H. F. BEERS.

MOP WRINGER.

APPLICATION FILED APR. 7, 1911.

1,002,362. Patented Sept. 5, 1911.

Fig. 1.

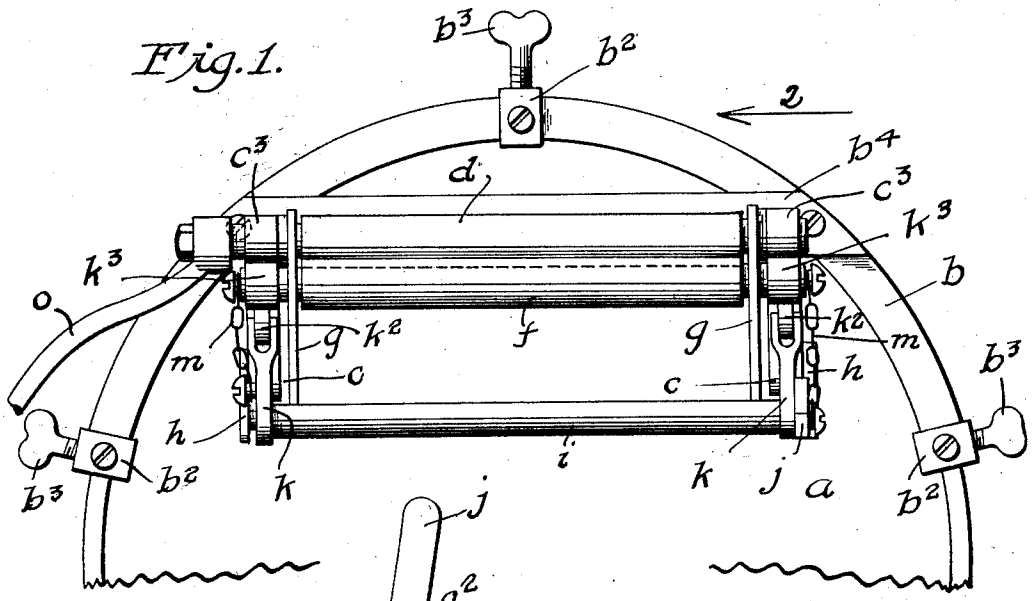


Fig. 2.

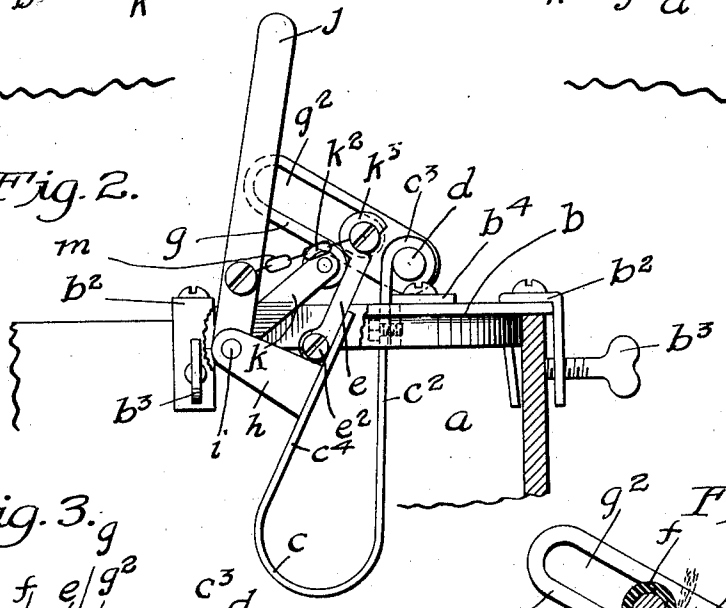


Fig. 3.

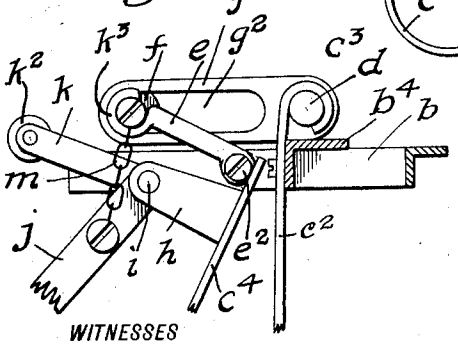


Fig. 4.

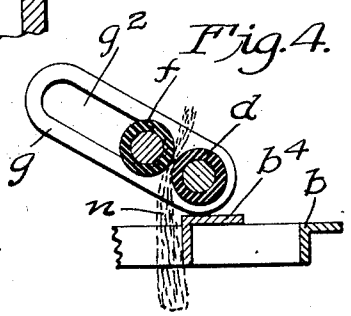
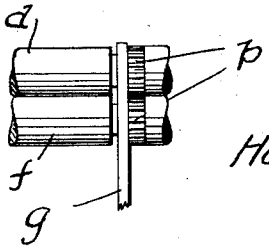


Fig. 5.



WITNESSES

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MOP-WRINGER.

1,002,362. Specification of Letters Patent. **Patented Sept. 5, 1911.**

Application filed April 7, 1911. Serial No. 619,508.

To all whom it may concern:

Be it known that I, HARRY F. BEERS, a citizen of the United States, and residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Mop-Wringers, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to a device for wringing mops, and the object thereof is to provide an improved device of this class which may be connected with, or used in connection with, a tub, bucket or other suitable vessel and which comprises, in its construction, a main stationary roller and a supplemental roller movable toward and from the main roller, whereby, as hereinafter described, the use of my improvement as a mop wringer is facilitated; a further object being to provide a wringer of the class specified which may, if desired, be used for the same purpose as other wringers; and with these and other objects in view the invention consists in a wringer of the class specified constructed and operating as hereinafter described.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which;—

Figure 1 is a plan view of my improved wringer and showing the same connected with a tub or other vessel;—Fig. 2, a view looking in the direction of the arrow 2 of Fig. 1 and showing the top portion of the tub or other vessel in section but showing part of the wringer broken away;—Fig. 3, a view similar to Fig. 2, but showing the parts in a different position and showing a part of the frame work by means of which the wringer is secured to the tub or other vessel in section;—Fig. 4, a view similar to Fig. 2 but showing only details of the construction and showing the same in section;—and, Fig. 5, a plan view of the ends of the main and supplemental rollers of the wringer and showing a modified form of construction.

In the drawing forming part of this specification, I have shown at a a part of a tub or similar vessel in connection with which my improved wringer is adapted to operate and with the rim of which the wringer is connected.

In the practice of my invention I provide means for securing a wringer to a tub or other vessel and this means consists, in the form of construction shown, of an arch-shaped frame member b which is L-shaped in cross section and which is provided at intervals with clamp devices b^2 into which, in practice, the rim of the tub or other vessel is inserted, and said clamp devices are provided with set screws b^3 whereby the wringer may be firmly secured to the tub or other vessel.

Secured transversely to the arch-shaped frame member b, in the construction shown, is a plate b^4 which is also preferably L-shaped in cross section, and in practice, I provide two yoke-shaped spring arms c, one member c^2 of which is longer than the other, and the longer members of said arms are secured to the frame plate b^4 and extend above the same, and the main roller d of the wringer is mounted in the ends thereof as shown at c^3, the other members of the arms c extending forwardly and upwardly approximately to the frame plate b^4, and said members are provided at their ends with links e which are pivoted thereto, as shown at e^2, and in the ends of which is mounted a supplemental roller f of the wringer, and the ends of said roller f are freely movable in oblong slots or openings g^2 formed in links g which are mounted on the end portions of the main roller d of the wringer. The shorter members c^4 of the arms c are also provided with forwardly directed bracket arms h, in which is mounted a rod i which is parallel with the rollers d and f, and to one end of which is secured an operating arm j, and the rod i is also provided adjacent to its opposite ends with two other short arms k, and these arms k are provided at their free ends with anti-

friction rollers k^2. The supplemental roller f of the wringer is also provided outside of the links g in which it is mounted, with circular heads k^3, consisting of bearings formed in connection with the link members e and in which the ends of the supplemental roller f are mounted and in connection with which the antifriction rollers k^2 operate, as hereinafter described.

Connected with the ends of the supplemental roller f, outside of the link members g, or with the ends of the shaft of said roller, are chains or other flexible devices m, and one of these chains is connected with the operating arm j, in the form of construction shown, and the other with the arm k at the opposite end of the rod i.

With this construction, when the operating arm j is pulled forwardly, as shown in Fig. 3, the supplemental roller f will also be pulled forwardly and the links g will drop into the position shown in Fig. 3 and this leaves a wide space between the main and supplemental rollers d and f as shown in full lines in Fig. 3, and in practice, the mop n to be wrung is passed down between said rollers into the tub or bucket, after which the arm j is raised and moved backwardly into the position shown in Fig. 2. In this operation the antifriction rollers k^2 at the ends of the arms k strike on the heads k^3 of the supplemental roller f, and said supplemental roller is forced backwardly into the position shown in Figs. 1 and 2, and the antifriction rollers k^2 pass under the heads k^3 of the wringer roller f and securely lock said roller f in the position shown in said figures. In this position of the rollers d and f, said rollers are held closely adjacent or in contact, and when the mop m is pulled upwardly through or between said rollers it is thoroughly wrung out or all water or watery substance is pressed out of it and falls into the tub or other vessel. This operation of wringing a mop may be accomplished by simply pulling it upwardly between the rollers d and f, or the roller d may be provided with a crank arm o by which it may be turned, and the said rollers d and f, in this operation, and with the construction shown in Figs. 1 to 4 inclusive, turn together by reason of friction applied thereto by pulling the mop upwardly therethrough or therebetween, or by turning the crank o as will be readily understood, but in Fig. 5 I have shown a modification in which the rollers d and f are geared together at one or both ends by means of gears p.

The chief feature of my invention is in the construction by means of which the supplemental roller f is made movable toward and from the main roller d whereby, when it is desired to wring a mop, all that is necessary is to pass it downwardly into the tub or vessel between said rollers, said rollers being first thrown into the position shown in Fig. 3, after which the roller f may be turned back into the position shown in Figs. 1 and 2 and the mop drawn out or upwardly between said rollers, or the crank o turned as will be readily understood; and while I have shown a simple and effective means for moving the roller f toward and from the roller d, my invention is not limited to the construction herein shown and described for said purpose, and various changes therein and modifications thereof, together with changes in and modifications of other parts of the wringer as herein shown and described, and similar changes and modifications of the means for securing the wringer to a tub or other vessel, may be made, within the scope of the appended claims, without departing from the spirit of my invention or sacrificing its advantages.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is:—

1. A wringer of the class described comprising a main frame adapted to be secured to the rim of a tub or other vessel, a main roller mounted on said main frame, slotted link members mounted at the ends of said roller, a supplemental roller mounted in said slotted link members and movable toward and from the main roller, downwardly directed spring yoke-shaped devices comprising longer and shorter arms the longer arm of each of which is secured to said frame at the opposite ends of the main roller, link devices pivoted to the other arms of said yoke-shaped devices and in which the supplemental roller has bearings, a rigid arm connected with the shorter arm of one of said yoke-shaped devices and a crank lever pivoted to said rigid arm the crank members of which are adapted to bear on the ends of the supplemental roller.

2. A wringer of the class described comprising a main frame adapted to be secured to the rim of a tub or other vessel, a main roller mounted on said main frame, slotted link members mounted at the ends of said roller, a supplemental roller mounted in said slotted link members and movable toward and from the main roller, downwardly directed spring yoke-shaped devices comprising longer and shorter arms the longer arm of each of which is secured to said frame at the opposite ends of the main roller, link devices pivoted to the other arms of said yoke-shaped devices and in which the supplemental roller has bearings, a rigid arm connected with the shorter arm of one of said yoke-shaped devices and a

crank lever pivoted to said rigid arm the crank members of which are adapted to bear on the ends of the supplemental roller, said supplemental roller and said crank lever being also connected by a flexible device.

In testimony that I claim the foregoing as my invention I have signed my name in presence of the subscribing witnesses this 1st day of April 1911.

HARRY F. BEERS.

Witnesses:
MILTON SCHNAIER,
S. N. ISAACS.