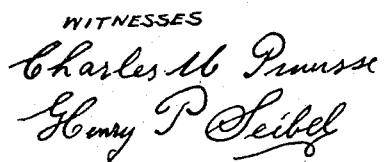


### Damper for Stovepipes.

Patented Aug. 29, 1865.



Joseph Fowler

# UNITED STATES PATENT OFFICE.

JOSEPH FOWLER, OF WATERTOWN, WISCONSIN.

## DAMPER FOR STOVE-PIPES.

Specification forming part of Letters Patent No. 49,619, dated August 29, 1865.

*To all whom it may concern:*

Be it known that I, JOSEPH FOWLER, of Watertown, in the county of Jefferson and State of Wisconsin, have invented, made, and applied to use a certain new and useful Improvement in Dampers for the Pipes of Stoves, &c.; and I do hereby declare the following to be a full, clear, and exact description of the said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a section of the damper as closed. Fig. 2 is a similar view with the damper open, and Fig. 3 is a plan of one of the divided perforated damper-disks.

Similar marks of reference denote the same parts.

Several dampers have heretofore been made in which the draft is checked but not entirely stopped when the damper is shut, thereby regulating the escape of the products of combustion, but preventing smoke or gases being thrown out into the room, as is sometimes the case in closing the ordinary damper.

My damper is adapted to a vertical or nearly vertical pipe, and consists in a series of half-disks, hinged so that they can be turned up back to back to allow a free passage for smoke, &c., or be turned down into a horizontal position to check the draft, but not entirely close the same, because the divided or half disks are either smaller than the stove-pipe or formed with an opening, and these placed alternately, so that the draft passes in a zigzag direction through the damper.

In the drawings, *a* is a yoke-piece of metal setting within the stove-pipe *b*, and held in place by a wire or pin, *c*, that passes through it and the pipe *b*. In this yoke-piece *a* are perforations, in pairs, at the required distance apart, receiving the centers or trunnion-projections 1 1 of the divided or half disks *d d* and *e e*. The disks *d* are of less diameter than the stove-pipe, so that there is an annular space between their edges and the interior of the

pipe *b* when the damper is closed, as in Fig. 1. The disks *e* are nearly the size of the interior of the pipe; but each half of said disks is formed with an opening at or near the center, as at *i*, so that the draft cannot be entirely checked by closing the damper, but in consequence of the divided disks *d* and *e* being placed alternately the draft will pass in a zigzag direction in going through the damper.

In order to keep the disks *d* and *e* at a proper distance apart and parallel to each other, I provide on the under side of each half-disk (except the bottom one) a triangular flange, *o*, which flanges do not prevent the half-disks being turned up back to back, as in Fig. 2, because the point of one flange projects beyond the edge of the half-disk next below. In order to open these damper-disks or allow them to close, I employ the damper-rod *h*, passing across the pipe at right angles to the division in the disks, and upon this rod cam pieces *l* are formed, that act to raise up the damper-disks as the rod is rotated, and sustain them at any desired point; and I prefer to have a counter-weight, *g*, upon the arm of this damper-rod to prevent the damper closing by any jar.

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

1. A series of divided disks, hinged, and formed alternately of larger and smaller size, the larger disks having openings near their centers, the whole forming a damper, as set forth.

2. The triangular flanges *o o*, in combination with the hinged half-disks, for the purposes and as specified.

3. The cam-pieces *l l* on the damper-rod *h*, in combination with the divided hinged damper-disks, for the purposes and as specified.

In witness whereof I have hereunto set my signature this 24th day of May, A. D. 1865.

JOSEPH FOWLER.

Witnesses:

CHARLES M. DUCASSÉ.

HENRY P. SEIBEL.