June 8, 1954 J. DOUGHERTY 2,680,367

PORTABLE CLOTHES WASHER

Filed Sept. 7, 1951

Fig. 1.

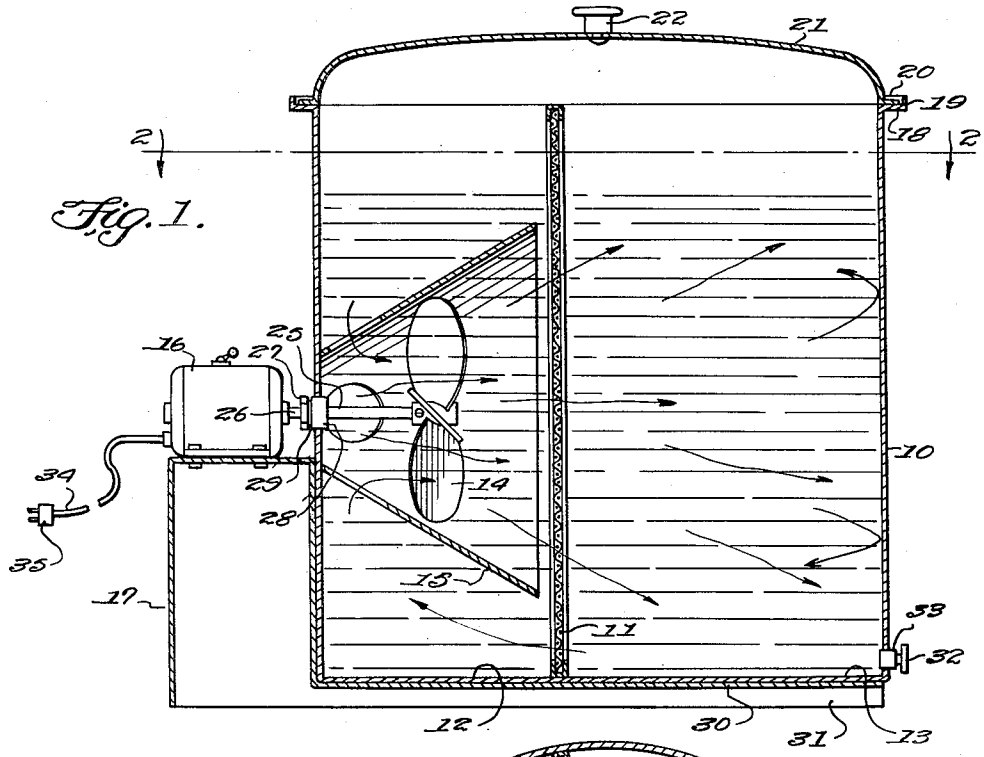
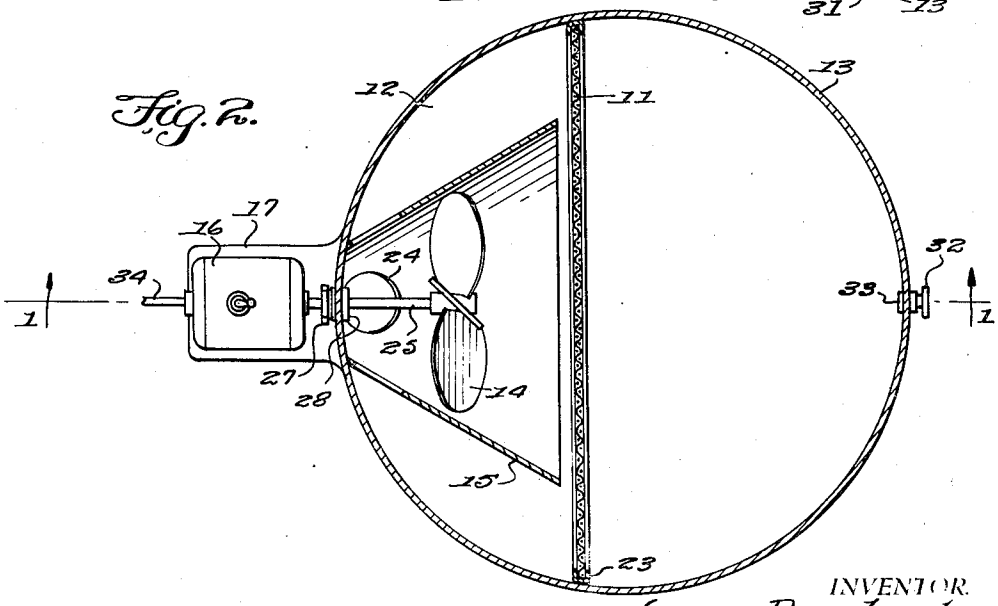


Fig. 2.



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PORTABLE CLOTHES WASHER

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2 Claims. (Cl. 68—184)

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This invention relates to small washing machines of the type particularly adapted for apartment use, and in particular a washing machine formed in a cylindrical housing with a wire screen partition extended across the housing and with a motor driven fan positioned on one side of the partition with the motor extended beyond the wall of the housing and with the fan positioned to drive soapy water through the wire screen partition and through clothes positioned on the opposite side of the partition.

The purpose of this invention is to provide a small washing machine that is particularly adapted for washing nylons and other small articles of clothing wherein the articles are washed without contacting agitators or other moving parts and also in which, after the articles are washed, water may be drained from the machine and the agitator means or fan used for drying the articles.

Various types of small washing machines have been provided; however, in the conventional type of small washing machine either the housing is reciprocated or clothes are forced through water by an agitator or the like. Both of these types of machines are unsatisfactory for apartment house use, and with this thought in mind this invention contemplates a small washing machine formed in a cylindrical housing in which means in provided for driving water through clothes positioned in one side of the housing without the clothes coming in contact with moving parts.

Another object of the invention is to provide a small washing machine for apartment house use in which articles of clothing may be both washed and dried.

A further object of the invention is to provide a comparatively small washing machine for washing and drying small articles of clothing which is of a simple and economical construction.

With these and other objects and advantages in view the invention embodies a cylindrical housing having a motor positioned on a stand at one side, with a fan operatively connected to the motor through the wall of the housing and positioned to drive water from one side of the housing through a wire mesh screen partition and into the opposite side thereof.

Other features and advantages of the invention will appear from the following description taken in connection with the drawings wherein:

Figure 1 is a vertical section through the machine taken on line 1—1 of Figure 2.

Figure 2 is a sectional plan through the machine taken on line 2—2 of Figure 1.

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Referring now to the drawings wherein like reference characters denote corresponding parts the improved small washing machine of this invention includes a cylindrical housing 10 having a wire screen 11 extended through the intermediate part thereof and dividing the housing into compartments 12 and 13, and a fan 14, positioned in a baffle 15 in the compartment 12 and driven by a motor 16 and positioned on a stand 17 at one side of the housing.

The upper end of the housing 10 is provided with a continuous annular flange 18 having a lip 19 on the outer edge and a flange 20 of a cover 21 is positioned on the flange 18 and retained in position by the lip 19. The cover 21 is provided with a knob 22.

The wire screen 11 is mounted in a frame 23 that is secured to the inner surface of the housing 10 and the frusto-conical shape baffle 15 is also secured to the inner surface of the housing 10, being held in place by welding or other suitable means, and with the baffle positioned as shown, water is driven from the baffle by the fan 14 and forced through the screen 11, the water being drawn into the baffle through openings 24.

The fan 14 is carried by a shaft 25 which is connected to the motor shaft 26 by a coupling 27 and, as shown in Figure 1, the shaft 25 is held in a bearing 28 that also provides a seal, being positioned in an opening 29 in the wall of the cylindrical housing.

In the design shown the housing 10 is mounted on a base 30 having a continuous flange 31 and the base extends upwardly at one side to provide the stand 17 upon which the motor 16 is mounted.

The housing is also provided with a drain plug 32 that is threaded into a nipple 33.

Current is supplied to the motor 16 through a cord 34, the extended end of which is provided with a plug 35.

With the parts formed in this manner the washer may be partly filled with water having soap or other cleaning materials therein and with small articles of clothing placed in the compartment 13 the fan is rotated by the motor, driving the water through the screen partition and through the articles of clothing in the compartment.

After the clothes are washed, water is drained from the housing and the fan is operated to force air through the clothes for drying the clothes.

It will be understood that modifications may be made in the design and arrangement of the parts without departing from the spirit of the invention.

What is claimed is:

1. A washing machine comprising a cylindrical housing, a wire mesh screen extended across the interior of the housing dividing the housing into two compartments, a fan positioned in one of said compartments, the said wire mesh screen being vertically positioned to one side of the center of the housing so that the compartment in which the fan is positioned is smaller than the clothes holding compartment, a frusto-conical shaped baffle with openings therein positioned around the fan so that the mouth of the baffle is adjacent the wire mesh screen, a cover on the upper end of the housing and means mounted exteriorly of the housing for driving the fan.

2. In a small washing machine, the combination which comprises a vertically positioned cylindrical housing, a vertically extending wire mesh screen extended across the interior of the housing and positioned off center thereof dividing the housing into a small compartment and a large compartment, a horizontally disposed shaft extended through the wall of the housing and into said small compartment thereof, a fan carried by the inner end of the shaft and positioned in the said small compartment, a frusto-conical shaped baffle having openings through the wall thereof positioned around the fan in the said small compartment, so that the mouth of the baffle is in close proximity to the screen, a cover positioned upon the upper end of the housing, a base upon which the housing is mounted, said base having a stand extended upwardly on the side of the housing in which the small compartment is positioned, and a motor mounted on the stand and operatively connected to the said horizontally disposed shaft.

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