

(No Model.)

A. DIFFENDERFER & J. ZERBY.

SASH HOLDER.

No. 343,570.

Patented June 15, 1886.

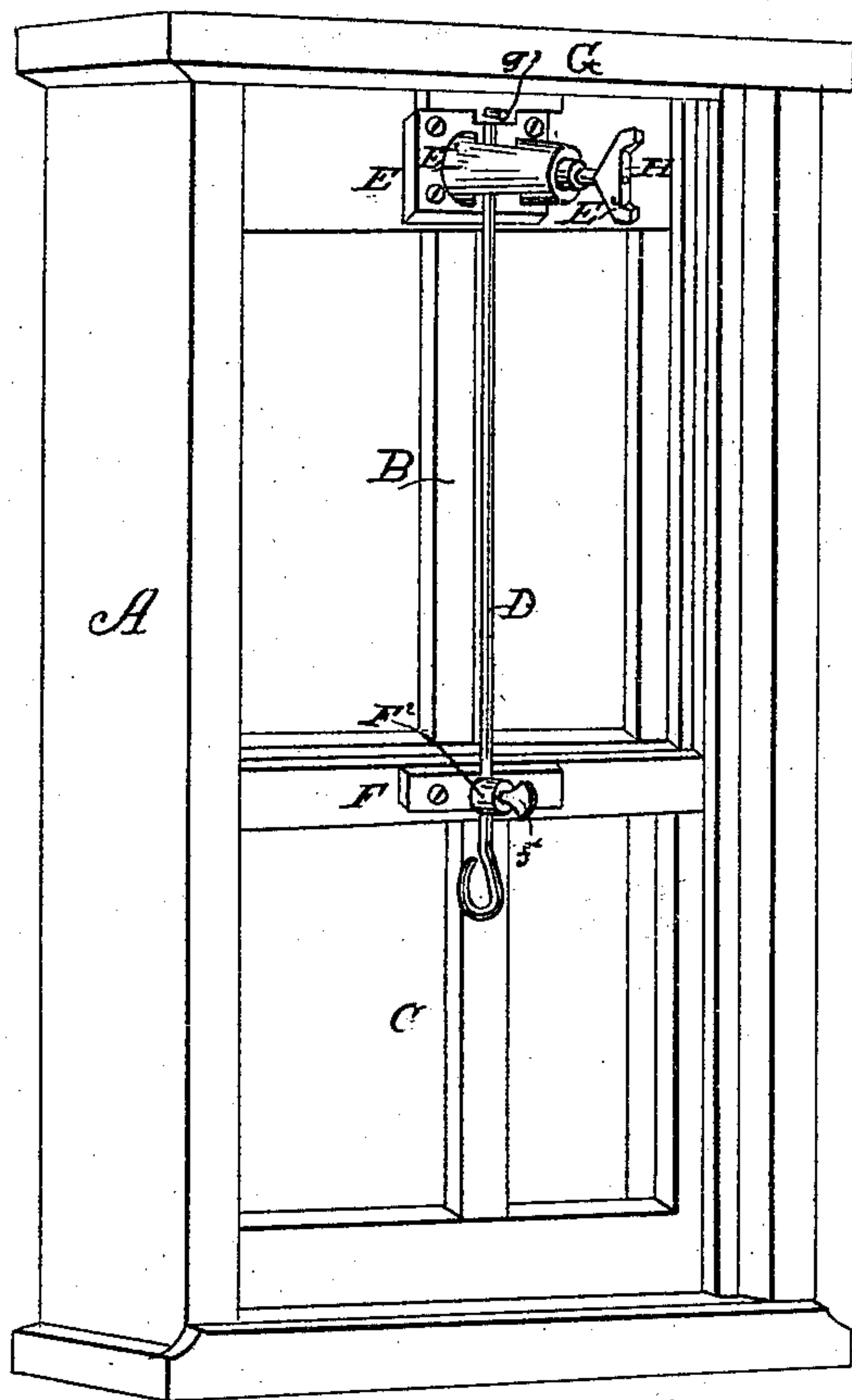


Fig. 1.

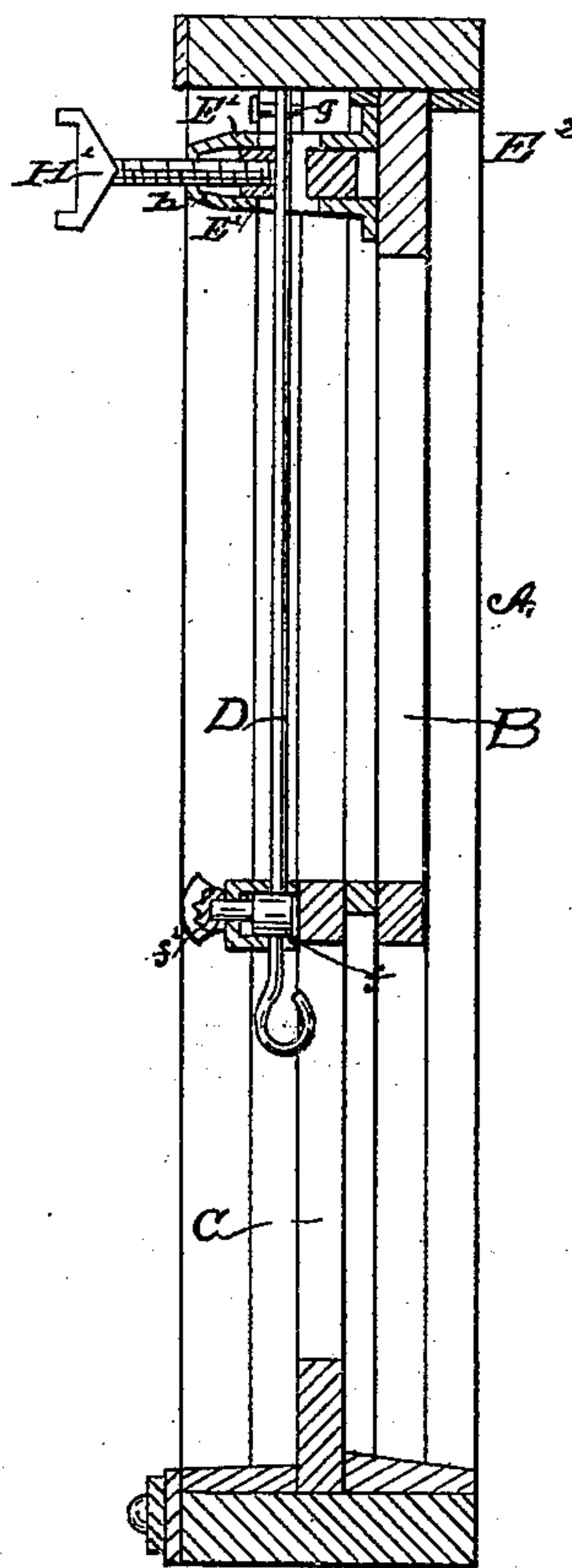


Fig. 2.

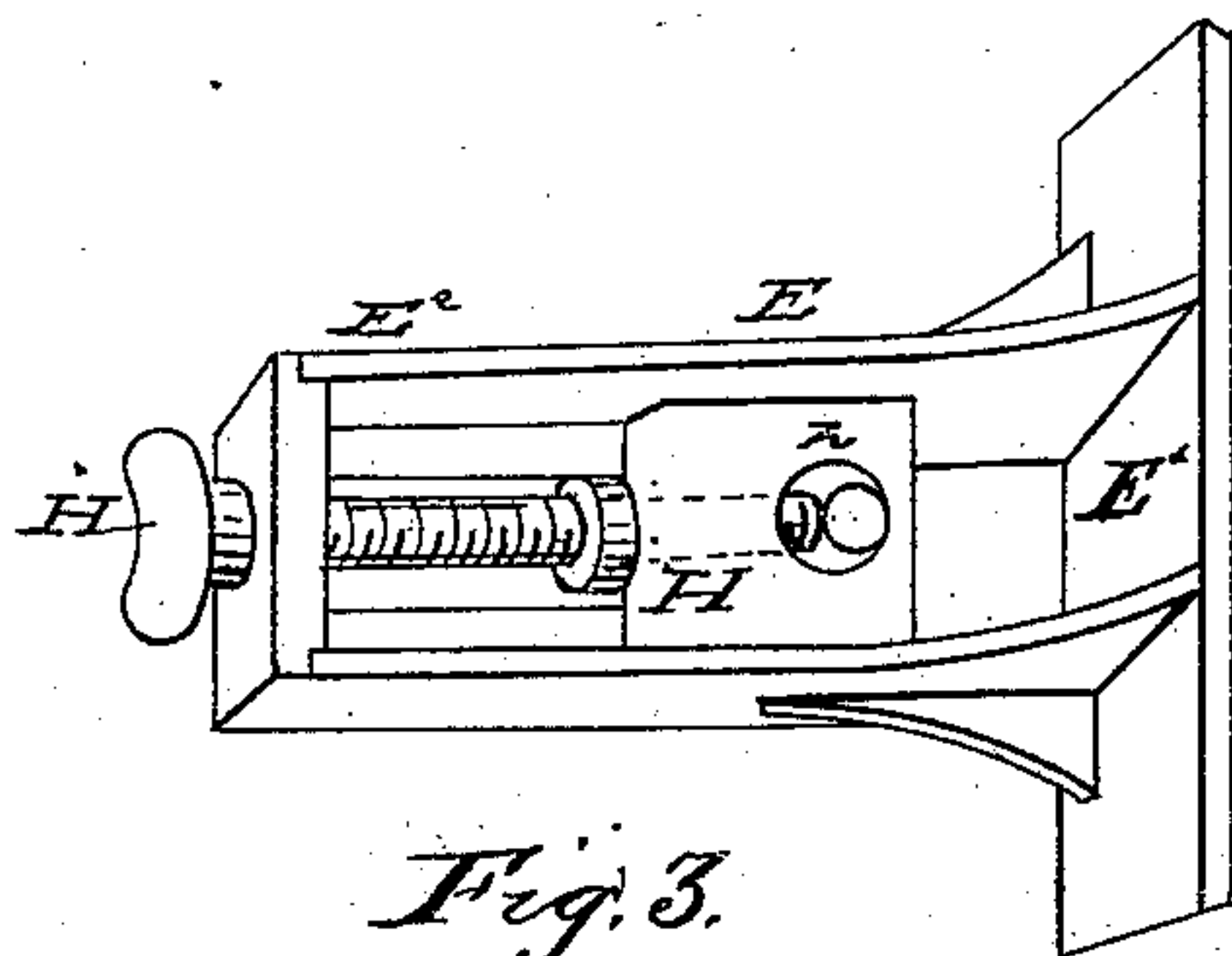


Fig. 3.

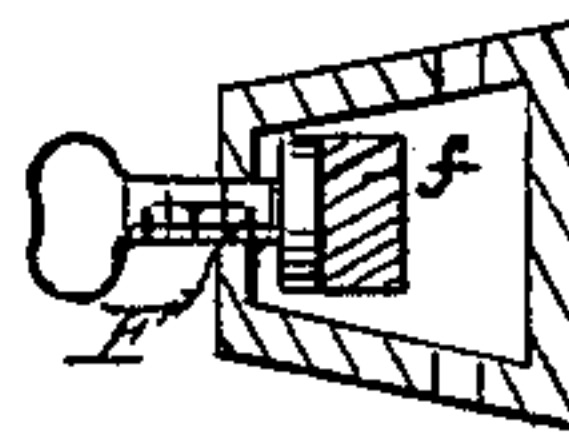


Fig. 4.

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UNITED STATES PATENT OFFICE.

AARON DIFFENDERFER AND JACOB ZERBY, OF ALLENSVILLE, PA.

SASH-HOLDER.

SPECIFICATION forming part of Letters Patent No. 343,570, dated June 15, 1886.

Application filed March 31, 1886. Serial No. 197,342. (No model.)

To all whom it may concern:

Be it known that we, AARON DIFFENDERFER and JACOB ZERBY, citizens of the United States, residing at Allensville, in the county of Mifflin and State of Pennsylvania, have invented certain new and useful Improvements in Sash-Holders; and we 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 and figures of reference marked thereon, which form a part of this specification.

This invention relates to sash-holders of that class in which one sash is adjusted over the other by means of a rod passing through keepers secured to each, said rod being detachably connected with the top of the frame so that the sashes may be adjusted independently of each other, or the upper one be adjusted by means of the rod, and held in such position by the keeper on the lower sash. As the sliding sashes are not in the same plane, various devices have been devised for aligning the openings in the keepers in such manner that the connecting-rod will be parallel with the plane of each sash. This result has been effected by building up the upper keeper by interposing a filling between it and the sash, or by increasing the length of the keeper. Such construction and arrangement is objectionable in that the keepers cannot be readily and properly applied to sashes of varying thicknesses.

The object of the present invention is the combination and construction, with sliding sashes of varying thicknesses, of a holding device which may be readily and properly applied thereto directly without the necessity of the interposition of filling pieces between the sash and keeper, or any other preliminary steps whatsoever to produce an aligning of the apertures of the keepers on each sash.

For this end and such others as may pertain to the nature of the invention, it consists in the novel features more fully hereinafter set forth and claimed, and shown in the annexed drawings, in which—

Figure 1 is a perspective view of a frame provided with a pair of sliding sashes having our improvements attached. Fig. 2 is a vertical central cross-section. Fig. 3 is a perspective

view of a modified form of keeper. Fig. 4 is a sectional detail of a modified form of keeper.

The frame A, upper and lower sliding sashes B and C, respectively, are of any ordinary construction, and are shown to illustrate the application of our improvement. The sashes are adjusted the one over the other and held in such position by a rod, D, passing through keepers E and F secured to the upper rails of the sashes B and C, respectively. The upper end of the rod is straight, so that it may be readily passed up through the vertical apertures in the keepers, and it is provided with a transverse aperture which coincides with a corresponding opening in a plate or bracket, G, attached to the frame when the end is inserted therein. A pin, *g*, passing through the openings in the bracket and the end of the rod holds the parts together and prevents vertical movement of the rod, but permits the sashes to be adjusted thereon.

Keeper F comprises a plate, F', having a tubular extension, F², binding-block *f*, and thumb-screw *f'*. Binding-block *f* is enlarged on its inner end, which is increased by the extension F². Its outer end is reduced and threaded to receive the thumb-screw, which bears on the outer end of the extension and effects a sliding in and out of the block, according as the screw is turned either to the right or left, thereby causing a clamping of the rod D passing through vertical openings in the block and extension between the inner or rear wall of the vertical opening in the block and the outer or front wall of the vertical aperture in the extension in a manner readily comprehended.

Keeper E comprises a base, E', guide E², sliding block H, and the adjusting clamp-screw H'. In Fig. 2 the guide is shown as consisting of a tube transversely slotted to permit the passage of the adjusting-rod D. Fig. 3 shows such guide as composed of arms between which the block H has a free sliding movement. Block H is transversely apertured at *h* to admit the passage of the rod D. The outer end of the guide is closed or united by a cap having an opening, *h'*, therethrough in the plane of the opening *h* in the block for the reception of the screw H', which, passing through the opening *h'* and a threaded opening, *h*², in the side of the block, and projecting into opening *h*, binds the

rod D between its end and a side of the opening *h*.

It is well known that sashes vary in thickness according to size and strength.

5 Guide E^2 is made of sufficient length to permit of the movement of the block H, so that its opening *h* may come directly over the rod-opening in the lower keeper.

10 In practice the sashes having been provided with keepers, the vertical openings in the same are brought into alignment by disconnecting the screw of the upper keeper from the movable block, and then passing the rod through both keepers, which will bring the movable
15 block into the position so that the vertical opening therein will be directly above the vertical opening in the lower keeper. The clamping-screw being now brought into engagement with the movable block the position of the
20 same is fixed relative to the guide by reason of the screw engaging the latter. When the screw is disengaged from the movable block of the upper keeper, said block may be adjusted in or out to suit the thickness of the lower sash,
25 so that the rod openings in both keepers may be in the same vertical line.

To protect the rod D, when highly polished or plated, the binding-block *f* may be constructed of hard wood or any other suitable
30 material. When so made, the protruding threaded neck of the binding-block *f*, as shown and hereinbefore described, is changed for a thumb-screw by which, when screwed into tubular extension F^2 , the binding-block *f* is
35 thereby pushed against the rod D, binding or clamping it tightly. A metal plate being placed between the point of the thumb-screw and end of binding-block next to said thumb-screw insures the binding-block from being penetrated
40 by the point of screw, thus protecting the binding-block when constructed of any soft material.

When our improvement in its modified form is applied to high or other windows where the

sashes are operated by the lower keeper, F , only, 45 the rod D should be of sufficient length to permit of a suitable lift or hand-hold on its lower end at a proper distance below the keeper F .

We do not confine ourselves to fastening the rod D to window-frames by the aid of the pin 50 G , as a short set-screw screwed in the side of the bracket till its point slightly enters the opening in upper end of rod D can be substituted. When thus connected, we claim the rod D is well secured to frame, and also detach- 55 able. It need have no opening at its upper end, a simple countersink instead being substituted.

Having thus described our invention, what we claim, and desire to secure by Letters Pat- 60 ent, is—

1. The combination, with the sliding sashes and the adjusting-rod, of a keeper consisting of a vertically-apertured tubular extension, a correspondingly-apertured block located with- 65 in the extension, and having a threaded stem projecting beyond the end of the tube, and a thumb-screw on the end of the extension, substantially as and for the purpose set forth.

2. The combination of the frame having a 70 vertically-apertured bracket depending from its top, a pair of sliding sashes, a keeper secured to the lower sash, and having its opening in line with the opening in the bracket, a guide fastened to the upper sash, a clamp adjustably 75 supported by said guide to permit the aligning of the same with the bracket and keeper, and an adjusting-rod passing vertically through the keeper and clamp and detachably connected with the bracket, substantially as and for 80 the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

AARON DIFFENDERFER.
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Witnesses:

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