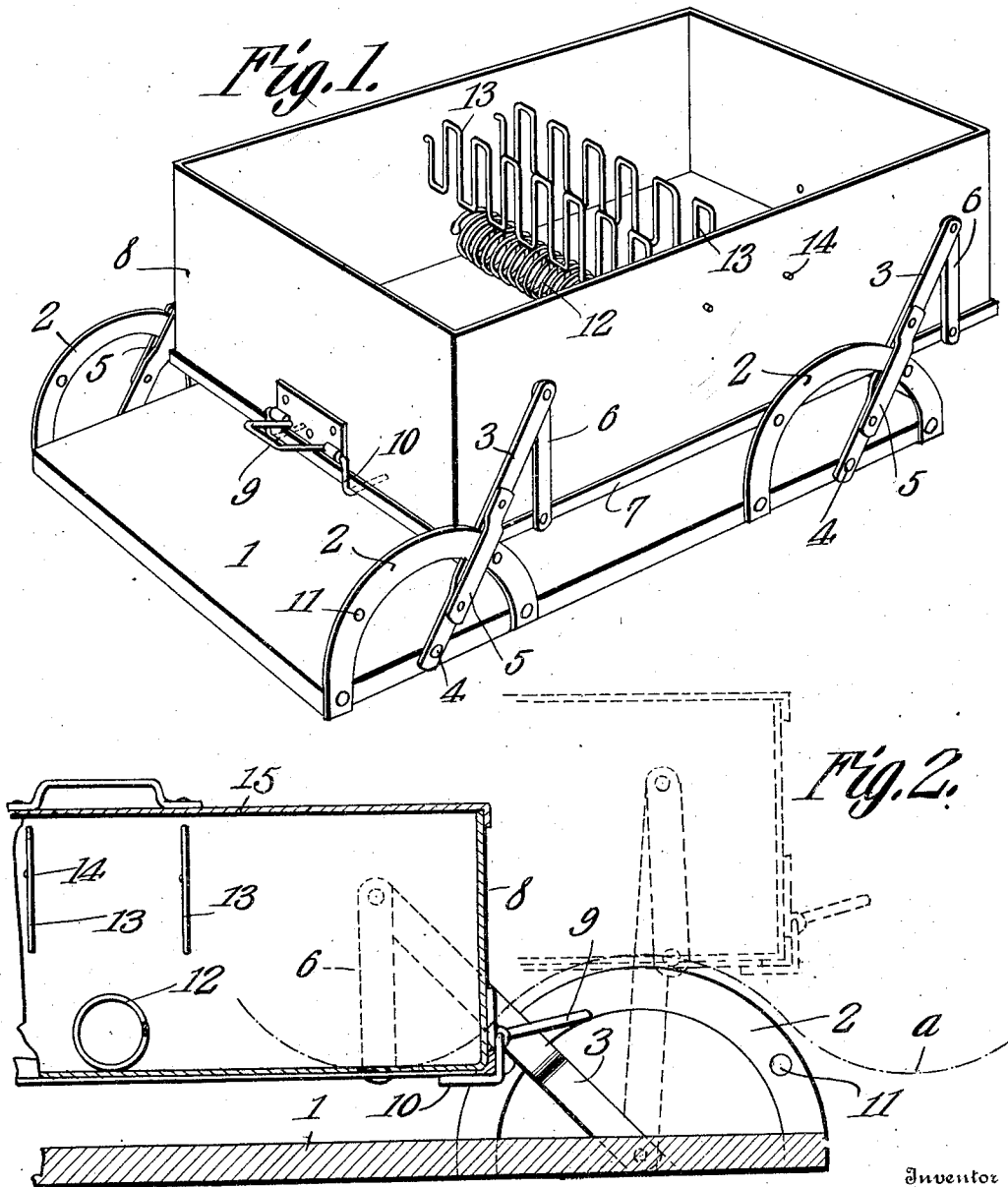


M. L. CROUCH.
DISH WASHER.
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937,926.

Patented Oct. 26, 1909.



Witnesses
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UNITED STATES PATENT OFFICE.

MOSES L. CROUCH, OF PLYMOUTH, ILLINOIS.

DISH-WASHER.

937,926

Specification of Letters Patent.

Patented Oct. 26, 1909.

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To all whom it may concern:

Be it known that I, MOSES L. CROUCH, a citizen of the United States, residing at Plymouth, in the county of Hancock and State of Illinois, have invented a new and useful Dish-Washer, of which the following is a specification.

This invention relates to machines for washing dishes and more particularly to that type of machine utilizing a movable receptacle in which the dishes are fixedly mounted, the movement of the receptacle causing the water contained within said receptacle to dash against and around the dishes and thus remove accumulations therefrom.

The object of the invention is to provide a dish receptacle which is mounted in a novel manner and provided with means whereby a waved motion is imparted thereto, which motion imparts such a movement to the contents of the receptacle as to secure the best results.

A further object is to provide novel means for holding the dishes within the receptacle.

A still further object is to provide simple means for securing the receptacle in position upon its support, said means being designed to automatically disengage from the support when the receptacle is lifted.

With these and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claims.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a perspective view of a washing machine embodying the present improvement. Fig. 2 is a longitudinal section through a portion thereof, one of the positions of the receptacle being indicated by dotted lines, and the direct movement of said receptacle being also indicated.

Referring to the figures by characters of reference 1 designates a base provided at the ends of each side thereof with arcuate guide strips 2 upstanding therefrom. Levers 3 are pivotally connected to the sides of the base, the fulcrum 4 of each lever being concentric with one of the guide strips 2 and each of said levers having a retaining strap 5 thereon whereby it is held positively in a predetermined relation to the guide strip as clearly indicated in Fig. 1. Links 6 are piv-

otally connected to and hang downward from the upper ends of the levers 3 and the lower ends of these links are pivotally connected to the sides of a rectangular frame 7 preferably formed of angle-iron and so proportioned as to constitute a seat for the body or receptacle 8 of the machine. Substantially U-shaped grips or handles 9 are pivotally connected to the ends of the receptacle 8 and each of these handles has L-shaped arms 10 secured thereto and movable therewith, these arms being held normally by the weight of the grips 9 in position under the ends of the frame 7 so that displacement of the receptacle 8 relative to the frame is normally prevented. When however the handles 9 are grasped and pulled upward for the purpose of lifting the receptacle 8, the fingers or arms 10 are swung outwardly out of engagement with the frame 7 and it thus becomes possible to lift the receptacle off of the frame. If desired, and as shown in Fig. 1, stop lugs 11 may be arranged upon the arcuate guide strips 2 for the purpose of limiting the movement of the levers 3.

Extending transversely within the bottom portion of the receptacle 8 and close to the bottom thereof is a coiled wire 12 constituting a holder, and extending transversely within the upper portion of the receptacle at opposite sides of the center thereof are parallel holders 13 each consisting of a single length of wire substantially sinuoidal, the terminals of the wire being disposed in alinement to constitute trunnions 14 bearing within the sides of the receptacle. These trunnions are located above the longitudinal center of the holder so that the arched portions of said holder are thus maintained by gravity normally vertical.

When it is desired to use the machine here described the same is partly filled with a cleansing fluid and the dishes to be washed are placed therein on edge and in engagement with the holders 13 and with opposite portions of the coil 12. As these holders 13 are pivotally mounted they are capable of swinging laterally so as to receive between them plates of different diameters. Any space between these upstanding dishes and the end walls of the receptacle can be filled with cups, saucers and the like. A suitable cover, such as shown at 15, is placed upon the receptacle 8 and said receptacle lowered on to the frame 7. After the receptacle has thus been seated the handles 9 are released

and the weight thereof will be sufficient to swing the angular arms or fingers 10 inwardly into engagement with the end portions of the frame 7. The receptacle is thus
 5 securely locked into the frame. By grasping one of the handles 9 the receptacle can be drawn backward and forward, thus causing the levers 3 to swing upon their fulcrums and the links to oscillate relative to the levers. As a result of this action the recep-
 10 tacle will have the movement indicated by the line *a* in Fig. 2 and a waved motion will be imparted to the liquid contents of the receptacle and said contents dashed over the
 15 dishes. All accumulations upon the dishes will thus be removed quickly and thoroughly. Upon the completion of the cleaning operation the two handles 9 are grasped and by pulling upward thereon the fingers 10 are
 20 released from the frame 7 and the body 8 can then be lifted from the frame.

Although only one coil 12 has been shown within the receptacle 8, it is to be understood that, if preferred, two or more of these
 25 coils may be provided.

By arranging the coiled holding device 12 below and between the sinusoidal members 13, one coil can be engaged by the two rows of dishes projecting into the two sinusoidal
 30 members 13. Moreover by pivotally mounting said members 13 they can be caused to swing out of vertical positions sufficient distances to permit dishes to be inserted into engagement with the holding coil 12.

Obviously various changes may be made in the construction and arrangement of the parts without departing from the spirit or sacrificing the advantages of the invention.

What is claimed is:—

1. In a washing machine a base, a receptacle, swinging jointed connections supporting the receptacle above the base.

2. In a washing machine a base, a receptacle there-above, members pivotally con-
 45 nected to and upstanding from the base, link connections upon said members for supporting the receptacle, guides for said members, and means upon the guides for limiting the movements of the members.

3. In a washing machine, a base, a frame
 50 there-above, supporting members pivotally connected to and extending upwardly from

the base, link connections between said members and the frame, and a receptacle, removably mounted upon the frame.

4. In a washing machine a base, a frame movably supported above the base, a receptacle detachably mounted upon the frame, and combined handles and frame-engaging devices carried by the receptacle.

5. In a washing machine a base, a frame movably supported above the base, a receptacle detachably mounted upon the frame, means for detachably securing the receptacle to the frame, and dish-holding devices
 65 within the receptacle.

6. In a washing machine a receptacle and dish-holding means within the receptacle, said means comprising a transversely extending coil adjacent the bottom of the re-
 70 ceptacle, and parallel holding members pivotally mounted within the upper portion of the receptacle and at opposite sides of the coil.

7. In a washing machine a receptacle, 75 means for supporting the same, and dish-holding means within the receptacle, said means comprising a transversely extending coil upon the bottom of the receptacle and parallel holding devices pivotally mounted
 80 within the upper portion of the receptacle and at opposite sides of the coil, each of said devices being substantially sinusoidal.

8. In a dish-washing machine a movably supported receptacle, dish-holding means
 85 therein comprising a coil adjacent the bottom thereof, and holding devices pivotally mounted within the receptacle and above the coil, said devices comprising substantially sinusoidal members normally held by grav-
 90 ity in vertical positions.

9. In a washing machine, a receptacle, and pivotally connected upstanding and hanging supports for the receptacle, said supports being arranged to oscillate and impart a
 95 waved movement to the receptacle.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

MOSES L. CROUCH.

Witnesses:

WM. F. ALESHIRE,
 P. C. HUEY.