

C. N. TYLER.

Improvement in Wash-Boiler Attachments.

No. 131,136.

Patented Sep. 3, 1872.

Fig. 1.

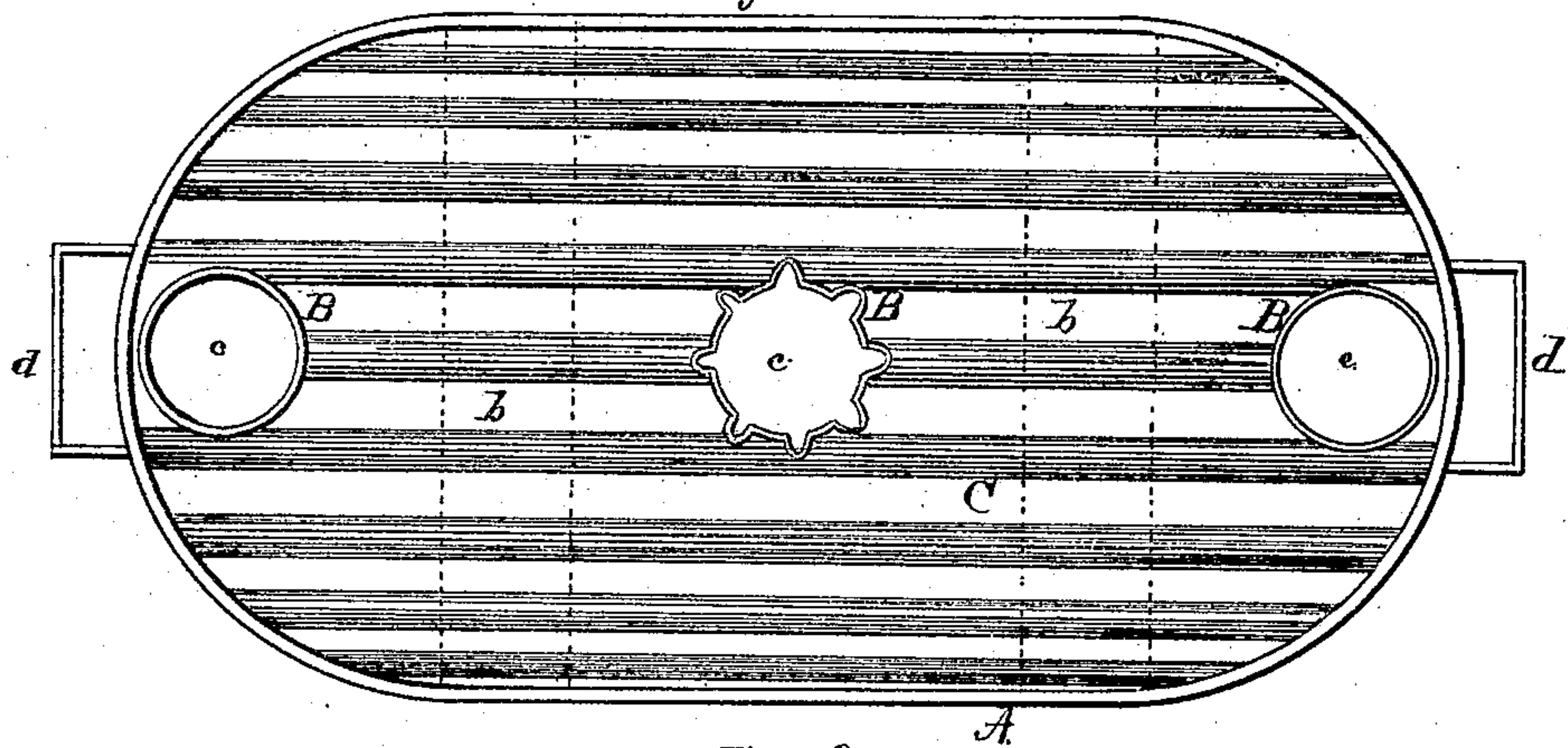
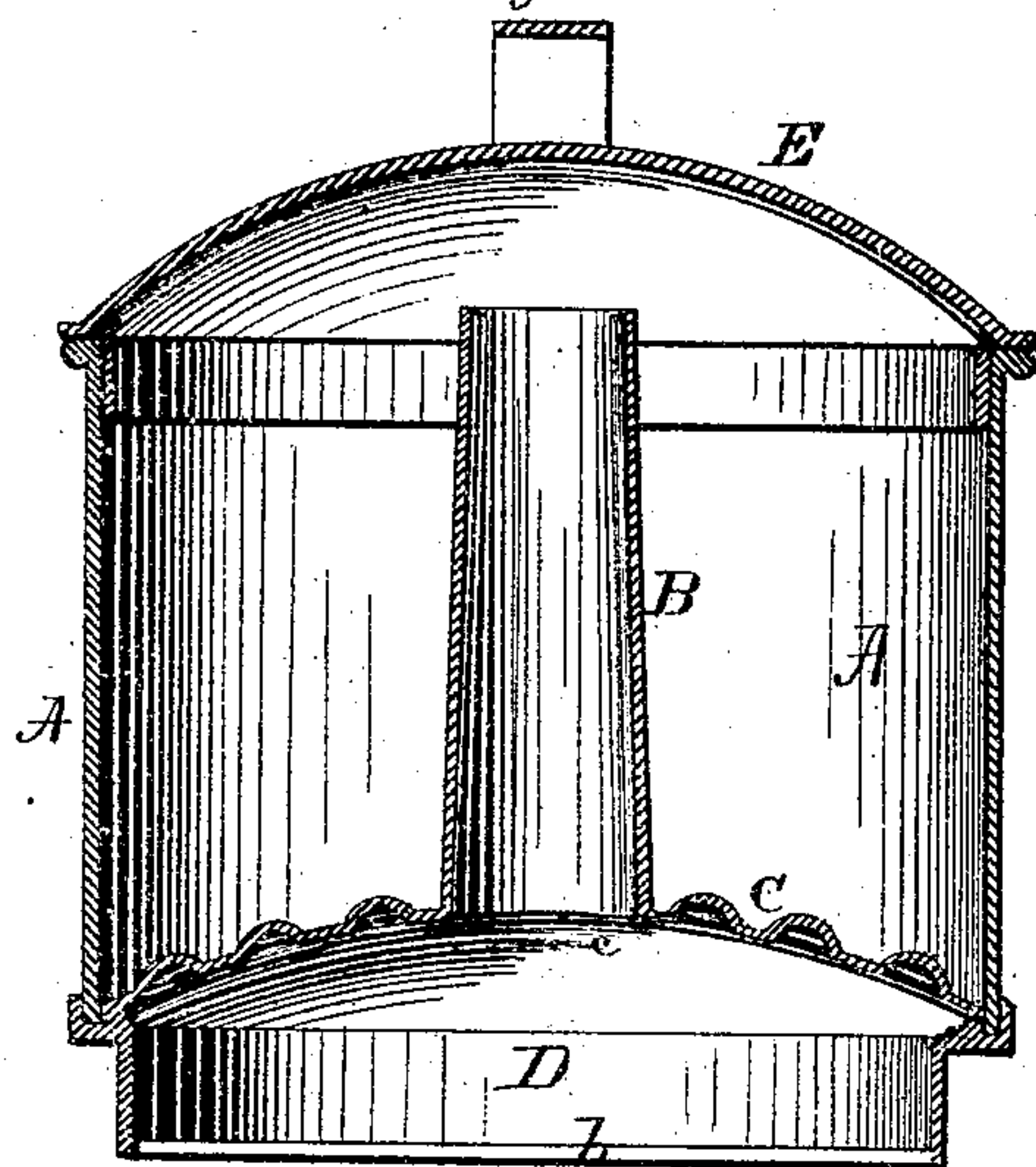


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN WASH-BOILER ATTACHMENTS.

Specification forming part of Letters Patent No. 131,136, dated September 3, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, CHARLES N. TYLER, of Buffalo, in the county of Erie and State of New York, have invented a new and Improved Wash-Boiler Attachment, of which the following is a specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a plan of my improved attachment, and Fig. 2 a transverse vertical section of the same.

My improvement is intended as an attachment to wash-boilers, so as to utilize and economize the heat which would otherwise pass off with the steam.

In the drawing the attachment is represented as consisting of a boiler, A, conforming in shape to the boiler to which it is intended to be applied, but having a curved bottom, C, of a length and width sufficient to sit squarely on the top of the lower boiler. To the under side of this bottom, and so as snugly to fit the inside of the upper edge of the lower boiler, is arranged and secured a flange, D, in the same manner as the flange of the ordinary lid or cover, or in any other suitable manner. This flange gives stability to the attachment, and at the same time serves to render the lower boiler in a measure steam-tight. To this flange, and running transversely from side to side, is secured one or more metallic strips, *b*, for a purpose to be hereafter described. By reference to Fig. 2 it will be seen that the bottom is represented as corrugated. This is intended to give the bottom a greater extent of heating-surface; but I do not intend to be confined to such form, as it may be made perfectly smooth, if desired. It is also represented as being curved for the same reason; but it may also be made flat, although it is deemed better to have it both curved and corrugated. In the bottom is cut one or more openings, *c*, into which is fitted and properly secured one or more tubes, B, extending nearly, if not quite, to the top of the attachment, for a purpose to be hereafter described. These may either be simple sections of a tube with parallel sides, or they may be made of a conical shape, and in either event may be made plain or corrugated, as represented in the middle tube of Fig. 1; but the corrugated is preferred, as it affords more heating-surface than the plain.

The number of these pipes or tubes will depend on the purpose to which the attachment is intended to be applied; but, as a rule for an oval attachment, three only will be used, and for a small round one, one. The attachment, as in common boilers, is provided with handles *d* and a lid, E.

The attachment above described, and illustrated in Figs. 1 and 2, represents the utensil as intended for use in connection with a common wash-boiler, or with my improved wash-boiler patented to me on the 15th day of December, 1868, and subsequently reissued on the 5th day of September, 1871, or with other apparatus of that class, and will, of course, in all cases be made of such size and shape as to conform in these respects to the boiler with which it is to be used. The metallic strips *b* serve to hold the clothes in position and to keep them from rising, thus preventing them from interfering with the necessary exposure of the bottom C of the attachment to the action of the steam, or with the free passage of the latter up the tubes B, so that the water in the attachment A may, by the time the clothes in the lower boiler have been sufficiently washed or boiled, be heated sufficiently to form a new charge of hot water for the washing of the next batch of clothes, or for rinsing purposes, or both—thereby saving both time and fuel.

The operation is as follows: Let us suppose that the lower boiler is charged with the clothes to be boiled or washed, and supplied with the necessary quantity of water and soap for the purpose, and placed on the stove. My attachment A is then placed on its top in place of the old cover or lid, and filled, or nearly so, with cold water, after which the lid is placed on top. The boiler below is then allowed to boil as long as may be necessary, during which time the steam, acting on the bottom and sides of the tubes, will have imparted its heat to the water in the attachment, bringing it up to the boiling-point in a very short time. In fact, two charges of cold water can be heated sufficiently for rinsing purposes during the time required for boiling or washing one charge of clothes, thus providing an ample supply of hot water for that purpose, and enough, besides, to charge the boiler below with hot water for the next charge of clothes, thereby saving both

time and fuel. Now, as the steam imparts its heat to the water through the bottom C, tubes B, and through the top of the water itself, it becomes condensed, and trickles back again to the boiler, carrying with it the odor of the suds, which in the old way escaped with the steam into the wash-room, and thence over the house, much to the annoyance of housekeepers and others. When the clothes have been boiled or washed sufficiently, the attachment A is raised from the boiler and placed on the stove or other convenient place. The clothes are then removed from the boiler to a wash-tub, first passing them through a wringer, if desired, to free them from the dirty suds. To the clothes a portion of the water heated in the attachment is then added for rinsing purposes. The suds are then discharged from the boiler and a new charge of clothes placed in it, to which the remainder of the hot water in the attachment is then added, and placed on the stove as before, when the attachment is again put in place and charged with cold water, as in the first case, and so on until the whole washing has been completed.

From what has been said it will be apparent that this device will utilize a large percentage of the heat which formerly escaped with the steam, and will, at the same time, prevent the escape of much of the odor of the suds—points which commend themselves largely to

all practical housekeepers. It will also be apparent that the bottom C of the attachment may be so shaped as to take the place of the flange D; but I prefer the flange as being simpler and cheaper. This attachment may also be used with great advantage in connection with boilers used for cooking purposes, as it will economize the heat, give a bountiful supply of hot water, and at the same time absorb the odors arising from the articles being cooked, which in many respects are otherwise very objectionable.

Claims.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A boiler attachment, A, when provided with a bottom, C, to which is attached, in any suitable manner, a tube or tubes, B, and a lid, the whole being constructed and arranged and operated in the manner and for the purposes specified.

2. In combination with the wash-boiler attachment A, provided with a flange, D, and tube or tubes B, I claim a strip or strips, b, for the purpose set forth.

CHARLES N. TYLER.

Witnesses:

ALLEN D. STRICKLER,
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