

Wash-Boilers.

No. 138,167.

Patented April 22, 1873.

Fig. 1.

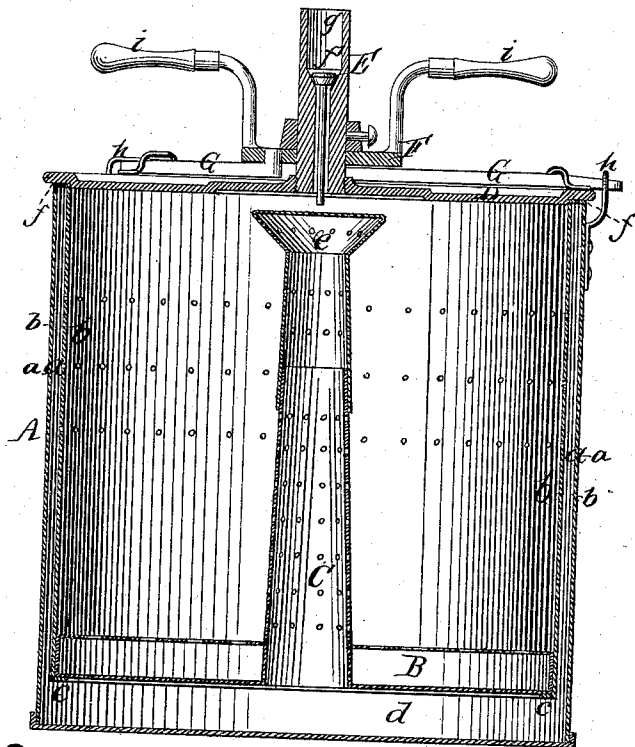
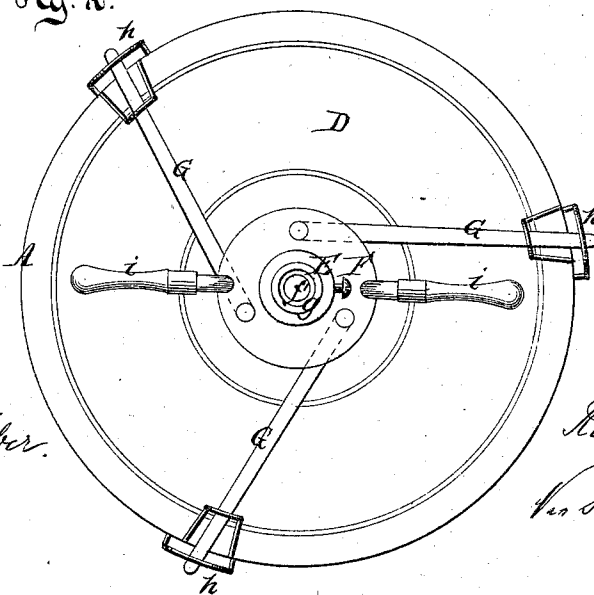


Fig. 2.



Witnesses.
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IMPROVEMENT IN WASH-BOILERS.

Specification forming part of Letters Patent No. **138,167**, dated April 22, 1873; application filed April 4, 1873.

To all whom it may concern:

Be it known that I, RUDOLPH LANGENBACH, of the city, county, and State of New York, have invented a new and Improved Wash-Boiler; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a vertical central section of this invention. Fig. 2 is a plan or top view of the same.

Similar letters indicate corresponding parts.

This invention relates to a wash-boiler which is provided with double walls, forming an annular space that is closed at the top and open at the bottom, the inner wall being perforated with a large number of holes and provided with a flange, which supports a partition-chamber that fits closely into the boiler. From the bottom of this partition-chamber rises a perforated tube with a rose head, while the top of said chamber is perforated with a large number of holes in such a manner that when the boiler is partially filled with water and then heated, the steam forming in the lowest compartment of the boiler causes the water to discharge through the perforated inner wall and through the perforated tube and rose head in a large number of small jets, whereby the clothes contained in the boiler are rapidly freed from impurities. The cover of my boiler is locked down by means of a swivel-head and bolts, which, when said swivel-head is turned in the proper direction, catch under staples secured to the body of the boiler, and the cover is provided with a suitable packing-ring, so that an air-tight joint is produced. The swivel-head, which carries the lock-bolts, turns on a tube which rises from the cover and which contains a safety-valve.

In the drawing, the letter A designates the body of my boiler, which is, by preference, made cylindrical, but which may be made oval, or in any other suitable form or shape. This body is provided with double walls or sides, forming an annular chamber, *a*, which

is open at the bottom and closed at the top. The inner wall *b* terminates at a certain distance above the bottom of the boiler, and it is perforated with a large number of holes. On the bottom edge of said inner wall is formed a flange, *c*, which serves to support the partition-chamber B. From the bottom of said partition-chamber rises a tube, C, which opens into the compartment *d* beneath the partition-chamber, and which is perforated with a large number of holes. On the top of this perforated tube is formed a rose-head, *e*, provided with perforations in its lower inclined surface, as shown in Fig. 1. The top of the partition-chamber B is perforated with large holes, and on it rest the clothes which are to be treated in the boiler. The cover D of my boiler is provided with a packing-ring, *f*, so that when the same is depressed upon the edge of the boiler, an air-tight joint is produced. From this cover rises a tube, E, which is open above and below, and which contains a safety-valve, *f'*, that closes down upon its seat by its own gravity. The seat of this valve is some distance below the top edge of the tube, so that a receptacle, *g*, is formed above the valve, in which the water of condensation collects, and if the valve is raised by the internal pressure this water runs down and checks the violence of the boiling. The tube E forms the guide of a swivel-head, F, to which are pivoted three (more or less) bolts G, which, when said head is turned in the proper direction, catch into staples *h* secured to the body of the boiler. The tips of said bolts are wedge-shaped, so that when the same are forced under the staples *h* the cover is firmly depressed upon the top edge of the boiler, and an air-tight joint is produced. Suitable handles *i* serve to operate the swivel-head.

In using my boiler I fill it with water or soap-suds, so as to cover the top of the partition-chamber; then I introduce the clothes to be washed and close down the cover. When the boiler is heated and the water in the lowest compartment *d* forms steam, the pressure of this steam forces the water out through the perforations in the inner wall and in the tube C and rose-head *e*, and the clothes are exposed

to a large number of fine jets of hot water, whereby the impurities adhering to said clothes are rapidly disengaged.

The inner body may be made stationary or removable. If it is made removable it will be provided with three feet below and with a flange projecting over the top edge of the outer body, and closing down thereon airtight when the cover is applied.

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

1. The arrangement of a perforated inner wall on a wash-boiler, said inner wall being

provided with a perforated tube and rose-head, which, in addition to the annular space *a*, forms the communication between the lowest compartment *d* of the boiler and the clothes compartment, substantially as set forth.

2. The swivel-head *F* and lock-bolts *G*, in combination with cover *D* and with the body of a wash-boiler, constructed and operating substantially as shown and described.

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Witnesses:

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