Z. HUNT.

Heating Stove.

No. 50,073. Patented Sept. 19, 1865.

Fig. 3

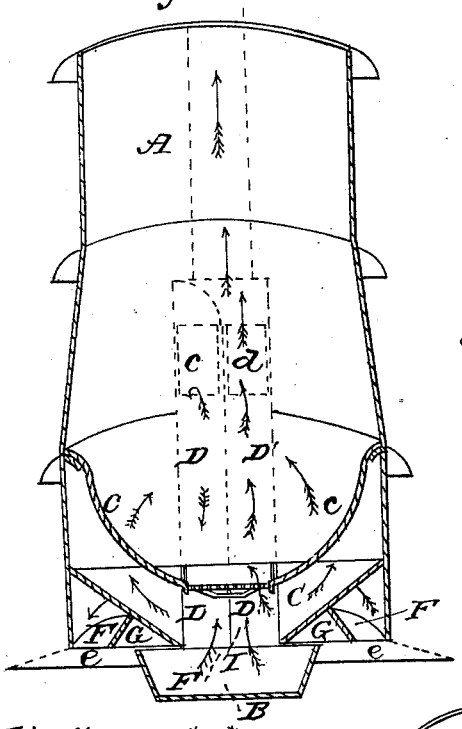


Fig. 2

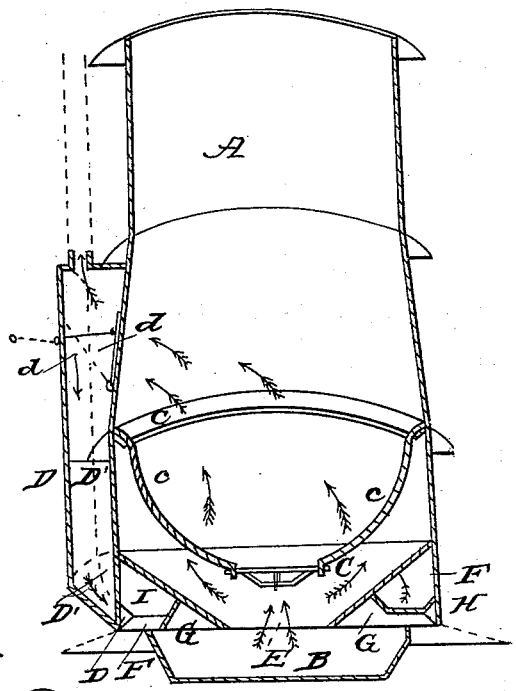


Fig. 4

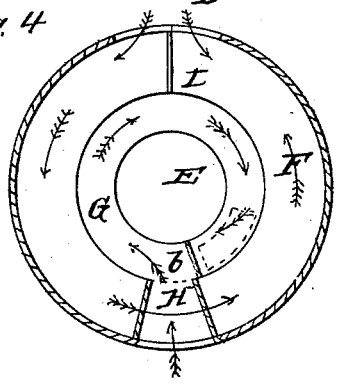


Fig. 1

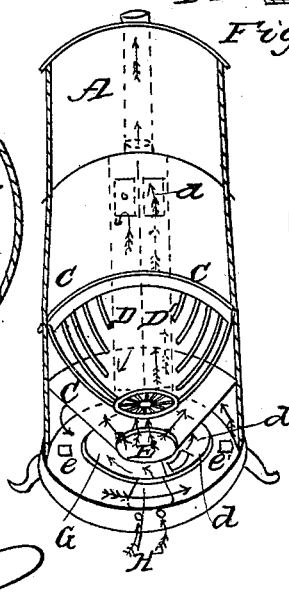
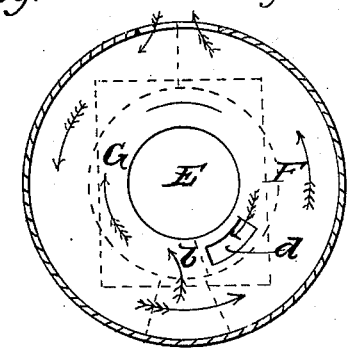


Fig. 5



Witnesses

Abp. S. Rowley

Willard S. Woody

Inventor

Lebulon Hunt

UNITED STATES PATENT OFFICE.

ZEBULON HUNT, OF HUDSON, NEW YORK, ASSIGNOR TO HIMSELF AND WM. J. MILLER.

IMPROVEMENT IN COAL-STOVES.

Specification forming part of Letters Patent No. **50,073**, dated September 19, 1865.

To all whom it may concern:

Be it known that I, ZEBULON HUNT, of the city of Hudson, in the county of Columbia and State of New York, have invented a new and useful Improvement in the Construction and Arrangement of the Draft-Flues of Coal-Stoves; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the interior of the stove, the front half of shell being removed; Fig. 2, a sectional view from front to rear; Fig. 3, a sectional view crosswise or from left to right; Fig. 4, a transverse section of base of stove, showing the partitions forming the circular flues and the bridge-flue H; Fig. 5, a transverse or bird's-eye view of bottom of stove, showing the draft-hole or hatchway *a* leading to the ash-pit. The dotted lines indicate the position of the partitions above, (shown in Fig. 4,) which meet and rest closely upon it. The square or parallelogram indicates the ash-pan below. The dotted lines in each of the other figures indicate parts not seen or strictly belonging to the view taken. The black darts denote the course ot the direct draft. The red darts show the course of the long reverse and circuitous draft.

Like letters represent like parts in each figure of the drawings.

The nature of my invention consists in providing coal-burners or cylindrical stoves with a system of flues, which, while they are sufficient to support combustion, retain the heat longer and radiate more than any other stove in use.

The great desideratum in all heating-stoves being to keep the fire low and radiate the heat from the bottom, it is effected in this arrangement of the flues to a greater degree than in any other.

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

I construct my stove in a cylindrical form, and usually in three sections or stories, (see Figs. 1 2 3,) and provide the first and second stories with as many glass or mica lights as convenient to give a full view of the fire. In the front of the second section is a door sufficient to supply coal to the fire-pot *c c*. The whole of the interior of this stove above the fire-pot is a combustion-chamber or fire-space not occupied or interfered with by reservoirs, interior-chambers, or flues, thus affording a larger heating or radiating surface than usual in this style of cylinder-stove. The flues D D′ are wholly outside of the cylinder A, but adjoining its back. They extend from the top of second story down to the bottom of first, where they open into the hot-air chamber F. These flues are each provided with an opening near the top of the second story or section of the stove, one being supplied with a damper, *d*, to open and close the same at pleasure, and the other always open. The opening O, communicating with descending flue D, which is closed at top, conducts the draft down into chamber or flue F in base of stove. This flue D is separated from flue D′ by partition I, which also divides the chamber F, and thus compels the descending draft to pass entirely around the bottom of the stove, or, in other words, to make the entire circuit of this chamber before it can escape up the flue D′. And here we will remark that in passing around, the draft passes over the bridge-flue H. This latter flue is constructed with flanged or raised sides, so that the cold air passing through it has no communication with the chamber F. Through this flue H, by means of doors or other openings in the shell of the stove, the cold-air draft passes into the circular flue G, thence around to partition *b*, where it enters the hatch or hole *a* in bottom, descends into the ash pit or pan B, and thence up through the circular mouth or opening E to the grate and fire-pot *c c*; and when the damper *d* is open (as in kindling the fire) this draft passes from the fire-pot directly into the pipe, as indicated by the black darts in the drawings. But when it is kindled and it is desired to retain the heat the damper *d* is closed, and the draft then, after leaving the fire-pot *c c*, takes the course indicated by the red darts, to wit: Passing into the flue D at O it descends to chamber F; thence making the circuit of chamber F it enters flue D′ at its base, and passing up behind the damper *d* (which is now

closed) enters the smoke-pipe. *ee* are apertures in the bottom to clean out the chamber F. The course of the drafts which constitute the operation of this arrangement of flues having been already described it is not necessary to repreat it.

I do not in this application claim the hot-air chamber F, having previously obtained a patent therefor.

What I do now claim as my invention, and desire to secure Letters Patent of the United States, is—

1. The double flue D D′, in combination with the circular hot-air chamber or flue F, when both are constructed and arranged in the manner and for the purpose set forth.

2. The bridge-flue H, in combination with the circular flue G, when arranged substantially as and for the purpose set forth.

ZEBULON HUNT.

Witnesses:
ALEX. S. ROWLEY,
WILLARD S. WOOD.