

(No Model.)

3 Sheets—Sheet 1.

C. L. BOEHME.
TRANSOM LIFTER.

No. 483,597.

Patented Oct. 4, 1892.

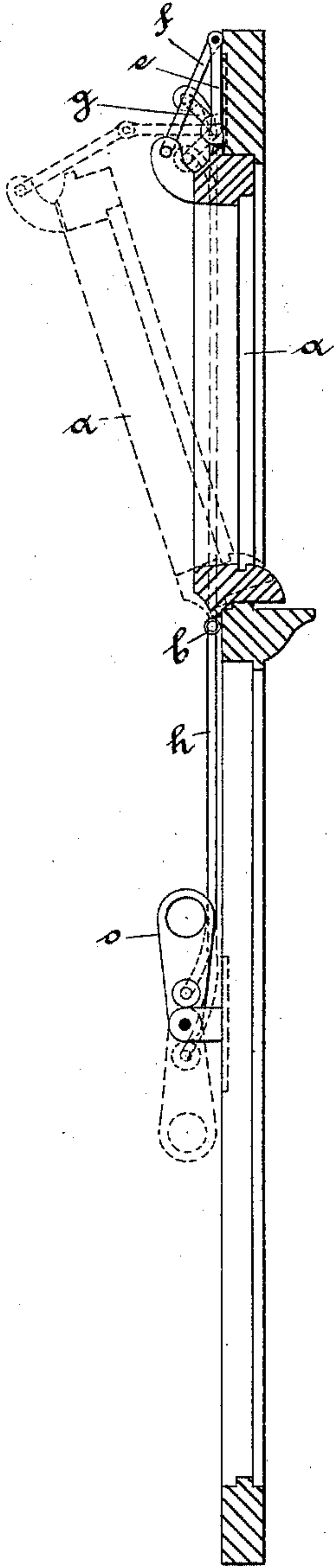


Fig. 1.

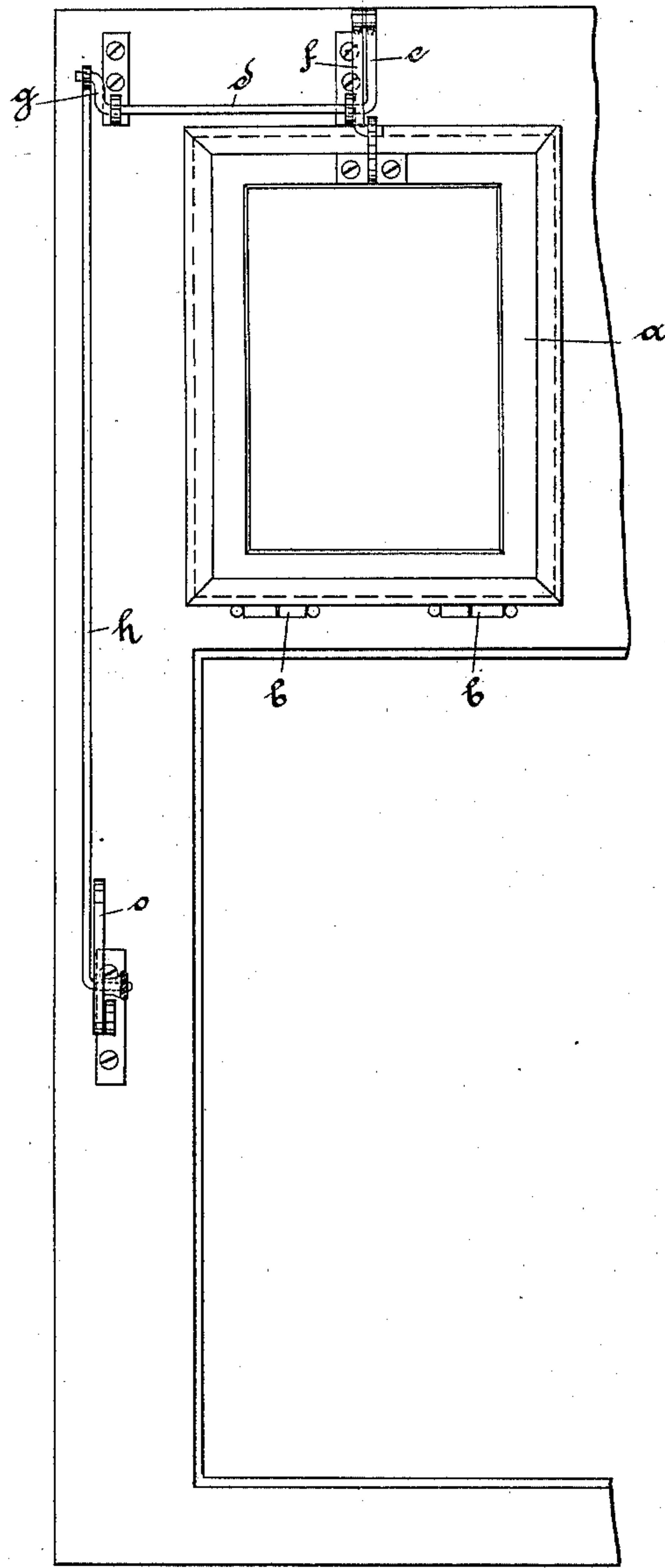


Fig. 2.

Witnesses:

Wm. Koef
Augodumny

Inventor:

Carl L. Boehme
by his attorney
Wm. E. Boulter

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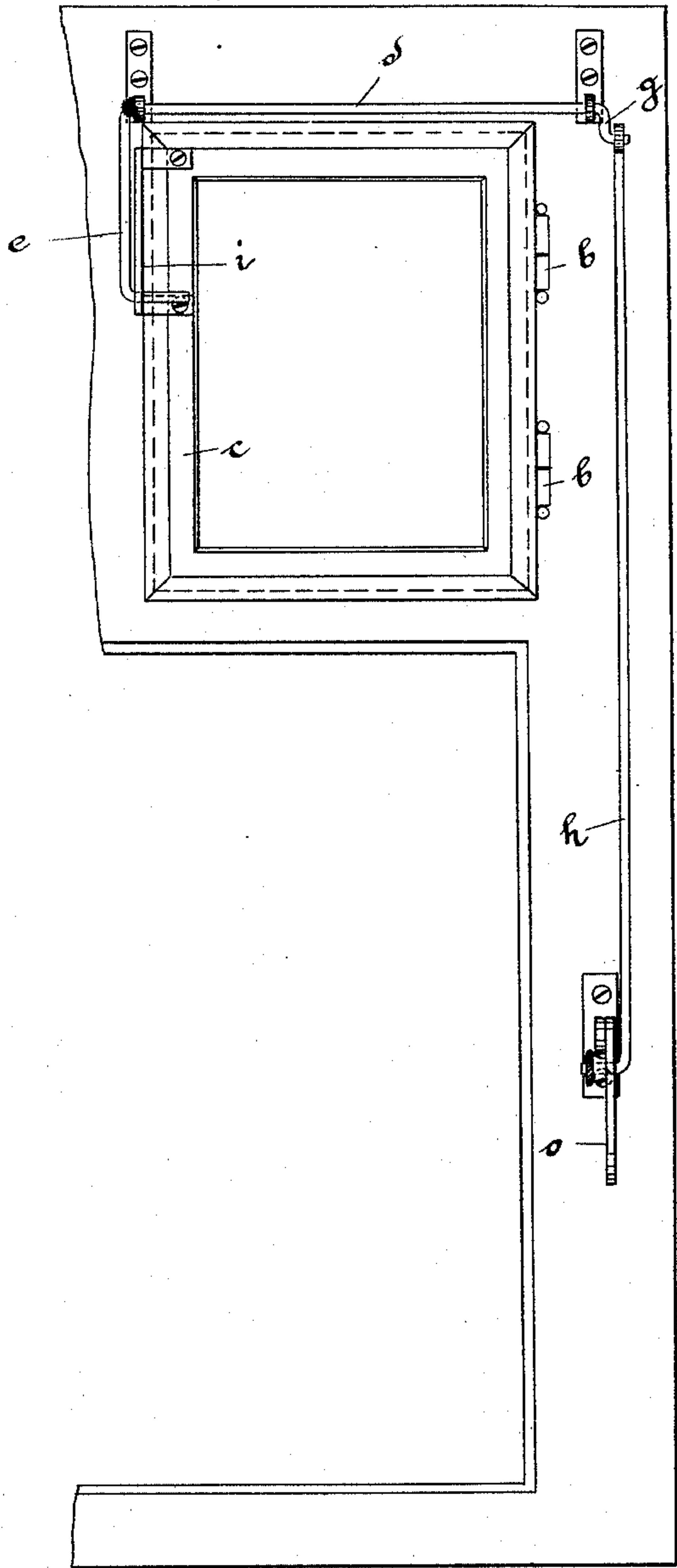


Fig. 3.

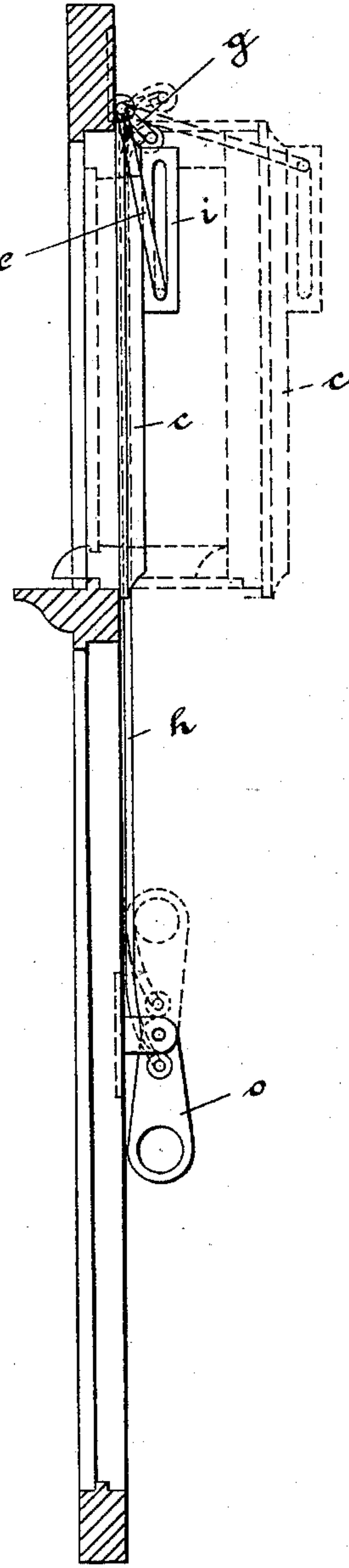


Fig. 4.

Witnesses:

Oth. Volk
Hugo Kummer

Inventor:

Carl L. Boehme,
by his attorney Wm. J. Doulter,

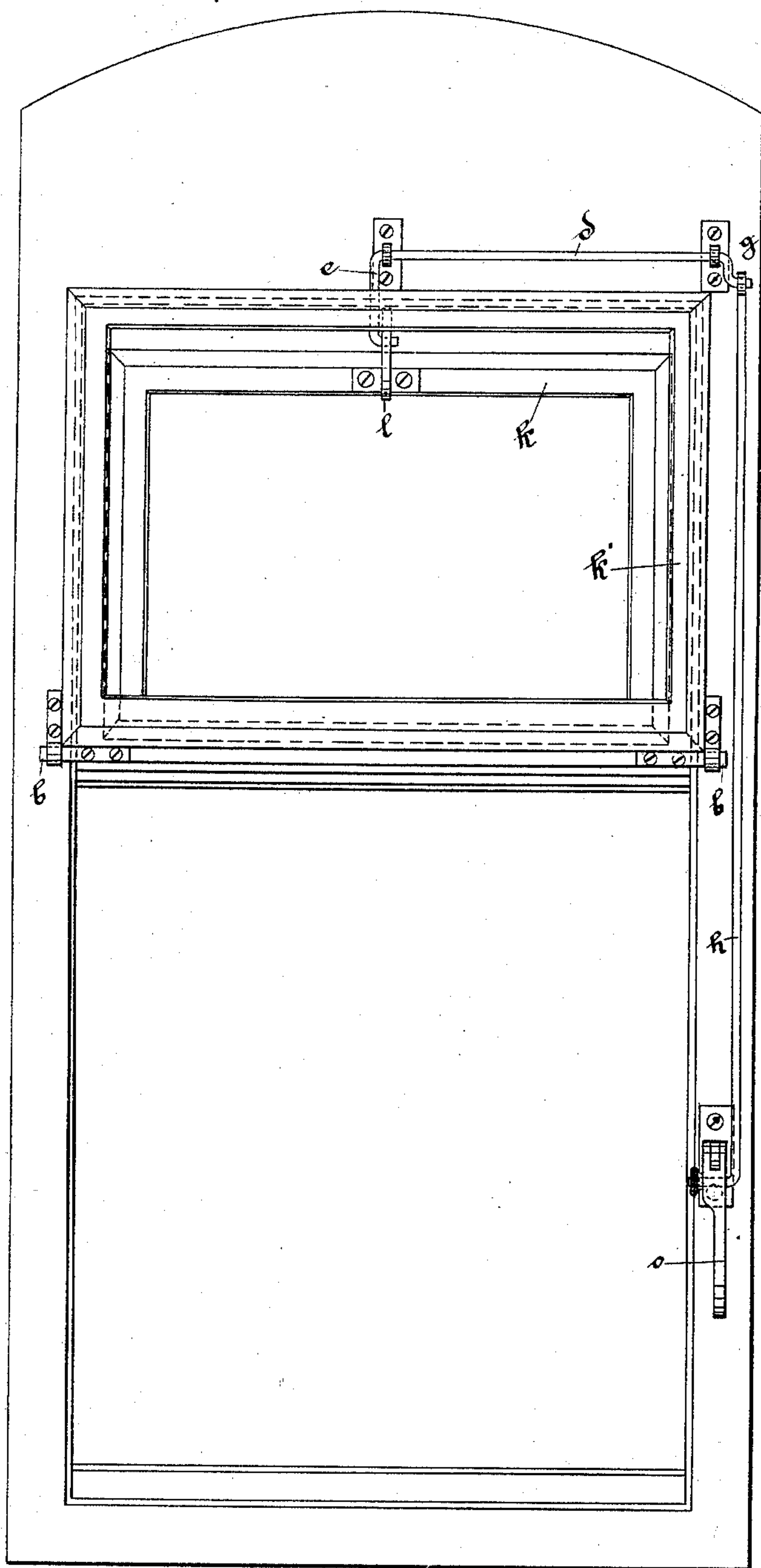
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3 Sheets—Sheet 3.

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Witnesses:

Oth. Koep
Hugobrunner

Fig. 5.

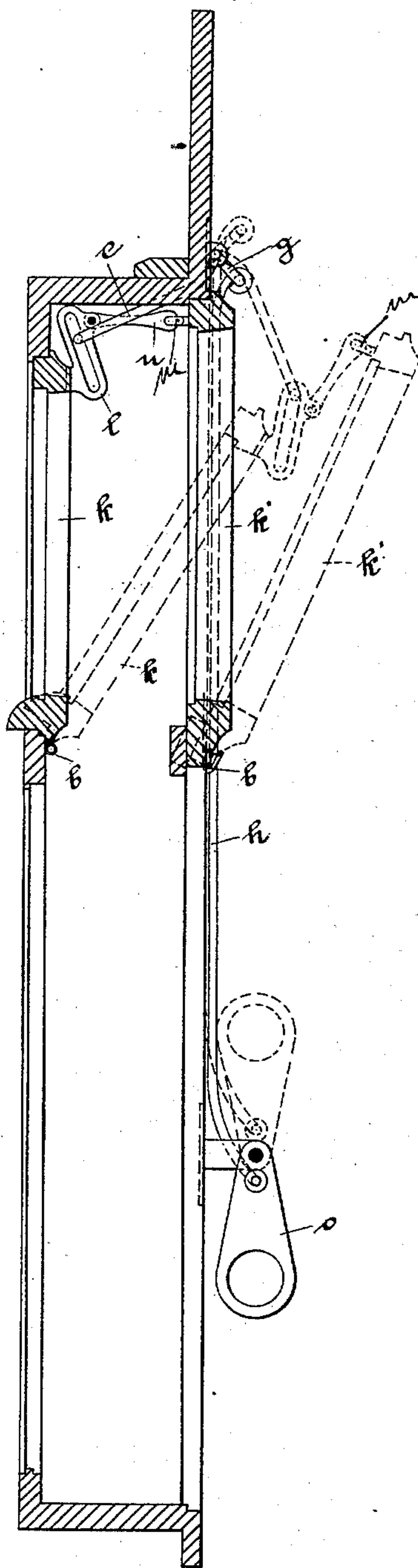


Fig. 6. Inventor:

Carl L. Boehme,
by his attorney Wm. J. Poulter,

UNITED STATES PATENT OFFICE.

CARL LEBERECHE BOEHME, OF DRESDEN, GERMANY.

TRANSOM-LIFTER.

SPECIFICATION forming part of Letters Patent No. 483,597, dated October 4, 1892.

Application filed April 30, 1892. Serial No. 431,227. (No model.)

To all whom it may concern:

Be it known that I, CARL LEBERECHE BOEHME, a subject of the King of Saxony, residing at Dresden, Saxony, German Empire, have invented certain new and useful Improvements in Mechanism for Moving Turning Sashes, (for which I have made application for Letters Patent in Austria-Hungary on the 14th day of March, 1892,) of which the following is a specification.

The object of this invention is to provide a device whereby an unskilled person may readily open or close from below the upper leaves or sashes of windows, no matter whether they swing on vertical or horizontal hinges. This ventilating arrangement is mainly applicable to single or double casement windows, and in the case of double windows the two ventilating frames or leaves may be so arranged that in closing or opening the inner one engages the outer one, or vice versa.

The accompanying drawings show some of the forms in which this invention may be carried out.

Figures 1 and 2 are respectively a sectional side elevation and a front elevation of part of a single window the upper frame or leaf *a* of which is adapted to swing upon horizontal pivots or hinges *b b*. Figs. 3 and 4 are corresponding views of a similar window, but in which the upper part or leaf *c* is arranged to turn on vertical hinges. Fig. 5 is a front view, and Fig. 6 a sectional elevation, of a double or folding window with the upper leaf arranged to swing upon a horizontal pivot.

In the arrangement shown in Figs. 1 and 2 a rod or spindle *d* is horizontally arranged upon the frame and carries an arm *e*, with which engages a link *f*. At the opposite end of the rod *d* there is another arm *g*, connected with the rod *h*. When this rod *h* is raised, the arm *e*, by means of the link *f*, draws the leaf *a* of the window toward the frame or shaft. When moved in the opposite direction, it causes the said leaf to move away from the frame and consequently the window to be opened for ventilating.

In the arrangement shown in Figs. 3 and 4 the link *f* is replaced by a slide *i*, provided upon the leaf *a* of the window and in which is adapted to slide the arm *e*. By operating

the rod *h* the leaf swinging on vertical hinges is opened or closed, as required.

In Figs. 5 and 6 a slide *l* is also employed for operating the outer leaf *k*. The inner leaf *k'* is connected with the outer leaf *k* by means of a link *n*, interposed between the slide *l* and a bracket or eye *m*, attached to *k'*.

The operating device now to be described applies to all these arrangements. With the end of the rod *h* is connected a lever *o*, secured to the window-frame. By moving this lever either into the upward or the downward position the rod *h* is correspondingly raised or lowered. In both cases there is a dead-point to overcome, so that if the rod had any tendency to shift its position it would first have to make a movement in the opposite direction. As, however, the distance between the spindle *d* and the pivot or fulcrum of the lever *o* is so proportioned that in either terminal position the link or rod is somewhat strained, any danger of an accidental shifting of the parts from the desired position, either by the weight of the leaves or sashes or under the pressure of the wind, is effectively avoided. If preferred, the same purpose may be attained by screwing or otherwise fixing the lever in the extreme positions against its bracket or bearing, or the rod may be secured to the window-sash direct and the lever omitted.

I claim—

1. The combination, with a hinged or pivoted sash or leaf of a window, of a vertically-arranged rod adapted for vertical movement, as described, a horizontally-arranged rod pivoted to the window-frame and provided with a cranked portion at one end, pivotally connected to the upper end of the vertical rod, an arm connected with the other end of the horizontal rod, means located intermediate the said arm and the pivoted sash and loosely connecting the two and adapted to cause the turning of the sash when the said arm is operated, and an operating-lever *o*, pivoted at one end to the window-frame, and to which lever intermediate its ends is pivoted the lower end of the vertically-movable rod, said lever being adapted to be swung downwardly and upwardly, as described, to effect the turning of the sash and form a lock for the vertical rod when in either position to prevent ac-

cidental turning of the sash in the manner described.

2. The combination, with a hinged or pivoted sash or leaf of a window, of a vertically-
5 arranged rod adapted for vertical movement, as described, a horizontally-arranged rod pivoted to the window-frame and provided at one end with a cranked portion connected pivotally to the upper end of the vertical rod, an
10 arm connected to the other end of the horizontal rod, and a second arm pivoted at one

end to the first arm and at its lower end to the frame of the movable sash, as and for the purpose specified.

In testimony whereof I have hereto set my hand in the presence of the two subscribing witnesses.

CARL LEBERECHE BOEHME.

Witnesses:

OTTO WOLFF,

HUGO DUMMER,

Both of Dresden.