Nov. 8, 1927. 1,648,530

A. W. ALTORFER

WASHING MACHINE TUB

Original Filed Dec. 16, 1924

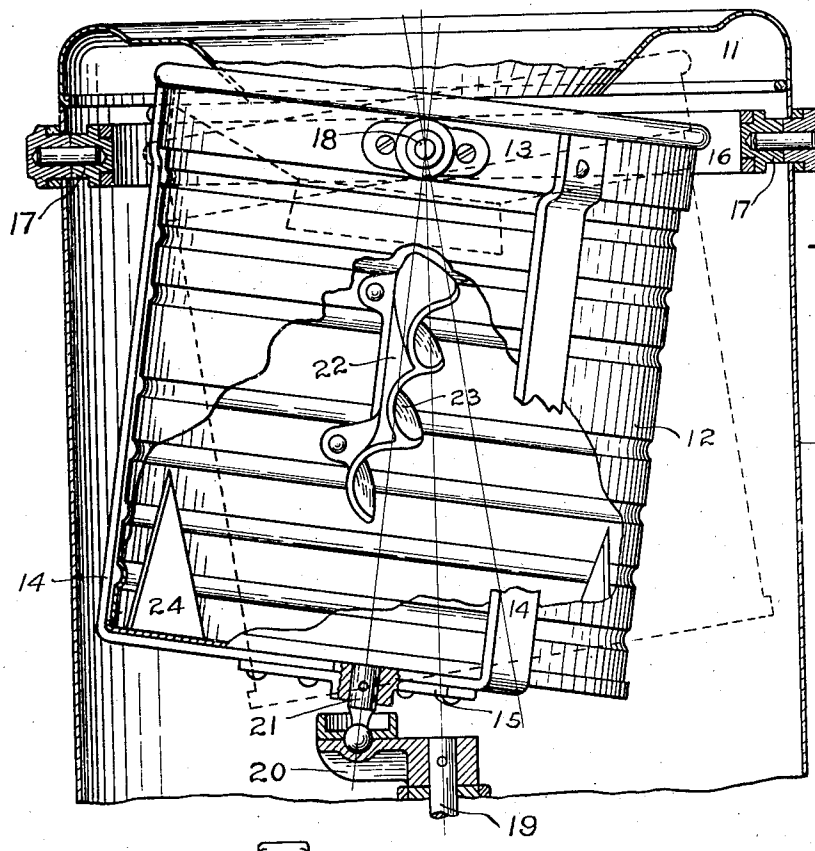


FIG. 1.

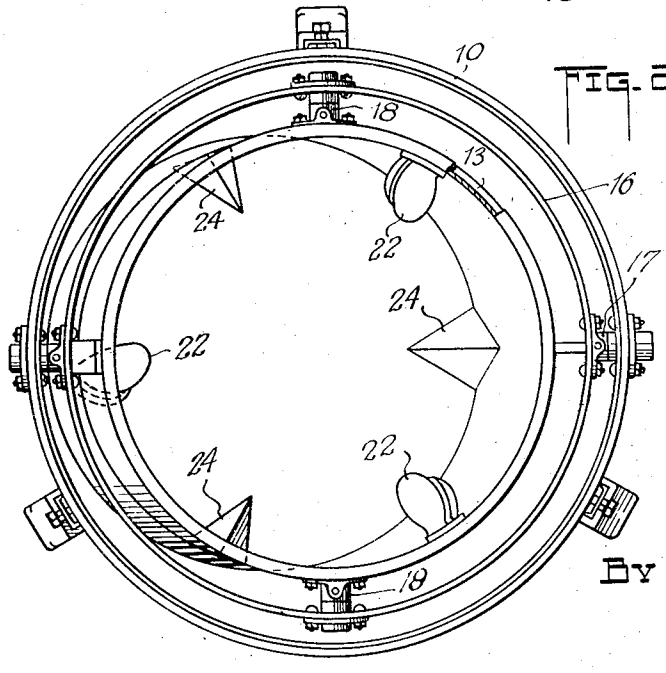


FIG. 2.

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# UNITED STATES PATENT OFFICE.

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## WASHING-MACHINE TUB.

Original application filed December 16, 1924, Serial No. 756,313. Divided and this application filed October 9, 1926. Serial No. 140,435.

This invention relates to washing machines.

This application is a division of my application filed December 16, 1924, bearing Serial Number 756,313.

The invention herein has special reference to baffle arrangement within the tub for service in procuring a certain character of circulating action with respect to water and clothes content.

In the drawings—

Fig. 1 is a vertical cross sectional view in part, taken through the center of housing and frame supporting portions for the tub and of the tub itself, with a portion thereof broken away to show interior parts; and

Fig. 2 is a plan view showing the same structure as Fig. 1, except that the top or cover portion of the housing frame is omitted.

Referring to the drawings, 10 refers generally to a shell member commonly known as a cabinet, the same being supported in conjunction with a bottom framing (not shown). 11 is a top section of the cabinet fashioned with an opening about its axial center. 12 is a tub designed to contain liquid and clothing, the same being supported in a basket frame comprising the ring member 13 and bars 14, the latter being inturned at right angles at their lower ends and connected with a plate 15.

The tub is bodily removable from its supporting frame by simple vertical lift.

The housing frame for the tub is supported from a gimbal ring unit comprising a pair of rings, as 16, pivoted at points on a line across the axis of the rings, and the outer ring is pivoted to bracket members as 17, which said bracket members in turn are attached to shell 10 of the cabinet. Ring member 13 of the tub support is pivoted as at 18 to the outer ring member of the gimbal ring set and at right angles to the pivotal connection of the outside ring with bracket support 17.

19 is a driven shaft. The tub support is held permanently off center with respect to shaft 19 by means of crank arm 20 engaging a post member 21 connected at the axial center of the tub support. By the arrangement hereinabove specified, the body of the tub may be caused to be moved in a continuous direction, while the tub frame and tub will be held against turning about its own axis.

The manner of support of the tub and the principle of operation of the same for washing action are shown in issued patent to the inventor herein, No. 1,519,715, dated Dec. 16, 1924, and do not constitute any part of the present invention, and in fact, the tub structure herein is not limited for service to the character of support and driving arrangement exemplified in said patent.

As previously noted, this invention contemplates provision of novel baffle plates within the tub, whereby a thorough agitation of the liquid content of the tub is effected during operation of the machine. To this end a plurality of baffle members 22 are secured to the inner periphery of the tub, the said baffle members being arranged substantially midway between the top and bottom portions of the tub. As illustrated, the baffle members 22 are corrugated, being formed with a plurality of convolutions or channels 23 which incline downwardly and inwardly towards the axial center of the tub. In addition, it should be noted that the baffle members 22 are bodily inclined slightly with respect to the vertical. During the operation of the machine, the liquid content of the tub will be intercepted by the members 22, and due to the peculiar formation and inclination of the latter will be hurled or directed downwardly and towards the geometrical axis of the tub, thereby effecting great agitation.

In addition to the baffle means described, a second set of baffle members 24 is provided in the bottom of the container, the members 24 being alternately arranged with the baffle plates 22. The baffle members 24 are preferably pyramidal in form, the base thereof being secured to the bottom of the tub, while the apex reaches slightly above the bottom edge of the baffle members 22. While this relative arrangement of baffles has upon test proven satisfactory and is preferred, nevertheless other and different arrangement of baffle members may be made without departing from the spirit and purpose of the invention herein.

I have described generally a preferred form of embodiment of my invention and have pointed out particular features or disclosures upon which claims herein are to

be predicated. However, there may be different forms of embodiment to accomplish the same result, and therefore I do not limit myself to the particular form herein shown.

What I claim is:

1. In a washing machine, a container for water and clothing, a plurality of relatively spaced corrugated baffle members upon the interior wall of said container and disposed medially of its height, and a plurality of baffle members attached to the floor of the container and spaced relatively and in alternate relation to the medially disposed baffles.

2. In a washing machine, a container for water and clothing, a plurality of relatively spaced corrugated baffle members disposed medially of the container and a second set of pyramidal baffle members disposed in the bottom portion of the container and arranged in alternate order with respect to the medially disposed baffle members.

3. In a washing machine, a container for water and clothing, a plurality of convoluted baffle members spaced at intervals about the container intermediate its height, and a second set of baffle members in the bottom portion of the container arranged in alternate relation to the first named set of baffles.

4. In a washing machine, a container for liquid and clothing, a plurality of relatively spaced, circularly arranged corrugated baffle members thereon disposed medially of the height thereof, and a second set of similarly arranged baffle members at the bottom portion of the container spaced from the first mentioned set.

5. In a washing machine, a rotatable tub, a plurality of spaced baffles secured to the inner wall of the tub, said baffles being constructed and arranged to deflect the water downwardly in the tub, and a plurality of baffles secured to the bottom of the tub and disposed in alternate relation to said first mentioned baffles.

In testimony whereof I have hereunto affixed my signature.

ALPHEUS W. ALTORFER.