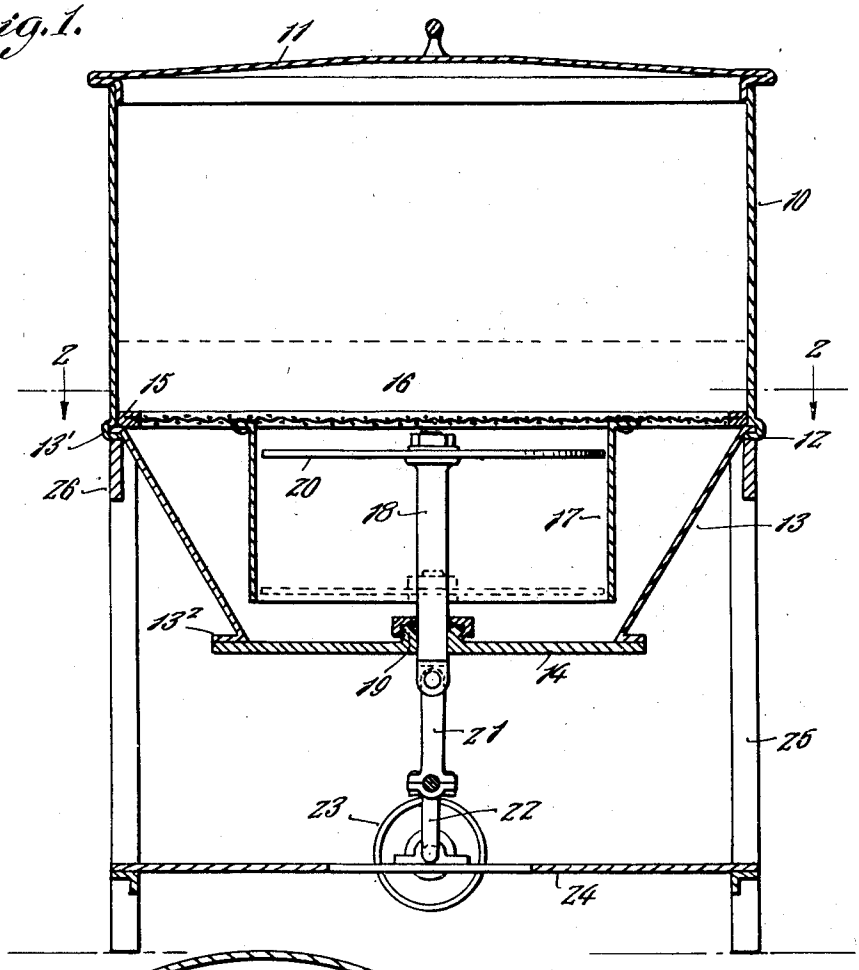
June 18, 1929. H. W. COVERT 1,718,115

WASHING MACHINE

Filed June 27, 1927

Fig. 1.



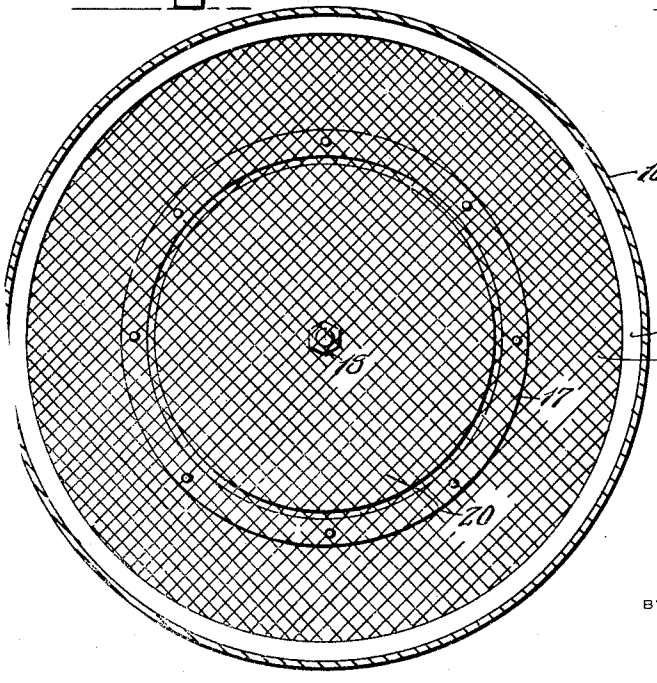


Fig. 2.

H. W. Covert
INVENTOR

BY Victor J. Evans
ATTORNEY

Patented June 18, 1929. 1,718,115

UNITED STATES PATENT OFFICE.

HARRY W. COVERT, OF JAMESTOWN, NEW YORK.

WASHING MACHINE.

Application filed June 27, 1927. Serial No. 201,788.

This invention relates to washing machines embodying among other characteristics a clothes compartment free from contact with an agitating apparatus.

Another object of the invention comprehends a liquid chamber having communication with the compartment.

A further object of the invention contemplates an agitating apparatus adapted to circulate the contents of the chamber through the compartment whereby the liquid will be forced through the clothes.

With the above and other objects in view, the invention further consists of the following novel features and details of construction, to be hereinafter more fully described, illustrated in the accompanying drawing and pointed out in the appended claim.

In the drawing:

Figure 1 is a vertical sectional view of the invention.

Figure 2 is a transverse sectional view taken on line 2—2 of Figure 1.

Referring to the drawing in detail, wherein like characters of reference denote corresponding parts, the reference character 10 indicates a compartment or receptacle having a lid 11. An annular grooved portion 12 is provided upon the lower periphery of the receptacle. A substantially inverted frusto-conical shaped apron 13 is provided with an annular flange portion 13′ upon the upper periphery thereof received within the groove, a similar portion 13^2 being provided upon the opposed periphery of the apron and connected with the upper side of a bottom 14. A frame member 15 carried within the receptacle 10 and supported upon the flange 13′ carries a reticulated body 16.

A cylinder 17 is connected with the underside of the body 16 and depends an appreciable distance therefrom and having the lower periphery thereof disposed in spaced relation to the apron 13 and bottom 14. A shaft member 18 mounted for reciprocatory movement within a packing gland 19 carried by the bottom 14 has mounted upon the upper end thereof within the cylinder 17 a piston or plunger 20 having a diameter smaller than that of the cylinder 17. A connecting rod 21 carried by the shaft 18 is operatively connected with a crank arm 22, said crank arm being operated by a motor 23 or other source of momentum as carried upon a platform 24 disposed in an elevated position upon a frame structure 25 for the receptacle 10. The frame structure is provided with an annular plate 26 adapted to support the bottom wall of the groove 12 upon the upper edge thereof.

In the use and operation of the invention the apron 13 and bottom 14 provide a chamber for holding a liquid; the surface of the liquid may be any desired distance above the reticulated body 16 according to the amount of clothes deposited within the receptacle 10. It is thus to be noted that comunication is permitted between the compartment and chamber through the reticulated body 16.

When the device is called into use the motor 23 will impart reciprocating motion to the piston or plunger 20 within the cylinder 17. By reason of the fact that the diameter of the piston is smaller than that of the cylinder a greater degree of suction power will be produced. The successive strokes of the piston due to the displacement thereof will cause repeated compression and suction strokes to the liquid circulating through the receptacle or compartment. The liquid will thus be forced through the clothes within the compartment free from contacting engagement with the agitating apparatus. Upon the upward or compression stroke of the piston or plunger the liquid will be forced upwardly through the body 16 and through the clothes. Such action will cause the water or liquid to find its way back within the chamber, defined by the apron 13, upon the outer sides of the cylinder 17 through the body 16. The downward or suction stroke of the piston will reverse the movement or course of the liquid and thus cause said liquid to be forced in an opposite direction through the clothing thereby loosening and removing extraneous matter from the clothing.

Due to a well founded fundamental of mechanics, incident to that of the stroke of a piston being equal to twice the length of a crank arm, the utmost displacement will be given the piston to successfully function in the accomplishment of its intended purpose.

The frame 15 and cylinder may be readily removed to permit access to various parts of the machine as the occasion may require.

The invention is susceptible of various changes in its form, proportions and minor details of construction, and the right is herein reserved to make such changes as properly

fall within the scope of the appended claim.

Having described the invention, what is claimed is:

A washing machine comprising a receptacle provided with an annular groove within one end, a substantially inverted frusto-conical shaped apron having an annular flange portion upon the periphery thereof received within the groove, a bottom carried by the apron adapted to provide a liquid receptacle, a frame member supported upon the flange of the apron within the receptacle and carrying a reticulated body thereon to establish communication with the liquid receptacle, a cylinder carried by and depending from the body and extended an appreciable distance within the liquid receptacle, and a piston of smaller diameter than the inner diameter of the cylinder being adapted to cause circulation of the receptacle contents through the first mentioned receptacle and cylinder in opposite directions when a liquid is forced through the work.

In testimony whereof I affix my signature.

HARRY W. COVERT.