

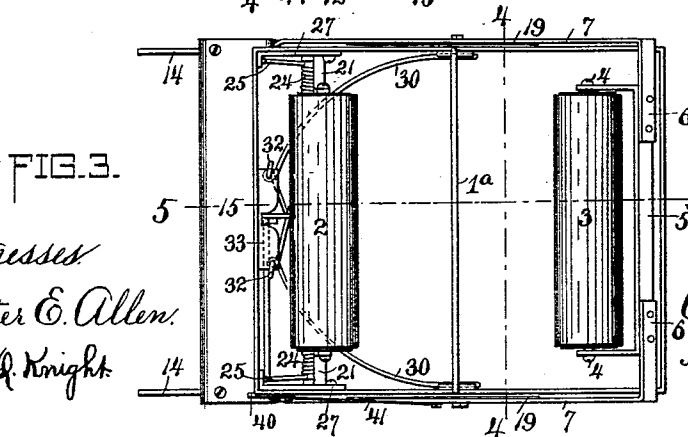
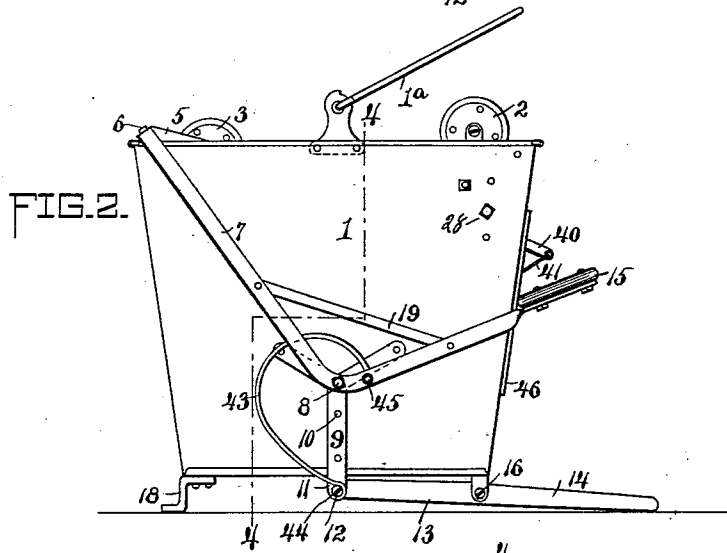
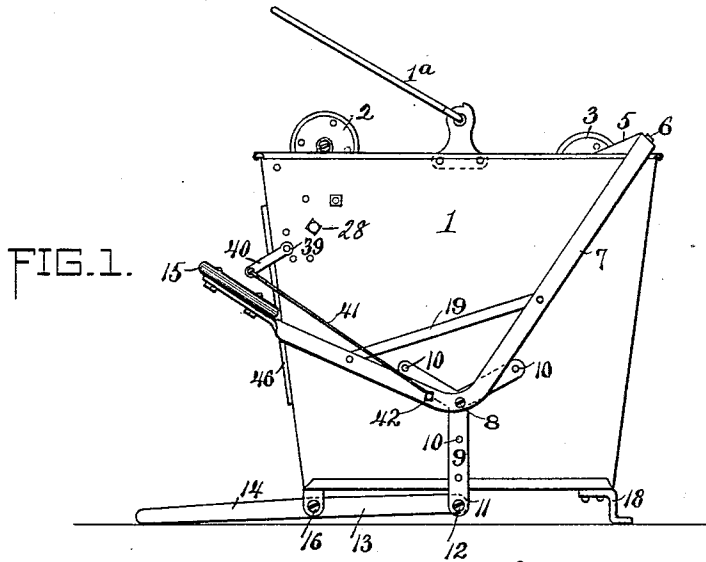
(No Model.)

2 Sheets—Sheet 1.

A. M. BURNHAM.
MOP WRINGER.

No. 560,189.

Patented May 19, 1896.



Witnesses
Walter E. Allen.
Edward Q. Knight

Inventor.
A. M. Burnham
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Attorneys.

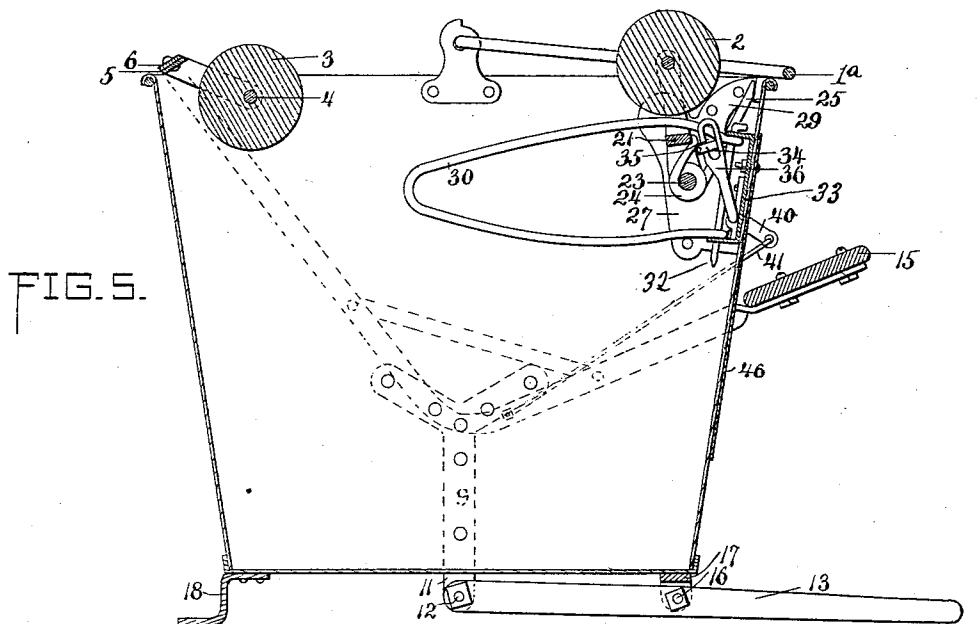
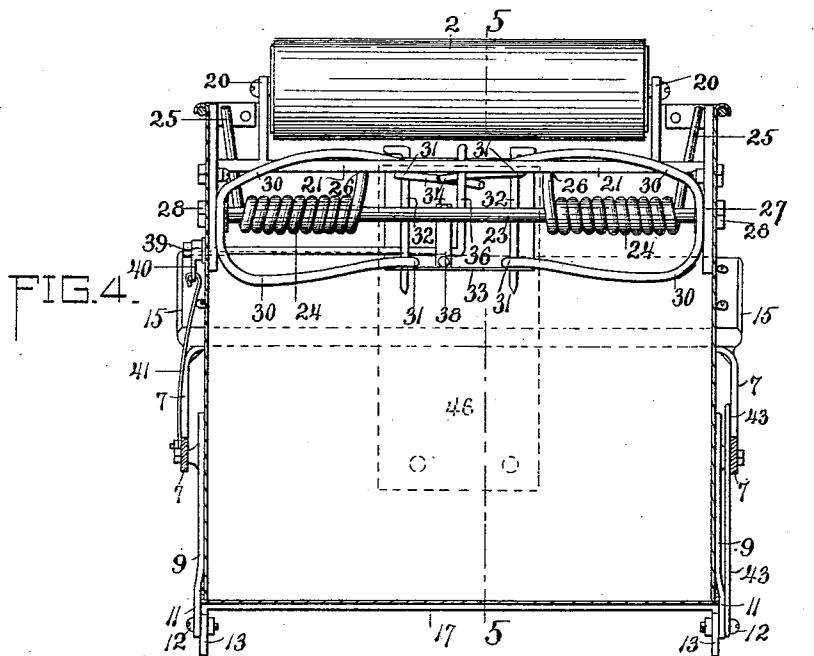
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2 Sheets—Sheet 2.

A. M. BURNHAM.
MOP WRINGER.

No. 560,189.

Patented May 19, 1896.



Witnesses.
Walter E. Allen.
Edward Q. Knight

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UNITED STATES PATENT OFFICE.

ARTHUR M. BURNHAM, OF GARDINER, MAINE, ASSIGNOR, BY MESNE ASSIGNMENTS, TO CHARLES GIFFORD, OF SAME PLACE, AND JESSE P. EDDY, OF PROVIDENCE, RHODE ISLAND.

MOP-WRINGER.

SPECIFICATION forming part of Letters Patent No. 560,189, dated May 19, 1896.

Application filed February 12, 1895. Serial No. 538,134. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR M. BURNHAM, a citizen of the United States, residing at Gardiner, in the county of Kennebec and State of Maine, have invented a new and useful Improvement in Mop-Wringers, of which the following is a specification.

My invention relates to combined mop-wringers and pails; and it consists in certain novel features of construction whereby a more economical, durable, and effective device is produced, as will be hereinafter fully described, and particularly pointed in the claims.

Referring to the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of my improved mop-wringer and pail. Fig. 2 is a similar view of the opposite side of the same. Fig. 3 is a plan view of the same. Fig. 4 is a vertical transverse section, on an enlarged scale, taken on the line 4 4 of Figs. 2 and 3. Fig. 5 is a vertical longitudinal section taken on the line 5 5 of Figs. 3 and 4.

1 represents the pail, which is preferably of galvanized sheet metal and which constitutes the main support for the operating parts of the mop-wringer. The pail carries a roller 2, which I term the "stationary" roller.

3 is the moving roller, which is trunnioned at 4 in its supporting-frame 5, which is in turn attached at 6 to the corresponding arms of the main operating-lever 7. The lever 7 is fulcrumed at 8 upon Y-shaped frames 9, which are riveted to opposite sides of the pail at 10 and have downwardly-extending ears 11, to which are secured at 12 the feet 13, which project forward, as at 14, to form the base upon which is depressed the pedal 15, secured to the front end of the main operating-lever 7. The legs 13 are further secured to the bail-ears 16 by a transverse strap 17, which projects across the under side of the front of the pail, as shown in Fig. 4. When the pedal 15 is depressed to bring the removable roller 3 against the stationary roller 2, it will be observed that the pressure from the foot after the roller 3 comes to a stop is exerted downward through the frames 9 and transmitted to the feet 13, and thus the thin metal forming the walls of the pail is relieved of a force

which would soon destroy them if lever 7 were fulcrumed directly on the pail.

18 represents a foot which may be centrally disposed beneath the rear of the pail and serve, in connection with the two forwardly-projecting feet 13, to support the device in proper position. To sustain the main lever 7, which is in the form of a bell-crank lever, it is trussed by bars 19, which extend between the two arms of said lever on opposite sides of its fulcrums.

Referring now to Figs. 3, 4, and 5 it will be seen that the stationary roller 2 is trunnioned at 20 in a bracket 21, which is in turn supported upon a shaft 23 at the ends thereof and held with its roller 2 in normal position, and adapted to oppose with a yielding force pressure of the movable roller 3 by reason of coil-springs 24, which are mounted upon the shaft 23, and which have one end bearing against the pail at 25, while their other ends bear at 26 against the bracket 21. By this means the roller 2 is adapted to yield against an excessive pressure of the movable roller 3 and thus avoid excessive strain on the parts. The roller 3 has sufficient play toward the front of the pail to permit the pedal 15 to reach the forwardly-extending legs 13 before said roller 3 reaches its final limit of movement, even when a mop of ordinary bulk is being squeezed between the rollers. Obviously as the pedal 13 reaches the legs 15 further movement cannot take place, and the pressure then exerted upon the mop becomes that which is imposed by the resistance of springs 24, and which can always be made of sufficient strength to impart all necessary pressure to remove surplus water from the mop. In mounting the shaft 23 in the pail I prefer to employ a pair of bearing-plates 27 on opposite inner sides of the pail, which plates 27 are bored to permit the passage of shaft 23, which may then be secured in place in any suitable way—as, for instance, by nuts 28. In addition to performing this function plates 27 are likewise provided with extensions 29, which are bent at the corners of the plate, as shown, and in addition to thus making angular braces for the vessel afford bearings for the ends of the springs 24. In addition to the wringing-rollers I employ a pair of hinged and au-

tomatically - operating collecting - arms 30, preferably formed of steel wire bent into a suitable shape, and formed at their ends with eyes 31, which receive vertical pins 32, mounted in a supporting-bracket 33, whereby said arms are adapted to swing toward and away from each other to gather the fibers of the mop together in the act of wringing, but to offer no obstruction to the insertion of the mop in the pail when the rollers are separated. In order to thus operate the collecting-arms toward and away from each other simultaneously with the approach and separation of the rollers, each arm 30 has an extension 34, which projects into the slot 35 of a crank-lever 36, which is in turn carried by a shaft 37, having bearing at 38 within the pail and projecting at 39 through the plate. This shaft 37 carries on its outer end a rock-arm 40, which is connected by a pitman 41 with the main operating-lever 7 at a point 42 sufficiently distant from the fulcrum of the lever to impart the necessary movement to the rock-arm 40 to cause the lever 36 to operate the arms 30 in the manner above described. The movement of these operating parts, and consequently of the arms, is positive in both directions. The main operating-lever, however, is provided on one side with a controlling C-spring 43, which is anchored at 44 and has controlling connection at 45 with said lever 7. The spring 43 is secured at 44 to one of the frames 9, preferably by the attaching-screw 12, which has been referred to. If desired, the wear-plate 46 may be attached to the front of the pail in

order to receive the impact of the pedal 15, which serves as the stop for limiting the rearward movement of the main lever and the roller which it carries.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. In a combined pail and mop-wringer the combination of the pail, the rollers, and the lever for controlling pressure between the same the gathering-arms 30 mounted on suitable shafts 32 and having the extended ends 34 by which they may be controlled, and the means for positively moving the gathering-arms 30, consisting of the crank-arm 36 in which the ends 34 have bearing, a rock-shaft 37 carrying said crank-arm and a crank 40 connected through the medium of the pitman 41 with the main operating-lever, all substantially as and for the purposes set forth.

2. In a mop-wringer, the combination of a pail, a roller journaled in said pail, a pair of frames, secured to the sides of the pail, a pair of supports pivoted to the pail and connected with the said frames, a pair of operating-levers fulcrumed to the frames having a roller journaled at one end and a pedal at the other, a pair of gathering-arms mounted within the pail, and a suitable connection between the said gathering-arms and the operating-levers substantially as shown and described.

ARTHUR M. BURNHAM.

Witnesses:

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