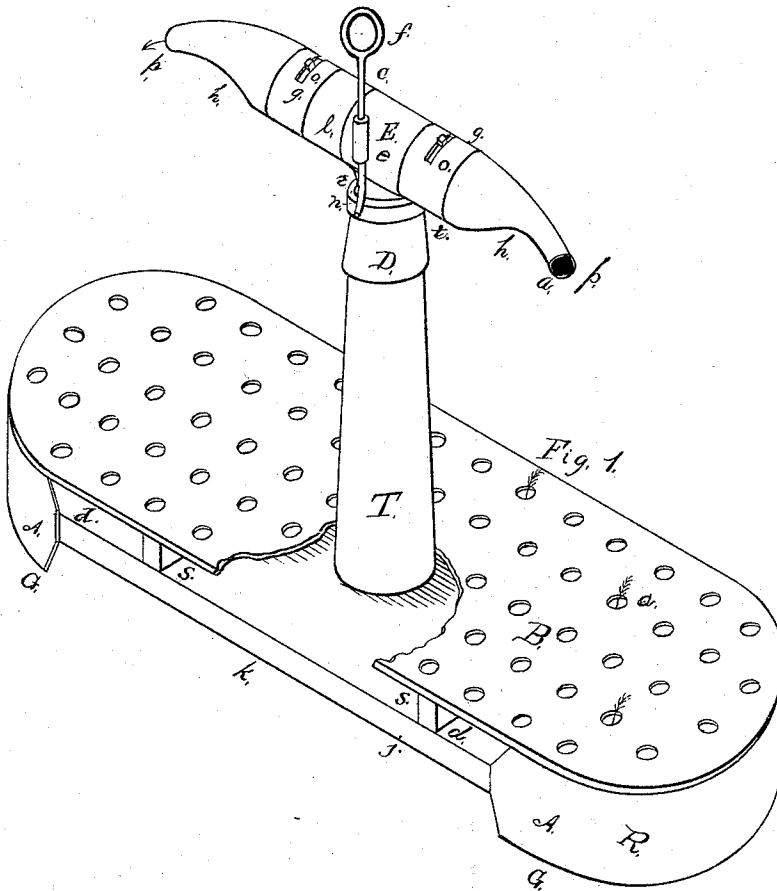


J. B. HENRY & E. B. DENNIS.

Wash-Boiler Attachments.

No. 154,137.

Patented Aug. 18, 1874.



Witnesses:

B. F. Parsons.  
A. Button.

Inventors.

John B. Henry.  
Edwin B. Dennis.

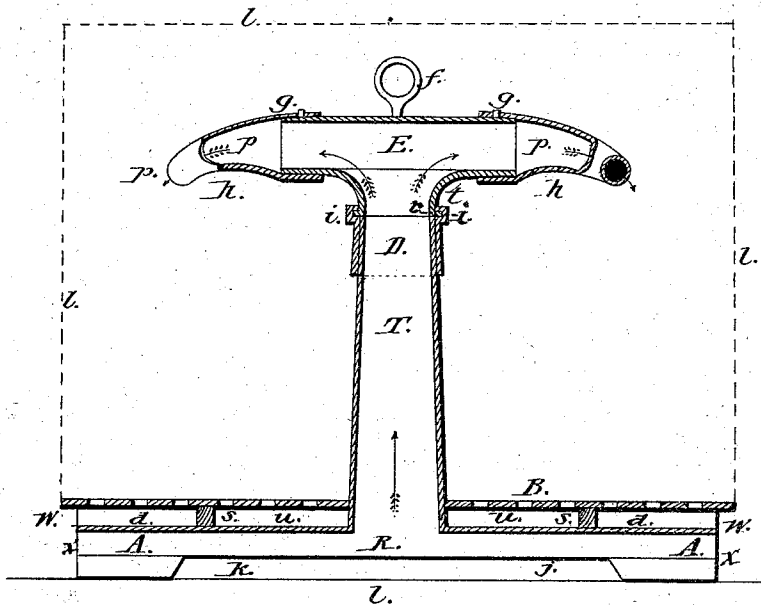
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Fig. 2.



Witnesses:

B. F. Purson  
Edw. M. Donn

Inventor:

H. J. Kent per  
Reck and Purson his  
attys in fact.

# UNITED STATES PATENT OFFICE.

JOHN B. HENRY AND EDWIN B. DENNIS, OF ROSE, NEW YORK.

## IMPROVEMENT IN WASH-BOILER ATTACHMENTS.

Specification forming part of Letters Patent No. **154,137**, dated August 18, 1874; application filed April 12, 1873.

*To all whom it may concern:*

Be it known that we, JOHN B. HENRY and EDWIN B. DENNIS, of Rose, in the county of Wayne and State of New York, have invented a new and useful Improvement in Wash-Boiler Attachments; and we do hereby declare the following to be a full and exact description of the same, sufficient to enable those skilled in the art to which it appertains to construct and make use of the same, reference being had to the drawings accompanying this specification, and to the figures and letters of reference marked thereon, like letters referring to like parts throughout the same.

Figure 1 represents a perspective view of my improvement. Fig. 2 represents a central vertical section of the same. Fig. 3 is a detail section of the gyrating transverse top attached to the vertical tube.

My invention relates to wash-boiler attachments. Its object is, by means of an adjustable cap, E, and thimble D, affixed to the tube T, to throw in opposite or in any direction desired, among the bulk of clothing to be cleansed, a jet of hot water, which by its continued agitated action will remove all impurities from the clothes in a better and more expeditious manner than it has heretofore been done. It consists in a gyrating cross-tube or cap, connected to the vertical tube T by a thimble, D, provided with a groove, *r*, in which the flange *i* on the neck of the gyrating cap fits and plays, and the adjustable spouts attached to the cap, and a nick in the flange for holding a detent by which the cap is held in check, as desired. The dotted lines *l l l l* represent the outline of an ordinary wash-boiler, within which is my improvement. The base A A is made to fit the boiler in shape, but at the same time is enough smaller than the same to leave the space *x x* for the water to flow between the walls of the boiler and the improvement. About the same space is left between the floor *d* and the disk B for the flow of the water, as between the walls of the boiler and my improvement. On the top of the rim or base R, and projecting over the same so as to completely fill and fit the walls of the boiler, as seen at *w w*; there is a perforated disk, B, which is supported in the cen-

ter by the segments *s s*, which are attached to the under side of the disk, but resting on the floor *d*, the object of which space between the floor and disk is to allow a passage for the water after going through the perforations in the disk, to return to the bottom of the boiler, passing out at *u u*, having passed in at *k* and *j*. The tube T is inserted in the floor *d* through the disk B, and rigidly secured to the floor, but the disk is left loose and disconnected from the tube so as to be removed for cleaning purposes. The thimble D is made to fit the tube, and pressed down on the outside until it is rigid and firm, but it may be secured by a lug on the tube and slot on the thimble, as at *g*, on the cap E. In the thimble D there is a groove, *r*, the object of which is to receive and hold the flange *i*, affixed to the neck *t* of the cap E, by means of which tongue and groove the cap is kept in position. At the same time it revolves with an easy action by the force of the heated currents flowing from the base of the boiler. At each end of the tubular cap E there is an adjustable spout or nozzle, P, secured to the cap by a lug, *g*, on the cap, and by a slot, *o*, on the spout or nozzle. These spouts or nozzles P are made circular in their length, or have a flexure, *h h*, by which the jets issuing therefrom are curved and made to describe an arc of a circle, whose radius is the distance from the nozzle to the center of the tube T. The lock formed by the lug *g* and slot *o* leaves the spouts adjustable and removable at pleasure, and by turning the nozzles horizontally in opposite directions the hot jets, by a reaction of the air, cause the cap to revolve very rapidly. A small sleeve or tube, *e*, is attached to one side of the cap E, through which is passed a detent, *c*, having its lower end shaped to fit a nick, *n*, in the flange *r* of the thimble D. The top end of the detent is shaped into an elliptical ring, *f*, for a handle by which to operate the same, the object of which detent being to stop the revolutions of the cap E whenever desired.

Any desirable quantity of water is poured into the boiler, to which are added the clothes to be washed. The clothes and water together keep the heated water from rising to the surface, but instead it seeks a way of escape

upward through the pipe T, and out at the orifices of the nozzles P P, which gives action to the cap E. When the water is heated above the boiling-point the upward pressure is sufficient, if the nozzles are turned in opposite directions, to revolve the cap briskly, and throw a strong jet from the spouts. The force of these hot jets thrown among the clothing, operating with the heat at the base, and coming through the pipe T, causes an agitation in the bulk or mass that removes all the impurities and precipitates them to the floor *d*, or holds them in solution. The course of the current is indicated by arrows on the drawing in their different locations.

We are aware that wash-boiler attachments are an old device, and that many patents have been issued for them, but we disclaim all old inventions, and desire to secure by Letters Patent, and claim—

1. The combination of the gyrating cap E, provided with lugs *g g*, and the adjustable spouts P P, having slots *o o* and flexures *h h*, for the purposes substantially as herein shown and described.

2. In combination with the gyrating cap E, provided with the flange *i*, the thimble D provided with the groove *r*, as and for the purposes substantially as shown and described.

3. In combination with the gyrating cap E, thimble D, sleeve *e*, and nick *n*, the detent *c*, as and for the purposes substantially as herein specified.

In testimony whereof we have hereunto set our hands this 31st day of March, A. D. 1873.

JOHN B. HENRY.

EDWIN B. DENNIS.

Witnesses:

WILSEY G. BARNES,

A. BUTTON.