

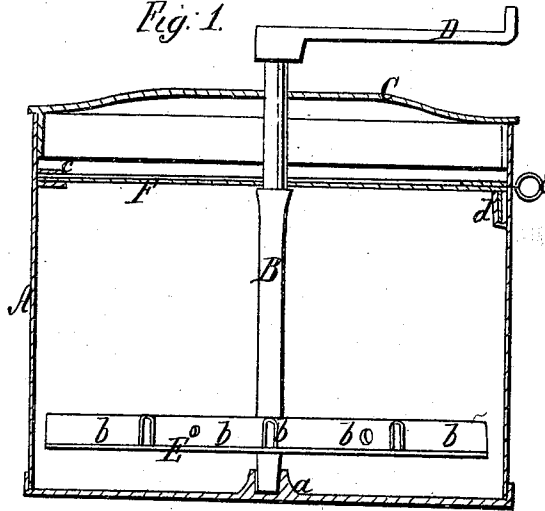
*C. W. Hermance.*

*Wash Boiler.*

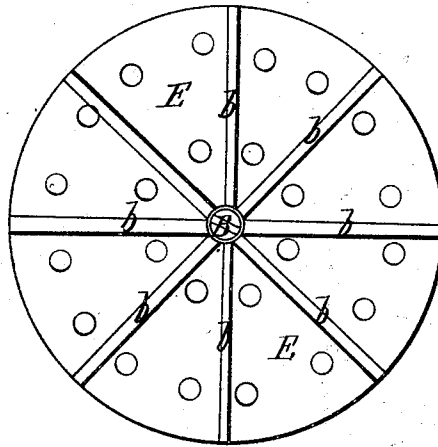
*N<sup>o</sup> 88,478*

*Patented Mar. 30, 1869.*

*Fig. 1.*



*Fig. 2.*



*Witnesses:*  
*Cornelius Cox*  
*John M. Stoops*

*Inventor,*  
*C. W. Hermance*  
*By Alexander Wagner*  
*Attys.*

# UNITED STATES PATENT OFFICE.

C. W. HERMANCE, OF SCHUYLERVILLE, NEW YORK.

## IMPROVED WASHING-MACHINE.

Specification forming part of Letters Patent No. 88,478, dated March 30, 1869.

*To all whom it may concern:*

Be it known that I, C. W. HERMANCE, of Schuylerville, in the county of Saratoga, and in the State of New York, have invented a new and useful Improvement in Wash-Boilers; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in the construction and general arrangement of a "wash-boiler," with a vibrating metallic wheel, on which the clothes are placed.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, which form a part of this specification, and in which—

Figure 1 is a vertical section, and Fig. 2 a plan view.

A represents a wash-boiler of any dimensions desired, having in the center of its bottom a socket, *a*, or its equivalent, for the insertion of the lower end of the vertical shaft B, which passes upward through a hole in the lid C, and is at its upper end provided with a crank, D, for the purpose of turning or rotating said shaft.

On the shaft B, near its lower edge, is placed a wheel, E, of circular form, said wheel being made of tin, galvanized iron, or other suitable metallic substance, and perforated, as shown in Fig. 2. This wheel is on its upper side provided with a series of cleats or ribs, *b b*, radiating from the center to the outer periphery of the wheel. These cleats or ribs are also formed of metal, and bent over so as to form a channel or a hollow flattened tube, the inner end being closed and the outer open. Through each of the cleats or ribs *b b* are one or more holes, as seen in Fig. 1.

Across the boiler A, near its top, is placed a cross-bar, F, through the center of which the vertical shaft B passes, the said cross-bar forming the bearing for the shaft. One end of said cross-bar is inserted in a socket, *c*, on the inside of the boiler, and the other end, being bent downward, is inserted in a loop, *d*, on the other side, inside of the boiler. A pin, E, is then inserted from the outside of the boiler on

top of the end of the cross-bar, or into a loop on the same, thus holding the cross-bar firmly in its place.

The clothes to be washed are laid on the cleats or ribs *b b* on the wheel E, said ribs holding the clothes up from the wheel, thus preventing them from clogging up the holes or perforations in the wheel, but allowing at all times a free passage of the water through the same.

The operation of my machine is very simple. The operator, by the use of the crank D, turns the wheel E, say, about one-half around, then back again, and so on rapidly from side to side, causing a vibrating or reciprocating motion of the wheel. This produces a tremendous agitation of the suds as the shaft B carries not only the wheel E, but also the water and clothes, with it. This agitation is further increased by the peculiar construction of the cleats or ribs *b b*. These cleats being hollow, the water is thrown outward by the centrifugal force, and then rushes in again through the open outer ends and perforations.

The wheel E being made of metal, it will not be affected by the action of boiling water, and it cannot shrink or swell, which is always the case with a wooden wheel.

I am aware that machines have been constructed for washing clothes by the friction of a disk with radial ribs attached to a vertical shaft; these, therefore, I do not claim; nor do I claim constructing a wash-machine of metal, as this also has been done.

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

The arrangement of the thin perforated metal disk E, with its radial hollow tubes *b b*, open at their outer ends and perforated, all attached to the vertical shaft B, passing through the movable bar F and within the wash-boiler A, as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 26th day of February, 1869.

C. W. HERMANCE.

Witnesses:

J. H. D. KIDDER,  
G. F. WATSON.