

E. PROBST.  
LAUNDRY WASHING MACHINE.  
APPLICATION FILED MAR. 26, 1908.

962,526.

Patented June 28, 1910.

3 SHEETS—SHEET 1.

Fig. 1.

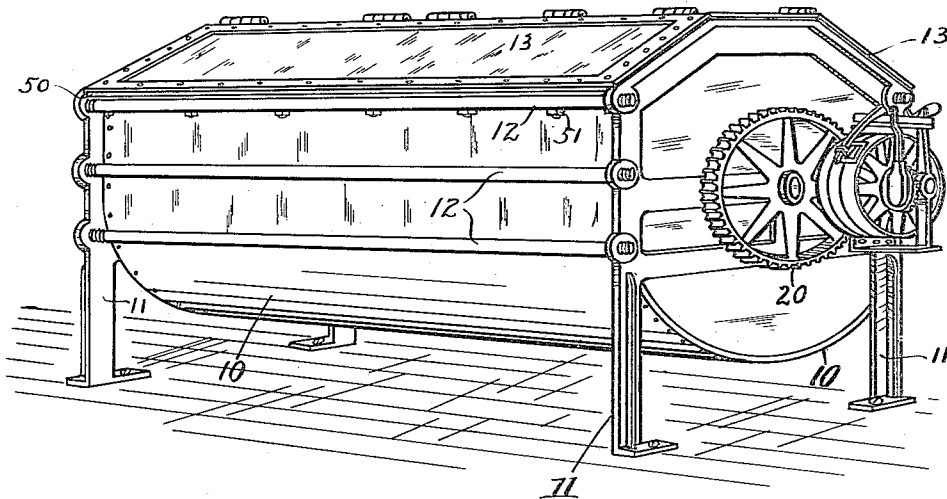


Fig. 2.

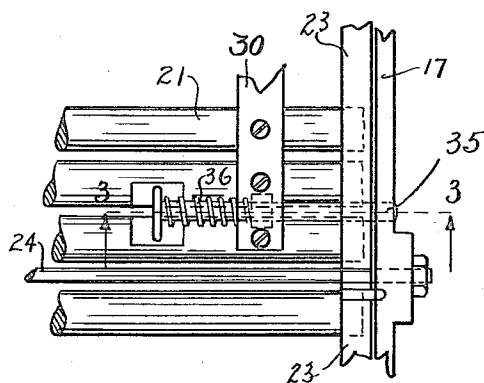
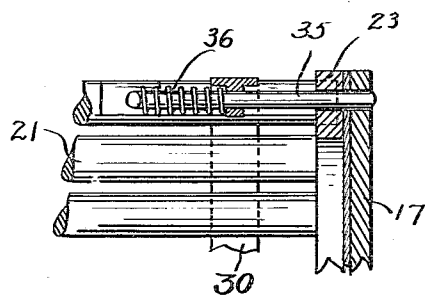


Fig. 3.



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3 SHEETS—SHEET 2.

Fig. 4.

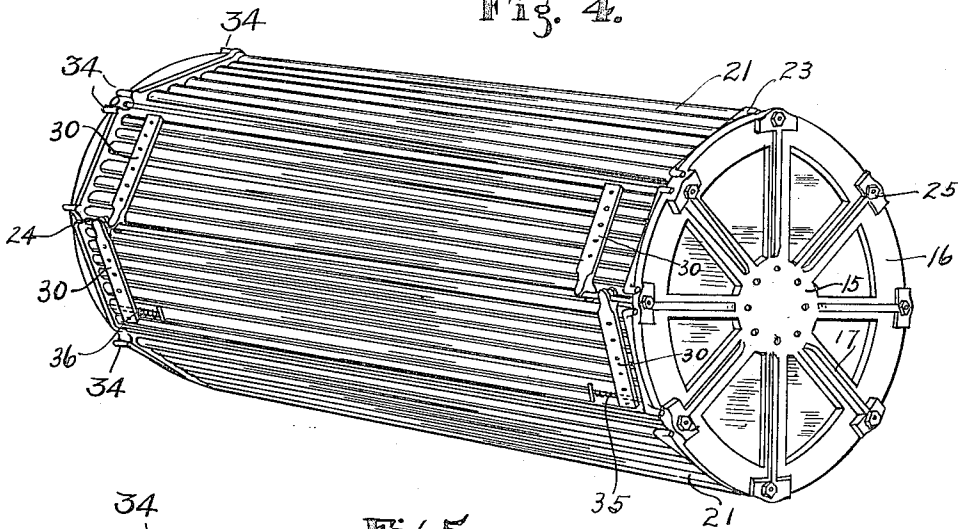


Fig. 5.

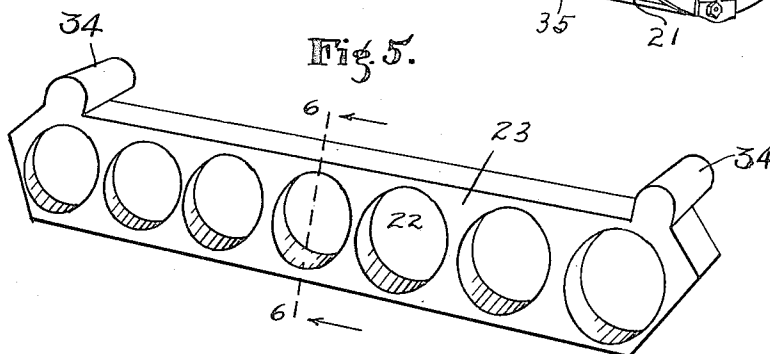
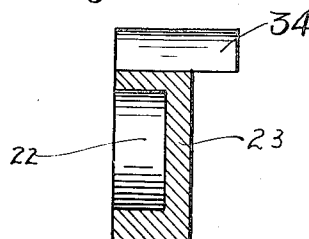


Fig. 6.



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3 SHEETS—SHEET 3.

Fig. 7.

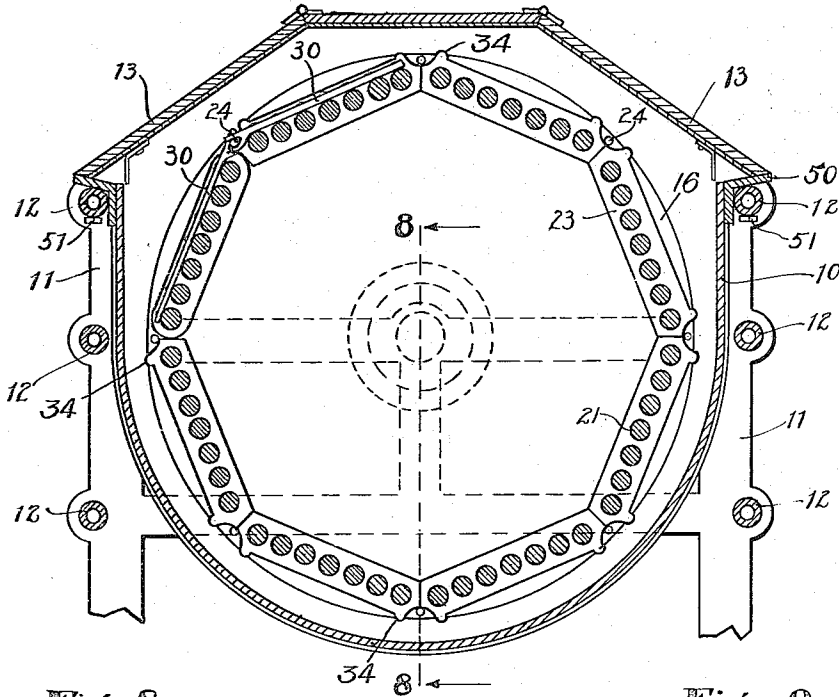


Fig. 8.

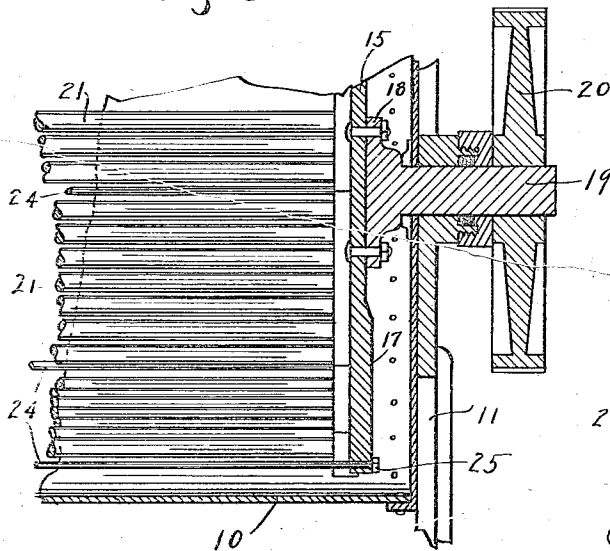


Fig. 9.

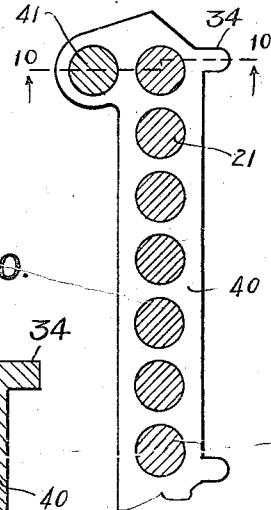
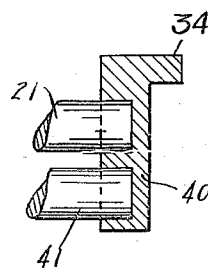


Fig. 10.



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# UNITED STATES PATENT OFFICE.

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## LAUNDRY WASHING-MACHINE.

Specification of Letters Patent. Patented June 28, 1910.

962,526.

Application filed March 26, 1908. Serial No. 423,389.

*To all whom it may concern:*

Be it known that I, EDWARD PROBST, of Indianapolis, county of Marion, and State of Indiana, have invented a certain new and useful Laundry Washing-Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like figures refer to like parts.

The object of this invention is to provide an improved construction of laundry machine so that the same may be readily taken apart, the parts removed and replaced or examined, and also to provide an improved construction of cylinder therein for treating the clothes during the operation of the device.

One feature of the invention consists in providing a cylinder with simple skeleton ends of metal and provided with suitable bearings and driving mechanism, the two skeleton frames at each end of the cylinder being held in relative position by cross-tie rods and the remainder of the cylinder consisting of sections separately constructed and mounted in connection with the end frames in such manner as to be separately and readily removable therefrom or replaced therein.

Another feature of the invention consists in forming the cylinder of round bars and holding the same in groups or sections by end pieces of metal provided with holes to receive the ends of the round wooden bars which are provided with outwardly extending lugs for resting upon the periphery of the end frames and which are held from escape by the cross-tie rods. Said end pieces for holding the cylinder rods abut against each other in series. By loosening a cross-tie rod the sections of the cylinder may be removed and the end supports for the cylinder rods readily removed therefrom for any purpose.

Another feature of the invention consists in the manner of mounting the outside shell or casing. The body of said shell is substantially U-shaped with an angle iron side piece secured to the upper edge thereof and resting upon the horizontal rod or support and secured to said rod or support by removable means, whereby the body of the shell or casing is practically suspended in a rectangular frame and independently of said frame excepting where said angle pieces

are detachably secured. This renders it possible to replace the shell or casing without changing any other part of the device.

The foregoing and other features of the invention will be understood from the accompanying drawings and the following description and claims.

In the drawings Figure 1 is a perspective view of the laundry machine. Fig. 2 is a plan view of a portion of one end of the cylinder, parts being broken away. Fig. 3 is a vertical section on the line 3—3 of Fig. 2. Fig. 4 is a perspective view of the cylinder out of the shell or casing. Fig. 5 is a perspective view of one of the pieces in which the ends of the cylinder bars are mounted. Fig. 6 is a section on the line 6—6 of Fig. 5. Fig. 7 is a vertical, transverse section through the machine, the legs broken away. Fig. 8 is a longitudinal section on the line 8—8 of Fig. 7, the same being partially broken away. Fig. 9 is a modified form of a section of the cylinder showing the beater rods in cross section and the end pieces in elevation partly broken away at one end. Fig. 10 is a section on the line 10—10 of Fig. 9.

In detail the shell or outside casing 10 is mounted in and supported by a metal frame, the end frames 11 being held in place by the cross rods or braces 12. The lower part of the shell is transversely curved, the sides are vertical, the central portion of the top is horizontal and on each side of said top portion are inclined doors 13 hinged to the top portion. Within said shell there is a cylinder as shown in Figs. 4 and 7. Said cylinder consists of two end spiders or skeleton frames formed of metal and consisting of a central portion 15, a rim plate 16 and intermediate radial bars or spokes 17. To the portion 15, as shown in Fig. 8, a plate 18 is bolted having an outwardly extending spindle 19 that has bearings in the end frame 11 of the shell of the machine and carries a driving wheel 20.

The periphery of the cylinder is formed of sections, which sections consist of a number of round wooden beater bars 21, the ends of which fit loosely in holes 22 of end pieces 23 which lie against the inner surfaces of the end frames of the cylinder and are held from inward movement by lugs 24 at each end of piece 23. Said pieces are held from outward and also from lateral movement by the tie rods 24, which are between the sec-

tions of the cylinder and extend through the end frames and have nuts 25 on each end thereof. These tie rods bind the end frames against the ends of the cylinder rods 21 and also hold the pieces 23 in which the ends of the cylinder rods are mounted in their proper places. The annular series of pieces 23 at each end of the cylinder abut against each other as shown in Fig. 7. It is thus seen that said cylinder is in a comparatively knock-down form, the parts being combined and yet not secured together permanently, whereby they may be readily separated for replacing and for cleaning. Thus by loosening one of the nuts 25 and one of the tie-rods 24, any section of the cylinder may be removed by lifting it out and when lifted out the end pieces and round cylinder bars thereof are readily separated.

To form a door with any one of the sections of the cylinder so as to render the interior of the cylinder accessible, the beater bars 21 of any section have secured to them a pair of plates 30 with slotted ends to engage a tie-rod 24 to serve as a hinge or catch so that the section when opened may turn on said rod or be removed therefrom, and when closed will be held in place by said rod. Said hinged or door sections are at their free sides provided with spring latches for holding them closed. These latches consist of horizontal pins 35 mounted transversely of the bars 30 so as to project through suitable holes in the pieces 23 and end frames as shown in Fig. 3. The pins are held in closing position by springs 36, whereby the pins may be withdrawn from their locking position when it is desired to open or remove the section that constitutes the door leading into the cylinder.

In the modified form shown in Figs. 9 and 10 there is a piece 40 corresponding with the pieces 23 and provided with an additional recess at one end to receive the cylinder bar 41 that lies to the inside of another cylinder rod. When the machine is equipped with sections as shown in Fig. 9

there will be eight of these extra cylinder bars 41 that lie in a position so as to more forcibly and violently agitate the clothing as the cylinder is revolved.

The mounting of the shell removably in the frame of the machine is an important feature. It is suspended within said frame upon the two upper side rods 12 and to this end angle pieces 50 are secured to the upper edges of the shell 10 so that said angle pieces may rest upon the upper rods 12, and the angle pieces are removably secured on said rods by the bolts 51, as shown in Fig. 7.

What I claim as my invention and desire to secure by Letters Patent is:

1. A laundry washing machine including a cylinder with end frames, cylinder bars intermediate said end frames, metal pieces removably mounted in connection with the end frames and detachably holding the ends of said cylinder bars in groups and provided with lugs to engage the periphery of the end frames, and tie rods for holding the end frames against the intermediate groups of cylinder bars, substantially as set forth.

2. A laundry washing machine including a cylinder having end frames, intermediate cylinder bars, end pieces in which the ends of the cylinder bars are mounted in groups, said end pieces removably mounted in connection with the end frames, tie-rods between the groups of cylinder bars, metal bars secured to the cylinder bars of one group to form a door thereof, the ends of said metal bars adapted to engage one of the tie-rods, and means in the other ends of said metal bars that are adapted to engage the end frames and hold the door section closed.

In witness whereof, I have hereunto affixed my signature in the presence of the witnesses herein named.

EDWARD PROBST.

Witnesses:

OLIVE BREEDEN,  
V. H. LOCKWOOD.