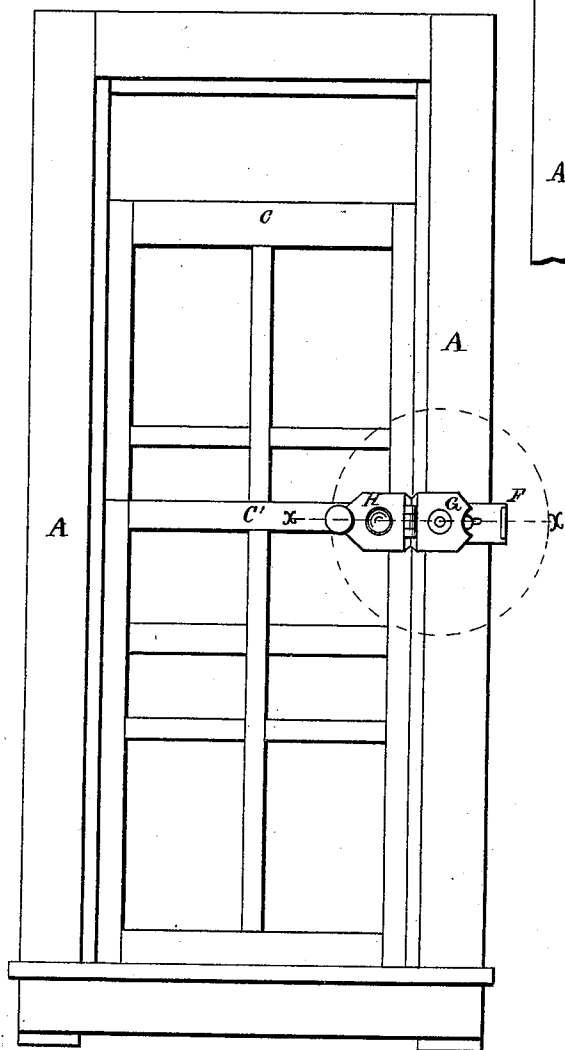


Fig. 2.

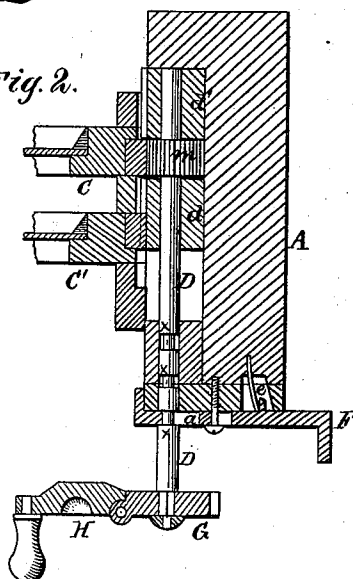


Fig. 4.

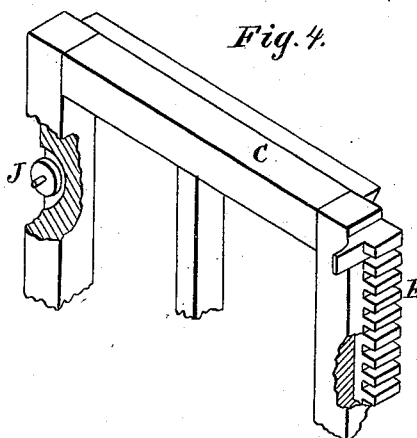
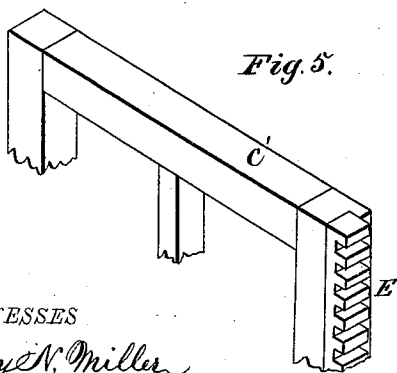


Fig. 5.



WITNESSES

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GEORGE B. SARCHET AND GEORGE W. DICKINSON, OF CHARLESTON, ILL.

IMPROVEMENT IN SASH-BALANCES.

Specification forming part of Letters Patent No. **177,016**, dated May 2, 1876; application filed February 25, 1876.

To all whom it may concern:

Be it known that we, GEO. B. SARCHET and GEORGE W. DICKINSON, of Charleston, in the county of Coles, and in the State of Illinois, have invented certain new and useful improvements in Sash-Locks; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

My invention relates to improvements in sash balances and locks; and it consists in an endwise-moving and rotary shaft, provided with gear-wheel, blocks having feathers or ribs, and annular grooves; also, in the shaft having annular grooves, in combination with the sash having rack-bars, and a locking-slide with spring, all as hereinafter more fully described and definitely claimed.

In the accompanying drawings, making part of this specification, Figure 1 represents a plan view; Fig. 2, a cross-section. Fig. 3 is also a section, and Figs. 4 and 5 are partial perspectives of the sash.

In the figures, A represents the window-frame, and C C' the sash, which are confined in the frame in any well-known and usual manner. Upon one edge of each sash is secured a metallic rack-bar, E. D represents a shaft, which passes horizontally through the frame A, about its center. This shaft is provided with a gear-wheel, *m*, which works in the rack-bars E, for the purpose of raising and lowering the sash. Secured to the shaft, and upon each side of the gear-wheel, are two metallic blocks, *d d'*, which are provided on their side toward the sash with the feathers or ribs *n n*. The shaft is provided with three annular grooves, *x x x*. This shaft has an endwise movement in the frame, as also a rotary movement. The blocks *d d'* move with it endwise, but do not revolve with it. F represents a slide on the outside of the casing A, through which the shaft passes, and G and H represent two parts of a jointed or hinged knob on the outer end of the shaft. In order to move the shaft endwise it is necessary to press the slide F inward, (it being pressed outward by means of a spring, *e*.)

The slide is intended to catch in the grooves in the shaft and prevent it from moving endwise, while it is allowed to revolve.

When the shaft is pushed in as far as it will go, the slide catches in the outer of the three grooves and holds it in place. The gear-wheel then is in gear with the teeth of the rack-bar of the back sash, and by turning the shaft said sash is raised or lowered, and at the same time the feathers or ribs of the front block *d* catch into the teeth of the rack-bar of the front sash and lock it.

When the shaft is drawn out partially, so that the slide will catch in the middle groove, the wheel *m* is out of gear with both of the rack-bars, and the feathers of both blocks pass between the teeth of the two rack-bars and lock them both.

When the shaft is drawn out as far as it will come, and the slide catches into the inner groove *x*, the back sash is locked by the feathers of block *d'*, and the gear-wheel, catching in the rack-bar of the front sash, serves to raise and lower it.

It will thus be seen that we thus have a device which will raise or lower either sash, or lock either or both.

A friction-roller, J, is placed near the bottom and top of each sash on the side opposite the rack-bars, to prevent binding and make the sash move easily.

What we claim as new, and desire to secure by Letters Patent, is—

1. The endwise-moving and rotary shaft D, provided with the gear-wheel *m*, the blocks *d d'*, with their feathers or ribs *n n*, and the annular grooves *x x x*, as and for the purpose set forth.

2. The shaft D, having annular grooves *x x x*, in combination with the sash and their rack-bars, and the locking-slide F and spring *e*, as and for the purpose specified.

In testimony that we claim the foregoing we have hereunto set our hands this 1st day of February, 1876.

GEO. B. SARCHET.

GEORGE W. DICKINSON.

Witnesses:

W. G. CASH,

BEN. DAWSON.