

Dec. 18, 1923.

1,477,903

H. ROSENBAUM
DISHWASHING APPARATUS

Filed Aug. 31, 1921

2 Sheets-Sheet 1

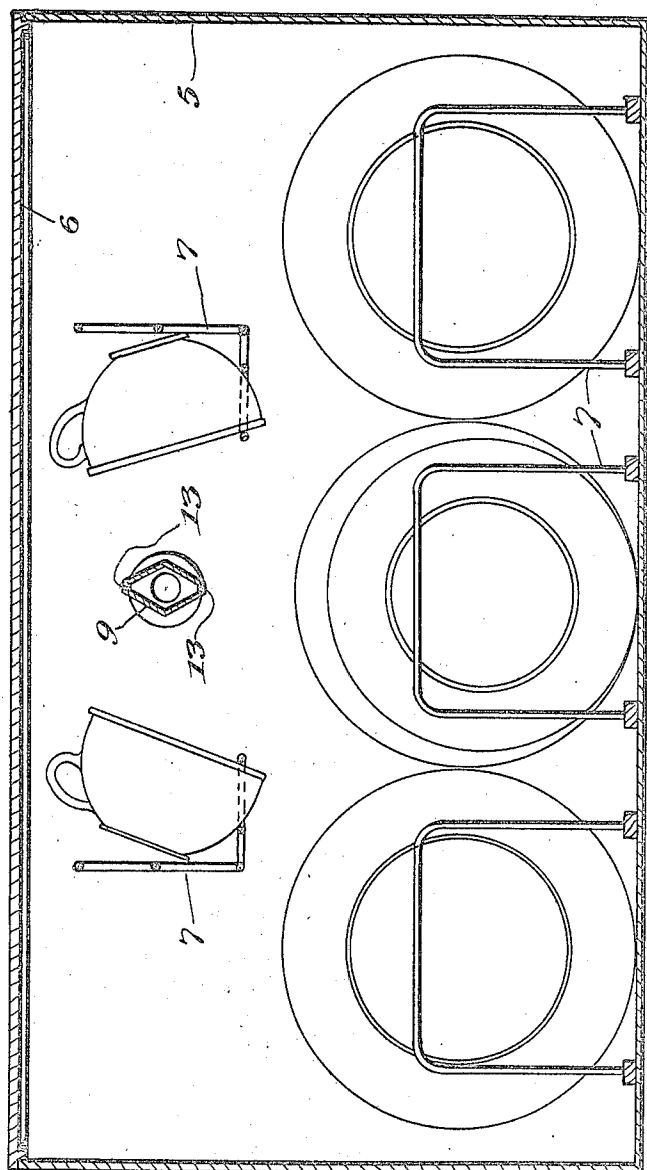
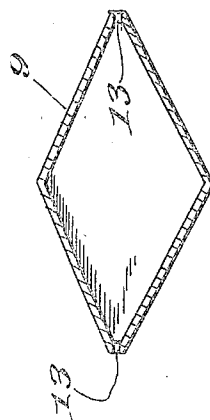


Fig. 1.

Fig. 3.



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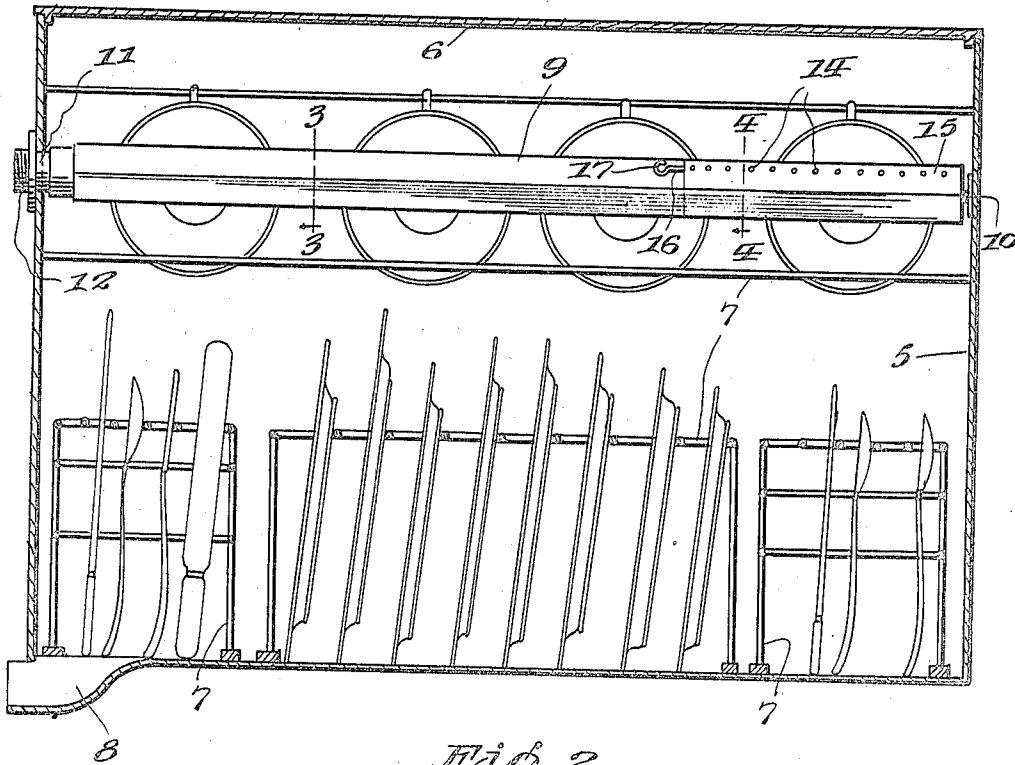


Fig. 2.

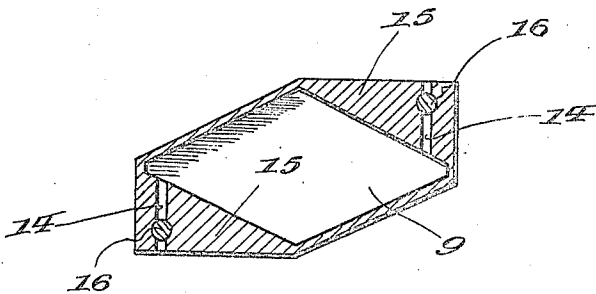


Fig. 4.

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UNITED STATES PATENT OFFICE.

HARRY ROSENBAUM, OF NEW YORK, N. Y.

DISHWASHING APPARATUS.

Application filed August 31, 1921. Serial No. 497,146.

To all whom it may concern:

Be it known that I, HARRY ROSENBAUM, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Dishwashing Apparatus, of which the following is a specification.

This invention relates to apparatus for washing dishes, knives, forks, etc. and more particularly one in which the articles are placed in a closed stationary receptacle and subjected to cleansing action of a large number of streams of water sprayed over the same.

The invention has for its object to provide a novel and improved spraying device, and one which is simple and efficient in action, and with this object in view, the invention consists in a combination and arrangement of parts to be hereinafter described and claimed.

In order that the invention may be better understood, reference is had to the accompanying drawings, in which:

Figure 1 is a cross-section of the apparatus; Fig. 2 is a central longitudinal section thereof, the spray pipe being shown in elevation, and Figs. 3 and 4 are enlarged sectional views of the spray pipe on the lines 3-3 and 4-4 of Fig. 2.

Referring specifically to the drawing, 5 denotes a water-tight receptacle of suitable contour and dimension in which the dishes and other articles to be washed are placed, access to the receptacle being had by making the same open at the top. A tight fitting lid 6 is provided for the receptacle top. In the receptacle are mounted suitable racks 7 for supporting the articles to be washed, said racks being constructed and arranged to support different articles, such as dishes, cups, saucers, knives, forks, spoons, etc. The bottom of the receptacle is provided with an outlet 8 for the escape of the water which is sprayed over the dishes and other articles.

Passing centrally through the receptacle 5, near the top thereof, is a spray pipe 9 which is rotatable. One end of the pipe 9 is closed and supported by a pivot pin 10 carried by the corresponding end wall of the receptacle. The other end of the pipe is open and supported by a tubular bearing 11 carried by the corresponding receptacle end wall, said

bearing having a threaded nipple 12 which projects from the outside of the end wall so that a water supply connection may be made therewith. Hot water, from any suitable source, and under pressure, will be used.

The spray pipe 9 is preferably given a diamond-shaped cross section, and it has two rows of perforations 13 through which the water is sprayed, these rows of spray perforations extending in a radial direction and being on diametrically opposite sides of the axis of the spray pipe, as clearly shown in Fig. 3.

One end of the pipe 9 has two rows of jet apertures 14 running in a direction to discharge laterally, or tangentially to a circle having for its center the longitudinal axis of the pipe. The reaction of the water discharged from the apertures 14 causes the pipe 9 to rotate about its axis, with the result that the water discharging from the perforations 13 is continually sprayed over the articles supported by the racks 7, and thrown in all directions, so that the articles are thoroughly and rapidly cleansed.

The wall of the pipe 9 is thickened at the site of the jet apertures 14, as shown at 15 in Fig. 4, to obtain sufficient material for the particular arrangement of said apertures.

In order that the speed of rotation of the pipe 9 may be controlled, each row of jet apertures 14 is provided with a cut-off device consisting of a rod 16 slidably mounted in the enlarged portion 15 of the pipe 9 in such a position that it intersects the apertures. One end of the rod projects from the part 15 and is here provided with a suitable operating handle 17. The rod 16 is operable to cut out more or less apertures 14 as the water pressure may necessitate and the rate of speed it is desired that the pipe 9 should rotate, it being evident that the speed is increased as more apertures are left open, and decreased as more or less apertures are cut-off from the interior of the pipe 9. The water issuing from the apertures 14 is also sprayed over the articles to be cleansed.

The apparatus is simple and efficient, and it is well adapted for domestic use, as it can be operated by making a connection between the nipple 12 and the hot water faucet in a kitchen. The apparatus is also economical as the amount of water required for

washing a given quantity of dishes etc., is not greater than that required for washing and rinsing the same quantity by hand in the ordinary manner.

5 I claim:

1. A washing apparatus comprising a receptacle, a spray pipe in the receptacle supported for rotation about its longitudinal axis, said pipe having walls formed with
10 radial spray perforations, and also with jet apertures discharging laterally in opposite directions and tangentially to the path of rotation of the pipe for rotating the pipe by the reaction of the discharging
15 fluid jets.

2. A washing apparatus comprising a receptacle, a spray pipe in the receptacle supported for rotation about its longitudinal axis, said pipe having radial spray perforations, and also provided with jet apertures
20 discharging laterally in opposite directions and tangentially to the path of rotation of the pipe for rotating the pipe by the reaction of the discharging fluid jets, and
25 cut-off means associated with the jet apertures.

3. A washing apparatus comprising a receptacle, a spray pipe in the receptacle supported for rotation about its longitudinal
30 axis, said pipe having radial spray perfora-

tions, and also provided with jet apertures discharging laterally in opposite directions and tangentially to the path of rotation of the pipe for rotating the pipe by the reaction of the discharging fluid jets, said apertures
35 being arranged in rows, and cut-off devices slidably mounted along said rows and intersecting the apertures.

4. A washing machine comprising a receptacle, and a spray pipe in the receptacle
40 supported for rotation about its longitudinal axis, said pipe having walls formed with jet apertures discharging laterally in opposite directions and tangentially to the path of rotation of the pipe for rotating the
45 same by the reaction of the discharging fluid jets.

5. A washing machine comprising a receptacle, and a spray pipe in the receptacle supported for rotation about its longitudinal
50 axis, said pipe having walls formed with rows of jet apertures discharging laterally in opposite directions and tangentially to the path of rotation of the pipe for rotating the same by the reaction of the
55 discharging fluid jets.

In testimony whereof I affix my signature.

HARRY ROSENBAUM.