

H. P. BEMISS.

Wash Boiler.

No. 85,358.

Patented Dec. 29, 1868.

Fig. 1.

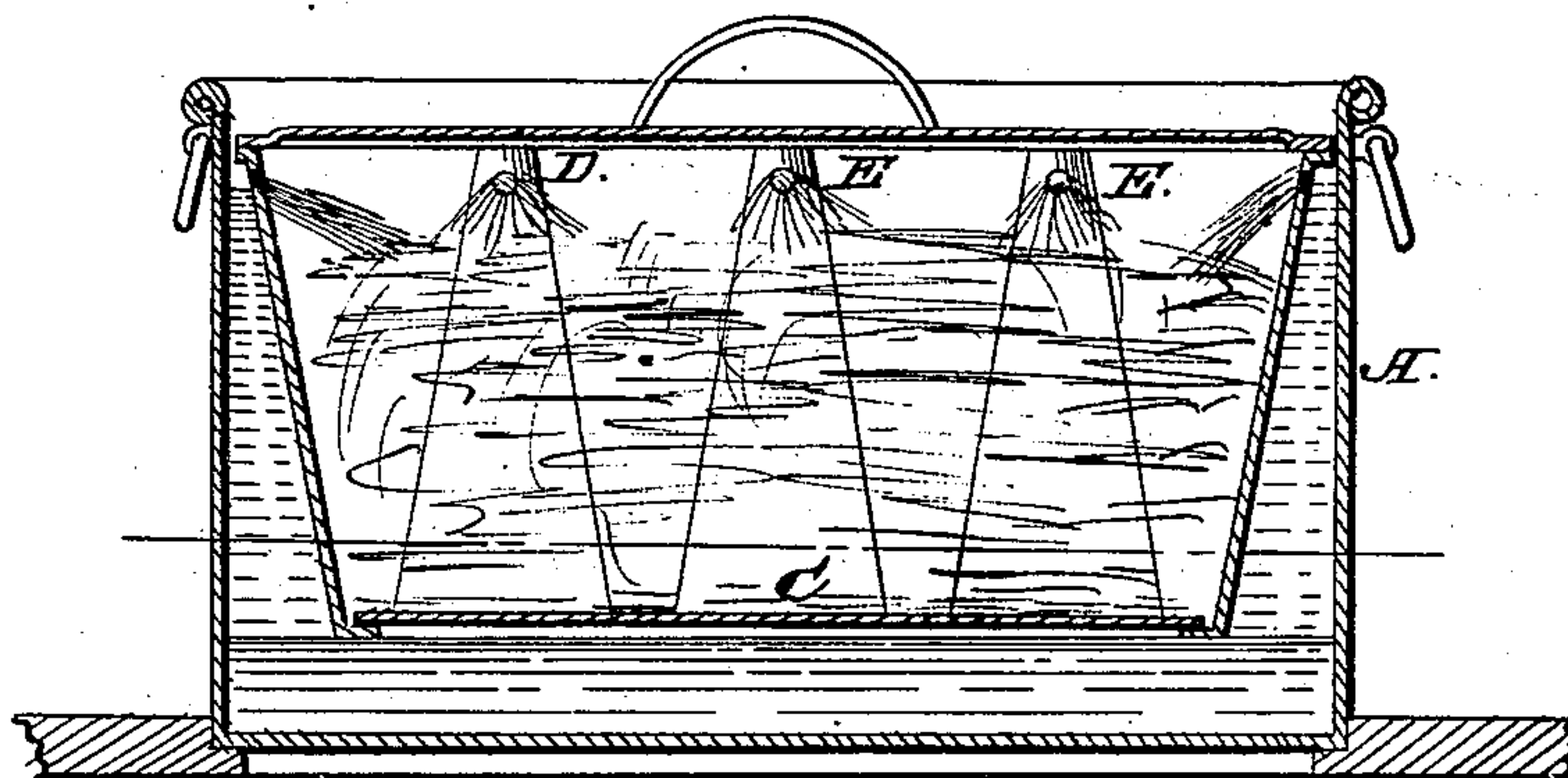
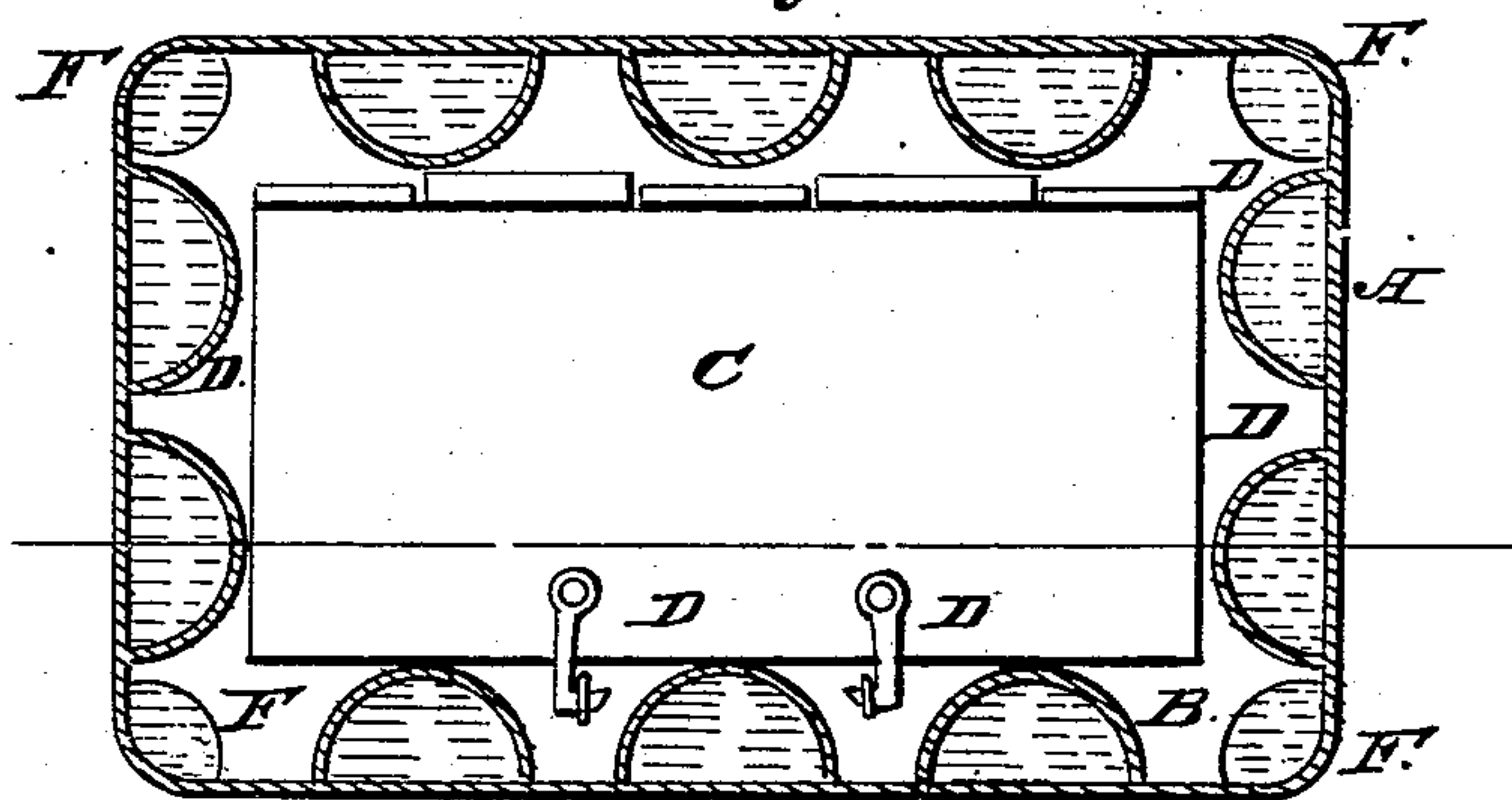


Fig. 2.



Witnesses
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H. P. BEMISS, OF MILAN, OHIO.

Letters Patent No. 85,358, dated December 29, 1868.

IMPROVEMENT IN WASH-BOILERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, H. P. BEMISS, of Milan, in the county of Erie; and State of Ohio, have invented 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 those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to improvements in that class of wash-boilers wherein currents of water are caused to flow from bottom to top, and *vice versa*.

It consists in an arrangement of the same, designed to be more effectual in producing the said flow.

Figure 1 represents a longitudinal vertical section of a boiler, constructed according to my improvement; and

Figure 2 represents a plan view of the same.

Similar letters of reference indicate corresponding parts.

A represents the outer shell of the boiler, which is made in the usual or any other convenient form, and provided with a secondary bottom, B, having a door, C, through it, for access to the space below, for cleaning and other purposes.

D represent the flues for conducting the upward current, which I prefer to make of semicircular and tapered tubular form, and solder, or otherwise secure them to the inner wall of the shell of the boiler, as represented in the drawings, and provide them with small openings, E, near their upper ends, for the discharge of the hot water.

The lower ends of the tubes are also secured to the upper face of the secondary bottom, B, which is provided with openings coincident with the tubes, and thereby form passages from the space below the said bottom.

F represent openings through the secondary bottom,

for the water of reduced temperature to pass into the space below, to become reheated.

I have represented these passages in the four corners only of the boiler, but it is apparent that others may be formed between the tubes, if necessary.

By this arrangement, it will be perceived that a better action will be effected on the clothes, owing to the greater diffusion of the flow, which is made possible without interfering with the introduction or removal of the clothes.

But a more important feature is the better flow of water produced, which will be evident from the inspection of the arrangement of the bottom, D, passages F, and the flues, when it will be seen that, as soon as the water becomes heated in the lower space, its only escape is through the said tubes. Consequently, the circulation will at once set in, irrespective of the quantity of clothes in the boiler, whereas, in those heretofore constructed, the circulation is mainly dependent on the quantity of clothes in the boiler, and will be very feeble, unless the quantity is considerable, as the necessary conditions of the passages from the underspace to cause the circulation do not exist, when not filled, or nearly so, owing to the imperfect construction of the said boilers, the clothes being depended on to prevent the heated water from passing into the interior space.

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

The false bottom, B, rigidly affixed to the base of the tubes D, above the bottom of the boiler, perforated at its corners F only, and provided with the central hinged door C, as herein described, for the purpose specified.

H. P. BEMISS.

Witnesses:

WM. H. TAYLOR,
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