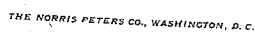


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UNITED STATES PATENT OFFICE.

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MOP-WRINGER.

976,238.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, HUBERT C. WHITE, of Fultonville, county of Montgomery, State of New York, and OLIN N. WARDWELL, of Clayville, county of Providence, State of Rhode Island, citizens of the United States, have invented a certain new and useful Improvement in Mop-Wringers, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

Our invention relates to mop wringers as shown in the accompanying drawings and more particularly pointed out in the following specification and claims.

It has for its object an improvement in mop wringers, having particularly in view means for simplifying the arrangement, construction, and the assembling of the parts, whereby the cost of manufacture may be reduced.

In the drawings accompanying this specification: Figure 1 is a perspective view of the mop wringer as it would appear when supported upon the rim of a pail, indicated by dotted lines. Fig. 2 is a cross-sectional view on line 2—2 of Fig. 1 looking in the direction of the arrows. Fig. 3 is a detail view of one of the swinging members showing also the connecting bell-crank arm. Fig. 4 is a sectional view on line 4—4 of Fig. 3. Fig. 5 shows a modification of the manner of engaging the bell-crank arm to the swinging members.

Referring now to the letters of reference placed upon the drawings:—A, A, are side frames or brackets provided with a hooked portion A' adapted to straddle the rim of a pail B and also formed with depending legs A² curved rearwardly so that when mounted upon the pail their ends *a*, *a*, will bear against the inner wall thereof. The side frames A, A, are provided with channels *a'* similar to the channels in the swinging members E in which are lodged the edges of perforated boards C, the boards being secured to the frames by a transverse bolt D disposed in the grooves in the meeting or abutting edges of the boards and passed from frame to frame, connecting the boards and the side frames together. One end of the transverse

bolt is formed with a kerf similar to the kerf in the head of bolt *f* in Fig. 4 for engagement with a screw-driver; the other end being threaded to receive a nut. The nut in turn is locked by a projecting lug *d* formed in the wall of the side frame A, adjacent to one of its contacting faces,—the purpose being to hold the nut when assembling the parts and also to lock it against rotation due to jarring or usage.

Pivoted to the depending legs A² are swinging members E formed with a channel to receive the ends of the presser board F, which is secured to the swinging members E by a transverse bolt *f* connecting said members, being lodged within grooves or a suitable aperture formed for its reception in the abutting edges of the two sections of the presser board.

G are springs supported upon the pivotal connections between the depending legs A² and the swinging members E, the ends of which bear against lugs formed on the legs and on the swinging members,—the purpose being to spread the presser boards apart in position to receive the mop between them.

H is a rock shaft supported in apertures formed in the side frames A, A, and which serve as bearings for the shaft.

H' is an operating lever secured to the rock shaft. At each end of the rock shaft is a link H² pivoted to the rocker arm H³ at one end and at the other to the bell-crank arm I. The opposite ends of the bell-crank arms are connected with the swinging members E, by studs *e* formed integral with the said swinging members. The walls forming the channel of the swinging members are notched at this point to admit of the entry of the bell-crank arms between the bottom of the channel and the edge of the presser board F, which is in turn cut away or notched to receive them. By forming the studs *e* integral with the swinging members, a pivot is provided for the bell-crank arms without the necessity of introducing additional bolts or providing brackets or other devices to connect the bell-crank arms with the swinging members, thereby reducing the number of parts and simplifying the assembling of the same. The edge of the presser board which at this point is slotted to receive the bell-crank arm, houses the end of the arm at the point at which it is

pivoted to the swinging member. This arrangement does away with the necessity of rivet-heading the studs or providing nuts to keep the bell-crank arms in engaged relation 5 with the swinging members.

In Fig. 5 is shown a modification of the means of connecting the bell-crank arm to the swinging member. The wall forming the channel in this case is shaped to inclose 10 the end of the bell-crank arm I'; the arm being provided with a hooked end instead of the aperture shown in Fig. 3. It has been found that by the use of this construction, the bell-crank arm may be engaged with 15 the swinging member without removing the presser board connecting the swinging members.

J is a movable bottom board secured to projecting arms formed in the swinging 20 members,—the purpose of which is to support the mop,—when inserted between the presser boards,—above the water line in the pail and to direct the water expressed therefrom back into the pail.

25 Having indicated the several parts by reference letters, the operation will be readily understood.

The mop to be wrung is placed between the presser boards and the lever H' actuated,—the movement of which forces the 30 presser boards together, thereby forcing the water out of the mop through the perforations in the presser board and by way of the opening above the inclined bottom board 35 J, back into the pail.

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

1. In a mop wringer, side frames provided with means for engaging the walls of 40 a pail and with channels to receive the ends of a presser board secured within the same, the presser board, swinging arms pivoted to the side frames carrying a presser board supported in channels formed therein, studs 45 formed integral with said swinging arms serving as pivots for a pair of actuating

bell-crank arms, a wall partially surrounding each of said studs and forming part of the channel wall of each swinging arm, the actuating bell-crank arms having apertures 50 to receive the studs, and means for operating said arms, substantially as described.

2. In a mop wringer, side frames provided with means for engaging the walls of a pail and with channels to receive the ends 55 of a presser board secured within the same, swinging arms pivoted to the side frames provided with channels to support a presser board, the presser board, studs formed integral with said swinging arms serving as 60 pivots for a pair of actuating bell-crank arms, a wall partially surrounding each of said studs and forming part of the channel wall of each swinging arm, the actuating bell-crank arms provided with hooked ends 65 adapted to engage said studs, and means for operating said arms, substantially as described.

3. In a mop wringer, side frames provided with means for engaging the walls of 70 a pail and channeled to receive the ends of a presser board lodged within the same, swinging arms pivoted to the side frames and channeled to support a presser board, studs formed integral with the swinging 75 arms, a pair of actuating levers respectively pivoted to said studs, the presser board secured in channels of the swinging arms and notched for the reception and retention of said actuating levers, and means for operat- 80 ing said levers, substantially as described.

In testimony whereof, we sign this specification in the presence of two witnesses.

HUBERT C. WHITE.
OLIN N. WARDWELL.

Witnesses as to Hubert C. White:

N. A. PORTER,
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Witnesses as to Olin N. Wardwell:

H. B. ROLLER,
A. M. WARDWELL.