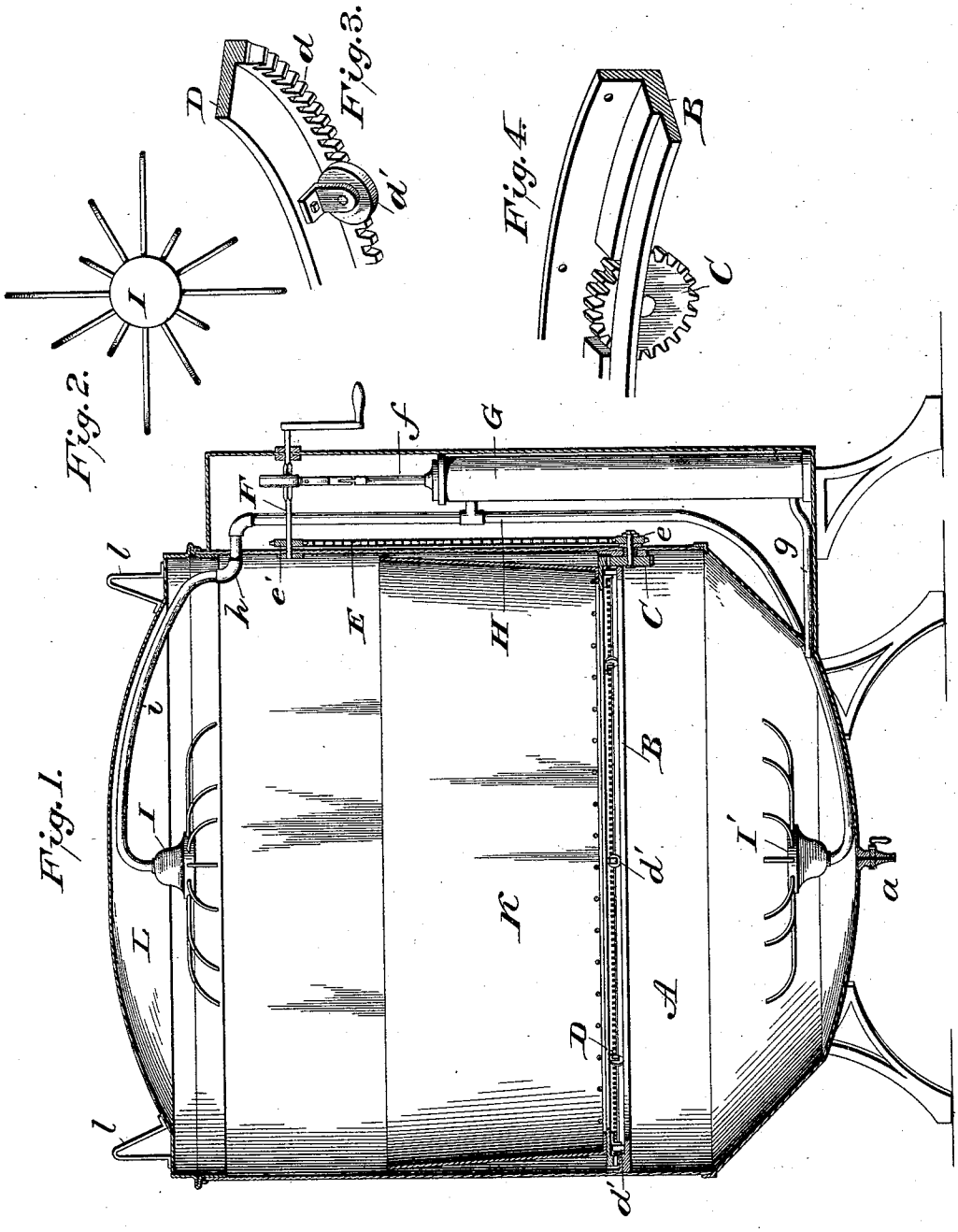
(No Model.)

# M. A. CROSBY.

## DISH WASHER.

No. 479,703. Patented July 26, 1892.

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# UNITED STATES PATENT OFFICE.

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## DISH-WASHER.

SPECIFICATION forming part of Letters Patent No. 479,703, dated July 26, 1892.

Application filed February 4, 1892. Serial No. 420,249. (No model.)

*To all whom it may concern:*

Be it known that I, MARY ANNA CROSBY, a citizen of the United States of America, residing at Durand, in the county of Pepin and State of Wisconsin, 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in apparatus for washing dishes.

The object of the invention is to provide a receptacle with a pump which is connected with said receptacle and with spraying devices so that a liquid placed within the receptacle may be forced through the spraying devices upon the dishes to be washed, the invention also embodying means for revolving a support within said receptacle from the same driving-shaft which operates the pump; and the invention consists in the construction and combination of the parts, as will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a vertical sectional view showing a dish-washer constructed in accordance with my invention. Fig. 2 is a detail view of one of the sprayers. Fig. 3 is a detail perspective view of a portion of the pan or tray support. Fig. 4 is a detail sectional view of a portion of the ledge and gear-wheel upon which the pan or tray rests.

A designates a vessel, preferably cylindrical in cross-section and provided with a concave bottom. This vessel is supported upon suitable legs and has a turn-plug *a* for removing the liquid contents thereof when desired.

Within the vessel is rigidly secured a ledge B, the upper edge of which is provided with steps, as shown, and at a suitable point it is provided with bearings for a pinion C, which passes through an aperture in said ledge.

D designates an annular support, the outer periphery of which has depending teeth *d*, which are adapted to mesh with the pinion C, and at suitable intervals this support carries wheels or rollers *d'*, which travel upon the lower step of the supporting-ledge. The pinion C is mounted on a suitable shaft which passes through the side of the receptacle and is provided with a sprocket-wheel *e*, over which passes a chain E from a sprocket-wheel *e'*, carried by the driving-shaft F, said driving-shaft being also connected by an eccentric and strap with the piston-rod *f* of the pump G. The pump is connected near its lower end with a pipe *g*, which passes into the receptacle or vessel A below the level of the spraying-fingers, which are located at a considerable distance above the bottom. A discharge-pipe H is suitably connected near the upper end of the pump, said pipe being connected with two spraying devices I and I', one being located when in use in the upper portion of the receptacle and the other in the lower. These spraying devices may be of any approved construction, though I prefer to employ the construction shown, in which a number of small discharge-pipes are connected to a head, the fingers being curved and of different lengths, as shown in Fig. 2. The spraying-nozzle in the upper portion of the vessel is connected by a suitable joint or coupling to the eduction-pipe H, so that the spraying-nozzle and pipe attached directly thereto may be swung to lie without the vessel when it is desired to place dishes or the articles to be washed within the same, said articles being placed upon a pan or tray K, having a grated bottom, said pan or tray resting upon the revolving ledge D, as shown. The pipe *i*, which connects the spraying-nozzle I with the coupling H, may be screw-threaded on its end, and said coupling is interiorly threaded, so that when it is desired to move the spraying-nozzle without the vessel the cover L is first removed and the pipe swung to one side. Ordinarily it is not necessary to remove the nozzle from the vessel, as it can be moved against one side thereof.

L designates the cover of the receptacle, which is provided with legs or supports *l*, so that it may be used as a tray for carrying the dishes from place to place.

In practice when it is desired to use the apparatus the cover is first removed and the upper spraying device swung beyond the edge of the vessel and the articles placed upon the grated or open bottom pan K. A sufficient

quantity of water is then poured into the receptacle, the upper nozzle swung into position, and the cover replaced. After giving the driving-shaft a few revolutions the pump will be filled through the induction-pipe *g* and the water forced through the eduction-pipe H out of the nozzles in the form of small streams with considerable force, the operation causing a rotation of the pan K, upon which the dishes are placed, so as to change its position.

Having thus described my invention, I claim—

1. In an apparatus for washing dishes, a vessel provided with a pump connected to the interior of the same, said pump having an eduction-pipe connected to a spraying device I′, located near the bottom of the vessel, and a revolving tray having a grated bottom, which tray is geared to the driving-shaft of the pump, substantially as shown, and for the purpose set forth.

2. In a dish-washer, the combination of a vessel having a stationary ledge and a revolving tray-support mounted upon said ledge and gearing connecting the revolving tray-support with a driving-shaft, said driving-shaft also operating a pump having eduction and induction pipes extending into the vessel and receiving a liquid supply therefrom, substantially as set forth.

3. In a dish-washer, the combination of heads I and I′, having a plurality of curved hollow discharge-fingers of different lengths, a revolving tray interposed between the same, water-forcing mechanism having a supply-pipe therefor which leads into the vessel, eduction-pipes connecting the water-forcing mechanism with the heads, and mechanism connected with the driving-shaft for revolving the tray, substantially as shown, and for the purpose set forth.

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

MARY ANNA CROSBY.

Witnesses:
E. N. SABIN,
C. L. GRUND.