

A. STOTT & D. EAVENSON.

Washing-Machine.

No. 159,466.

Patented Feb. 2, 1875.

Fig 1

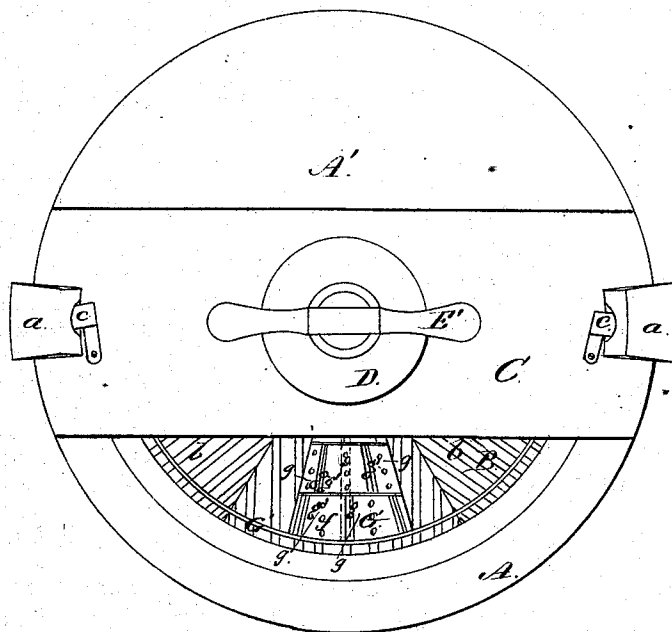
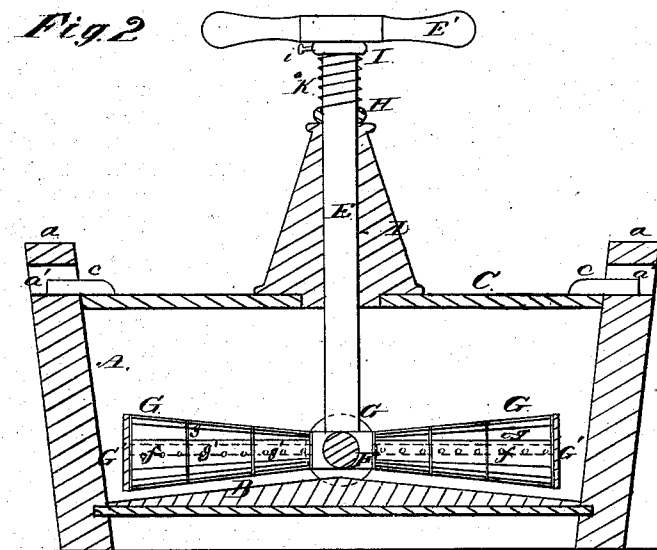


Fig 2



Witnesses

J. B. Connolly
A. A. Connolly

A. Stott
D. Eavenson
Connolly Bros.

Inventor

Attorneys

UNITED STATES PATENT OFFICE.

ABRAHAM STOTT AND DAVIS EAVENSON, OF PHILADELPHIA, PA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 159,466, dated February 2, 1875; application filed October 10, 1874.

To all whom it may concern:

Be it known that we, A. STOTT and D. EAVENSON, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Washing-Machines; and we 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a plan, and Fig. 2 a vertical central section, of our invention.

Our invention consists, principally, in the novel construction and combination of parts, as hereinafter fully described.

Referring to the accompanying drawing, A represents an ordinary wash-tub, and B a conical false bottom therein, having radial grooves *b b*. C is a bridge, resting on the edge of the tub, and held in place by pivoted buttons *c c*, which enter the hand-holes *a'* in the handles *a*. D is a hollow column, firmly secured to the bridge C, affording a support for the shaft E, which is provided with a handle, E'. F is a pedestal or block, in which the lower end of said shaft E is fastened. The pedestal F is provided with a series of radial arms, *f*, on which revolve conical rollers G. There are three rollers, G, on each of the shafts *f*, so as to permit independent rotation, it being obvious that the outer section, having a greater circumference, and being farther from the center than the inner section, will move more rapidly than the latter. G' is an encircling band, affording outer bearings for the shafts *f*. The rollers G have radial grooves *g*, and recesses *g'*, designed to effect a suction and compression of air, and thereby to facilitate the cleansing process. H represents a loose collar, surrounding the shaft E, and resting upon the column D. I is another collar, encircling the shaft D, and made fast thereon by means of a set-screw, *i*. K is a coiled spring, located between the collars H and I, and designed to take the weight off the shaft E and rollers G.

The operation is as follows: The clothing to be cleansed being placed in the tub, and

the shaft E adjusted vertically in the collar I by means of the set-screw *i*, the handle E' is reciprocated, moving the rollers G to and fro over the clothing. In adjusting the shaft E, it should be raised sufficiently to permit the rollers G to just clear the clothing. The weight of the operator will be naturally thrown on the handle a part of the time in moving it, and this will bring the rollers down on the clothing. The limit of movement of the handle being reached in one direction, before the reverse motion is begun the elasticity or rebound of the spring raises the rollers clear of the clothing. When depressed again, the rollers will rest upon a different part of the clothing from what they did before, thereby producing action on every portion, causing each piece to travel around the tub, and preventing the rollers from working their way down to the bottom of the tub, as they would if no spring K were provided.

In order to prevent splashing, a cover, A', formed in two sections, may be provided, and instead of furnishing a false bottom, B, as described, for an ordinary wash-tub, the tubs used in this connection may be made in the first instance with a single true bottom, of the construction described. The bottom B may be made in sections, the central groove of each section being a radius, while the other grooves are parallel with said central groove, instead of radiating from the pedestal F.

We do not claim, broadly, the employment of conical rubber rollers in a washing-machine, radiating from a rotary upright shaft above the bottom of a tub, the same being shown in Patent No. 124,675, March 19, 1872, the features of which we disclaim. Our invention is designed chiefly to overcome certain objections to the conical rollers as made in single lengths. We therefore construct each roller in several separate sections, which will rotate at different rates of speed, corresponding to their distance from the central upright, and thereby effectually prevent the injurious dragging and rubbing of the clothes consequent upon use of the single-block rollers.

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

1. The improved washing-machine consist-

ing of the tub A, conical bottom B, made in ridged sections, as shown, lid C, pedestal D, rotary shaft E, adjustable collars H I, spring K, conical rollers G, and band G', said rollers being made in independent frustum-shaped sections, fluted and recessed at *g g'*, all combined to operate as and for the purpose specified.

2. The conical fluted rollers G, consisting each of several frustum-shaped sections journaled upon a single shaft radiating from a ro-

tary upright, E, substantially as shown and described.

In testimony that we claim the foregoing we have hereunto set our hands this 3d day of October, 1874.

ABRAHAM STOTT.
DAVIS EAVENSON.

Witnesses:

CHARLES BOWLES,
EDWARD KELLEY.