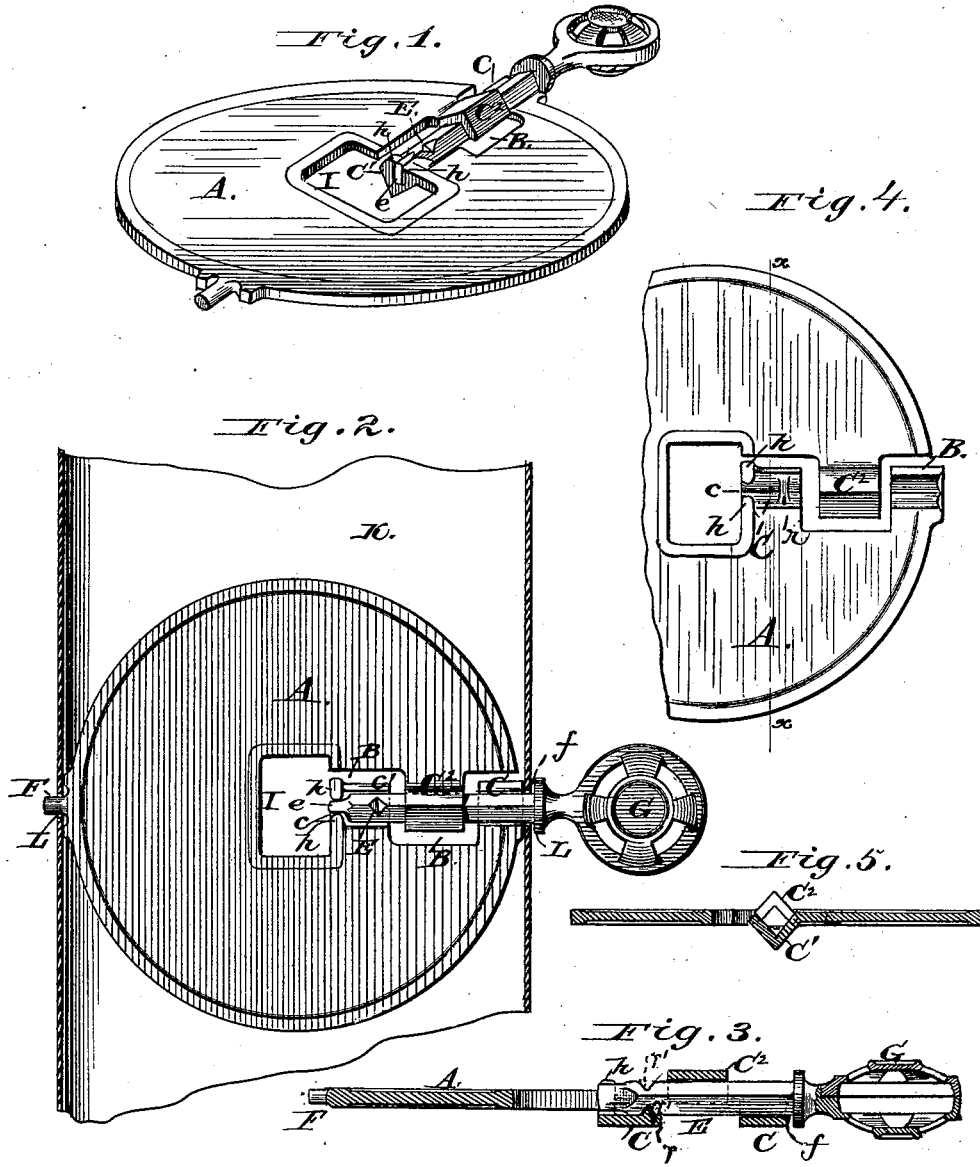


C. B. CLARK.  
Stovepipe-Damper.

No. 206,227.

Patented July 23, 1878.



Attest:  
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# UNITED STATES PATENT OFFICE.

CHARLES B. CLARK, OF BUFFALO, NEW YORK.

## IMPROVEMENT IN STOVE-PIPE DAMPERS.

Specification forming part of Letters Patent No. 206,227, dated July 23, 1878; application filed December 20, 1877.

*To all whom it may concern:*

Be it known that I, CHARLES B. CLARK, of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Stove-Pipe Dampers, of which the following is a specification:

This invention relates to certain improvements in dampers for stove-pipes, its object being to facilitate the insertion of the damper in place, and to prevent the withdrawal or the heating of the handle, and also to give said handle a neat and ornamental appearance.

To this end my invention consists in constructing said damper of a disk of metal, preferably of cast metal, said disk being slotted radially from the center to the periphery, one edge of the slot at opposite ends thereof having two lips projecting therefrom at an angle of about forty-five degrees, and extending to a plane at right angles to the radius of the damper, and from thence bent toward but not touching the opposite edge of the slot, from which projects in opposite direction a central lip similar in form to the radial passage or space embraced by these lips, forming a socket for the reception of a spindle, upon which is formed one journal of the damper, the other journal being attached to or formed directly on the periphery of the damper diametrically opposite the radial slot.

In the drawings, Figure 1 represents a detached perspective view of the damper and its spindle or shaft; Fig. 2, a vertical section of a stove-pipe with the damper applied thereto; Fig. 3, a detached view of the spindle and its handle constructed according to my invention; Fig. 4, a detail flatwise view of the damper; and Fig. 5, a section of damper on line *x x*, Fig. 4.

In the drawings, the letter A represents the damper, consisting of a circular disk of metal, preferably of cast metal, and provided with a radial slot, B, extending from or near the center to the periphery at one side. At the opposite ends of one edge of said slot, on one side of the disk, are formed the lips C C', projecting outwardly at an angle of about forty-five degrees to the face of the disk, and extending to a plane which cuts transversely through the center of the slot, and is then bent toward but does not touch the opposite edge of the said

slot, from which opposite edge projects a single central lip, C<sup>2</sup>, in an opposite direction, but of similar form, to the lips C C'. The three lips are each one-third the length of the slot, and partially inclose a rectangular or nearly rectangular socket for the reception of the short rectangular spindle E, upon which is formed one of the journals, *f*, of the damper. The other journal of said damper is represented by the letter F, and is attached to or formed directly upon the periphery of the disk diametrically opposite the radial slot B therein. The spindle E is provided with a hollow perforated disk-shaped handle, G, through which the air may freely pass and keep it cool.

The disk of the damper is preferably formed with an aperture, I, at its center; but this may be omitted without materially changing the nature of my invention.

The inner end of the half-socket formed by the inner lip, C', is closed, except a central open slot, *c*, into which projects the flattened end *e* of the spindle E, and the edges of this slot thus form jaws *h h*, which prevent the spindle from turning in its socket, which otherwise might in some cases occur, owing to the elasticity of the disk.

The letter K represents the stove-pipe, which is of the ordinary construction, and is provided with the usual apertures L on opposite sides, to serve as bearings for the journals.

The damper is inserted in the stove-pipe by placing the journal F in one of the apertures L, and then inserting the end of spindle E in its socket from the outside.

The slot in the disk allows the jaws of the socket to spring slightly, so as to clasp the spindle and embrace it tightly by its elasticity.

The handle of the spindle, being hollow and perforated, permits circulation of the air through the same, preventing it from getting too hot for handling with convenience, while the slots impart an ornamental appearance to the handle.

The inner lip, C', has on its inner face a transverse ridge, *r*, which, when the spindle is in position, fits into a notch, *r'*, therein, and prevents said spindle from being withdrawn longitudinally from its socket except by considerable force.

What I claim is—

1. A stove-pipe damper consisting of a circular disk, slotted, as described, from the center to the periphery, the edges of said slot being provided with lips on opposite sides to form a socket for the spindle, substantially as set forth.

2. The combination, with the disk, slotted from the center to the periphery, and provided with lips at the edge of said slot, and with a permanent journal on the periphery of the disk, as described, of the short spindle adapted to said lips on the edges of the slot, substantially as set forth.

3. The combination of the damper-spindle having its inner end flattened, and the rigid jaws *h h*, arranged near the center of the

damper, substantially as and for the purpose set forth.

4. The combination, with the disk, slotted from the center to the periphery, and having independent lips at the edges of said slot, one of which is constructed with a ridge, *r*, of the short spindle, adapted to said lips, and having a notch, *r'*, at its end, resting on said ridge, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

CHARLES B. CLARK.

Witnesses:

ALBERT H. NORRIS,

J. W. HAMILTON JOHNSON.