

J. C. SHIRER.
WASHING MACHINE.
APPLICATION FILED MAY 18, 1911.

1,055,670.

Patented Mar. 11, 1913.

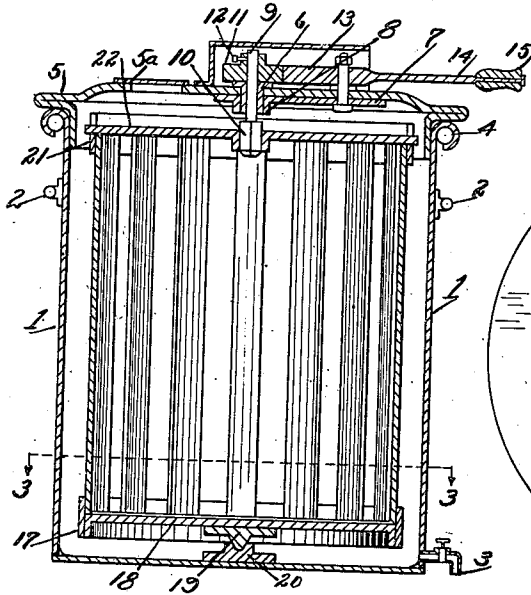


Fig. 1

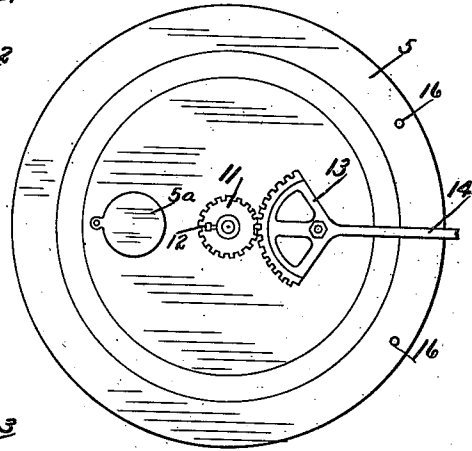


Fig. 2

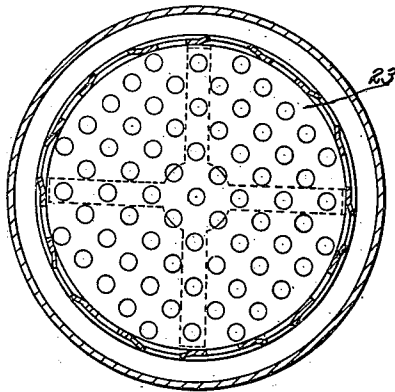


Fig. 3

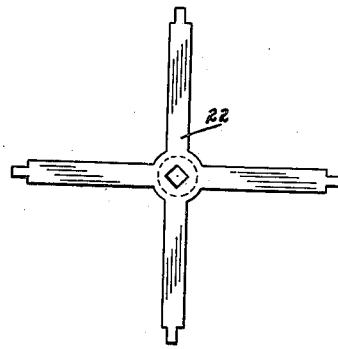


Fig. 4

Witnesses

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JOHN C. SHIRER, OF COLUMBUS, OHIO.

WASHING-MACHINE.

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To all whom it may concern:

Be it known that I, JOHN C. SHIRER, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Washing-Machines, of which the following is a specification.

My invention relates to an improved washing machine and is particularly designed for use in washing dishes and kitchen utensils and the like.

The main object of the invention is the provision of a structure which is of inherent simplicity and, in consequence of such simplicity, together with the removability of certain parts to be hereinafter described, may be readily cleansed and thereby kept in perfectly sanitary condition. It will be well understood that this is very essential in a dish washer and it is for this reason that this device is primarily applicable for such service.

The washing machine shown in the drawings, which is a preferable embodiment of my invention, comprises a vertical casing with a slat cylinder capable of oscillation upon a vertical axis by the simplest possible mechanism.

A further feature of the invention resides in the practically integral or one-piece formation of the top and the rotating mechanism whereby the same may be removed by one operation.

A further salient feature of my invention resides in the provision of a substantially open top for the slat cylinder and the removable perforate base. It is likewise found very desirable to mount the slat cylinder removably in the vertical casing.

In the embodiment shown in the accompanying drawings, similar characters of reference designate corresponding parts.

Figure 1 is a vertical section of my washing machine in assembled condition, Fig. 2 is a top plan view with the protecting case-ment for the gearing removed, Fig. 3 is a section taken on line 3—3 of Fig. 1, and, Fig. 4 is a detail view of the spider for the top of the slat cylinder.

The casing is shown at 1 in the drawings and preferably comprises handles 2, a drain spigot 3 near its bottom and an external peripheral bead 4 formed upon its upper edge.

The top is designated by the numeral 5 and is formed from a single piece of metal

having a central aperture therein for the reception of a bearing 6. This bearing 6 is reinforced by a reinforcing strip 7 having a collar 8 formed thereon. Extending through the collar 6 is a stub shaft 9 having a squared lower end 10 preferably enlarged and carrying a gear 11 secured thereto by a set screw 12. Geared to this gear 11 is a tooth segment 13 having a shank 14 and a handle 15, which shank 14 is limited in its movement in either direction by pins or lugs 16 upon the upper side of the top 5.

The slat cylinder comprises a base ring 17 having radial spokes 18 and having a concentric conical bearing 19 on its under surface and adapted to rest in a complementary bearing 20 mounted upon the base of the casing 1. The slats of the cylinder are preferably arranged at an angle, and in fact, adjacent slats are desirably disposed at opposite angles. The upper end of the slat cylinder is formed by the provision of a ring 21 having sockets formed at intervals for the reception of the reduced ends of the radial blades of a spider 22 having a square socket therein for the reception of the squared end of the stub shaft 10. Resting upon the spokes 18 of the ring 17, I provide a perforated disk 23, preferably of metal, which is readily removable therefrom.

In operation, the top having been removed with its driving mechanism, the spider 22 may be removed from the sockets in the ring 21 and the articles to be washed may be placed within the slat cylinder and resting upon the disk 23. The spider is then placed in position and the top fastened upon the casing in any desirable manner. In placing the top in position, the squared end 10 of the stub shaft 9 is placed in the squared socket of the spider 22. The segmental lever 13 is then oscillated and this serves to oscillate the slat cylinder with the articles therein, it being understood that the casing has previously been filled or partially filled with a cleansing fluid, through a suitable inlet opening 5^a. The rotation of the slat cylinder, owing to the disposition of the slats will necessarily generate or create various water currents and cleanse the articles contained therein. When the cleansing operation is completed, the water may be turned through the spigot 3 and the top removed carrying with it the operating mechanism. The cleansed articles may

then be taken from the cylinder. At any desired interval, the slat cylinder may be removed from the casing and its base disk 23 may likewise be separated. In this manner all of the parts are readily accessible and capable of thorough cleansing.

What I claim, is—

1. A washing machine comprising a casing, a cylindrical rotative member within said casing, the upper periphery of said member having vertical slots therein, a spider in the upper end of said member and adapted to fit in said vertical slots, a cover, driving mechanism mounted on said cover, and a stub shaft driving connection between said mechanism and said spider whereby said cover and said spider are removably connected together.

2. A washing machine comprising a cas-

ing, a cylindrical rotative member journaled in said casing, vertical slats on said member disposed at opposite angles and opposing each other, said member having vertical slots in its upper periphery, a spider in the upper end of said member and adapted to fit in said slots, said spider having a driving aperture therein, a top cover, a driving stub shaft carried by said cover and adapted to fit in said aperture when the cover is placed on the casing, and driving mechanism for said stub shaft and mounted on said cover.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN C. SHIRER.

Witnesses:

JOHN H. EAGLESON,
C. C. SHEPHERD.