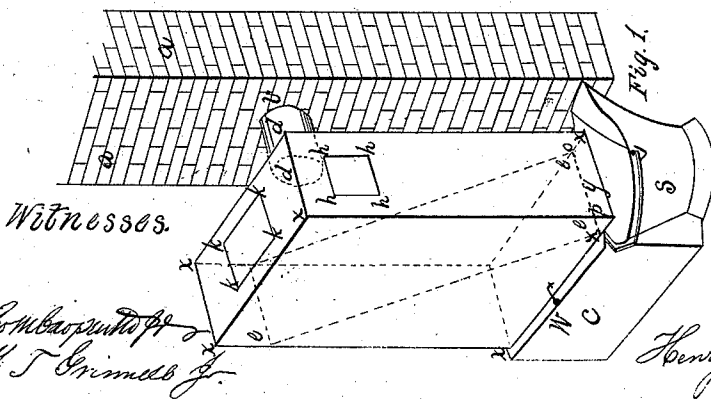
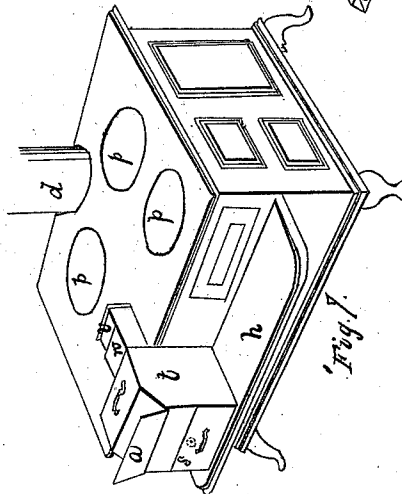
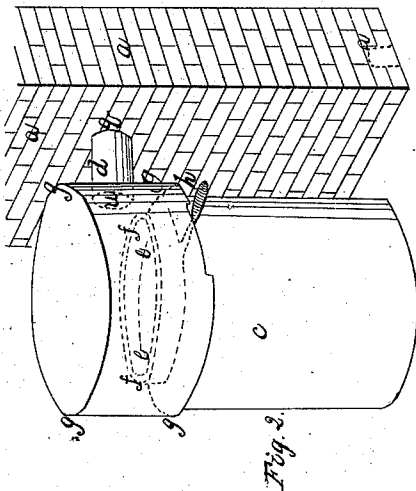
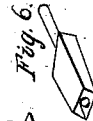
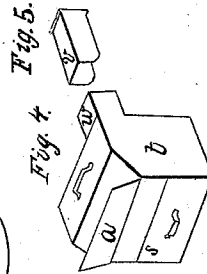
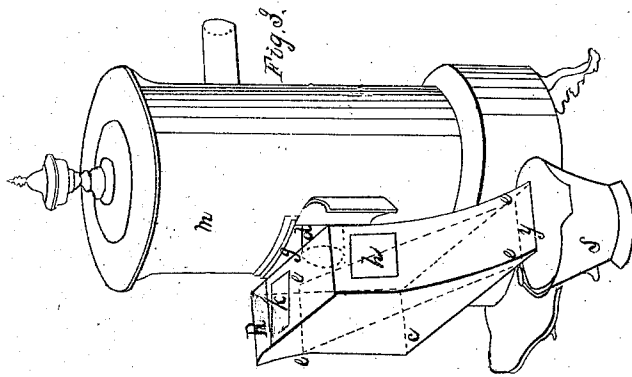


*H. A. Newhall,*

*Ash Siere.*

*N<sup>o</sup> 83,653.*

*Patented Nov. 3, 1868.*



Witnesses.

*Asm. & Eng. Co.*  
*H. J. Grimes & Co.*

Inventor

*Henry A. Newhall*

# United States Patent Office.

HENRY A. NEWHALL, OF PROVIDENCE, RHODE ISLAND.

Letters Patent No. 83,653, dated November 3, 1868.

## VENTILATING-ATTACHMENT FOR ASH-SIFTERS.

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

To all whom it may concern:

Be it known that I, HENRY A. NEWHALL, of Providence, in the county of Providence, and State of Rhode Island, have invented a new and improved Method of Sifting Dirt and Ashes from Coal and other Substances. The following is a full and exact description of the same.

The nature of my invention consists in making use of a current of air, by means of the draught of a chimney-flue, through a sifting-apparatus, during the process of sifting, screening, or otherwise moving coal and other substances, whereby the dust, which ordinarily flies out into the room, is carried off into a stove or chimney.

To enable others skilled in the art to understand my invention, I will proceed to describe its construction and operation.

Figure 1. *a a a* represent an ordinary chimney, with an opening in the side, for the funnel *d d*, at *q*. *C* represents an ash-box, of any convenient form and substance, which is open at the top, and so constructed, with a narrow rim or cleat around it at the top, as to allow the sifting-box, on three sides, to fit within the cleat, or the same may be otherwise securely fastened to the sifting-box. *z z z* represent a bottomless sifting-box, so constructed as to fit on to the ash-box, and within a cleat around three sides of the same, but projecting over it at the end, *y*. Across the sifting-box, at the bottom of the screen, and at the edge of the ash-box, is a bar, *o o*, on which the screen rests. *W* represents a hook and staple, for the purpose of holding the ash-box and sifting-box securely together. *e e e* represent a screen, composed of wire or other material, placed diagonally through the sifting-box, and fastened thereto, so as to allow the ashes and dirt to fall through it, leaving the coal and other substances sifted to roll down the screen, and drop into the box *s*, or other receptacle, under the aperture, at *y*. *k k k k* and *h h h h* represent orifices, closed by lids opening outward, whereby the coal and other substances may be placed upon the screen. *d d* represent a funnel, connecting the sifting-apparatus with the chimney; by which it will be seen that, while the screening-process is going on, there will be a constant current or draught of air through the sifting-box from the open apertures therein, by means of which all the dust, ordinarily arising from the sifting-process, will be carried into the chimney, and prevented from flying out into the room.

Figure 2. *a a a* represent the chimney, as in fig. 1; *d*, the funnel, which enters the chimney at *q*; *c*, the ash-box or barrel; *e e*, the screen; *f f*, the pan, into which the coal and other substances are placed for sifting; *h*, the handle of the screen or sieve, which operates horizontally; *g g g g*, the cover; from which it may be seen that, while the process of sifting is going on, there is a constant current or draught of air from under the cover *g g g g*, and through the same, and through the funnel *d*, at *n*, which effectually prevents the dust from flying out into the room.

Figure 3 represents the same process as fig. 1, but

using the draught through a stove, *m*, into the chimney, and combining the ash-box and sifting-box in one. *d* represents the funnel; *e e e*, the screen; *h* and *k*, orifices, through which the coal and other substances are poured upon the screen. The ashes will fall through the screen to *c*, and the coals pass down on the screen, through an aperture at *y*, and drop into the hod *s*. *R* represents a spout, through which the ashes may be poured out; or, if the screen is only fastened loosely at its upper end, the ashes may be discharged at the aperture *y*, passing under the end of the screen at *e e*.

Figure 4 represents an ash-hod, *t*, about a foot square on the bottom, and about fifteen inches in height, with an aperture in the upper corner of the back side of the same, about four inches square, into which is fastened the dust-pipe or funnel, *w*, extending out about three inches. Through this pipe *w*, the ashes may also be emptied from the hod. *a* represents a door, extending across the front of the hod, about four inches in width.

Figure 6 represents a shovel sifter, with a wire screen drawn over the upper part of the same, and turning down at *o* about an inch. To use the two (figs. 4 and 6) in connection, insert the funnel *w* into the door of an ordinary stove, the hod being so held by a simple hook or catch. Take the shovel sifter, described in fig. 6, fill it with the materials to be sifted, insert the same into the hod *t* at the opening in the front, turn it bottom side up, and slide the shovel sifter rapidly on its handle, from right to left, on the edge of the doorway *s*; by which it will be seen that the ashes will fall into the bottom of the hod *t*, the dust will be carried off, by the draught through the hod, into the stove and flue, and the coal left in the sifter-shovel, to be placed in the stove again, or into a separate hod.

Figure 7 represents the same operation by the attachment of the sifting-hod to an ordinary cook-stove, with the addition of a bottomless drawer or extension-pipe, *v*, having the under side open, and one end closed, represented in Figure 5, which is to be inserted in the pipe *w*, for the purpose of making the connection of the draught through the hod *t* into the cook-stove, through the pot-holes on the top of the stove. The like result as before described will be attained.

I am aware that an inclined screen, as described in figs. 1 and 3, is not new, and, therefore, I do not claim it. I am also aware that a horizontal screen or sieve, similar to that described in fig. 2, has been before used, and I do not claim this; but

What I do claim as novel and useful, is—

1. A funnel, to connect the enclosing-case of a coal-sifting apparatus with a flue, constructed substantially in the manner herein described.

2. The sifting-box *t*, provided with pipes *w v*, constructed in the manner and for the purpose herein set forth.

HENRY A. NEWHALL.

Witnesses:

GEO. M. CARPENTER, Jr.,

W. T. GRINNELL, Jr.