A. Anderson.

Damper & Ventilator.

No. 72261 Patented Dec. 17, 1867.

Fig. 3.

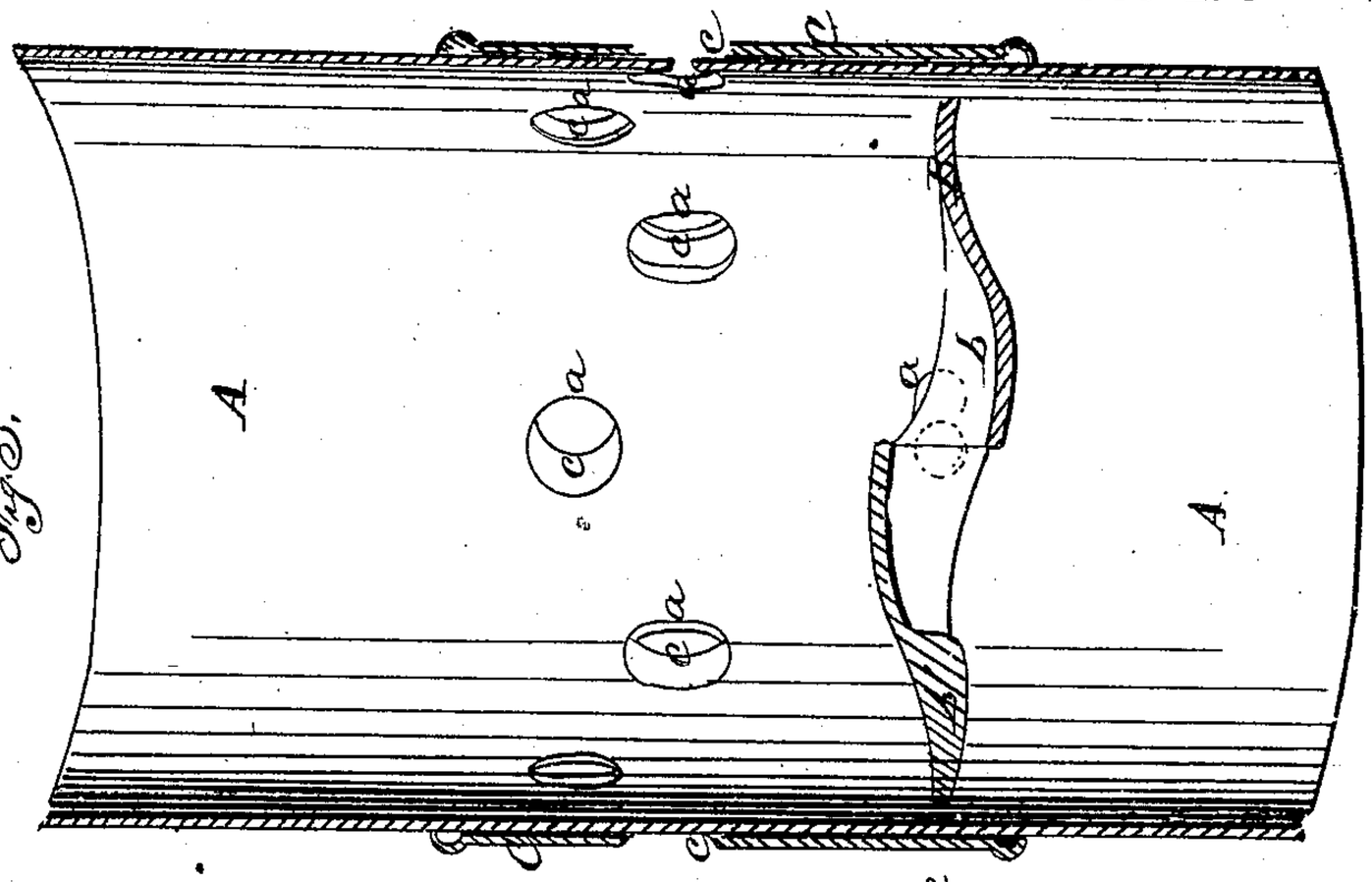


Fig. 1.

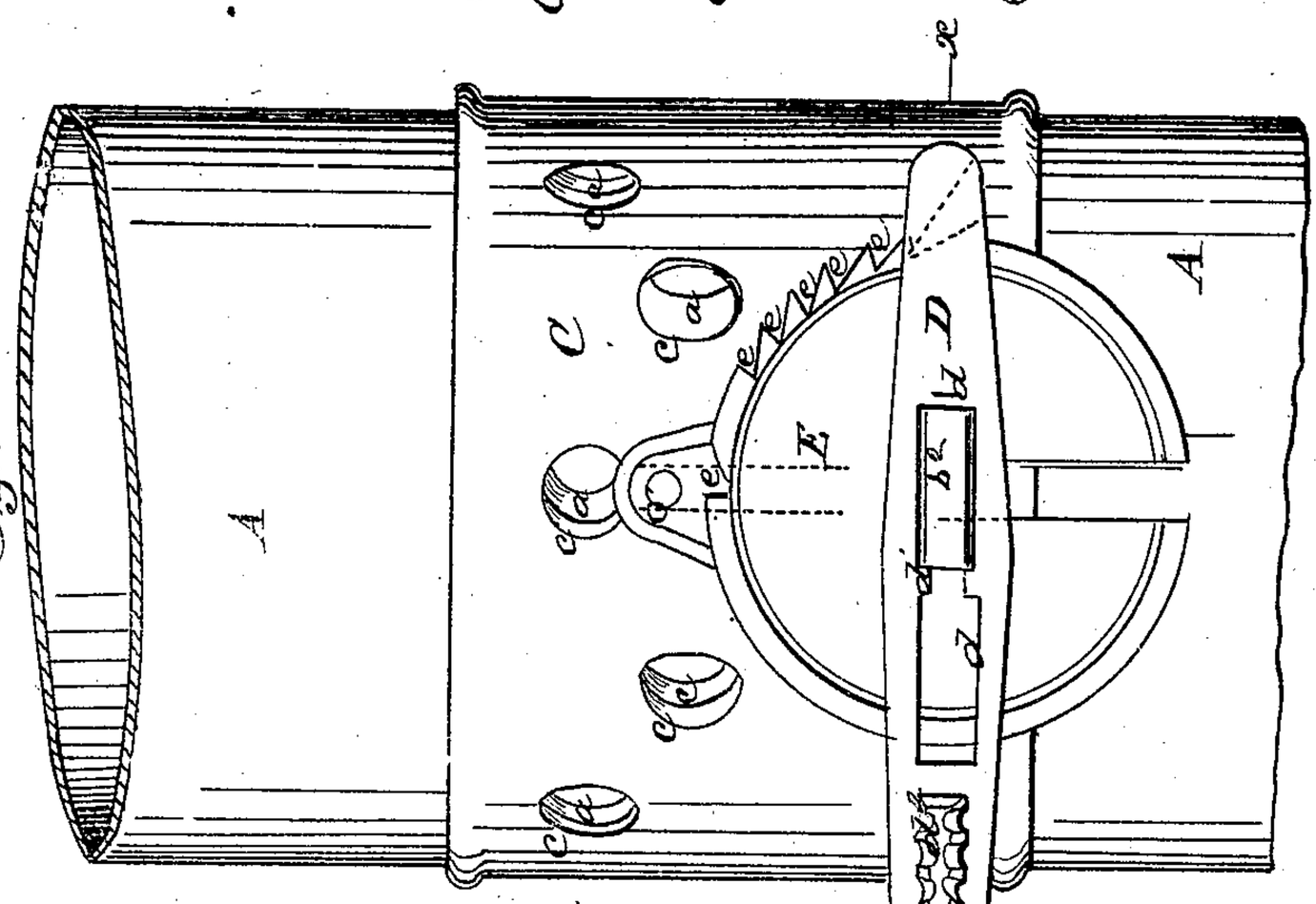
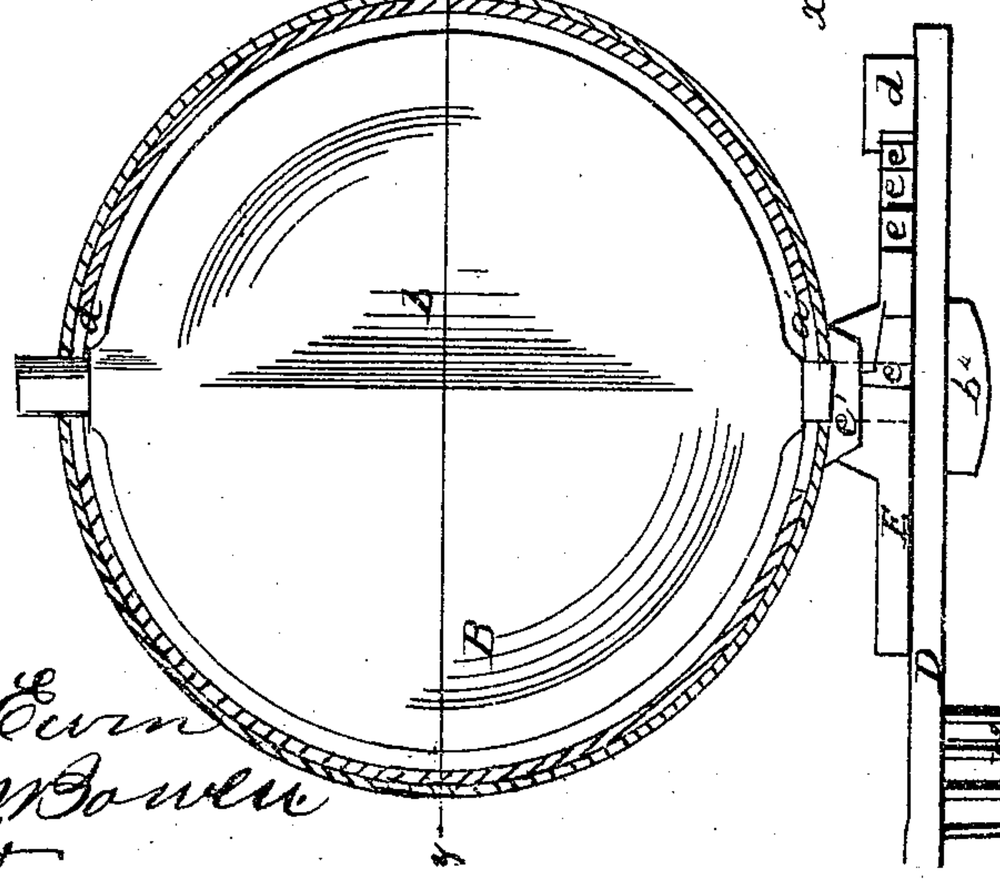


Fig. 2.



Witnesses
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United States Patent Office.

ALEXANDER ANDERSON, OF LONDON, PROVINCE OF ONTARIO, CANADA.

Letters Patent No. 72,261, *dated December* 17, 1867.

COMBINED DAMPER AND VENTILATOR,

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, ALEXANDER ANDERSON, of London, in the county of Middlesex, and Province of Ontario, Canada, have invented a new and useful Combined Damper and Ventilator for Stove-Pipes; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which are made a part of this specification.

My invention consists of a combined damper and ventilator, both of novel construction and arrangement, adapted to be separately operated by the same handle; and also in a simple arrangement for securely holding the damper at any desired point. In the drawings—

Figure 1 is a front elevation of my invention.

Figure 2 is a horizontal section at *x x*, fig. 1; and

Figure 3 is a vertical section at *y y*, fig. 2.

A may represent the joint of stove-pipe, which is provided with one or more annular series of openings, *a*, for ventilation, and also with oblong slots, a^1, in which the damper B is pivoted. The pipe A is encircled by a band, C, provided with openings *c* corresponding with those in pipe A; and also with suitable slots or notches for the reception of the pivots of the damper on which it rests. The damper B is slotted in the centre and bulged each way, so as to form pockets or depressions *b*, to provide an indirect passage for the smoke when the damper is closed; and is also provided with a weight, b^1, on one of its sides, which tends to retain it in its open position. D is the lever by which the damper is operated. This lever is formed with an opening, *d*, sufficiently large to admit the head of the handle b^2 of the damper, and which terminates in the narrow slot d^1, which grasps the shank or narrow part of said handle, and holds the lever in place. It is also formed with a thumb-piece, d^2, by which to operate it, and a lug, d^3, which engages with the notches *e* on the plate or disk E to hold the lever and damper in any desired position. This notched disk or plate E is riveted or otherwise suitably attached, at e^1, to the ventilator C, its attachment holding it out of contact with the pipe to prevent the heating of the handle; and it is also slotted so as to rest on the pivot of the damper. The different parts may be made of any suitable material. I make the pipe and ventilator of sheet iron, and the damper, face-plate and lever of cast iron.

The operation is as follows: Supposing the different parts in the position represented in the drawings, and it being desirable to increase the draught, the lever D is moved forward until the lug d^3 is out of its notch, and then turned to any desired position, when, by releasing it, it will, by its own gravity and the action of the weight b^1, drop into another notch and hold the damper in that position until moved again. When it is desired to regulate the ventilation, the handle b^2 is moved to the right or left, rotating the ventilator C, and bringing the holes *a c* more or less into connection, as desired.

By having the ventilating-openings on all sides of the pipe, the foul air is drawn from all parts of the room, and without danger of the escape of smoke, as is the case with large openings. By my manner of attaching the operating parts the handles are always kept sufficiently cool to handle with comfort.

My invention is applicable to all classes of stoves, and is especially adapted for use in railway-cars, factories, &c., where there is a shaking motion, as the damper cannot be displaced by shaking, but will always remain in the same position until the lever is changed.

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

1. The slotted damper B, with depressions or pockets *b*, to provide an indirect passage for the smoke when closed, and with a weight, b^1, to retain it in its open position.

2. The sliding lever D, constructed and applied substantialiy as shown and described, in combination with a notched plate, E, by which the lever and damper are held in any desired position.

3. The combination, with the joint of stove-pipe A, provided with apertures *a a* and horizontal slots a^1, of the damper B and perforated ventilator C *c*, constructed, arranged, and adapted to be separately operated by the same handle, substantially as set forth.

To the above specification of my new and useful combined damper and ventilator, I have signed my hand, this twenty-first of September, 1867.

ALEXR. ANDERSON.

Witnesses:

W. HILLTASH,

CHAS. A. SCHOOLEY.