J. H. RHAMY.

STOVE-PIPE DAMPER.

No. 185,579. Patented Dec. 19, 1876.

Fig. 1.

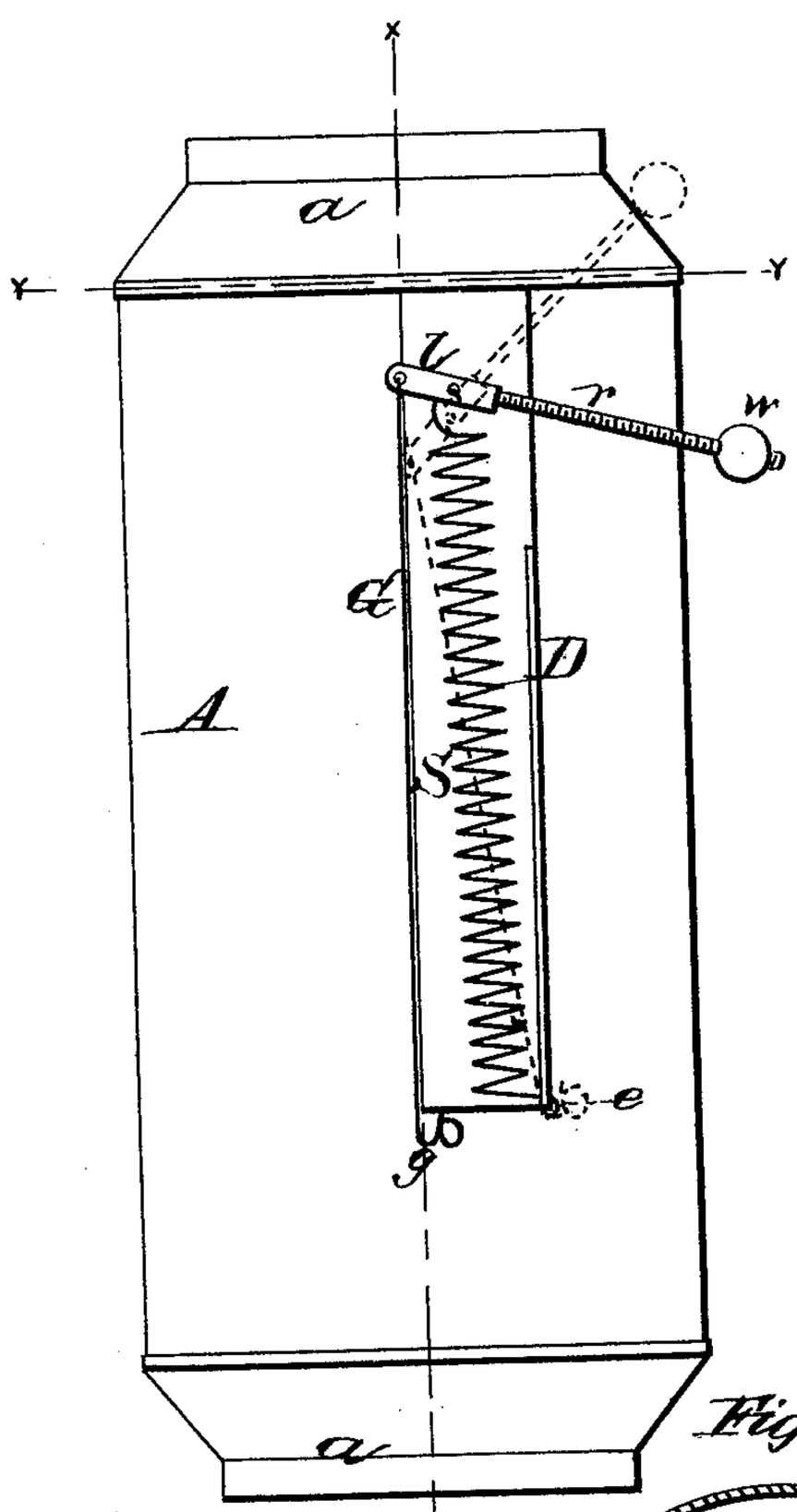


Fig. 2.

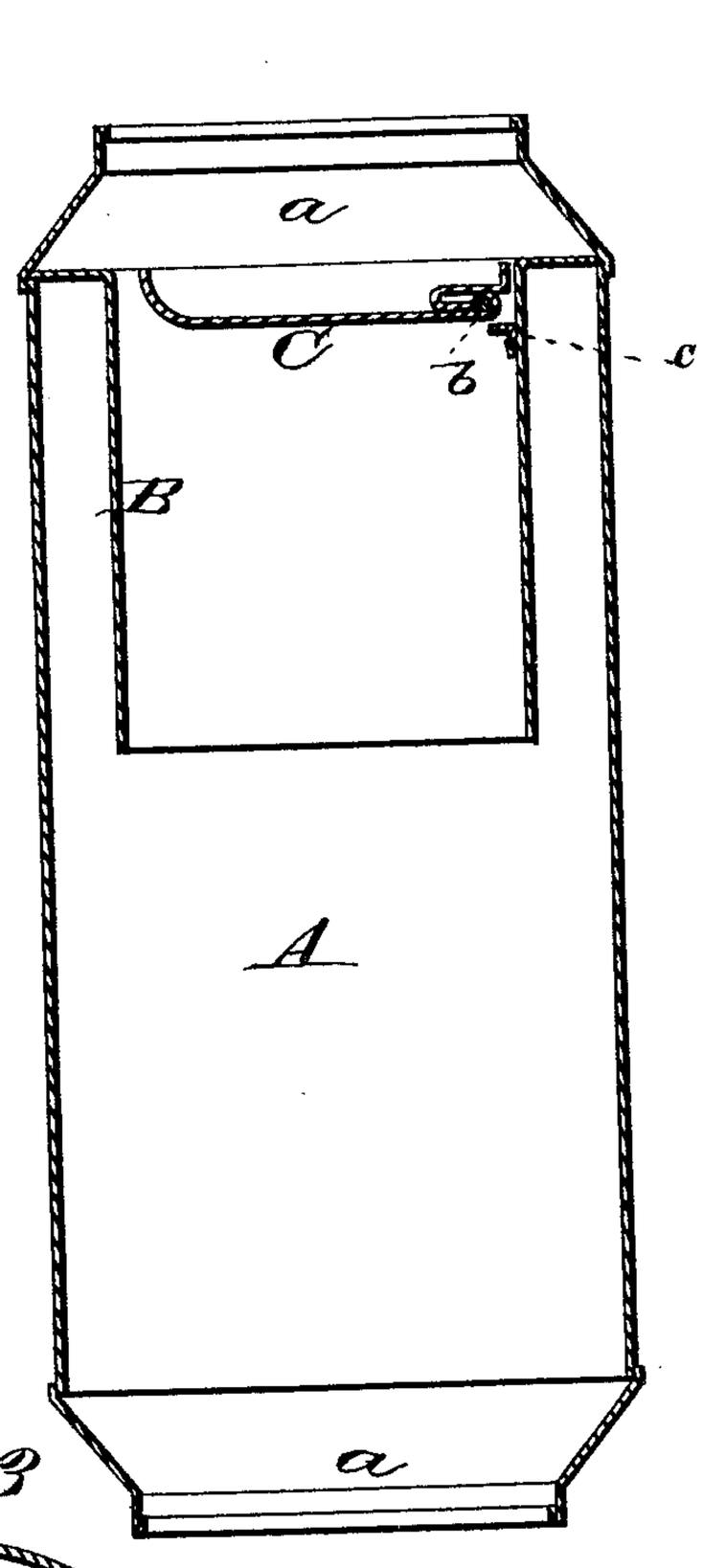
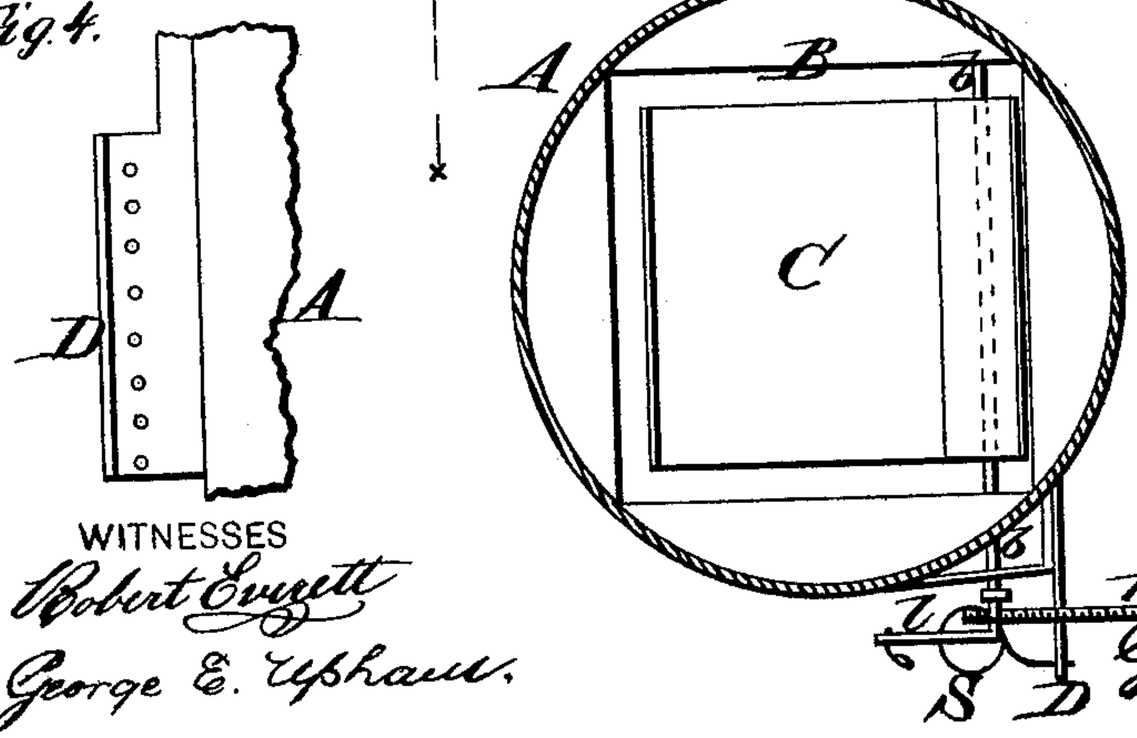


Fig. 3.

Fig. 4.



WITNESSES

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JOHN HENRY RHAMY, OF ANTIOCH, INDIANA.

IMPROVEMENT IN STOVE-PIPE DAMPERS.

Specification forming part of Letters Patent No. **185,579**, dated December 19, 1876; application filed July 1, 1876.

To all whom it may concern:

Be it known that I, JOHN HENRY RHAMY, of Antioch, in the county of Huntington and State of Indiana, have invented a new and valuable Improvement in a Stove-Pipe Damper; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a side view of my stove-pipe damper, and Fig. 2 is a longitudinal vertical central section. Fig. 3 is a transverse vertical sectional view, and Fig. 4 is a detail view thereof.

This invention has relation to stove-pipe dampers, which are so applied to an enlarged section of a stove-pipe that they will be caused to close the outlet more or less as the ascending draft increases or diminishes.

The nature of my invention and improvement consist in applying, inside of a rectangular outlet at the upper end of an enlarged pipe-section, a vertically-vibrating damper, the stem or shaft of which extends through one side of said pipe-section, and has an angular arm secured to it, in combination with an endwise-adjustable loaded rod, and a balancing-spring, as will be hereinafter explained.

The invention also consists in combining a holding-down rod with a flange, to which the lower end of the balancing-spring is adjustably attached, whereby the damper can be held open, so as to allow a full draft while making a fire, as will be hereinafter explained.

In the annexed drawings, A designates a section of stove-pipe, which has contracted collars *a a* formed on its ends to receive the reduced portions of the pipe. Inside of the section A, at the upper end thereof, is a rectangular box, B, open at top and bottom, and so connected to the pipe that all the products of combustion are compelled to pass up through this box or outlet. C designates a rectangular damper or valve, which is secured, at one end, to a rod or oscillating shaft, *b*, and bent so as to form a stop when the valve is shut, as shown in Fig. 2. The free edge of the damper C is turned up, as shown, or it may be flat. At *c* is a flange, which lies under the hinged end of the damper C, and aids in filling up the space between it and one of the walls of the box B, to which said flange is secured.

One end of the shaft *b* extends through one side of the pipe A, and has rigidly secured to it an angular arm, *l*, through which is tapped a screw-threaded rod, *r*, carrying an adjustable weight, *w*. The free end of arm *l* has a helical spring, S, and a rod, G, attached to it. The spring has its lower end slightly hooked for attaching it at different points to a perforated flange, D, secured to the outside of the pipe A in line with its axis. (Shown in Figs. 1 and 4.) The lower end of the rod G has a hook, *g*, formed on it, which designed for engagement with a shoulder, *e*, at the lower end of the flange when it is desired to hold open the damper while starting a fire. When the rod G is freed from the flange D the damper is free to vibrate, and, on one side of its fulcrum *b*, the spring S operates to open the damper, and on the opposite side of the fulcrum *b* the adjustable weight *w* operates to close the damper. The force of spring S and the action of weight *w* can be readily adjusted according to the strength of the draft.

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

1. In combination with the stove-pipe damper C, arm *l*, loaded arm *r*, and the spring S, the perforated flange D, for the purpose described.

2. The holding-down rod G, combined with the damper C, spring S, and the endwise-adjustable loaded rod *l*, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN HENRY RHAMY.

Witnesses:

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S. H. BROWN.