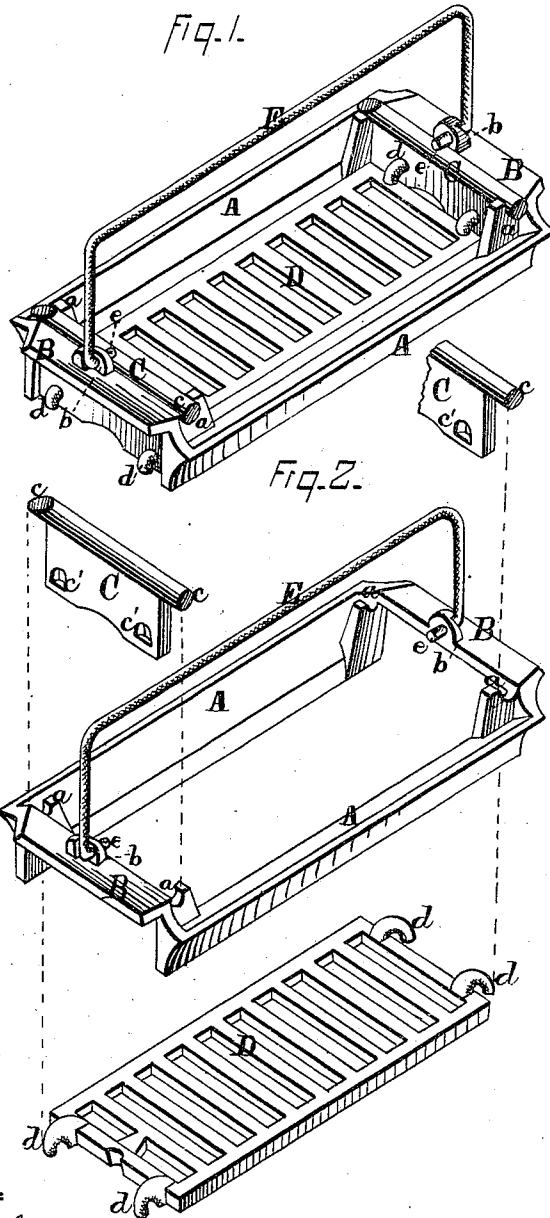


G. G. WOLFE.
Ash-Sifter for Stoves.

No. 159,735

Patented Feb. 9, 1875.



WITNESSES=
 *Jas. C. Hutchinson
 John R. Young*

INVENTOR
 *Gordon G. Wolfe, by
 Orindle and Co. his Attys*

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Fig. 3.

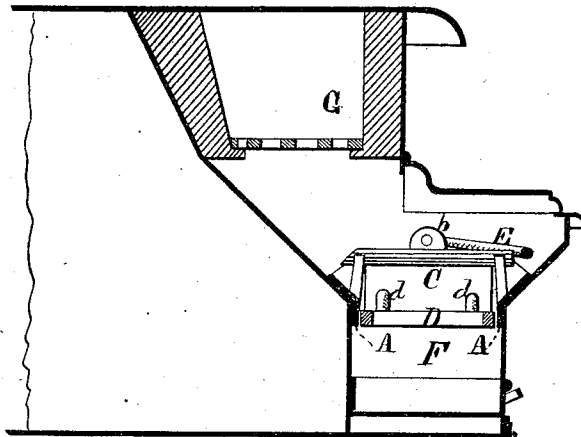
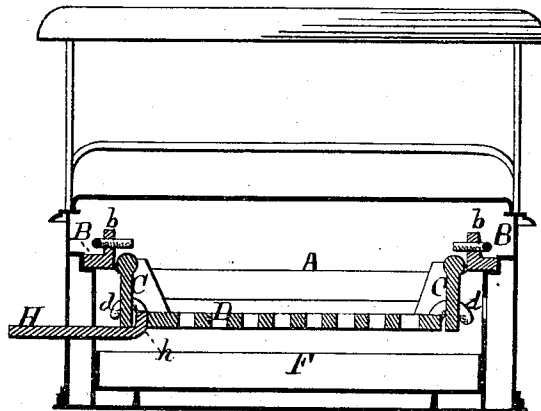


Fig. 4.



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UNITED STATES PATENT OFFICE.

GURDON G. WOLFE, OF TROY, NEW YORK.

IMPROVEMENT IN ASH-SIFTERS FOR STOVES.

Specification forming part of Letters Patent No. **159,735**, dated February 9, 1875; application filed August 1, 1873.

To all whom it may concern:

Be it known that I, GURDON G. WOLFE, of Troy, in the county of Rensselaer and State of New York, have invented certain new and useful Improvements in Ash-Sifters; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 is a perspective view of my ash-sifter removed from the stove. Fig. 2 is a like view of the parts composing said sifter separated from each other. Fig. 3 is a vertical central section of the front end of a stove containing my improvements, upon a line extending from front to rear; and Fig. 4 is a vertical section of the same, upon a line passing longitudinally through the center of said ash-sifter.

Letters of like name and kind refer to like parts in each of the figures.

The design of this invention is to increase the efficiency and ease of operation of an ash-sifter, and to render the same readily connected with or removed from a stove; to which end it consists in an ash-sifter having stationary side walls and pivoted swinging end walls, to or from which latter a grated bottom is suspended, and with which said grated bottom oscillates, substantially as and for the purpose hereinafter specified.

In the annexed drawings, A and A represent the side walls of my ash-sifter, connected rigidly together at their ends by means of two cross-bars, B and B, and having, preferably, an outward and upward inclination of their upper portions. Near each end of the frame thus described the side walls A and A are made vertical, and within such vertical portions are loosely fitted two end pieces, C and C, each of which is provided at its upper edge with two trunnions, *c* and *c*, that extend longitudinally and horizontally outward, and rest within corresponding bearings *a* and *a*, which are formed within or upon said walls, the arrangement being such as to enable said end walls to swing freely within the space inclosed by them upon said trunnions. Within the space bounded by the lower edges of the side and end walls is loosely fitted a grated bottom, D, which at each end is provided with two out-

ward and downward curving lugs, *d* and *d*, that pass through and engage with two corresponding openings, *c'* and *c'*, formed within the lower portion of each of said end walls.

As thus supported and connected with the end walls C and C, it will be seen that the grate D can be oscillated freely in a longitudinal direction, and that as such operation does not change the relative positions of said end walls, nor in any manner lessen the horizontal dimensions of the sifting-frame, no interference with its freedom of motion will be occasioned by ashes and cinders contained within said frame.

When the sifter is filled with ashes and cinders, and its grated bottom oscillated, the separation of said ashes from the cinders is quickly effected, as the friction of the side walls will materially retard the movement of the adjacent cinders, and thus render more effective the motion of the grate than would be possible if all parts moved together. Again, from its manner of suspension, the grate is at its lowest point when at rest, and rises when moved in either direction from such point, so that when moved quickly said grate throws slightly upward at each limit of its travel any material which is resting thereon, such upward motion greatly facilitating the removal of ashes.

As the end walls move with the grate, and the latter at no point passes beneath any part of the sifter-frame, or changes the distance between the same and its edges, it will be seen that under no circumstances can small pieces of coal become wedged between said grate and frame, so as to interfere with the freedom of motion of the former.

For convenience in handling the sifter, a bail, E, is pivoted within suitable ears *b* and *b*, that are formed upon the upper sides, and at the longitudinal centers of the cross-bars B and B. The pivotal ends *e* and *e* of said bail pass through said ears from without, and, extending inward over the swinging end walls C and C, prevent the latter from being removed from their bearings.

The sifter as constructed is placed within the ash-pit F of a stove, and is suitably supported at its ends, so as to leave its lower side unobstructed. Said ash-pit may occupy any

desired position with relation to the fuel-chamber G, the only requisite being that ashes and cinders from the latter may fall into said sifter.

The grated bottom D is oscillated by means of a lever or shaker-bar, H, which passes horizontally inward through a suitable opening, *f*, in the end wall of the ash-pit F, and is provided with an upturned end, *h*, that passes into a space between the end of said grate and the inner face of the contiguous end plate C, such engagement of said shaker enabling said grate and pivoted end walls to be readily moved.

When it becomes necessary to remove the ash-sifter for the purpose of emptying the sifted cinders, the shaker-bar offers no obstruction, but permits said ash-sifter to be as

readily lifted from or returned to the place as though said bar were not in position for engagement.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

An ash-sifter having stationary side walls and pivoted swinging end walls, to or from which latter a grated bottom is suspended, and with which said bottom oscillates, substantially as and for the purpose specified.

GURDON G. WOLFE.

Witnesses:

WILLIS G. NASH,
CHAS. J. SELKIRK.