

C. P. HOSMER.
Washing-Machine.

No. 221,560.

Patented Nov. 11, 1879.

Fig. 1.

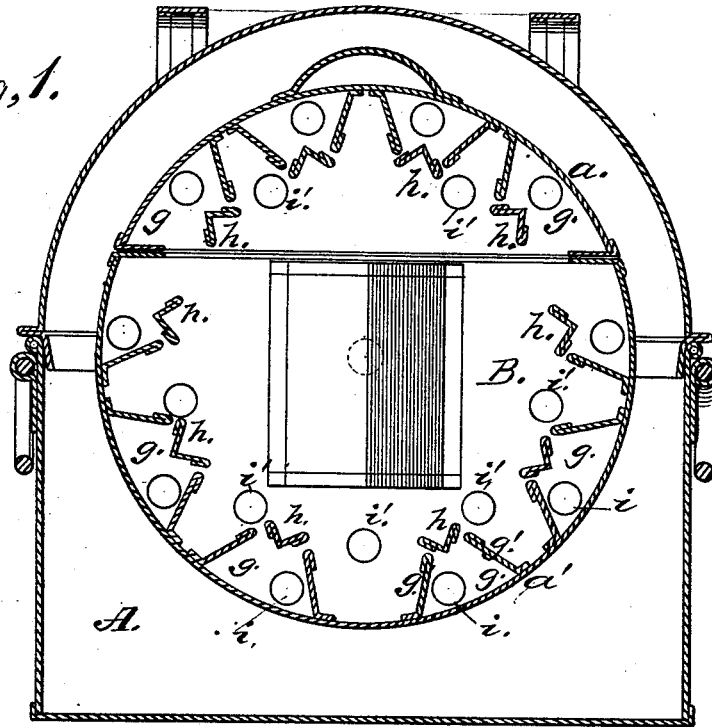


Fig. 2.

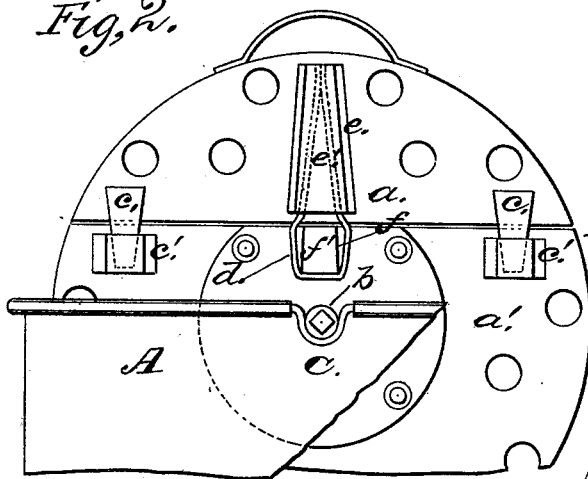
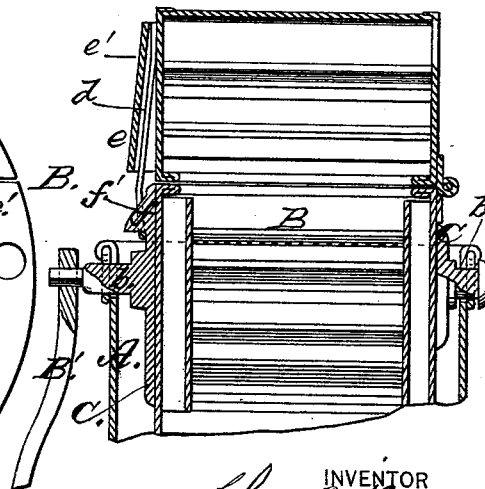


Fig. 3.



WITNESSES

Villette Anderson.
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UNITED STATES PATENT OFFICE.

CHARLES P. HOSMER, OF BELLE PLAINE, IOWA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **221,560**, dated November 11, 1879; application filed September 29, 1879.

To all whom it may concern:

Be it known that I, CHARLES P. HOSMER, of Belle Plaine, in the county of Benton and State of Iowa, have invented a new and valuable Improvement in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a vertical cross-section of my invention. Fig. 2 is an end view thereof with the lid of the boiler removed, and Fig. 3 is a longitudinal vertical section of the same.

This invention has relation to improvements in boiler washing-machines; and the nature of the invention consists in combining with a boiler a cylinder rotating within the same, provided with transverse interior troughs or buckets, angular spreaders at the openings of said troughs, openings in the sides of said cylinder leading into the troughs or buckets, and interior openings admitting steam into the cylinder above the clothing therein, as will be hereinafter more fully set forth.

In the annexed drawings, the letter A designates an ordinary boiler, designed to be set upon a stove, and having a removable semi-cylindrical top or lid, secured by means of the usual binding-flange and stop-flange. Journaled in the sides of this boiler is a cylindrical metallic vessel, B, actuated by a crank, B', or other equivalent device, and made in two sections, *a a'*, of unequal size, the smaller section, *a*, being hinged to the larger one.

C designates plates of a suitable non-corrodible metal, that are riveted to the sides of vessel B, and are each provided with a spindle, *b*, by means of which it is journaled in the boiler, and to one of which is secured the crank aforesaid. The upper section, *a*, of this cylinder is provided with projecting studs *c*, that engage correspondingly-situated sockets or staples *c'* upon section *a'*. It is also provided with a spring-bail, *d*, housed in by a box, *e*, having an outwardly-inclined outer wall, *e'*,

that allows the spring *d* to act without bending.

In a corresponding position on plate C is a lug or catch, *f*, having an inclined outer wall, *f'*, by means of which the bail-spring is sprung outward in closing the cylinder until it passes the squared end of said lug, when it reacts and becomes engaged therewith, thus locking the two sections of the cylinder together.

Inside the cylinder are arranged, at intervals, the buckets or troughs *g*, formed by the transverse inclined plates *g'* and the angular spreaders *h*, extending across the cylinder and dividing the opening of the troughs or buckets into two parts.

In the sides of the cylinder are made openings *i*, opening into the troughs *g*, which, as the cylinder is revolved, become submerged and admit water. Above the point of submergence is a second set of perforations, *i'*, that admit steam into the cylinder above the clothing therein, to the exclusion of hot water.

Soap or a suitable saponaceous compound is dissolved in the water in the boiler. The clothing to be washed is placed in the cylinder and rapid rotation imparted to it.

The rugosities formed by the edges of the troughs and spreaders exercise a vigorous rubbing action upon the clothing as the latter gravitates to the bottom of the cylinder.

Hot water is admitted through the openings *i* in the troughs, and, being carried upward, is discharged therefrom in two streams, by coming in contact with the spreaders, upon all parts of the clothing, thus effecting a thorough saturation thereof.

The clothing, during this operation, is turned over and over, its upper surface being subjected to the purifying effects of the steam getting into the cylinder through the orifices *i'* above the point of submergence of the said cylinder, and this, in connection with the water, removes the grease, stains, and other impurities with great rapidity.

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

In a washing-machine, the combination, with a boiler, of a cylinder rotating within the

same and provided with transverse interior troughs and angular spreaders or buckets at the openings of said troughs, openings *i* in the cylinder leading into the troughs or buckets below the point of submergence of said cylinder, and opening *j* above said point for the admission of steam, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

CHARLES P. HOSMER.

Witnesses:

MYRON J. BIRD,

LYMAN B. ROBINSON.