

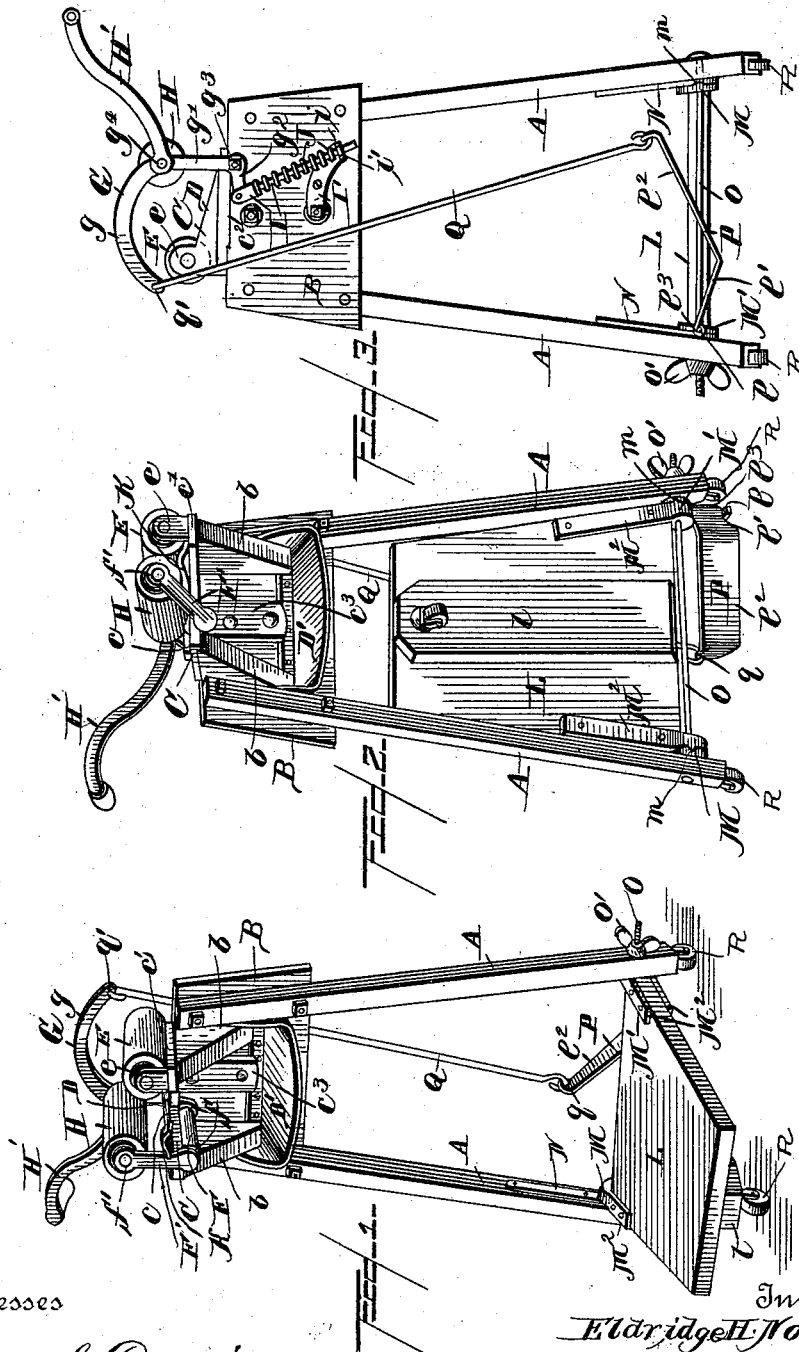
(No Model.)

3 Sheets—Sheet 1.

E. H. NOBLE.
MOP WRINGER.

No. 418,585.

Patented Dec. 31, 1889.



Witnesses

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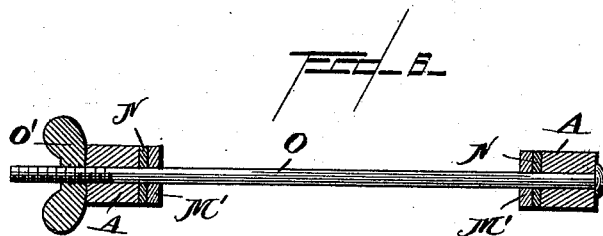
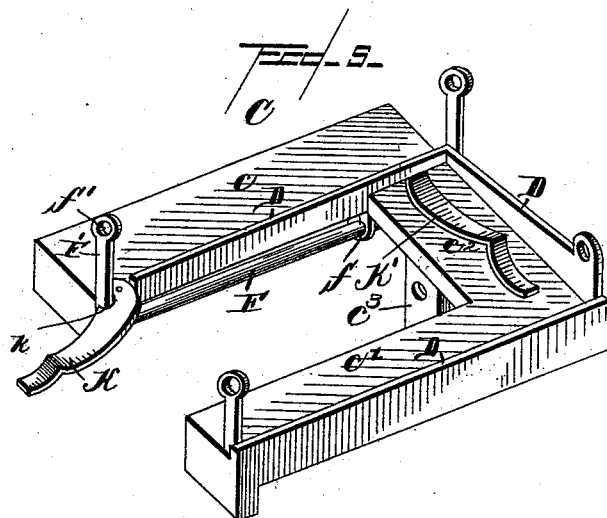
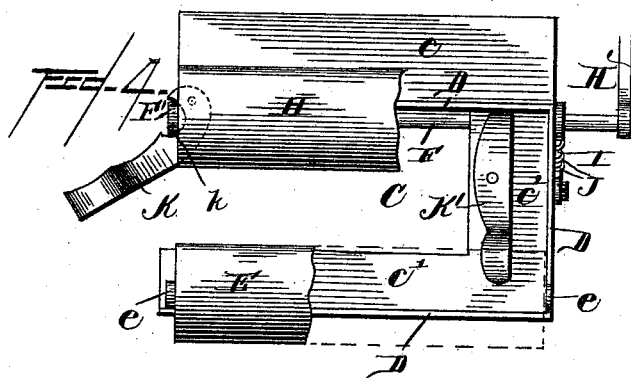
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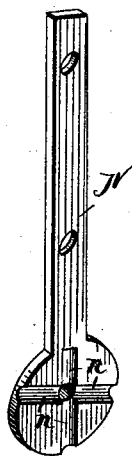
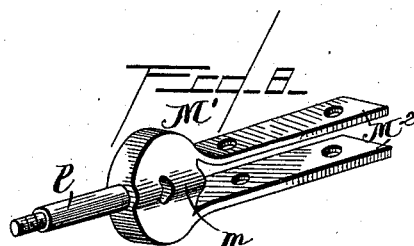
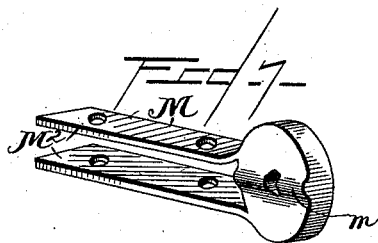
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3 Sheets—Sheet 3.

E. H. NOBLE.
MOP WRINGER.

No. 418,585.

Patented Dec. 31, 1889.



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UNITED STATES PATENT OFFICE.

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JOHN W. WARD, OF SAME PLACE.

MOP-WRINGER.

SPECIFICATION forming part of Letters Patent No. 418,585, dated December 31, 1889.

Application filed June 24, 1889. Serial No. 315,346. (No model.)

To all whom it may concern:

Be it known that I, ELDRIDGE H. NOBLE, a citizen of the United States, residing at Postville, in the county of Allamakee and State of Iowa, have invented certain new and useful Improvements in Mop-Wringers; and I 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.

This invention relates to mop-wringers; and it has for its object to provide a device of this character embodying an improved folding frame and means for retaining the latter in either operative or folded condition when desired.

A further object of the invention is to provide, in combination with the wringer, an automatic mop-guide adapted to close the open end of the frame to retain the mop between the rollers.

A further object of the invention is to provide a simple and improved device of this character possessing advantages in point of durability, inexpensiveness, and general efficiency.

In the drawings, Figure 1 is a perspective view of a mop-wringer embodying my invention, taken from the rear side and illustrating the same in position for use. Fig. 2 is a similar view showing the platform folded up. Fig. 3 is a front elevation. Fig. 4 is a top plan view with one of the rollers broken away and illustrating the rigid mop-guide and the operation of the automatic mop-guide. Fig. 5 is a detail perspective view of the metallic roller-frame. Fig. 6 is a horizontal sectional view taken through the bearings of the folding platform, the latter being in folded position. Figs. 7 and 8 are detail perspective views of the platform-bearing plates, the latter view showing the treadle-bearing. Fig. 9 is a similar view of one of the clutch-plates for locking the platform in either open or folded position.

Corresponding parts in the figures are denoted by the same letters of reference.

Referring to the drawings, A A designate two downwardly-divergent standards or sup-

ports, to the upper ends of which at one side is bolted or otherwise secured a board or plate B. From the inner side of the latter project two corresponding brackets *b b*, the top or horizontal ends of which are about on the same plane with the top edge of the board or plate B.

C designates the roller-supporting frame, preferably constructed of metal and cast in one piece. This frame is approximately U-shaped and comprises the arms *c c'*, seated upon the brackets *b*, and the connecting-plate *c²*, projecting over the top edge of the board B and forming the closed end of the U-shaped frame. The frame is secured in place by means of a vertical strap or lug *c³*, projecting downwardly from the plate *c²* and against the board B, to which it is bolted or screwed, and it may be further secured by bolts or screws provided through the arms *c* and *c'* at suitable points.

Water-guides are formed by flanges D upon the inner edge of the arm *c* and outer edges of the plate *c²*. An additional water-guide D' is provided at the rear side of the wringer, said guide being approximately U-shaped and formed of sheet metal, the upturned ends of which are secured between the standards A and brackets *b*.

E designates a roller mounted in stationary bearing-standards *e e*, projecting upwardly from the arm *c'*. The arm *c* is provided upon its under side with bearing-lugs *f f*, within which is loosely mounted a rod F, having at its rear end an arm F' at right angles thereto, said arm being provided with a perforation *f'*, for the purpose hereinafter set forth.

G designates a lever disposed at the front side of the frame and comprising a curved or arch-shaped arm *g*, and a right-angular extension formed by two arms *g'* and *g²* at one end of the arm *g*. At the point of intersection of the arms *g'* and *g²* is provided a perforation *g³*, through which is passed the outer end of the rod F, the latter being rigidly secured therein. A perforation *g⁴* is provided at the point of intersection of the arms *g* and *g'*, and coinciding with the perforation *f'* in the arm F', and within the perforations *g⁴* and *f'* is mounted a roller H. This roller is

normally removed from the roller E, but is brought into contact therewith by depression of the outer end of the arm g . A crank-handle H' is rigidly secured to the front end of the shaft of the roller H for turning the latter.

To return the roller H to its normal position I have provided a rod I, pivoted at its upper end to the free end of the arm g^2 , the lower end of said rod playing in a bracket I' . The latter preferably comprises a curved plate secured to the board B, and an out-turned end i at right angles to the secured portion, said end i being provided with a perforation i' , through which the end of the rod I passes. Upon this rod is disposed a coil-spring J, located between the bracket I' and the shouldered upper end of the rod. It will thus be obvious that when the lever G is depressed its arm g^2 is carried downwardly, depressing the rod I against the tension of the spring, and when power is removed from the lever the latter rod, by reason of the action of said spring, seeks its normal position.

K K' designate, respectively, the automatic and stationary mop-guides, curved to fit the periphery of the rollers, the guide K' being firmly secured upon the plate c^2 of the roller-supporting frame. The guide K is pivoted to the rear end of the arm c of said frame, and is provided with a recess or slot k upon its outer side, engaged by the arm F' of the rod F. This guide, when the roller H is in its normal position, is free from contact with the opening between the arms c and c' of the U-shaped frame; but when the said roller is drawn toward the roller E the movement of the arm F' causes the guide to turn and close the opening between the arms c and c' .

L designates a folding platform, pivoted at the lower ends of the standards A, and designed for the reception of a bucket or other vessel to receive the water as it is pressed from the mop, said platform being preferably provided with a strengthening-strip l upon its under side. The pivots for this platform comprise circular plates M M', disposed vertically and provided each upon its outer face with a diametrical rib m , and from said plates project parallel arms M^2 , between which the platform is set and bolted. Upon the standards are secured coincident plates N N, each provided upon their opposing faces with two diametrical grooves $n n$ at right angles to each other, said grooves being adapted to receive the ribs of the plates M to secure the platform either open or folded. A rod O, headed at one end, is passed through perforations provided centrally in the plates M, M', and N, and through the standards, and is further provided with screw-threads at its opposite end engaged by a thumb-nut O'. When the platform is either open or folded, the ribs of the plates M coincide with one of the grooves in each of the plates N. The platform can then be locked in such position by the adjustment of the thumb-nut.

From the plate M' projects outwardly a circular extension p , forming the bearing for a treadle P. This treadle is preferably constructed of a plate of metal bent about one-third its length to form a short and long arm p' p^2 , respectively, the former being provided at its end with the bearing-eye p^3 for receiving the extension p . The end of the arm p^2 is turned up and provided with a perforation q , and this and a similar perforation q' in the end of the lever G are engaged by the hook ends of a pitman Q, said pitman connecting the treadle and lever.

The operation and advantages of my invention will be readily understood by those skilled in the art to which it appertains. The rollers being normally separated and the adjustable mop-guide removed from the opening between the arms of the roller-supporting frame, the mop can be readily inserted between said arms and the rollers. The treadle is then depressed, bringing the adjustable roller closely against the other roller, during which movement the automatic mop-guide is caused to turn and close the opening between the arms of the roller-frame. To complete the operation it is only necessary to turn the crank-handle from the operator, thus freeing the mop from the rollers and from the water therein, which is received by the bucket or other vessel upon the platform.

The wringer is preferably mounted upon rollers R, provided at the lower ends of the standards and under the platform.

I claim as my invention—

1. In a mop-wringer, the combination, with the roller-carrying frame open at one end, a fixed roller, and an adjustable roller, of a mop-guide pivoted at said open end of the frame and provided with a slot or recess engaged by one of the bearing-arms of the adjustable roller, said arm operating the guide to open or close the end of the frame, substantially as set forth.

2. In a mop-wringer, the combination, with an approximately U-shaped frame, a roller mounted in stationary bearings upon one arm thereof, and an adjustable roller mounted in pivotal bearings on the other arm of said frame, of a mop-guide pivoted to the latter arm and provided with a slot engaging one of the bearing-standards of the adjustable roller, whereby said guide is caused to turn and close the open end of the frame during the adjustment of the latter roller, substantially as set forth.

3. In a mop-wringer, the combination, with a frame having an open end, of a fixed and an adjustable roller carried thereby, a lever for adjusting the latter roller, and a crank-handle rigidly secured to one end of its shaft, and stationary and movable mop-guides mounted on the frame, said movable guide being adapted to automatically turn and close the open end of the frame during the adjustment of the latter roller, substantially as set forth.

4. In a mop-wringer, the combination, with a frame, of a fixed and an adjustable roller, an operating-lever forming a bearing for the latter and provided with an approximately right-angular extension pivoted at the angle thereof to a rod carrying the other bearing for said roller, and mechanism for returning the latter in its normal position, (free from contact with the fixed roller,) consisting of a rod pivoted at the outer end of said lever-extension and playing in a bracket upon the frame, and a coil-spring disposed upon said rod between its upper shouldered end and said bracket, substantially as set forth.

5. In a mop-wringer, the combination, with supporting-standards and a folding platform, of means for pivoting and locking said platform in adjusted position, consisting of clutch-plates secured, respectively, to the platform and standards, a rod passing through the latter and perforations in the plates, said rod being headed at one end and provided with screw-threads at the other, and a thumb-nut disposed upon said screw-threaded end and adapted to be adjusted to lock said plates together, substantially as set forth.

6. In a mop-wringer, the combination, with standards provided upon their inner sides with plates having diametrical grooves at right angles to each other, of a folding platform having its bearing-plates provided each upon its outer side with a diametrical rib adapted, when the platform is either folded or open, to coincide with said grooves, and means for locking said plates together, substantially as set forth.

7. In a mop-wringer, the combination, with the frame and folding platform, of a fixed and an adjustable roller carried by the former, a lever for operating said adjust-

able roller, and a treadle mounted upon an extension of one of the bearing-plates of the platform and connected with the lever by a pitman, said treadle being adapted to fold under the platform when the latter is folded, substantially as set forth.

8. In a mop-wringer, the combination, with the main frame and a roller-carrying frame mounted thereon and provided with flanges forming water-guides, of a fixed and an adjustable roller carried by the latter frame, a lever for adjusting the latter roller, a folding platform at the lower end of the main frame and adapted to be locked thereto in adjusted position, and a treadle mounted upon an extension of one of the platform-bearings and connected with the lever by a pitman, substantially as set forth.

9. The herein-described mop-wringer, comprising the main frame, carrying a folding platform, a roller-carrying frame mounted on the main frame and provided with flanges forming water-guides, a fixed and an adjustable roller carried by said roller-frame, a lever for adjusting the latter roller, and a crank-handle for rotating the same, a treadle mounted upon a bearing projecting from the platform and connected with the lever by a pitman, and a supplementary water-guide having upturned ends secured between the roller-frame supporting-brackets and the main frame-standards, all arranged and adapted to operate substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ELDRIDGE H. NOBLE.

Witnesses:

F. N. BEEDY,

F. S. BURLING.