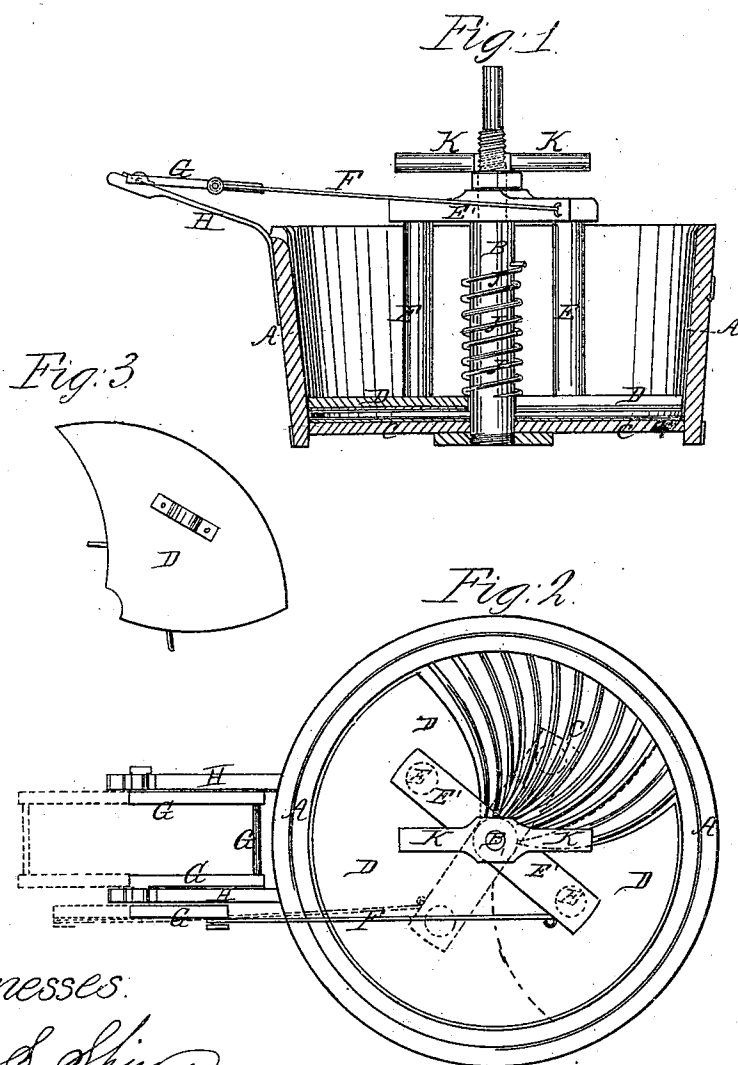


Hugunin & Whitney,
Washing Machine,
N^o 29,697, Patented Aug. 21, 1860.



Witnesses:

R. S. Spence
W. Corliss

Inventors:

R. B. Hugunin
& M. Whitney
per Munn & Co
attorneys

UNITED STATES PATENT OFFICE.

R. B. HUGUNIN, OF CLEVELAND, AND G. W. WHITNEY, OF BEREA, OHIO.

WASHING-MACHINE.

Specification of Letters Patent No. 29,697, dated August 21, 1860.

To all whom it may concern:

Be it known that we, R. B. HUGUNIN, of Cleveland, in the county of Cuyahoga and State of Ohio, and GEORGE W. WHITNEY, of Berea, in the same county and State, have invented a new and useful Machine for Washing and Wringing Clothes; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1, represents a vertical cross-sectional view of our improved machine. Fig. 2, is a plan view of the machine showing a section of the top rubbing board removed and represented by Fig. 3. The movable parts in this figure are represented in two positions.

Similar letters of reference indicate corresponding parts in both figures.

To enable those skilled in the art to fully understand our invention we will proceed to describe its construction and operation.

In the drawings A represents a circular tub of any suitable size having a shaft B erected from its center and fixed substantially to the bottom of the tub. The shaft B, proceeds above the top of the tub and has a screw thread cut on its upper end as represented in Fig. 1.

The bottom C, of the tub is covered with corrugated sheet metal, the corrugations radiating from the central shaft as represented in Fig. 2, in parabolic curves; a hole is also bored through the tub near the bottom to allow dirty water to run out.

D is a circular board, the bottom of which is covered with corrugated metal in the same manner as the top surface of the bottom of the tub. The corrugations or curves of the board D, it will be observed run in opposite directions to those upon the bottom C, which has the effect of forcing the water contained in the grooves of the board D, through the clothes during the rubbing operation. This board is strengthened with cleats if necessary, and made in two parts, so that the smaller part, Fig. 3, may be removed for introducing the clothes under this board D, or for removing them from the tub when washed and wrung out. This section of the board D, may be secured by pins or in any suitable manner to its larger portion.

E, E, are two uprights that are secured to

the rubber D, and project up as high, or nearly so, as the top of the tub A, and are connected together at their tops by a cross piece E', through which the smaller portion 60 of the shaft B passes, loosely, and upon the larger portion of this shaft the cross piece E' or yoke rests when clothes are not under the board D, as clearly represented in the sectional view, Fig. 1. To one end of the 65 cross bar E', is connected a rod F, that is connected to a lever arm of a bell crank G, which crank has its bearings in bracket arms H, H, that project out from the side of the tub A, as shown in Figs. 1 and 2 of 70 the drawings.

J, is an helical spring placed around shaft B, under the bar E that acts with a downward pressure on the board D, and serves a very important object in keeping the board 75 well down on large or small articles that are placed under the board, at the same time allowing the board to yield and accommodate itself to the varying thicknesses of said articles while the machine is in operation. 80

K, is a double arm lever, with a female screw thread cut through it, that is placed on the shaft B, over the yoke bar E', which serves to adjust the board D, to the amount of articles placed under it and to keep the 85 board from springing up from the articles. These adjusting levers K are used for another and as equally an important object, and this is, to press the water out of the articles after they are washed before they 90 are removed from the tub, to this end the levers are screwed down hard on the bar E, and by letting the water run out of the tub, the board D, may be depressed with sufficient force to press or "wring" them in a 95 perfect manner, and with very little exertion.

The operation of this machine may be briefly described as follows: The articles to be washed are placed under the rubbing 100 board D, by removing the sectional piece as above described, and this board is set at a proper height by means of levers K. Water is then poured into the tub, and when all is ready the operator, by rotating the 105 crank G, can give to the board D, a rapid, alternate, circular motion, which causes the ribbed surfaces of the bottom of the tub, and the bottom of the board D, to act with a very effective rubbing action upon the 110 articles in contact with their surfaces. When the articles are thus cleaned, the

water is drawn from the tub and the water is pressed out of them as hereinbefore described.

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

1. The arrangement of the grooves or corrugations of the surfaces C, D, to run in contrary directions as and for the purposes herein shown and described.

2. The arrangement and combination of the adjustable pressing lever K, with the shaft B, yoke E', upright E, disk D, and bottom C, as and for the purposes herein shown and described.

R. B. HUGUNIN.
G. W. WHITNEY.

Witnesses:

W. O. HOWARD,
BYRON S. HOWARD.