Z. HUNT.

Heating-Stove.

No. 169,172. Patented Oct. 26, 1875.

Fig. 1.

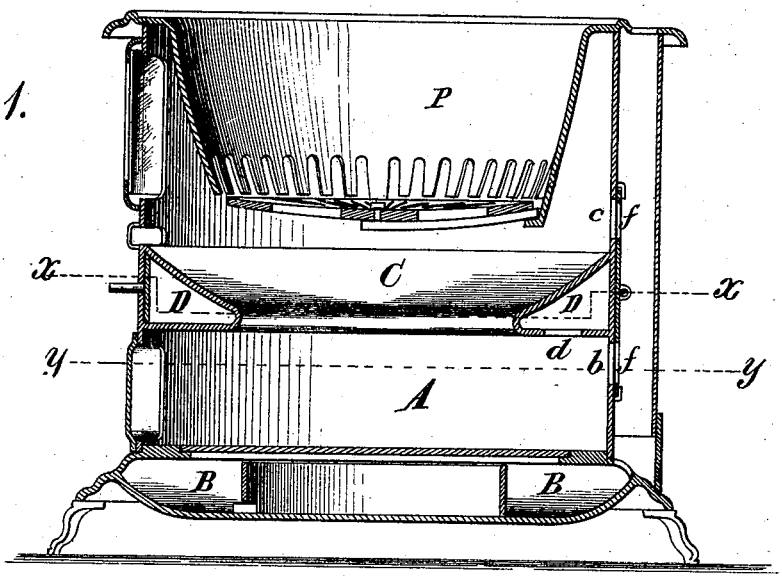


Fig. 2.

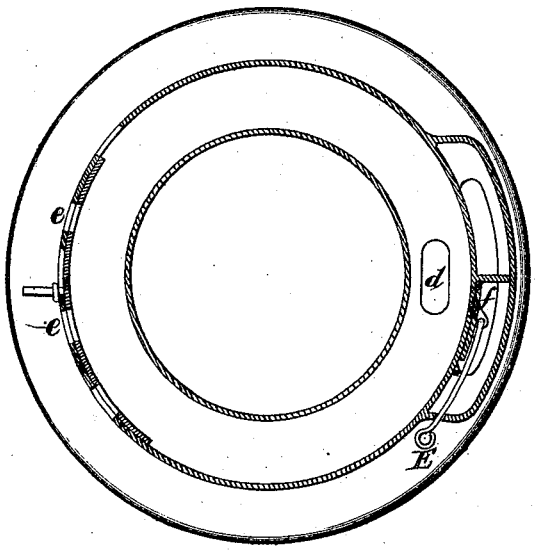
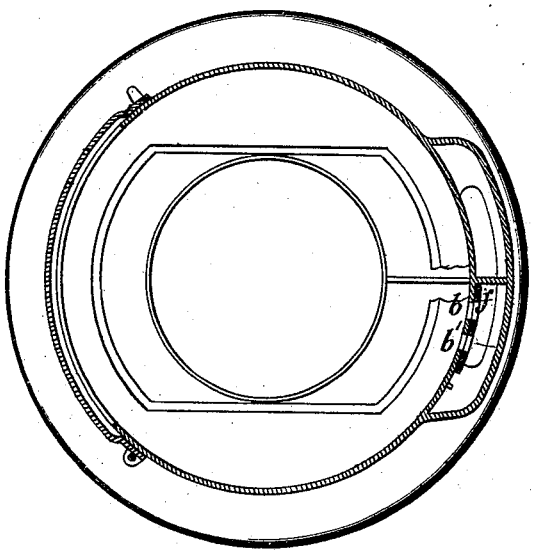


Fig. 3.



Witnesses.
A. Ruppert.
John Eils

Z. Hunt
Inventor.
by R. Edw. J. Eils
Atty

UNITED STATES PATENT OFFICE.

ZEBULON HUNT, OF HUDSON, NEW YORK.

IMPROVEMENT IN HEATING-STOVES.

Specification forming part of Letters Patent No. **169,172**, dated October 26, 1875; application filed July 31, 1875.

To all whom it may concern:

Be it known that I, ZEBULON HUNT, of the city of Hudson, State of New York, have invented Improvements in Heating-Stoves, of which the following is a specification:

The object of my invention is to prevent the cold air employed for draft from chilling and deadening the fire in grate and fire-pot by combining the cold-air draft with the flue D D, and locating both flue and draft between the ash-pit and the fire-pot chambers, so that the air may become heated, or partially heated, before it reaches the fire, and also to prevent such deadening and dimming of the glow of the fire by providing both the fire-pot chamber above flue D D and the ash-pan chamber A below it with double or twin dust-dampers to carry off the dust and light ashes into the smoke-pipe, instead of allowing them to lodge on the ignited coals in bottom of fire-pot.

Figure 1 is a vertical section of my improved stove. Fig. 2 is a horizontal section on the line *x x*. Fig. 3 is a horizontal section on the line *y y*.

As my invention relates only to the lower portions of the stove, these are shown in black lines, the upper portions being added in dotted outline merely to indicate the design and connection of the two united.

The cold air, as it enters through the drafts *e e* into the annular flue D D, is warmed by coming in contact with the inclined top of this flue, and, passing back to the rear portion of it, descends through the aperture *d* in the bottom down into the ash-pit chamber A, and thence up into the funnel-chamber C, which surrounds the grate and fire-pot P. The fire is thus shielded from the deadening effect of the cold air entering the drafts *e e* by its (the cold air) being compelled to pass through the flue D D before coming in contact with it. In the rear part of the vertical wall of the ash-pit A, just below the flue D D, are two dust-openings, *b b'*, for conducting the dust and light ashes into the exit-pipe; so, also, in the rear of funnel-chamber C, surrounding the grate, are two other similar dust-openings, *c c'*, located just above the top of flue D D. These dust-openings are designed more perfectly to preserve the brightness of the fire by preventing the dust and ashes from lodging on the ignited coals in the grate and fire-pot. They open into the ascending flue in the rear of the stove, which flue, at the bottom, communicates with the circular flue B B in the base of the stove beneath the chamber A, and at top with the exit or smoke pipe. These two sets of dust flues or openings are all operated—that is, opened and closed together or simultaneously—by means of sliding valves or dampers *f f*, connected together and actuated by a stem or handle, E, extending through the side of the ascending flue in rear part of stove.

I claim as my invention—

1. In a heating-stove, the closed annular air-heating flue, arranged around the wall of the stove beneath the grate, and provided with diametrically-opposite air-induction openings and air-eduction opening, substantially as specified.

2. The combination and arrangement of the dust-openings *b b'* and *c c'* with chambers A and C, respectively, and in relation to flue D D, substantially in the manner and for the purpose herein described.

Z. HUNT.

Witnesses:

RICHARD POWELL,

SHERMAN VAN NESS.