J. B. OLDERSHAW.

Stove.

No. 207,296. Patented Aug. 20, 1878.

Fig. 1.

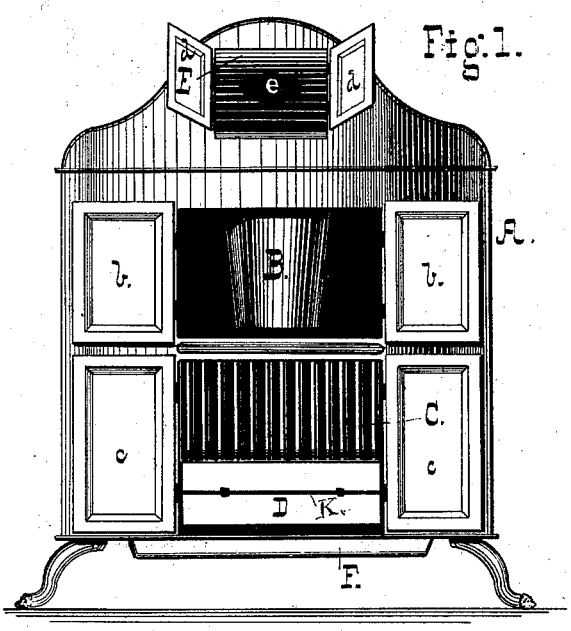


Fig. 2.

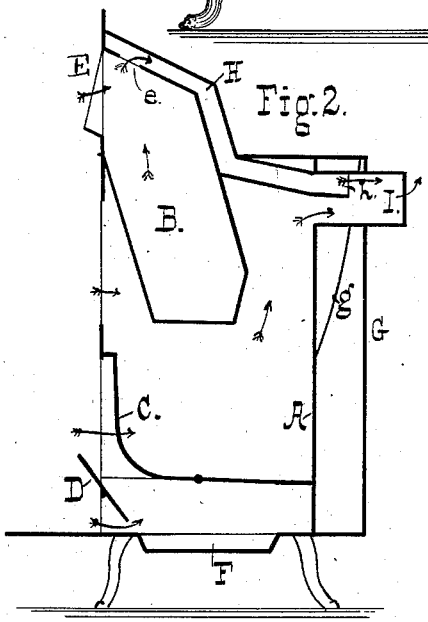
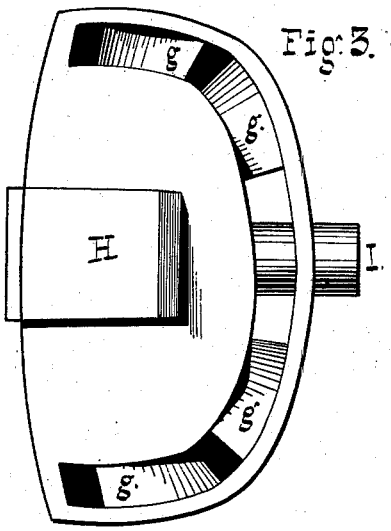


Fig. 3.



Witnesses,

W. A. Bertram.

D. L. M. Barclay.

Inventor

by J. B. Oldershaw.

A. D. Williams

Attorney.

UNITED STATES PATENT OFFICE.

JOHN B. OLDERSHAW, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN STOVES.

Specification forming part of Letters Patent No. **207,296**, dated August 20, 1878; application filed July 26, 1878.

To all whom it may concern:

Be it known that I, J. B. OLDERSHAW, of Baltimore city, State of Maryland, have invented certain new and useful Improvements in Stoves; and I hereby declare the same to be fully, clearly, and exactly described as follows, reference being had to the accompanying drawings, in which—

Figure 1 is a front elevation of an open-grate or "Franklin" stove embodying my present improvements. Fig. 2 is a vertical sectional view, and Fig. 3 a plan or top view of the same.

Inasmuch as my present invention is especially adapted to overcome the defects in and objections to what are known as "Franklin" or "open-grate" stoves, I have illustrated it in the accompanying drawings as being applied to such a stove. It will be readily understood, however, from the following description that my invention is by no means limited thereto, certain of its features being equally applicable to other varieties of stoves.

The said invention relates to, and consists, first, in the construction and arrangement of the magazine and ventilating-flue for carrying off the coal-gas; and, second, in a plate in front of and below the grate, arranged to deflect the ashes and coals falling therefrom back into the ash-pit.

In the accompanying drawings, A represents the body of a Franklin stove, open in front and provided with the usual sliding or hinged doors *b b c c*. The grate C and ash-pit F are of the usual construction.

The front of the stove is extended upward, as shown, and has an opening, E, provided with doors *d d*, leading into a magazine, B. The upper side of the magazine inclines upward and outward, and is provided with an aperture, *e*, leading into a flue, H, the outer end, *h*, of which is situated within the smoke-flue I, as shown. (See Fig. 2.)

Below and in front of the grate a plate, D, is mounted, as shown, upon a bar, K, extending across the open front of the stove, and is arranged to tilt forward at the top (see Fig. 2) and deflect the ashes and coals falling from the front of the grate back into the ash-pit F, thereby obviating the annoyance and danger arising from the falling of the coals upon the hearth, and occasionally thence upon the floor.

When raised to a vertical position, the plate D operates as a damper, partially obstructing the draft.

As an obvious alternative for the described construction, I may mention that lugs may be cast upon either side of the plate D and corresponding bearings in the sides of the opening in the stove-front, the plate being adapted to swivel upon the lugs as pivots.

Around the stove-body is arranged a casing, G, externally of the ordinary construction, but having between it and the stove a series of diagonal plates or partitions, *g g*, the object of which is to present the maximum heating-surface to the currents of air, while not interfering to any material degree with their passage through the channels.

As the coal-gases which arise from the contents of the magazine are specifically lighter than the air, they sweep along the upper side of the magazine until they reach the aperture *e*, through which a strong draft is induced by the passage of the products of combustion through the smoke-flue and past the opening *h* of the gas-channel, the parts operating upon the principle of an ordinary atomizer. Not a particle of coal-gas will pass into the apartment, even with the doors *d d* thrown open.

The stove, in a word, possesses all the advantages of a "Franklin" in point of cheerfulness, without the annoyance arising from the incessant care and attention which an ordinary open grate demands; all the advantages arising from a magazine-stove, without its usual discharge of gas into the apartment; and other and not minor advantages due to its grate-plate, which are not found in any other stove.

I am aware that an inclined plate adapted to shoot the cinders and ashes into the pit is, broadly speaking, not a novelty, such a plate having been used in connection with a horizontal plate located beneath the grate, the ashes which fell therefrom upon the horizontal plate being raked out upon the inclined one, from which they fell into the ash-pit. Such, however, is not my invention, the plate D being, as it were, automatic in its action.

I am also aware that a pivoted plate arranged to completely close the opening in the stove-front between the ash-pit and the grate above is not new.

Having thus described my invention, what I

claim as new, and desire to secure by Letters Patent, is—

1. A magazine-stove having an unobstructed flue leading from the upper part of the magazine to a smoke-flue and extending into it in a line parallel, or nearly so, therewith, substantially as described.

2. An open-grate stove having a magazine opening to the front and a gas-flue contiguous therewith and leading therefrom to point in the interior of the smoke-flue, substantially as described.

3. The combination, with the grate and open front of the stove, of the plate D, adapted, as described, to shoot the falling ashes and cinders into the ash-pit, substantially as set forth.

4. A stove having a swiveled grate-plate, D, arranged in the manner described, so as either to partially obstruct the draft or to subserve the functions of an ash-chute, substantially as set forth.

5. A magazine-stove having a gas-flue leading from the magazine to the smoke-flue and opening into the latter in a line parallel to its axis and in the direction of the natural draft therethrough, as described.

JOHN B. OLDERSHAW.

Witnesses:
R. D. WILLIAMS,
JOHN W. TAYLOR.