A. S. KIRKPATRICK & A. C. BELL.

Improvement in Washing-Machines.

No. 131,881. Patented Oct. 1, 1872.

Fig. 1.

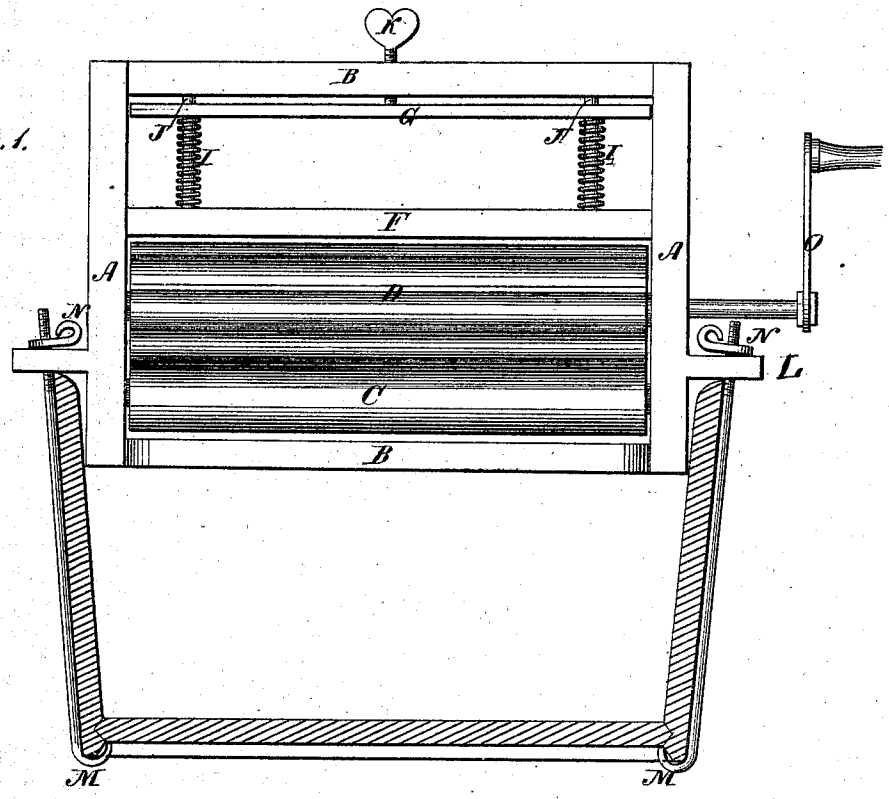
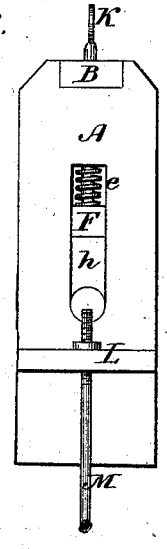


Fig. 2.



Witnesses

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AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

ALEXANDER S. KIRKPATRICK AND ALEXANDER C. BELL, OF NEW ALEXANDRIA, PENNSYLVANIA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **131,881**, dated October 1, 1872.

To all whom it may concern:

Be it known that we, A. S. KIRKPATRICK and A. C. BELL, both of New Alexandria, in the county of Westmoreland 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 same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a side elevation of our improved machine applied to a tub, and Fig. 2 is an end elevation of the same.

Similar letters of reference in the accompanying drawing indicate the same parts.

Our invention has for its object to improve the construction and efficiency of washing-machines of that class adapted for application to an ordinary wash-tub; and to this end it consists: first, in the means employed for holding the upper corrugated roller upon the smaller lower roller with an adjustable yielding pressure, the construction being such that the parts are applied without weakening the frame of the machine, as we will presently describe. It consists, secondly, in the method of applying the machine to an ordinary wash-tub.

In the accompanying drawing, A A represent the end pieces of the frame, which are secured together by the top and bottom slats B. C is the smooth lower roller, journaled in the end pieces immediately over the bottom slat; and D is the upper corrugated roller, made considerably larger in diameter than the lower roller, with its journals entering vertical slots *e* in the end pieces of the frame. The adjustable pressure-frame is composed of two parallel bars, F G, the lower one of which is formed with a tenon at each end to enter the slots of the end pieces, where they are firmly secured to vertical pillow-blocks *h* bearing upon the journals of the upper roller, as shown. The upper bar G is arranged immediately beneath the top slat of the frame, and extends to the end pieces, but does not enter them. The two parallel bars are held apart by spiral springs I, which surround short pins or rods J, secured at their lower ends to the bar F, and passing loosely through the upper bar and the top slat. The pressure-frame holds the upper roller upon the clothes with a yielding pressure, and is adjusted by a thumb-screw, K, passing through the upper slat and bearing upon the upper bar G for the purpose of regulating the degree of pressure required.

By this construction of the pressure-frame the end pieces of the machine are not weakened, because they are not cut away for the reception of the upper bar, as in the ordinary machines, but only slotted for a short distance to receive the journals of the upper roller and the ends of the lower bar F, together with the pillow-blocks. The upper bar G is guided above the slots by the pins J, and the shoulders of the lower bar bear against the end pieces each side of the slots. The whole strength of the frame is, therefore, preserved, instead of being weakened, by the application of the operating parts.

In the process of washing, the clothes are passed between the two rollers, as will be readily understood; and, inasmuch as but one small roller is used in connection with the large pressure-roller, small garments are not liable to be caught and prevented from being fed through, as would be the case if a number of small rollers were used arranged beside each other.

L L are lateral arms projecting from the outer faces of the end pieces to receive the screw-shanks of the fastening-hooks M, as shown.

To attach the machine to an ordinary wash-tub, it is placed across the top of the latter, resting upon the lateral arms L. The hooks M are then caught under the lower chines of the tub, and tightened by the thumb-nuts N, applied to the screw-shanks of the hooks above the lateral arms, as shown in the drawing. By this arrangement the machine is firmly secured to the tub without injuring the latter or disfiguring its exterior. The operating-crank O is applied to the journal of the pressure-roller in the usual manner.

Having thus described our invention, what we claim is—

1. The pressure-frame of the washing-machine, consisting of the bar F, carrying pillow-blocks *h* to bear upon the journals of the upper roller, the upper bar G, arranged between the

end pieces of the frame, the pins J, secured to the lower bar and passing upward through both the upper bar and top slat B of the frame, and the thumb-screw K bearing upon said top bar G, the whole constructed, arranged, and operating as herein shown and described.

2. The washing-machine adapted to be attached to an ordinary wash-tub by means of the lateral arms L and the adjustable suspended hooks M, the former resting upon the top of the tub, and the latter catching under its lower chine, substantially as herein shown and described.

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