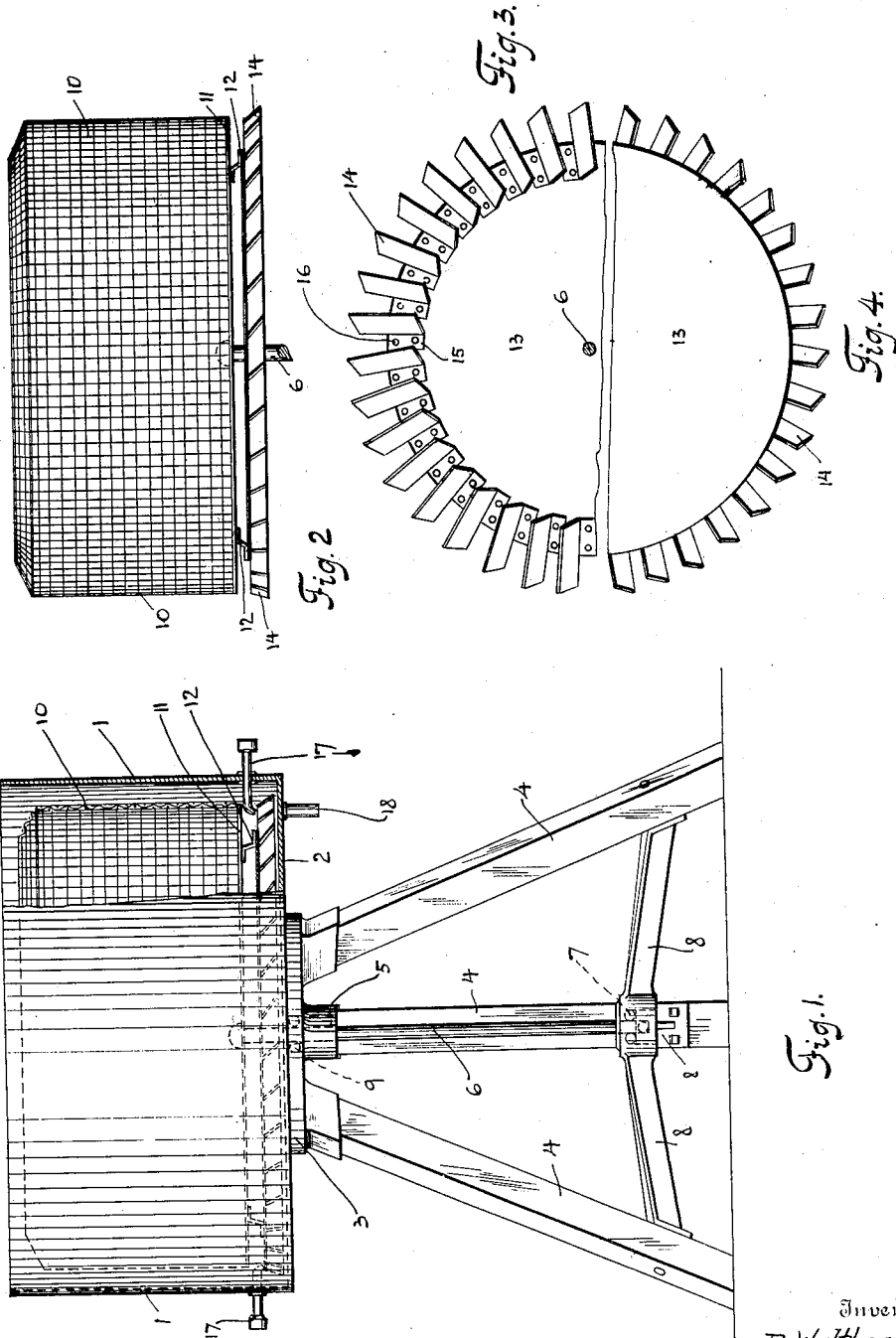


R. WALTHER, JR. & W. H. SCHERER.
CLOTHES WRINGER.

APPLICATION FILED APR. 20, 1909.

Patented Oct. 26, 1909.

938,358.



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UNITED STATES PATENT OFFICE.

ROBERT WALTHER, JR., AND WILLIAM H. SCHERER, OF PITTSBURG, PENNSYLVANIA.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, ROBERT WALTHER, JR., and WILLIAM H. SCHERER, citizens of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Clothes-Wringers, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to clothes wringers and more particularly to that type of wringer wherein water is employed as a power for imparting a centrifugal motion to a wringer for extracting water from clothes placed in the wringer.

The object of our wringer is to provide a centrifugal wringer with a simple, durable and inexpensive water wheel or motor adapted to rapidly revolve when the ordinary pressure of water is projected against the wheel or motor.

We attain the above object by providing a stationary receptacle with a revoluble cage upon the bottom of which there is arranged a wheel or motor having blades positioned to impart a rotary movement to the cage when water is projected against said blades.

Our invention will be hereinafter described in detail and then pointed out in the appended claims and reference will now be had to the drawing forming part of this specification, in which—

Figure 1 is an elevation of the clothes wringer partly broken away and partly in section, Fig. 2 is an elevation of a detachable cage, Fig. 3 is a bottom plan of a portion of a water wheel or motor, and Fig. 4 is a top plan of the same.

In the drawings, 1 denotes a cylindrical receptacle having the bottom 2 thereof suitably secured to the cap 3 of a tripod 4. The cap 3 is provided with a depending stuffing box 5 through which extends a vertical shaft 6, said shaft having the lower end thereof supported by antifriction balls 7, located in the spider 8 supported by the tripod 4. Antifriction balls 9 are used in the cap 3, and these balls together with the balls 7 are adapted to reduce the friction between said shaft and these bearings to a minimum.

10 designates a cylindrical cage, preferably made of interwoven wire, said cage being of a less diameter than the receptacle 1, whereby said cage can be fixed to the

upper end of the shaft 6 to freely revolve within said receptacle. The cage 10 is provided with a solid bottom plate 11 to which the shaft 6 is connected, said bottom plate 11 having depending brackets 12 for supporting a circular motor plate 13 through which the shaft 6 extends and can be secured to said plate.

14 designates a plurality of circumferentially arranged and radially disposed blades secured to the underside of the plate 13 at the edges thereof, said blades protruding beyond the edges of the motor plate 13, while their inner ends are flanged, as at 15, and riveted or otherwise secured to the motor plate, as at 16, each blade 14 is disposed at an inclination relative to the motor plate 13 to present a flat surface at right angles to the direction in which water is projected by transversely-extending nozzles 17 extending into the receptacle 1 and having the discharge ends thereof depending at an inclination. These nozzles are adapted to be connected to ordinary water supply pipes, and the inner ends of said nozzles extend downwardly and tangentially relative to the periphery of a motor, whereby water discharged by said nozzles will impinge the blades and cause the cage 10 to revolve. It will, of course, be understood that the nozzles 17 are projected at opposite angles within the receptacle 1, whereby said nozzles will cooperate to propel the water wheel or motor in one direction.

When the cage 10 is rapidly revolved, water is extracted or forced from the clothes within the cage by the centrifugal force created by the rapidly revolving cage, and the water extracted from the clothes, together with the water discharged from the nozzle 17, is carried off from the receptacle 1 by a drain pipe 18.

It is thought that the operation and utility of our wringer will be apparent without further description, and while in the drawings there is illustrated a preferred embodiment of our invention, it is to be understood that the structural elements thereof can be varied or changed without departing from the spirit of the invention.

Having now described our invention, what we claim as new, is:—

1. A machine of the character described comprising a receptacle, a support for said receptacle, a revoluble shaft journaled in

said support and extending into said receptacle, a cage arranged within the receptacle and connected to the shaft, brackets depending from the bottom of said cage, a motor plate of less diameter than the diameter of the bottom of the cage and connected to the lower ends of said brackets whereby a space is formed between the bottom of said receptacle and said plate, a plurality of circumferentially-arranged and radially-disposed blades connected to the lower face of said plate at the perimeter thereof and extending downwardly therefrom, and nozzles extending in said receptacle, in a plane between the bottom of the cage and the top of the plate and having the discharge ends thereof depending at an inclination and adapted to discharge water against the outwardly projecting portions of the blades to simultaneously revolve said plate and cage.

2. A machine of the character described comprising a receptacle, a support for said receptacle, a revoluble shaft journaled in said support and extending into said receptacle, a cage arranged within the receptacle and connected to the shaft, brackets depending from the bottom of said cage, a motor

plate of less diameter than the diameter of the bottom of the cage and connected to the lower ends of said brackets whereby a space is formed between the bottom of said receptacle and said plate, a plurality of circumferentially-arranged and radially-disposed blades connected to the lower face of said plate at the perimeter thereof and extending downwardly therefrom, and nozzles extending in said receptacle, in a plane between the bottom of the cage and the top of the plate and having the discharge ends thereof depending at an inclination and adapted to discharge water against the outwardly projecting portions of the blades to simultaneously revolve said plate and cage, said blades disposed at an inclination with respect to the lower face of the plate, and a drain pipe communicating with the bottom of said receptacle.

In testimony whereof we affix our signatures in the presence of two witnesses.

ROBERT WALTHER, JR.
WILLIAM H. SCHERER.

Witnesses:

FRANK Y. OVER,
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