W. E. C. POWELL.

CONVERTIBLE WASHING MACHINE.

APPLICATION FILED MAY 15, 1919.

1,387,173. Patented Aug. 9, 1921.

Fig. 1.

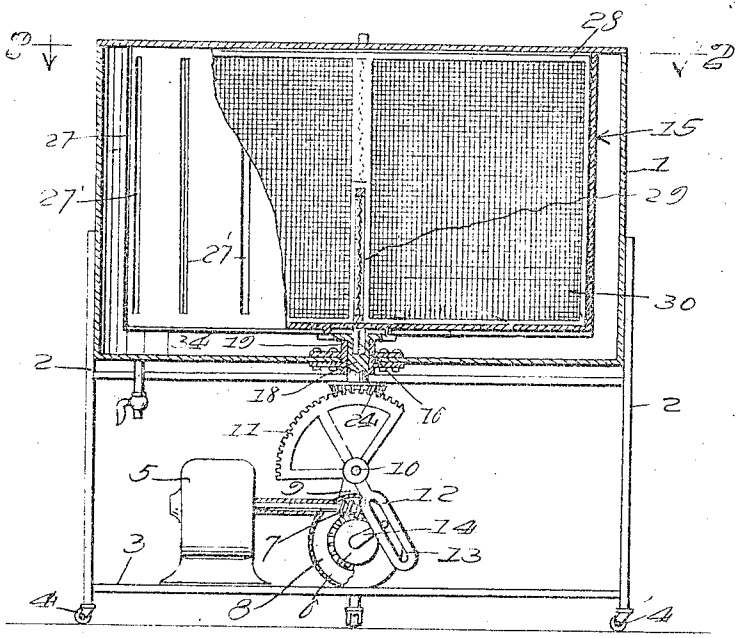


Fig. 2.

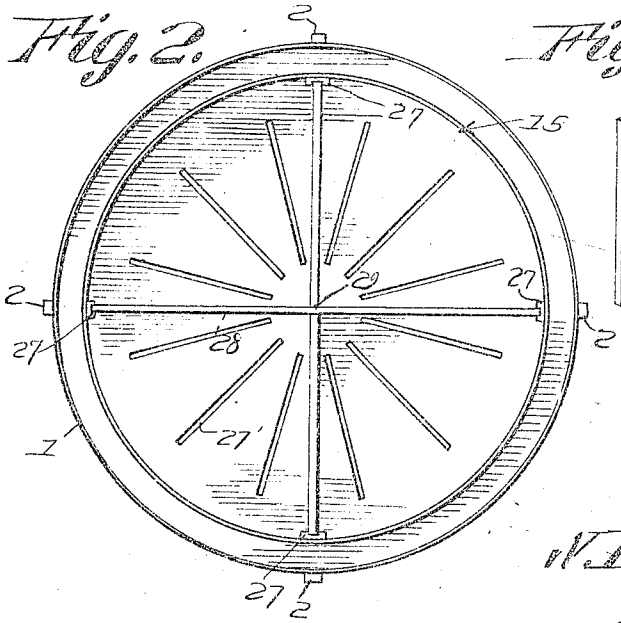
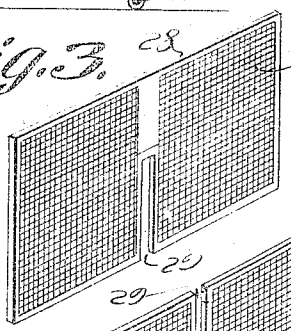


Fig. 3.



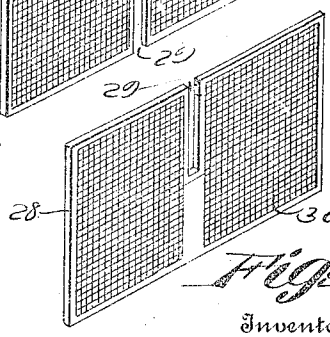


Fig. 4.

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CONVERTIBLE WASHING-MACHINE.

1,387,173. Specification of Letters Patent. Patented Aug. 9, 1921.

Application filed May 15, 1919. Serial No. 297,248.

To all whom it may concern:

Be it known that I, WILLIAM E. C. POWELL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Convertible Washing-Machines, of which the following is a specification.

The object of the invention is to provide a washing machine consisting of a washing fluid container and an article container of which the latter is of compartmental structure and provided with removable partition members interlocking at their longitudinal centers so that when removed from the container they may be disconnected from each other to provide for storing in a minimum of space. The article container is thus adapted for the reception of dish holding baskets and the like.

There is thus provided a compact structure of a wide range of usefulness with the resultant reduction in floor space required in any household where such appliances are used, and with the advantage of a greatly reduced first cost and up-keep to the purchaser or buyer.

Further objects ancillary to the plan and pre-conceived design of the invention appear hereinafter, as the same is set forth in the following description.

As illustrated and described a specific embodiment of the invention is adhered to but to this embodiment the invention is not to be restricted. The right is reserved to make such changes or alterations as the actual reduction to practice may suggest, in so far as such changes or alterations are compatible in spirit with the annexed claims.

The same numerals of reference designate the same parts throughout the several figures of the drawings, wherein:

Figure 1 is a central vertical sectional view through the improved convertible washer.

Fig. 2 is a section on the line 2—2 of Fig. 1.

Fig. 3 is a perspective view of one of the partition members used in the supplemental container.

Fig. 4 is a perspective view of the companion partition member.

As shown, the invention comprises a main tub or container 1 supported upon a suitable frame work or stand 2 which is provided with an appropriate base 3 and casters 4, whereby the stand and with it the main tub 1 and its attendant parts may be readily moved from place to place.

Upon the base 3 there is mounted a driving motor 5 which is operatively connected to a worm wheel 6 by means of a worm 7. The details to this construction are not fully illustrated herein because of the many conventional forms that could be employed. Suffice it to say that the motor drives the worm 7 and the latter turns the worm wheel 6 which is appropriately mounted for rotary movement and which is inclosed within a housing or casing 8.

Upon the base 3 and positioned adjacent the center of the latter there is a support 9 at the upper end of which there is provided a pin or stud 10, this latter serving as an oscillating pivot for a segmental bevel gear 11 which is formed with a radially disposed arm 12 having a longitudinal slot 13 formed therein in which there moves the outer end of a crank arm 14, the latter being operatively connected to the disk 6. Obviously when the motor 5 is put in motion it will through its worm 7 rotate the worm wheel 6 and the latter will rotate the crank arm 14, this crank arm serving to oscillate the segmental bevel gear 11 on its pivot stud 10.

Positioned within the outer tub or container 1 there is a supplemental container or tub 15 which is preferably of cylindrical shape, as is the outer tub 1 preferably. This supplemental tub or container 15 has slotted side walls and a slotted bottom, as indicated at 27', so that the liquid contents of the container 1 may readily enter the supplemental container. From the center of the bottom of the supplemental container there depends a stud 16 for the purpose of positively connecting this supplemental container to its driving means. This stud 16 is polygonal in cross section (preferably square) and is designed to seat in a socket formed in the upper end of a shaft 18 which is rotatably mounted in a bearing 19 carried by the bottom of the main tub 1. At the lower end of the shaft 18 there is carried a bevel gear 24 which meshes with the bevel segment 11, so that when the segment oscillates, a rotary movement of the shaft 18 may be had first in one direction and then in the other, a similar movement being imparted to the supplemental container 15 when the latter is

connected with the shaft, as it is designed to be by means of the square stud 16 which seats in the corresponding socket.

A plurality of partition members is designed for use in the supplemental container so that these may be readily removable therefrom. To this end there are mounted on the inner walls of the supplemental container at specified points the upstanding channel members 27. In the present disclosure these channel members are disposed at angular distance of 90° and diametrically opposite channel members are designed to receive one of the partition members, there being two of such partition members in the present embodiment. Each partition member comprises a frame 28 of rectangular conformation with the exception that at its longitudinal center and extending in from one side the frame is formed to provide a slot 29. Each frame 28 carries wire mesh or reticulated members 30 to make the partition member fluid penetrable and in mounting the partition members in the supplemental container the one is inverted with respect to the other so that the two may cross at their center, the slots 29 formed in the frames 28 providing for making the one partition member straddle the other where the slot is formed, as is clearly apparent in Fig. 1 and in Figs. 3 and 4.

When the reticulated partition members are used the machine is intended for the washing of clothes, these partition members, as is apparent, dividing the supplemental container 15 into a plurality of compartments in which there are placed fabrics of different textures. When the motor 5 is started, the inner container 15 and with it the partition members is rotated first in one direction and then in the other. The washing fluid being held in the stationary or main container 1, the fabrics carried in the compartments in the supplemental container are by the alternate turning of the supplemental container first in one direction and then in the other, tossed forward and backward in the water, the clothes being caught up against the sides of the partition members during this movement of the container and driven through and against the water, thus insuring the maximum amount of water passing entirely through the mesh of the fabrics and through the reticulated partition members. The water circulating forcibly through the slots in the sides and bottom of the inner container creates a constant agitation or disturbance of the fabrics and effectively prevents them from rolling up or bunching. As the supplemental container and with it the partition members reverse the direction of movement, the clothes are driven against the swirl of oncoming water which is thus caused to be thrown through the fabrics, the force of the water passing through the fabrics being intensified as the inner container changes its direction of movement.

The invention having been described, what is claimed as new and useful is:

1. A washing machine comprising a main container, a supplemental container disposed within the main container, means for moving the supplemental container so that the contents thereof may be driven through a washing fluid contained in the main container, removable partition members each formed with a transversely disposed slot at an intermediate point in its length so that the said partition members may cross each other at the center of the supplemental container, and means for positively securing the partition members at their ends to the supplemental container.

2. A receptacle having detachable interconnecting partition members each consisting of a rectangular frame formed at its longitudinal center with an inwardly extending slot, whereby the members may be assembled in crossing relation with their side edges in the same planes, and reticulated members covering said frames on the opposite sides of the slots.

3. A receptacle having detachable interconnecting partition members each consisting of a frame formed with an inwardly extending lateral slot, whereby the members may be assembled in crossing relation with their side edges in the same planes, and covering means spanning the frames and provided with openings adapted for the passage of a fluid therethrough.

In testimony whereof I affix my signature.

WILLIAM E. C. POWELL.