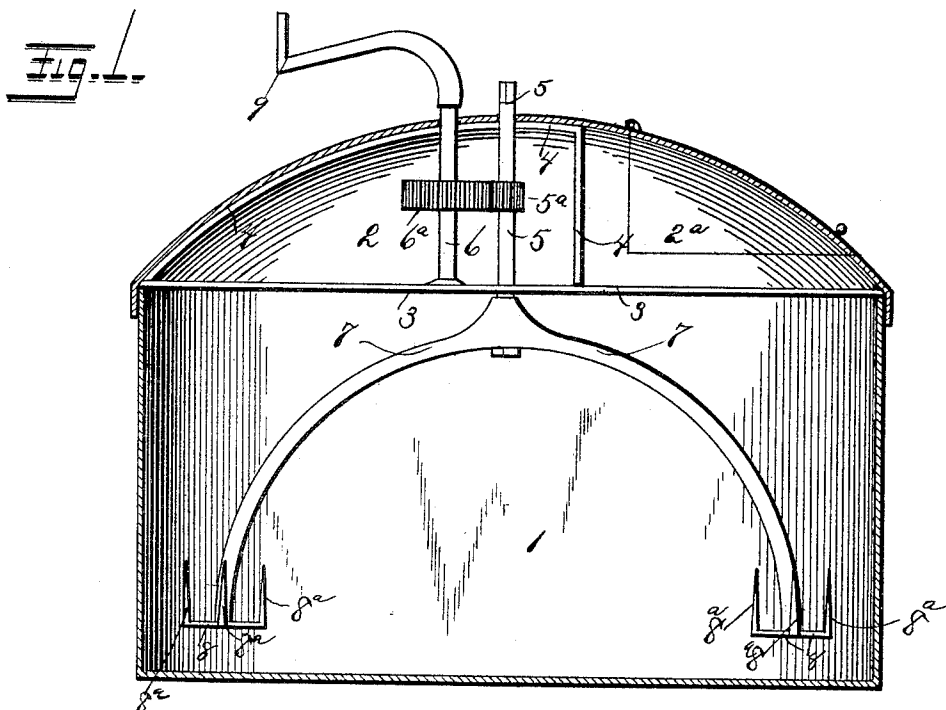
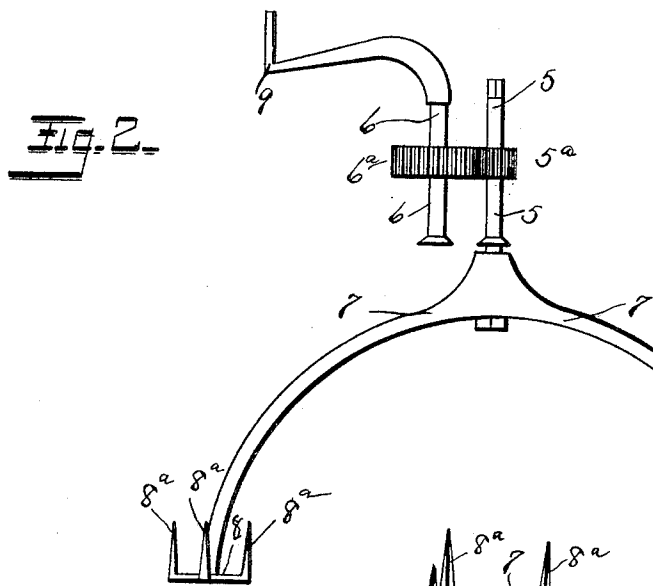


(No Model.)

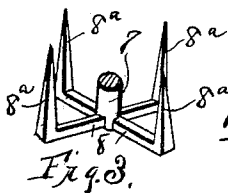
L. D. BRADY.
WASHING MACHINE.

No. 458,941.

Patented Sept. 1, 1891.



WITNESSES
W. H. North
C. S. Frye



L. D. Brady
INVENTOR:
W. J. Fitzgerald & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

LEWIS DELAPLANE BRADY, OF MARCELINE, MISSOURI.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 458,941, dated September 1, 1891.

Application filed May 7, 1891. Serial No. 391,948. (No model.)

To all whom it may concern:

Be it known that I, LEWIS DELAPLANE BRADY, a citizen of the United States, residing at Marcelline, in the county of Linn and State of Missouri, have invented certain new and useful Improvements in Washing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention consists in a new and improved washing-machine which possesses several novel and valuable features, enabling it to wash soiled clothes with great rapidity and effectiveness, and the invention will be hereinafter fully described, and claimed.

Referring to the accompanying drawings, Figure 1 is a central vertical sectional view of my new and improved washing-machine. Fig. 2 illustrates in detail, on an enlarged scale, the revolving mechanism. Fig. 3 illustrates in detail, on an enlarged scale, the retaining-pins at the lower ends of the removable arms.

Referring to the several parts by their designating-numerals, 1 indicates the boiler or vessel forming the body of the washing-machine, which is formed with a flat bottom to adapt it to be set upon a stove while in use, in order to keep the water heated steadily at the desired temperature.

2 indicates the top of the boiler, which is formed at one side with the hinged door 2^a, through which the clothes are placed in the boiler. Within the top is secured the transverse rod or bar 3, which extends entirely across the top, and the curved bar 4 extends from one side of the top to a little beyond the center of the same and there bends down to connect with the horizontal bar 3. In bearings in these two bars are mounted the two vertical drive-shafts 5 6, the upper ends of which project above the boiler-top and are squared for the reception of the operating-handle, as hereinafter described. The handle-shaft 5 has secured upon it a small cog-pinion 5^a, and the drive-shaft 6 has keyed upon it a large cog-wheel 6^a, which meshes with the small pinion 5^a, secured on the shaft 5.

On the lower end of the central shaft 5 is rigidly secured the agitator, consisting of the curved arms 7, having at their lower ends the

transverse metal bars 8 8, the ends of which are bent up at right angles and pointed to form the retaining-pins 8^a. The operating-handle 9 is formed with a squared socket to adapt it to fit upon the squared upper end of either of the two shafts 5 6.

In operation the boiler is filled with hot water and soap to the level of the top of the pins 8, and the clothes to be washed are suspended upon the said pins. The operating-handle is then placed usually on the drive-shaft 6, when by turning the handle one-half around the large cog-wheel 6^a, meshing with the small pinion 5^a, will turn the shaft 5 around for three revolutions, when the operating-handle is reversed and turned back for one-half of a revolution, thus reversing and revolving backward the shaft 5 and the agitator for three revolutions. It will be seen that by this reverse movement the water is forced through the clothes supported on the pins 8 of the agitator, this being the principle on which the machine washes. By removing the operating-handle from the shaft 6 and placing it on the shaft 5 the agitator can be operated in precisely the same manner, but with far less speed, as will be readily understood. When the pins of the agitator are hung full of clothes and the boiler is filled with water to the top of the pins, by reversing the handle I get the full pressure of all the water in the boiler. It will be seen that by extending the curved bar 4 only one-half across the top of the boiler that I leave the other half clear for the door 2^a.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of my new and improved washing-machine will be readily understood without requiring further description.

It will be seen that my invention while comparatively simple in its construction is very rapid, thorough, and satisfactory in its operation.

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

1. The combination, with the revolving shaft 5, of the outwardly and downwardly extending curved arms 7, secured thereto, and the horizontally-disposed transverse bars 8, af-

fixed to the lower ends of said arms and having their ends bent up at right angles and pointed to form the retaining-pins 8^a, on which the clothes are held, and the body 1, provided
5 with the hinged door 2^a, substantially as described, and for the purpose named.

2. In a washing-machine, the combination, with the drive-shafts and the body 1, of the top 2, formed with the hinged door 2^a and
10 having the transverse rod 3, and the curved bar 4, extending from one side of the cover to

a point a little beyond the center of the same, and then extending down at right angles and connected with the transverse rod 3, substantially as and for the purpose set forth. 15

In testimony whereof I affix my signature in presence of two witnesses.

LEWIS DELAPLANE BRADY.

Witnesses:

D. H. HUFFMON,

B. F. WHITE.