June 4, 1929. L. A. HERSH 1,716,055

CLOTHES WRINGER

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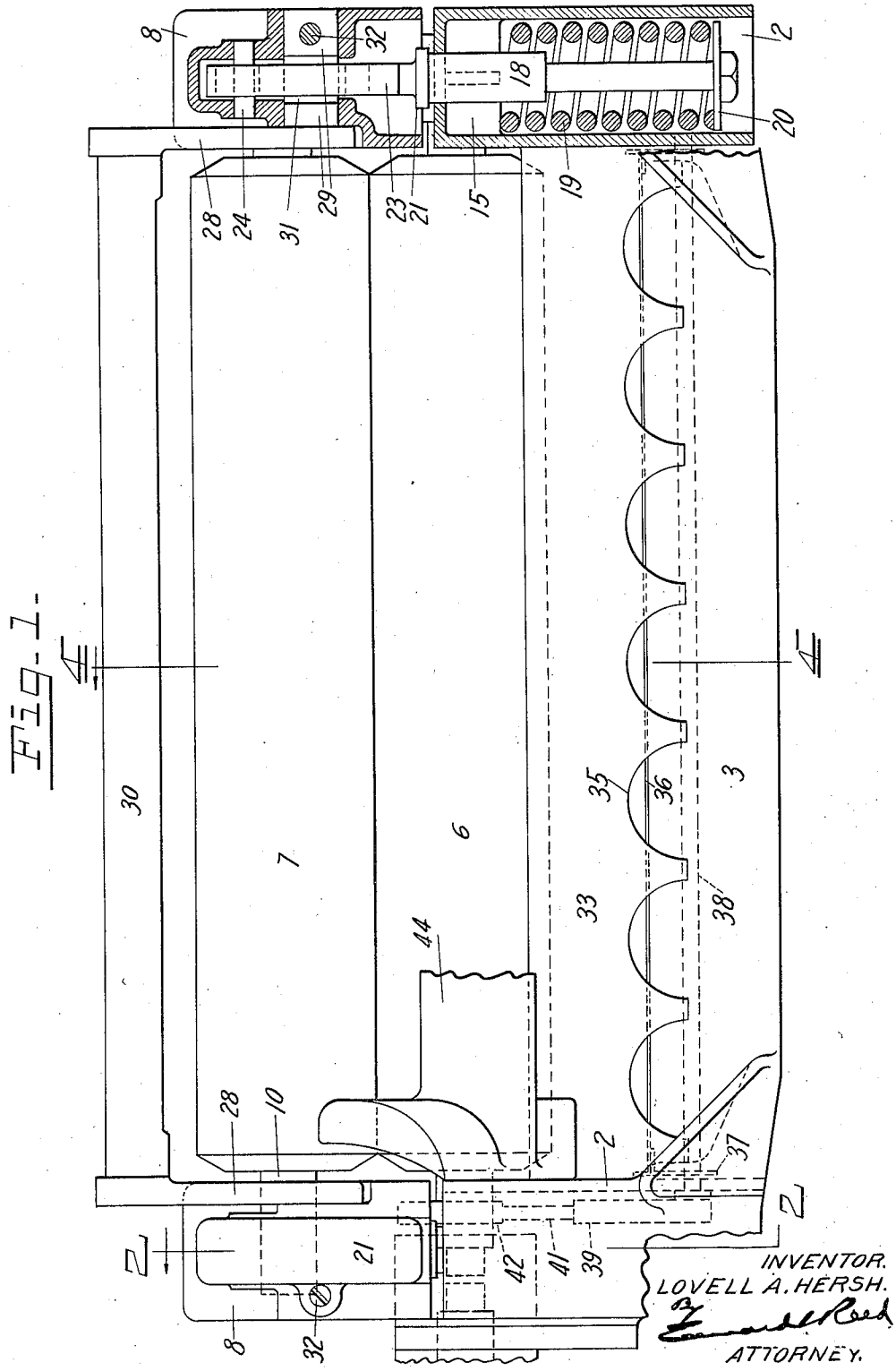


Fig. 1.

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Fig. 2.

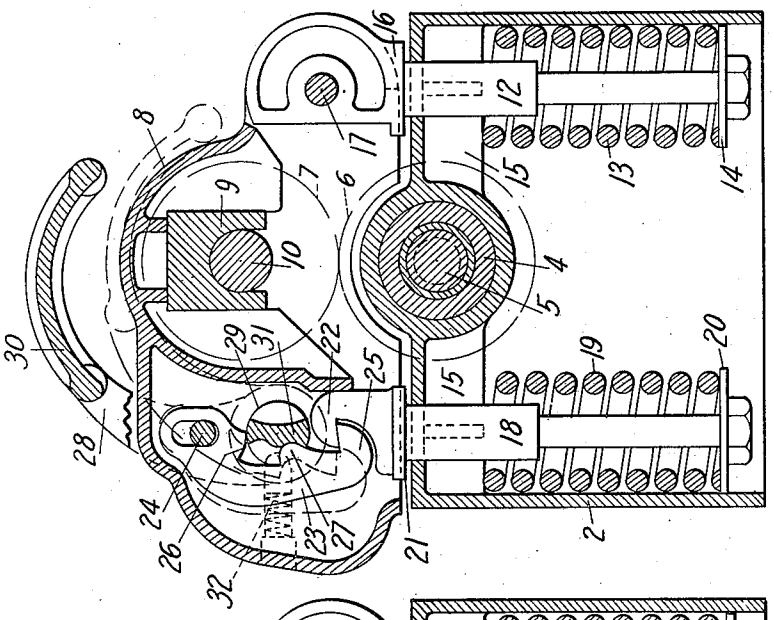
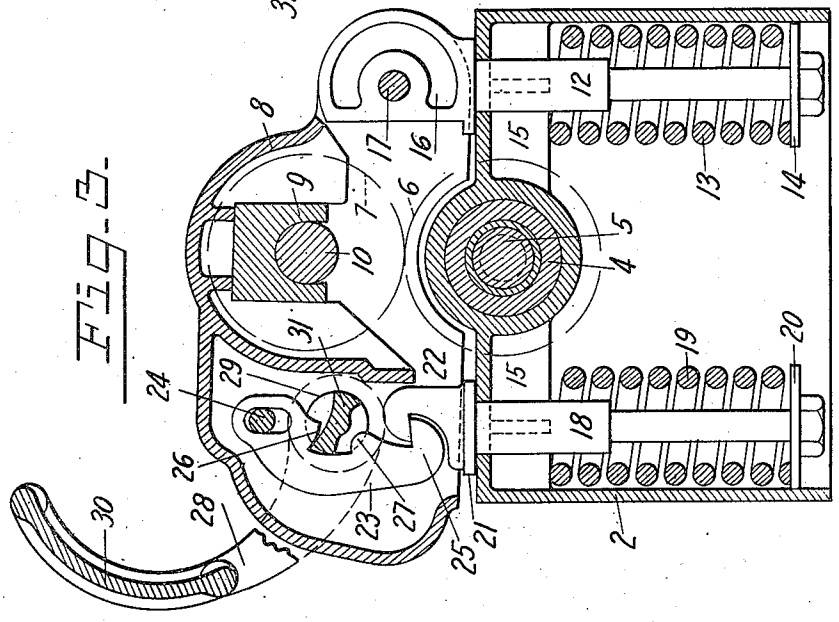


Fig. 3.



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CLOTHES WRINGER

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Fig. 4.

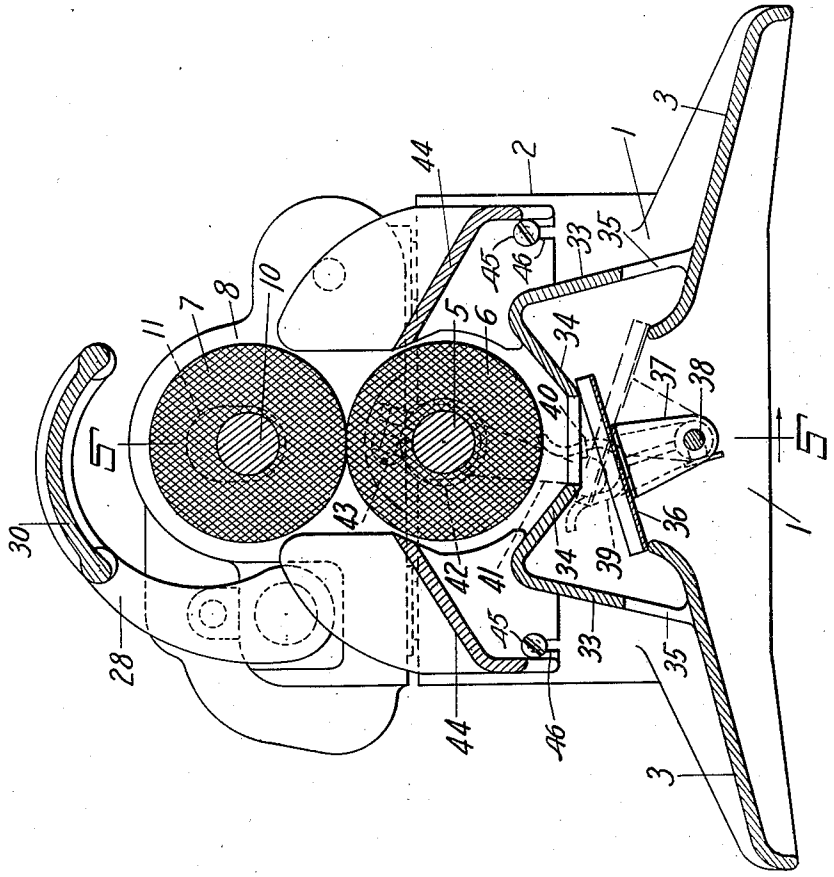
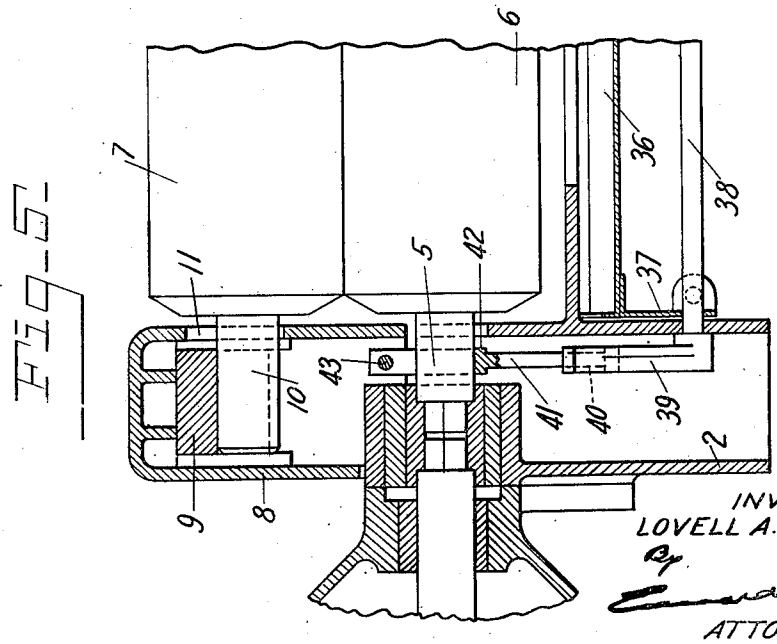


Fig. 5.



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Patented June 4, 1929. 1,716,055

UNITED STATES PATENT OFFICE.

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CLOTHES WRINGER.

Application filed February 25, 1929. Serial No. 342,354.

This invention relates to clothes wringers, and one object of the invention is to provide a clothes wringer with improved means for releasing the upper roller from the pressure springs, in case of an emergency, which will be of such a character that it may be quickly and easily operated from either side of the wringer.

A further object of the invention is to provide a clothes wringer of the four spring type in which the upper roller will be so connected with the pressure springs that it can be quickly and easily disconnected from and again connected with the same.

A further object of the invention is to provide a clothes wringer having improved means for automatically actuating a shutter for directing the water from the rollers to the drain boards.

A further object of the invention is to provide such a clothes wringer which will be simple in its construction and operation and which may be built at a relatively low cost.

Other objects of the invention will appear as the device is described in detail.

In the accompanying drawings Fig. 1 is a side elevation of a wringer embodying my invention, partly in section; Fig. 2 is a vertical section taken on the line 2—2 of Fig. 1; showing the actuating device, for releasing the upper roller, in its normal position; Fig. 3 is a similar view showing the actuating device in position to reestablish the connection between the upper roller and the pressure springs; Fig. 4 is a section taken on the line 4—4 of Fig. 1; and Fig. 5 is a section taken on the line 5—5 of Fig. 4.

In these drawings I have illustrated one embodiment of my invention but it will be understood that this particular embodiment has been chosen for the purposes of illustration only and that the mechanism may take various forms without departing from the spirit of the invention.

In that embodiment of the invention here illustrated, the wringer comprises a main frame 1 having at its respective ends upright members 2, which are preferably hollow and which are connected one to the other at their lower ends by transverse members 3 which constitute drain boards and which are preferably cast integral with the end members 2. The end members 2 are provided with alined bearings 4 in which is journaled the shaft 5 of the lower wringer roller 6.

The upper roller 7 is connected with the main frame through the medium of supporting structures 8 pivotally mounted near the respective ends of the main frame. Each supporting structure is hollow, and preferably substantially U-shaped in cross section, as shown in Fig. 5, and the bearings 9 for the shaft 10 of the upper roller are mounted within this hollow structure. Preferably the shaft extends through openings 11 in the inner walls of the supporting structures which serve to prevent the roller dropping out of the supporting structures when the latter are moved away from the lower roller. Preferably the supporting structures are pivotally mounted on the respective end members of the main frame at one side of the lower roller and, in the present construction, the supporting structures are pivotally mounted to the upper ends of pressure devices carried by the main frame. Preferably each of these pressure devices comprises a plunger 12 slidably mounted in one of the end members of the main frame and its upward movement is resisted by a spring 13 coiled about the same and confined between a stop or washer 14 at the lower end of the plunger and ribs 15 adjacent to the top of the end member of the frame. The upper end of the plunger projects above the end member of the frame and is provided with an enlarged head 16 which contacts with the top wall of the end member to limit the downward movement of the plunger and to which the adjacent supporting structure 8 is pivotally connected, as shown at 17.

On that side of the lower roller 6 opposite the axes of the supporting structures 8 the end members of the main frame are provided with a second set of pressure devices similar to those just described and each comprising a plunger 18 slidably mounted in the end member and acted upon by a spring 19 confined between the washer 20 at the lower end of the plunger and the ribs 15 at the upper ends of the end members. These plungers also extend above the top of the end members of the frame and are provided with enlarged heads 21 which limit the

downward movement thereof and are of such a character that the adjacent ends of the supporting structures may be connected therewith. In the present instance, each head 21 is hook shaped, as shown at 22, and constitutes a keeper. Each supporting structure 8 carries a connecting device which is here shown as a latch 23 pivotally and slidably mounted at its upper end on a pin 24 carried by the supporting structure and having at its lower end a nose or hook shaped portion 25 adapted to engage the keeper 22 of the plunger 18 and thus cause the pressure device, of which that plunger is a part, to resist the movement of the supporting structure and the upper roller away from the lower roller. Each latch has at its upper portion, and below the pin 24, a curved shoulder or cam surface 26 and is provided between this cam surface and the nose 25 with an inwardly extending projection 27.

The position of the latch is controlled by an actuating device, which, in the present construction, comprises two arms 28 having trunnions 29 journaled in the respective supporting structures and adapted to normally extend above the axis of the upper roller. Preferably the arms 28 are rigidly connected one to the other and, in the present instance, this connection is in the form of a plate or canopy 30 which overhangs the upper roller and constitutes a guard therefor. The trunnion 29 of each arm of the actuating device has a cam shaped portion 31 arranged in line with the latch 23 and of such a character that when the arms of the actuating device are in the position shown in full lines in Fig. 2 the upper end of the cam shaped portion 31 of the trunnion 29 will be in contact with the cam surface 27 of the adjacent latch 23 and will thus hold that latch against both pivotal and sliding movement, thereby maintaining the connection between the supporting structure and the pressure device and causing the latter to resist the upward movement of the supporting structure and the upper roller. The arms of the actuating device, when in their normal positions, are spaced a short distance above the upper roller 7 and are preferably retained in this position by yieldable detents 32 engaging the respective trunnions 29. The downward movement of the arms of the actuating device, and of the canopy 30, to the position shown in dotted lines in Fig. 2 will move the upper ends of the cam shaped portions 31 of the trunnions 29 out of contact with the cam surfaces 26 of the latches and the lower parts of the cam shaped portions of the trunnions will engage the projections 27 on the latches and move the latter outwardly. This movement may or may not be sufficient to wholly disengage the latches from the keepers of the pressure devices. In the present instance, the arrangement is such that the latches are moved wholly out of engagement with the keepers and after the upper end of the cams 31 are moved out of engagement with the cam surfaces 26 of the latches, the edges of the latches, at the ends of the cam surfaces 26, will move downwardly and engage the outer surfaces of the cams 31, above their centers, and thus impart further rotation to the latches and in this manner cause the latches to be moved such a distance as to provide ample clearance between the same and the keepers 22 to insure the release of the supporting structures from the pressure devices. The downward movement of the latches to thus complete the disengagement thereof from the keepers is imparted thereto by the pressure devices. These pressure devices are so arranged that, when the supporting structures are connected therewith, the contact of the upper roller with the lower roller will result in a slight compression of the springs, thus lifting the heads 16 and 21 of the pressure devices away from the top wall of the end members of the main frame and causing the plungers 18 of the one set of pressure devices to exert a constant downward pull on the keepers 22 and the latches 23. This pull is normally resisted by the cams 31 but when these cams are moved out of contact with the latches the pull of the pressure devices will move the latches downwardly as above described.

It will be apparent that the canopy 30 which, in the present instance, extends for the full length of the upper roller, is so arranged that it can be quickly and easily engaged by either hand of the operator from either side of the wringer and as the operative movement thereof is in a downward direction it may be very quickly and easily operated to release the upper roller. When the supporting structures have been released from the pressure devices they may be swung about their axes to permit full access to be had to both rollers. When the supporting structures are to be again connected with the pressure devices, the actuating device is swung outwardly to the position shown in Fig. 3 and in this position the cam shaped portions 31 of the trunnions 29 will be in line with the spaces between the cam surfaces 26 and the projections 27 of the latches and the latches will be free to move downwardly with relation to their pivot pins 24 so that they may swing into operative engagement with the keepers of the respective pressure devices. Any suitable means may be provided for causing the latches to move into engagement with the keepers but, in the present instance, they are so constructed that they will move into engagement with the keepers by gravity. After the latches have engaged the keepers the arms of the actuating device are moved

inwardly thus causing the upper ends of the cam portions 31 of the trunnions 29 to engage the cam surfaces 26 of the latches and lift the latter against the action of the springs of the pressure devices. The inward movement of the actuating device is continued until it is checked or resisted by the yieldable detent 32, at which time the cams 31 are in their locking positions.

Extending upwardly from each of the drain boards 3, on a line spaced from the inner edge thereof, is a member or plate 33 having at its upper end an inwardly and downwardly extending flange 34, the two flanges converging downwardly beneath the lower roller 6 and having their inner edges spaced apart. The plates 33 are of such a character as to provide passageways between the same and the drain boards. In the present instance, the lower edges of the plates are cast integral with the drain boards and are provided with a series of openings or recesses 35 through which the water may pass. A shutter is provided for directing the water from the flanges 34 to one or the other of the drain boards, according to the direction in which the wringer is being operated, it being understood, of course, that the wringer is reversible. The members or plates 33 being formed integral with the frame members and drain boards serve to reinforce the frame structure. The inwardly extending flanges 34 permit the use of a narrow shutter having a short movement and therefore requiring less clearance between the drain boards and the lower roller. The shutter is entirely enclosed by the members 33 and thereby concealed from view, thus imparting a more finished appearance to the wringer and, further, these members act as guards to prevent buttons or other parts of the clothes from catching on the shutter as they are fed to the wringer rollers.

The shutter is here shown at 36 as carried by downwardly extending arms 37 which are secured at their lower ends to a shaft 38 journaled in the inner walls of the end members 2. One end of the shaft 38 extends into one of the end members and has rigidly secured thereto an arm 39, the upper part of which is bifurcated, to provide the same with a recess 40, the upper end of which is open. A second arm 41 is carried by the shaft 5 of the lower roller 6 and extends into the recess in the arm 39. The arm 41 is so connected with the shaft 5 of the roller that it will move with that shaft during the initial rotation thereof and thus cause the shutter to be shifted from one position to the other, and after the shutter has completed its movement the shaft will rotate with relation to the arm 41. In the present construction this connection is in the form of a split collar or bearing 42 formed integral with the arm 41 and embracing the shaft 5. There is sufficient frictional contact between the bearing collar 42 and the shaft to cause the arm to move with the shaft until positive resistance is offered to its movement but this frictional resistance is so slight that when the movement of the shutter and arm 39 has been checked, by the contact of the shutter with the edge of one of the drain boards, the shaft can then rotate in the bearing collar. As here shown, a screw 43 connects the ends of the split collar 42 and serves to regulate the frictional contact of the same with the shaft. The shutter is of such a width that it may be passed between the inner ends of the drain boards to a position above the same, thus greatly facilitating the assembling of the wringer mechanism. By arranging the axis of the shutter below the same a transverse bodily movement, as well as a tilting movement, may be imparted to the shutter to cause the same to overlap the edge of that drain board toward which it is tilted.

In the present device I have also provided guards and clothes guides 44 on the opposite sides of the lower roller, these guards being removable and adapted to be supported by the upper edges of the members 33 of the water shed and by studs 45 mounted on the frame and entering slots 46 in the ends of the guards.

While I have shown and described one embodiment of my invention I wish it to be understood that I do not desire to be limited to the details thereof as various modifications may occur to a person skilled in the art.

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

1. In a clothes wringer, a frame, a lower roller carried by said frame, supporting structures pivotally mounted on said frame near the respective ends thereof and at one side of said lower roller, an upper roller journaled in said supporting structures, yieldable devices carried by said frame at that side of said lower roller opposite the axes of said supporting structures, connecting members mounted on said supporting structures for movement therewith and for movement with relation thereto into positions to engage the respective yieldable devices and cause the latter to resist the movement of said supporting structures and said upper roller away from said lower roller, and an actuating device having a part arranged normally above said upper roller and having means movable with relation to said connecting members and controlled by the downward movement of said part to cause said connecting members to be moved out of engagement with said yieldable devices and thereby release said supporting structure

and said upper roller for movement away from said lower roller.

2. In a clothes wringer, a frame, a lower roller carried by said frame, supporting structures pivotally mounted on said frame near the respective ends thereof and at one side of said lower roller, an upper roller journaled in said supporting structures, yieldable devices carried by said frame at that side of said lower roller opposite the axes of said supporting structures, connecting members mounted on said supporting structures for movement therewith and for movement with relation thereto into positions to engage the respective yieldable devices and cause the latter to resist the movement of said supporting structures and said upper roller away from said lower roller, and an actuating device having a part pivotally mounted on one of said supporting structures separately from its connecting member and extending transversely to and above said upper roller, said actuating device also having means controlled by the downward movement of said part to actuate said connecting members and disconnect said supporting structures from said yieldable devices.

3. In a clothes wringer, a frame, a lower roller carried by said frame, supporting structures pivotally mounted on said frame near the respective ends thereof and at one side of said lower roller, an upper roller journaled in said supporting structures, yieldable devices carried by said frame at that side of said lower roller opposite the axes of said supporting structures, connecting members mounted on said supporting structures for movement therewith and for movement with relation thereto into positions to engage the respective yieldable devices and cause the latter to resist the movement of said supporting structures and said upper roller away from said lower roller, an actuating device comprising arms pivotally mounted on the respective supporting structures separately from said connecting members and extending transversely to said upper roller, a plate carried by said arms and arranged normally above said upper roller and spaced therefrom, said actuating device also comprising means actuated by the downward movement of said plate and said arms to actuate said connecting members and disconnect said supporting structures from said yieldable devices.

4. In a clothes wringer, a frame, a lower roller carried by said frame, supporting structures pivotally mounted on said frame near the respective ends thereof, an upper roller journaled in said supporting structures, yieldable devices carried by said frame and having parts forming keepers, latches carried by the respective supporting structures and arranged to operatively engage the respective keepers to cause said yieldable devices to resist the upward movement of said supporting structure and said upper roller, and an actuating device comprising parts pivotally mounted on the respective supporting structures adjacent to said latches and arranged normally in positions transverse to and above said upper roller, said actuating device also having means controlled by the downward movement of said parts from said normal position to move said latches out of engagement with said keepers and thus release said supporting structures.

5. In a clothes wringer, a frame, a lower roller carried by said frame, supporting structures pivotally mounted on said frame near the respective ends thereof, an upper roller journaled in said supporting structures, yieldable devices carried by said frame and having parts forming keepers, latches carried by the respective supporting structures and arranged to operatively engage the respective keepers to cause said yieldable devices to resist the upward movement of said supporting structures and said upper roller, an actuating device comprising rotatable members having parts to engage the respective latches and retain the same in engagement with said keepers and having other parts to engage said latches and move the same away from said keepers, and means connected with said rotatable members and arranged above said upper roller for imparting rotatory movement to said members.

6. In a clothes wringer, a frame, a lower roller carried by said frame, supporting structures pivotally mounted on said frame near the respective ends thereof, an upper roller journaled in said supporting structure, yieldable devices carried by said frame and having parts forming keepers, latches carried by the respective supporting structures and arranged to operatively engage the respective keepers to cause said yieldable devices to resist the upward movement of said supporting structure and said upper roller, trunnions journaled in the respective supporting structures and having parts arranged to engage the respective latches and retain the latter in engagement with said keepers, an arm connected with each of said trunnions, a plate connecting said arms one with the other and arranged normally above said upper roller, said parts of said trunnions being so arranged that the downward movement of said arms will move said part of said trunnion out of engagement with the respective latches and will cause other parts of said trunnions to impart positive movement to said latches.

7. In a clothes wringer, a frame, a lower roller carried by said frame, supporting structures pivotally mounted on said frame near the respective ends thereof, an upper

roller journaled in said supporting structures, yieldable devices carried by said frame and having parts forming keepers, latches pivotally and slidably mounted on the respective supporting structures and having parts adapted to engage the keepers of the respective yieldable devices, said latches having downwardly facing shoulders, trunnions journaled in the respective supporting structures and having parts to normally engage the shoulders of the respective latches and retain said latches in engagement with said keepers, said parts being movable out of engagement with said shoulders by the rotation of said trunnions and said trunnions having other parts so arranged that the rotation of said trunnions will cause them to engage said latches and impart movement thereto with relation to said keepers, and means connected with said trunnions for imparting rotary movement thereto.

8. In a clothes wringer, a frame, a lower roller carried by said frame, supporting structures pivotally mounted on said frame near the respective ends thereof, an upper roller journaled in said supporting structures, yieldable devices carried by said frame and having parts forming keepers, latches mounted on the respective supporting structures for pivotal movement and for vertical sliding movement and having parts adapted to move into engagement with the respective keepers when said latches are in their lowermost positions, rotatable members mounted on the respective supporting structures and having parts to engage said latches to impart vertical movement thereto and to retain said latches in engagement with said keepers, said parts being so arranged that a further rotation of said members in the same direction will move said parts out of supporting engagement with said latches, said rotatable members also having parts so arranged that said continued rotation of said members will cause the last mentioned parts to engage said latches and impart movement thereto with relation to said keepers, and means for imparting rotary movement to said rotatable members.

9. In a clothes wringer, a frame, a lower roller carried by said frame, supporting structures pivotally mounted on said frame near the respective ends thereof, an upper roller journaled in said supporting structures, yieldable devices carried by said frame and having parts forming keepers, latches mounted on the respective supporting structures for pivotal movement and for vertical sliding movement and having parts adapted to move into engagement with the respective keepers when said latches are in their lowermost positions, and also having downwardly facing shoulders, trunnions journaled in the respective supporting structures and having parts extending above the axes thereof and arranged to engage the shoulders of the respective latches to impart upward movement thereto and to retain said latches in engagement with said keepers, said parts being so arranged that a further movement of said trunnions in the same direction will move said parts out of line with the respective shoulders and will cause parts of said trunnions below the axes thereof to engage said latches and move the same with relation to said keepers, the first mentioned parts of said trunnions being so arranged that the downward movement of said latches will impart a further rotation to said trunnions and thus impart a further movement to said latches with respect to said keepers, and means for actuating said trunnions.

10. In a clothes wringer, a frame, a lower roller carried by said frame, a pair of yieldable devices mounted on said frame near the respective ends thereof and at one side of said lower roller, supporting structures pivotally mounted on the respective yieldable devices and extending transversely to said lower roller, an upper roller journaled in said supporting structures, a second pair of yieldable devices mounted on said frame near the respective ends thereof on the opposite side of said lower roller, the yieldable devices of the last mentioned pair having parts forming keepers, latches movably mounted on the respective supporting structures and having parts movable into and out of engagement with the respective keepers, and an actuating device mounted on said supporting structures and having parts to engage the respective latches and retain the same in engagement with said keepers and also having a part arranged above said upper roller to move the first mentioned part out of engagement with said latches and permit the latter to be moved out of engagement with said keepers.

11. In a clothes wringer, a frame, a lower roller carried by said frame, a pair of yieldable devices mounted on said frame near the respective ends thereof and at one side of said lower roller, supporting structures pivotally mounted on the respective yieldable devices and extending transversely to said lower roller, an upper roller journaled in said supporting structures, a second pair of yieldable devices mounted on said frame near the respective ends thereof on the opposite side of said lower roller, the yieldable devices of the last mentioned pair having parts forming keepers, latches mounted on the respective supporting structures for pivotal movement and for vertical sliding movement and having parts to engage the respective keepers and also having downwardly facing shoulders, arms pivotally mounted on the respective supporting structures and extending transversely to said upper roller, trunnions connected with said arms and hav-

ing parts to engage the shoulders on the respective latches to impart upward movement thereto and to retain said latches in engagement with said keepers, said parts of said trunnions being so arranged that the downward movement of said arms will move said parts out of engagement with said shoulder and thereby release said latches for pivotal movement with relation to said keepers.

12. In a clothes wringer, a frame, a pair of wringer rolls, drain boards at the opposite sides of said frame having their adjacent edges spaced apart, a shutter arranged beneath said rollers and above said drain boards, said shutter being of such a width that it may be passed between said drain boards, means for mounting said shutter for tilting movement and for transverse bodily movement to cause it to overlap the inner edge of either of said drain boards, an operating member connected with said shutter, a second operating member connected with the lower roller, said operating members having cooperating parts to cause one of them to be actuated by the other, and means for causing the last mentioned operating member to move with the lower roller during the initial movement of said lower roller, thereby tilting said shutter, and to permit said lower roller to rotate with relation to said last mentioned operating member after said shutter has reached the limit of its movement.

13. In a clothes wringer, a frame, a pair of wringer rollers, drain boards at the opposite sides of said rollers, and a shutter pivotally mounted beneath said rollers for tilting movement toward either of said drain boards, a shaft mounted on said frame beneath said shutter, supporting members connected with the respective ends of said shutter, extending downwardly therefrom and secured to said shaft, an arm secured to said shaft and extending upwardly therefrom, a second arm connected with the lower roller and extending downwardly therefrom, one of said arms having a recess to receive the adjacent end of the other arm, and means to cause said second arm to move with said roller during the initial movement thereof, and thereby tilt said shutter, and to permit said roller to rotate with relation to said second arm after said shutter has reached the limit of its movement.

14. In a clothes wringer, a frame, wringer rollers carried by said frame, drain boards carried by said frame at the opposite sides thereof and having their inner edges spaced apart, members extending upwardly from the respective drain boards, having their lower edges spaced outwardly from the inner edges of said drain boards and arranged to provide passageways for water between the same and the respective drain boards, said members having at their upper end flanges which extend inwardly and downwardly beneath the lower wringer roller, the inner edges of said flanges being spaced apart, a shutter pivotally mounted beneath said flanges for movement into a position in which one edge thereof will overhang one of said drain boards and the other edge thereof will be beneath and adjacent to the flange of the upwardly extending member of the other drain board, and means for actuating said shutter to reverse its position with relation to said drain boards.

15. In a clothes wringer, a frame, wringer rollers carried by said frame, drain boards carried by said frame at the opposite sides thereof and having their inner edges spaced one from the other, a shutter pivotally mounted beneath the lower wringer roller for tilting movement toward either of said drain boards, plates extending upwardly from the respective drain boards and having their lower edges spaced outwardly from the inner edges of said drain boards and arranged to provide passageways for water between the same and the respective drain boards, said plates having means to direct the water from said rollers toward said shutter.

16. In a clothes wringer, a frame, wringer rollers carried by said frame, drain boards carried by said frame at the opposite sides thereof, a shutter mounted beneath the lower wringer roller for tilting movement toward either of said drain boards, and plates extending upwardly from the respective drain boards on the opposite sides of said shutter to points above said shutter and arranged to provide passageways for water between the same and the respective drain boards.

17. In a clothes wringer, a frame, a lower roller carried by said frame, supporting structures movably mounted on said frame near the respective ends thereof, an upper roller journaled in said supporting structures, yieldable devices mounted on said frame, connecting devices carried by and movable with relation to the respective supporting structures into and out of position to connect said supporting structures with the respective yieldable devices and to cause the latter to resist the movement of said supporting structures and said upper roller in a direction away from said lower roller, and an actuating device movably mounted on said supporting structures and having a part arranged above said upper roller and supported normally in a position between the upper and lower limits of its movement, said actuating device comprising means movable with relation to said connecting devices and actuated by the downward movement of said part from said normal position to cause said connecting devices to be

moved out of engagement with said yieldable devices, thereby releasing said supporting structures and said upper roller for movement away from said lower roller.

18. In a clothes wringer, a frame, a lower roller carried by said frame, supporting structures movably mounted on said frame near the respective ends thereof, an upper roller journaled in said supporting structures, yieldable devices mounted on said frame, connecting devices carried by and movable with relation to the respective supporting structures into and out of positions to connect said supporting structures with the respective yieldable devices and to cause the latter to resist the movement of said supporting structures and said upper roller in a direction away from said lower roller, and an actuating device movably mounted on said supporting structures and having a part arranged above said upper roller and supported normally in a position between the upper and lower limits of its movement, said actuating device comprising means movable with relation to said connecting devices and actuated by the downward movement of said part from said normal position to cause said connecting devices to be moved out of engagement with said yieldable devices, thereby releasing said supporting structures and said upper roller for movement away from said lower roller, said means being actuated by the upward movement of said part of said actuating device to release said connecting devices and permit the latter to return to their normal positions.

19. In a clothes wringer, a frame, a lower roller carried by said frame, supporting structures movably mounted on said frame near the respective ends thereof, an upper roller journaled in said supporting structures, yieldable devices mounted on said frame, devices for connecting said supporting structures with the respective yieldable devices and causing said yieldable devices to resist the movement of said supporting structures and said upper roller away from said lower roller, an actuating device comprising a part movably mounted on one of said supporting structures and extending normally across and above the axis of said upper roller, said actuating device having means actuated by the downward movement of said part to actuate said connecting devices and cause said supporting structures to be disconnected from said yieldable devices, and means for so mounting said connecting devices that they will automatically move to positions to reestablish the connections between said supporting structures and said yieldable devices when said supporting structures are returned to their normal positions.

20. In a clothes wringer, a frame, a lower roller carried by said frame, supporting structures movably mounted on said frame near the respective ends thereof, an upper roller journaled in said supporting structures, yieldable devices mounted on said frame, connecting devices movably mounted on said supporting structures for connecting the same with the respective yieldable devices and causing said yieldable devices to resist the movement of said supporting structures and said upper roller away from said lower roller, an actuating device comprising a part movably mounted on one of said supporting structures and extending normally above the axis of said lower roller, said actuating device having means actuated by the downward movement of said part to actuate said connecting devices and cause said supporting structures to be disconnected from said yieldable devices, and means for so mounting said movable connecting devices on said supporting devices that they will move by gravity to positions to reestablish the connections between said supporting structures and said yieldable devices when said supporting structures are returned to their normal positions.

21. In a clothes wringer, a frame, a lower roller carried by said frame, supporting structures pivotally mounted on said frame near the respective ends thereof and at one side of said lower roller, an upper roller journaled in said supporting structures, yieldable devices carried by said frame at that side of said lower roller opposite the axes of said supporting structures, connecting members mounted on said supporting structures for movement therewith and for movement with relation thereto into positions to engage the respective yieldable devices and cause the latter to resist the movement of said supporting structures and said upper roller away from said lower roller, and an actuating device having a part pivotally mounted on one of said supporting structures adjacent to its connecting member and extending transversely to and above said upper roller and supported normally in a position between the upper and lower limits of its movement, said actuating device having means movable with relation to said connecting members to actuate said connecting members to disconnect said supporting structures from said yieldable devices when said part of said actuating device is moved downwardly from its normal position and to release said connecting members to permit the latter to move to their connecting positions when said part of said actuating device is moved upwardly.

22. In a clothes wringer, a frame, a lower roller carried by said frame, supporting structures pivotally mounted on said frame near the respective ends thereof and at one side of said lower roller, an upper roller

journaled in said supporting structures, yieldable devices carried by said frame at that side of said lower roller opposite the axes of said supporting structures, connecting members mounted on said supporting structures for both pivotal movement and bodily movement with relation thereto and adapted to engage the respective yieldable devices and cause the latter to resist the movement of said supporting structures and said upper roller from said lower roller, and an actuating device movably mounted on one of said supporting structures and supported normally between the limits of its movement, said actuating device having means for moving said connecting members out of engagement with said yieldable devices when said actuating device is moved in one direction from its normal position, for releasing said connecting members and permitting them to move about their axes into engagement with said yieldable members when said actuating device is moved in the other direction, and for imparting bodily movement to said connecting members against the action of said yieldable devices when said actuating device is moved to its normal position.

23. In a clothes wringer, a frame, a lower roller carried by said frame, a pair of yieldable devices mounted on said frame near the respective ends thereof and at one side of said lower roller, supporting structures pivotally mounted on the respective yieldable devices and extending transversely to said lower roller, an upper roller journaled in said supporting structures, a second pair of yieldable devices mounted on said frame near the respective ends thereof on the opposite side of said lower roller, means for detachably connecting said supporting structure with the respective last mentioned yieldable devices, and an actuating device having means for disconnecting said supporting structures from said last mentioned yieldable devices.

24. In a clothes wringer, a frame, a lower roller carried by said frame, a pair of yieldable devices mounted on said frame near the respective ends thereof and at one side of said lower roller, supporting structures pivotally mounted on the respective yieldable devices and extending transversely to said lower roller, an upper roller journaled in said supporting structures, a second pair of yieldable devices mounted on said frame near the respective ends thereof on the opposite side of said lower roller, the yieldable devices of the last mentioned pair having parts forming keepers, latches movably mounted on the respective supporting structures and having parts movable into and out of engagement with the respective keepers, and an actuating device having means for moving said latches out of engagement with said keepers.

In testimony whereof, I affix my signature hereto.

LOVELL A. HERSH.