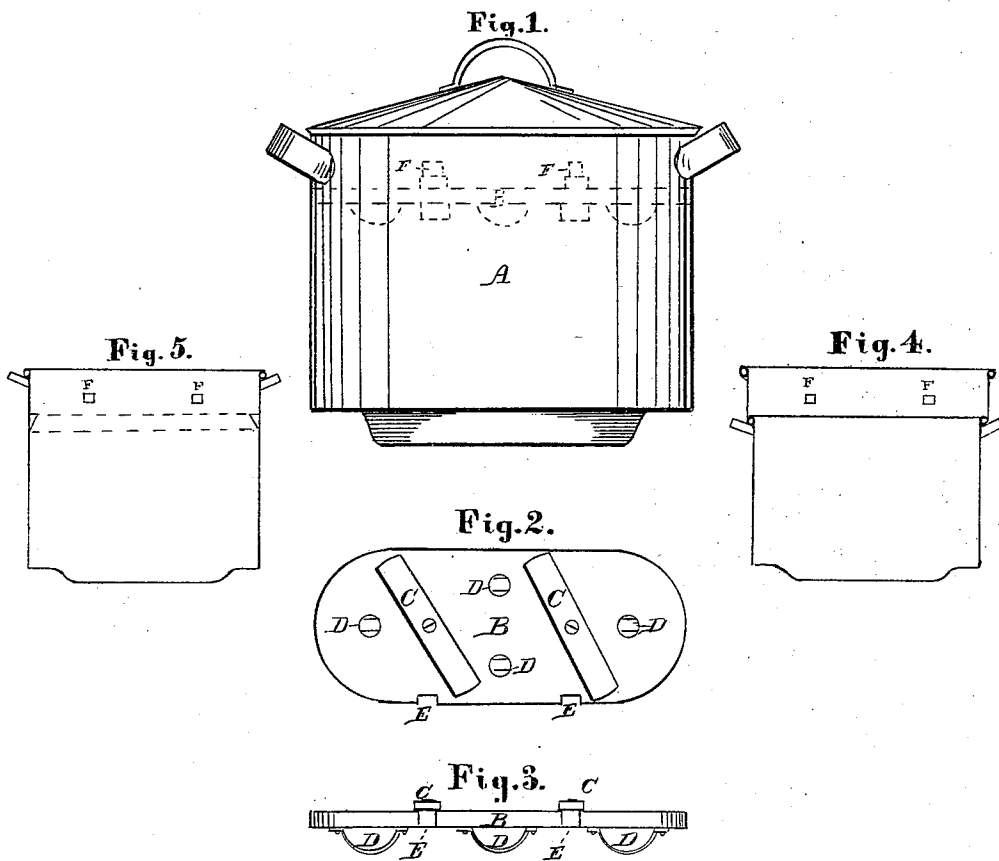


N. Parks.
Wash Boiler.

No. 94,129.

Patented Aug 24, 1869.



WITNESSES,

James Lewis
J. H. Green

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United States Patent Office.

NATHANIEL PARKS, OF MOHAWK, NEW YORK.

Letters Patent No. 94,129, dated August 24, 1869.

IMPROVED WASH-BOILER.

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, NATHANIEL PARKS, of Mohawk, in the town of German Flats, county of Herkimer, and State of New York, have invented a new and useful Improvement in Clothes Washing-Boilers; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and the letters of reference marked thereon, in which identical letters refer to similar or identical parts.

My invention consists in fitting a suitable perforated diaphragm to a common clothes washing-boiler, whereby the process of washing clothing is greatly facilitated, and the labor usually bestowed thereon greatly abridged.

To enable others skilled in the art to make and use my invention, I will describe its construction and operation.

Referring to the accompanying sheet of drawings—

Figure 1 is a clothes washing-boiler, of the ordinary pattern, supposed to be from eighteen to twenty inches deep, exhibited in side elevation.

The perforated diaphragm, mentioned above, occupies a position within the boiler, about four or five inches from the top of the boiler, as shown by the dotted lines in fig. 1.

Figure 2 exhibits the diaphragm, as seen from above.

Figure 3 exhibits the diaphragm as it might appear in detail, as it is represented in dotted lines in fig. 1.

Figure 4 is intended to exhibit, in outline and in section, an ordinary boiler, only about fourteen inches deep, made deeper by soldering on around its wired top a suitable extension, increasing its depth about four or five inches; at the same time the original top of the boiler remains as a ledge or projection for the support of the diaphragm, as is sufficiently apparent in the figure.

Figure 5 is intended, in outline and in section, to represent a boiler originally of suitable depth, (from eighteen to twenty inches,) in which a suitable ledge or projection has been soldered for the support of the diaphragm.

In figs. 4 and 5 are represented projections F F, on the inside of the boiler a little distance above the ledge, on which the diaphragm rests.

The projections F F are in pairs, a pair on each of the two sides of the boiler, within. They serve the purpose of securing the diaphragm in its place, so that it may not be accidentally displaced.

As represented in figs. 2 and 3, the diaphragm is made of a suitable piece of board about an inch thick, to which the letter B has reference.

The outline of the diaphragm should conform to the internal dimensions of the boiler to which it is to be

adapted, so nearly that it may be readily inserted therein or removed therefrom, when necessary.

Its position in the boiler has already been sufficiently shown.

On the upper side of the diaphragm are shown two bars, C C, made of suitable wood, pivoted, by means of a screw, through the centre of each, as shown in fig. 2.

There are also several holes, each about an inch in diameter, (varying in number from four to six or eight, according to the size of the boiler,) made through the diaphragm, and on the under side of the diaphragm each hole is bridged by a curved strip of metal, all of which will be understood by the parts in figs. 2 and 3, on or near which the letters D D D are placed.

On one side or margin of the diaphragm are cut two notches, E E, figs. 2 and 3, of suitable depth and width to pass the projections F F, shown in figs. 4 and 5, and also in dotted lines in fig. 1.

To insert the diaphragm in its place in the boiler, its notched side is sufficiently elevated to permit the other side to be placed in its proper position, after which the notched side readily drops in its place.

The bars C C are then turned so that they reach directly across the diaphragm, from one side of the boiler to the other, locking the diaphragm securely in its place by passing under the projections F F, on each side of the boiler.

To remove the diaphragm from the boiler simply reverses these operations.

Operation.

Clothes that are to be cleansed are first freely rubbed with soap where needed, to insure detergent action, then placed in even layers within the boiler, until the boiler is filled, if necessary, nearly up to the ledge on which the diaphragm rests when in place.

Water or suds sufficient to cover the contents of the boiler may then be turned in, the diaphragm introduced and locked in its place.

Heat may then be applied, and the contents of the boiler boiled briskly for from forty to eighty minutes.

Very badly soiled clothes may, in some cases, require longer boiling.

During the boiling-process, the evolution of steam causes the water or suds to percolate rapidly through the clothes.

The bridged holes D D D, in the diaphragm, permit the water to rise freely above the diaphragm as it is forced, by the steam, through the clothing, while, at the same time, in the process of ebullition, the steam generated heaves and surges the clothes to be cleansed in the space left under the diaphragm, so as materially to aid the cleansing-process.

The water that rises above the diaphragm losing a portion of its heat, trickles back into the lower part of the boiler and condenses steam, producing an occasional vacuum, into which all the water above the diaphragm is rapidly forced by atmospheric pressure.

When the cleansing-process has been sufficiently continued in the boiler, the boiler is lifted from the fire, or the fire is permitted to subside, when all the water above the diaphragm returns to the lower part of the boiler. The diaphragm may then be removed.

The cleansing process may then be completed by a subsequent rinsing of the clothes, requiring, perhaps, in a few instances, a slight degree of rubbing.

By the mode of applying a diaphragm to a clothes-washing boiler herein described, it is believed a more

effectual cleansing-apparatus is obtained than by more complicated means.

Claim.

What I claim as my invention and improvement in wash-boilers, is—

The bridge or curved strips D D D, in combination with the diaphragm B and boiler A, and the device for fastening, C C, F F F, and E E E, as shown and described.

NATHANIEL PARKS.

Witnesses:

JAMES LEWIS
J. H. CRIM.