March 23, 1926. 1,577,860

R. W. YATES

ROTARY WASHER CYLINDER

Filed March 17, 1924

Fig. 1

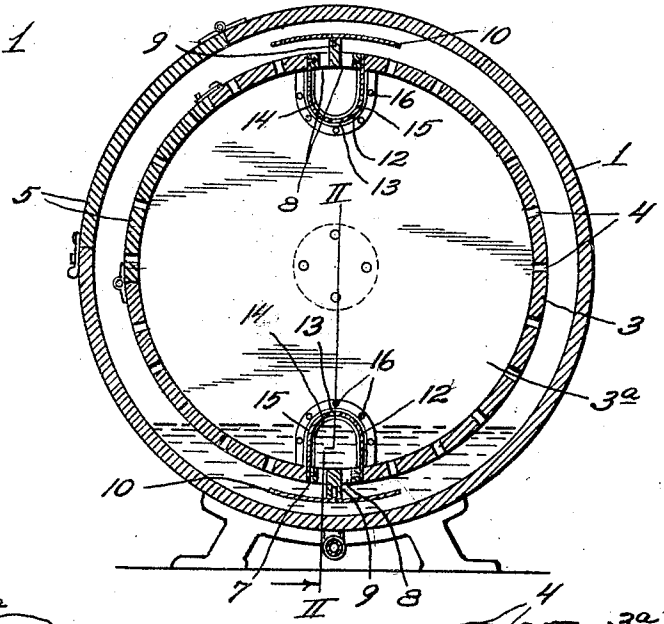


Fig. 2

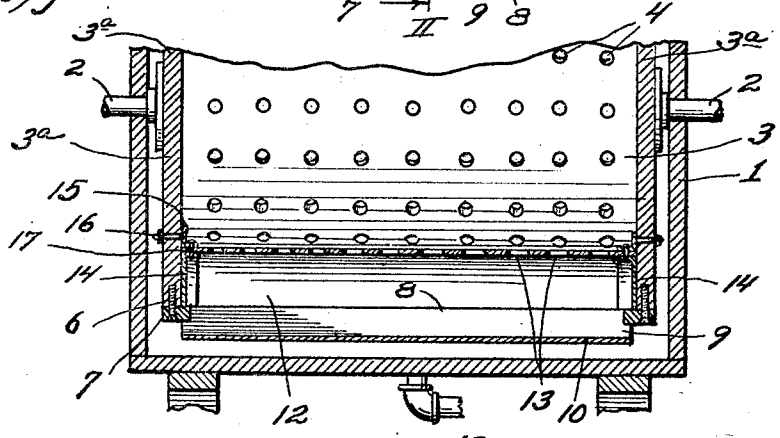
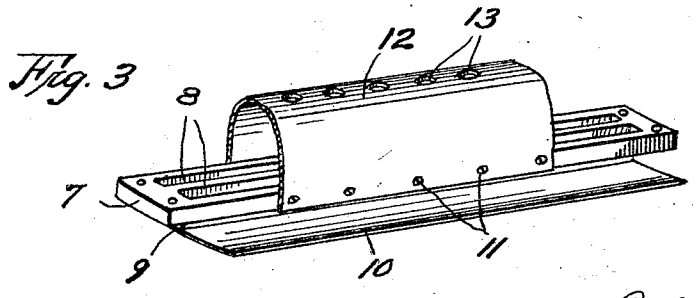


Fig. 3



Witness:

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UNITED STATES PATENT OFFICE.

RICHARD W. YATES, OF KANSAS CITY, MISSOURI.

ROTARY-WASHER CYLINDER.

Application filed March 17, 1924. Serial No. 699,763.

To all whom it may concern:

Be it known that I, RICHARD W. YATES, a citizen of the United States, and a resident of Kansas City, county of Jackson, State of Missouri, have invented a certain new and useful Improvement in Rotary-Washer Cylinders, of which the following is a complete specification.

This invention relates to washing machines, and has for its object to provide a scoop device for use with cylinders of the rotary or oscillating type of washing machines, the device being designed to intermittently direct the wash water into the washing drum or cylinder for promoting the agitation of the contents of the cylinder and producing a thorough penetration of the cleaning solution through the material being washed.

Another object is to produce a device of the character described which is of strong, durable, simple, efficient and inexpensive construction, and in order that it may be fully understood, reference is to be had to the accompanying drawing, in which:—

Figure 1 is a central vertical section taken through a cylindrical washing machine embodying the invention.

Figure 2 is a section on the line II—II of Figure 1.

Figure 3 is an enlarged perspective view of a hollow water distributing rib forming a part of the invention, said rib being partially broken away to disclose parts otherwise hidden.

In the said drawing, where like reference characters identify corresponding parts in all of the figures, 1 indicates an outer drum 2, the trunnions for the support of an inner drum or cylinder 3 which is formed with a series of perforations 4 for the egress and ingress of water. Each of said drums or cylinders is provided with a door 5 which may be brought into register for placing clothes in or removing them from the inner drum 3.

At a plurality of suitable points, preferably at diametrically opposite sides, the drum 3 is cut away, and inserted in said cut away portions and bridging the spaces between and secured to the drum ends 3^a by means of screws 6 and slats 7. The slats 7 are formed with pairs of slots 8, the division bars or partitions between the slots being extended at one side beyond the face of the cylinder, as shown at 9, see Figure 1. Secured to the external edges of said partitions are scoop members 10 substantially equal in length to the length of the slots 8 and said scoops project on opposite sides of and are slightly dished in order that they will pick up the water or cleaning solution in the outer drum 1 and, in cooperation with the partitions 9, direct it through either of the slots 8 according to the direction of rotation into the inner drum.

Secured by means of screws 11 along the opposite side edges of the slats 7 and extending into the drum 3 are the opposite side edges of hollow arch-shaped ribs 12 having series of perforations 13 at their corners for the exit of the water forced into the ribs through the slots 8, said ribs extending from one drum head 3^a to the other. The points of connection of the hollow ribs with the inner walls of the drum heads 3^a are reinforced internally by flanged arch plates 14 and externally by angle pieces 15 secured in position to the drum heads by means of bolts 16. The flanges of the arch plates 14, the end edges of the ribs 12 and one flange of each external angle piece are all rigidly secured together by means of bolts 17 (see Figure 2).

In the operation of the device it will be evident that regardless of the direction of rotation of the inner cylinder, the scoops 10 will pick up wash water from the outer cylinder and in cooperation with the partitions 9 will divert such water through one of the slots 8 into the hollow ribs, and during the further rotation of the cylinder, the ribs will successively elevate and agitate the contents of the cylinder 3, the water in the ribs escaping through the openings 13 and thus promoting a thorough and effective cleansing operation. It will be noted in this connection that the reinforcing of the ribs at their ends will stiffen such members so that they will withstand the weight of a large quantity of goods in the washer.

I claim:—

A slat construction for washing machine cylinders, comprising a slat bar having a pair of longitudinal slots, the portion of the slat between said slots projecting slightly outside the plane of the slat to form a longitudinal external partition, a scoop member having its longitudinal middle portion se-

cured to the outer edge of said partition and forming scoop elements projecting laterally in both directions from said partition, and a hollow arch-shaped rib member having its middle portion provided with a longitudinal series of openings, the longitudinal edges of said rib member being secured to the sides of said slat member and the ends of said rib member having flanges for attachment to the washing machine cylinder.

In witness whereof I hereunto affix my signature.

RICHARD W. YATES.