April 22, 1930. C. E. STANLEY 1,755,341

WASHING MACHINE

Filed Sept. 3, 1929

Fig. 1

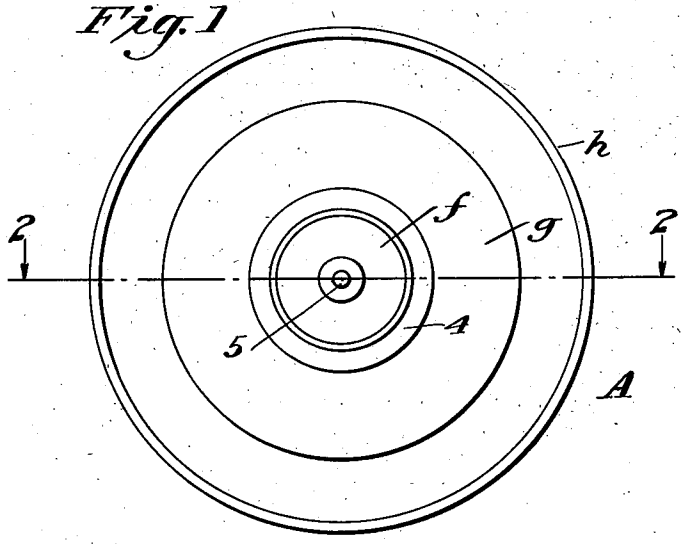
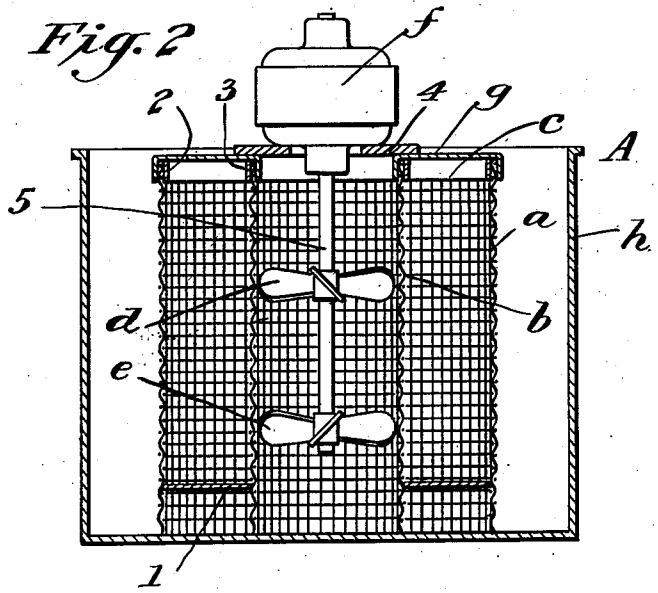


Fig. 2



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UNITED STATES PATENT OFFICE

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WASHING MACHINE

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This invention relates to washing machines, and has for an object the provision of a washing machine which is inexpensive of manufacture and which can be placed within an ordinary tub for operation. The average washing machine requires a specific container of its own and is extremely expensive.

A further object of the present invention is to provide a washing machine which is universal in its adaptability and which will thoroughly force suds through the clothes to be washed.

Another object is the provision of a washing machine which will perform the washing operation within a minimum of time and yet in a very thorough manner.

Another object is the provision of a washing machine in which the parts are so arranged as to effectively overcome any tendency of the parts to get out of order.

Another object is the provision of a washing machine utilizing few parts.

Another object is the provision in a washing machine of means whereby suds are assured of being passed through the clothes to be washed and at a rapid rate.

Further objects will appear as the specification proceeds, among which are simplicity of structure and general superiority.

With the above and other objects in view, the invention consists in the novel and useful provision, formation, construction, association, and relative arrangement of parts, members and features, all as shown in a certain embodiment in the accompanying drawing, described generally, and more particularly pointed out in the claims.

In the drawing:

Figure 1 is a top plan view of the improved washing machine, and,

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

Referring to the drawing, the improved washing machine is designated as an entirety and in one embodiment by A. The same includes as elements a pair of spaced concentric members *a* and *b* providing therebetween a jacket portion *c* and means *d* and *e* adapted to be driven by suitable means *f*.

The members *a* and *b* are preferably of screen-like or foraminous formation and may be formed of material which is inherently stiff. These members are maintained in concentric relation by providing an annular base 1 which may be fastened to both said members. Furthermore, both members have secured thereto and adjacent one end thereof annular rings 2 and 3. If necessary, longitudinally extending brace members might be provided for the members *a* and *b*. An annular cap *g* is adapted to span the space between the members *a* and *b* and to close said space at the upper end thereof as shown in Figure 2. The motor *f* is of conventional design, and a plate 4, annular in formation, is adapted to rest upon the annular cap *g*. The shaft 5 of said motor is of extended length and carries thereon the elements *d* and *e* constituting propellers. The blades of the propeller *d* are pitched so as to direct fluid in one direction, while the blades of the propeller *e* are pitched for directing fluid in an opposite direction. This in the main constitutes the washing machine, the operation of which is as follows:

The washing machine may be placed in a suitable container or basin *h*. This basin may be filled with suds. The plate 4 is lifted from the cap *g* and the motor likewise removed, whereupon the cap *g* may be lifted and the clothes to be washed are placed in the jacket portion *c*, which is that portion included between the members *a* and *b*. The plate 4 is then replaced along with the motor and the motor energized, whereupon the shaft 5 will be rotated to in turn produce rotation of the propellers *d* and *e*. The propeller *e* will draw the suds through the foraminous members *a* and *b* and upwardly towards the annular cap of the washing machne while the propeller *d* will draw the suds through the foraminous members and direct the flow path of the fluid downwardly. It is apparent that the two fluids will meet somewhere between the two propellers and an eddy current will be formed. The result is that fluid is pulled through the clothes to be washed and kept in circulation. The motor is preferably of the high speed type and the fluid flow is extremely rapid. It has been found that a

washing machine of this character will wash clothes clean within five minutes. There is practically no splash when the machine is in operation.

It is apparent that a device of this character may be manufactured quite cheaply, to the end that washing machines can become universal in adoption rather than being owned by a few. The drawing illustrates the simplest form of my invention and various refinements may be resorted to in accordance with the amount of money to be expended for a machine of this character. It is also realized that the motor may be spaced a distance above the member 4 and that other means may be utilized for permitting entrance in the jacket portion for the clothes and all within the skill of any mechanic and the scope of the appended claims.

Whereas the average washing machine depends upon a suction effect, that is to say, the reciprocation of vacuum-like members to force fluid through at a slow rate, the present invention depends upon the direct forcing of fluid at a high speed through the clothes. It is apparent that as between the two methods that there is less likelihood of damage to the clothes by utilizing a device of the character just described than by the other method, for the reason that no mechanical parts of the washing machine come in direct contact with the clothes. The other devices all use mechanical means in direct contact with the articles to be washed.

It is obvious that various changes and modifications and variations may be made in practicing the invention in departure from the particular showing of the drawing without departing from the true spirit thereof.

I claim:

1. In a washing machine, a pair of concentric spaced foraminous members forming therebetween a jacket, a base member between and inwardly spaced from one end of said foraminous members, and a cap secured to and closing one end of the foraminous members.

2. In a washing machine, a pair of concentric spaced foraminous members forming therebetween a jacket, a base member between and inwardly spaced from one end of said foraminous members, a cap secured to and closing one end of the foraminous members, and a propeller within the confines of the inner annular foraminous member and whereby when said propeller is rotated and the foraminous members are within a fluid, said fluid is directed in a circuitous path.

3. In a washing machine, a basin adapted to hold a fluid, a pair of concentric spaced foraminous members forming therebetween a work-receiving jacket, received within said basin and fluid, and spaced substantially from the basin from the top and bottom thereof, and means within the confines of the inner concentric member for causing said fluid to move in a circuitous path through the foraminous members.

In testimony whereof, I have signed my name to this specification at Los Angeles, California, this 23rd day of August, 1929.

CHARLES E. STANLEY.