Dec. 14, 1926. 1,610,400

H. J. WALTON ET AL

GUARD FOR WRINGERS

Filed Feb. 26. 1926 2 Sheets-Sheet 1

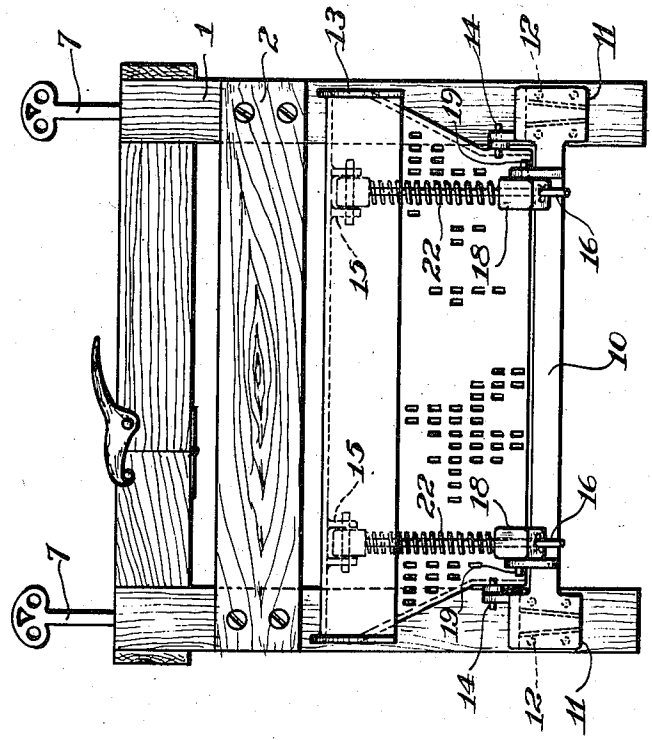


Fig. 2.

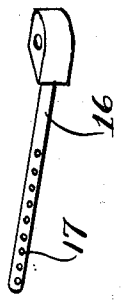


Fig. 8.

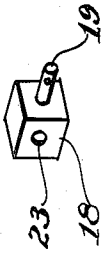


Fig. 7.

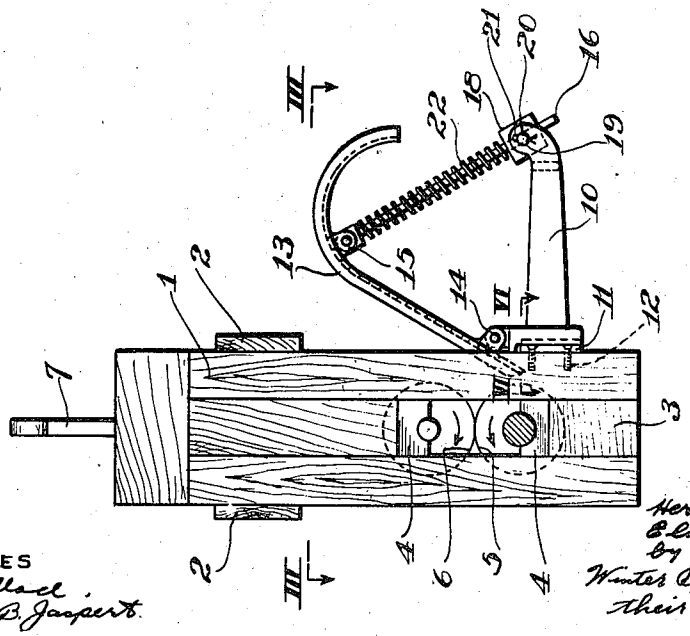


Fig. 1.

WITNESSES

A. B. Wallace

William B. Jaspert

INVENTOR

Herman J. Walton and

Elmer J. Walton

by

Winter Brown & Critchlow

their attorneys.

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GUARD FOR WRINGERS

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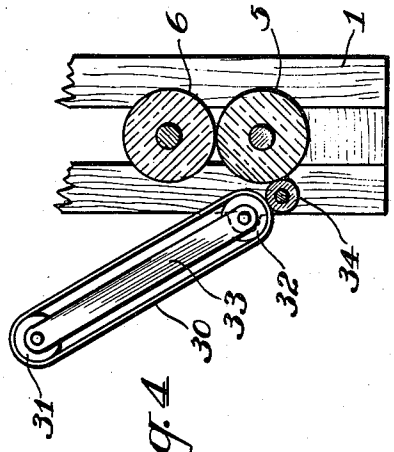


Fig. 4

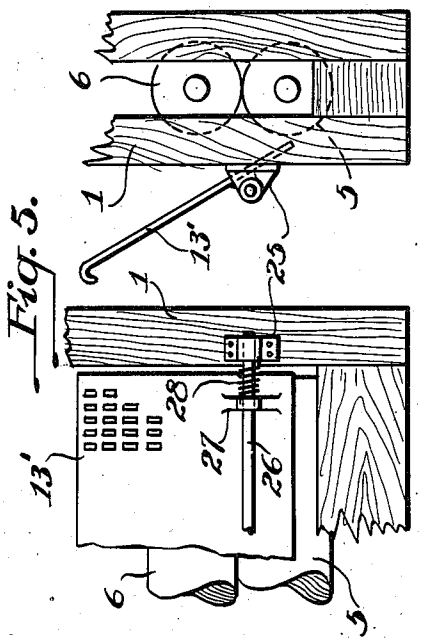


Fig. 5.

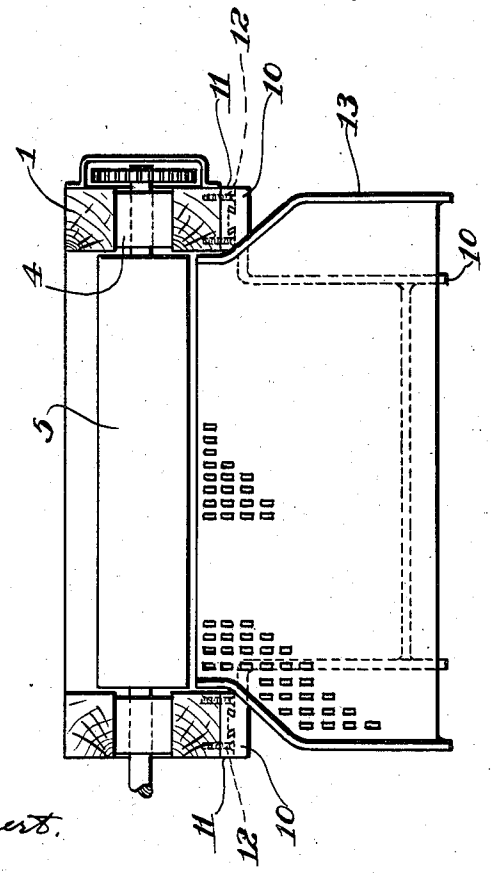


Fig. 3.

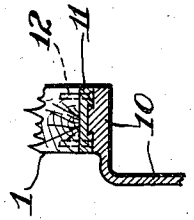


Fig. 6.

WITNESSES

A B Walbert

William B. Jaspert.

INVENTOR

Herman J. Walton and
Elmer J. Walton
by
Winter Brown & Critchlow
their attorneys.

Patented Dec. 14, 1926. 1,610,400

UNITED STATES PATENT OFFICE.

HERMAN J. WALTON AND ELMER J. WALTON, OF TURTLE CREEK, PENNSYLVANIA.

GUARD FOR WRINGERS.

Application filed February 26, 1926. Serial No. 90,779.

This invention relates to clothes wringers, more particularly to a guard for the wringer rolls which is adapted to function as a guide for feeding the clothes into the wringer rolls.

It is among the objects of this invention to provide a combined guard and feeding device for clothes wringers which shall permit the remote feeding of the clothes into the wringer rolls thereby preventing possible harm or injury to the operator.

Another object of this invention is to provide a safety attachment for clothes wringers of the above designated character which shall be of simple, compact and durable mechanical construction and which shall be applicable for use on a standard wringer without requiring any material alteration of the wringer parts.

Another object of this invention is to provide a combined guard and clothes feeding device for wringers which shall be yieldingly mounted on the wringer frame to relieve the strain on the clothes which is normally caused by their weight.

Heretofore various forms of guards for wringer rolls have been proposed which were designed to permit the feeding of clothes into the rolls from a remote position and such guards have been generally of the shape of a hopper. The hopper being a substantially inclined chute obstructed the operator's view of the wringer rolls, and caused the entanglement of clothing in its restricted portion at such times as clothing was wrapped around the rolls.

The present invention obviates these difficulties in that it provides an open curved perforated guard plate, the surface of which is in a plane extending below the upper surface of the lower wringer roll thus affording an unobstructed view at all times and by the provision of resilient supporting means the guard is adapted to assume a position that will provide a suitable inclination of the guard surface relative to the engaging roll surfaces in accordance with the size and the weight of the article which is passed thereover.

In the accompanying drawings constituting a part hereof, and in which like reference characters designate like parts, Fig. 1 is a side elevational view of a clothes wringer embodying the principles of our invention; Fig. 2 is a rear elevational view thereof; Fig. 3 is a plan view taken on the line III—III Fig. 1, illustrating the wringer roll and the perforated guard in its operating position; Fig. 4 is a fragmentary side elevational view of a wringer illustrating a modified form of guard; Fig. 5 illustrates another modification of the roll guard; Fig. 6 is a plan view of a portion of the guard bracket taken along the line VI—VI, Fig. 1; and Figs. 7 and 8 are perspective views of a hinge block and adjustment rod, respectively, which cooperate to adjust the relative angular position of the guard member.

Referring to Figs. 1, 2, 7 and 8 of the drawings, the structure therein illustrated comprises a clothes wringer having the usual upright frame portions 1 rigidly secured by cross members 2 and 3, and having a plurality of bearing blocks 4 for journalling a pair of wringer rolls 5 and 6 which are connected to adapt them for rotation in opposite directions. The wringer is provided with the usual adjustment screws 7 to maintain the proper pressure on the roll bearings.

In accordance with our invention we provide an extension bracket 10 which is secured to the end frames 1 of the wringer by a dove-tail connection with lugs 11 that are secured to the wringer frame in any suitable manner as by wood screws 12, the lugs and the bracket portion cooperating therewith being more clearly illustrated in Fig. 6. A guard 13 comprising a perforated plate of sheet metal or other suitable material of convex shape is mounted on the extension bracket 10 by a hinge connection 14 and the lower portion of the guard extends beyond the hinge 14 in proximity with the lower wringer roll 5. The guard is perforated to drain off water and prevent flooding of the wringer rolls. The guard 13 is provided with lugs 15 as shown in Fig. 1 and a plurality of extension rods 16, Figs. 1 and 8, are pivotally connected to the lugs 15. The rod 16 is provided with openings 17 for the purpose as will be hereinafter set forth.

Pivot blocks 18 having trunnions 19 are secured to the ends of the brackets 10 by disposing the trunnions 19 in openings 20 provided in the bracket and they are maintained in this position by cotter keys 21. Coil springs 22 having a greater over-all length than the restricted portion of the extension rods 16 are disposed around said rods which are extended through openings 23 in the pivot blocks 18, The guard plate 13 is sup-

ported on the brackets 10 by the springs 22 and the latter may be brought under initial tension by compressing them and fixing the position of the extension rods 16 by extending a cotter key or pin in the openings 17. The relative inclined or angular position of the guard 13 may thus be changed at the will of the operator by changing the pins in the openings 17 of the extension rods 16 to the openings corresponding to the desired position of the guard.

As shown in Fig. 5, the guard 13′ may be mounted on the wringer by a pair of hinge brackets 25 which are adapted to receive a rod 26 extending through lugs 27 formed integral with or secured to the guard member 13′. The guard 13′ with this form of construction may be maintained in a suitable inclined position by torsion springs 28 which are disposed around the rod 26 and have their ends secured to the mounting bracket 25 and the guard lug 27, respectively, the torsion springs 28 providing a resilient support for the guard 13′.

In Fig. 4 we have shown another modification of our invention in which the guard member comprises an endless belt 30 passing over rolls 31 and 32 carried by arms 33 which may be mounted on the wringer member in a manner similar to the guard 13. A friction roll 34 is rotatably mounted on a shaft 24 to contact with the lower wringer roll 5 and the outer surface of the belt 30 to transmit motion from the roll 5 to the belt thereby providing a movable conveyor for transmitting the clothing to the wringer rolls.

It will be evident from the foregoing description of our invention that a wringer guard and clothes guide made in accordance therewith provides a simple and safe means for remotely feeding clothing into the wringer rolls without subjecting the operator to the hazards of getting injured by the rolls. And it is further evident that the construction of our guard and clothes guide is relatively inexpensive and readily applied to standard clothes wringer parts.

Although we have described the specific embodiment of our invention it will be obvious to those skilled in the art that various modifications may be made in the details of construction and in the design and arrangement of the several cooperating parts without departing from the principles herein set forth.

We claim:

1. A clothes feeding device for a clothes wringer provided with a frame and a plurality of wringer rolls comprising a support having means to enable the same to be attached to the wringer frame, a perforated hinged plate mounted on said support in alignment with said rolls and below the bite thereof, and resilient means for supporting said plate on said support.

2. A clothes feeding device for a clothes wringer provided with a frame and a plurality of wringer rolls comprising a support having means to enable the same to be attached to the wringer frame, a hinged plate mounted on said support in alignment with said rolls and below the bite thereof, and resilient means for supporting said plate on said support, said means comprising a rod hinged to the underside of said plate, a coil spring disposed on said rod intermediate said plate and its support, and a trunnion member pivotally mounted on the support and having an opening for receiving said rod.

3. A clothes feeding device for a clothes wringer provided with a frame and a plurality of wringer rolls comprising a support having means to enable the same to be attached to the wringer frame, a perforated hinged plate mounted on said support in alignment with said rolls and below the bite thereof, and resilient means for supporting said plate on said support, said means comprising a spring element for yieldingly supporting said plate and means for yieldingly restraining the amount of pivotal movement thereof relative to its support.

In testimony whereof, we hereunto sign our names.

HERMAN J. WALTON.
ELMER J. WALTON.