

JAMES SPEAR.
Stove Pipe Damper.

No. 124,456.

Patented March 12, 1872.

Fig. 1

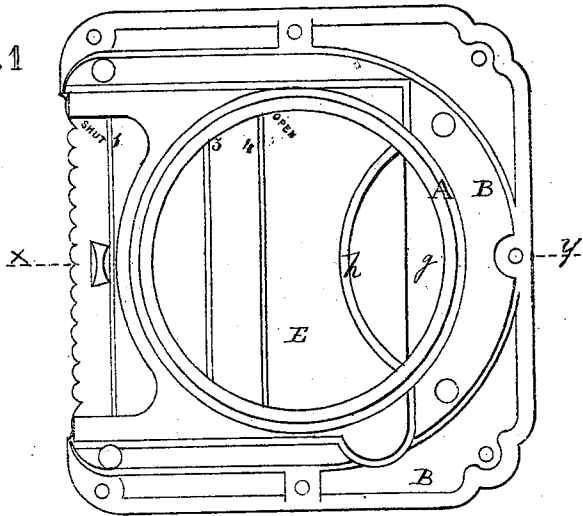


Fig. 4

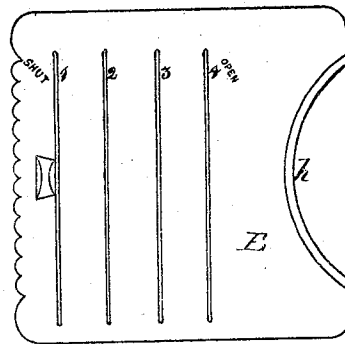


Fig. 2

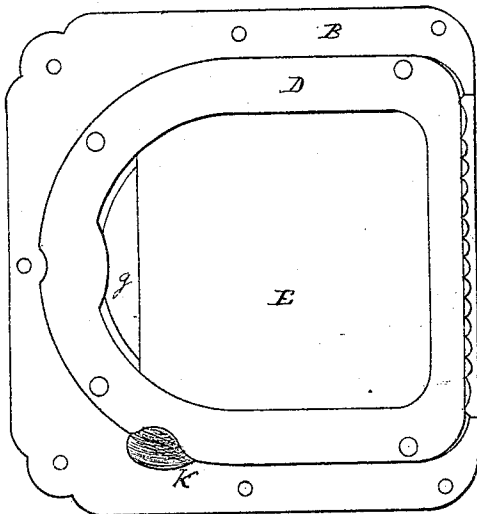


Fig. 5

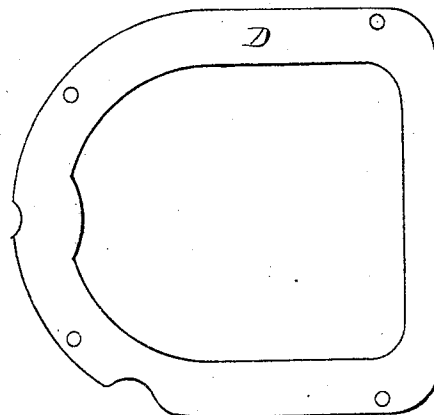
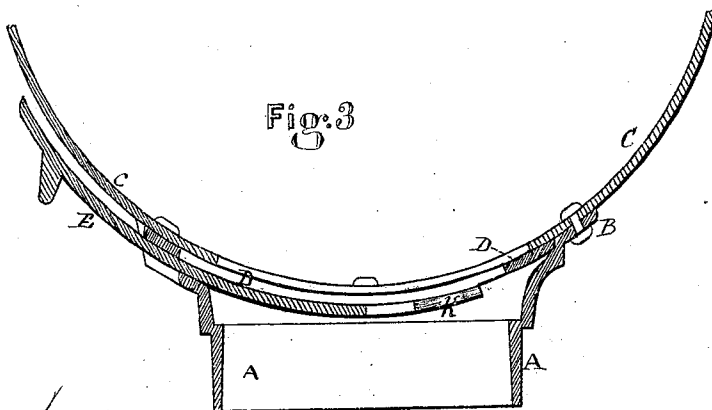


Fig. 3



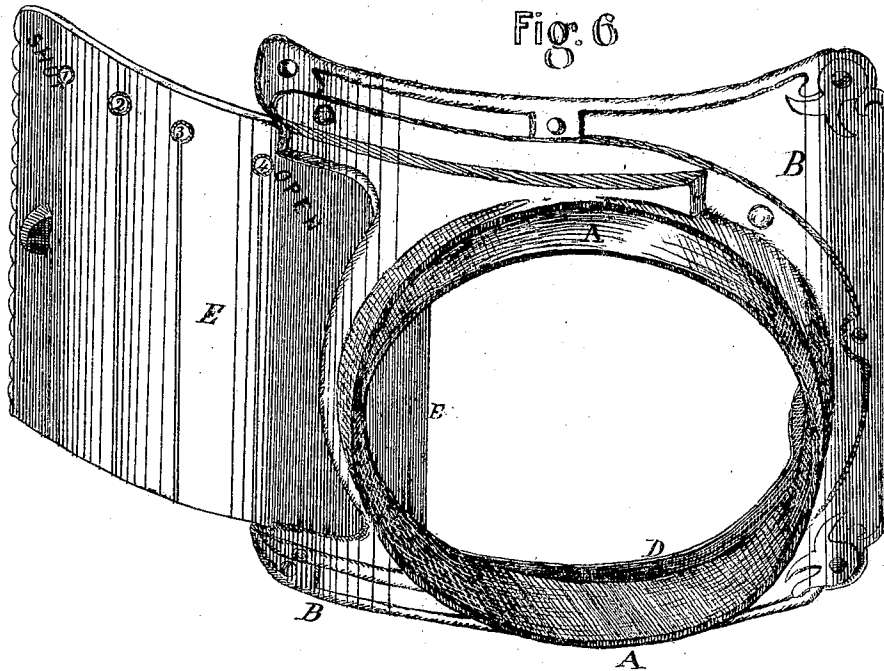
John P. Fry
& Chickmeyer

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Witnesses { *Jno. P. Ley*
A. Lickmeyer

James Spear

UNITED STATES PATENT OFFICE.

JAMES SPEAR, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN STOVE-PIPE DAMPERS.

Specification forming part of Letters Patent No. 124,456, dated March 12, 1872.

Specification describing certain Improvements in Stove-Pipe Dampers, invented by JAMES SPEAR, 1116 Market street, Philadelphia, Pennsylvania.

The nature of my invention consists in the construction of a sliding damper, combined with a stove-pipe collar in such a manner that the draught can be regulated to great exactness, whatever may be the height of the chimney, or the suction of the current of air; and this is done without any possibility of the draught changing the position of damper after it is once adjusted.

Referring to the drawing making part of this specification, Figure 1 is an outside view of the damper and collar combined, the damper being shut. Fig. 2 is an inside view of the same. Fig. 3 is a horizontal section on the line *xy*. Fig. 4 is a view of the damper-plate. Fig. 5 is a view of the flange D by itself. Fig. 6 is a perspective view of the damper and stove-pipe collar from the outside, the damper being wide open.

The stove-pipe collar A is cast with a flange, B, which is riveted to the stove-casing C, as shown in Fig. 3. On the inside of the flange B is riveted the horseshoe-shaped flange or ring D, (see Fig. 5,) leaving a sufficient space on one side between the two flanges, in which to slide horizontally the damper-plate E, the said plate and the flanges B and D being made to conform to the shape of the stove-casing. The plate E slides in sufficiently far to close the opening in the stove-pipe, excepting the small segment marked *g*. A stop, *h*, prevents the plate from being pulled entirely out. The words "open" and "shut" are cast upon the plate; also, perpendicular lines, marked 1 2 3 4, to indicate the distance the damper is open. The two flanges B and D are partly cut away at K, so as to make an opening, through which any dust which accumulates in the lower slide may be forced into the stove by the motion of

the damper. The damper will in this way free itself.

It is evident that the flange A may be riveted to the casing C, and the flange B of the stove-pipe collar riveted to the flange A only; this accomplishes the same purpose, but is more unsightly in appearance.

This herein-described invention may be considered an improvement on my patent of August 1, 1865, in which a hole is shown through the damper. This hole is too small for some chimneys with weak draughts, and too large for others of stronger draughts. This cannot be obviated by opening the damper a short distance, as it will draw shut with the draught, or open with a downward puff of wind, endangering the health of the occupants of the room.

So, also, with my damper patented April 20, 1869, No. 89,179, which is liable to the same uncertainties of operation, as are all dampers working on pivots.

With my present improvement I obtain what may be called a universal damper, adjustable to the draught of all chimneys, and not subject to a change of position from the force of the current.

I am aware that flat sliding dampers are common in brick-flues to ranges and heaters; and in cooking-stoves for changing the direction of the current of the draught.

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

1. The sliding damper-plate E and stove-pipe collar A, combined and operating as herein described.

2. The dust-hole K, arranged at the termination of the bottom slide in which the damper-plate E works, as and for the purpose herein described.

JAMES SPEAR.

Witnesses:

JOHN P. LEY,
A. EICKMEYER.