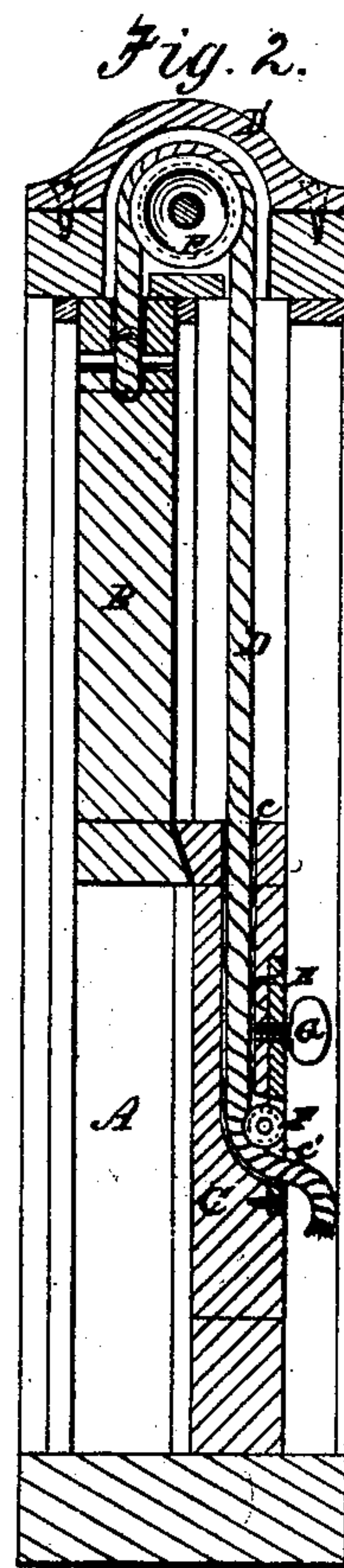
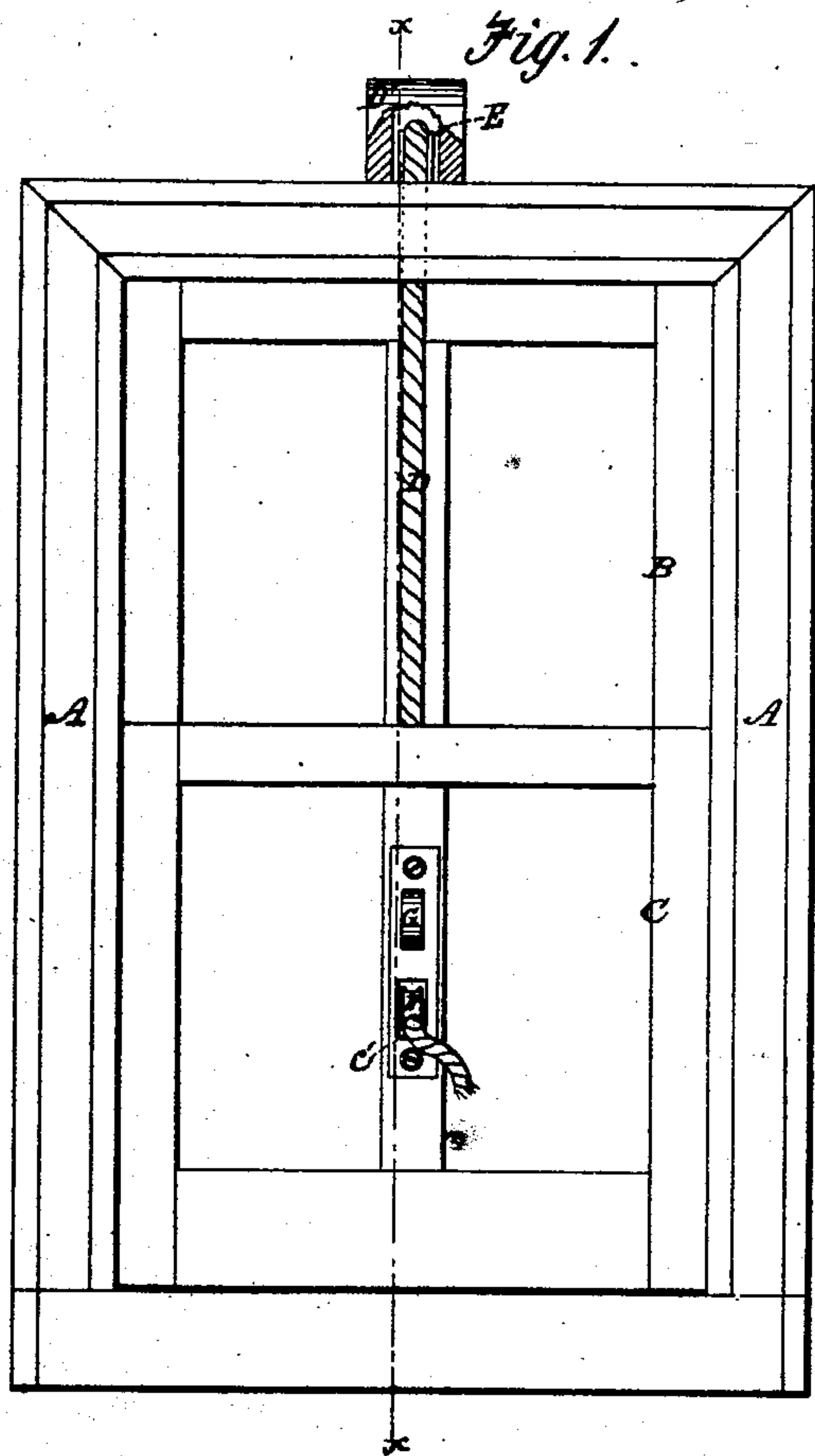


J. BERNDT.
Sash-Balances.

No. 160,145

Patented Feb. 23, 1875.



WITNESSES:
W. W. Hollingsworth
John O. Remon

INVENTOR:
John Berndt
BY *[Signature]*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN BERNDT, OF DENVER, COLORADO TERRITORY.

IMPROVEMENT IN SASH-BALANCES.

Specification forming part of Letters Patent No. **160,145**, dated February 23, 1875; application filed December 28, 1874.

To all whom it may concern:

Be it known that I, JOHN BERNDT, of Denver, in the county of Arapahoe, Colorado Territory, have invented a new and Improved Sash Balance and Fastener; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is a front elevation partly in section; Fig. 2, a vertical section.

The invention consists in bringing down the cord that connects the two sashes through a vertical hole in the top of lower sash into and partly through the mullion, a cord-pulley being arranged within a slot, and a clamp being attached to the mullion surface, all as hereinafter more fully described.

A represents a window frame, and B C the upper and lower sashes that slide up and down therein. I connect the sashes B C by a flexible connection wire or rope, D, having one end attached to the top sash, passing thence over a pulley, E, in the window-frame; thence down through a vertical hole, *c*, in the lower sash C, into and partly through the mullion, over a pulley, F, arranged within a slot, and

out at a front hole, *c'*, the free end projecting within convenient reach. G is a clamp-screw in the mullion of the lower sash that works across the hole *c*, and enables the connecting part of rope D between the two sashes to be shortened or lengthened. The pulley and rope E D may be covered by a plate, D', while a plate, E', may be used to support the clamp-screw and pulley F. By this means I can lower or raise the upper or lower sash without disturbing each other, or I can open them both relatively, as seems most desirable.

I am aware that two sashes have been heretofore conjoined by a cord so as to be held by a clamp at varying elevations; but

What I claim as new is—

The combination, with sashes B C, of the cord D, pulley F, and clamp G, the first being brought down through a vertical hole in the top of lower sash, and partly through the mullion thereof, the second arranged within a slot, and the third attached to the surface of said mullion, as and for the purpose specified.

JOHN BERNDT.

Witnesses:

WILLIAM TENWINKLE,
H. H. THOMAS.