W. A. KELLOGG.

WASH-BOILER.

No. 193,163. Patented July 17, 1877.

Fig 1

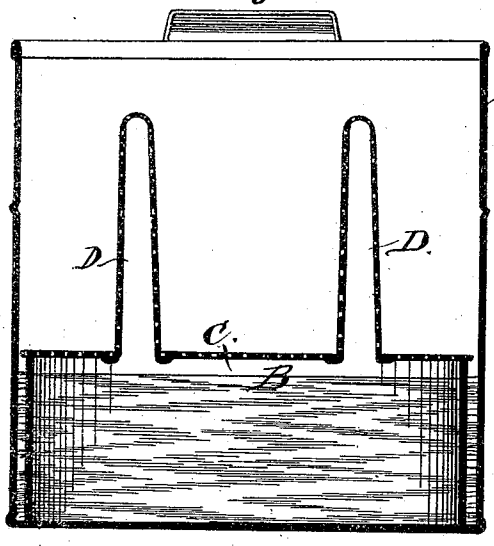


Fig 2

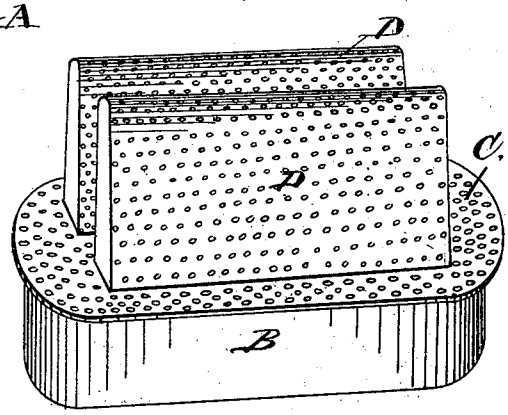


Fig 3

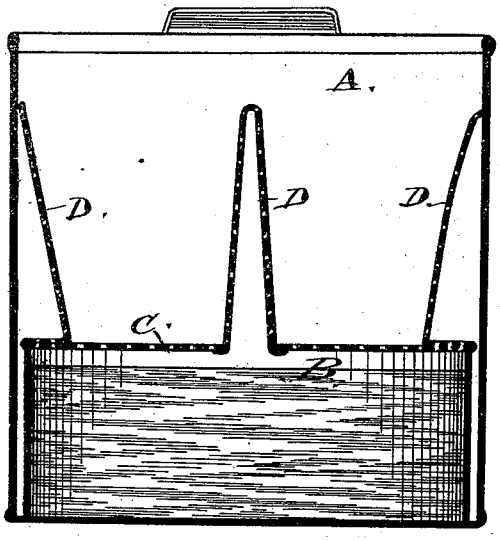
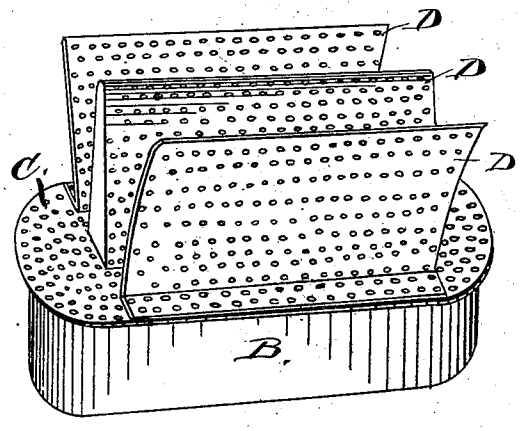


Fig 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

WILLIAM A. KELLOGG, OF SCRANTON, PENNSYLVANIA.

IMPROVEMENT IN WASH-BOILERS.

Specification forming part of Letters Patent No. **193,163**, dated July 17, 1877; application filed March 20, 1877.

To all whom it may concern:

Be it known that I, WILLIAM A. KELLOGG, of Scranton, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Wash-Boilers; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to a special construction of wash-boiler apparatus adapted for washing by steam alone; and it is designed to effect a more thorough distribution of the steam up and through the whole body of the clothes, while also preventing the water itself or any of the sediment therein from being forced upward upon the clothes.

Within any ordinary clothes-boiler, A, I place my improved apparatus, which is constructed as follows: B is a chamber, whose side wall is high enough to extend above the height to which the water is needed in the boiler, there being sufficient space left between the water-line and the perforated top C of the water-chamber, to prevent the water bubbling through these perforations, which should be fine and numerous enough, in connection with the similar and numerous perforations hereinafter named in the uprights, to allow full upward vent for the steam generated without carrying the water up with it.

Projecting upward from this chamber B are two or more vertical chambers, preferably wedge-shaped, (shown at D D,) opening at their bottom into the steam-space beneath chamber-top C, these chambers D being also made with very numerous small perforations to aid in freely discharging upon the clothes placed between and around them all the steam generated, and they are placed lengthwise of the boiler that each may present the greatest practicable surface to the clothes, and each is placed a little inward from the wall of the boiler, so that the clothes may be stowed in, not only between it and such wall, but also between the two parts D D, as also at their ends, the perforations in the water-chamber permitting the ascent of the steam at all these parts.

From the above it will be perceived that a very large body of the clothes lies close to, and directly against, the steam-discharging orifices, so that the steam, and steam only, and free from impurities, affects them all simultaneously and with nearly equal force, and the water not only does not touch the clothes, but is not permitted to interfere with or impede the free course and action of the steam.

My improved attachments may be, of course, made to conform to the several sizes or makes of boilers in use, or adapted to those of still greater capacity.

In some cases one or more central vertical chambers, such as D, may be used, and the outermost distributers instead of being each such a chamber may be formed simply of a perforated plate like a vertical section or half of the chamber D, and made to lean or incline at its top against the inner face of the boiler A, as seen in Figs. 3 and 4. In such case the steam passes up between the boiler-wall and the perforated plate, and distributes itself directly against the clothes in a direction toward the center of the boiler.

By my construction and method of utilizing the steam, it will be observed that my improved device is adapted to be entirely lodged within an ordinary tin boiler, and inclosed there when the boiler-cover is put on; that the clothes to be treated are placed within this ordinary boiler, and not in an independent vessel surmounting it; that the quantity of water needed is comparatively little, thus lessening the labor of supplying and subsequently removing the same, and that but little fuel is needed to generate steam from this small body of water; that the weight both of the water and the clothes is so disposed that the boiler is not top-heavy or liable to be upset when in use.

It will be observed that by my method and construction the steam generated within the chamber B has no escape laterally through its side wall, which is unperforated, and which is water-sealed at its bottom, but on the contrary there is no outlet or passage for it except upward directly to the clothes; that the entire

expansive force of the steam is therefore restrained or confined at the sides, so that its whole power is exerted in one direction, and that in the one best adapted for the purpose intended, and that this, in connection with the numerous perforations both in the plate or part C and in the parts D, permits the quickest and most complete driving of the steam into and through the whole body of the clothes.

I claim—

The described wash-boiler attachment, consisting of the non-perforated wall B having an open bottom, a horizontal perforated top or covering, C, and perforated steam-distributers D, the wall B being slightly less in circumference than the area of the boiler within which the attachment is to be placed for use.

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Witnesses:
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