

(No Model.)

J. N. WEISER.  
SASH BALANCE.

No. 452,249.

Patented May 12, 1891.

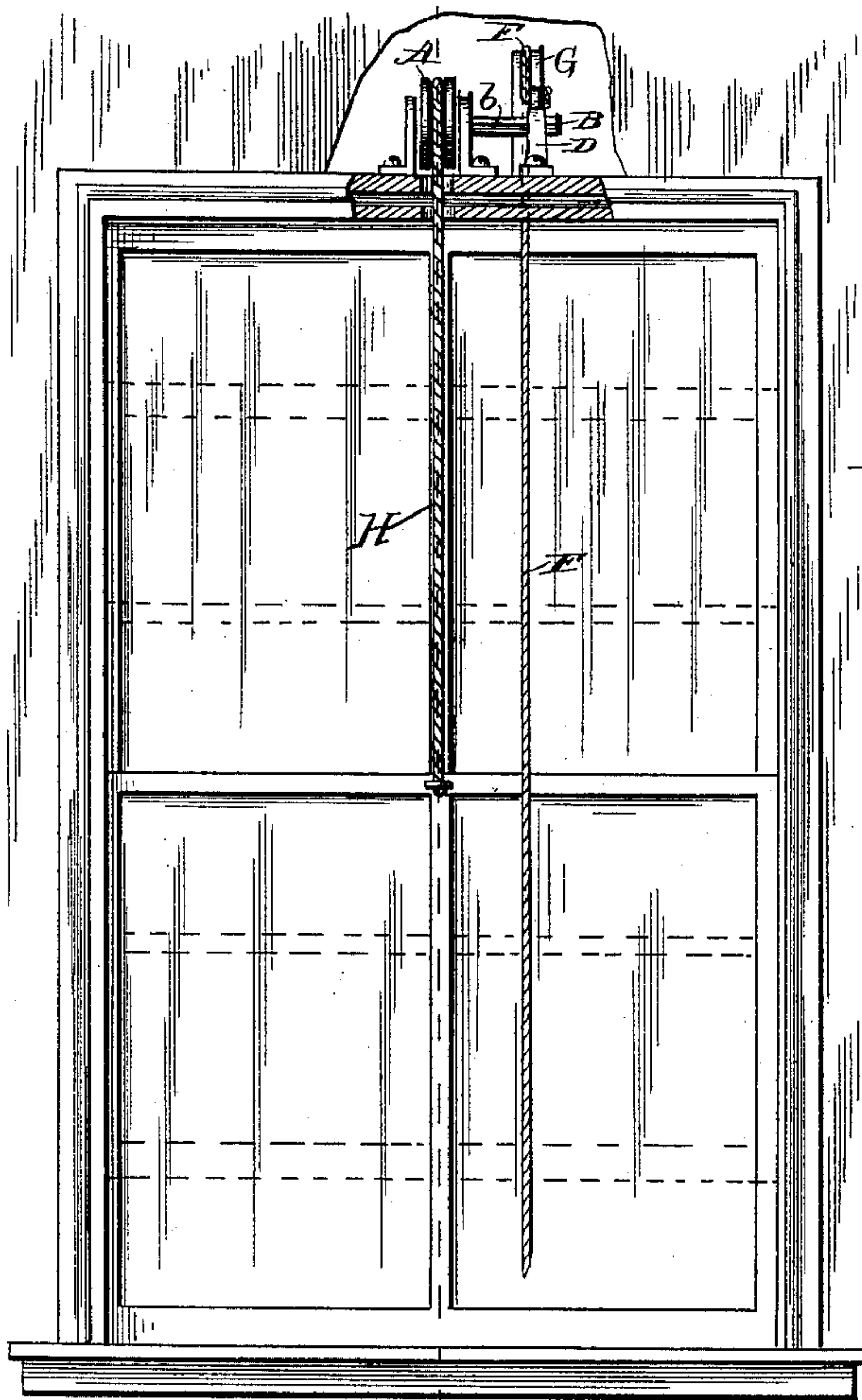


Fig. 1.

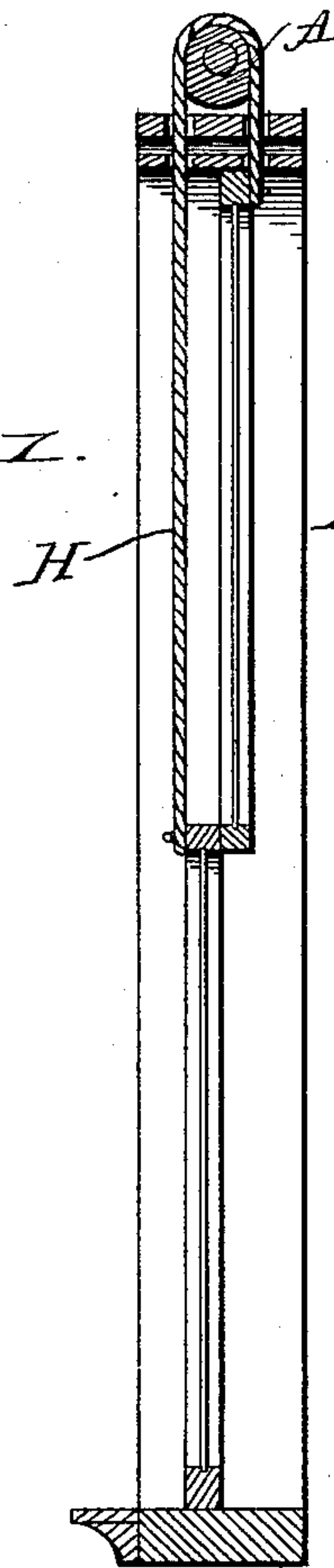


Fig. 2.

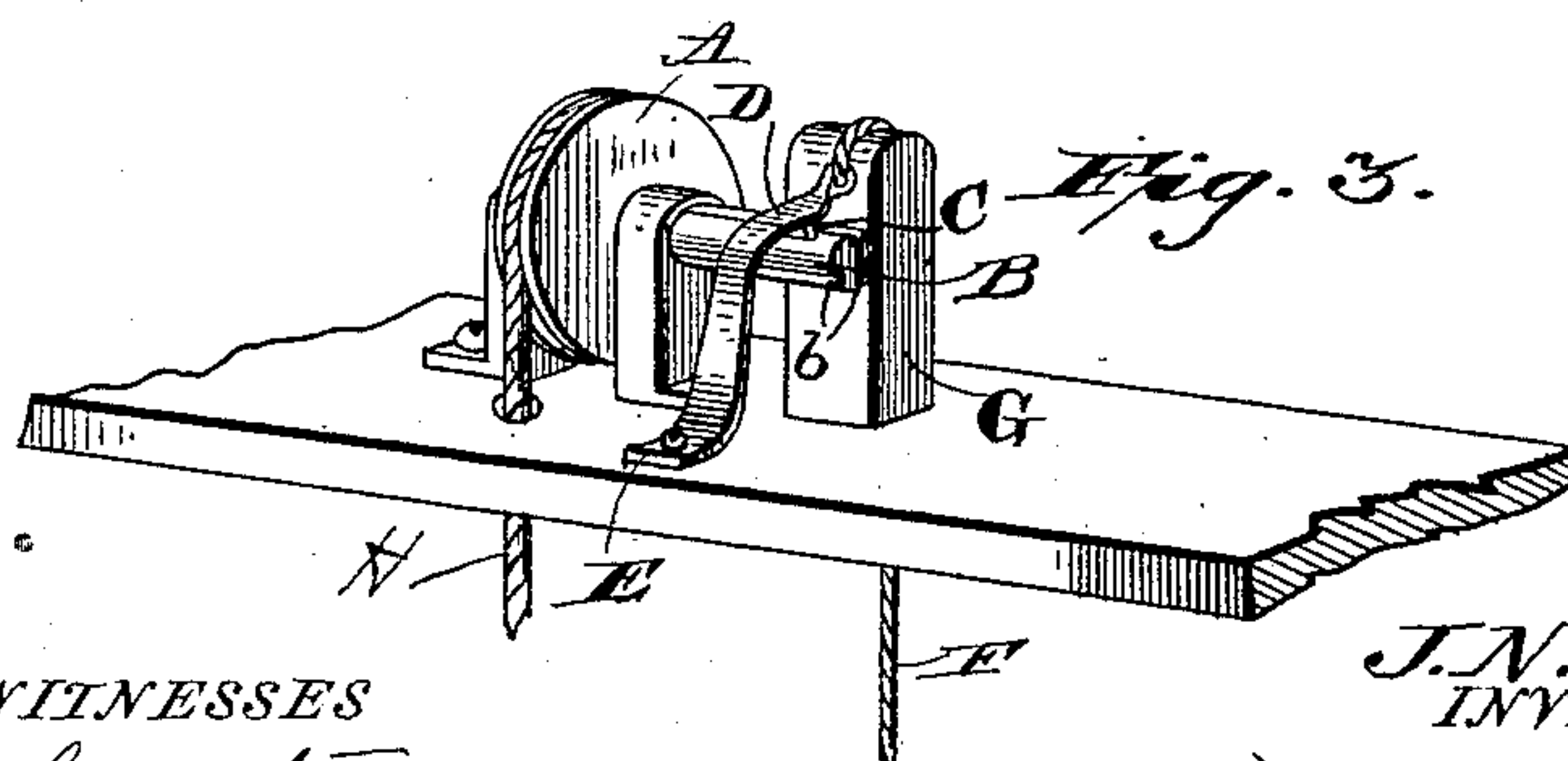


Fig. 3.

WITNESSES

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# UNITED STATES PATENT OFFICE.

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## SASH-BALANCE.

SPECIFICATION forming part of Letters Patent No. 452,249, dated May 12, 1891.

Application filed November 6, 1890. Serial No. 370,461. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN NICHOLAS WEISER, a citizen of the United States, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented certain new and useful Improvements in Sash-Balances; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in sash-balances for windows; and it consists of certain novel features hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a front elevation showing a window-case partly broken away. Fig. 2 is a longitudinal section of Fig. 1. Fig. 3 is a detail of the stop mechanism.

My window-stop consists, essentially, in placing a trolley-wheel, properly mounted in suitable bearings, on the top of a window-frame and connecting the upper and lower sash by means of a cord, made of any preferred material, arranged to pass over the trolley-wheel, so that when the lower sash is raised the upper sash will be simultaneously lowered, and vice versa.

My window-balance will be useful and operative if only the simple trolley-wheel is placed in position in the middle of the upper part of the frame; but I prefer to add thereto certain stop mechanism that will temporarily secure or lock the wheel, and thus hold the sash in the position desired.

Referring to the several parts of my invention by letter, A is the trolley-wheel, mounted in suitable bearings on the upper side of the top part of the casing, immediately in the middle of the window. This wheel is of a suitable diameter to enable the cord to be attached to the sash and raised perpendicularly to pass through a hole in the casing immediately under each edge of the wheel, and thus prevent any friction that might arise from contact of the cord and casing if the diameter of the wheel were greater or less than such perpendicular position of the cord would

necessitate. One end B of the axle carrying the trolley-wheel extends slightly past the bearing and is provided with grooves or notches *b b*, which are adapted to receive the lug C on the under side of the plate D, and be thus secured in a locked position. The plate D is preferably made of a piece of spring-steel, and has one end E thereof secured to the casing by screws or other preferred means, while the other end reaches over and past the extended end B of the axle, so that the lug C will engage with the grooves *b* when the trolley is rotated. The free end of the plate D is continued slightly past the axle and is provided with a hole adapted to receive the cord F, which passes upward over the block G, which block is secured to the upper side of the casing near the end of the plate D, and it will be seen that when a downward pull is given upon the cord F it will raise the plate D sufficiently to draw the lug C out of contact with the grooves *b* in the end of the axle, and thus permit the axle to rotate in either direction desired. When the cord F is released, the tension of the plate D will cause the lug C to enter one of the grooves, and thus lock the wheel against further rotation, and thereby hold the sash in any position desired.

Believing that the advantages, operation, and construction of my improved sash-balance will be readily understood from the foregoing description, taken in connection with the accompanying drawings, further reference thereto is deemed unnecessary.

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

In a sash-balance, the combination of the trolley, the axle secured thereto and projecting past the bearings and having the longitudinal recesses or grooves, the spring-plate secured to the upper side of the window-casing and having on its under side the projecting lug adapted to enter one of the grooves in the extended end of the axle, the cord, one end of which is secured to the free end of the plate and the other reaching over the block G and adapted to raise the plate, the



block G, secured to the upper side of the casing near the free end of the plate in such a position that the cord, when passed over such block, will raise the lug out of engagement  
5 with the groove in the axle, and the cord II, connected at either end to the sash and passing over the trolley, all substantially as described, and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN NICHOLAS WEISER.

Witnesses:

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GEORGE H. HETZEL.