

N. R. RAMSEY.

Damper.

No. 48,491.

Patented June 27, 1865.

FIG. 1.

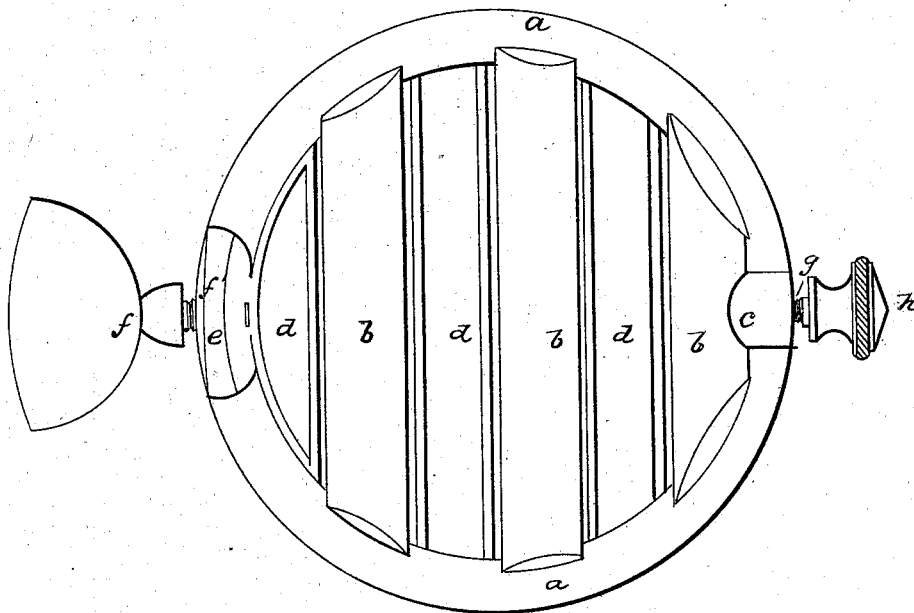


FIG. 2.

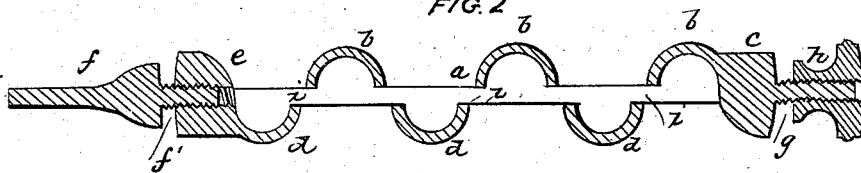
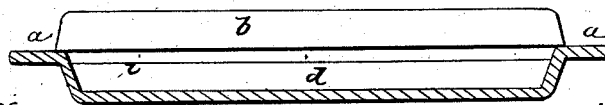


FIG. 3.



WITNESSES

B. E. Fisher
F. R. Hale J

INVENTOR

Nathan R. Ramsay
by his Attorney,
R. W. Eddy

UNITED STATES PATENT OFFICE.

NATHAN R. RAMSEY, OF ORANGE, MASSACHUSETTS, ASSIGNOR TO DANIEL POMROY, OF SAME PLACE.

DAMPER.

Specification forming part of Letters Patent No. 48,491, dated June 27, 1865.

To all whom it may concern:

Be it known that I, NATHAN R. RAMSEY, of Orange, in the county of Franklin and State of Massachusetts, have invented an Improved Heat-Regulator or Damper for Use in Stove-Pipes or Flues; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, and Figs. 2 and 3 are transverse sections, of it.

The damper or regulator in question consists of an annulus, *a*, and two series of concavo-convex ribs or slats, *b b b*, *d d d*, arranged across it in manner as shown in the drawings, and so that there may be spaces or openings *i i i* between the edges of the two series of bars. The bars *b* and *d* are arranged with their outer or convex surfaces standing in opposite directions, one set of the bars being on one side of the annulus and the other set being on the opposite side of it. The concavities are channels running lengthwise of the bars, such channels being stopped at each of their extremities.

The ring *a* at opposite points of its diameter is provided with two swells, *ec*, in one of which—viz., *e*—there is a female screw for the reception of a screw, *f'*, having a broad and thin head, *f*, which is to enable a person to revolve the damper when in place in a pipe. The other swell, *e*, has a screw, *g*, projecting from it, and on this screw a clamp-nut, *h*, is screwed, such nut serving, when screwed against the pipe, to hold the damper at any desirable inclination or position in the pipe.

The advantage of the damper so made is that when closed it operates to prevent downward draft through it, for when a down-current may strike on any of the upper bars it

will be reflected from its convex surface into the concavity or concavities of the next adjacent bar or bars, and in consequence thereof will be thrown back or upward, and will not pass through the opening or openings between the bars.

In order to keep a mass of fuel in a stove in a state of combustion when the damper is closed, there requires to be one or more openings through the damper. The current over the damper being sluggish is likely to be reversed by external currents of wind, so as to more or less interrupt the combustion of the fuel, the fire in such cases being likely to go out.

My improved damper has been found to operate to great advantage in preventing down-drafts through it when closed. It will also do good service in other respects, and may be put in a pipe or be removed therefrom without the necessity of cutting away the pipe, except it be to make the holes therein for reception of the journals of the damper.

While the holding-screws serve as journals to the damper, one of them, with its handle *f*, enables a person to revolve the damper. The other, with its nut, serves the further purpose of clamping the damper in any desirable position.

What I claim as my invention is—

The above-described improved heat regulator or damper, or combination and arrangement of the ring *a* and the two series of concavo-convex bars *b b b*, *d d d*, with openings *i i*, &c., between them, as set forth.

N. R. RAMSEY.

Witnesses:

HIRAM WOODWARD,
R. D. CHASE.