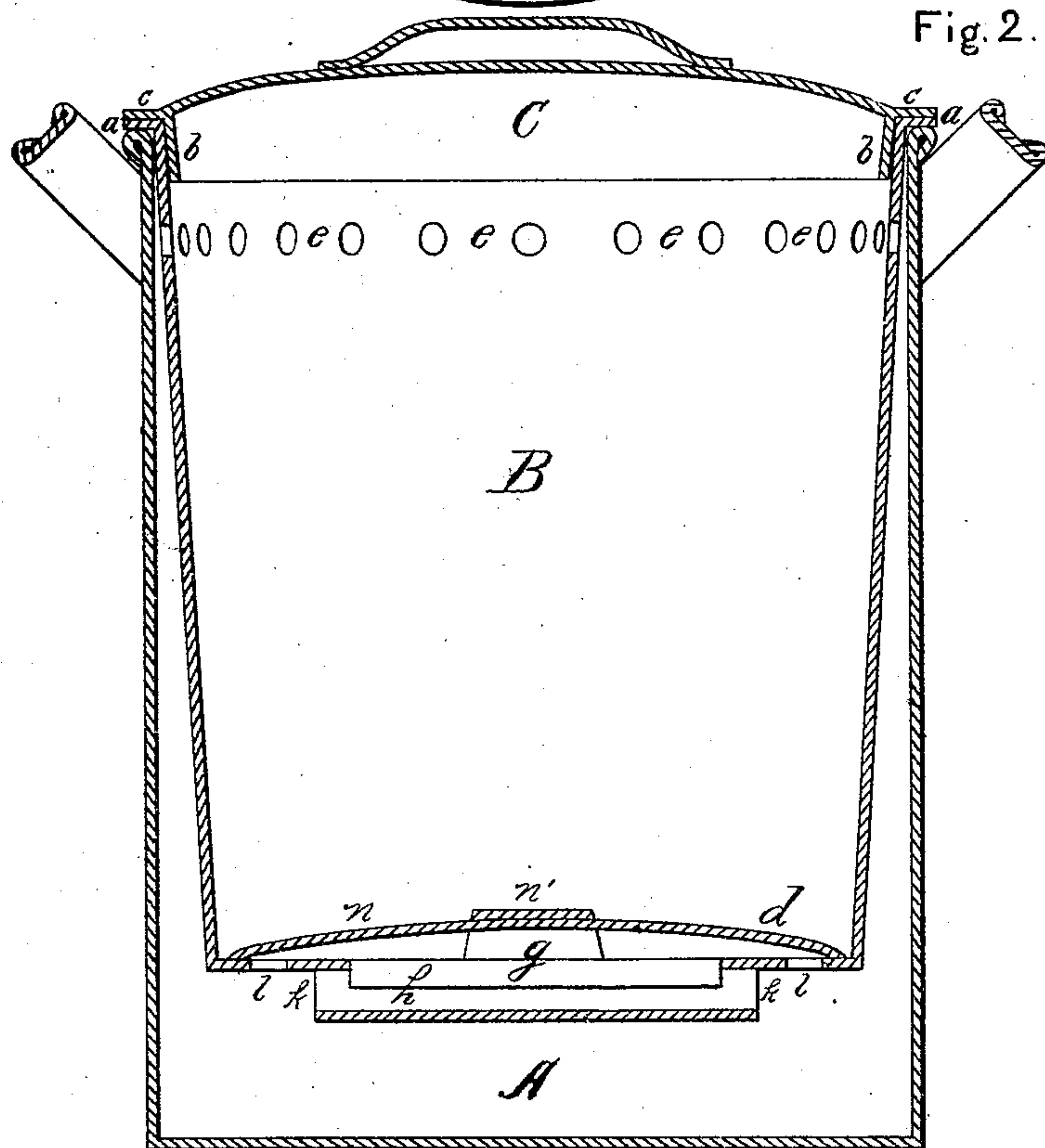
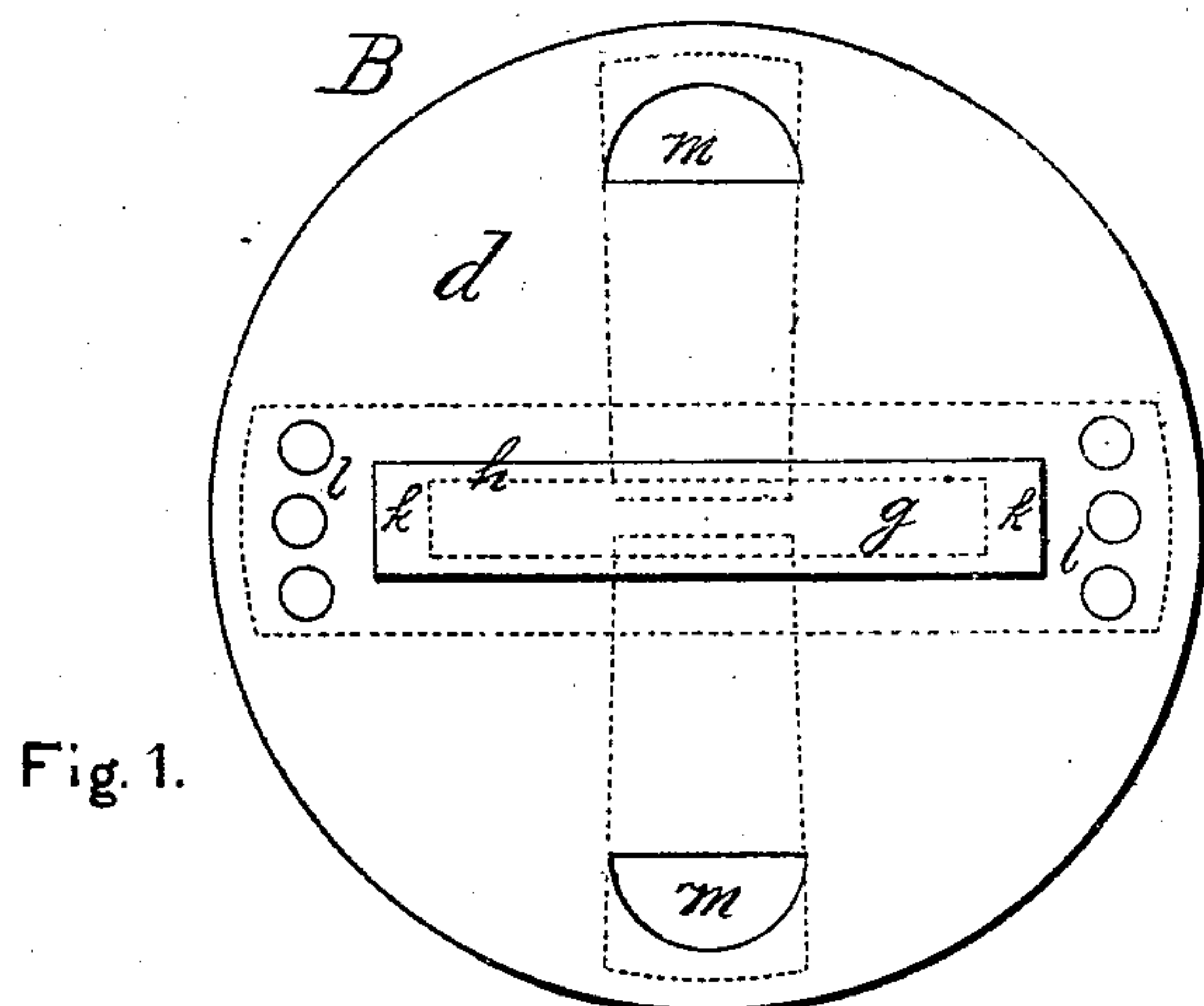


W. H. HAMMOND.

Wash-Boilers.

No. 144,761.

Patented Nov. 18, 1873.



WITNESSES.

*Villette Anderson.*

*George E. Upham,*

INVENTOR.

*Wm H. Hammond*  
*Clipsman & Son, & Co.*

*Atty*

# UNITED STATES PATENT OFFICE.

WILLIAM H. HAMMOND, OF SYRACUSE, MISSOURI.

## IMPROVEMENT IN WASH-BOILERS.

Specification forming part of Letters Patent No. **144,761**, dated November 18, 1873; application filed June 28, 1873.

*To all whom it may concern:*

Be it known that I, WILLIAM H. HAMMOND, of Syracuse, in the county of Morgan and State of Missouri, have invented a new and valuable Improvement in Boiler and Steamers; 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 bottom view of the inner basin of my steam-boiler. Fig. 2 is a vertical central section of my steam-boiler.

This invention has relation to steam-current guides for wash-boilers, and others; and it consists in the construction and novel arrangement of the removable suspended flanged inner basin or chamber, perforated through the upper portion of its wall, when it approaches more closely the wall of the boiler, and provided on the inside of its bottom with raised crossing plates, under the ends of which are peripheral perforations through said bottom, and, externally, with a depending channel-way beneath a central slot through the bottom, above which the broadest of the internal cross-plates is arranged.

In the accompanying drawings, the letter A designates the boiler proper, which may have any of the ordinary forms. B represents the inner basin, flaring in form, and provided at its upper edge with an outwardly-turned flange, *a*, adapted to rest on the upper edge of the boiler proper. C designates a closely-fitting cover, the inner vertical flange *b* of which is designed to pass within the upper part of the vessel B, and the horizontal rim *c* of which rests on the flange *a*, thus aiding in forming a close joint between the vessels A and B. Through the side wall of the inner vessel B are perforations *e*, arranged in a horizontal series a little distance below the flange *a*. In the bottom *d* of the vessel B, which, when said vessel is suspended by its flange, will be a short distance above the bottom of the vessel A, is the central transverse slot *g*, below which is secured the transverse channel-guide *h*, in such a manner that all the water passing downward through said slot will be

received into said channel-guide and discharged horizontally at its open ends, *k*. This channel-guide *h* does not extend to the edge of the bottom *d* on either side, space being left for the perforations *l*, which are made through said bottom between the open ends *k* and said edge. At ninety degrees distance from the perforations *l*, at opposite ends of a diameter passing at right angles with the transverse slot *g*, are the large semicircular apertures *m* through the bottom *d*. On the upper or inside face of the bottom *d* are arranged the raised plates *n n'*, one broader than the other, and crossing or secured to each other centrally. These plates are convex or arched in form, and are secured to the bottom *d* just outside of or beyond the perforations *l* and *m*, respectively, the broader plate *n* covering the perforations *l* and the slot *g*.

The goods are placed in the inner vessel B, and are kept from the openings through its bottom *d* by the guard-plates *n n'*. A sufficient quantity of water having been placed in the bottom of the vessel A, the boiler is ready for the application of heat. The current is set up by the action of the steam forcing the water up into the tapering space between the walls of the vessels A and B, and through the perforations *e*. At the same time a suction is created below by the water passing up by the open ends *k* of the channel-guide *h*, and the openings *l m* drawing the water of the vessel B downward through the goods, centrally as well as peripherally, thereby accomplishing a thorough cleaning.

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

The suspended inner flanged boiler B, having at its bottom the central slot *g*, peripheral openings *l m*, the depending transverse channel-guide *h* below said slot, and the inside raised plates *n n'*, crossing or secured to each other centrally, and covering said slot and openings, substantially as specified.

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

WILLIAM HENRY HAMMOND.

Witnesses:

J. E. BELTGER,  
J. H. SPAID.