

Hall & Searl,

Stove Pipe Shelf.

No. 102114.

Patented Apr. 19. 1870.

Fig 1

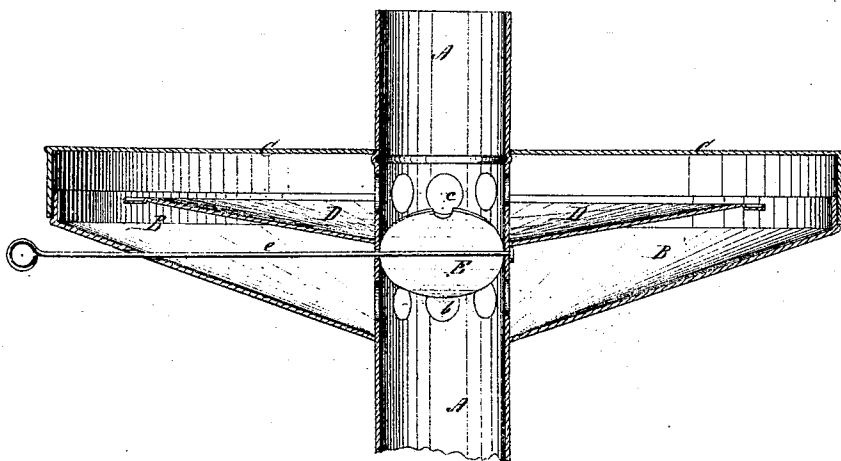


Fig. 2.

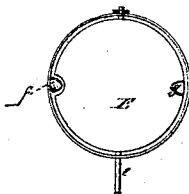
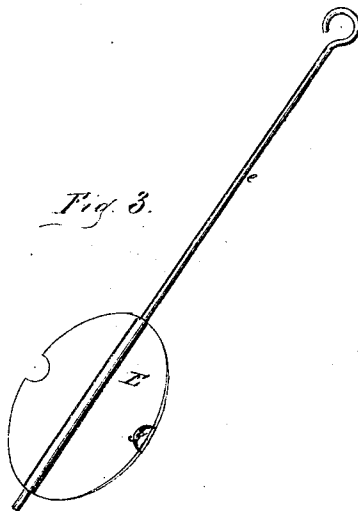


Fig. 3.



Witnesses:  
Henry J. Metz  
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Their Attorneys.

# United States Patent Office.

EDWARD HALL, OF БЕЛОIT, WISCONSIN, AND FRANCIS D. SEARL, OF ROCKTON, ILLINOIS.

Letters Patent No. 102,114, dated April 19, 1870.

## IMPROVED STOVE-PIPE SHELF, HEATER, AND DAMPER.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, EDWARD HALL, of Beloit, in the county of Rock, and State of Wisconsin, and FRANCIS D. SEARL, of Rockton, in the county of Winnebago, and State of Illinois, have invented a new and useful Combined Stove-pipe Shelf, Heater, and Damper; and we do hereby declare the following to be a full and correct description of the same, sufficient to enable others skilled in the class to which our invention appertains to fully understand and use the same, reference being had to the accompanying drawings, which make part of this specification, and in which—

Figure 1 is a vertical central section of our improved stove-pipe shelf, heater, and damper combined, as attached to a stove-pipe;

Figure 2 is a top view of the stove-pipe, showing the damper; and

Figure 3 is a detached view of the damper.

Like letters of reference indicate like parts in the several figures.

Our invention consists in a hollow stove-pipe shelf having a deflector, above and below which a series of openings are formed in the stove-pipe, which, in combination with a damper in the latter, allow the heat to pass up through the stove-pipe or force it through the hollow stove-pipe shelf, according to the position given to the damper.

A in the drawings represents a stove-pipe, on which is formed a funnel-shaped circular drum, B, over which a lid or shelf, C, fits snugly, the drum and lid together forming a hollow receptacle.

About midway between the lid or shelf C and the drum B, where the latter is formed on or attached to the stove-pipe, is a deflecting funnel-shaped shelf, D, also secured to the stove-pipe, which latter, at a suitable distance above and below this deflector D, is provided with series of openings *b c*, between which, again, a damper, E, is suitably pivoted in the stove-pipe.

This damper E is operated by a rod, *e*, which passes out through the side of the drum B, and it has at one part of its circumference a small portion cut out to allow it to pass a projection, *f*, on the inside of the

stove-pipe, while at the opposite side of its circumference it is provided with a weight, *g*, which will keep the damper either in a vertical position or in a horizontal one by resting upon the projection *f*.

When the damper is in a horizontal position the products of combustion can not escape through the stove-pipe directly upward, but are forced to pass through the openings *b*, under and around the deflector D, and into the stove-pipe again through the openings *c*, when they are allowed to escape upwardly. When the damper is open the products of combustion are not forced to pass through the hollow shelf, as above described, but the draught carries them directly upward. Thus the shelf, if used as such, may be heated to any desirable degree, sufficient to boil water placed in a vessel on it. If desired to use it as a heater the damper is closed, when the products of combustion will heat the entire chamber or drum by passing through it.

In fig. 2 the damper is shown in the act of being turned from the right to the left, to close it.

Having thus described our invention,

What we claim as new, and desire to secure by Letters Patent, is—

1. The combined stove-pipe shelf, heater, and damper, when constructed substantially as herein described, and operating with the deflector D and lid C, substantially as herein set forth.
2. In a stove-pipe shelf, the funnel-shaped deflector D, when attached to the stove-pipe and independent of the drum, substantially as herein described.
3. In a hollow stove-pipe shelf, heater, and damper combined, the combination of the damper E and upper and lower openings *b c* in the stove-pipe within the hollow shelf, substantially as described.
4. The combination of the drum B, lid C, deflector D, damper E, and stove-pipe A, provided with lower and upper openings *b c*, constructed and operating substantially as described.

EDWARD HALL.  
FRANCIS D. SEARL.

Witnesses:

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