



# UNITED STATES PATENT OFFICE.

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## MOP-WRINGER.

SPECIFICATION forming part of Letters Patent No. 577,968, dated March 2, 1897.

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*To all whom it may concern:*

Be it known that we, WILLIAM E. STRUBLE and LEVI IRELAND, citizens of the United States, and residents of Fredericktown, in the county of Knox and State of Ohio, have invented certain new and useful Improvements in Mop-Wringers; and we do hereby declare that the following is a full, clear, and exact description of the invention, 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.

Our invention relates to improvements in mop-wringers; and it consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a central longitudinal section of a mop-wringer constructed in accordance with our invention. Fig. 2 is a plan view of the same. Fig. 3 is a detail side elevation showing the toggle-levers and their operating-chains.

In the said drawings the reference-numeral 1 designates a pail or bucket of any ordinary or suitable construction, having pivoted thereto at opposite sides near the bottom thereof a curved or semicircular foot-lever 2, formed at its center with an outwardly-extending arm or lug 3, by pressing upon which with the foot the lever is operated.

Secured to the upper end of the pail are two parallel bars or plates 4, which extend across the same, each being formed with an inclined guide-slot 5, in which work the journals 6 of a rotatable roll 7. These slots are inclined upwardly at their rear ends, while their front portions are horizontal. The said journals have their bearings in the upper ends of depending bars 8, the lower ends of which are pivoted to the lower ends of corresponding bars 9, which are pivotally connected at their upper ends to the cross bars or plates 4, thus forming toggle-levers. Also pivotally connected with said journals are springs 10, formed at or near their centers with coils 11 and the opposite ends secured to the bars or plates 4. The upper ends of these springs after being bent around the journals are extended upward and outward, forming guide-arms 12 for the chains 13. The inner ends of these chains are connected with the pivots,

which connect the lower ends of the bars 8 and 9 together. These chains pass upwardly over the journals of said roll, being confined in place by the arms 12 of the springs, and then extend horizontally to the opposite side of the pail, passing over rollers 14, journaled to the bars 4, and between guide-yokes 15, secured to the journals of said rollers. The pail is provided with similar rollers 16 and 17, between which said chains pass and then extend downwardly and are secured to coiled springs 19, connected with the foot-lever. Journaled in said side plates or bars 4 are two parallel rolls 18, one above the other, so located with respect to the movable roll that when the latter is moved toward the same it will come centrally between the same.

The operation is as follows: In normal position the movable roll will be forced away from the rolls 18 by the springs, as seen in Figs. 1 and 2. To wring the mop, it is placed between the movable roll and the rolls 18 and the foot-lever depressed by the foot. This will cause the movable roll to be forced forward by the chains and toggle-levers, so that the mop will be clamped between the movable roll and rolls 8, the journals of the movable roll traveling in the slots in the plates 4. By now pulling the mop upward the rolls will squeeze the water and dirt therefrom into the pail. It will be seen that the movable roll is located centrally with respect to the rolls 18, so that the mop will be pressed against both the latter, so as to more effectually wring the same.

In operating the device the chains will first pull upon the journals of the movable roll until the journals pass out of the inclined portion of the slots, when they will pull upwardly on the toggle-levers, whereby the mop is clamped between the rolls under great pressure.

Having thus fully described our invention, what we claim is—

1. In a mop-wringer, the combination with the pail and the curved foot-lever pivoted thereto, of the cross bars or plates formed with inclined slots, the rotatable rolls located one above the other, journaled in said plates, the movable and rotatable roll, the journals of which travel in said slots, the toggle-levers pivotally connected with said plates and jour-

nals, the chains connected with the lower ends of said levers passing over said journals, and down the outside of the pail and connected with the foot-lever and the springs connected with the journals of said roll and with the cross bars or plates; substantially as described.

2. In a mop-wringer, the combination with the pail, the curved foot-lever pivoted thereto, the cross bars or plates formed with inclined slots and the parallel rolls journaled in said plates, one above the other, of the movable and rotatable roll, the journals thereof working in said slots, the springs provided with coils intermediate their ends, secured to said plates and their opposite ends bent around said journals, and bent upwardly

forming guide-arms, the bars pivoted respectively to said journals and to the cross-plates and pivotally connected at their lower ends, the chains connected with the lower ends of said bars and passing over said journals, and secured to the foot-lever and the rollers and guide-yokes between which said chains pass; substantially as described.

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

WILLIAM E. STRUBLE.  
LEVI IRELAND.

Witnesses:

L. C. STILLWELL,  
A. V. GEST.