

M. W. BAILY.

Heater.

No. 167,868.

Patented Sept. 21, 1875.

Fig. 2.

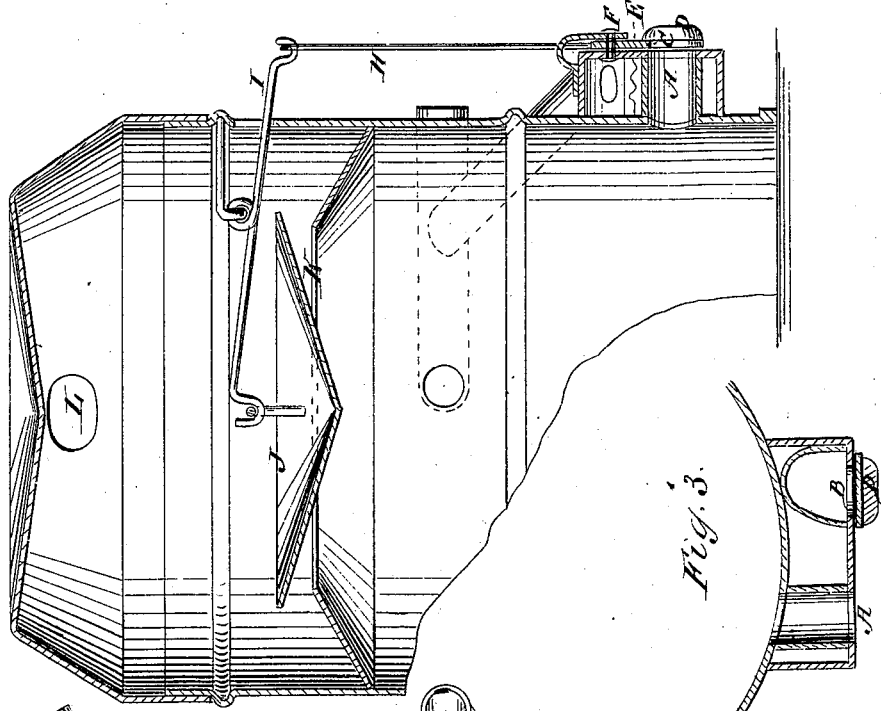
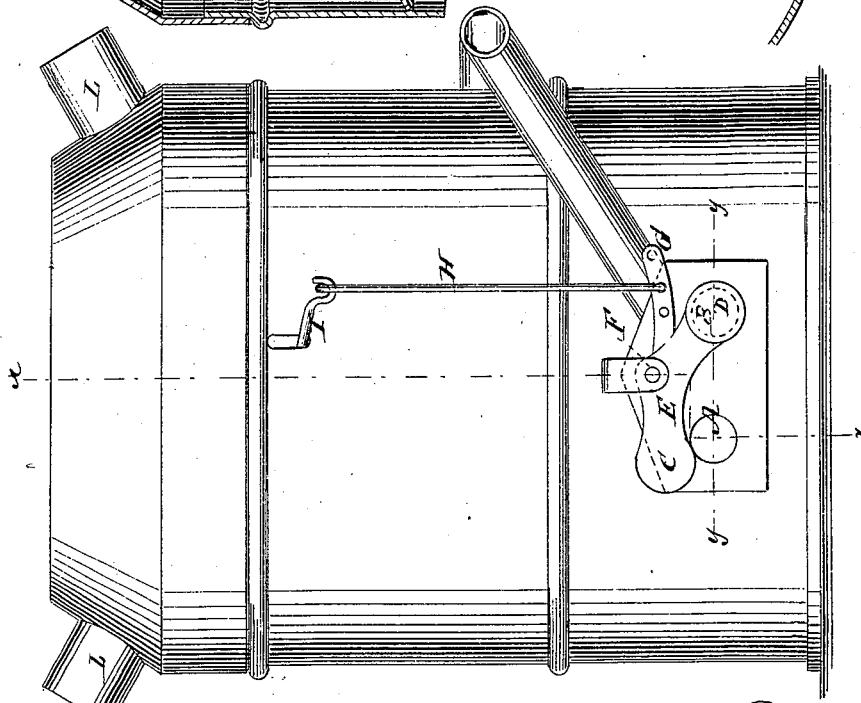


Fig. 3.

Fig. 1.



WITNESSES:

E. W. Hoff
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INVENTOR:

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BY *Mumford*

ATTORNEYS

UNITED STATES PATENT OFFICE.

MIFFLIN W. BAILY, OF POTTSTOWN, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND R. J. BALDWIN, OF SAME PLACE.

IMPROVEMENT IN HEATERS.

Specification forming part of Letters Patent No. **167,868**, dated September 21, 1875; application filed August 28, 1875.

To all whom it may concern:

Be it known that I, MIFFLIN W. BAILY, of Pottstown, Montgomery county, Pennsylvania, have invented a new and Improved Heater, of which the following is a specification:

My invention consists of a novel contrivance to regulate the draft, and, consequently, the amount of heat produced by the quantity of hot air delivered through the registers, so that when the delivery is lessened by the shutting of one or more registers the draft through the fire will be diminished, and the production of heat correspondingly reduced, and vice versa.

Figure 1 is a front elevation of a heater with my improved regulating apparatus. Fig. 2 is a sectional elevation, taken on the line *x x*, Fig. 1; and Fig. 3 is a detail in horizontal section on line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts.

A is the inlet for air to feed the fire; B, the inlet for air above the fire, to check it. C and D are registers for said inlets, fixed on a rock-lever, E, pivoted at F, so that when one closes its passage the other opens the passage with which it is connected. The lever E has also an arm, G, which is connected, by a rod, H, with a lever, I, which holds a large inverted conical valve, J, over the large opening K,

through which hot air passes from the heating-chamber to the conductors L. The contrivance is nearly balanced; but the valve J is slightly the heaviest, so that when the registers in the room to be heated are closed, and but little air is passing up through opening K, the valve will fall and close register C and open D, thus checking the fire; but when more air passes by the increased draft caused by more open registers, the increased pressure on the valve will lift it, and close damper D, and open C to increase the fire accordingly, thus automatically regulating the fire by the hot air delivered into the rooms.

One or more bell-cranks, together with suitable connecting-rods, may be substituted for the lever E I, if preferred.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination of a valve, J, in the hot-air passage with the registers C D and the passages A B, for feeding and checking the fire, substantially in the manner described.

MIFFLIN W. BAILY.

Witnesses:

T. B. MOSHER,
ALEX. F. ROBERTS.