May 3, 1927. 1,627,438

J. HUTCHINSON

WASHING AND WRINGING MACHINE

Filed March 1, 1924 4 Sheets-Sheet 1

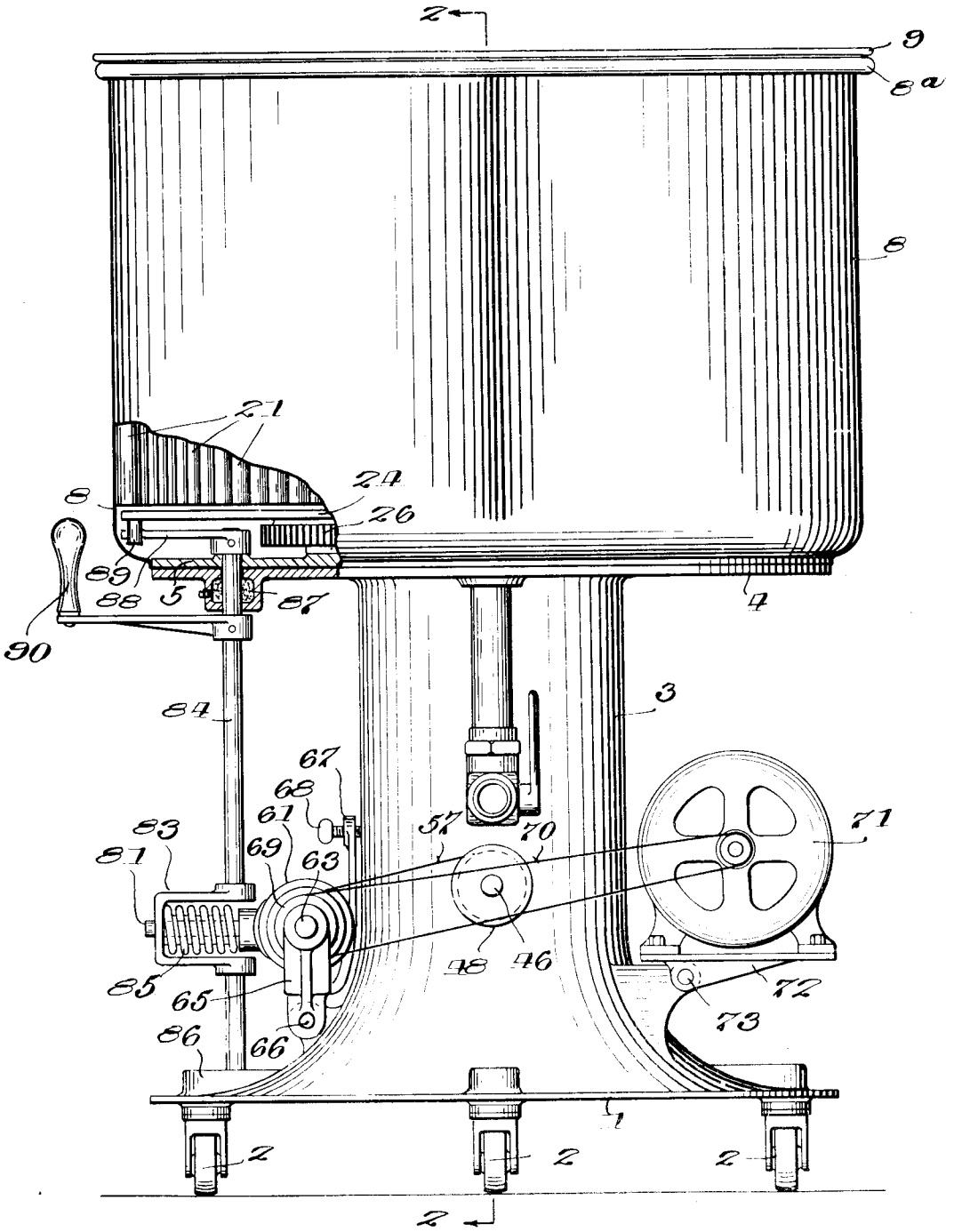


Fig. 1

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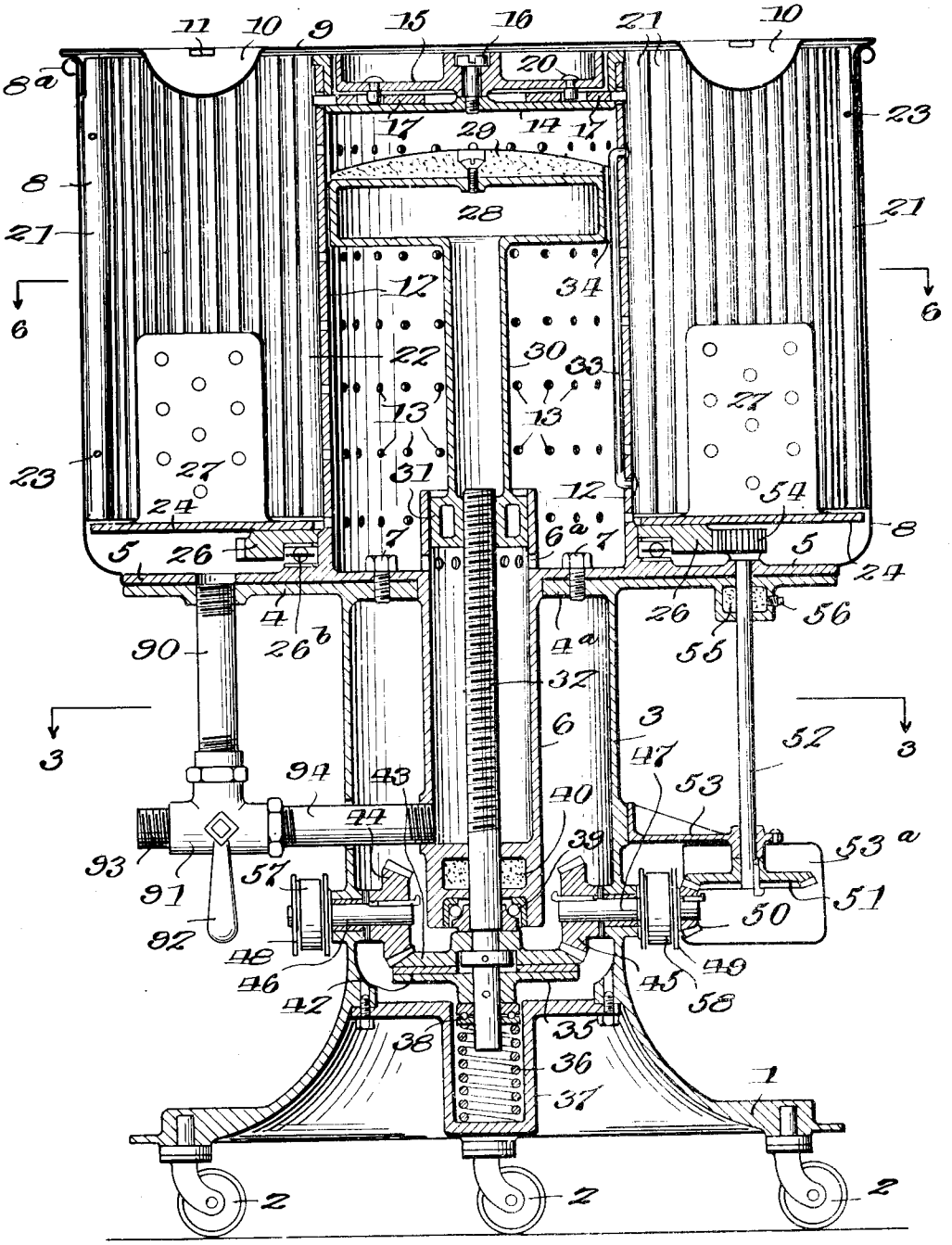


Fig. 2

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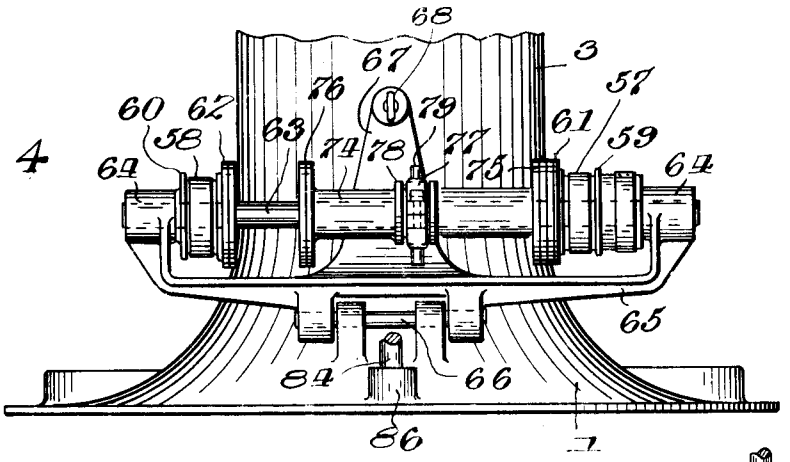
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WASHING AND WRINGING MACHINE

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Fig. 4



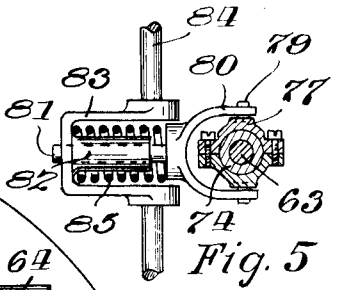


Fig. 5

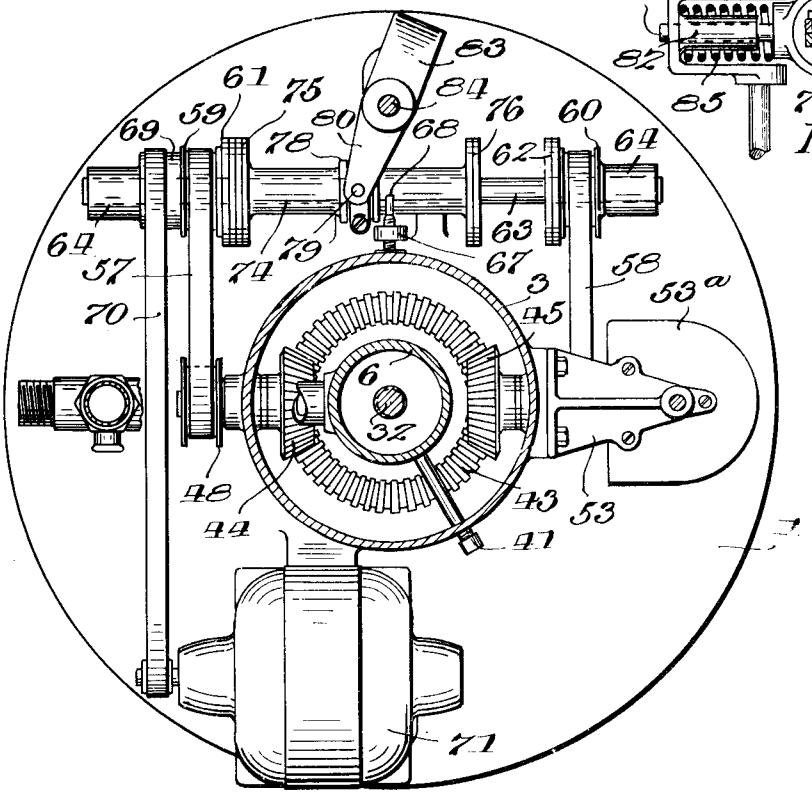


Fig. 3

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WASHING AND WRINGING MACHINE

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Fig. 7

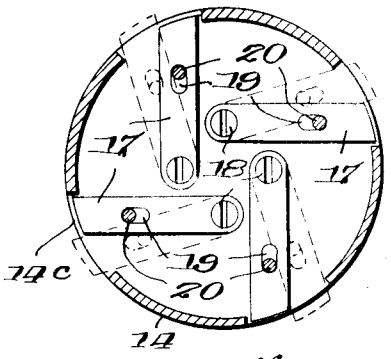
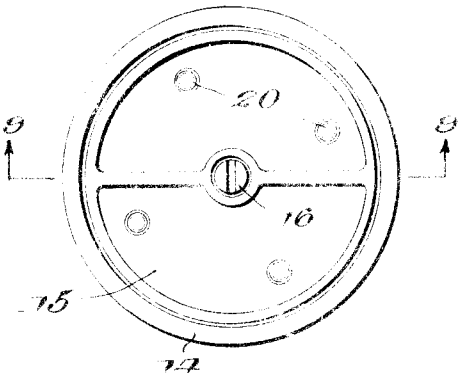


Fig. 8



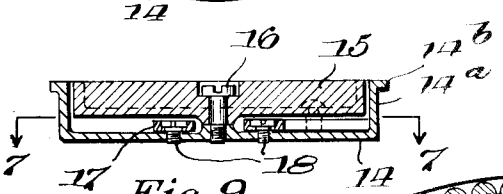


Fig. 9

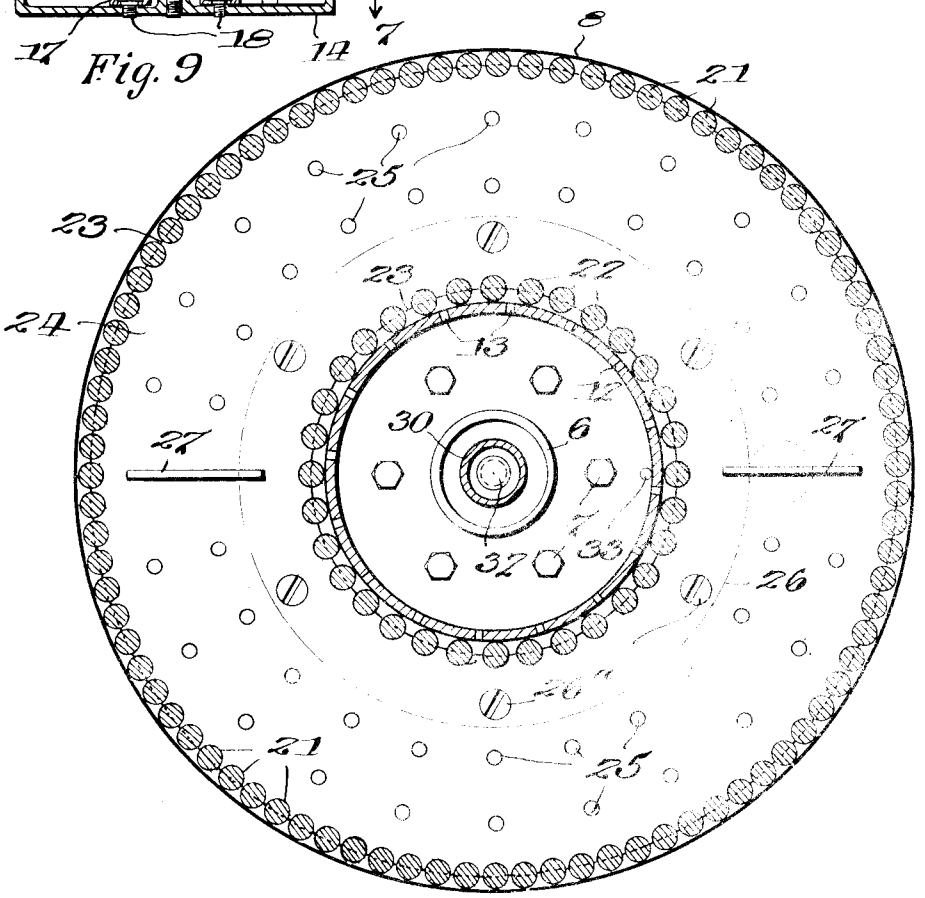


Fig. 6

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Patented May 3, 1927. 1,627,438

UNITED STATES PATENT OFFICE.

JOB HUTCHINSON, OF SAUGERTIES, NEW YORK.

WASHING AND WRINGING MACHINE.

Application filed March 1, 1924. Serial No. 696,318.

This invention relates to laundry apparatus, and more particularly to a combined clothes washing and wringing machine, for household use.

Among the objects of the invention are; to provide a washing machine having improved means for producing effective agitation of the water and clothes, and to provide two compartments in which clothes of different grades or kinds may be simultaneously washed; to provide means in the nature of a press, built into the machine, and in which the clothes may be placed and subjected to pressure to squeeze the water out of them; to provide improved means for causing circulation of the water from one part of the washing machine to another; and to provide means whereby, when desired, the continued operation of the machine may be caused to discharge the water therefrom and force it to a higher level, as, for example, through a hose, into a sink.

With the above and other objects in view, and to generally improve the efficiency and simplify the construction of such apparatus, my invention consists in the arrangement and combination of parts hereinafter described and claimed, and illustrated in the accompanying drawings, in which:—

Figure 1 is a side elevation of the complete machine, parts being broken away;

Figure 2 is a vertical, central section therethrough, substantially on the line 2—2 of Figure 1;

Figure 3 is a horizontal section on the line 3—3 of Figure 2;

Figure 4 is a side elevation of the lower part of the supporting pedestal and brace, this view being taken in a plane at right angles to that of Figure 1, and parts being broken away;

Figure 5 is a fragmentary transverse section through part of the reversing mechanism shown in Figures 1, 3 and 4;

Figure 6 is a horizontal section on the line 6—6 of Figure 2;

Figure 7 is a horizontal section substantially on the line 7—7 of Figure 9, taken through the top or cover of my improved press cylinder and showing the locking means therefor;

Figure 8 is a plan view of such top or cover; and

Figure 9 is a vertical section on the line 9—9 of Figure 8.

Referring to the drawings in detail, my improved combined washing and wringing machine comprises a suitable base 1, preferably circular in shape, as shown in Figure 3, and supported on suitable rollers or casters 2. Extending upwardly from the base is a relatively large hollow column or pedestal 3, the base and pedestal being preferably formed integral, as by casting. At the top of the pedestal 3 is a horizontal plate or table 4, which extends partially over the interior of the pedestal, as indicated at 4^a.

A second plate 5, of similar size and shape, overlies the plate 4, and carries, at its center, a vertically extending cylinder 6, which passes through the plate 4 and is disposed centrally of the column or pedestal 3.

The clothes container comprises a suitable tub or receptacle 8, preferably formed of sheet metal and cylindrical in shape, the bottom part of such tub or receptacle being interposed between the two plates 4 and 5, as shown in Figure 2, and clamped in position by means of a series of bolts 7. It will be noted that the sheet metal preferably extends between the plates 4 and 5, approximately up to the cylinder 6 so that the bolts 7 pass through the same. From the above, it will be obvious that the cylinder 6, plates 4 and 5, and tub 8, are all united with the pedestal 3, to form a fixed, rigid structure.

Also, carried by the plate 5 and extending upwardly therefrom, centrally of the tub or receptacle 8, is another and larger cylinder 12, provided with numbers of perforations 13, distributed throughout the walls thereof from the top to the bottom. The top of the cylinder 12 terminates slightly below the upper edge of the tub 8, and the upper end of the tub or receptacle is closed by means of a lid or cover 9, also preferably formed of sheet metal, and provided with a flange which fits into the upper end of the tub in a well known manner, the upper edge of the tub being preferably beaded, as indicated at 8^a. A pair of pockets or depressions 10, having bars 11 extending across the same, are provided in the cover 9, to constitute handles, by means of which the cover may be removed. It will be noted that this cover extends entirely across the top of cylinder 12, and conceals the same, so that such cylinder is completely housed within the tub or receptacle 8. The cylinder 12, which must necessarily be of strong construction, is preferably

formed of cast metal, and is provided with a rigid closure at its upper end, such closure being shown in detail in Figures 7, 8 and 9. Referring to these figures, as well as to Figure 2, it will be seen that the closure comprises a circular dish-shaped member 14, having an upstanding flange 14^a provided at its outer edge with a radially extending flange 14^b, which is adapted to seat upon the top of the cylinder. Enclosed within the member 14 and rotatably mounted upon a central screw 16, set therein, is a disk 15, the upper surface of which is preferably flush with the upper edge of the flange 14^a, as shown in Figure 9. By means of cooperating bosses, formed on the member 14 and disk 15, these members are spaced apart, as shown in Figure 9, and in this space are mounted a plurality of latches 17, best shown in Figure 7. Each of these latches is pivotally mounted eccentrically of the member 14 upon a screw 18, and the outer end of each latch is adapted to project, when in one position, through openings 14^c, formed in the flange 14^a. This is indicated by dotted lines in Figure 7. When, however, the latches are swung to full line position, they are completely housed within the contour of the member 14. In order to swing the latches from full line to dotted line position, or vice versa, each is provided with a slot 19, in which works a pin 20, projecting downwardly from the lower face of the disk 15. Thus, when said disk is oscillated, the latches will be shifted, as is obvious. With the latches in the full line position, the cover or closure is placed in the mouth, or upper end of the cylinder, as shown in Figure 2, and then, when the disk 15 is moved, so as to shift the latches to the position indicated in dotted lines in Figure 7, these latches are caused to project from the periphery of the closure and to engage in slots formed in the walls of the cylinder 12, thus firmly and rigidly locking the closure to the cylinder.

As clearly shown in Figures 2 and 6, the cylinder 12 centrally mounted within the tub 8, forms an annular space or washing chamber, in which the clothes are contained. In order to effectively wash the clothes, this chamber is provided with suitable rubbing elements, the construction of which forms an important part of my invention. Inner and outer rubbing elements are provided, each comprising a series of vertically extending parallel wooden rods or bars, preferably circular in cross section. The outer series of bars is designated at 21 and constitutes a lining for the walls of the tub 8, while the inner series of bars is designated at 22, and constitutes a lining around the walls of the cylinder 12. The bars of each series are held together by being strung or threaded upon wire hoops 23. Furthermore, each series of bars, constituting the rubbing elements, may be lifted vertically out and removed from the tub or container, for the purpose of cleaning. It will be noted that the bars 22 of the inner series are spaced apart, at points opposite the perforations 13, in the wall of the cylinder 12, so as to permit jets of water, issuing from these perforations, to pass freely between them.

The real or fixed bottom of the tub 8 consists of the plate 5, and associated parts, but above and spaced from this bottom is a false, movable bottom, consisting of an annular plate 24, which surrounds the cylinder 12. This plate 24 is preferably perforated, as indicated at 25 in Figure 6, and is rigidly secured by means of screws 26^a, to an annular gear 26, mounted on ball bearings 26^b (see Figure 2). Carried by the plate 24, and projecting upwardly therefrom into the annular space, between the cylinder 12 and walls of the tub 8, are two or more brackets or plates 27, preferably perforated, as shown, and designed to engage and move the mass of clothes.

Working within the cylinder 12 is a piston 28, preferably having a rubber cushion or face 29, secured to the upper side thereof. This piston is carried by a hollow piston rod or plunger 30, which, in turn, carries at its lower end a second and smaller piston 31, which works snugly within the cylinder 6. A vertical screw shaft 32 is mounted centrally within the cylinder 6, and engages a threaded opening in the piston 31, so that, as said screw shaft revolves, the piston 31, together with the plunger 30 and piston 28, is caused to move upwardly or downwardly, depending upon the direction of rotation of the screw shaft. In order to prevent the pistons and plunger from rotating with the screw shaft, a spline in the nature of a rod 33 is provided within the cylinder 12, such spline engaging a notch 34 in the piston 28.

The lower end of the screw shaft 32 is rigidly secured to a clutch disk 35, and the disk and shaft are supported by means of thrust bearings 38, resting upon a compression spring 36, enclosed within a housing 37, secured to the base 1. The shaft is also journaled on ball bearings 39, mounted in the lower end of the cylinder 6, and above these bearings is a stuffing box 40, to prevent leakage of water. This stuffing box is preferably in the nature of a closed chamber having a small pipe 41, extending therefrom through the wall of the pedestal 3, as shown in Figure 3. Suitable plastic material is forced under pressure through this pipe and into the stuffing box to fill the same, as indicated in Figure 2.

A second clutch member or friction disk 42, is in contact with and supported by the

clutch member 35, the friction disk 42 being secured to the lower face of a horizontally disposed bevel gear 43, loosely journaled upon the screw shaft 32.

Beveled pinions 44 and 45 mesh with the beveled gear 43, at diametrically opposite points thereof, these pinions being secured to stub shafts 46 and 47, respectively, journaled in the walls of the pedestal 3, and carrying at their outer ends belt pulleys 48 and 49, respectively. On the end of the shaft 47, beyond the pulley 49, is secured a small beveled pinion 50. This meshes with a beveled gear 51, secured to the lower end of a vertical shaft 52, journaled at its upper end in the plates 4 and 5, and at its lower end in a bracket 53, carried by the pedestal 3. A housing 53^a, of sheet metal, is preferably arranged to cover and enclose the gear 51.

A stuffing box 55, similar to the stuffing box 40, is provided adjacent the upper end of the shaft 52, to prevent leakage thereabout, such stuffing box being closed by means of a plug 56. The upper end of the shaft 52 carries a pinion 54, which is located in the space between the fixed and movable bottoms of the tub or container, and which meshes with the annular gear 26, above described.

Referring now more particularly to Figures 1, 3 and 4, it will be seen that belts 57, 58, run over pulleys 48 and 49, respectively. These belts also pass around pulleys 59 and 60, respectively, which pulleys have rigidly attached thereto clutch members 61 and 62, respectively. These pulleys and their associated clutch members are loosely mounted upon a shaft 63, journaled in bearings 64, carried by a swinging bracket 65, pivotally mounted as at 66, on the base of the machine, and having formed integral therewith, an upwardly extending bracket 67, through which passes a set screw 68, adapted to bear against the side of the pedestal 3. It is obvious that by tightening this set screw, the bracket 65 may be swung on its pivot, and the tension of the belts 57 and 58 thus adjusted.

Rigidly secured to the shaft 63, is a third pulley 69, around which passes a belt 70. This belt also engages a pulley mounted on the shaft of a motor 71, such as an electric motor, supported on a bracket 72, pivoted at one side to a boss carried by the pedestal 3, as indicated at 73 in Figure 1. By virtue of this pivotal mounting, the weight of the motor 71 serves to maintain the necessary tension on the belt 70.

Splined upon the shaft 63, at a point between the clutch disks 61 and 62, is a sleeve 74, somewhat shorter than the distance between the clutch disks 61 and 62, and carrying at its ends complementary clutch members 75 and 76. The sleeve 74 is capable of endwise movement on the shaft 63, and when in one position, as illustrated in Figure 3, the clutch member 75, at one end thereof, engages the clutch disk or member 61, and when in its opposite position, the clutch member 76 engages the clutch disk or member 62. The reciprocation of the sleeve 74 upon the shaft 63, is brought about by means of the following mechanism. A split yoke 77 loosely encircles the sleeve 74, and is held in a groove between annular shoulders 78, thereon. This yoke carries a pair of oppositely projecting pins 79, which are pivotally engaged by the free ends of a Y-shaped fork 80, the stem 81 of which slides freely through an elongated boss or guide 82, rigid with a yoke or crank 83, secured to a vertical shaft 84 (see Figure 5). A compression spring 85 is interposed between the fork 80 and yoke 83 and serves to hold the sleeve 74 in either one of its extreme positions, to which it may be thrown. The shaft 84 is journaled at its lower end in a bearing 86 (see Figure 1) carried by the base 1, and at its upper end, passes through a stuffing box 87, up into the space below the false bottom 24 of the clothes container. Secured to the upper end of the shaft 84 within this space, is a lever arm 88, adapted to be engaged by a pin 89, projecting from the lower face of the plate or bottom 24. It will be obvious that the reversing shaft 84 is rocked or oscillated first in one direction, and then in the other by engagement of the pin 89 on opposite sides of the arm 88, and that this oscillation results in shifting the sleeve 74 and associated clutch members from one position to the other, thus producing the alternating-rotary motion which is commonly employed in washing machines. A handle 90, also secured to the shaft 84, provides manual means by which the direction of rotation of the plate 24 and associated parts may be controlled.

In order to produce circulation of the water from one part of the clothes container to another, I provide a pipe system 90—94, extending from the bottom of the wash chamber to the bottom of the cylinder 6, as clearly shown in Figure 2. This pipe system includes a three-way valve 91, operated by a handle 92, and from this valve extends a nipple 93, to which a piece of hose may be attached. During the normal operation of the machine, the three-way valve is so set as to establish communication between the pipes 90 and 94, and thus, as the piston 31 reciprocates in the cylinder 6, water is drawn into and expelled from such cylinder, thus causing circulation and agitation of the water in the clothes container.

The operation of my improved machine, as a whole, will now be briefly described.

The clothes to be washed are placed in the annular space or chamber between the tub and cylinder 12, and the container is filled

nearly full of water. The motor 71, running continuously, drives the shaft 63, and this, through the clutch members 75 and 61, as shown in Figure 3, and the belt 57, imparts rotation to the pulley 48, and pinion 44, thus turning the gear 43. This, in turn, drives the pinion 45, and through the gears 50 and 51, shaft 52 and gears 54 and 26, causes the plate or false bottom 24 to revolve, thus moving the mass of clothes around in the annular wash chamber and subjecting them to the action of the rubbing elements. At the same time, the gear 43, acting through the friction clutch members 42 and 35, drives the screw shaft 32 in such a direction (say) as will cause the plunger carrying piston 28 to descend. As this piston descends, the water contained in the cylinder 12, below the same, is forcibly ejected from the perforations 13, in the form of jets, which are discharged radially into the annular wash chamber, where they impinge upon and pass into the mass of clothes.

After the plate or false bottom 24 has turned a predetermined distance in one direction, the pin 89 will strike the lever 88, thus shifting the sleeve or clutch member 74, to its opposite position. The pulley 59, belt 57, pulley 58 and pinion 44 now run idle, and power is transmitted from the shaft 63 through clutch members 76 and 62, pulley 60, belt 58, and pulley 59, to the shaft 52 in the opposite direction, and also to the gear 43. This gear will also be driven in the opposite direction, due to the fact that the point of driving is diametrically opposite to that previously employed. Thus, when the sleeve 74 shifts, the direction of rotation of both the shaft 52 and the screw shaft 32 is reversed, whereupon the plate 24 begins its rotation in the opposite direction, and the piston 28 begins to travel upwardly, again forcing the water out through the perforations 13, in the form of jets. The ratio between the gears 43, 45, 50, 51 and 54, and the pitch of the screw 32 is such that the piston 28 is caused to make a complete stroke during the time that the plate 24 makes a complete oscillation. Thus, the plate and piston operate in unison. It will be observed that the clothes and water in the annular wash chamber are simultaneously subjected to agitation in three different directions. First, there is the circumferential movement, due to the rotation of the plate 24. Second, there is vertical movement, due to the surging of the water up and down in the container, owing to the action of the piston 28, and also, to the action of piston 31, in the cylinder 6, operating through the pipe system 90—94. Thirdly, there is the radial agitation due to the high pressure jets issuing from the orifices 13 in the cylinder 12. This combined action of circumferential, vertical and radial agitation, all operating simultaneously, serves to very effectively and quickly remove all soluble matter from the clothes. The space below the false bottom or plate 24, serves to receive any deposits of sand, grit or other foreign material with which the clothes might have been contaminated, as frequently occurs in the case of bathing suits, etc.

It is sometimes found that the agitation in the annular wash chamber, as above described, is so violent as to damage the thinner and finer articles of clothing, and in order to avoid this, such delicate articles may be effectively washed by separating them from the rough clothes and placing them in the cylinder 12. Then, as the piston 28 reciprocates, they are subjected to an intermittent pressing or squeezing action, which thoroughly forces the water through them, and effectively cleanses them without any rubbing action. I regard this provision of a separate compartment for delicate articles of clothing, and the washing of such articles without subjecting them to rubbing action, as an important feature of the invention.

In addition to using the cylinder 12 as a separate washing compartment, I also contemplate employing it as a press to "wring" or extract the surplus water from the mass of clothes, after they have been washed. In carrying out this phase of the operation, the machine is preferably stopped by opening the motor circuit, with the piston 28 at the lower end of its stroke, such piston then constituting the bottom of the cylinder 12. The cover or closure 14 is removed, and the mass of clothes is placed in the cylinder. The cover or closure 14 is then replaced and locked in position, and the machine again started. As the piston travels upwardly, it compresses the mass of clothes between itself and the cover or closure, thus effectively forcing or squeezing the water from them. The function of the friction clutch 35—42 is to limit the pressure which may be exerted in this way by the piston 28, and thus prevent damage to the clothes or to the machine. After a predetermined pressure has been exerted, the clutch member 42, carried by the gear 43, will slip, relative to the clutch member 35, and the screw shaft will remain stationary.

In many washing machines now on the market, great difficulty is experienced in removing the water from the machine, after the washing is completed, it being necessary, in most cases, to draw the water off in buckets or the like. This is due to the fact that washing machines, as usually built, are lower than the average sink, and therefore, there is no way to drain the water out of them into such sink. In my improved machine, I overcome this defect by means of the cylinder 6 and piston 31, above de-

scribed. After the washing is completed, I permit the machine to continue to run while throwing the handle 92 over to such a position as to disconnect pipes 90 and 94, and connect pipe 94 with the nipple 93, to which a hose leading up to the sink, or other convenient drain, has been connected. With the valve in such position, it is obvious that as the piston 31 descends, it will force the water in the cylinder 6 out through the pipe 94 and nipple 93 and hose connection, and when the piston again rises to its uppermost position, as shown in Figure 2, water will again fill the cylinder 6, entering the same through the openings 6ª, at the bottom of the cylinder 12. Thus, by throwing the three-way valve into the position described, the piston 31 and cylinder 6 are caused to operate as a pump to discharge the water from the machine and force it out to a higher level. Thus, the same elements which constitute circulating and agitating means during the washing operation, may be caused to constitute a pump to force the water out of the machine after the washing operation is completed.

What I claim is:

1. A washing machine comprising an annular chamber having inner and outer walls for containing the clothes to be washed, means for causing circumferential movement of the clothes relative to the walls of said chamber, and means for simultaneously discharging radial jets of water horizontally into said chamber from the inner walls thereof.

2. A washing machine comprising a tub, a perforated vertical cylinder located in the center thereof and closed at its upper end, an imperforate piston in said cylinder, and means located wholly below the piston and operating through the bottom of said cylinder for reciprocating said piston.

3. A washing machine comprising an annular chamber having a fixed vertical perforated cylinder extending upwardly from its bottom at the center thereof, a piston fitting in said cylinder, oscillatory agitating means movable circumferentially at the bottom of said annular chamber, and mechanism for oscillating said agitating means and reciprocating said piston in unison.

4. A clothes washer comprising a vertical stationary perforated cylinder, a chamber surrounding said cylinder for containing the clothes to be washed, means for causing the clothes to oscillate in said chamber around said cylinder and pump means mechanically connected with said oscillating means for causing jets of water to issue radially from the perforations in said cylinder and play upon the oscillating clothes.

5. A clothes washer comprising an annular chamber having inner and outer cylindrical walls, a movable false bottom for supporting the clothes, a stationary rubbing element adjacent each wall and comprising a series of connected vertical bars, each series of bars being removable as a unit from said chamber, independently of the other and of said bottom, and means for moving said false bottom to carry the clothes past said rubbing elements.

6. A clothes washer comprising a vertical cylinder having perforations, a chamber surrounding said cylinder for containing the clothes to be washed, a rubbing device in said chamber comprising an annular series of parallel bars surrounding said cylinder, means for moving the clothes past said rubbing device, and pump means for causing jets of water to be discharged into said chamber from the perforations in said cylinder, said bars being spaced apart to permit the jets to pass between them.

7. A washing machine comprising a tub having an open top, a movable false bottom on which the clothes rest, means for moving said false bottom, and a cylindrical rubbing element fitting within and constituting a lining for the vertical sides of the tub, said element having no portion underlying the false bottom, and being removable as a unit from the tub through the open top thereof without disturbing said false bottom.

8. A washing machine comprising a receptacle for the clothes, a vertical cylinder mounted within said receptacle and communicating therewith, a piston reciprocable within said cylinder, a screw shaft operatively engaging said piston, and extending downward through the bottom of said receptacle, and gearing located below said receptacle for rotating said screw shaft to move said piston.

9. A washing machine comprising inner and outer fixed cylinders forming between them an annular chamber, an annular rotary plate forming a false bottom for said chamber and providing between itself and the fixed bottom a space for the reception of insoluble matter, and means for rotating said plate.

10. A combination washing and wringing machine comprising inner and outer concentric fixed cylinders having an annular chamber between them, said inner cylinder having perforations establishing communication with said annular chamber, means for washing the clothes in said annular chamber, and means for wringing wet clothes placed in said inner cylinder, said means comprising a plunger mounted to reciprocate in said cylinder and adapted to support the clothes to be pressed, and means for forcing said plunger upward so as to cause it to press the mass of clothes between itself and the top of said cylinder.

11. A combination washing and wringing machine having a closed chamber in which

the wet clothes may be placed, a plunger mounted to reciprocate in said chamber and adapted to support the clothes to be pressed, power driven means for forcing said plunger upward so as to cause it to press the mass of clothes between itself and the top of said chamber, and mechanism for limiting to a predetermined amount the extent of such pressure.

12. A combined washing and wringing machine comprising a suitable receptacle having a chamber for containing the clothes to be washed, rubbing mechanism in the lower part of said receptacle, and a press comprising a cylinder and piston, said cylinder forming a permanent part of the structure of the receptacle and communicating with said chamber, said press being located within the receptacle in such position as to squeeze the clothes at a point in the upper part of said receptacle above said rubbing mechanism.

13. A combined washing and wringing machine comprising communicating inner and outer fixed concentric cylinders having an annular chamber between them, means for washing the clothes in said annular chamber, and means whereby clothes placed within said inner cylinder may be subjected to pressure at a point above the water line to extract the water therefrom.

14. A washing machine comprising a central stationary compartment and an annular chamber surrounding and communicating with the same, means whereby clothes placed in said annular chamber are caused to move circumferentially, and means whereby clothes placed in said central compartment are simultaneously moved vertically.

15. A washing machine comprising a receptacle to contain the clothes to be washed, a perforated cylinder within said receptacle, a second cylinder below and arranged to communicate with the first, a plunger having two pistons, one working in each cylinder, the piston working in the perforated cylinder serving to force water into and against the surrounding mass of clothes during the washing operation, and the other piston co-operating with the second cylinder to discharge the water from the receptacle, when the washing is completed.

16. In a washing machine, the combination with a receptacle, of a hollow pedestal supporting the same, a pump cylinder inside of said pedestal, a piston in said cylinder, and means operating through the lower end of said cylinder for reciprocating said piston.

17. In a washing machine, the combination with a receptacle, oscillatory agitating means therein, a pump cylinder in communication with said receptacle for drawing the water therefrom, a screw shaft extending axially of said cylinder, a piston fitting said cylinder and working on said screw shaft like a nut, and means for oscillating said agitating means and for simultaneously imparting to said screw shaft a definite number of revolutions alternately in opposite directions to reciprocate said piston.

18. In a washing machine, the combination with a receptacle, and an oscillatory false bottom on which the clothes rest, of a pump connected to said receptacle and comprising a cylinder and a piston, alternating-rotary gearing for oscillating said bottom, and means whereby said gearing simultaneously causes relative reciprocating movement between said cylinder and piston, to produce a pumping action to force the water from the receptacle.

19. In a washing machine, the combination with a receptacle for the clothes, of a cylinder below the same and communicating therewith, a piston reciprocable therein, means for continuously reciprocating said piston, means whereby said piston and cylinder normally serve to produce a circulation of water from one part of said receptacle upwardly through the bottom into another, and means whereby such circulation may be interrupted at a point below the receptacle and said piston and cylinder be caused to act as a pump to force the water from said receptacle when desired.

In testimony whereof I affix my signature.

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