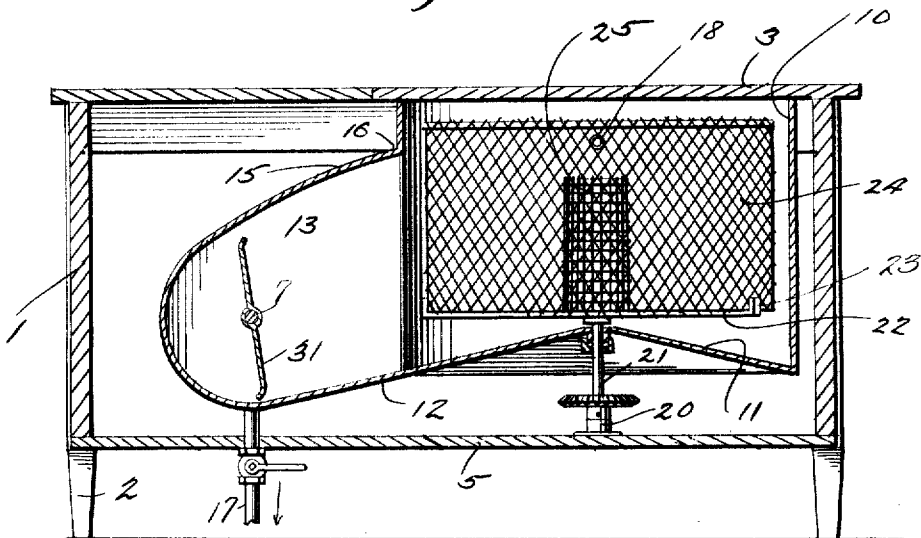
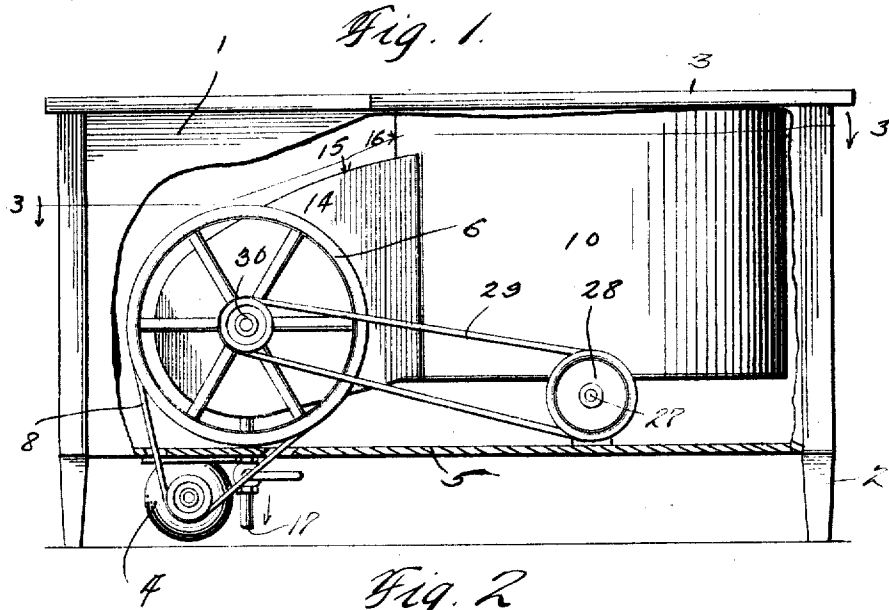


F. W. REYNOLDS.
DISH WASHER.
APPLICATION FILED, MAR. 25, 1918.

1,306,123.

Patented June 10, 1919.
2 SHEETS—SHEET 1.



INVENTOR
Frank W. Reynolds

WITNESSES
Shawling
N. J. Collamer

BY *Richard A. Owen*

ATTORNEY

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Fig. 3.

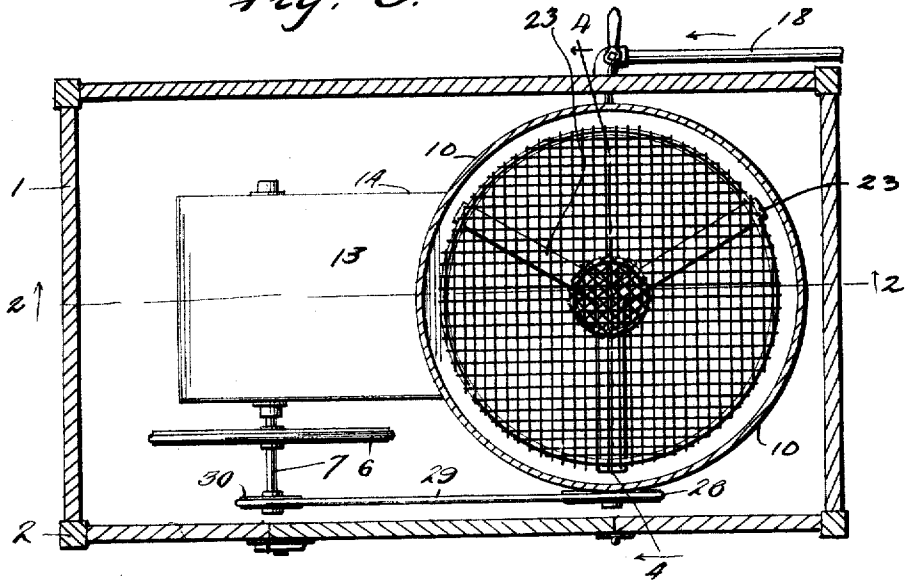


Fig. 4.

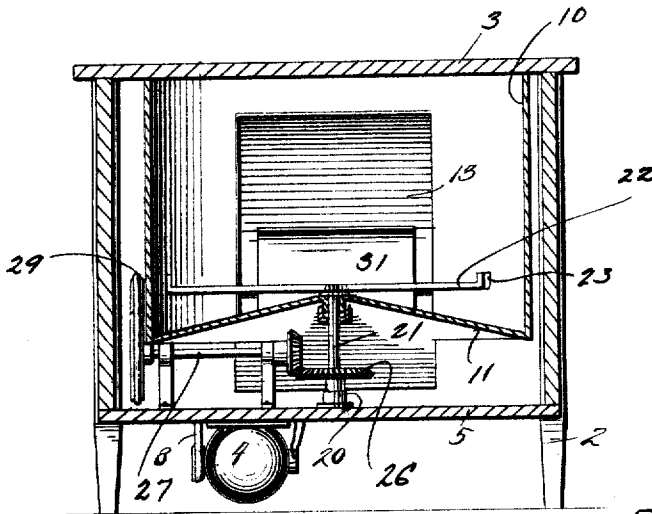
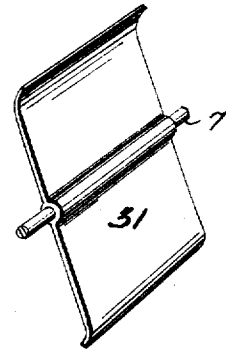


Fig. 5.



INVENTOR
Frank W. Reynolds

WITNESSES

W. J. Hollamer

BY

Richard A. Brown

ATTORNEY

UNITED STATES PATENT OFFICE.

FRANK W. REYNOLDS, OF NEW WASHINGTON, OHIO.

DISH-WASHER.

1,306,123.

Specification of Letters Patent.

Patented June 10, 1919.

Application filed March 25, 1918. Serial No. 224,574.

To all whom it may concern:

Be it known that I, FRANK W. REYNOLDS, a citizen of the United States, residing at New Washington, in the county of Crawford and State of Ohio, have invented certain new and useful Improvements in Dish-Washers, of which the following is a specification.

This invention relates to washing apparatus, and more especially dish cleaners; and the object of the same is to produce a machine for washing and then rinsing dishes and table utensils such as knives, forks and spoons.

The construction of the machine is more fully brought out in the following specification and claims, and is illustrated in the drawings herewith and in which:—

Figure 1 is a side elevation of the entire machine with the near side of the casing broken away,

Fig. 2 is a section on the line 2—2 of Fig. 3,

Fig. 3 is a horizontal section on about the line 3—3 of Fig. 1,

Fig. 4 is a vertical section on about the line 4—4 of Fig. 3, omitting the basket.

Fig. 5 is a perspective detail of the paddle.

The casing 1 is preferably mounted on legs 2 and has a cover 3 over one end which when closed renders the top of the cabinet flat so that it becomes useful as a piece of kitchen furniture. While I have shown this machine as driven by a motor 4 which may well be carried by the bottom of the cabinet, said bottom 5 being raised sufficiently by the legs to permit, it is obvious that the main or power wheel 6 could be rotated by hand if the shaft 7 thereof were extended through the side wall of the casing and cranked, rather than, as shown, being belted at 8 direct to the motor. However, the latter will by preference be of that type which may be driven by electricity taken from the ordinary house circuit. The cabinet may be of wood or other material, and is externally ornamented so that the machine becomes a tasteful piece of furniture rather than otherwise.

Suitably supported within the casing or cabinet 1 is a metallic element of peculiar shape, and preferably of galvanized iron so that it will hold water without rusting. This element comprises a tub 10 disposed beneath the cover 3 and open at its top, its

bottom 11 being conical as best seen in Fig. 2, and said bottom is continued at one side into the bottom 12 of the pocket 13, the side or end walls 14 of the latter merging into or being soldered to the upright side walls of the tub, and the top 15 of the pocket also uniting with one side wall of the tub at the point 16. Thereby is produced a lateral extension from the interior of the tub, whose bottom 12 serves as a drain for the lowest point within the conical bottom 11 of the tub itself, and therefore water poured into the tub will run into the pocket. It finds its outlet from the pocket through a pipe 17 controlled by a valve and which may lead to waste, whereas fresh water or hot water may be poured into the tub through its top when the cover is raised, or, if connections with hot water are available, may be admitted through a pipe 18.

Mounted in a step bearing 20 on the bottom 5 of the cabinet is an upright shaft 21 which rises through the apex of the conical bottom 11 of the tub, within which latter it carries a spider 22 having the tips of its several arms upturned as at 23; and a wire basket 24 may be supported on the spider for the reception of plates and dishes, whereas a smaller basket or core 25 may be mounted within the larger basket so as to contain spoons, knives and forks and other smaller utensils. The shaft 21 is connected by gearing 26 with a counter shaft 27 mounted in suitable bearings within the cabinet, and this shaft in turn has a pulley 28 connected by a belt 29 with another pulley 30 on the main shaft 7 as best seen in Fig. 1. Therefore when power is applied to this shaft either by hand or through the motor 4, the connection causes the rotation of the upright shaft 21 and the rotation of the basket or baskets with whatever they contain. The main shaft within the pocket 13 contains a paddle or two-bladed fan 31 as best seen in Fig. 5, and the rotation of this shaft drives this paddle in a manner which will be clear.

When now the apparatus is to be used, plates, dishes and similar large articles are placed within the main basket 24, whereas knives, spoons, forks and smaller articles are placed within the core or small basket 25 which in turn is placed within the center of the large basket and may well serve to keep the dishes away from said center. The cover is now closed and hot water admitted

through the pipe 18. Power is applied to the main shaft which in turn is communicated through the gearing to the spider, and it rotates the baskets with their contents, 5 the plates passing through the water as it flows in at the point 18 in Fig. 2. The water washes the plates thoroughly and falls into the lowest part of the conical bottom 11, whence it runs out into the pocket 13, 10 and therein it is picked up by the blades or flukes of the fan or paddle 31 and tossed back onto the plates again, the rapid rotation of this paddle producing considerable agitation. It is possible to put soap or other 15 washing agent into the metallic receiver within this machine before the water is admitted, and therefore the preliminary washing of the dishes is by means of soapy water. This will eventually be drawn off 20 through the outlet 17, and rinsing water admitted so as to cleanse the dishes and utensils and remove the soapy water. Finally the rinsing water also is drawn off, and continued application of power to the main 25 shaft then converts the paddle 31 into a fan so that a blast of air is directed across and through the dishes to partly or wholly dry them. Eventually the rotary movement of parts will be stopped, the cover 3 opened, 30 and the baskets lifted bodily out, and thereafter the dishes and utensils can be taken from the baskets and wiped in a manner which will be clear.

What is claimed as new is:—

35 1. In a washing machine of the type described, the combination with a tub having a conical bottom, a radially offset pocket communicating with one side of the same and having an inclined bottom leading away 40 from the periphery of said conical bottom, a fresh water inlet to the tub, and an outlet from the lowest point in said pocket; of an upright rotary shaft through the apex of the conical bottom of the tub, a spider carried thereby, a wire basket removably carried 45 by the spider, a horizontal rotary shaft

through said pocket, a paddle fast thereon within the pocket, and means for rotating both shafts.

2. In a washing machine of the type described, the combination with a cylindrical 50 tub having a conical bottom, and a laterally offset pocket communicating with the tub and its bottom leading into and draining that of the tub; of means for admitting water to the tub, means for withdrawing water 55 from the lowest point of the pocket, a rotary element within the tub, a wire basket supported removably thereon, and a rotating shaft through the pocket and carrying a 60 paddle, for the purpose set forth.

3. In a washing machine of the type described, the combination with a tub, a pocket communicating with the tub and having its 65 bottom inclined away from that of the tub, and a waste pipe at the lowest point of said bottom; of a wire basket removably mounted within said tub, means for rotating it therein, a paddle mounted on a cross shaft within 70 said pocket, means for rotating said shaft, and a motor connected with both said means.

4. In a washing machine of the type described, the combination with a tub, and a 75 radially offset pocket communicating with one side of the tub; of means for admitting fresh water to the tub and withdrawing 80 used water from the pocket, a cross shaft through the latter and having a pulley on its outer end, an upright shaft extending through the bottom of the tub, a basket removably carried by the upper end of said 85 shaft, a counter shaft geared to this shaft and having a pulley belted with that before mentioned, a power wheel on said cross shaft, and means for rotating the power wheel.

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

FRANK W. REYNOLDS.

Witnesses:

J. H. DONALDSON,
C. T. SEITTER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."