B. P. CRITCHLOW.

DISH WASHER.

APPLICATION FILED JULY 19, 1916.

1,223,261.

Patented Apr. 17, 1917.

FIG. 1.

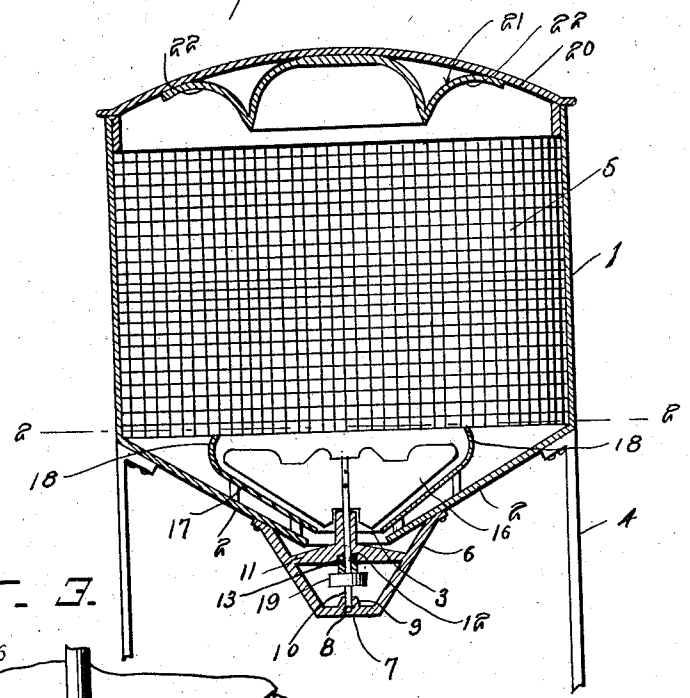


FIG. 3.

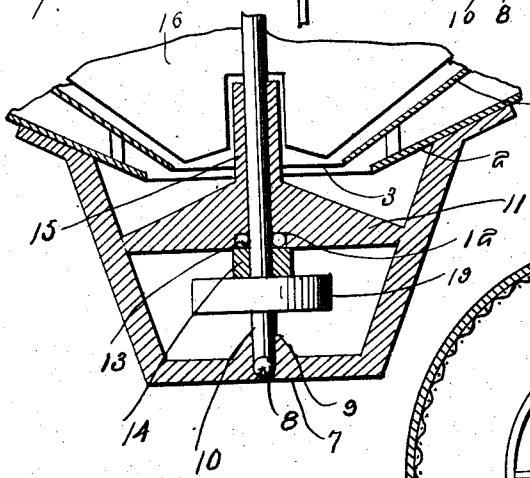
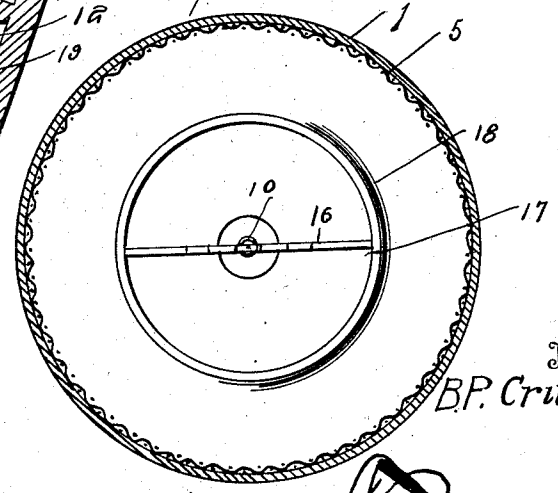


FIG. 2.



Inventor

B. P. Critchlow

Witnesses

A. R. Stanton

Wm. F. Davidson.

By

Randolph & Co.

Attorney

UNITED STATES PATENT OFFICE.

BENJAMIN P. CRITCHLOW, OF OGDEN, UTAH.

DISH-WASHER.

1,223,261. Specification of Letters Patent. Patented Apr. 17, 1917.

Application filed July 19, 1916. Serial No. 110,195.

To all whom it may concern:

Be it known that I, BENJAMIN P. CRITCHLOW, a citizen of the United States, residing at Ogden, in the county of Weber and State of Utah, have invented certain new and useful Improvements in Dish-Washers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in a dish washer and one of its objects is the provision of a device of this character, which shall be simple, durable and efficient, and which may be manufactured and sold at a comparatively low cost.

Another object of this invention is to provide a casing, having a dish containing receptacle therein and having means located at the bottom of the casing for agitating water diagonally upwardly through the dish containing receptacle to wash the dishes positioned therein.

A further object of this invention is to provide a propeller or agitator located at the bottom of the casing for forcing the water therein upwardly to cleanse the dishes.

A still further object of this invention is to provide a substantially funnel-shaped member surrounding the propeller or agitator and having deflectors thereon for causing the water propelled upwardly by the propeller or agitator to travel diagonally through the dish containing receptacle.

With these and other objects in view as will become more apparent as the description proceeds, the invention consists in certain novel features of construction, combination and arrangement of parts as will be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawing, in which:—

Figure 1 is a vertical sectional view of a dish washer, constructed in accordance with my invention,

Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1, and

Fig. 3 is a fragmentary enlarged sectional view of the propeller and the means of mounting and driving same.

Referring in detail to the drawing, the numeral 1 indicates a cylindrical casing, having a conical-shaped bottom 2 that is provided with an opening 3. A plurality of legs 4 are secured to the cylindrical casing 1 for supporting the device. A dish containing receptacle 5 constructed from woven wire or the like is positioned within the casing 1 as clearly illustrated in Fig. 1. Secured to the conical bottom 2 are suitable hangers 6 which are connected together by a bearing plate 7 that has a ball bearing 8 mounted therein. A suitable boss 9 having a central bore is secured to the plate 7 and receives a drive shaft 10 which has its lower end recessed to receive a portion of the ball bearing 8. A suitable bearing 11 is secured to the hangers 6 intermediate their ends and has formed upon its lower face a recess 12 to receive ball bearings 13 which bear upon a collar 14 located upon the drive shaft 10. The drive shaft 10 extends upwardly through the bearing 11 as clearly illustrated in Fig. 3. A suitable cylindrical member 15 is formed upon the bearing 11 and has a bore therein to allow the drive shaft 10 to extend upwardly therethrough.

A suitable propeller or agitator 16 is secured to the upper end of the drive shaft 10 and is located within the casing 1 adjacent the bottom thereof. A substantially funnel-shaped member 17 is secured to the bottom 2 of the casing 1 and surrounds the propeller or agitator 16 and has its upper edge curved to form a reflector 18 which curves inwardly over the outer ends of the agitator or propeller.

A suitable pulley 19 is mounted on the drive shaft 10 and may be operatively connected with any suitable propelling means for rotating the shaft to rotate the agitator or propeller 16.

A cover 20 is positioned upon the upper end of the casing 1 and has formed upon its under face an annular reflector 21 which has formed thereon an upwardly and outwardly inclined flange 22 for presenting a curved face, for a purpose which will be hereinafter more fully described.

In operation, the dishes to be washed are placed within the dish containing receptacle 5 and the casing 1 is partially filled with water. By rotating the drive shaft 10 the propeller or agitator 16 will be rotated, causing the water within the casing 1 to be forced upwardly against the reflector 18 which will cause the water to pass upwardly through the dish containing receptacle 5 diagonally and into an engagement with the

reflector upon the cover 20. The reflector upon the cover 20 will force the water downwardly against the wall of the casing and thence down the conical bottom 2 between the bottom 2 and the funnel-shaped member 17, whereby the same water will again be forced upwardly by the propeller or agitator 16.

While I have shown and described the preferred embodiment of my invention, it will be understood that minor changes in construction, combination and arrangement of parts may be made without departing from the spirit and scope of the invention as claimed.

Having thus described my invention, what I claim is:—

A dish washer comprising a casing having a conically-shaped bottom, said bottom having an opening therein, hangers secured to the bottom, a vertical drive shaft journaled in the hangers and extending upwardly into the casing, a dish receptacle located in the casing, a funnel-shaped member secured to the conically-shaped bottom in spaced relation thereto and having its upper edge curved inwardly to form a deflector, and an agitator secured to the drive shaft and located in said funnel-shaped member to force water therefrom diagonally through the dish receptacle.

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

BENJAMIN P. CRITCHLOW.

Witnesses:
JAMES KELLER,
RUTH CLARKSON.