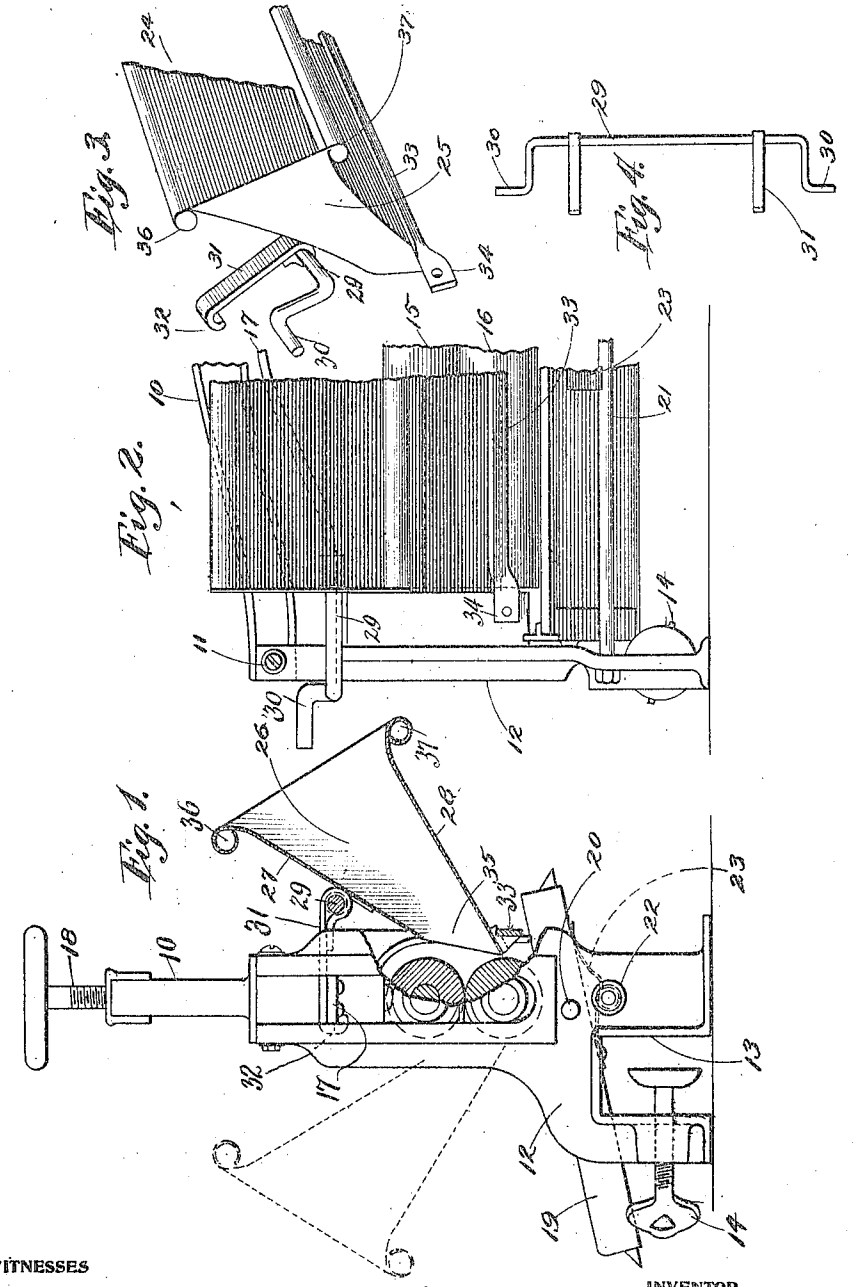
W. PAWLAK.

HOPPER AND GUARD FOR WRINGERS.

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1,161,244. Patented Nov. 23, 1915



WITNESSES

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HOPPER AND GUARD FOR WRINGERS.

1,161,244. Specification of Letters Patent. Patented Nov. 23, 1915.

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To all whom it may concern:

Be it known that I, WILLIAM PAWLAK, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Hoppers and Guards for Wringers, of which the following is a specification.

My invention relates to a combined guard and hopper for wringers, and has for its principal object to provide a safety attachment for wringers for preventing injury to the hands of the operators.

As is well known, it not infrequently happens in the use of power driven machines that the hands of the operators are drawn between the rollers while feeding clothes therethrough, and are seriously injured before the power control can be operated to discontinue the operation of the machine.

The primary object of my invention is to provide an improved attachment adapted to be used with a clothes wringer, whereby the material may be fed thereto without danger of injury to the operator.

Another object is to provide an improved safety attachment for clothes wringers which may be readily attached to or detached from either side of the wringer.

Other objects will be set forth and made apparent in the following specification taken in connection with the accompanying drawings, in which:

Figure 1 is an end elevation of my wringer and safety attachment, a part of the structure being shown in section; Fig. 2 is a fragmentary side elevation of the same; Fig. 3 is a perspective view of my safety attachment; Fig. 4 is a detail view of the means for attaching the safety device to the wringer.

Like reference numerals refer to like parts and elements in the several figures of the drawings.

The top cross member of the wringer designated by the numeral 10 is secured at its ends in any suitable manner as shown at 11 to the upper ends of the side frame members 12. The lower ends of the side members 12 are recessed, as shown at 13, to engage the side of a wash tub or washing machine or other suitable support. The usual clamp screw 14 is adapted to engage the portion of the support within the opening 13, in each side member of the wringer frame, thereby holding the wringer rigidly in position.

The usual oppositely rotating rollers 15 and 16 between which the clothes pass and by which the water is squeezed out of the clothes, are journaled at their ends in bearings located within vertical slots in the side members of the supporting frame. A leaf spring 17 is located above the upper roller 15 and extends across the wringer, bearing at its ends on the bearings of said roller whereby said roller is forced into yielding contact with the lower roller 16. The pressure with which the upper roller contacts with the lower roller is regulated by means of the adjusting screw 18 which threadedly engages the top cross member 10 at the center thereof and bears at its lower end on the upper surface of the spring 17. Beneath the rollers 15 and 16 there is located a board 19 which is pivoted at its ends in the side frame members, as shown at 20, and is therefore capable of being inclined in either direction with respect to the vertical plane of the wringer. Below the board 19 and between the side frame members is a rod 21 which rigidly engages said side frame members by any suitable means, as shown at 22, and holds the lower ends of said members in fixed relation to each other. The lower side of the board 19 carries a leaf spring 23 which frictionally engages the rod 21 and thereby operates to hold the board 19 at any desired inclination in order to drain the water extracted from the clothes into any suitable vessel at either side of the wringer.

One end of the shaft of the roller 16 extends through the side frame and is operatively connected to a source of power. The shafts of the rollers 15 and 16 carry intermeshing gear wheels within the side frames whereby rotation is communicated from the lower to the upper roller. (Not shown in the drawings.)

The foregoing features do not in themselves constitute a part of my invention, since they are the parts of an ordinary wringer.

My invention comprises a combined guard and feeding hopper designated generally by the numeral 24 having end walls 25 and 26 and upper and lower walls 27 and 28, respectively, formed preferably of sheet metal.

The various walls are joined along their meeting edges by means of pressed joints or by soldering or other means, or the hopper may be of one-piece pressed metal construction. Pivotally attached to the upper surface of the upper wall 27 of the hopper is a rod 29 provided at its ends with offset handles 30. The rod 29 has rigidly secured thereto intermediate the handles 30, and preferably in the same plane with the lever arms of the side handles 30, hooks 31 having down-turned portions 32 adapted to engage the leaf spring 17 or other cross member when the hopper is in position on the wringer.

Attached to the lower wall 28 adjacent the lower edge thereof, is a rod 33 having lugs 34 at each end which project beyond the ends of the hopper and are adapted to abut against the wringer frame or associated parts when the hopper is in position. The lugs 34 may also be formed separately from each other and secured by any suitable means to the hopper at opposite sides thereof. The upper and lower walls 27 and 28 of the hopper converge downwardly toward the rollers and terminate adjacent said rollers leaving an opening 35 therebetween, opposite the line of contact of the rollers. The lower edges of the walls 27 and 28 are preferably substantially in the same horizontal planes with the axes of the respective rollers 15 and 16. The upper portions of the walls 27 and 28 are preferably bent to form rounded edges, as shown at 36 and 37 thereby lessening the danger of injury to the hands of the operator while feeding clothes to the wringer.

The guard or hopper is attached to the wringer by placing said hopper at either side of the wringer with the aperture 35 opposite the line of contact of the rollers and with the lugs 34 contacting with the wringer frame. The members 31 are then inserted between the leaf spring 17 and the top cross member 10 and finally pressed downwardly by means of the handles 30 until the members 31 rest on the leaf spring 17, after which a slight pull on the handles 30 away from the machine, supplemented by the weight of the guard or hopper, will cause the hooks 32 on the members 31 to engage the edge of the leaf spring 17 at the opposite side of the wringer from said hopper. The handles 30 are then in the position at the ends of the wringer, shown in Fig. 2, and are readily accessible. The lugs 34 project only a short distance beyond each end of the hopper so that they are not engaged by the uppermost edges of the frame of the board 19, should the board 19 be tilted to the position shown in Fig. 1. Thus, in case clothes become wound around the rollers or become clogged in the hopper adjacent the rollers, the lower part of the hopper will be free to swing outwardly away from the wringer thereby obviating the danger of injury to the clothes, or the parts of the device.

It will be apparent that when my guard or hopper is assembled on the wringer, it will be impossible for the operator to injure his hands between the rollers, as the rollers are completely guarded by my safety device and there is no occasion for the operator to place his hands near the rollers. It is furthermore apparent that it would be inconvenient for the operator to allow his hands to be drawn into the rollers, since the aperture 35 in the hopper is comparatively small and the operator's fingers could not be drawn between the rollers unless he intentionally placed his hands within the hopper and inserted his fingers between said rollers.

It is apparent that owing to the downward inclination of the walls of the guard or hopper, clothes fed therein will pass downwardly to the rollers without making it necessary for the operator to place his hands in the lower portion of the hopper.

It is also obvious that my combined guard and hopper may be attached at either side of the wringer, depending on the direction of the rotation of the rollers and the location of the tub or washing machine containing the wet clothes. The dotted lines in Fig. 1 indicate the position of the guard or hopper when attached at the other side of the wringer.

In the foregoing description I have particularly described a convenient form of my invention such as is preferred by me at this time, but it is obvious that my invention may be embodied in guards or hoppers of widely different form without departing from the spirit of my invention as embodied in the appended claims.

What I claim is:—

1. The combination with a clothes wringer comprising oppositely rotating rollers, of a guard comprising a feeding hopper, having upper and lower walls provided with rolled upper edges, said walls converging toward and terminating adjacent said rollers, and means to detachably secure said hopper to said wringer.

2. A guard, adapted to be used with a clothes wringer, comprising a feeding hopper having end walls and downwardly converging upper and lower walls, and means to detachably suspend said guard from said clothes wringer.

3. A guard adapted to be used with a clothes wringer, comprising a feeding hopper having end walls and converging upper and lower walls, and hooks pivoted on said guard and engaging a part of said wringer, whereby said guard is detachably secured to said wringer and is free to oscillate about said hooks under the influence of the clothes passing through said wringer.

4. A guide-member adapted to be used with a clothes wringer, said guide-member having pivotally secured thereto a rod, said rod carrying hooks adapted to engage a part of said wringer, whereby said guide member is secured to said wringer, said rod being further provided with offset handles adjacent each end of said wringer.

5. The combination with a clothes wringer comprising oppositely rotating rollers, of a guide-member adapted to feed clothes to said rollers, said guide-member being pendulously attached from its upper portion to said wringer, whereby said guide-member is free to swing away from said rollers.

6. The combination with a clothes wringer comprising oppositely rotating rollers, side frame members and a cross member, of a guide member having downwardly converging walls terminating opposite said rollers, said guide member having outwardly projecting hooks pivoted on the upper portion thereof and adapted to engage said cross member when said guide member is placed at either side of said wringer.

7. The combination with a clothes wringer comprising oppositely rotating rollers, side frame members, and a cross member, of a guide member having upper and lower walls converging toward and terminating opposite said rollers, and means secured to the upper portion of said guide member to permit pivotal attachment of said guide member to said wringer, the pivotal axis being spaced outwardly from said wringer.

8. The combination with a clothes wringer of a detachable guide member, and means to permit pivotal attachment of said guide member at either side of said wringer.

9. The combination with a clothes wringer comprising oppositely rotating rollers, of a feeding hopper having upper and lower downwardly converging walls, said walls terminating at their lower extremities substantially horizontally opposite the longitudinal center lines of said rollers.

10. The combination with a clothes wringer comprising rollers, side frame members and a cross member, of a guard member adapted to feed clothes to said rollers, and means pivotally engaging said guard member and attached to said cross member for securing said guard member to said wringer.

11. The combination with a clothes wringer, comprising rollers and a cross member, of a device for feeding clothes to said rollers, and means for attaching said clothes-feeding device to the cross member of said wringer.

In testimony whereof, I have subscribed my name.

WILLIAM PAWLAK.

Witnesses:
ANDREW H. DRESSEL,
HARRY SCHOENE.