

J. G. ROTH.
CLOTHES WRINGER.

No. 101,922.

Patented Apr. 12, 1870.

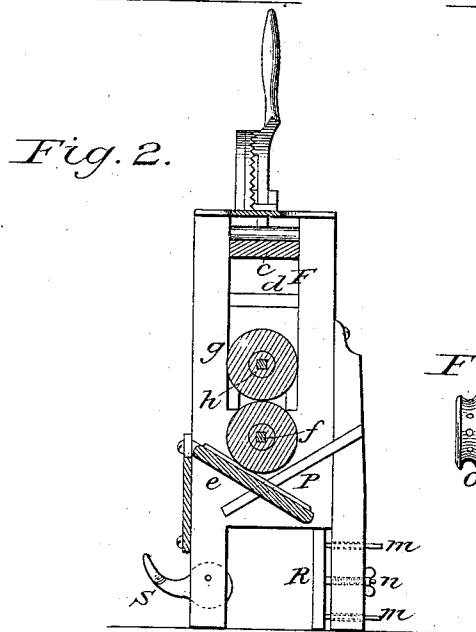
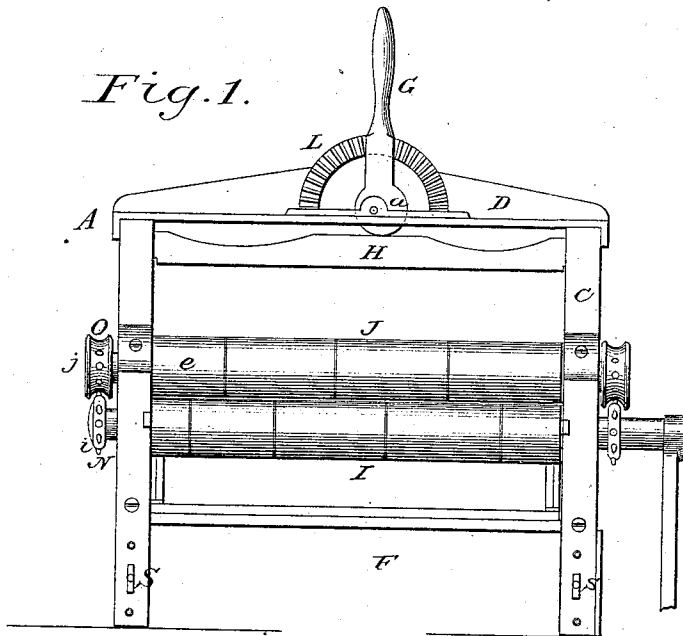
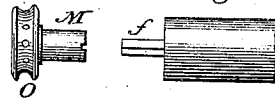


Fig. 3. Fig. 4.



Witnesses:

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JOHN G. ROTH, OF NEW YORK, N. Y.

Letters Patent No. 101,922, dated April 12, 1870.

IMPROVED CLOTHES-WRINGER.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, JOHN G. ROTH, of the city of New York, in the county of New York and State of New York, have invented certain Improvements in Clothes-Wringers, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to clothes-wringers, and consists in the construction and arrangement of novel mechanical devices for operating the rollers and for attaching the machine to a tub or other article. Also, in the construction of the rollers and the shafts upon which they are mounted, as well as in the arrangement of the drip-board so as to be reversible, all as hereinafter described.

In the drawings—

Figure 1 is a side elevation;

Figure 2 is a vertical cross-section on the line $x-x$ of fig. 1; and

Figures 3 and 4 are views of parts detached.

In the construction of my wringer I make a frame, A, of any suitable material and of any size desired, consisting of the end pieces B and C and the cross-pieces D and E, as shown in fig. 1.

The upper portion of the end pieces is provided with slots F, in which are placed the bearings for rollers I J, and which serve as guides for the adjustable or sliding bearings of the upper roll, while the lower portion of these same pieces are forked, so as to straddle the side of the tub or other article to which the wringer is to be attached, as clearly shown in fig. 2.

In the center of the upper cross-piece D is pivoted a hand-lever, G, with an eccentric head, a , which, on being turned, bears against a cross-piece, H, arranged to move vertically in the frame of the wringer, and to bear against blocks of wood and rubber, c and d , intervening between its ends and the bearings of the journals K of the upper roller, as shown in figs. 1 and 2.

This lever G is provided on one side with teeth or notches, which engage with a curved ratchet, L, attached to the cross-piece D in a suitable position for that purpose, so that the lever may be securely held in any position in which it is placed, and in turn hold the cross-piece H, as clearly shown in the same figures.

The rollers I and J consist of a central square shaft, f , with sections e mounted thereon. These sections e are made of rubber g , cast or arranged in any convenient manner about a hub, h , having a square hole or opening, so that they may be readily mounted upon the shaft f , as shown in fig. 2, and they are held in place by an outside washer, keyed fast by a pin not shown, so that, by removing the washer, they may be removed and rearranged, or others substituted for all or any one of them, if desired, for any purpose.

The ends of the square shafts f are provided with removable journals M, so constructed that they may be readily keyed or pinned fast to them, the journals being made larger than the shaft, as shown in figs. 3 and 4, so that the latter may enter the inner ends of the former for the purpose of forming this connection.

This construction, it will be seen, not only allows the rollers to be taken apart when desired, but also permits the journals to be made large enough to afford any sized bearings for the rollers that may be required.

The outer ends of the journals of the lower roller are provided with gear-wheels N, having conical-shaped teeth i , which gear into corresponding gear-wheels O, on the outer ends of the journals on the upper roller, the gear-wheels O being provided with flanges j , which, in connection with this peculiar gearing, entirely prevents any independent lateral motion of the rollers. The under roller is also provided with a crank-handle for operating the wringer.

On the inner sides of the ends of the frame, and below the rollers, are cut diagonal grooves P, as shown in fig. 2. There are two grooves in each end, running downward from each side. Into these grooves a drip-board, l , is inserted from either side, as may be desired, and so that it may be taken from one side and inserted in the other, when required, for turning the current of the drip, as shown in the same figure.

For the purpose of attaching the wringer to a tub or other article, to the inner side of one of its legs is connected a block, R, by means of two pins, m , and so as to be adjusted at any desired distance from the side of the leg by a set-screw, n , as shown in fig. 2, while in the opposite leg is pivoted an eccentric cam, S, as shown in the same figure. By means of these devices, it will be seen that the distance between the block R and the opposite leg of the wringer can be made to correspond with the thickness of the rim of the tub or article to which the wringer is to be connected, and that it can then be securely fastened by the cams S.

The advantages of a wringer thus constructed are many. The eccentric-headed hand-lever enables the operator to adjust the upper roller promptly and conveniently, while the ratchet securely holds it in any position in which it may be placed.

Where the rubber rollers are made in a single piece, as is well known, the central portions, upon which the greatest strain comes, are frequently broken, injured, or distorted, when their usefulness and efficiency are greatly impaired, and it often becomes necessary to replace them with new rollers; but when made in sections, as above described, if the central portions become injured they may be taken off and arranged differently, or new sections substituted. These sections being so arranged as to break joints, the strain comes almost as evenly upon them, and the pressure upon

the intervening substance is almost as uniform, as when the rollers are entire.

It is obvious that the hub of the sections may have an exterior of any irregular form, either of plane or curved surfaces, in order to prevent the rubber from slipping.

Having thus described my invention,

What I claim is—

1. The hand-lever G, provided with an eccentric head, α , in combination with a ratchet, L, and cross-piece H, or their equivalents, when constructed substantially as herein described, for the purpose of adjusting the upper roller as set forth.

2. The rollers I and J when constructed in sections, each section consisting of a metallic hub, with a rubber covering, and arranged upon a shaft so as to be interchanged or removed, as desired, substantially as and for the purpose set forth.

3. The journals M with the gear-wheels N and O, when constructed as herein described, so as to be attached to and removed from the shafts of the rollers, substantially as and for the purpose set forth.

4. In combination with the rollers of a clothes-wringer, the gear-wheels N and O, when constructed and arranged to operate in the manner substantially as herein described.

5. The detachable drip-board I, in combination with the end pieces B C of the frame, said pieces being provided with the grooves B, inclined in opposite directions, substantially as and for the purposes set forth.

JOHN G. ROTH.

Witnesses:

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