# E. P. Brown,

## Washing Machine.

No. 111,313. Patented Jan. 31, 1871.

Fig: 1.

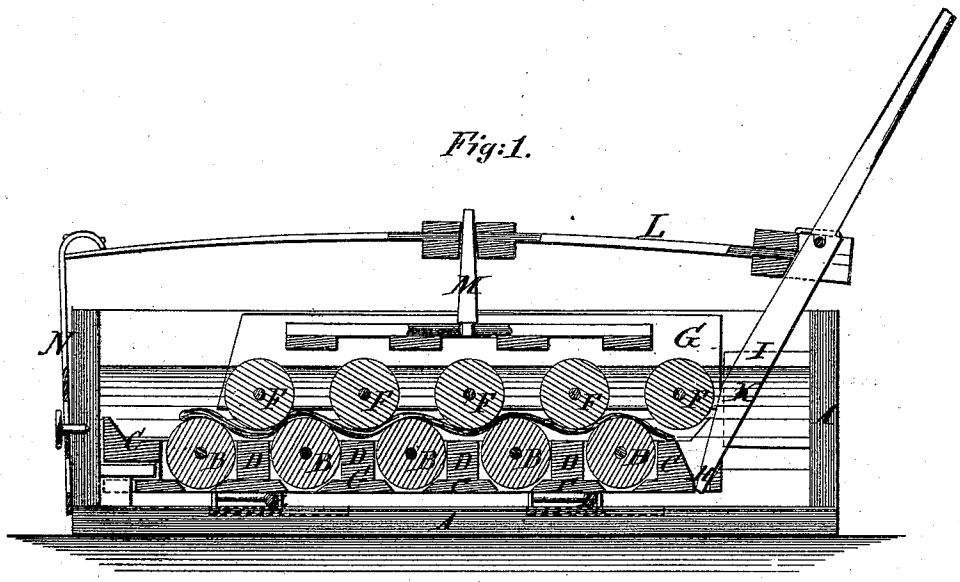
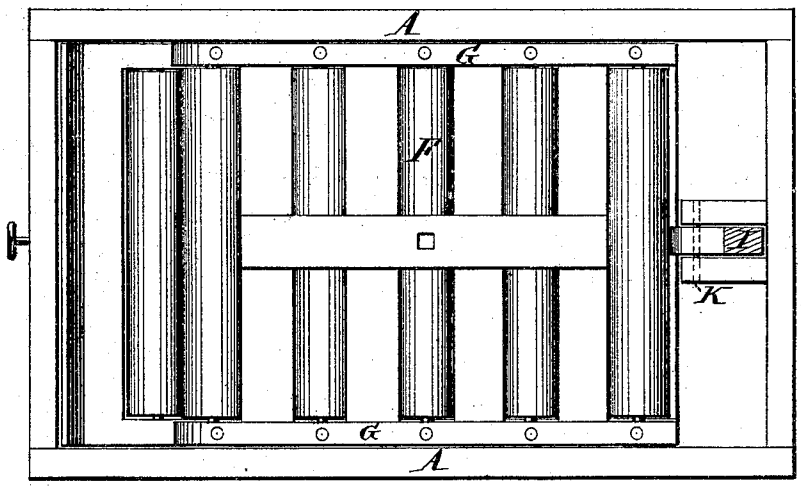



Fig: 2.




Witnesses:

M. Forlaender

L. S. Mabee

Inventor:

E. P. Brown

per Munn & Co

Attorneys.

# United States Patent Office.

EDMUND P. BROWN, OF THOMASVILLE, GEORGIA.

Letters Patent No. 111,313, dated January 31, 1871.

## IMPROVEMENT IN WASHING-MACHINES.

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, EDMUND P. BROWN, of Thomasville, in the county of Thomas and State of Georgia, have invented a new and improved Washing-Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to improvements in washing-machines, and consists of two sets of rollers, each mounted in a frame with spaces between them, one set arranged above the other, both in a rectangular case, and connected to a vibrating working-bar, so that they will move simultaneously in opposite directions, the rollers of the upper set rolling up and down over the lower ones, and acting on the clothes placed between the two sets.

The invention also comprises the application to the upper set of a spring for increasing the pressure on the clothes.

Figure 1 is a longitudinal sectional elevation through my improved machine, and

Figure 2 is a plan view of the same.

Similar letters of reference indicate corresponding parts.

A is a rectangular case of any kind for containing the rollers and roller-frames, the clothes, and the water.

B represents a series of rollers arranged parallel with each other on a frame, C, at some distance apart, in which spaces are the cross-bars D of the frame C, rising about as high or a little higher than the center of the rollers.

This frame is preferably arranged on the small anti-friction rollers E, for moving as easily as possible for working the rollers, said movement being in the direction perpendicular to the rollers.

F represents the upper series of rollers; they are arranged in a frame, G, also with spaces between them, but not necessarily with cross-bars D, although such may be used if preferred. This frame is so arranged that the rollers F will rest on the lower rollers B, or the pieces D between them.

The lower frame is connected to the lower end H of a working-bar, I, working on a pivot, K, and the upper frame is connected to the said bar above the pivot by a spring, L, and an arm, M, attached to it.

This spring extends from the bar L across the case A, and is attached to it by a strap, N, and button, as shown, or it may be by any equivalent means.

The vibration of the lever I toward and from the rollers causes them to move in opposite directions, so that the rollers of the upper frame will have a rising and falling motion, in passing over the rollers B, well calculated to act efficiently on the clothes placed between the two sets by a rolling pressure, which may be varied by the action of the spring, the attachment of which by the strap N may be varied.

The two sets of rollers may be used with good results without the spring, in place of which a connecting-bar merely may be used, and I propose to use them either with or without the springs.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

1. The combination of the case A, two sets of rollers, B and F, and the working-bar I, the said rollers being arranged in frames as described, and the lower set having the cross-bars D between them, all substantially as specified.

2. The combination with the above of the springs L, substantially as specified.

EDMUND P. BROWN.

Witnesses:

GEORGE A. WILBUR,

JOSEPH L. BROWN.