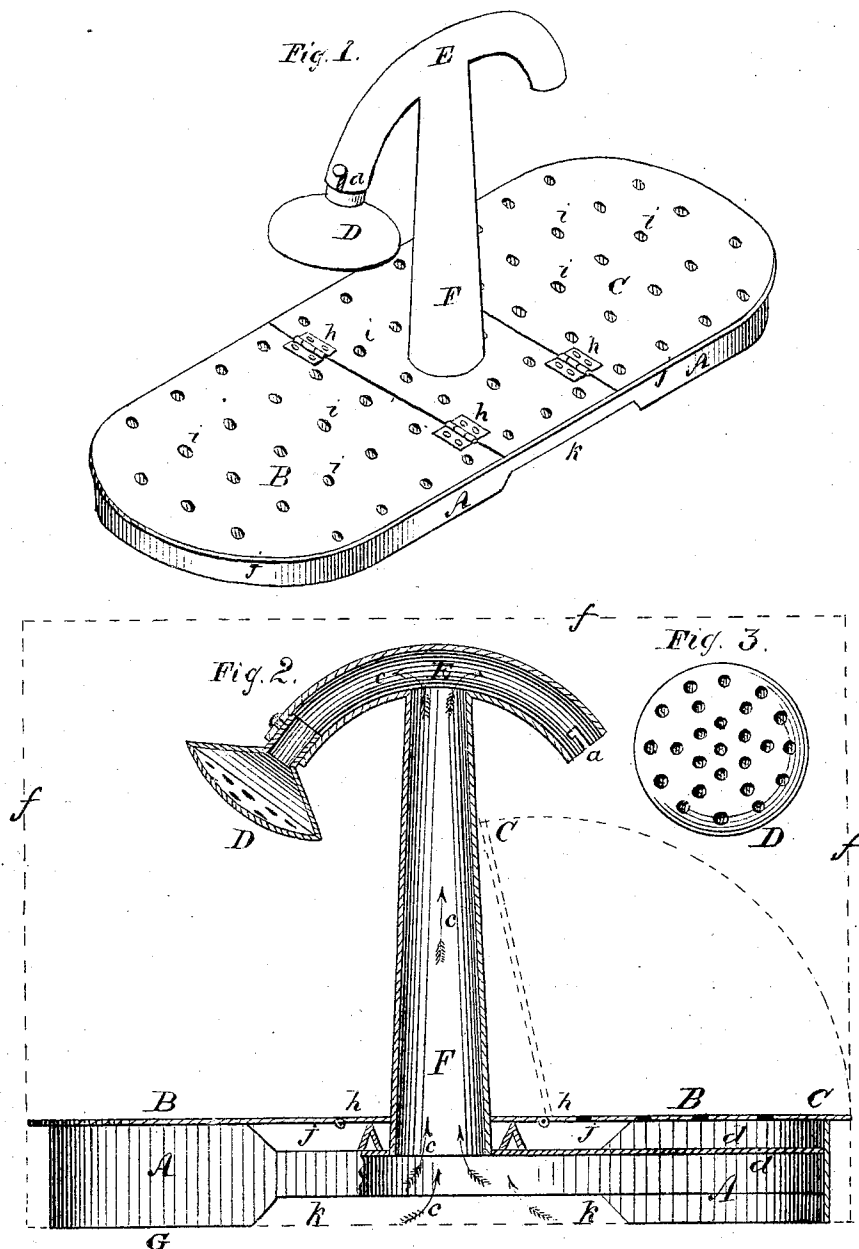


R. JEFFERS & D. C. BOCKOVEN.

Wash Boiler-Attachments.

No. 135,225.

Patented Jan. 28, 1873.



WITNESSES

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ROBERT JEFFERS AND DAVID C. BOCKOVEN, OF SOUTH SODUS, NEW YORK.

IMPROVEMENT IN WASH-BOILER ATTACHMENTS.

Specification forming part of Letters Patent No. 135,225, dated January 28, 1873.

To all whom it may concern:

Be it known that we, ROBERT JEFFERS and DAVID C. BOCKOVEN, of the town of South Sodus, in the county of Wayne and State of New York, have jointly invented a new and useful Improvement to be Attached to Wash-Boilers, or an attachment for wash-boilers; and we do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing and to the letters and figures of reference marked thereon.

Our invention relates to the washing or purifying of clothes by means of an attachment to the ordinary wash-boiler, by the agitation of the water and forcing it through tubes, to form jets or spouts, by steam generated from heat beneath the boiler. The object of our invention is to economize time and labor in the process of clothes-washing.

Figure 1 represents a perspective view of our invention, showing a perforated floor, B, a tube, F, orifice *a*, and snout or nozzle D.

Fig. 2 represents a vertical detail side elevation, the dotted lines representing the walls of the boiler, into which the improvement is placed, and resting on the bottom G G of the boiler. A A is the frame-work of the base of my improvement. C is a section of the same turned up vertically and resting against the tube. F is a tube, through which the water passes in its upward current, as is shown by the pointing of the arrows *c c c c*; D, the jet-nozzle; *a*, discharging-orifice.

Fig. 3 represents a façade or outward view of one of the nozzles with perforations, through which smaller jets are thrown than at the main orifices. These perforations may be made at will, although their size must be regulated so as to maintain an equilibrium between the ingress and egress of the water.

The rectangular figure or diagram described by the dotted lines *f f f*, Fig. 2, represents the walls or outside of a wash-boiler inclosing our improvement with its chief details.

The material we make use of is tin, because it is cheap, light, and durable, although any other malleable metal may be used for the purpose.

The improvement is represented as resting

on the bottom of the boiler G, and fills the space transversely and longitudinally of the inside of the boiler. The floor *d d*, Fig. 2, is raised above the bottom of the boiler about two inches by a piece of the same material as the whole of the improvement is constructed of, and curved so as to describe the figure of the bottom of the boiler, but separated from the walls of the same by about one-half-inch space, A A; Fig. 2, and having a part on each side cut away, *k k*, so as to leave sufficient space for the free passage of the water. About three-fourths of an inch distant, and above this last-named floor, is the disk or perforated floor proper, the space between the two floors or floor and disk constituting a water-chamber, into and through which the water passes, and out at *j j*, in its rotating currents through the tubes F and E and orifice *a*, or perforations of the nozzles D D, which currents are caused by the expansive force of heat generated at the bottom of the boiler, the currents passing in the direction as shown by the pointing of the arrows *c c c c*. This floor or disk, upon which the articles are to be deposited preparatory to washing, is perforated, at pleasure, both in the number and size of the perforations, for the purpose of the free passage of the water through the clothing in mass, and carrying off the soil through them, to the bottom of the boiler, while the water is again returned through the tubes, thus keeping up an agitated rotary action of the water. This disk is also in three divisions. The middle one, through which the tube F passes, is stationary; and the other divisions, B and C, are hinged to the stationary one, as represented at *h h h h*, and may be turned or swung back against the tube, as shown at C, Fig. 2.

Two objects are attained by hinging these otherwise loose divisions of the floor to the central or stationary one, viz., to afford an opportunity for removing the relieved impurities of the clothing which may have accumulated, or other matter in the water-chamber, and for airing and sun-drying our attachment.

The size of the tube F is made to suit the capacity of the whole boiler apparatus in combination; but the size we use is about from one and three-fourths to two and one-fourth inches in diameter at the base, and slightly

diminished in size longitudinally to the top E, at which point a section of the tube is attached transversely, having the ends curved downward, with an orifice at both ends, by which means a jet of water is thrown into both ends of the boiler at the same time; or, by the nozzle, Fig. 3, which may be attached or detached at will, numerous smaller jets may be thrown; or, by detaching one nozzle and leaving the other attached, two different kinds of jets of water may be produced at the option of the operator.

Having described our improvement as an

attachment for wash-boilers, what we claim, and wish to secure by Letters Patent, is—

The wash-boiler attachment, consisting of the floor A, perforated hinged disk B B with its supports, in combination with the central tube F, curved top E, nozzles D D, and lock a, constructed and arranged substantially as herein described and specified.

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DAVID C. BOCKOVEN.

Witnesses:

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