

B. C. BIBB & P. KLOTZ.

Fire Place Stove.

No. 97,029.

Patented Nov. 23, 1869.

Fig. 1

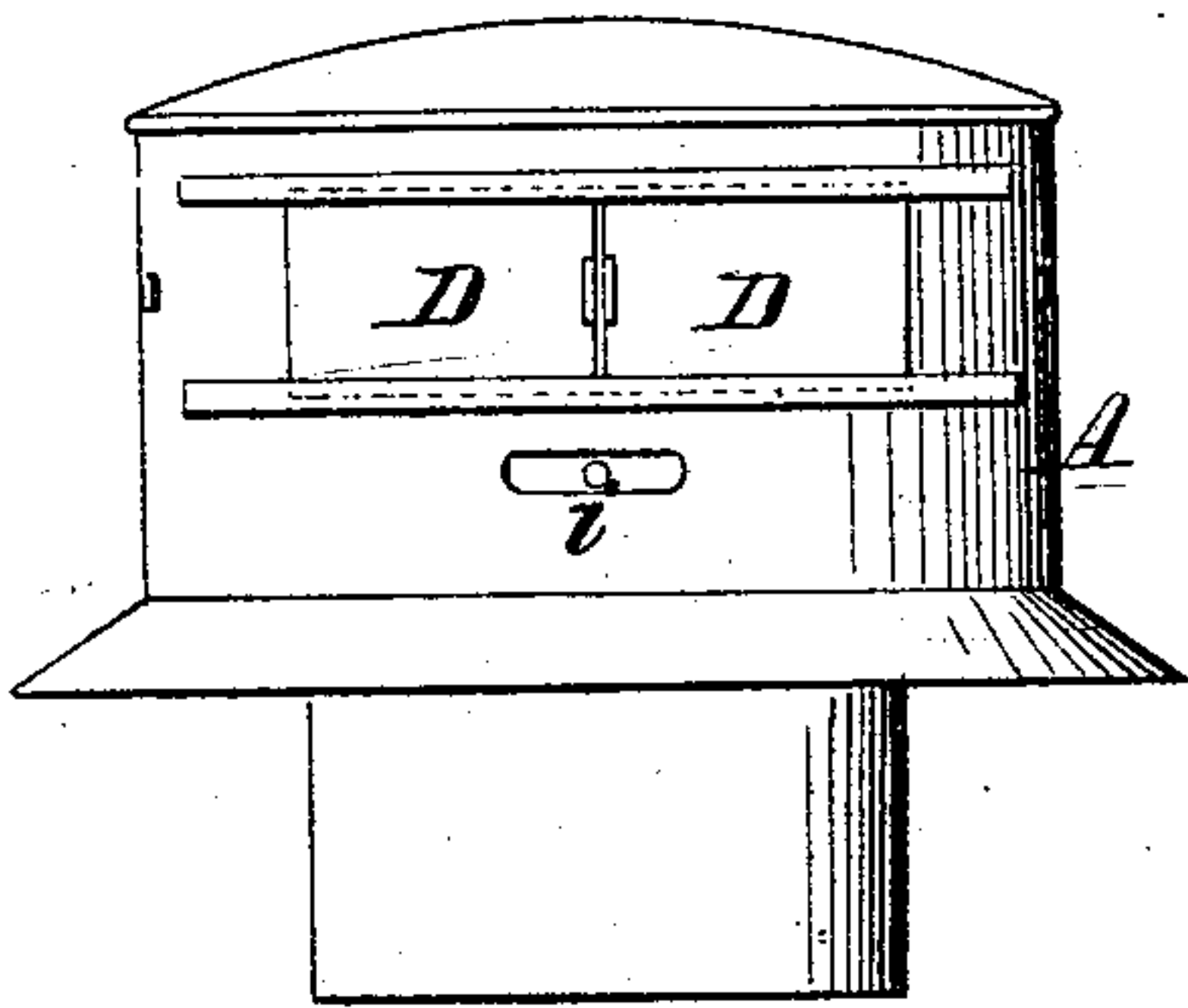


Fig. 2

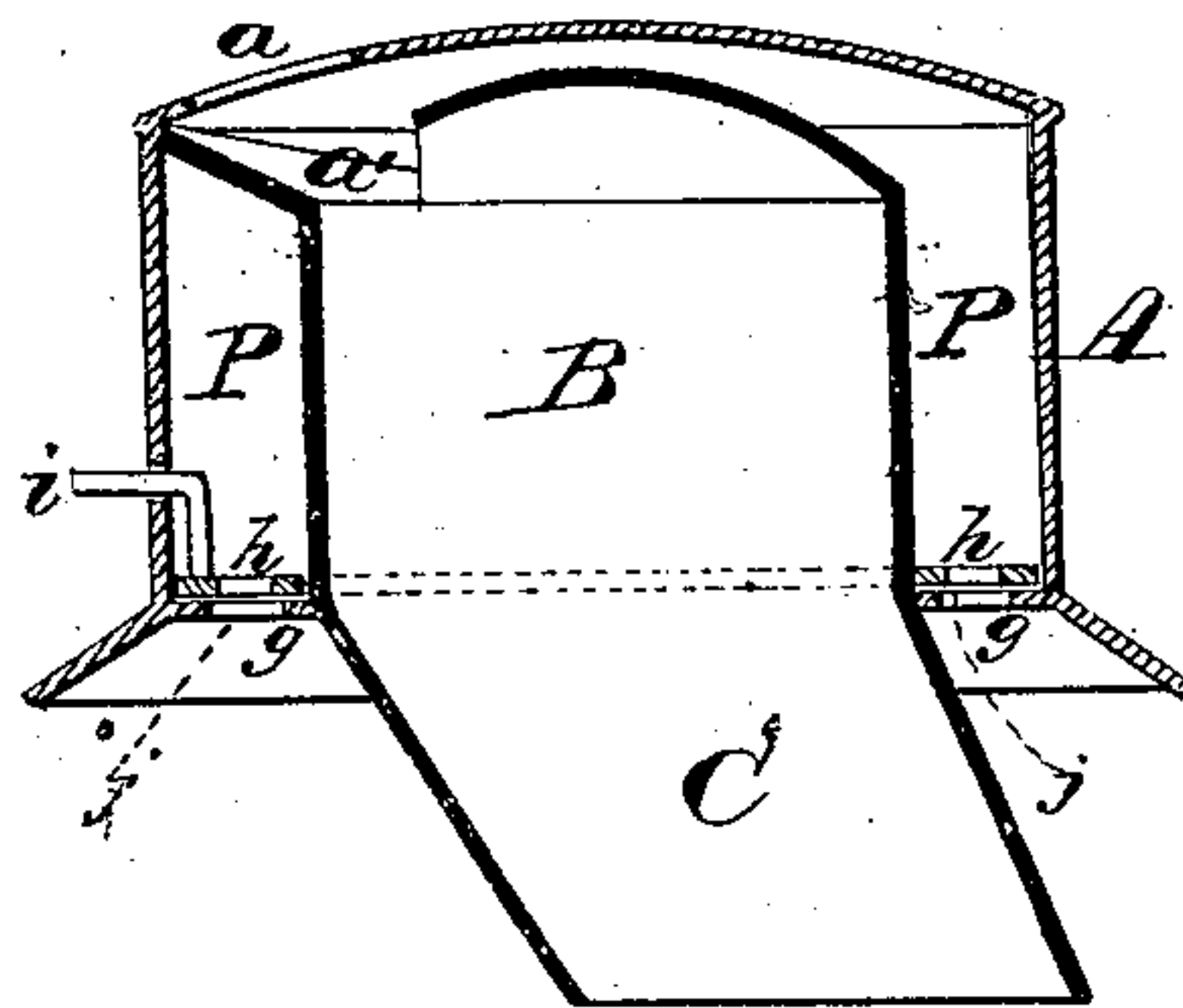


Fig. 3

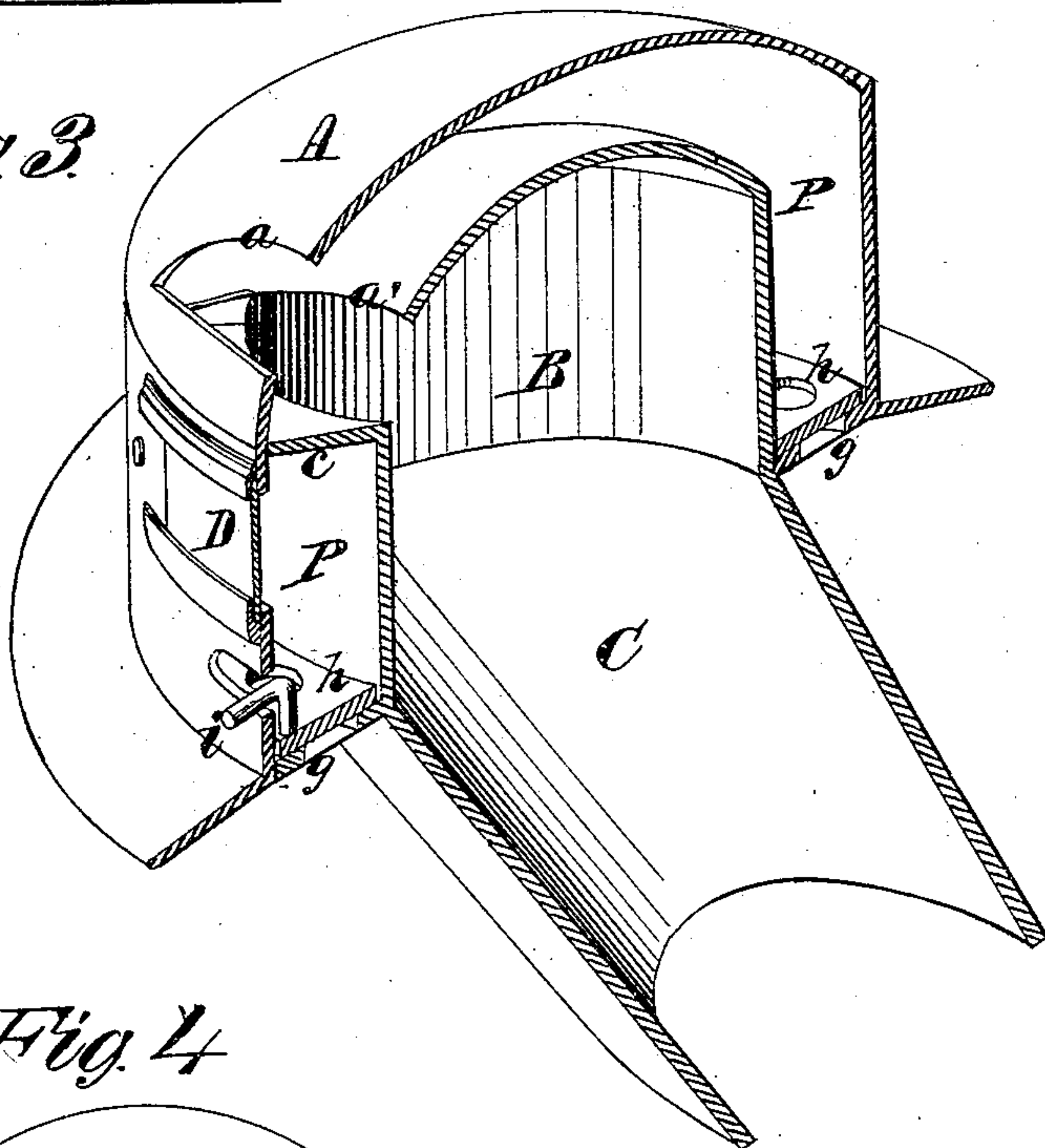
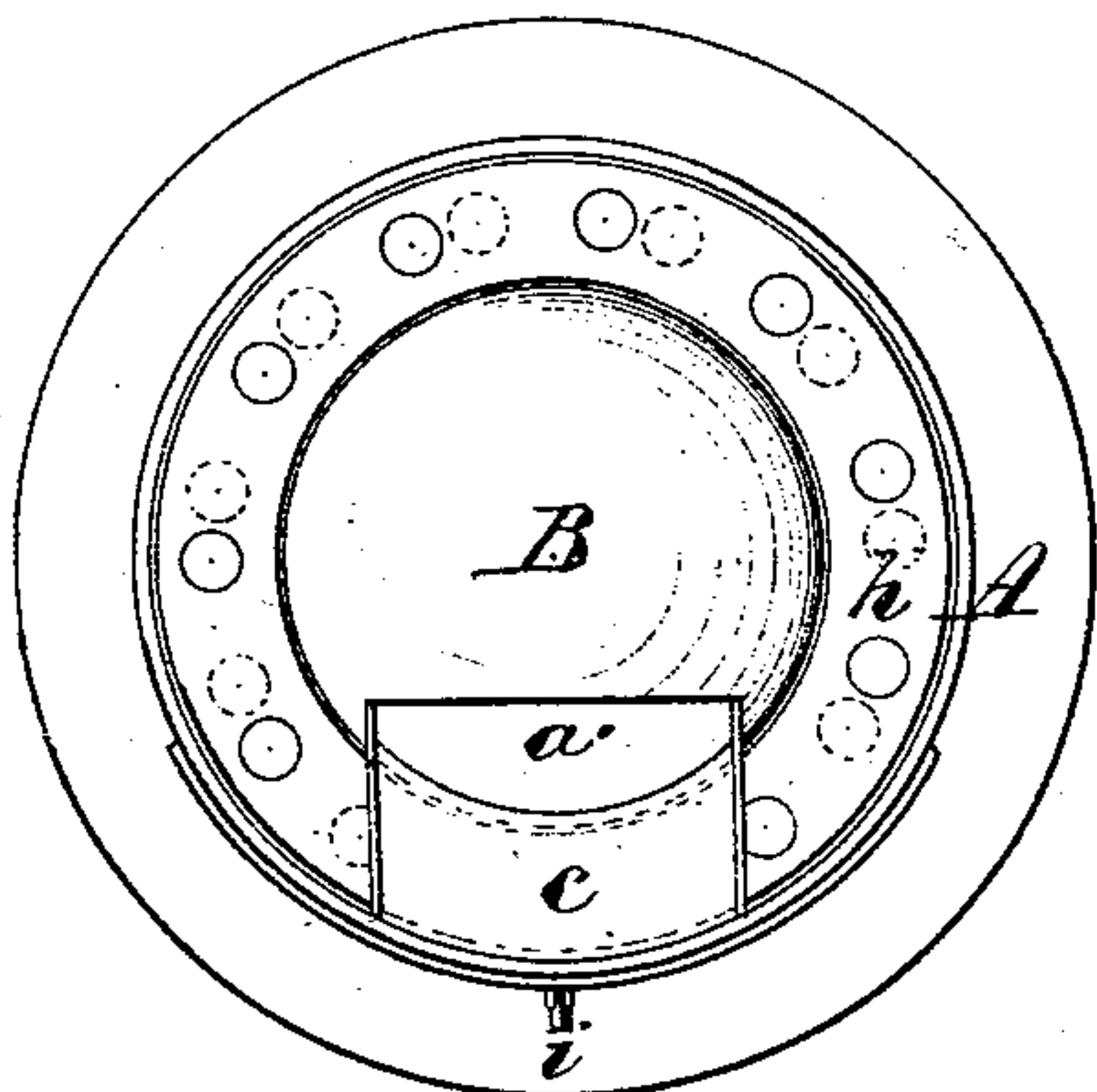


Fig. 4



Witnesses

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BENTLEY C. BIBB AND PHILIP KLOTZ, OF BALTIMORE, MARYLAND.

Letters Patent No. 97,029, dated November 23, 1869.

IMPROVEMENT IN FIRE-PLACE STOVES.

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

To all whom it may concern:

Be it known that we, BENTLEY C. BIBB and PHILIP KLOTZ, of the city of Baltimore, in the State of Maryland, have invented certain new and useful Improvements on Fire-Place Stoves; and we 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 the upper portion, or that portion of a fire-place stove to which our invention is applied.

Figure 2 is a vertical section, through fig. 1, taken from front to rear.

Figure 3 is an enlarged sectional perspective view of fig. 1.

Figure 4 is a top view, with the top of the outer cylinder detached.

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

This invention relates to certain improvements on fire-place fuel-magazine stoves, wherein the products of combustion are conducted off from the fire-chamber, at points below the upper section of the body of the stove, and below a diaphragm which separates the said fire or combustion-chamber from an annular space surrounding the supply-reservoir above said diaphragm.

The nature of our invention consists—

First, in providing for readily removing the accumulations of ashes and soot from the chamber above the annular diaphragm, by perforating it at suitable points, and combining with it a perforated, circularly-movable ring, which latter is movable from the outside of the outer case of the stove, and which will admit a temporary communication to be established with the exit-flue, when it is desired to shake the grate, and thus permit, by an increased and direct draught, the ashes and dust to escape into said exit-flue, as will be hereinafter explained.

Second, in providing the outer wall of said chamber, above the annular diaphragm, with openings, closed by doors, hinged or sliding, whereby access can be had to the said chamber, and, also, whereby the draught can be regulated by opening said doors more or less, as will be hereinafter explained.

To enable others skilled in the art to understand our invention, we will describe its construction and operation.

In the drawings, we have represented only that portion of a fire-place magazine-stove to which our invention is applicable. Other parts of the stove may be constructed in the usual or most approved manner.

A represents the cylinder or top section of the stove, which is arranged on top of the illuminated or window-section, from which latter the products of combustion may be conducted off in any suitable manner.

In practice, the products are conducted, after circulating through the columns or lower portions of the stove, through the annular chamber P, to and through an exit-pipe; consequently, there will be large depositions of dust and soot upon the bottom plate, which separates this chamber P from the combustion-chamber below.

To remedy this, we perforate the plate or diaphragm *g*, and apply to it an annular perforated plate, *h*, which is allowed to have a circular play, that may be given to it by means of a handle, *i*, projecting through a horizontally-oblong slot, made through the outer casing of the top section A.

By giving said perforated circular plate a lateral-shaking motion, any accumulation of dust, ashes, or soot in chamber P, will be caused to fall, through diaphragm *g*, into the combustion-chamber below.

In order to prevent the escape of ash-dust into the room, in the act of shaking the grate, the ring *h* is adjusted so that its perforations will register with those through the fixed diaphragm *g*.

This will allow the rising dust to escape directly through chamber P into an exit-opening leading therefrom into the main flue.

In this way the ring *h* is made to serve two useful purposes.

Through the front portion of the cylinder A, an opening is made, of such size as will allow free access to the chamber P.

This opening is closed by one or more doors, which may be sliding doors, as shown at D, in figs. 1 and 3, or hinged doors may be adopted.

These doors may be opened more or less, when it is desired to check the draught of the stove. They thus operate as dampers.

In case the perforated slide, by being rapidly moved, should not cause all the ashes, soot, &c., to pass back into the fire or coal-chamber, a poker or brush can be inserted through the doors, and all adhering substances loosened, and thereby forced down into the coal-chamber.

We have represented, in figs. 2 and 3, but do not claim, under this petition, an inclined fuel-magazine, C, leading downward and backward from the bottom of a vertical cylindrical upper section, B, which latter is provided, at or near, or directly through its upper end, with a chute or feed-passage, *c*.

The fuel is supplied to the magazine through the openings *a a'*.

The chute or passage *c* is closed in at its sides and bottom, but not at its top.

Having thus described our invention,

What we claim as new, and desire to secure by Letters Patent is—

1. The perforated diaphragm *g*, at the base of chamber *P*, provided with a movable perforated plate, *h*, substantially as and for the purposes described.

2. The opening through the case *A*, leading into chamber *P*, and provided with one or more doors *D*, substantially as and for the purposes described.

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Witnesses:

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