

No. 675,165.

Patented May 28, 1901.

G. PUBANZ.
WINDOW FRAME AND SASH.

(Application filed Feb. 25, 1901.)

(No Model.)

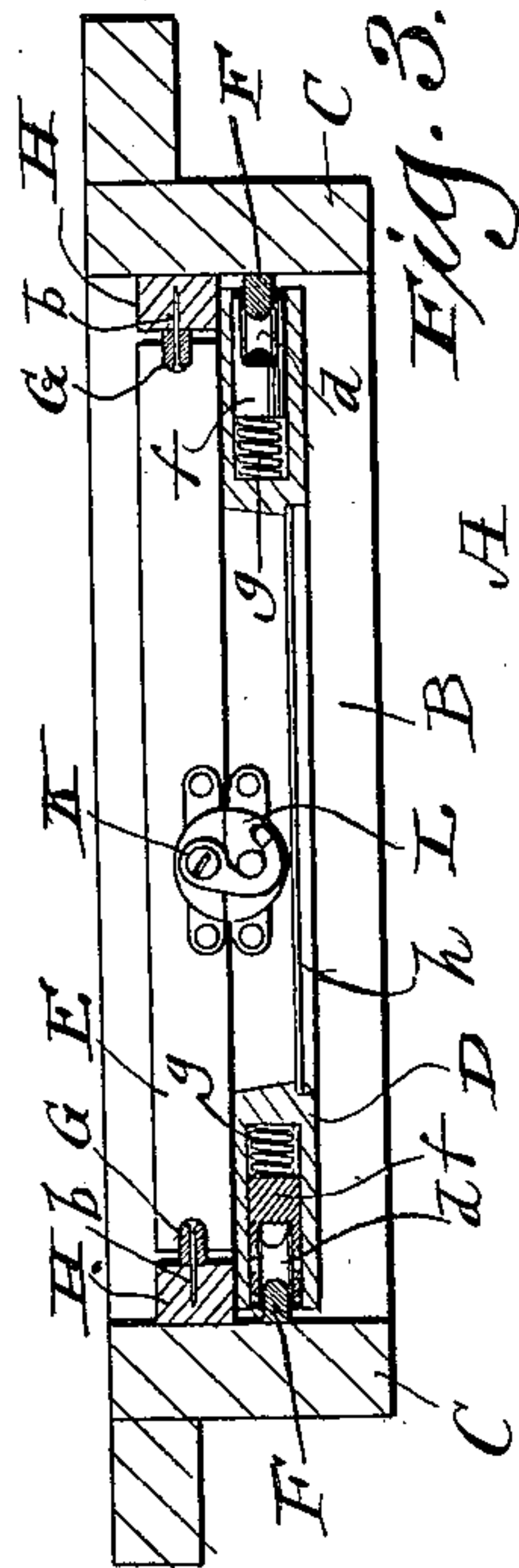


Fig. 3.

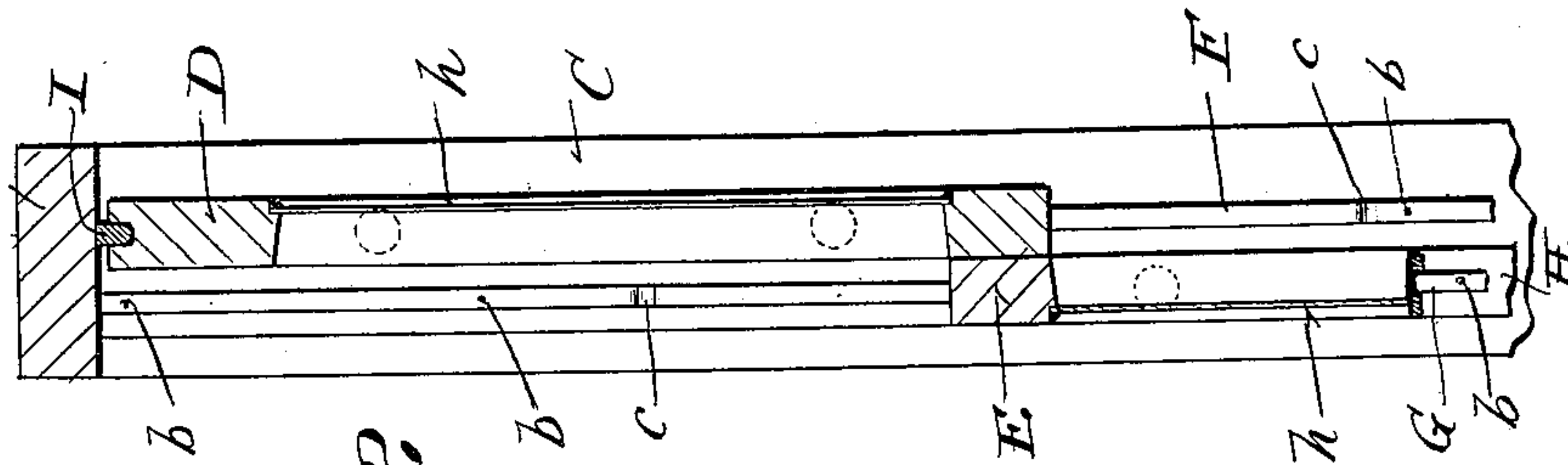
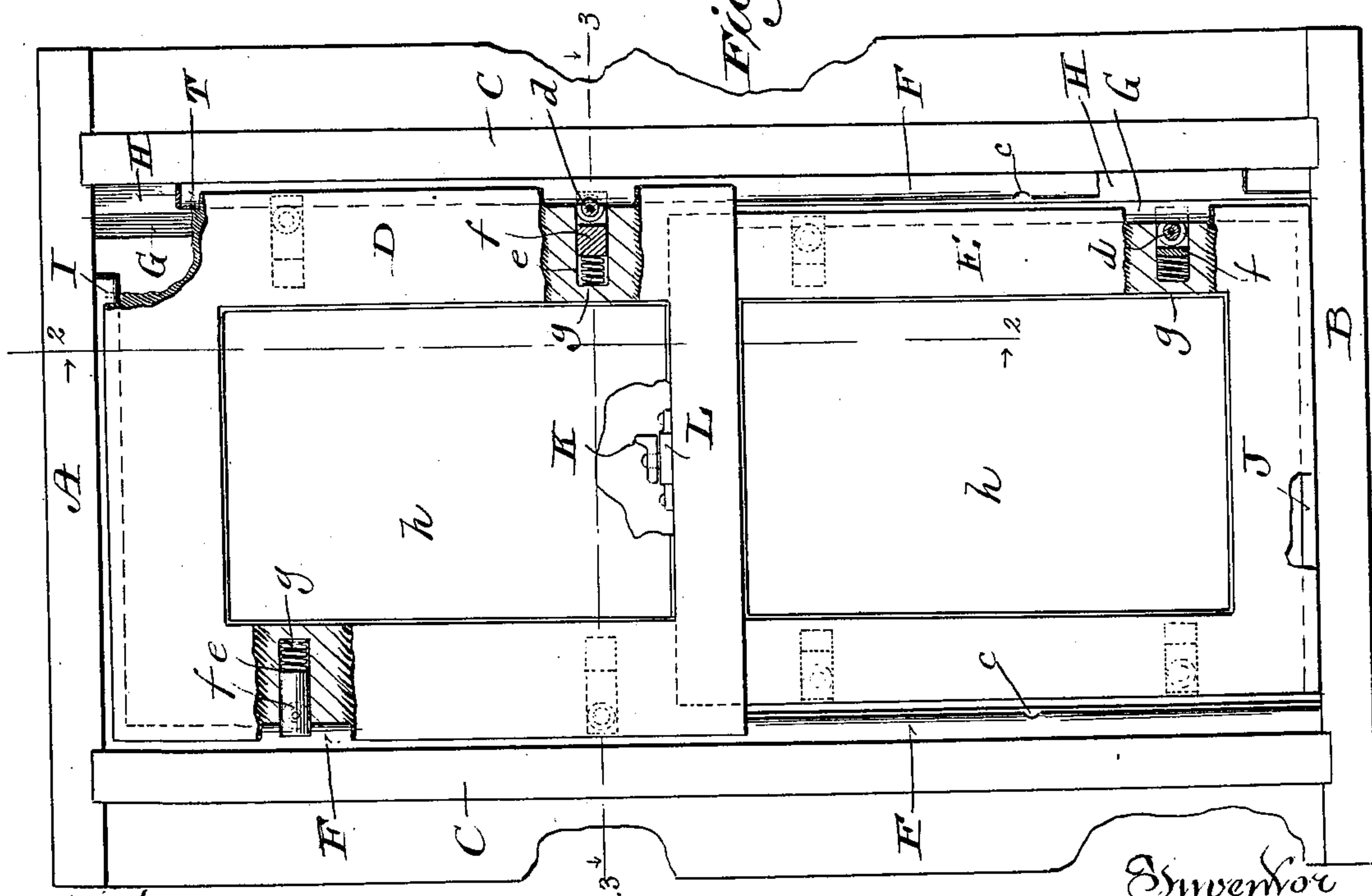


Fig. 2.

Fig. 1.



Witnesses:
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UNITED STATES PATENT OFFICE.

GUSTAV PUBANZ, OF MILWAUKEE, WISCONSIN.

WINDOW FRAME AND SASH.

SPECIFICATION forming part of Letters Patent No. 675,165, dated May 28, 1901.

Application filed February 25, 1901. Serial No. 48,640. (No model.)

To all whom it may concern:

Be it known that I, GUSTAV PUBANZ, a citizen of the United States, and a resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Window Frames and Sashes; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has especial reference to the frames and sashes of windows wherein cords and weights may be dispensed with and the sashes held at any desired elevation; and it consists in certain peculiarities of construction and combination of parts, as will be fully set forth hereinafter in connection with the accompanying drawings and subsequently claimed.

In the drawings, Figure 1 is a view of my improved device shown in elevation and taken from the outside looking toward the interior and with portions of the frame and sashes broken away to better illustrate certain details of construction. Fig. 2 is a vertical sectional view taken on the line 2 2 of Fig. 1. Fig. 3 is a horizontal sectional view taken on the line 3 3 of Fig. 1.

Referring to the drawings, A represents the top rail, B the sill, and C C the side rails, of the window-frame.

D represents the outer and upper sash, and E the inner and lower sash. One of these sashes (D in the illustration given) is of considerably greater width than the other, and both sashes are formed with grooves in their outer side edges, which receive and slide upon vertical guide-strips secured to the window-frame, thereby doing away with the use of parting strips or recesses in said frame, as commonly employed.

F F represent the guide-strips for the outer sash D, said strips being removably secured directly to the side rails C C of the window-frame, and G G designate the guide-strips for the inner sash E, and as said sash E is narrower than the other sash these guide-strips G G are secured to vertical rails H H, secured to the side rails C C of the window-frame, the attachment of all the guide-strips being by nails or screws b b at intervals, so that said strips may be easily removed and replaced in the assembling of the various parts. Fur-

ther, all the said guide-strips are formed at intervals with notches c c in their outer faces for engagement with the rollers d d of the spring-detent devices in the sashes, as next described.

The sashes are formed with recesses e e in their side edges for the reception of the spring-detent devices just referred to, the same comprising blocks f, whose outer ends are forked to receive grooved rollers d, journaled therein, while between the closed inner ends of the blocks f and the bottom walls of said recesses e there are interposed springs g, whose tendency is to always force the blocks outward, so that their forked ends will embrace and travel on the described guide-strips, while the rollers in the blocks bear against the outer edges of the said guide-strips, and when one of the notches c therein is reached the spring g will force the roller into the same, thereby affording a hold in addition to the frictional contact always present and preventing the sash from falling by its own weight, and yet this detent being of only sufficient force to do this, so that a sharp pull or push on the sash will cause the pulley to travel out of the notch and permit the sash to be raised or lowered, as desired.

The described supplementary rails H H serve to exclude dust, moisture, and air, and the upper sash is preferably formed with a groove in its upper rail to receive a horizontal strip I, secured to the under side of the top rail A of the window-frame, so as to make a closer union of the frame and upper sash when the latter is fully raised, and preferably there is a corresponding horizontal strip J secured to the sill B and a groove in the lower rail of the lower sash E to effect a similar tight closure between the sill B and sash E when the latter is fully closed. The sashes may be provided with any suitable locking device, as shown at K L, for keeping them in the fully-closed position.

While I have illustrated the sashes in the present case as fitted with glass panes h, it will be understood that one or both of said sashes may be fitted with screens instead, and also that by the use of additional guide-strips, like F G, additional sashes to serve as either screen-sashes or double windows may be employed, the said guide-strips being readily re-

movable when not needed without any change whatever in the construction of the window-frame.

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

1. A window-frame having a series of vertical guide-strips removably secured to the side rails thereof, in combination with window-sashes having grooved side rails adapted
10 for vertical sliding engagement with said guide-strips, and grooved rollers journaled in spring-controlled blocks inserted in recesses in said side rails of the sashes for frictional
15 engagement with said guide-strips.

2. A window-frame having a series of vertical guide-strips removably secured to the side rails thereof, and said guide-strips being formed with notches, at intervals, in their

outer surfaces, in combination with window-sashes, having grooved side rails, adapted for vertical sliding engagement with said guide-strips, and horizontal recesses communicating with said grooves; detent-blocks having closed inner ends and forked outer ends; grooved
25 rollers journaled in said forked ends of the blocks; and springs interposed between the closed inner ends of the blocks and the bottom walls of the said recesses.

In testimony that I claim the foregoing I
30 have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

GUSTAV PUBANZ.

Witnesses:

H. G. UNDERWOOD,
B. C. ROLOFF.