

ADAMS & PECKOVER.

Cook Stove.

No. 22,223.

Patented Dec. 7, 1858.

Fig 1

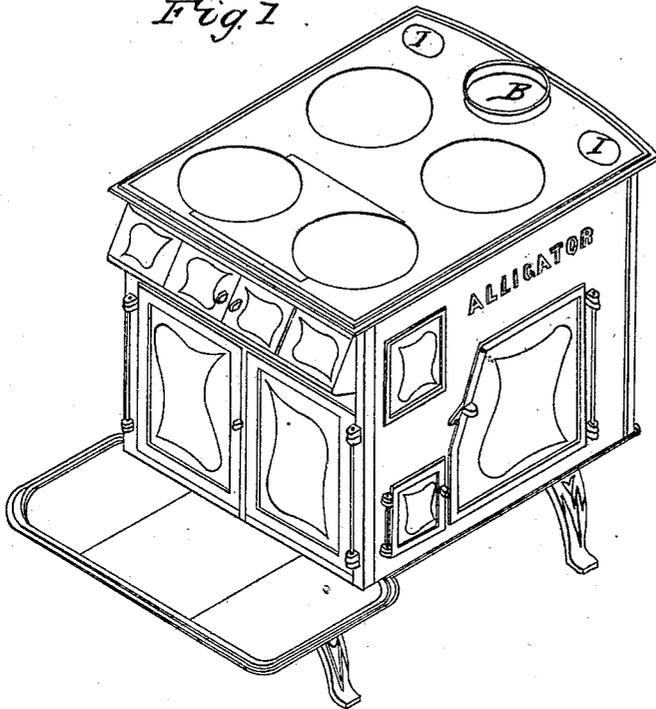


Fig. 3.

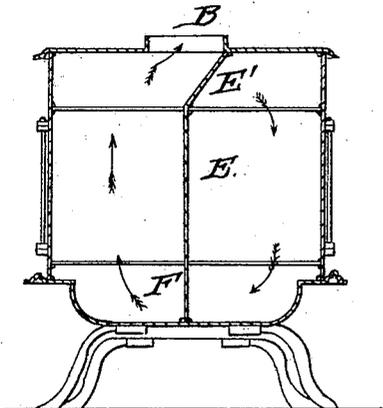
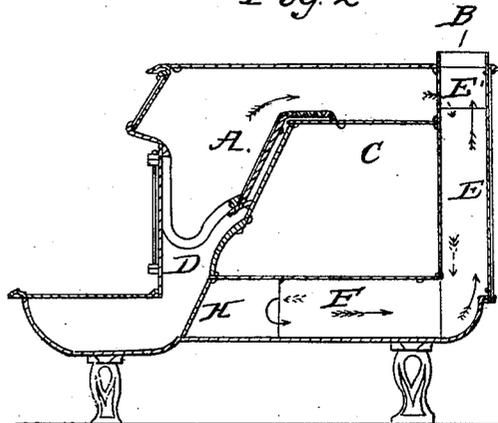


Fig. 2



UNITED STATES PATENT OFFICE.

F. C. ADAMS AND J. PECKOVER, OF CINCINNATI, OHIO.

COOKING-STOVE.

Specification of Letters Patent No. 22,223, dated December 7, 1858.

To all whom it may concern:

Be it known that we, FEDERAL C. ADAMS and JOSEPH PECKOVER, both of Cincinnati, in the county of Hamilton and State of Ohio, have jointly invented a new and Improved Mode of Constructing Coal-Burning Smoke-Consuming Cooking-Stoves; and we do hereby declare that the following is a full and exact description, to wit:

10 The nature of our improvement consists in the arrangement of a single flue in a stove and yet admit of arranging the exit aperture in the middle of the width of the stove to afford the largest smoke passage and the most equal distribution of heat arising from the passage of the products of combustion over the surfaces required to be heated, to the exit aperture by means of a vertical partition with its upper end terminating against the under side of the exterior top plate, obliquely to remainder of its rectilinear form in combination with air spaces and passages to admit and use air for preventing the too rapid destruction of the fire box plates, and preventing the undue heating of adjacent oven plates, and exterior top plate, at the same time. While the air performs these offices, it becomes in the best condition to commingle with and insure more perfect combustion of the gaseous produces of combustion, by means of air-spaces, passages and apertures which throw the air in jets into the fire box and smoke passages, thereby breaking the volume of smoke and gases, and better commingling with and promoting their combustion in their passage to the exit aperture.

To enable others skilled in the art to make and use our invention we will proceed to describe its construction and operation by referring direct to the accompanying drawings.

Figure 1 represents in perspective a stove having our improvement applied. Fig. 2 represents a longitudinal vertical section. Fig. 3 represents end section. The whole exhibits the improvement complete with the same letters referring to the same parts.

A represents the fire box, with grate, lining plates, and air space or passage between the lining plates and inclined oven plate. This air space extends around the sides or ends of fire box to the front. The tops of the lining plates of the fire box are lipped, or flanged, and perforated to admit the air that passes under the grate into the

space only through the perforations before entering the fire box and smoke passages.

E represents a single vertical partition whose upper end is deflected as shown at E' for the purpose of permitting the central arrangement of exit aperture B, and forming with the horizontal portion of partition F, a continuous flue to pass the products of combustion in the direction shown by the arrows over all the top of the oven, down one side of the vertical partition at the back of the oven, and along one side and returned on the other side of the horizontal partition under the oven, then up the reverse side of the vertical partition at the back of the oven, to the exit aperture.

D represents the ash pit extending under the hearth to its front and affords easy access to the flue from below when the plate H is removed as is intended, which with the apertures I, I, permits cleaning the flue at any time if ever needed even when the stove is in use; the necessity to clear the flue can hardly exist even with the most bituminous coal, so perfect is the combustion as all tests have exhibited.

Having fully described our improvement—except the location of a damper at the point where the flue begins to descend—to open or close the flue as desired for varied use; we would state that we are fully aware of the common use of vertical partitions in stoves to divide the descending from the ascending portion of a flue but know of none constructed and arranged in this manner; we are also aware that it is common to admit air in various ways and for manifold purposes; but not in this precise manner and for these purposes.

Therefore we claim—

In combination with the smoke passages formed by the single vertical and inclined partition E, arranged with regard to the exit aperture B, as described the admitting of air under the grate into the air spaces and from thence into the smoke passages by means of the perforations in the lip or flange of the back lining plates of fire box, all substantially as, and for the purposes, set forth in the foregoing specifications.

FEDERAL C. ADAMS.
JOSEPH PECKOVER.

In presence of—

JOHN C. MORRIS,
GEORGE E. MORGAN.