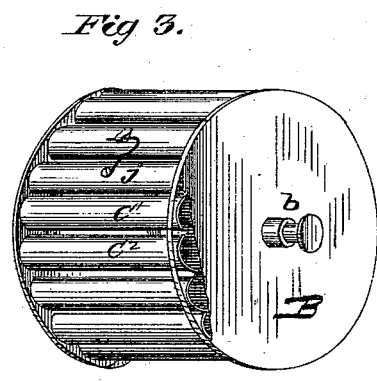
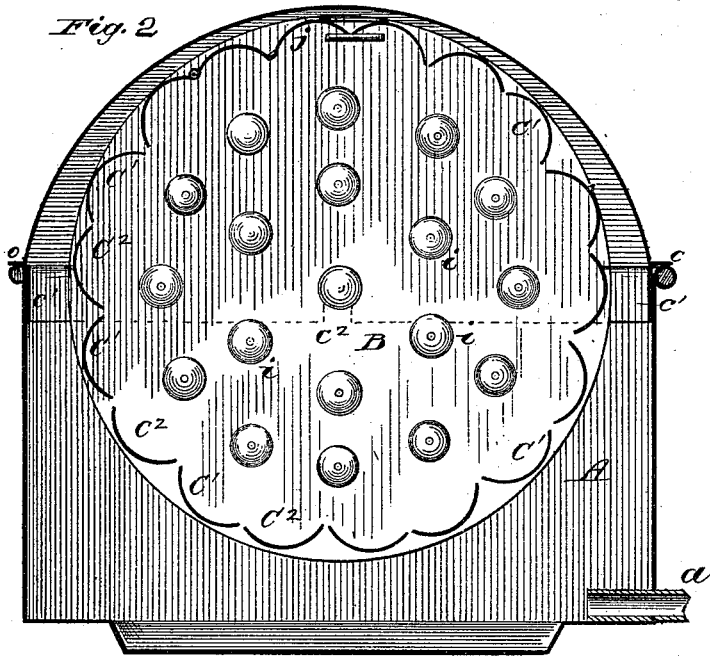
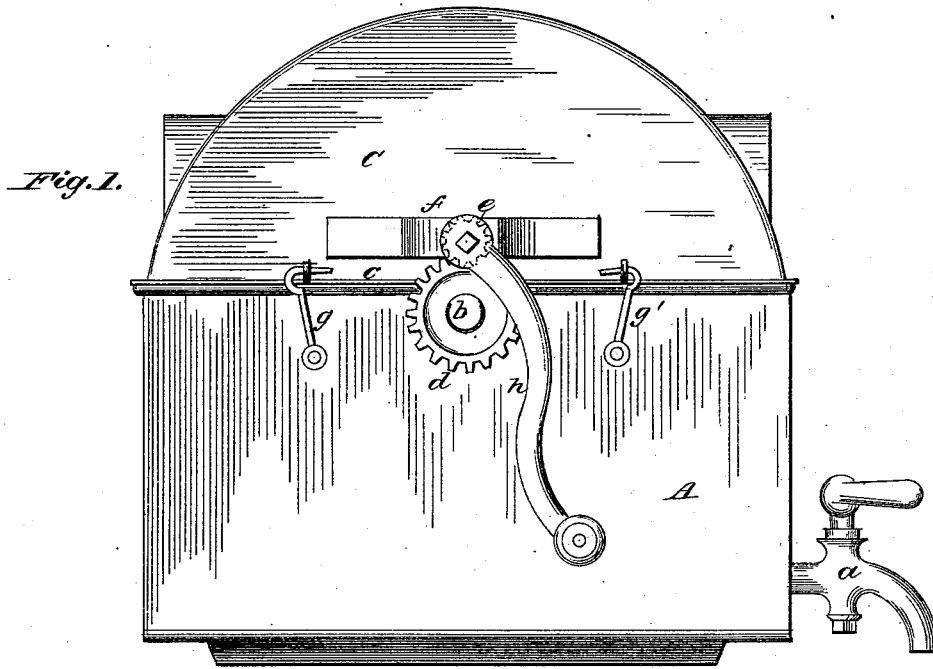


A. H. RANDALL & E. FOSTER.  
Washing-Machine.

No. 208,201.

Patented Sept. 17, 1878.



Witnesses  
*Alex. G. Dietrich*  
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*their Attorneys*

# UNITED STATES PATENT OFFICE.

ALBERT H. RANDALL AND EDWARD FOSTER, OF LEAMINGTON, ONTARIO,  
CANADA.

## IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **208,201**, dated September 17, 1878; application filed  
June 13, 1878.

*To all whom it may concern:*

Be it known that we, ALBERT H. RANDALL and EDWARD FOSTER, of Leamington, in the Province of Ontario and Dominion of Canada, have invented certain new and useful Improvements in Washing-Machines; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side view of our improved washing-machine. Fig. 2 is a vertical longitudinal section thereof; and Fig. 3 is a detached perspective view of the washing-cylinder.

Corresponding parts in the several figures are denoted by like letters.

This invention appertains to certain improvements in washing-machines of that class in which the washing is performed by a rotating cylinder hung in a boiler adapted for use in connection with a stove or range; and it consists in the arrangement in the periphery of the washing-cylinder of a series of concaved buckets, each alternate one set so as to dip up the water when the cylinder is revolved in one direction, and the intermediate ones set so as to dip up the water when the cylinder is revolved in the opposite or a reverse direction, and each series set so as to rub and not tear the articles, to enable the cylinder to wash the clothes or articles upon the rotation of the cylinder in either direction, substantially as hereinafter more fully set forth.

In the drawings, A refers to a boiler, preferably of a rectangular or oblong shape, and adapted to be used in connection with a stove or range for heating water to wash the clothes or articles. To this boiler is supplied a faucet, *a*, to draw off the water after washing, or when it is desired to change the water, to obviate heavy lifting in removing the boiler to empty it, as is required without this provision.

B is the washing-cylinder, hung in the boiler A by means of short axles or gudgeons *b* let into recesses in the upper edge of the boiler, so as to permit of the cover C of the boiler, or rather its flange *c*, resting flush with the said

edge of the boiler, which cover is also provided with a downwardly-projecting flange or rim, *c*<sup>1</sup>, fitting within the boiler, it being recessed, as at *c*<sup>2</sup>, to provide for the reception of the axles or gudgeons. Upon one end of the axles or gudgeons is a pinion, *d*, with which gears or meshes a smaller pinion, *e*, supported in bearings or a frame, *f*, fastened to the side of the cover C, which latter is held firmly in position upon the boiler by hooks and eyes *g* *g'* or other suitable means. To the axis of the driving-pinion *e* is attached a crank or handle, *h*, or other suitable medium for imparting motion to the cylinder-pinion *d*, which, in turn, rotates the cylinder. As the cover, with the pinion *e* and handle *h*, and the cylinder, with the pinion *d*, can both be lifted and reversed so as to bring the operating mechanism upon the opposite side of the boiler, the position of the operator can be changed, and the machine thus be enabled to be operated by the right or left hand, as may be desired.

In the periphery of the cylinder B are a series of concaved or dished buckets, C<sup>1</sup> C<sup>2</sup>, whose inner edges also serve to rub or assist the washing of the articles, having their concavities facing the interior of the cylinder, and by which they (the buckets) also dip up the water from the boiler and empty it into the cylinder in contact with and upon the articles being washed. It will be observed that each alternate bucket C<sup>1</sup> C<sup>1</sup> is set so as to dip up the water as the cylinder is revolved in one direction, and the intermediate buckets C<sup>2</sup> C<sup>2</sup> are set so as to dip up the water as the cylinder is revolved in the opposite direction, as clearly shown in Fig. 2; or, in other words, they are arranged in pairs standing back to back, by which the washing may be performed by turning the cylinder in either direction, and thus enable the operator to rest one hand or arm after using the same, while the operation can be continued with the other hand. We mention this among other advantages that may accrue from this feature of our invention.

Upon the inner sides of the heads of the cylinder B are fastened conical projections *i i* to turn the articles as they are pitched forward by the motion of the cylinder, and thus assist the washing of the articles.

The cylinder B is provided with a hinged section or door, *j*, to permit of the introduction and removal of the articles.

Having thus described our invention, we claim and desire to secure by Letters Patent of the United States—

In a washing-machine, the cylinder B, hung and rotated in a suitable receptacle, A, and having the inner sides of its heads provided with conical projections *i i* for turning or reversing the articles being washed, and its periphery provided with concaved buckets or

rubbers C<sup>1</sup> C<sup>2</sup>, arranged to dip up the water either from the right or from the left and to rub the said articles, substantially as shown and described, for the purpose set forth.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

ALBERT H. RANDALL.  
EDWARD FOSTER.

Witnesses:

J. ENOCH JOHNSTON,  
ELIHU STEWART.