

W. A. CROMWELL.

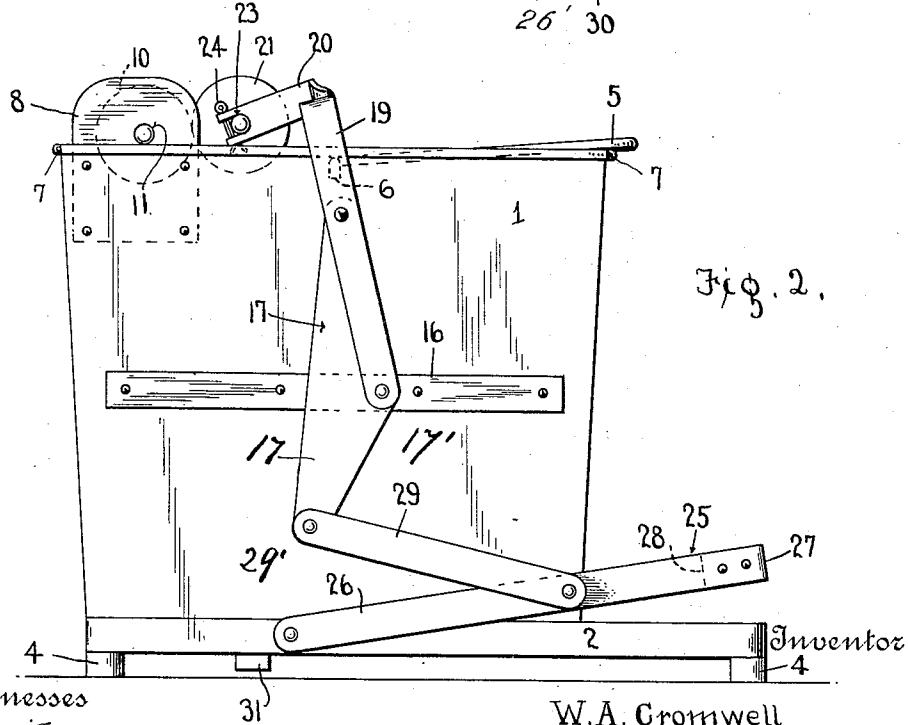
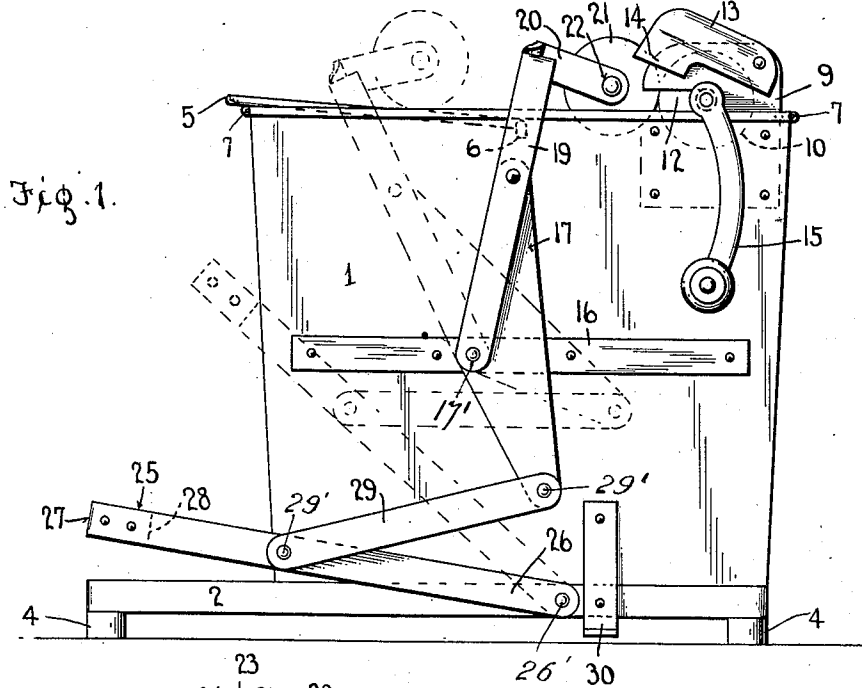
MOP WRINGER.

APPLICATION FILED MAR. 22, 1912.

Patented May 6, 1913.

1,060,821.

2 SHEETS—SHEET 1.



Witnesses
L. B. James
C. E. Hunt

W. A. Cromwell

by *H. B. Wilson & Co.*
Attorneys

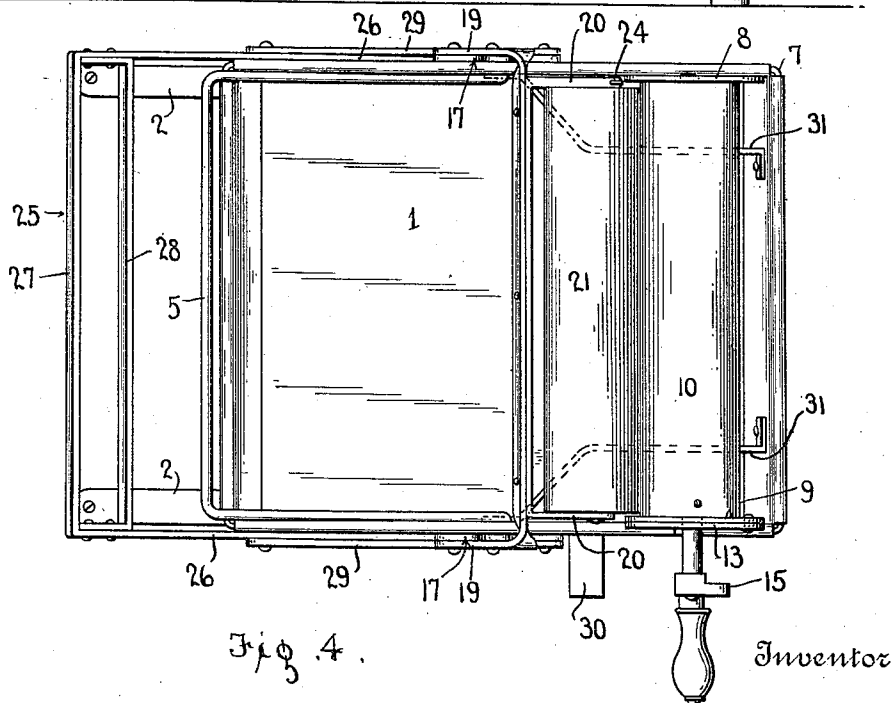
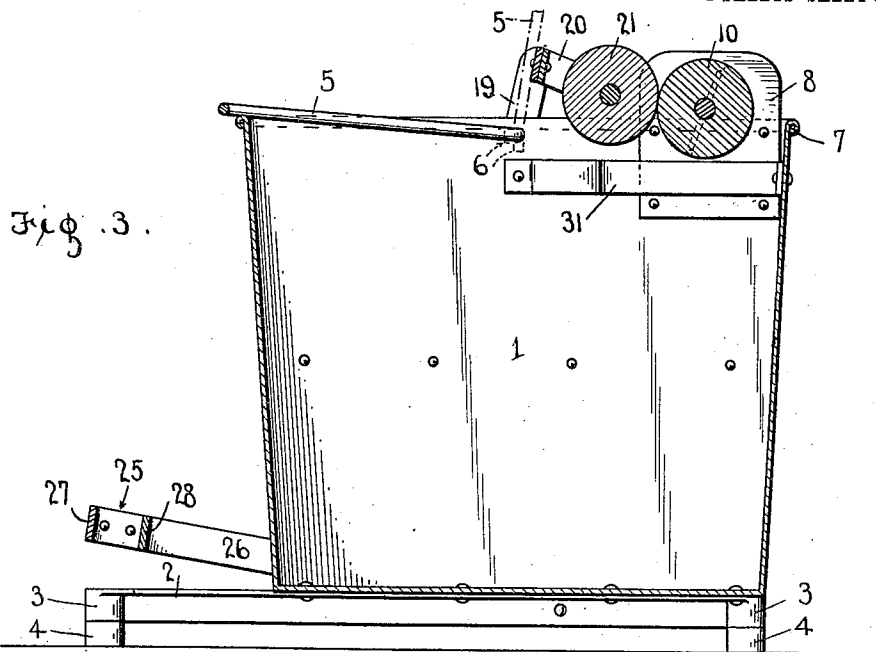
W. A. CROMWELL.
MOP WRINGER.

APPLICATION FILED MAR. 22, 1912.

Patented May 6, 1913.

2 SHEETS-SHEET 2.

1,060,821.



Witnesses
L. B. James
C. E. Hunt

W. A. Cromwell

by *A. B. Wilson & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM ALLEN CROMWELL, OF WHITE PLAINS, NEW YORK.

MOP-WRINGER.

1,060,821.

Specification of Letters Patent.

Patented May 6, 1913.

Application filed March 22, 1912 Serial No. 685,596.

To all whom it may concern:

Be it known that I, WILLIAM ALLEN CROMWELL, a citizen of the United States, residing at White Plains, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Mop-Wringers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in mop wringers.

One object of the invention is to provide a mop wringer adapted to be operatively applied to a pail or bucket whereby after the mop has been wet or rinsed in the bucket more or less of the water may be wrung or squeezed from the mop as may be desired without touching the mop with the hands.

Another object is to provide an improved means for supporting the bucket and means for removably attaching the wringing or squeezing rollers thereto.

With these and other objects in view the invention consists of certain novel features of construction, and the combination and arrangement of parts as will be more fully described and claimed.

In the accompanying drawings; Figure 1 is a side view of a pail or bucket having my improved mop wringer applied thereto and showing in full and dotted lines the operative and inoperative position of the parts; Fig. 2 is a similar view of the opposite side of the same; Fig. 3 is a vertical sectional view through the bucket and the wringer rolls; Fig. 4 is a top plan view of the bucket and wringer.

Referring more particularly to the drawings, 1 denotes the pail or bucket to which my improved wringer is applied, said bucket being preferably of substantially rectangular form or having vertical sides and inclined ends as shown.

The pail or bucket is preferably formed of heavy sheet metal and has secured to its bottom along the side edges thereof angle iron supporting bars 2 in the ends of which are arranged cylindrical blocks or bosses 3 to which are secured disks 4 of rubber or similar resilient material whereby the bars 2 and the bucket may be noiselessly engaged with the floor or other surface and whereby the bars 2 are prevented from scratching, or marring the floor or supporting surface.

The pail or bucket is provided with a carrying bail or handle 5 the ends of which are pivotally engaged with the sides of the pail, said ends being inserted from the inner side of the bucket and having their extremities turned downwardly to form retaining lugs 6 which engage the outer surface of the sides as shown. The upper edges of the sides of the bucket are turned or bent outwardly around a reinforcing rod 7 whereby a rigid binding or finish is formed for the upper edge of the bucket and whereby the sides thereof are firmly braced.

Secured to the inner sides of the bucket near one end thereof are upwardly extending bearing plates 8 and 9 in which is revolvably mounted a stationary wringer roller 10, said roller having one end of its shaft revolvably engaged with a bearing aperture 11 in the plate 8 while the opposite end of the roller shaft is revolvably engaged with a bearing notch 12 formed on the plate 9. Pivotally connected to the plate 9 is a keeper plate 13 having on the lower edge of its free end a shaft retaining lug 14 which when the plate is swung down to an operative position covers the outer portion of the bearing notch 12 and holds this end of the roller shaft in operative engagement therewith. By thus arranging the keeper plate 13 it will be seen that the roller is detachably mounted in the bearing plates 8 and 9 and may be readily removed therefrom when desired. Fixedly secured to the end of the shaft adjacent to the keeper plate 13 is a crank handle 15 by means of which the roller may be revolved for the purpose of wringing the mop as will be hereinafter more fully described.

Riveted or otherwise secured to the sides of the pail or bucket substantially between the top and bottom thereof are horizontally disposed reinforcing bars 16 to which are pivotally connected roller operating levers 17, which are preferably in the form of substantially triangular shaped plates to which is connected a bail shaped bar 19 the ends of which are given a quarter twist and bent at right angles to form inwardly extending members which are riveted or otherwise rigidly secured to the upper portions of the levers 17. To the upper member of the bail shaped bar 19 is riveted or otherwise rigidly secured a roller bearing frame 20 in which is revolvably mounted the movable wringer roller 21. One end of the shaft of the roller

21 is revolvably engaged with a bearing aperture 22 formed in one end of the frame 20 while the opposite end of the roller shaft is revolvably engaged with a bearing notch 23 in the opposite end of the frame 20, said end of the shaft being secured in the notch 23 by a cotter pin or similar fastening device 24. In thus supporting the roller 21 the same may be swung back and forth into and out of engagement with the stationary roller 10 by means of the levers 17, mounted on pivots 17', said levers being actuated by a foot operating mechanism comprising a treadle 25 which is preferably constructed in the form of a frame having side bars 26, the inner ends of which are pivotally connected to the outer sides of the angle iron supporting bars 2 and the inner ends of which are connected by an integral outer cross bar 27 and an inner bracing bar 28, the ends of which are bent at right angles to form lugs and are riveted to the inner sides of the side bars 26 as shown. The bracing bar 28 when thus arranged is spaced a sufficient distance from the outer bar 27 to provide with said bar 27, a rest with which the foot may be readily engaged to depress the treadle. The side bars 26 of the treadle are connected by links 29 with the lower ends of the levers 17 by pivots 29' whereby when the treadle is depressed, the levers will be actuated to bring said movable roller 21 into operative engagement with the mop thereby holding the latter in firm engagement with the stationary roller 10 so that when the latter is revolved the water will be squeezed or wrung from the mop. By imparting more or less pressure on the treadle the roller 21 will hold the mop into more or less forcible engagement with the stationary roller 10, thus wringing more or less water from the mop as may be desired. Secured to one of the angle iron supporting bars 2 and the adjacent side of the pail or bucket is a right angularly formed holding plate 30 adapted to be engaged by the foot of the operator whereby the bucket is firmly held while the mop is being rinsed and wrung out therein.

By arranging the operating levers 17 and the bail 19 of the movable roller as herein shown and described, it will be seen that these parts are indirectly actuated by the foot treadle 25 through the links 29 and that the movable roller 21 is moved from the operator and into engagement with the stationary roller at the farthest side of the pail, thus obviating the danger of water being splashed onto the clothing of the operator when the mop is gripped by the rollers. This arrangement and operation of the rollers forms an important feature of the invention.

In order to prevent the material from which the mop is formed from catching in

between the ends of the rollers and the sides of the bucket and to bring the material together into more compact form before being wrung out, I provide guide bars 31 which are secured at one end to one end of the bucket a suitable distance from the sides thereof and beneath the wringing rollers. The inner ends of the bars are bent outwardly to the sides of the bucket to which they are suitably secured, thus forming between said outwardly bent or angular ends a flaring space between which the mop is drawn after being rinsed in the pail. The angular or flaring ends of the bars collect and draw the strands of the mop material together so that as the material is drawn farther in between the parallel portions of the bars 31 the material will be held in a compact form or bunch which will be uniformly wrung out when the wringing rollers are operated and the mop drawn between the same.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as claimed.

Having thus described my invention, what I claim is;

1. A mop wringer comprising a bucket, supporting bars secured thereto, a stationary wringer roller revolvably and detachably secured to said bucket, means to turn said stationary roller, a movable roller adapted to co-act with said stationary roller to wring the water from a mop drawn between the rollers, roller operating levers pivotally connected to the bucket, a bail shaped bar secured to the upper ends of said levers, a roller bearing frame secured to said bar and adapted to detachably and revolvably support said movable roller, a foot treadle pivotally connected at its inner end to the supporting bars of the bucket, and links to connect said treadle with the lower ends of said roller operating levers whereby when the treadle is depressed the levers will move said roller away from the operator and into engagement with the stationary roller.

2. In a mop wringer, a bucket, supporting bars secured to the bucket bottom, roller bearing plates secured to the sides of the bucket near one end, one of said plates having therein a roller bearing aperture and the other plate a roller bearing notch adapted to receive the ends of the roller shaft, a keeper plate pivoted to said notched bearing plate and adapted to be swung down across the notch in the plate and in engagement with the shaft of the roller whereby the lat-

ter is revolubly and detachably secured to said plates, a movable wringer roller, roller operating levers pivotally connected to the sides of the bucket, and means attached to the lower ends of said levers whereby the latter are actuated to swing the movable wringer roller away from the operator and into operative engagement with the stationary roller.

3. A mop wringer comprising a bucket, supporting bars secured to the bottom thereof, a stationary wringer roller revolubly and detachably secured to the upper edges of the bucket, a crank handle engaged with one end of the shaft of said roller, reinforcing bars secured to the sides of the bucket, roller operating levers pivotally secured to said bars, a movable wringer roller revolubly and detachably mounted in said frame, and adapted to be brought into position to coact with said stationary roller for wringing the water

from a mop, a foot treadle comprising a frame having its side members pivotally connected to the supporting bars of the bucket and a brace bar, links to connect the side bars of said treadle frame with the lower ends of the roller operating levers whereby the latter are actuated to move said roller away from the operator and into engagement with the stationary roller, and a foot plate secured to one side of the bucket and one of said supporting bars whereby the bucket is firmly held while the mop is being wrung out.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM ALLEN CROMWELL.

Witnesses:

FRANK D. ARTHUR,
A. S. HERING.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."