T. C. PHELAN.

Stove-Pipe Damper and Regulator.

No. 210,354. Patented Nov. 26, 1878.

Fig. 1.

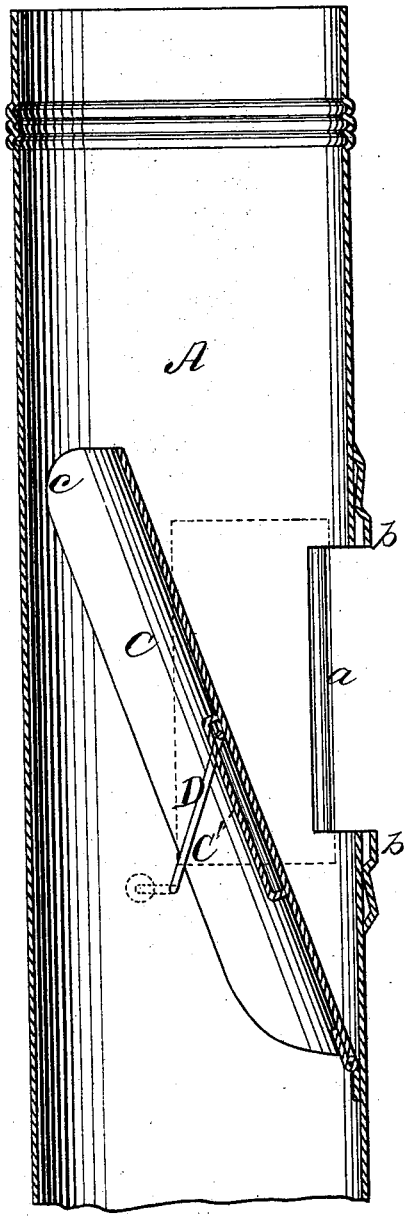


Fig. 2.

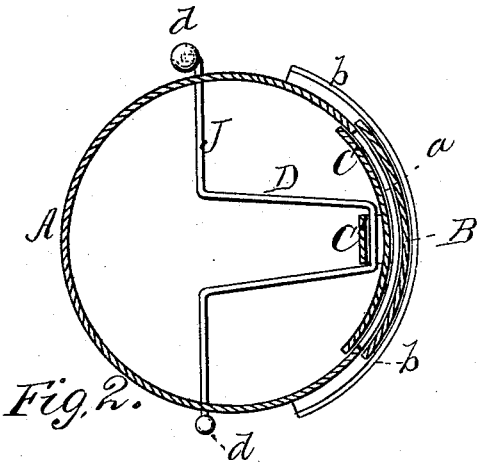
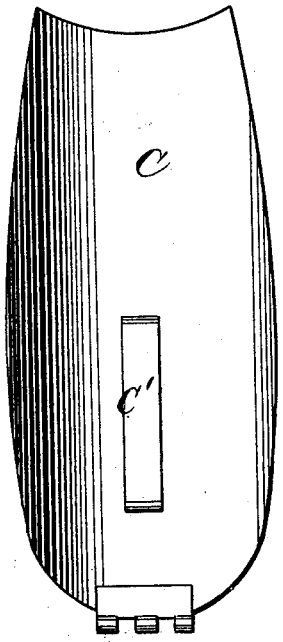


Fig. 3.



WITNESSES

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THOMAS C. PHELAN, OF GLOVERSVILLE, NEW YORK.

IMPROVEMENT IN STOVE-PIPE DAMPER AND REGULATOR.

Specification forming part of Letters Patent No. **210,354**, dated November 26, 1878; application filed June 15, 1878.

To all whom it may concern:

Be it known that I, THOMAS C. PHELAN, of Gloversville, in the county of Fulton and State of New York, have invented a new and valuable Improvement in Combined Damper, Regulator, and Ventilator for Stove-Pipes; 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 drawings is a representation of a longitudinal central section of my invention. Fig. 2 is a horizontal section thereof, and Fig. 3 is a detail view of the damper.

This invention has relation to improvements in combined dampers, ventilators, and regulators for stove, furnace, and steam-boiler pipes and chimney-flues.

The nature of the invention consists in combining, with a stove-pipe having an opening in its side and a damper hinged to said pipe below said opening, and having a staple upon its inside, a shaft journaled and projecting through the pipe, and provided with a crank engaging said staple and manipulating handles upon its ends, as will be hereinafter shown and described.

In the annexed drawings, the letter A designates an ordinary stove-pipe, in connection with which I shall illustrate my invention. This pipe has in its side an opening, *a*, having at its top and bottom edges the ways *b*, in which is arranged, after the manner of a sash, the sliding door B, by means of which the opening *a* may be altogether closed, or narrowed to any desired extent.

C represents a concave metallic damper, hinged by its lower edge to the inside of pipe A below the opening *a*, and extending upward a suitable distance above the same. The convexity of the damper is toward the said opening, and its lateral edges are of the form of an elliptical curve, so that when it is closed to its full extent the said edges conform strictly to the curve of the pipe, and form a tight joint therewith.

In the position of closure the upper part of the damper bears against the wall of the pipe A opposite to the opening *a*, and forms therewith an opening, *c*, through which the products of combustion pass upward above the opening *a* aforesaid on their way to the flue. A strong draft upward above said opening is thus formed, which draws the foul air out of a room into the pipe A and carries it to the flue, and finally to the open air.

It is evident that by means of the slide B the draft may be increased or diminished, and that the damper, extending above the opening *a* and forming a close joint with the pipe A, prevents smoke or gases from being discharged through said opening into a room.

The damper has upon its concave side a long staple, C′, with which a crank, D, of a shaft, J, having its bearings in and projecting through the pipe, is engaged. This shaft has upon one or both ends a handle, *d*. By manipulating this shaft the damper may be opened or closed at pleasure, and as readily adjusted to produce any desired draft.

I am aware that dampers hinged below an opening in a stove-pipe and adapted to close such opening from the inside are not new; but I am not aware of any such damper having the simple and efficient means of operating it such as I have shown and described.

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

In combination with a pipe or flue, A, having an opening, *a*, in its side, and the damper C, hinged to said pipe below the said opening, and provided with a staple, C′, of the crank D on the shaft J, the latter having its bearings in and projecting through the stove-pipe, and provided with handles *d*, constructed and arranged to operate substantially as specified.

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

THOMAS C. PHELAN.

Witnesses:
JAMES S. HOSMER,
T. O. HAMLIN.