

J. LALLY.  
FIREPLACE THROAT.

Patented Aug. 20, 1895.

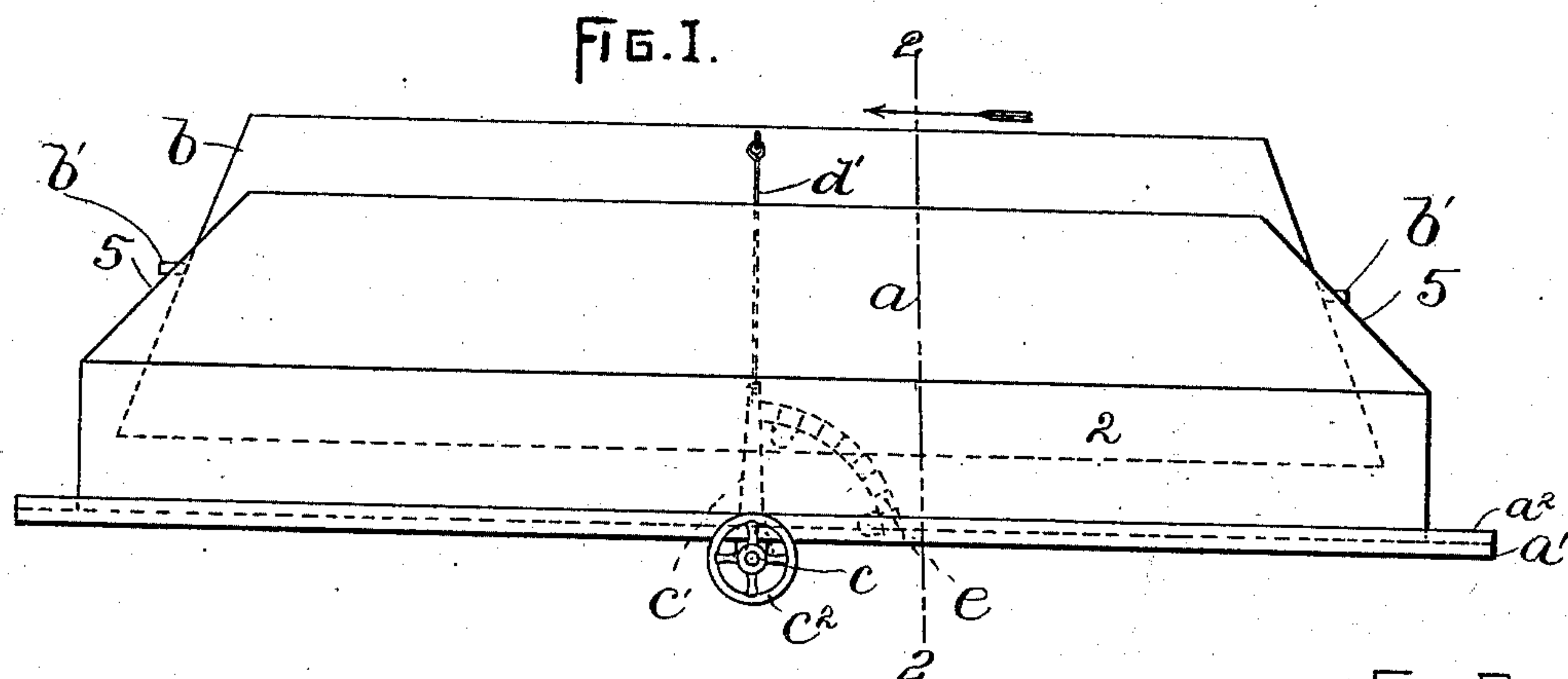


FIG. 2.

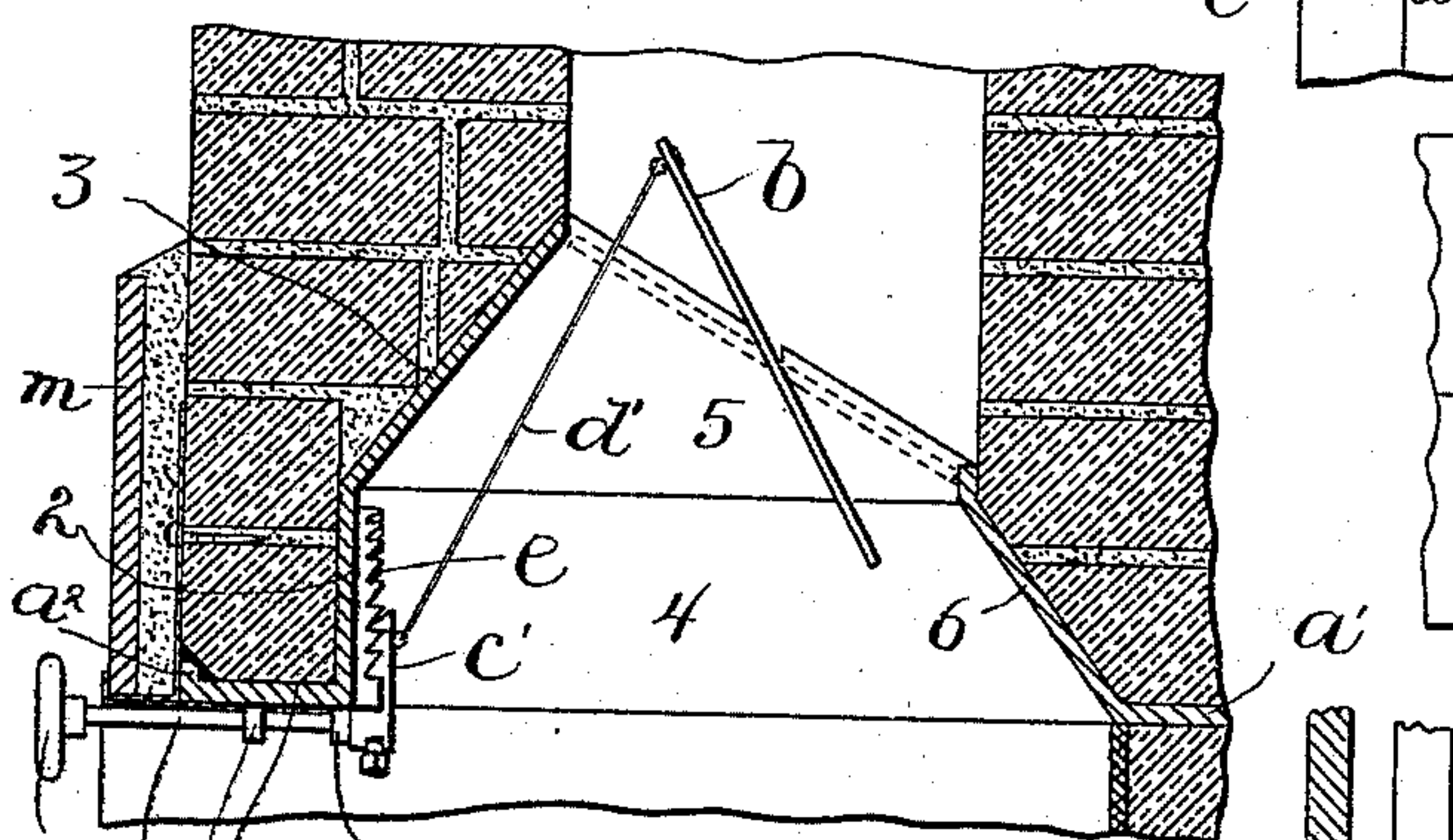
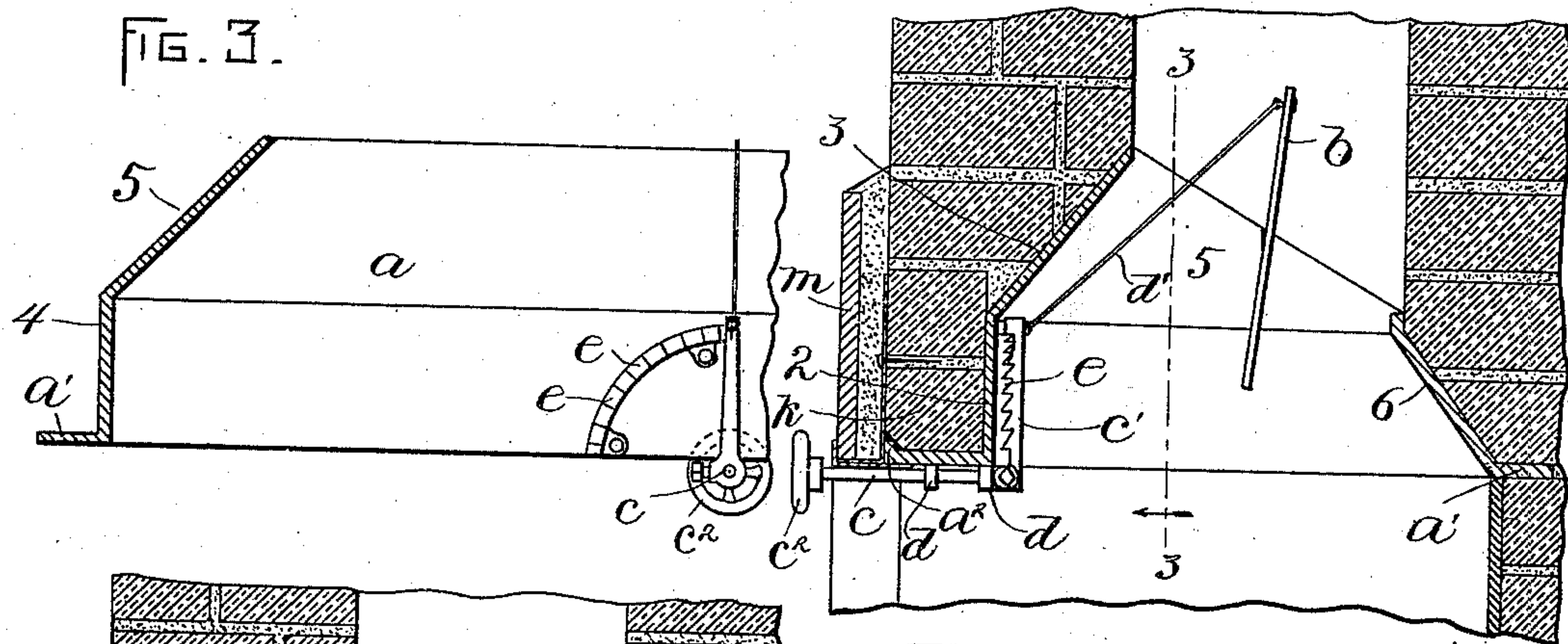


FIG. 4.

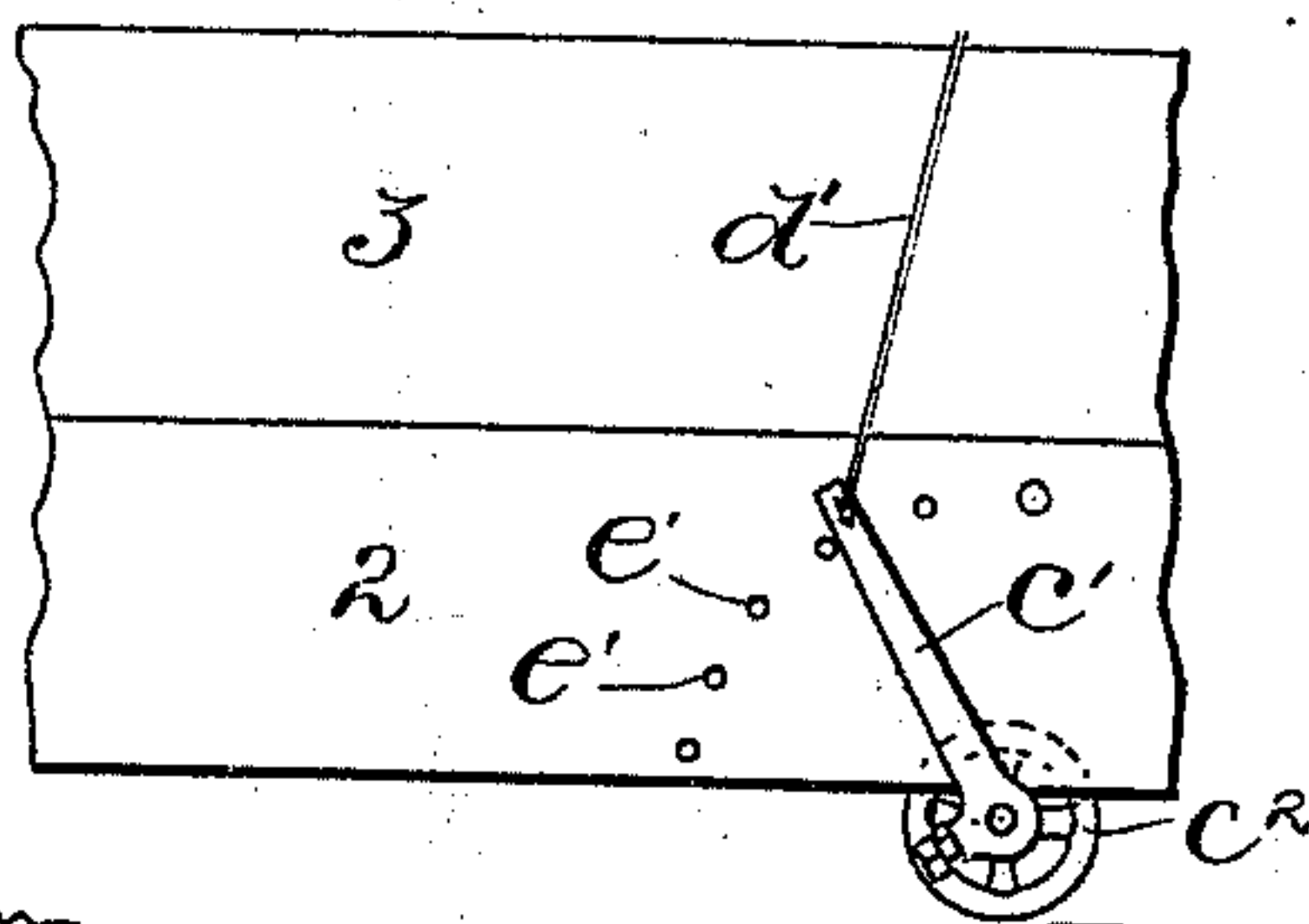
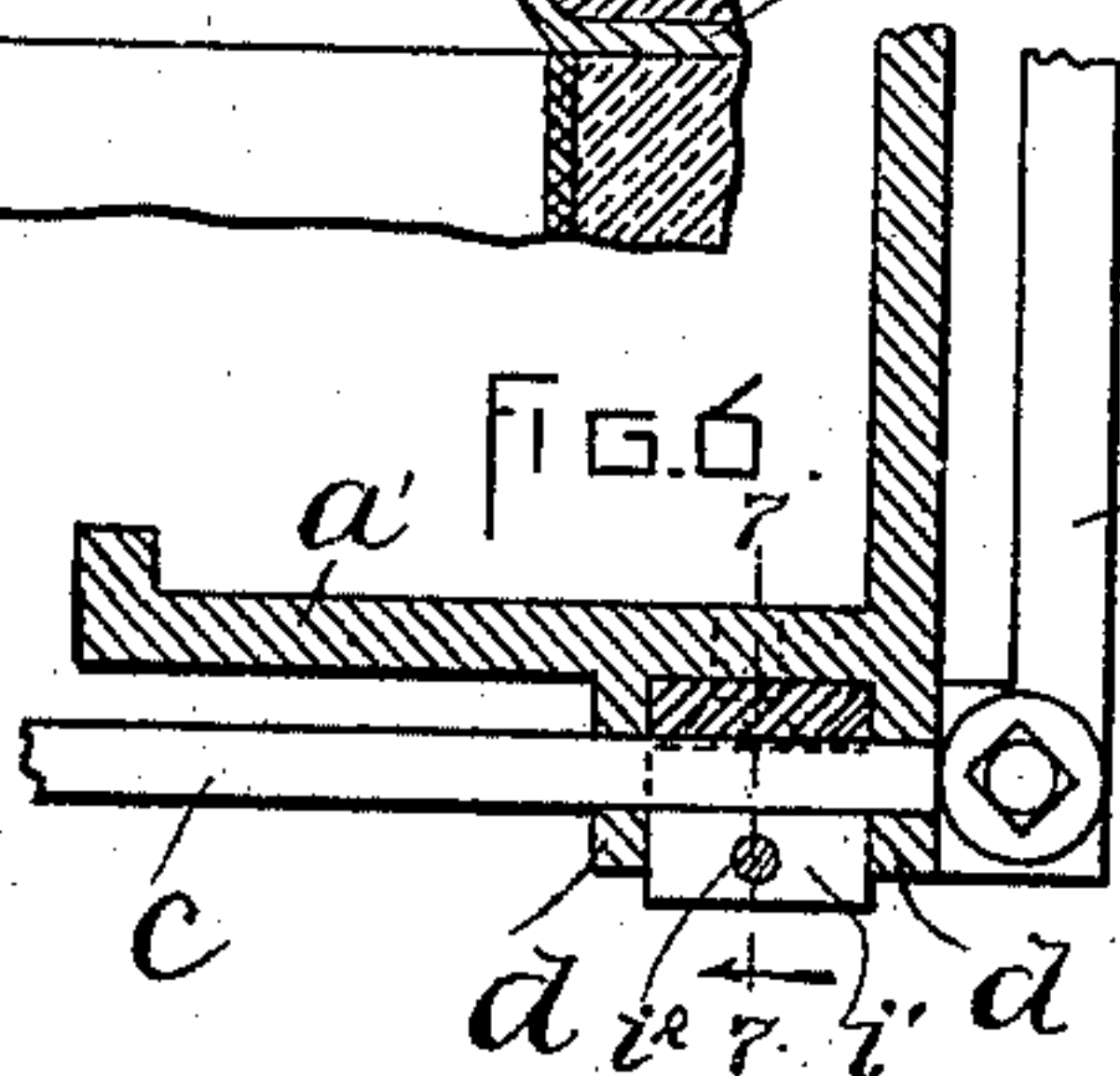


FIG. 5.



A small diagram showing a cross-section of a structure with a central vertical element and horizontal bars, labeled with  $i$  and  $i^2$ .

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# UNITED STATES PATENT OFFICE.

JOHN LALLY, OF WALTHAM, MASSACHUSETTS.

## FIREPLACE-THROAT.

SPECIFICATION forming part of Letters Patent No. 544,857, dated August 20, 1895.

Application filed November 15, 1894. Serial No. 528,862. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN LALLY, of Waltham, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Fireplace-Throats, of which the following is a specification.

This invention has for its object to provide an improved fireplace-throat of simple construction adapted to be supported by the back and ends of an open fireplace and to support the masonry and tiling over the front thereof, and also adapted to support a damper and devices for operating the latter.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a front elevation of my improved fireplace-throat. Fig. 2 represents a section on line 2 2 of Fig. 1. Fig. 3 represents a section on line 3 3 of Fig. 2. Fig. 4 represents a section similar to Fig. 2, showing the damper in a different position. Fig. 5 represents a modification of the construction shown in Figs. 2, 3, and 4. Fig. 6 represents a sectional view showing another modification. Fig. 7 represents a section on line 7 7 of Fig. 6.

The same letters and numerals of reference indicate the same parts in all the figures.

*a* represents my improved throat, which comprises a casing provided at its top with an outlet-opening and at its lower edge with a horizontally-projecting flange *a'*, the rear and end portions of which are adapted to be interposed between two courses of masonry, as shown in Figs. 2 and 4, so that the throat may be supported by the rear and end walls of a brick or iron fireplace, the front or forwardly-projecting portion of the flange being thus held in position to support the front wall of masonry above the fireplace and the tiles covering said front wall.

The walls of the throat or casing comprise the vertical front portion 2, the inclined portion 3, extending from the portion 2 to the opening at the top of the throat, the vertical end portions 4, the inclined end portions 5, and the inclined rear portion 6.

*b* represents the damper, which is provided at its ends with trunnions *b'*, resting in recesses formed for their reception in the in-

clined end portions 5, the damper being formed so that when it occupies a substantially-vertical position, as shown in Fig. 2, it will leave the opening of the throat practically unobstructed, and when turned from said position it will obstruct the opening more or less and will entirely close the same when in the position shown in dotted lines in Fig. 4.

*c* represents an operating-rod, which is journaled to rotate in orifices formed in ears or lugs *d d*, formed or cast on the under side of the front portion of the flange *a'*, said rod being movable lengthwise in said lugs as well as adapted to turn therein. To the inner end of the rod *c* is fixed an arm *c'*, while to the outer end of said rod is affixed an operating knob or handle *c<sup>2</sup>*.

*d'* represents a connecting-rod, which connects the arm *c'* with the upper portion of the damper *b*, said rod being loosely connected both with the damper and with the arm *c'*, so that when the said arm, which swings in a vertical plane, is moved by the rotation of the rod *c* in its bearings the damper will be opened or closed, as the case may be.

The throat is provided on the inner side of the vertical front portion 2 with a series of projections, which are shown in Figs. 2, 3, and 4 as ratchet-teeth *e*, formed on a curved plate affixed to said front portion 2, while in Fig. 5 said projections are shown as studs *e'*, which may be cast upon the front portion 2. Said projections are so formed and arranged that when the arm *c'* is drawn outwardly toward the front portion 2 of the throat by an end-wise movement of the rod *c* one of said projections will engage the arm *c'* and prevent it from turning in either direction, thus securing the damper in any position to which it may have been adjusted.

When it is desired to readjust the damper, the rod *c* is pushed inwardly to disengage the arm *c'* from the projection with which it had been engaged, thus enabling the rod and arm to be freely turned to effect any desired adjustment of the damper, after which the damper may be secured by moving the rod *c* and arm *c'* outwardly to engage the arm with one of the projections.

In Figs. 6 and 7 I show means for holding the damper by friction in any of its positions,



said means comprising a plate *i*, attached to the flange *a'* between the lugs *d d*, said plate having ears *i' i'* at opposite sides of an orifice through which the rod *c* passes. Said ears are  
5 connected by a screw *i<sup>2</sup>*, which may be adjusted to cause the ears to clamp the rod at any desired degree of pressure.

The front portion of the flange *a'* has an upwardly-projecting lip *a<sup>2</sup>*, which serves as a  
10 stop to confine the course of bricks *k*, resting upon the said portion of the flange, the lip preventing said bricks from being displaced or slipping outwardly from the body of the throat. This lip, by preventing outward dis-  
15 placement of the bricks, insures the retention of the tiles *m* in their proper positions, it being often the case that the tiles are crowded outwardly by the slipping of the bricks away from the body of the throat. This objection  
20 is avoided by the lip *a<sup>2</sup>*.

It will be observed that the form of the throat is such that a comparatively deep chamber is formed by the throat above the flange  
25 *a'* for the reception of smoke, the vertical front portion 2 and the inclined front portion 3 co-operating in forming a smoke-receptacle of such depth or capacity that there is less liability of the escape of the smoke into the  
30 room than would be the case if the front portion of the throat were inclined backwardly instead of being carried vertically upward before being inclined backwardly.

I claim—

1. The improved fire-place throat comprising  
35 ing the casing having an outlet at its top and an outwardly projecting horizontal flange surrounding its base, the end and rear portions of said flange being formed to be supported by the back and ends of a fire-place  
40 while the outwardly projecting front portion of said flange constitutes a support for the masonry above the fire-place; a damper piv-

oted to the casing in the outlet thereof; and a damper-operating rod or handle located below and projecting forward from the front  
45 portion of the flange.

2. The improved fire-place throat comprising the casing having an outlet at its top, an outwardly projecting horizontal flange surrounding its base, an upwardly projecting  
50 brick-retaining lip on the front portion of said flange, a damper pivoted in the outlet of the casing, and a damper-operating rod or handle located below and projecting forward from the front portion of said flange.

3. The improved fire-place throat comprising the outwardly projecting base or flange  
55 *a'* the rear and end portions of which are arranged to be supported by the back and ends of a fire-place while its front portion is formed to support the masonry above the fire-place,  
60 the throat casing extending upwardly from the said flange, said throat and flange being formed as a single piece or casting, the damper *b* hung in the opening of the casing, the  
65 longitudinally movable rotatable rod *c* located below the flange *a'* and mounted in bearings projecting downwardly from said flange, the arm *c'* on the inner end of said rod, the connecting rod *d'* connecting said arm with the  
70 damper, and the fixed projections on the inner surface of the casing adapted to arrest said arm, the arm being adapted to be engaged with and disengaged from said projections by endwise movements of the rod, as set  
75 forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 10th day of November, A. D. 1894.

JOHN LALLY.

Witnesses:

A. D. HARRISON,  
ROLLIN ABELL.