C. JENSEN.

CYLINDER FOR WASHING MACHINES.

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943,682.

Patented Dec. 21, 1909.

Fig 1

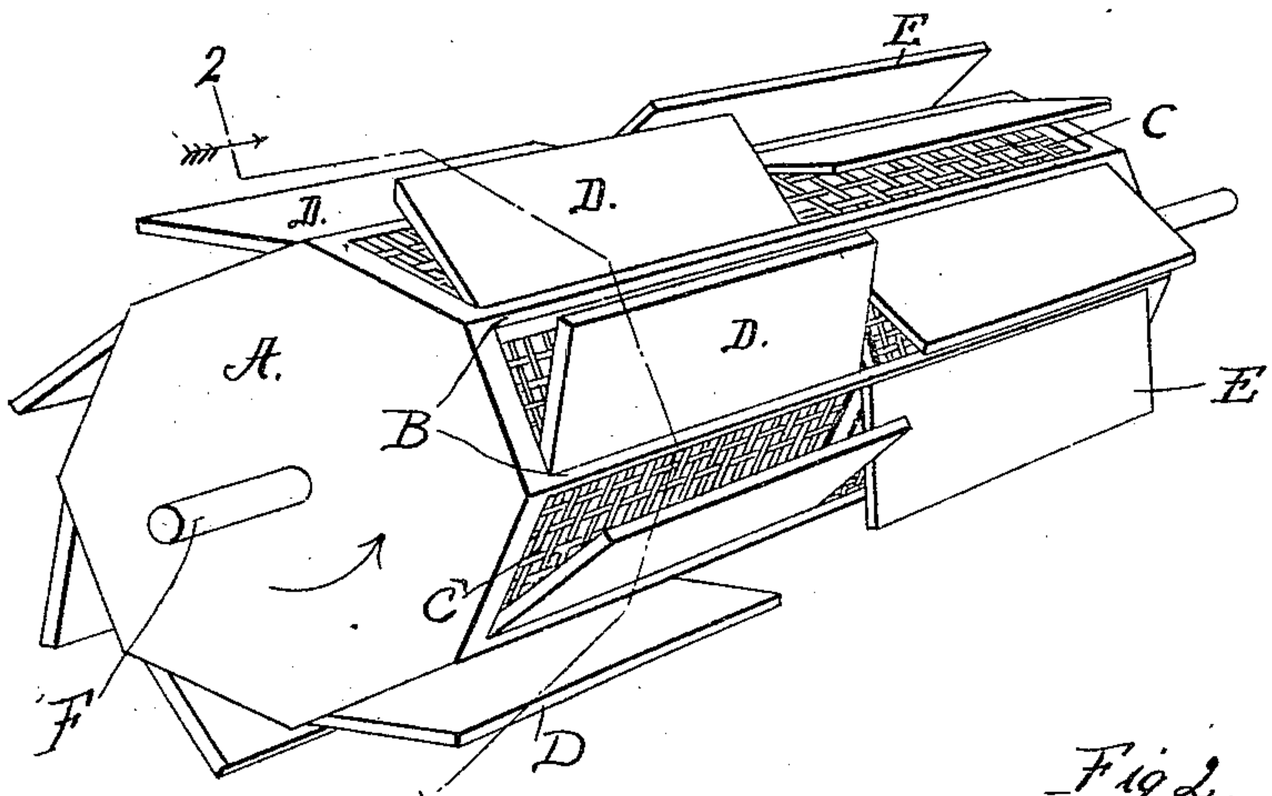

FIG. 3.

WITNESSES:-

Francis A. Pocock

J. Williamson

INVENTOR

Christian Jensen

BY

W. Preston Hillamson

ATTORNEY

UNITED STATES PATENT OFFICE.

CHRISTIAN JENSEN, OF PALMYRA, NEW JERSEY.

CYLINDER FOR WASHING-MACHINES.

943,682. Specification of Letters Patent. Patented Dec. 21, 1909.

Application filed January 22, 1907. Serial No. 353,460.

To all whom it may concern:

Be it known that I, CHRISTIAN JENSEN, a citizen of the United States, residing at Palmyra, county of Burlington, and State of New Jersey, have invented a certain new and useful Improvement in Cylinders for Washing-Machines, of which the following is a specification.

My invention relates to a new and useful improvement in cylinders for washing machines, and has for its object to provide an exceedingly simple and effective construction of cylinder or central revolving member to be used in a stationary casing, tank or cylinder of a washing machine and is especially adapted for use in connection with power operated washing machines and which will cause the volume of water to flow first in one direction and then in the opposite direction through the cylinder and the clothes or articles contained therein for the purpose of assisting in cleansing said articles.

With these ends in view, this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, I will describe its construction in detail, referring by letter to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a perspective of a cylinder made in accordance with my improvement; Fig. 2, is a transverse section on the line 2—2 of Fig. 1; Fig. 3 is a detail view showing one of the hinge door sections of the cylinder.

In carrying out my invention as here embodied A represents the heads of the cylinder which are connected together by the ribs B of any suitable shape, and between these ribs are secured the wire sections C permitting free access of water to the cylinder. A partition C′ is located midway between the heads and is preferably a wire screen for the free passage of the water thus dividing the cylinder into two compartments.

D are a series of scoops or wings extending one-half of the length of the cylinder and set tangentially thereto, and E are a similar series of scoops or wings set at an opposite angle to the wings D and extending the length of the remaining half of the cylinder. The cylinder is secured upon the shaft F, the latter being adapted to revolve in suitable bearings within the ordinary outer casing of the washing machine, any suitable means being used to revolve said shaft first in one direction then in the other in the well known manner of operating the cylinders of power washing machines.

In practice the articles to be washed are placed within the cylinder by the removal or opening of certain of the wire screens C which may be hinged for that purpose, and when the cylinder is revolved in the direction of the arrow marked thereon the series of wings D will scoop up the water contained in the tank in which the cylinder is being revolved, forcing it into the cylinder and causing it to flow through the same lengthwise of the same and through the openings between the wings E of the opposite series and after the cylinder has made the predetermined amount of revolutions in the direction of the arrow, forcing the water as just described, it will be reversed and revolved in the opposite direction during which time the wings E will scoop up the water forcing it in the opposite direction through the cylinder. As this operation is continuously repeated as long as the machine is in action it follows that the water will be forced through the cylinder and the articles contained therein first in one direction then in the opposite direction with considerable force by means of which the removal of the dirt from the clothes will be facilitated, and in practice I have found that a cylinder thus constructed and operated will wash clothing more thoroughly and in much less time than has heretofore been the case. Suitable doors G may be provided through which the clothes may be inserted and removed from the cylinder, as shown in Fig. 3 of the drawings.

Of course I do not desire to be limited in the exact construction shown in the drawings and herein described as the gist of my invention resides in the idea of constructing a cylinder for washing machines having screened openings and provided with means whereby the water in the machine will be caused to flow through the cylinder first in one direction and then in the other for the purposes above stated.

Having thus fully described my invention, what I claim as new and useful, is—

1. In a cylinder for washing machines, two cylinder heads an axle passing centrally

through said heads, a plurality of braces attached to the cylinder heads near to their circumference and parallel to the axle, said braces spaced equally apart and dividing the convex surface of the cylinder so formed into a plurality of rectangular spaces, a metallic openwork screen parallel to the cylinder heads and midway between them, metallic openwork screens covering each of the rectangular spaces, means for removing certain particular screens, a series of wings tangentially disposed to the convex surface of that portion of the cylinder lying between the transverse screen and one of the heads and adapted on rotation of the cylinder to scoop water into said cylinder when properly inclosed and revolved in a counter clock-wise direction, a series of wings similarly placed on the opposite half of said cylinder and adapted when properly inclosed and revolved in a clock-wise direction to scoop water into said cylinder, substantially as described.

2. In a cylinder for washing machines, two cylinder heads, an axle passing centrally through said heads, a series of braces spaced equally apart and attached to the opposite heads, a central division partition between the heads parallel thereto, and having a centrally disposed opening within said divisional partition, an open-work wire screen attached to the partition and to the spaces bounded by the parallel braces, means of access to the interior of the cylinder, tangentially disposed wings in the first half of the cylinder between the head and the central partition, said wings of equal size and attached to the corresponding long sides of each rectangular space, similar wings similarly disposed on the second half of the cylinder and attached to the corresponding opposite sides of the rectangular spaces, substantially as described.

3. A washing machine cylinder comprising a rotatable frame of polygonal form in cross section consisting of a pair of end closed heads and a central perforated partition dividing the cylinder into two sections, said frame having a series of openings along the peripheral surface of each section, vanes co-operatively held adjacent to said openings, and arranged in sets, one for each section, the vanes of one set being directed in the same general direction while those of the other set are oppositely directed, said vanes being rigidly secured to said cylinder.

In testimony whereof, I have hereunto affixed my signature in the presence of two subscribing witnesses.

CHRISTIAN JENSEN.

Witnesses:
JOSEPH C. SMITH,
S. M. GALLAGHER.