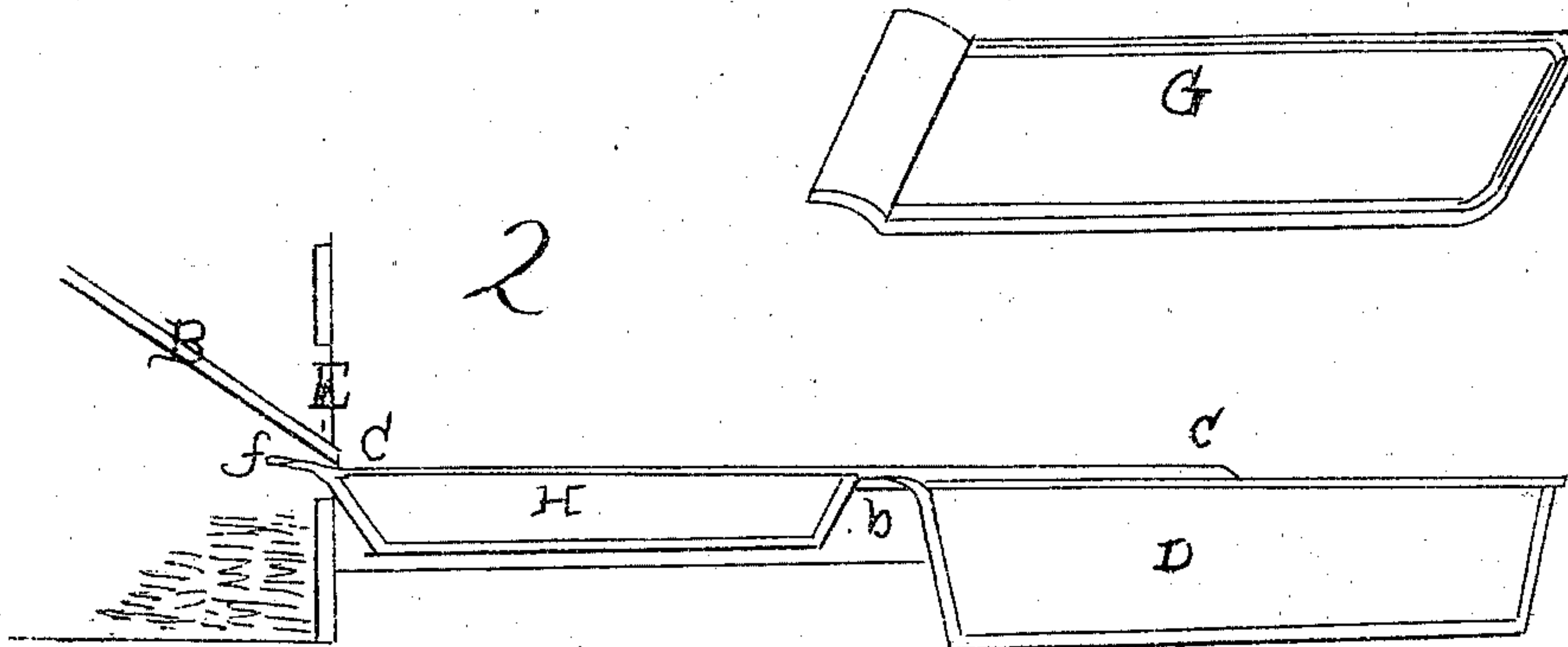
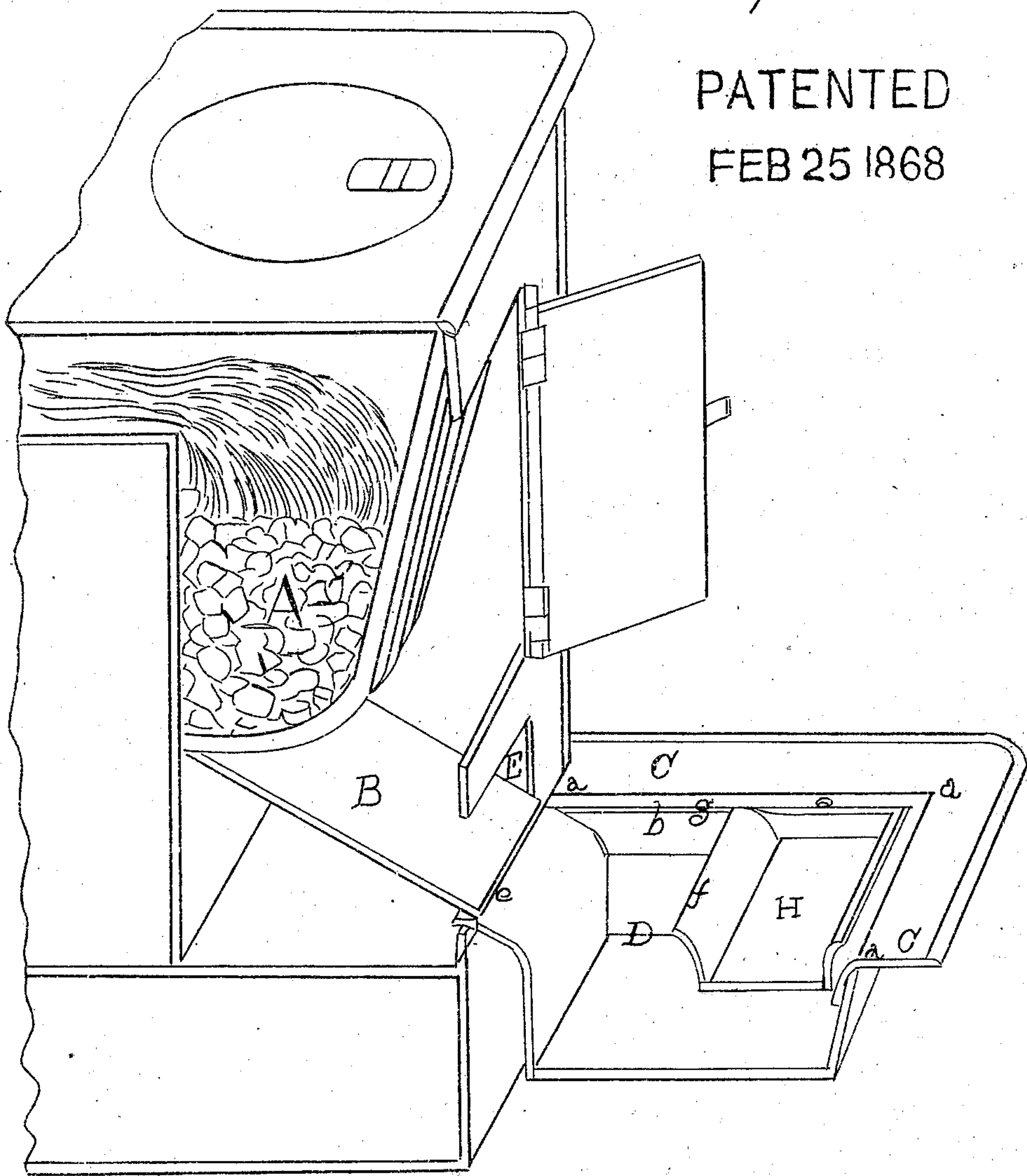


Wm S Fryer's  
74906

Improved Hearth

PATENTED

FEB 25 1868



Witnesses

Chas. Parick DeWitt  
J. W. De Witt

Inventor

William S. Fryer



# United States Patent Office.

WILLIAM I. FRYER, OF WEST TROY, NEW YORK, ASSIGNOR TO HIMSELF  
AND JOHN P. WITBECK, OF THE SAME PLACE.

*Letters Patent No. 74,906, dated February 25, 1868.*

## STOVE-HEARTH.

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

Be it known that I, WILLIAM I. FRYER, of West Troy, Albany county, New York, have invented a new and useful Improvement in the Construction of Hearths of Cooking-Stoves; and I declare the following specification, with the drawings forming part thereof, to be a full and complete description of my invention.

Figure 1 represents in perspective the front part of a cooking-stove with my improved hearth attached, the hither half of both shown as removed to exhibit the interior arrangements.

Figure 2, a longitudinal section of the same through its centre.

Similar letters denote the same parts of the apparatus.

In the stove shown, A is the fire-box; B, the sloping hearth-plate from the back of the grate to the front plate of the stove. A short distance below the level of this lower edge of plate B the hearth-plate C is attached to the stove. In low hearth-stoves as usually constructed the hearth has as part of its structure a sunken chamber, as wide as the grate-front, a few inches deep, and extending from the front of the stove to near the outer edge of the hearth. Within this is placed an iron pan, nearly filling it up, for the purpose of receiving the ashes from the grate, which work forward from the area under it, or are swept from it into the pan; the object of this arrangement being to permit the convenient removal of the ashes without raising a dust, by transferring it either from the hearth or the sunken chamber to a separate vessel, and to save the time and trouble required for such operation.

The object of my improvement is to dispense with the sunken chamber, and yet provide a convenient ash-pan, by which the ashes can be received directly from the stove without transfer to another vessel. For that purpose I make my hearth-plate C with an open space, *a*, in it, of the same form and dimensions as the top of the sunken chamber referred to, with a narrow flange, *b*, projecting downwards from its side and front edges. The ash-pan D is made to lie under this opening *a*, and a little wider at its top than the opening, so as to pass just outside of its flanges, *b*, and fit snugly against the under side of the hearth-plate C. It is held against the plate by flanges projecting from its upper side edges, fitted into slides, which are cast with or are attached to the hearth-plate, so that the pan can be moved in or out as a drawer, suitable handles being provided for that purpose. A small part of the back upper edge of the pan at *e* is bent backward and downward so as to form a sloping lip to pass under the plate B, between which and the oven-floor plate of the stove a space or slot is left for its passage, the object of this being to prevent the ashes from the hearth lodging under the plate, and to insure its proper passage into the pan. The area is covered as usual with a plate fitted into it, having a hood to close and regulate the opening E in the front plate for the admission of air under the grate, and yet permit the ashes to pass freely into the pan. Such a cover is shown at G.

From the description it will be seen that the pan or ash-drawer, as it may be called, receives the ashes from the grate, and being fitted snugly around the flanges *b*, prevents the danger of their working out upon the floor of the room, and when the cover is in place, also without the fine ash-dust intruding itself into the room. Being received in the drawer, can be carried away in it with promptness and convenience. Whilst the ash-drawer is removed, it will be seen that there is danger that ashes may slide down on to the floor of the room. To provide against this occurrence I employ a narrow and shallow pan, H, which slides upon ledges *g*, just below the upper edges of the flanges *b*, so that it can be moved from the front to the rear of the opening of the hearth-plate. Its back edge is made with a lip, *f*, similar to that of the drawer, and for the same purpose. When the drawer is removed, H is immediately moved up to the hearth, with its lip, *f*, under the hearth-plate B, when any ashes from the grate will be caught by it, and held until the drawer is replaced, when the pan is moved to the front.

In my construction the open hearth-plate C is not directly under the grate, but projects from and is external to the fire-box of the stove, in or just below the level of the outer edge of its bottom-plate. The object of the arrangement being, in stoves where the fire-box is placed over the front part of the oven, not only to prevent intrusion by the ash-pan into the space needed by the oven, but in both high or low fire-box stoves to facilitate the convenient working of the removable ash-drawer D and the replacing-pan H.

It is manifest from this construction that a sunk chamber for the ash-pan can be entirely dispensed with.

This not only relieves the stove from a number of pounds of metal in the construction of the hearth, but also with the expense, which is quite considerable, of moulding and casting the hearth with its sunken chamber.

What I claim as my invention, and desire to secure by Letters Patent, is—

The open hearth-plate C, projecting from and externally to the fire-box of the stove, formed with flanges and slides, so as to carry in combination with it the ash-pan or drawer D and replacing-pan H, as described.

WILLIAM I. FRYER.

Witnesses:

RICHD. VARICK DE WITT,

D. W. DE WITT.