

No. 648,437.

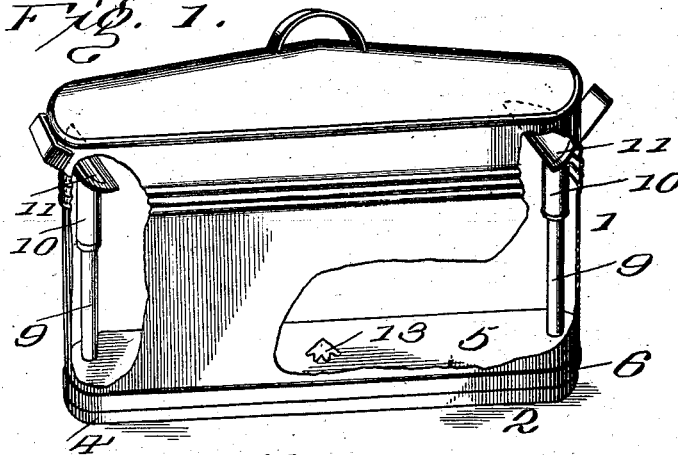
Patented May 1, 1900.

E. C. RINNER.  
WASHBOILER.

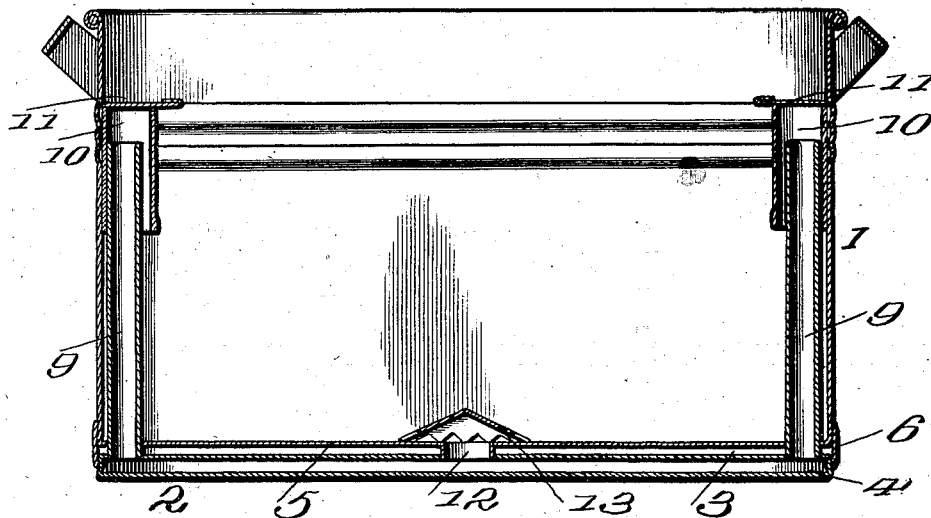
(Application filed Apr. 8, 1899.)

(No Model.)

*Fig. 1.*



*Fig. 2.*



Inventor

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Witnesses

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by *R. H. Lacey* Attorney

# UNITED STATES PATENT OFFICE.

ELIJAH C. RINNER, OF COSHOCTON, OHIO.

## WASHBOILER.

SPECIFICATION forming part of Letters Patent No. 648,437, dated May 1, 1900.

Application filed April 8, 1899. Serial No. 712,258. (No model.)

*To all whom it may concern:*

Be it known that I, ELIJAH C. RINNER, a citizen of the United States, residing at Coshocton, in the county of Coshocton and State of Ohio, have invented certain new and useful Improvements in Washboilers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to washboilers of the type depending for their operation upon the circulation of suds-water, the latter being heated to the boiling-point and automatically discharged upon the clothing or articles contained in the boiler by means of conveyer-tubes extending vertically within the boiler and receiving the heated water at their lower ends and discharging it at their upper ends, whereby a circulation of water and steam is set up and maintained so long as the boiler is resting upon a heated stove or located over a flame or other form of heater.

The primal object of the invention is to devise a construction which will enable a ready conversion of a common washboiler into a device of the character set forth at a minimum expense; also, to utilize a maximum amount of caloric in effectively heating the suds-water and maintaining it at the required temperature to keep up circulation.

As the invention is unfolded further objects and advantages will suggest themselves, and to this end reference is to be had to the following description and the accompanying drawings, in which—

Figure 1 is a perspective view of a wash-boiler constructed in accordance with and embodying the principles of this invention. Fig. 2 is a vertical central longitudinal section.

Corresponding and like parts are referred to in the following description and indicated in the views of the drawings by the same reference characters.

The washboiler 1 is of ordinary construction and outline, being of oblong form, so as to extend over adjacent stove-holes when placed in position upon a range or cook-stove. A shallow pan constituting a generator 2 is provided and located at the lowermost position, so as to come in direct contact with the

heater. This generator is coextensive in length and breadth with the bottom of the boiler and disposed parallel therewith and a short distance therebelow, leaving a dead-air space 3 of about one to two inches in depth. A narrow strip 6 closes the dead-air space 3 at its sides and is attached at its upper edge to the lower portion of the sides of the boiler 1 and at its lower edge to the sides 4 of the generator. The strip 6 is soldered or otherwise substantially attached at its edges to the parts 1 and 2.

Vertical tubes 9 connect the terminal portions of the generator with the upper portion of the boiler and terminate at their upper ends a short distance below the top edge of the boiler. These tubes 9 extend through the air-space 3 and communicate with the upper portion of the generator. Sleeves 10 receive the upper ends of the tubes 9 and are secured thereto and to the end portions of the boiler. These sleeves are disposed and are of a size to admit of the suds-water having a free passage between them and the upper portions of the tubes 9. The tubes 9 are free from the boiler, except at their end portions, which are attached thereto. The sleeves 10 are attached at their rear sides to the upper ends of the tubes 9 and to the end portions of the boiler and in conjunction with plates 11 direct the suds-water back into the boiler and prevent its spurting over the top thereof. The plates 11 are attached to and close the upper ends of the sleeves and are soldered to the end portions of the boiler and prevent the water foaming thereover.

A return-tube 12 is centrally disposed with reference to the boiler and spans the air-space and provides a passage for the return of the cool water to the generator in the active operation of the machine, thereby maintaining the circulation which is essential to the operativeness of the device. A guard 13 is attached to the bottom of the boiler and extends over the upper end of the return-tube and prevents the clothing and articles contained in the boiler from choking the tube 12. This guard spans the upper end of the tube 12, and its lower edge is notched and provided with openings for the free passage of the water from the boiler to the return-tube.

Having thus described the invention, what is claimed as new is—

1. The combination with a washboiler, of an attachment applied thereto and consisting of a generator closed at its top, bottom and sides and coextensive in lateral and longitudinal extent with the bottom of the boiler and arranged a short distance therebelow, return and delivery tubes connecting  
10 the generator with the interior of the boiler and located wholly within the sides of the latter so as to be out of the way and protected thereby, and a narrow strip vertically disposed and closing the sides of the space  
15 formed between the bottom of the boiler and the top of the generator and attached at its upper edge to the sides of the boiler above the plane of its bottom and at its lower edge to the sides of the generator below the plane  
20 of its top, substantially as described.

2. The combination with a boiler having a middle and end openings in its bottom, and a generator closed at top, bottom and sides and having openings in its top plate in coincident relation with the openings in the bottom of the boiler and placed beneath the lat-

ter and spaced therefrom and coextensive in lateral and longitudinal extent therewith, of return and delivery tubes extending across the space between the bottom of the boiler  
30 and the top of the generator and joining the openings therein, the delivery-tubes projecting vertically within the boiler and spaced therefrom, sleeves placed over the upper ends of the delivery-tubes and attached thereto  
35 and to the boiler, plates closing the upper ends of the sleeves and attached thereto and to the boiler, and a narrow strip vertically disposed and closing the sides of the space formed between the bottom of the boiler and  
40 the top of the generator and attached at its upper edge to the sides of the boiler above the plane of its bottom and at its lower edge to the sides of the generator below the plane of its top, substantially as described. 45

In testimony whereof I affix my signature in presence of two witnesses.

ELIJAH C. RINNER. [L. S.]

Witnesses:

H. B. McDONALD,  
WILLIAM S. MENELL.