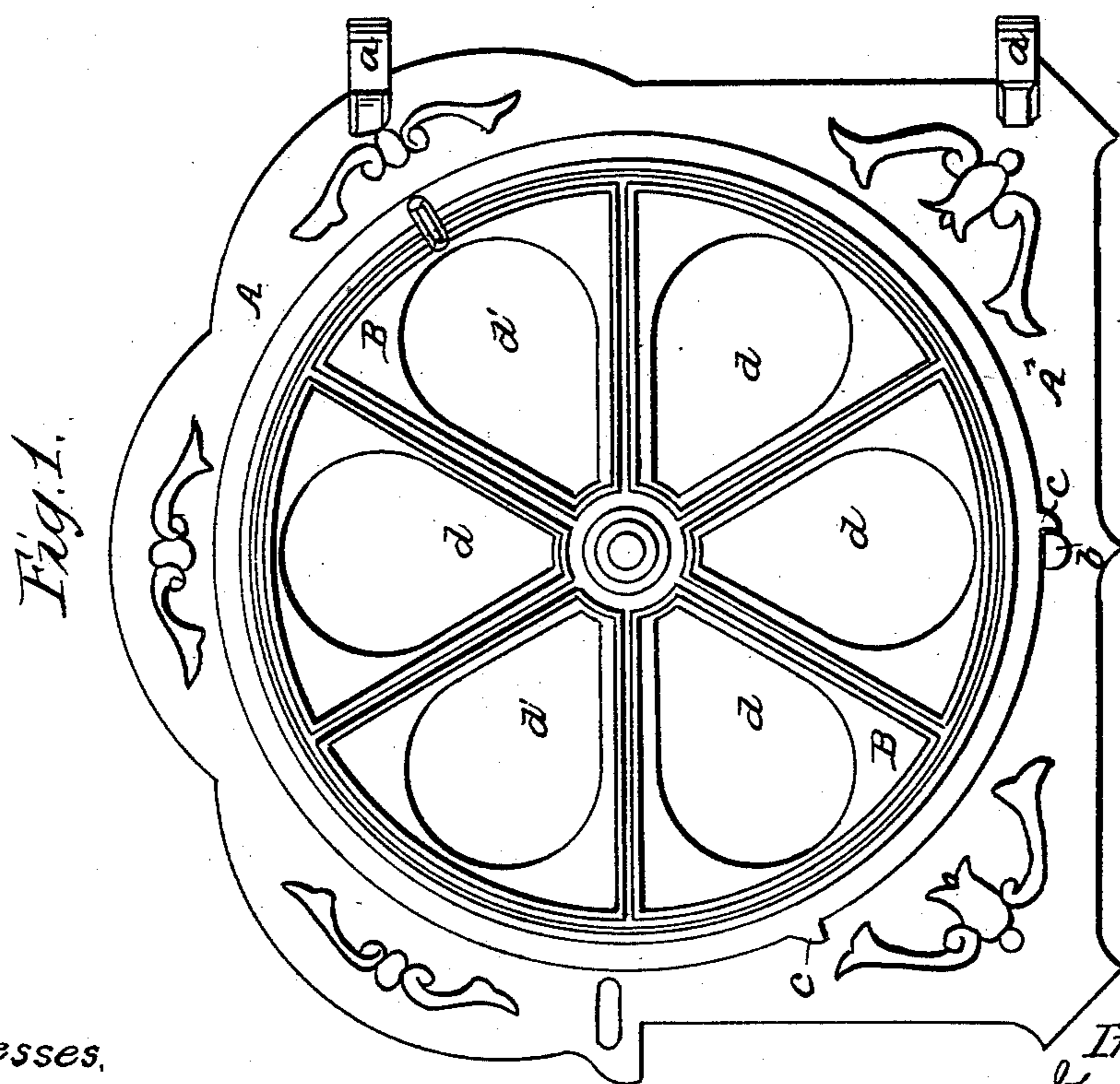
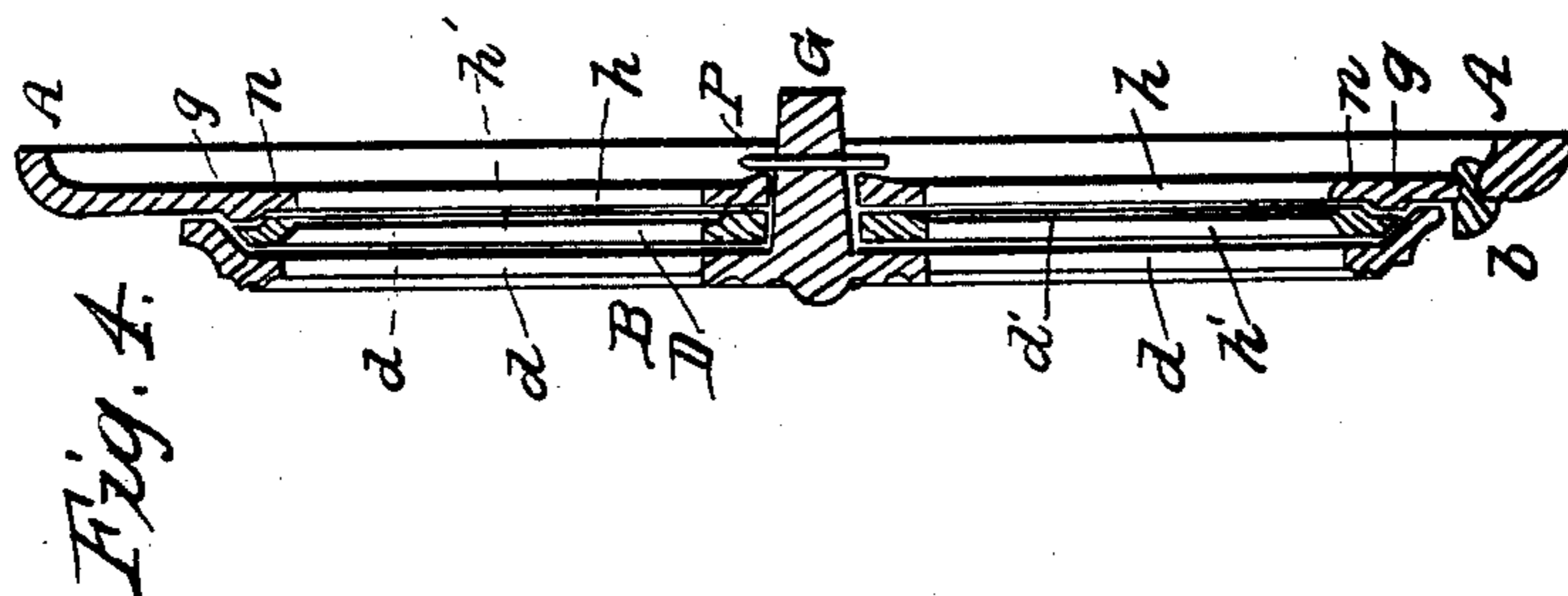


J. H. KEYSER.  
Stove Door and Damper.

No. 82,228.

Patented Sept. 15, 1868.



Witnesses,

R. T. Campbell  
J. R. Campbell

Inventor,

John H. Keyser

by

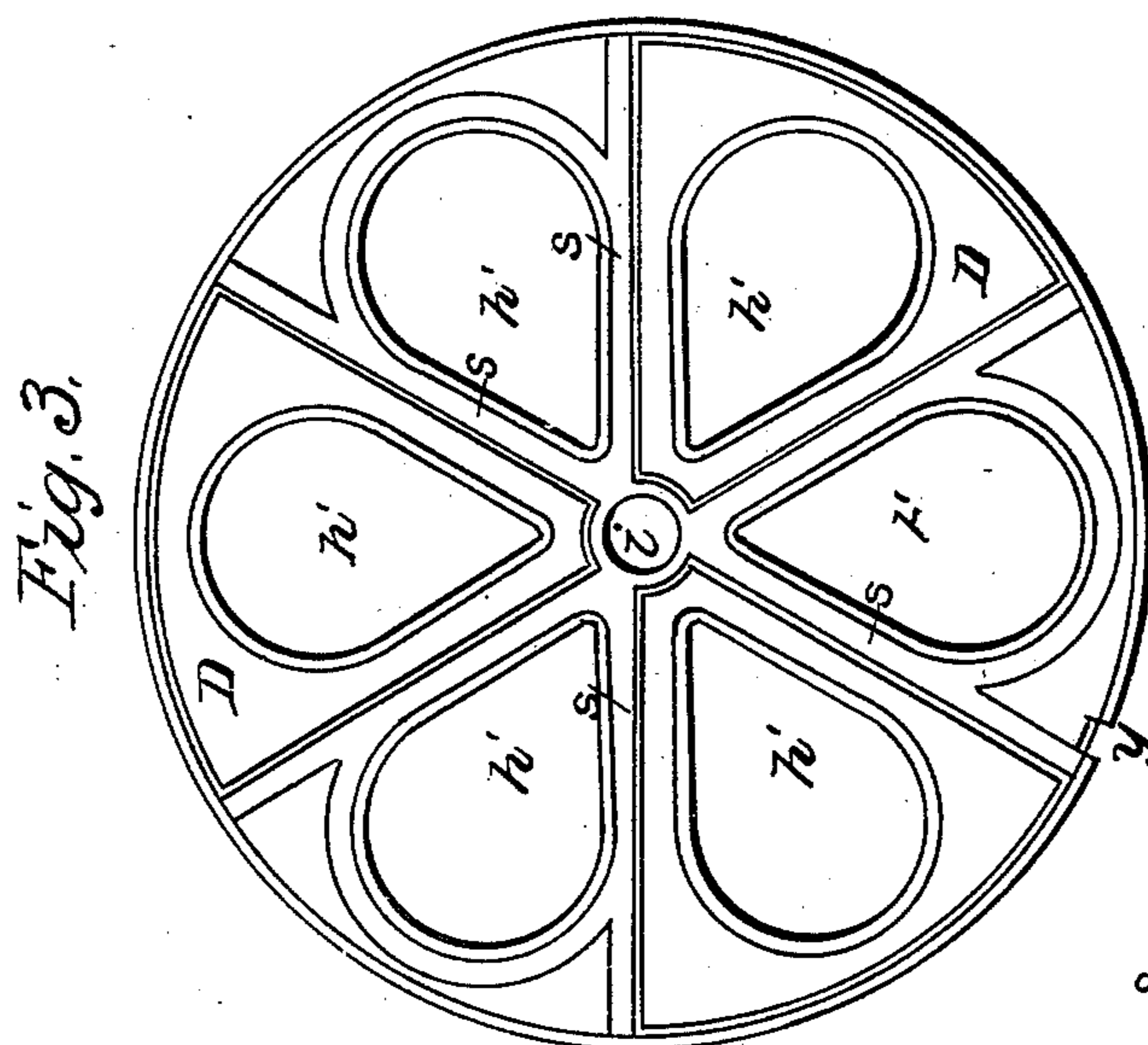
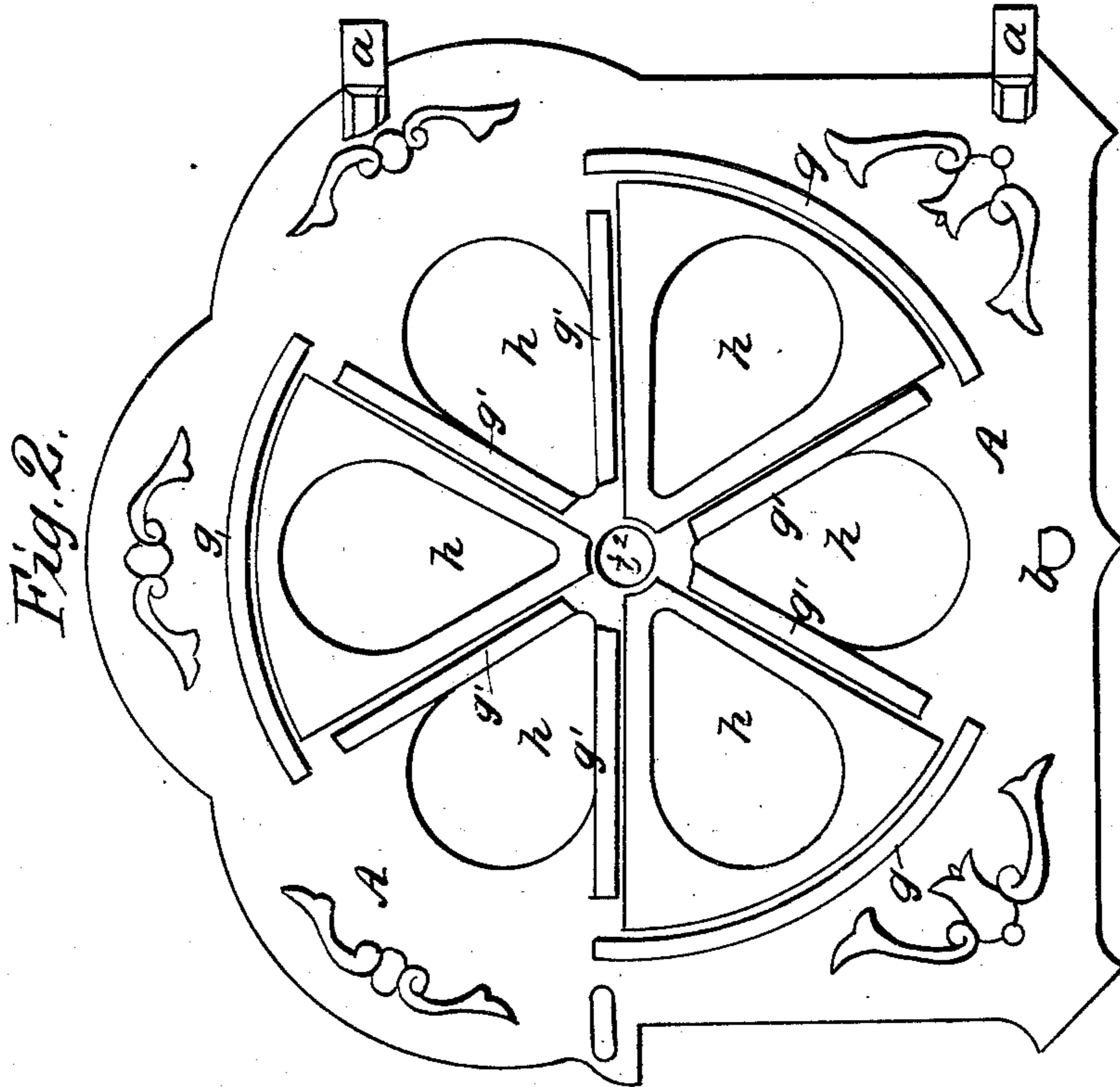
M. H. H. H. H. H.

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Inventor  
J. H. Keyser  
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# United States Patent Office.

JOHN H. KEYSER, OF NEW YORK, N. Y.

*Letters Patent No. 82,228, dated September 15, 1868.*

## ILLUMINATING-DAMPER.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN H. KEYSER, of the city of New York, in the county and State of New York, have invented a new Damper and Illuminating-Door combined; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a front view of my improved illuminating-damper door.

Figure 2 is a front view of the door, with the movable damper-plates removed.

Figure 3 is a front view of a mica-holding plate, which is interposed between the damper and door.

Figure 4 is a vertical central cross-section of the illuminating-damper door.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists in a novel mode of constructing a damper or register for a stove, with mica lights or illuminating-windows, for the purpose of exposing to view the light of the fire in a stove, through the said damper or register, whether the draught-openings be closed or opened, as will be hereinafter explained.

To enable others skilled in the art to understand my invention, I will describe one practical mode of carrying it into effect.

The accompanying drawings represent my improved damper applied to a stove-door, A, and constructed of a circular form, so as to turn about the axis of a central pivot, G, which passes through the door, and receives a connecting-pin, *p*, as shown in fig. 4. The door A has six openings, *h*, through it, which are arranged concentrically around the central pivot-hole *i*<sup>2</sup>, and at regular distances apart, and these holes are separated by narrow radial arms, upon which are raised ribs, *g' g'*, extending nearly to the segmental ribs *g*, which are concentric to the centre hole *i*<sup>2</sup>. These ribs *g g'* are designed for receiving and keeping in place mica plates *d'*, indicated in red, which plates cover three of the six holes, leaving every alternate hole open, as shown in fig. 2.

The door A is also provided with a stop-pin, *b*, for acting in conjunction with lugs *c c*, upon the circumference of the circular register or damper-plate B, and serving as a means for regulating the scope of movements of this plate B.

The register or damper-plate B is slightly dished, to receive, between it and the door A, circular mica-holding plate, D, shown in figs. 3 and 4. This damper B, as well as the plate D, is also constructed with openings through it, corresponding in size and shape to the openings *h* through the door-plate A, so that when the three plates, A, B, and D, are put together, as shown in fig. 4, the openings can be made to register, one with another. The plate D is constructed with radial ribs, *S*, upon its front face, which receive between them the mica plates *d*, and serve, in conjunction with the circumferential flange upon the damper B, to keep said mica plates in their proper places over every alternate hole, *h'*, through the plate D, as indicated by the red lines in fig. 3. This plate D is also constructed with a hole, *i*, through its centre, for receiving through it the pin G, and it also has a notch, *y*, in its periphery, for receiving a lug on the back of damper B, and engaging this damper with said plate D, so that the two plates will turn together about the axis of pin G.

It will be seen, from the above description, that mica plates are applied to the door A, so as to cover three of the six holes through this door, and that mica plates are applied to the circular plate D, so as to cover three of the six holes through the damper-plate B. The plate D serves as a means for holding the mica plates in place over three of the openings which are through the damper-plate, and dispense with bolt-and-nut fastenings, which have been heretofore used to hold mica lights in stove-doors and plates.

While I prefer to use the intermediate mica-holding plate D, with its ribs, and to form ribs upon the door A, for receiving and holding in place plates of mica or other transparent substance, I do not confine myself to these means, as other means may be employed to effect the same end, but not, as I believe, in as perfect a manner. By having the door, the damper, and the intermediate plate constructed and put together as described, a single pin, *p*, will serve to hold together said parts, and allow the damper to be turned about its axis a distance equal to the space between the two lugs *c c*.

When the two plates B D are applied to the door A, and fastened by the pin *p*, with the mica plates in their proper places, I have an illuminating-damper which will expose the light of a fire in a stove through six mica lights, when the three damper-openings are closed, as shown in fig. 1.

When the openings which are through the door A and damper B are brought opposite each other, only three mica lights will be exposed, and three openings leading through the damper and door.

It will thus be seen that my improved damper will operate like an ordinary draught-damper, and also possess the advantages of illumination.

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

1. The door A, constructed with openings *h* and mica-holding ribs *g g'*, substantially as described.
2. The mica-holding plate D, interposed between door A and plate B, substantially as described.
3. Providing an illuminating-door or window for a stove, with fixed mica lights, *d*, and movable mica lights, *d'*, substantially as described and shown.

JOHN H. KEYSER.

Witnesses:

WILLIAM TURTON,

WILLIAM F. HUESTON.