O. TILTON.

Wash-Boilers.

No. 211,806. Patented Jan. 28, 1879.

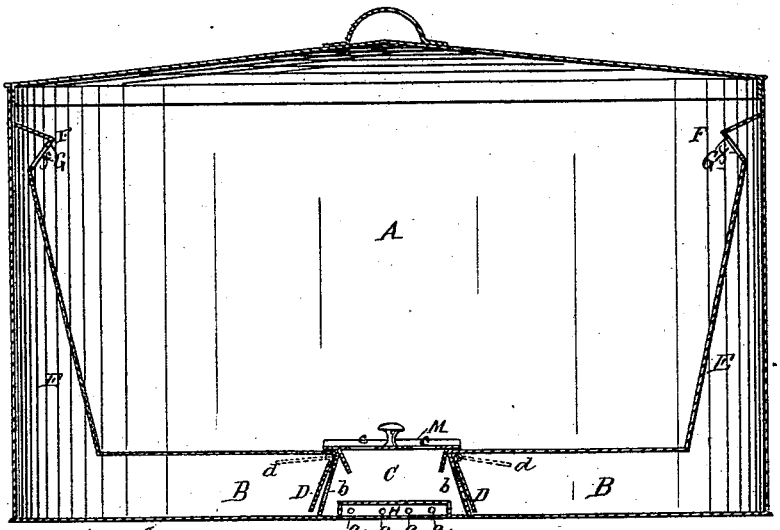

Fig. 1.

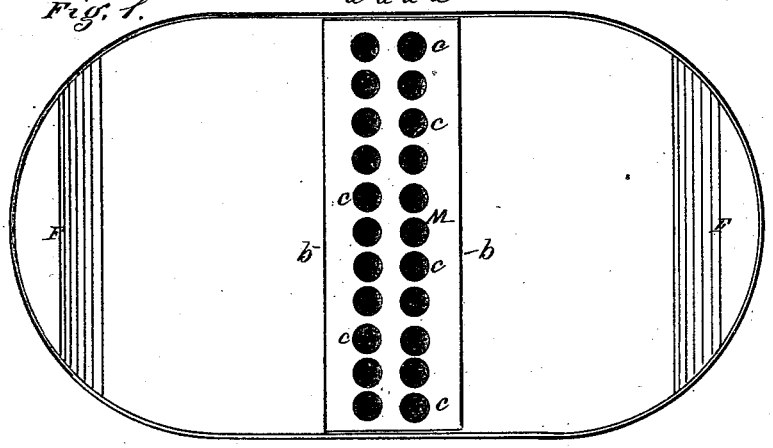

Fig. 2.

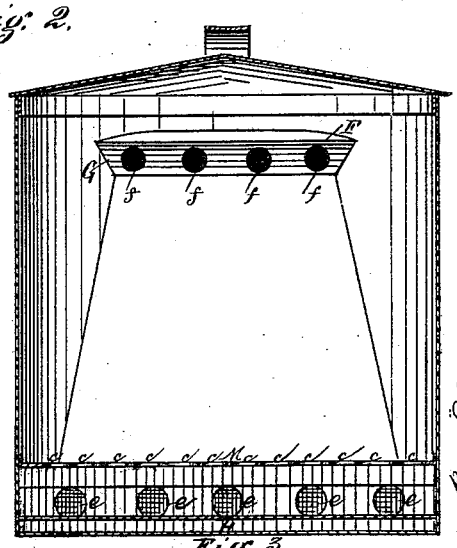

Fig. 3.

Witnesses

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OLE TILTON, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN WASH-BOILERS.

Specification forming part of Letters Patent No. **211,806**, dated January 28, 1879; application filed May 11, 1878.

To all whom it may concern:

Be it known that I, OLE TILTON, of the city of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Wash-Boilers, which invention is fully described in the following specification and accompanying drawings, in which—

Figure 1 is a longitudinal vertical section of a wash-boiler embodying my invention. Fig. 2 is a plan of the same with the cover removed. Fig. 3 is a transverse vertical section.

My invention relates to that class of wash-boilers which are also entitled "steam-washers," and which cleanse the articles placed therein by the circulation of the hot water and steam through them.

The object of my invention is to construct a wash-boiler which, besides boiling the clothes which may be subjected to its action, cleanses them by throwing jets of steam and boiling water down on the top of the same.

It consists in providing an ordinary wash-boiler with a shallow chamber at each end, and separate from each other at the center of the boiler, at which point they are perforated with a number of small openings, which are provided with clapper-valves which open inwardly. From the outer ends of said chambers extend upward against the ends of the boiler wide tapering tubes, which are each surmounted with a head or crown, the face of which is at an angle of about forty degrees with a vertical line, and perforated by a number of openings less in size than those first above mentioned, said faces being toward the center of the boiler and of such angle as will throw the water down on the clothing or other articles to be cleansed.

In the center of the boiler between the two chambers, and separate and apart from them, is located a low air-chamber, its length being transverse of the boiler, the sides of which are perforated opposite the ends of said air-chamber, so as to admit of a free circulation of the external air through said air-chamber. A plate perforated with a number of small holes rests by each of its sides on the ends of the chambers, and covers the space between said chambers in the center of said boiler, all of which is shown in detail in the drawings, to which reference is had.

It will be seen that A represents the main body of an ordinary boiler. B B are the two end chambers. *b b* are the inclined walls, perforated by the inlet-openings *e e e e e*. D D are two clapper-valves, hinged at the top, and which rest against said partitions and open inwardly into said chambers B B, as is shown by the dotted lines *d d* in Fig. 1. E E are the vertical tapering tubes or pipes, F F being the head or crown pieces, having the downward-inclined faces G G, as shown in Fig. 1. *f f f f* are the outlet-openings in the said inclined faces. H is the air-chamber, through which the air circulates by means of the openings *a a a a*. C is the space between the said end chambers, in which is located the said air-chamber H. It is covered by the lid M, perforated with the openings *c c*, so that the said lid acts as a strainer.

Reference being had to the drawings, it will be seen that all the partitions which separate the chambers B B and air-chamber H are continuous with the walls of the boiler, as are also those of the pipes E E and crown-pieces F F.

Operation: The boiler being placed over the fire and filled with water and the articles to be cleansed, the chambers B B being full of water, as is also the space C, steam is soon generated in the chambers B B, the water in the chamber C being protected from the fire by the intervening air-space H. The valves D will be held closed by the action of the steam, which then rises up the pipes and forces a quantity of boiling water out through the outlets *f* in the inclined face G of the crown F down through the contents of the boiler above the chambers B B until it descends to the lid M, through which it passes, filling the space C, from which it is drawn into the chambers B B, through the openings in the partitions *b b*, by raising the valves D, as the water is exhausted in said chambers. Thus the water in the boiler is kept in constant circulation when boiling.

Having thus described my invention and its operation, what I claim, and desire Letters Patent for, is—

1. In a wash-boiler, the end chambers B B, having the inclined perforated fronts *b b*, provided with the clapper-valves D D, as shown, and the discharge-pipes E E, and the air-chamber H, all combined, constructed, and arranged to operate as and for the object set forth.

2. In a wash-boiler provided with the chambers B B, the air-circulating chamber H, substantially as and for the purpose set forth.

OLE TILTON.

Witnesses:

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