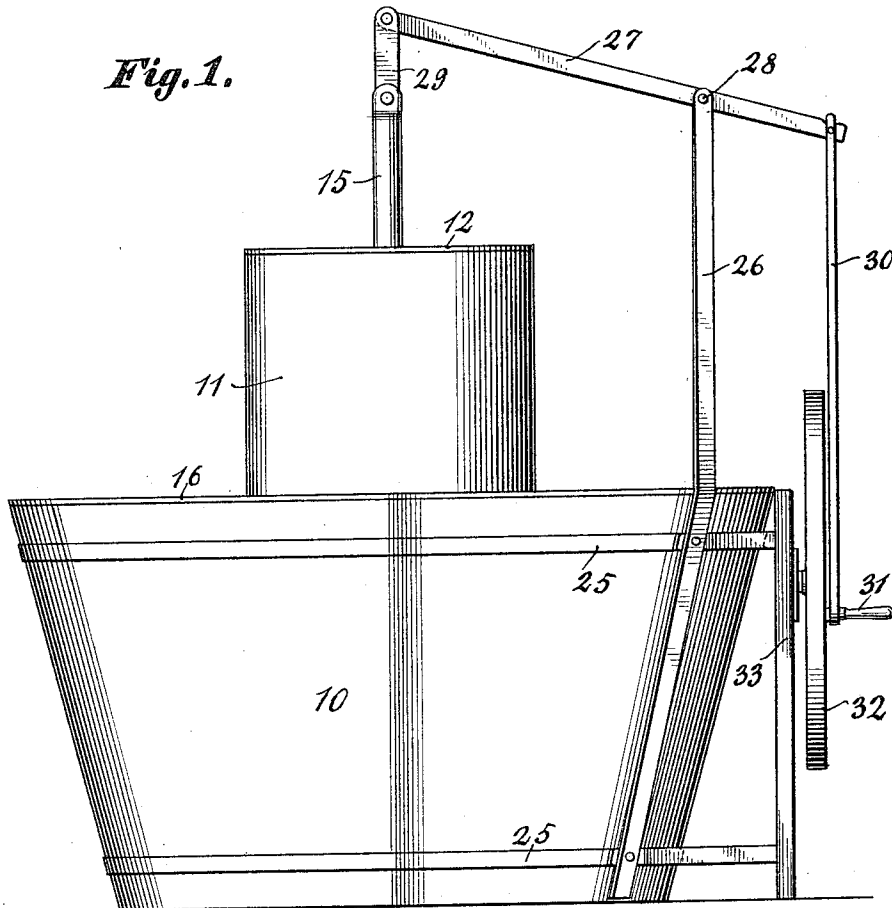


1,046,249.

Patented Dec. 3, 1912.  
2 SHEETS—SHEET 1.



Inventor

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Witnesses

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# UNITED STATES PATENT OFFICE.

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## DISH-WASHER.

1,046,249.

Specification of Letters Patent.

Patented Dec. 3, 1912.

Application filed June 3, 1912. Serial No. 701,210.

*To all whom it may concern:*

Be it known that I, MAGGIE M. BEAL, a citizen of the United States, residing at Ranger Lake, in the county of Chaves and State of New Mexico, have invented certain new and useful Improvements in Dish-Washers, of which the following is a specification.

This invention relates to apparatus for washing dishes, and has for its object to provide a simple, efficient and economic apparatus of this kind.

The invention also has for its object to provide a dish washing apparatus which operates by alternately withdrawing the water from the dishes and forcing it back over the same.

Another object of the invention is to provide a washing apparatus which can be easily operated, and which is rapid in operation.

A further object of the invention is to provide a washing apparatus of the kind stated which can be operated without putting the hands into the water, and without danger of breaking the dishes.

With these objects in view, the invention consists in a novel construction and arrangement of parts to be hereinafter described and claimed, reference being had to the accompanying drawings forming a part of this specification, in which drawings—

Figure 1 is an elevation of the apparatus. Fig. 2 is a central vertical section. Fig. 3 is a perspective view of the dish-holder.

Referring specifically to the drawing, 10 denotes a frusto-conical tub or basin adapted to contain water for washing dishes, and also a holder for the latter. In the center of the tub is an upstanding pump-cylinder 11 which is closed at the top by a removable cap 12. The bottom of the cylinder is open and spaced a sufficient distance from the bottom of the tub, so that the water contained in the latter may enter the cylinder. The cylinder is rigidly secured to the tub bottom by means of feet 13, and in the cylinder works a reciprocatory plunger 14 having a stem 15 which passes through an opening in the top of the cylinder. The top of the tub is fitted with a removable lid or cover 16, having a central opening to accommodate the upper end of the cylinder 11.

The holder for the dishes to be washed is an open-work wire basket to allow the free

passage of the water therethrough. The bottom of the basket is composed of two concentric rings 17 and 18, respectively, which are connected by radial wires 19. The basket is frusto-conical, the side portion being flared upward to conform more or less to the shape of the tub. The wires 20 forming the side portion of the basket are connected to a top ring 20<sup>a</sup> and extend below the bottom of the basket and serve as feet whereby the basket bottom is spaced from the bottom of the tub, and the dishes are thus kept off the latter. In the center of the basket is an upright open-work wire cylinder which surrounds the pump-cylinder 11. This wire cylinder is composed of vertically spaced rings 21 connected by vertical wires 22 which extend down and are connected to the bottom of the ring 18. The wires 20 are connected to the bottom ring 17. The basket also contains concentric open-work wire partitions, each of which is formed of a top ring 23 and spaced wires 24 which extend down and are connected to the wires 19, said wires 24 also extending below the basket bottom for the same purpose as the wires 20.

The following means are provided for operating the plunger: To the tub are fitted hoops 25 to which is firmly riveted a pair of standards 26 which come together at the top and form a support for a lever 27, said lever being pivoted between the standards as indicated at 28. One end of the lever is connected by a link 29 to the upper end of the plunger stem 15, and the other end of the lever is connected by means of a pitman 30 to a hand-crank 31 on a driving-wheel 32 supported by a bracket 33 mounted on the tub. Upon turning the driving-wheel the plunger 14 is reciprocated in the cylinder 11.

In operation, the dishes to be washed are placed in the holder and sufficient water is put in the tub to submerge the dishes. The plunger 14 is now put in motion, whereupon the water in the tub is alternately drawn into the cylinder 11 and forced out of the same back into the tub. The capacity of the cylinder will be such that on the suction stroke of the plunger enough water is taken from the tub to leave the dishes entirely uncovered. The dishes are therefore washed by an alternating flooding and draining action, and not by a spraying ac-

tion. No valves of any kind are necessary and the apparatus is therefore simple in construction and devoid of complicated parts to get out of order. The dishes are  
5 kept off the bottom of the tub by the holder, and the water may therefore be entirely drained off the same on the suction stroke of the plunger.

By the herein described flooding and  
10 draining action, the dishes are quickly cleaned, and they are also not liable to get broken, as they are not agitated, but remain stationary within the holder.

The dish holder and the plunger can be  
15 removed for cleaning purposes upon taking off the lid 16 and the cap 12.

I claim:

1. A washing-apparatus comprising a tub, and a pump mounted in the tub, the capacity of said pump being sufficiently great  
20 to take up a quantity of cleansing fluid which will leave the articles to be cleaned uncovered.

2. A washing-apparatus comprising a tub,  
25 a pump-cylinder mounted in the tub, the capacity of said pump-cylinder being sufficiently great to take up a quantity of cleansing fluid which will leave the articles to be cleaned uncovered, and a holder surround-

ing the pump-cylinder, said holder being  
30 spaced from the bottom of the tub.

3. A washing-apparatus comprising a tub, a cylinder supported on the bottom of the tub and spaced therefrom, a dish holder supported on the bottom of the tub and spaced  
35 therefrom, and a plunger working in the cylinder.

4. A washing-apparatus comprising a tub, a cylinder supported in the tub and spaced therefrom, a dish holder supported on the  
40 bottom of the tub and spaced therefrom, said dish-holder surrounding the cylinder, and a plunger working in the cylinder.

5. A washing-apparatus comprising a tub, a pump-cylinder mounted in the tub and  
45 having a common inlet and outlet from and into the tub, the capacity of the pump-cylinder being sufficiently great to take up a quantity of cleansing fluid which will leave the articles to be cleaned uncovered, and a  
50 plunger working in the pump-cylinder.

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

MAGGIE M. BEAL.

Witnesses:

WILLIAM E. THOMPSON,  
TOM. CANNON.

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