

J. CARTER.
STOVE-PIPE DAMPER.

No. 175,663.

Patented April 4, 1876.

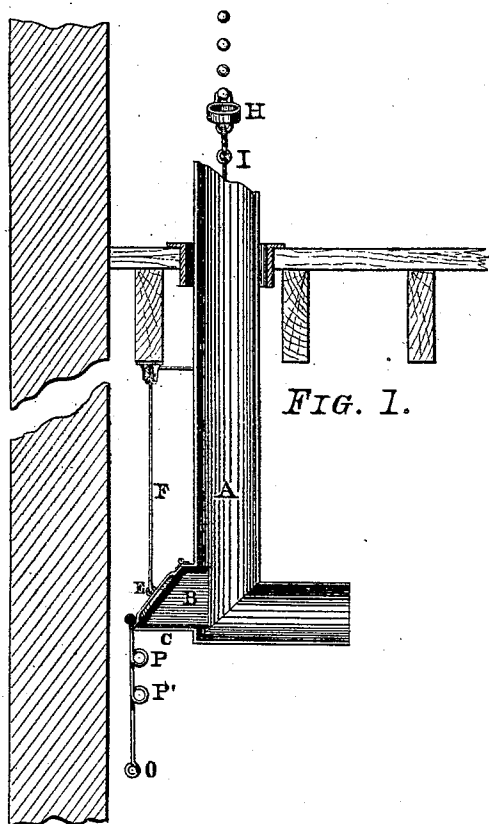


FIG. 1.

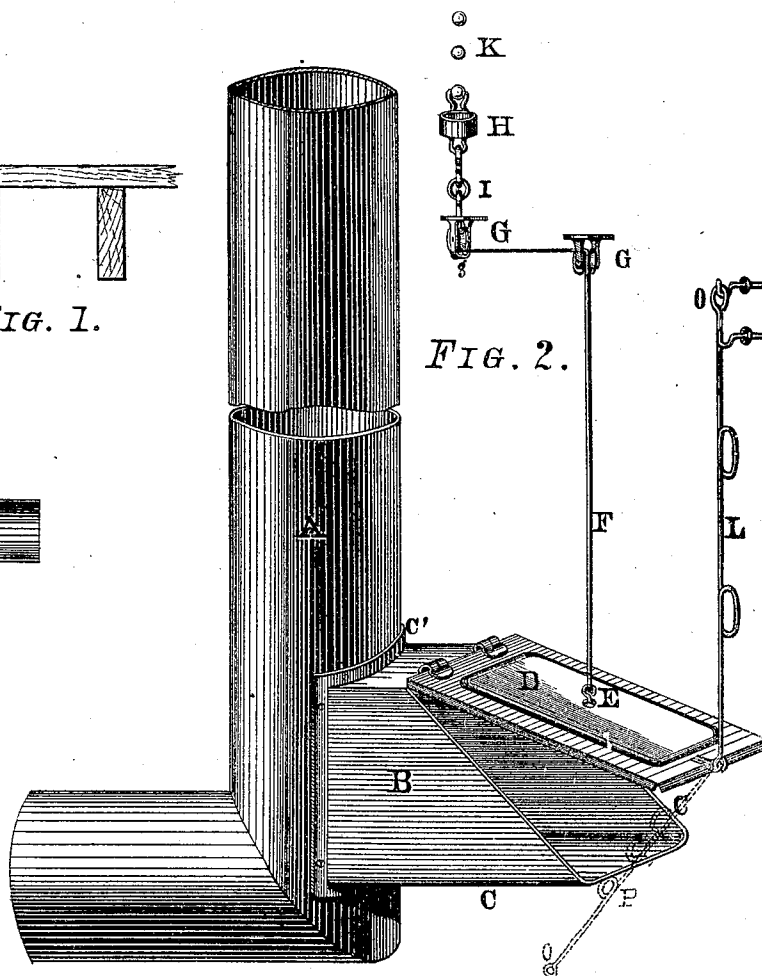


FIG. 2.

WITNESSES:

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INVENTOR:

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his atty.

UNITED STATES PATENT OFFICE.

JAMES CARTER, OF LOCKPORT, NEW YORK.

IMPROVEMENT IN STOVE-PIPE DAMPERS.

Specification forming part of Letters Patent No. **175,663**, dated April 4, 1876; application filed March 2, 1876.

To all whom it may concern:

Be it known that I, JAMES CARTER, of Lockport, in the county of Niagara and State of New York, have invented certain new and useful Improvements on Stove and Furnace Pipe Dampers; and I do hereby that the following description, taken in connection with the accompanying sheet of drawings, forms a full, clear, and exact specification.

The nature of my present invention will be fully understood from the following description, and pointed out in the claim.

In the drawings, Figure 1 is a longitudinal sectional elevation, and Fig. 2 a perspective elevation, of my damper.

Like letters of reference indicate corresponding parts in both figures.

A is the ordinary stove or furnace pipe leading either to the chimney or to a heating-drum, or similar device placed in a room above that where the stove or furnace is situated. B is a rectangular cast or sheet metal box, having its front end sloped, or at an angle of about forty-five degrees with the lower side of said box, soldered, riveted or otherwise attached to the pipe A at any suitable and convenient place. The sloped part of the box B constitutes the mouth, and this is provided with a cover, D, hinged to the upper side of said box B. Fastened to this cover is an eye, E, which connects with a cord or wire rope, F, to operate the cover. This cord F passes over one or more guide-pulleys, G, into the room above, and is provided on its extremity with a ring, H, to engage with a series of pins or hooks, K, arranged at such a distance from the floor as to allow of an easy adjustment of the cover D to any desired height. This ring H consists of the ring proper and two eyes attached to the ring on the upper and lower edge thereof. One of these eyes connects with the cord and the other with the pins or hooks K. To prevent the cord F from dropping through the floor, and at the same time to guard against the falling off of the cord from the guide-pulleys that change the horizontal direction of said cord into a vertical one, a ring, I, is interposed between the ring H and the floor attached to the cord F at such a distance from said floor that it will just rest

thereupon when the damper-cover is shut without slacking said cord F.

If desired, the brackets of said pulleys may be provided with guards *g* to assist in keeping the cord upon the pulley. L is a bent rod attached to an eye on the front end of the cover D. It has a ring, O, on its extremity and several hooks or catches, P, at proper distance therefrom.

The operation of my improved damper will be readily understood. Suppose it being placed in the pipe leading from the furnace to the chimney, and the cover D closed. As soon as the heat becomes of too high a temperature the ring H is placed on any of the pins K corresponding to the height the damper-cover is desired to be elevated, and cold air now entering the chimney in proportion to the size of the opening made in the damper checks the draft thereof, and thereby produces a corresponding reduction of the heat in the furnace or stove, if attached to the stove-pipe.

In order to enable the adjustment of the damper from the place where it is situated, I resort to a device consisting of the rod L, having the eye O, and suitably-arranged hooks or catches P. This rod is pendent from the cover D, and supports the same by placing any one of the catches P upon the base C of the box B, as shown in Fig. 2. The distance between these catches P and their number is such as to give a sufficient change of the elevation of said cover D.

If desired and convenient, hooks K similar to those placed in the rooms above may be arranged, and the cover suspended by the eye O of the rod L, as shown in Fig. 2; but the arrangement of the pendent rod may be more convenient, since it will not interfere with the adjustment and manipulation of the cover D from above.

I will here mention that this damper may also be placed in the hot-air conductors leading from the furnace to the various rooms to reduce the temperature of the air passing through said conductors, and that it may be attached to new as well as old pipes. It is made of either sheet or cast iron, the latter being preferable on account of its cheapness. If made of this, as well as other material,

flanges or lugs C' are provided on that part of the box B connecting with the pipe A to unite these parts by means of screws, rivets, &c.

Having thus fully described my invention, to enable others skilled in the art to which it pertains to make and use the same, I desire to secure to me by Letters Patent of the United States—

1. The combination, with the trunk B, consisting of a cast or sheet metal box having lugs or flanges C' for attachment to a stove or furnace pipe A on one end, and its opposite end sloped, as shown, of the cover D hinged to said trunk, and provided with the pendent adjusting-rod L, having the catches P engaging with the base C of said trunk, for sup-

porting said cover on any desired point, the whole being constructed and arranged substantially as described.

2. The combination, with the cover D, of the cord F, guide-pulleys G, having the guard g, rings I and H, and the pins or hooks K, said ring I being interposed between the ring H and the floor of a room at such distance above the said floor as to allow the cover D to close without slacking the cord F, substantially in the manner and for the use and purpose set forth.

JAMES CARTER.

Witnesses:

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S. S. CROSS.