W. W. ST. JOHN.

Stovepipe Damper.

No. 52,460. Patented Feb. 6, 1866.

FIG. 2

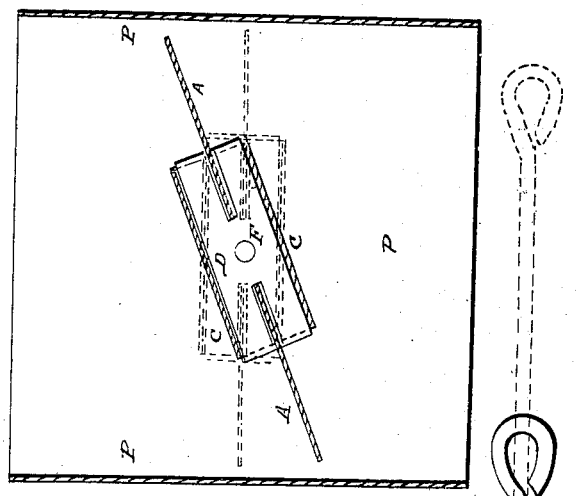
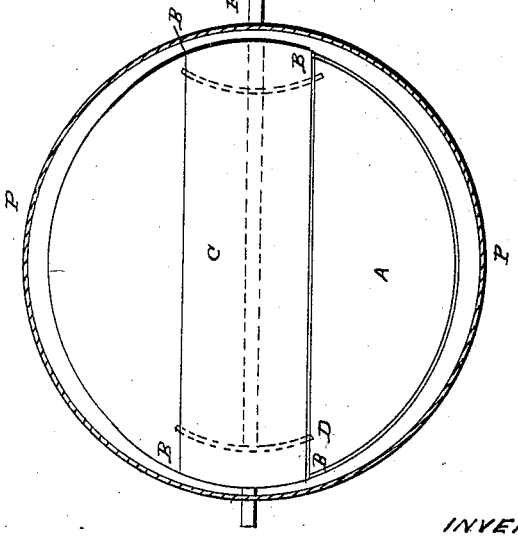


FIG. 1.



WITNESSES:

M Randolph

A Wagner

INVENTOR.

Wm W St Johns

UNITED STATES PATENT OFFICE.

WILLIAM W. ST. JOHN, OF ST. LOUIS, MISSOURI.

STOVE-PIPE DAMPER.

Specification forming part of Letters Patent No. **52,460**, dated February 6, 1866.

To all whom it may concern:

Be it known that I, WILLIAM W. ST. JOHN, of the city of St. Louis, in the county of St. Louis and State of Missouri, have invented a new and useful Improvement in Stove-Pipe Dampers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 of the annexed drawings is a plan of the damper, showing its position when partly closed in the pipe. Fig. 2 is a sectional elevation through the axis of the pipe and damper.

This invention relates, first, to the damper, which is so arranged as to throw a large portion of the heat back into the stove, at the same time permitting the smoke to ascend to the chimney, or at least a sufficient portion of it to prevent the extinguishing of the fire or the diffusion of the smoke into the apartment where the stove is located.

The invention relates, secondly, to a scraper which is to remove the soot which may accumulate upon the damper.

To enable those skilled in the art to make and use my improved damper, I will proceed to describe its construction and operation.

The damper consists of two segmental plates, A, which are fastened together with their flat surfaces in the same planes by means of the two rectangular end pieces, B B, to which they are firmly secured so as to leave an open space of one or two inches (more or less) between their straight edges, which are adjacent to each other. The pieces B B are one to one and one-half inch wide, more or less, and the plates A A are fastened to their flat surfaces so as to leave their edges projecting an equal distance on either side of them. The pieces B B should be somewhat longer than the width of the opening between the plates A A, and the rectangular plates C C are fastened to the edges of them so as to cover the opening which was left between the plates A A. A scraper, D, is fitted to slide easily between the plates C C and the plates A A, the straight edges of which enter grooves made in the ends of the scraper for that purpose. A journal fastened to one of the pieces B in the axis of the damper is made to enter an orifice in the pipe P prepared to receive it. The scraper-stem F, passing through an orifice in the pipe P and opposite piece B in the prolongation of the axis of the damper, serves for another journal to it, and around these two axes the damper may be made to revolve by turning the scraper-stem F. The damper may be turned by means of the stem F so that its plates will be in a vertical position, or it may be turned horizontally, as indicated by the red lines in Fig. 2. After the fire gets started to burning the damper should be turned down horizontally, in which position it will arrest the greater portion of the heat, which would otherwise go up the chimney and be lost. At the same time the openings between the plates will afford sufficient space to permit a sufficient portion of the smoke to go out to prevent smoking in the room.

I am aware that dampers have heretofore been used which were formed of two segmental disks fastened together at their ends; but such dampers have invariably choked up with soot between the plates, and from this cause in a short time become entirely worthless. To remedy this defect I introduce the scraper D, which can be drawn back and forth by means of the stem F, which extends outside of the pipe, and the soot thereby removed from the damper. The different positions of the stem F are indicated in the drawings as No. 1 and No. 2.

Having described my invention, what I claim is—

1. The combination of the segmental plates A A with the end pieces, B B, the plates C C, and the scraper D, as and for the purpose set forth.

2. The scraper D, for the purpose of removing the accumulated soot from a stove-pipe damper.

WM. W. ST. JOHN.

Witnesses:

M. RANDOLPH,

S. M. RANDOLPH.