(No Model.)

G. WICKS.

WINDOW.

No. 450,752. Patented Apr. 21, 1891.

FIG. 1.

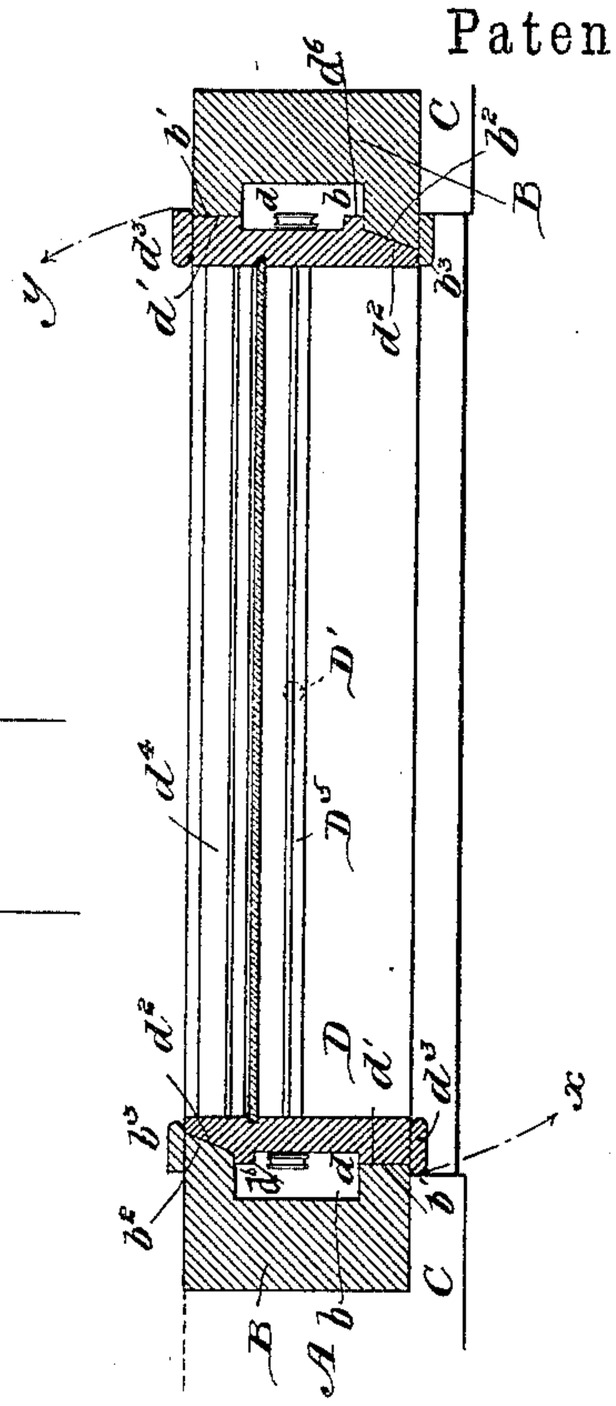

FIG. 2.

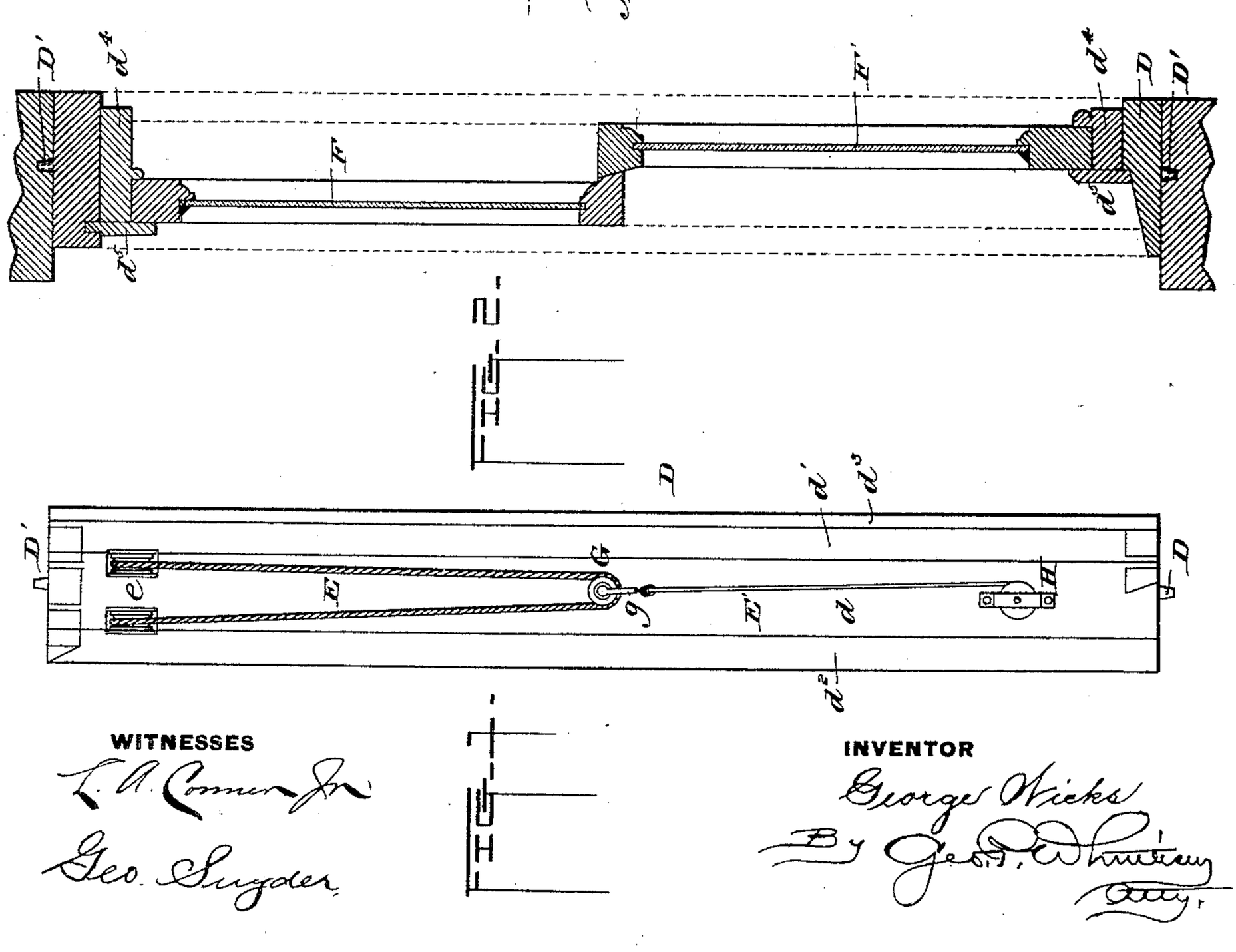

FIG. 3.

WITNESSES

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GEORGE WICKS, OF AYTON, SCOTLAND, ASSIGNOR OF ONE-HALF TO LOUIS N. FORT, OF NASHVILLE, TENNESSEE.

WINDOW.

SPECIFICATION forming part of Letters Patent No. 450,752, dated April 21, 1891.

Application filed June 28, 1890. Serial No. 357,047. (No model.) Patented in England November 8, 1887, No. 15,188.

To all whom it may concern:

Be it known that I, GEORGE WICKS, a citizen of the Kingdom of Great Britain, residing at Ayton, in the county of Berwick, Scotland, have invented certain new and useful Improvements in Windows; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to windows, and has for its object to render the outside of the window readily accessible for cleaning, and also to dispense with sash-weights.

Letters Patent for this invention were granted in Great Britain on November 8, 1887, No. 15,188.

In the accompanying drawings, Figure 1 is a side view of a window-frame, showing my substitute for sash-weights. Fig. 2 is a vertical section, and Fig 3 a horizontal section.

The same reference-letters are used in all the figures.

The wall A of the building is provided with battens B, over which laps the stone-work or other trimming C around the outside of the window. The opposing faces of the battens are recessed at b. On one side of the recess is a flat face b', while on the other is a chamfered face b^2, the latter being on the outer edge of one batten and on the inner edge of the other, as shown.

The window-frame D is formed to fit the flat and chamfered faces of the battens, having flat faces d' and chamfered faces d^2 alternately arranged. Adjacent to each face d^2 there is preferably a rib or bead d^6 to come against the inner edge of the recess b, said rib being adjacent to a recess d, formed in the side of the frame D. In the middle of the top and bottom rails of the window-frame D is a pivot or gudgeon D′, which projects into a socket formed in the lintel and sill of the casing. The frame is thus rendered capable of being rotated on a vertical axis, so as to reverse it, bringing its outer side inmost. The outside of the window can thus be cleaned as readily as the inside without compelling the servant to risk life and limb by leaning out of the window or climbing out upon the sill, as in the case of fixed frames. The frame moves in the direction of the arrows $x\,y$, and when closed it fits tightly against the battens, the chamfered faces $b^2\,d^2$ acting on the wedge principle to make a tight joint, and the checks $b^3\,d^3$ overlapping the joint and insuring a complete protection from wind and rain. If desired, suitable packing—such as a strip of rubber, listing, or felt—can be so attached as to come between the meeting faces of the frame and battens.

In place of sash-weights I use the following arrangement: The two ends of a cord or chain E are passed through the frame D from outside, running over the pulleys e and being attached to the upper and lower sashes F F′. A similar cord or chain is provided on the other side of the frame. In the bight of each cord is suspended a pulley G, provided with a yoke g, to which is fastened a cord or chain E′, the lower end of which is attached to a spring-actuated drum H, suitably mounted on the lower part of the frame D. All these parts are received in the recesses $b\,d$ in the battens B and the frame D. The tendency of the spring-drum is to reel in the cord E′, so that when the upper cord E is slackened by raising either of the sashes F F′ the slack will be immediately taken up by the drum, whose spring is strong enough to sustain the strain due to the weight of the sash. By this arrangement the sashes can be operated independently, and yet each will be perfectly counterbalanced in all its positions. It is obvious that this sash-balance can be applied to any window in place of the weights now so generally used.

The window-frame is preferably provided with false top and bottom rails d^4, which are rabbeted to receive the sashes when closed, and thereby make a tight joint. A lap-piece d^5 may be attached on the outside, either to the false rail or to the sash, to effect a more perfect closure of the joint. The upper lap-piece fits in a groove, as shown, and the lower lap-piece passes down over the joint between the sash and false rail, and also that between the false and main rails.

I am aware that window-sashes have been arranged to turn on vertical pivots in their frames instead of sliding up and down therein; but my invention has in view a construction whereby the sashes can be raised and lowered, as usual, in the frame, while at the same time the entire frame with its contained sashes can be turned to give access to the outside of the window-panes, and when so turned the sashes can be raised and lowered to come at the upper sash for cleaning.

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

1. The combination, with the wall-battens B, having the flat and chamfered faces b' b^2, of the window-frame D, having the corresponding faces d' d^2, the pivots D′ in the middle of the frame, entering sockets in the sill and lintel, and the counterbalanced upper and lower sliding sashes F F′, sliding in the frame D, substantially as described.

2. The combination, with the wall-battens B, having the flat and chamfered faces b' b^2, of the pivoted window-frame D, having the corresponding faces d' d^2 and the recess d in the sides, the upper and lower sliding sashes F F′, mounted in the frame D, the pulleys e, the cords E, and sash-balances located in the recess d of the frame, substantially as described.

3. The combination, with the wall-battens B, having the recess b and the flat and chamfered faces b' b^2, of the window-frame D, pivoted to turn on a central vertical axis and having the recess d and the flat and chamfered faces d' d^2, substantially as described.

4. The combination, with the wall-battens B, having the flat and chamfered faces b' b^2, of the window-frame D, rotatable on a vertical axis and having the flat and chamfered faces d' d^2, the checks b^3 d^3, the rabbeted false rails d^4, and the lap-pieces d^5, substantially as described.

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

GEORGE WICKS.

Witnesses:

ANDREW MACVIE,

CHARLES HERRIOT.