No. 872,974. PATENTED DEC. 3, 1907.

J. C. RINK.

MOP WRINGER.

APPLICATION FILED JAN. 28, 1907.

Fig. 1.

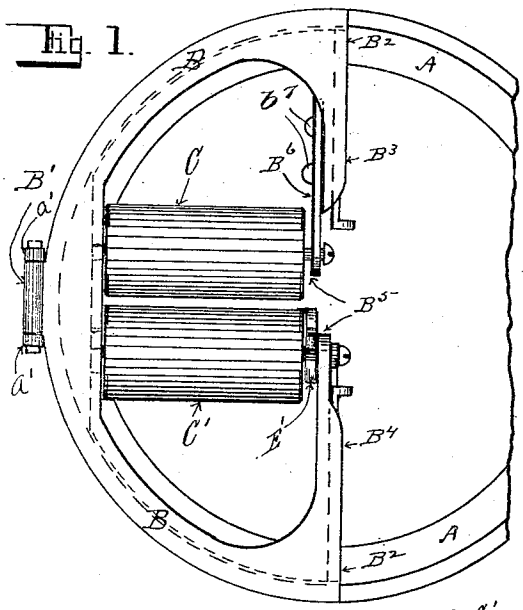


Fig. 3.

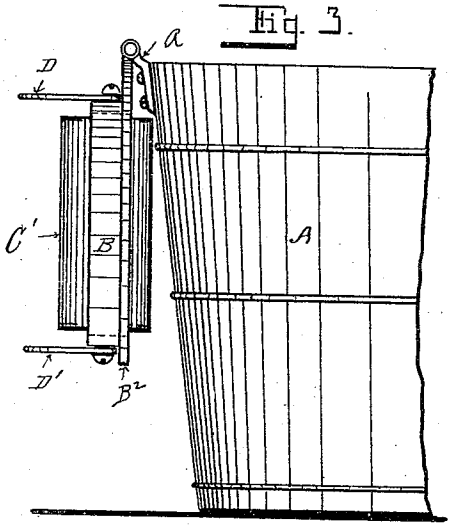


Fig. 2.

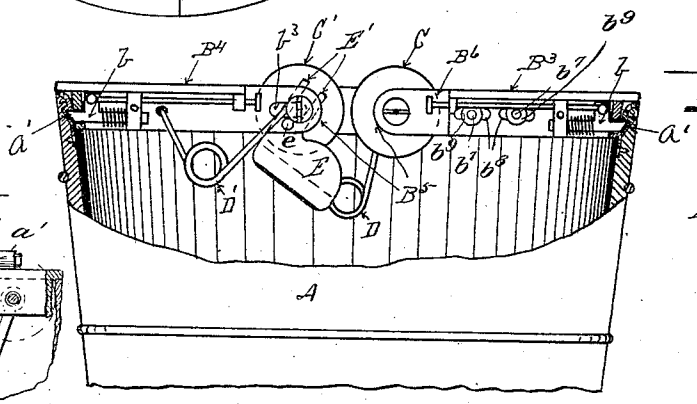


Fig. 5.



Fig. 9.

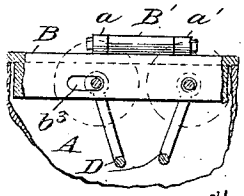


Fig. 4.

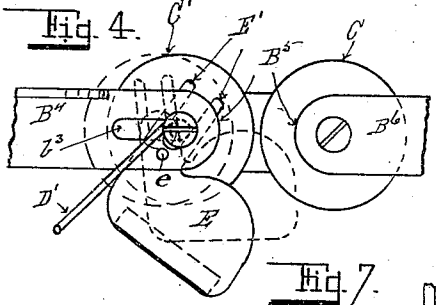


Fig. 6.

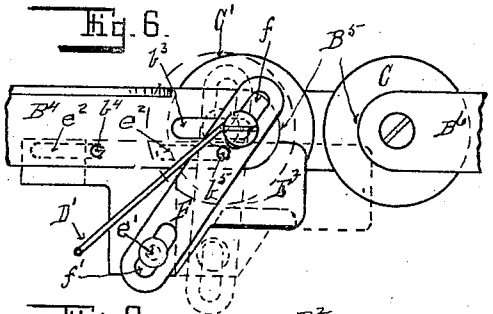


Fig. 7.

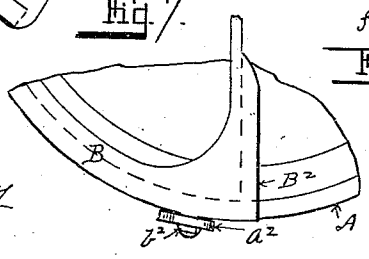
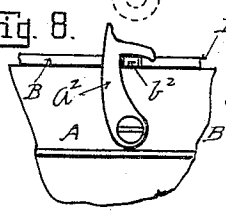


Fig. 8.



Witnesses

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UNITED STATES PATENT OFFICE.

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MOP-WRINGER.

No. 872,974. Specification of Letters Patent. Patented Dec. 3, 1907.

Application filed January 28, 1907. Serial No. 354,517.

To all whom it may concern:

Be it known that I, JOSEPH C. RINK, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Mop-Wringers; and I do hereby 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming part of this specification.

My invention relates to improvements in mop-wringers, and consists in the improvements in the frame for supporting the wringer-rolls, and the manner of connecting the same with the pail, so that the frame and rolls can be thrown back out of the way. These and other features of my invention are hereinafter fully set forth and explained, and illustrated in the accompanying drawings, in which:

Figure 1 is a top or plan view of a section of a pail with my improved mop-wringer in place thereon. Fig. 2 is a side view in elevation of the same. Fig. 3, is a view in elevation showing the mop-wringer mechanism hanging down at the side of the pail. Fig. 4 is an enlarged view in elevation of the open ends of the wringer-rolls, and the automatically operating guide mechanism. Fig. 5 is a detail view of the automatic guide. Fig. 6 shows an enlarged view in elevation of a modified construction of the automatically operating guide mechanism. Fig. 7 is a top or plan view of a modified construction of mechanism for securing the wringer-roll frame to the top of a pail. Fig. 8 is a side view in elevation of the same. Fig. 9 is a detail showing the rear journals of the wringer-rolls, and their bearings.

In these drawings illustrating my invention, A is a pail, and B a wringer-roll frame, provided at its rear edge with a hinge B′, one member of which *a*, is secured to the side of the upper edge of the pail so that the frame B will swing back over the side of the pail as illustrated in Fig. 3, and on the front edge B² of the frame I preferably provide spring actuated dogs *b b* adapted to engage notches *a′ a′* in the inside of the upper edge of the pail for securing the front edge B² of the frame B down upon the top of the pail, as is clearly shown in Fig. 2. If desired, however, I can, in lieu of the spring dogs *b b*, provide studs b^2 b^2 on the edges of the frame B, and hooks a^2 a^2 on the sides of the pail A, to engage therewith, and hold the front part B² of the frame B down upon the top of the pail A as illustrated in Figs. 7 & 8.

The front edge B² of the frame B is formed of two arms B³ and B⁴ extending inwardly toward each other so as to leave an opening B⁵ between them, and the arm B³ is preferably provided with an adjustable section B⁶ for varying the width of the opening B⁵. This adjustable section B⁶ is secured to the inner side of the arm B³ by means of bolts b^7 which operate in slots b^8 in the arm B³, so that the opening between the rolls C and C′ can be properly adjusted by loosening the nuts b^9 on said bolts b^7 and sliding the section B⁶ endwise thereon. In a fixed bearing in the rear of the frame B and in a fixed bearing in the end of the adjustable section B⁶ I mount a wringer-roll C and in horizontally slotted bearings b^3 in the rear of the frame B and in the end of the arm B⁴, I mount another wringer-roll C′ so as to be movable toward and away from the roll C, and between the inner bearings of the rolls C and C′ I place a spring D adapted to force the inner end of the roll C′ toward the roll C, and between the arm B⁴ and the bearing of the roll C′ therein, I place a spring D′ adapted to force the outer end of the roll C′ toward the roll C, and to the arm B⁴, below the slotted bearing B³ therein by means of a pivot *e*, I pivot an arm E having a slotted right-angled extension E′ thereon, which embraces the journal of the outer end of the roll C′ so that when the roll C′ moves back in the slot b^3 the arm E turns upward and closes the opening B⁵ between the outer ends of the rolls C and C′, as illustrated by broken lines in Fig. 4, and prevents the edge of a mop being drawn upward between the rolls from extending beyond the outer ends of the rolls C and C′.

In Fig. 6 I show a modified construction of the guide mechanism for closing the opening between the outer ends of the rolls C and C′, consisting substantially of a horizontally movable guide E² mounted on studs b^4 and b^5 in the arm B⁴, passing through slots e^2 e^2 (shown in broken lines) in the guide E², and on the stud b^5 there is a lever F the upper end of which is provided with a slot *f*, which embraces the journal of the roll C′, and the

lower end of the lever F is provided with a slot f', which engages a stud e' on a downward extension of the movable guide E^2, so that when the roll C′ moves back from the roll C, the lever F swinging on the stud b^5 operates to move the guide E^2 forward, as illustrated in dotted lines in Fig. 6, and close the opening between the outer ends of the rolls C and C′, substantially the same as does the device shown in Figs. 2 and 4.

In operation the mop-frame is inserted between the open ends of the rolls C and C′ and is then drawn upward, and as it is drawn upward between the rolls, the roll C′ moves back against the tension of the springs D and D′, and this movement automatically moves the guides E or E^2 forward so as to close the opening between the outer ends of the rolls and prevent the edge of the mop from pressing out thereat, and thereby insuring the passage of all parts of the mop between the rolls C and C′.

Having thus described my invention so as to enable others to construct and operate the same, what I claim as new and desire to secure by Letters-Patent is:

1. The combination in a mop-wringer of a frame open at one side, a hinge at one edge thereof adapted to be secured to a pail, catches adapted to secure the opposite edge of said frame down upon a pail, a stationary wringer roll mounted in said frame, a yielding roll mounted in said frame opposite said stationary roll, springs acting on the yielding roll, and a guide adapted to close the open side of said frame when the yielding roll is moved back from the stationary roll, substantially as set forth.

2. The combination in a mop-wringer of a semi-circular frame having the front side thereof open, a hinge on said frame by which the same may be secured to a pail, catches adapted to secure the front corners of said frame down upon a pail, a flange on the inner edge of said frame having a fixed journal bearing therein and a slotted journal bearing opposite said fixed bearing, arms on said frame partially closing the front of said frame, one of said arms having a slotted bearing coinciding with the slotted bearing in the rear of said frame, an adjustable slide having a fixed journal bearing therein secured to the opposite of said arms, rollers mounted on journals in said journal bearings, springs acting upon the roller journals mounted in the slotted bearings, and a guide pivoted to the first mentioned arm adapted to close the space between the ends of said arms when the yielding roll is moved away from the fixed roll, and open the same when the yielding roll returns to its normal position, substantially as set forth.

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

JOSEPH C. RINK.

Witnesses:

CHAS. A. SMILEY,

H. M. STURGEON.