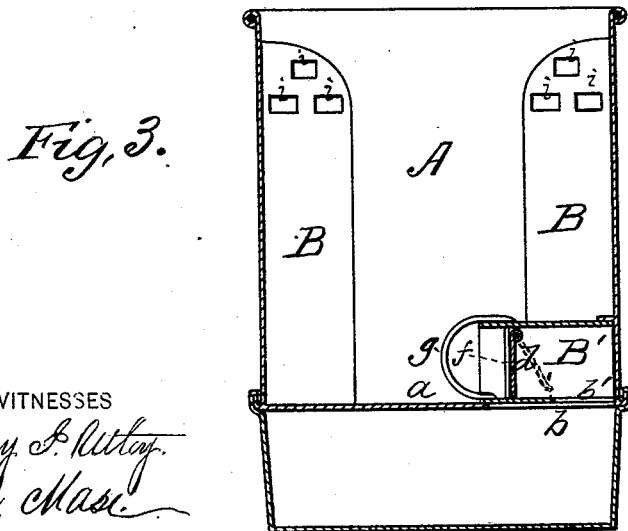
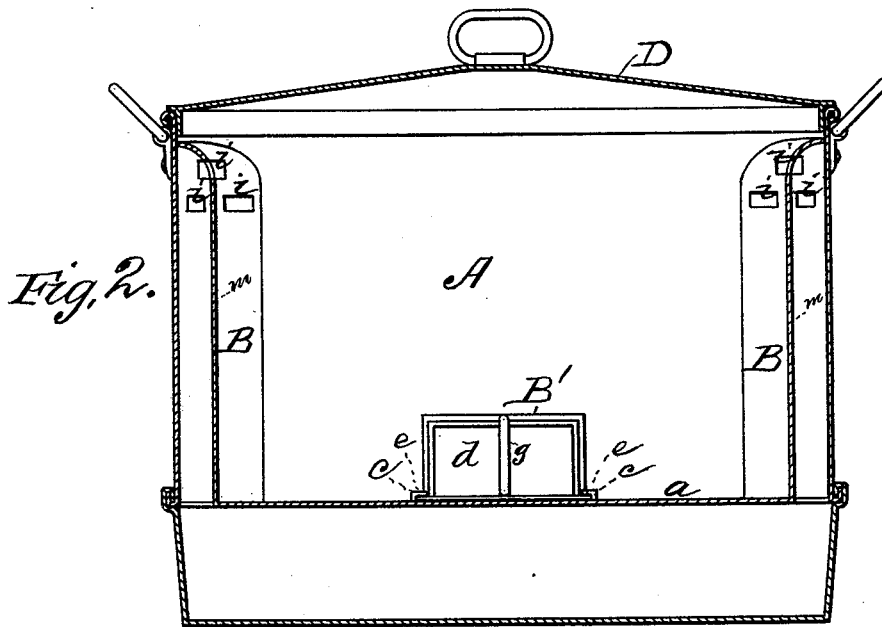
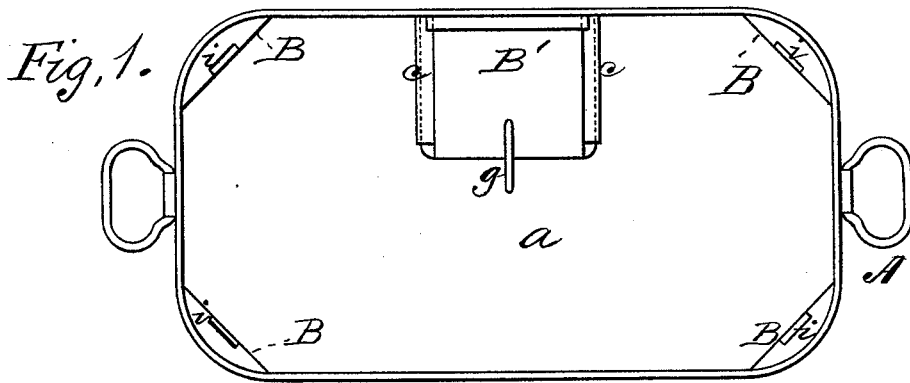


A. FRIEDLEY.
Wash-Boiler.

No. 204,311.

Patented May 28, 1878.



WITNESSES
Mary S. Kitting.
A. J. Chase.

INVENTOR
A. Friedley,
By *E. W. Anderson,*
ATTORNEY

UNITED STATES PATENT OFFICE.

ANDREW FRIEDLEY, OF LEMONT, ILLINOIS.

IMPROVEMENT IN WASH-BOILERS.

Specification forming part of Letters Patent No. **204,311**, dated May 28, 1878; application filed March 2, 1878.

To all whom it may concern:

Be it known that I, ANDREW FRIEDLEY, of Lemont, in the county of Cook and State of Illinois, have invented a new and valuable Improvement in Steam Wash-Boilers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a top view of the boiler with the lid removed. Fig. 2 is a longitudinal vertical section thereof with the lid in place; and Fig. 3 is a vertical cross-section of the same without the lid.

This invention has relation to wash-boilers having a rectangular or square form; and it consists in the slide-valve box arranged above the false bottom or diaphragm of the boiler, as hereinafter described and shown.

In the annexed drawings, the letter A designates an ordinary rectangular wash-boiler, having a coppe bottom, and divided by a diaphragm, *a*, into two compartments, the one above the other. At the corners of the vessel are formed conduits B, opening below into the lower compartment, and provided below the lid with the perforations *i*, for a purpose hereinafter explained. These conduits B are formed by spanning each corner of the vessel with a plain vertical partition, *m*, making equal angles with the side and end walls, and bent backward at the top to meet the walls of the boiler in the angle, thereby forming a flue, closed at the top, with the exception of the perforations *i*, above referred to. In this manner, instead of a close right-angular corner in the boiler, I have an oblique partition and two obtuse angular corners, so that the boiler-wall is brought nearer the clothes, which are generally massed in the central part by the stirring movements, and the corner-spaces, in which the clothes seldom get, are utilized as the steam-flues.

In the diaphragm *a*, near the side of the boiler, is formed an opening, *b*, through which soap is admitted into the lower compartment,

having at each side the slideways *c*, into which is sashed a rectangular metallic box, B'. This box is open at one end, and closed at the other by means of a valve, *d*. It has upon its lateral edges a flange, *e*, that engages the slideways aforesaid. This valve is hinged to the top of the box B', and swings inward freely, but is prevented from swinging outward beyond the vertical position by a stop, *f*, or other equivalent seat.

The operation is as follows: Warm water and soap are passed into the lower part of the boiler through the opening *b*. The box B' is then placed in position, with its open end against the side of the boiler, thereby making it a close box, and with an opening, *b'*, in its bottom, in line with the aperture *b* in the diaphragm *a*, and the clothes put in the boiler. The water soon boils, and the steam generated presses against and closes the valve *d*, and, having no other means of egress, passes up the conduits B, and escapes into the top of the boiler through the apertures *i* on top of the clothes. The boiler having a tight lid, D, steam is confined therein, and the clothes are thoroughly steamed.

The valve-box is provided with a bail, *g*, by means of which it is readily detachable from the boiler, for the purpose of pouring out the water, when dirty; or it may be drawn off by means of a suitable stop-cock.

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

In a wash-boiler having the diaphragm *a*, dividing it into two compartments, the close valve-box B', sliding by its flanges in ways upon said diaphragm, and having the inwardly-swinging valve *d* at its inward end, said box and valve being entirely above the diaphragm and detachable therefrom, as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ANDREW FRIEDLEY.

Witnesses:

NATHANIEL F. BOYCE,
ADOLPH MÜLLER.