

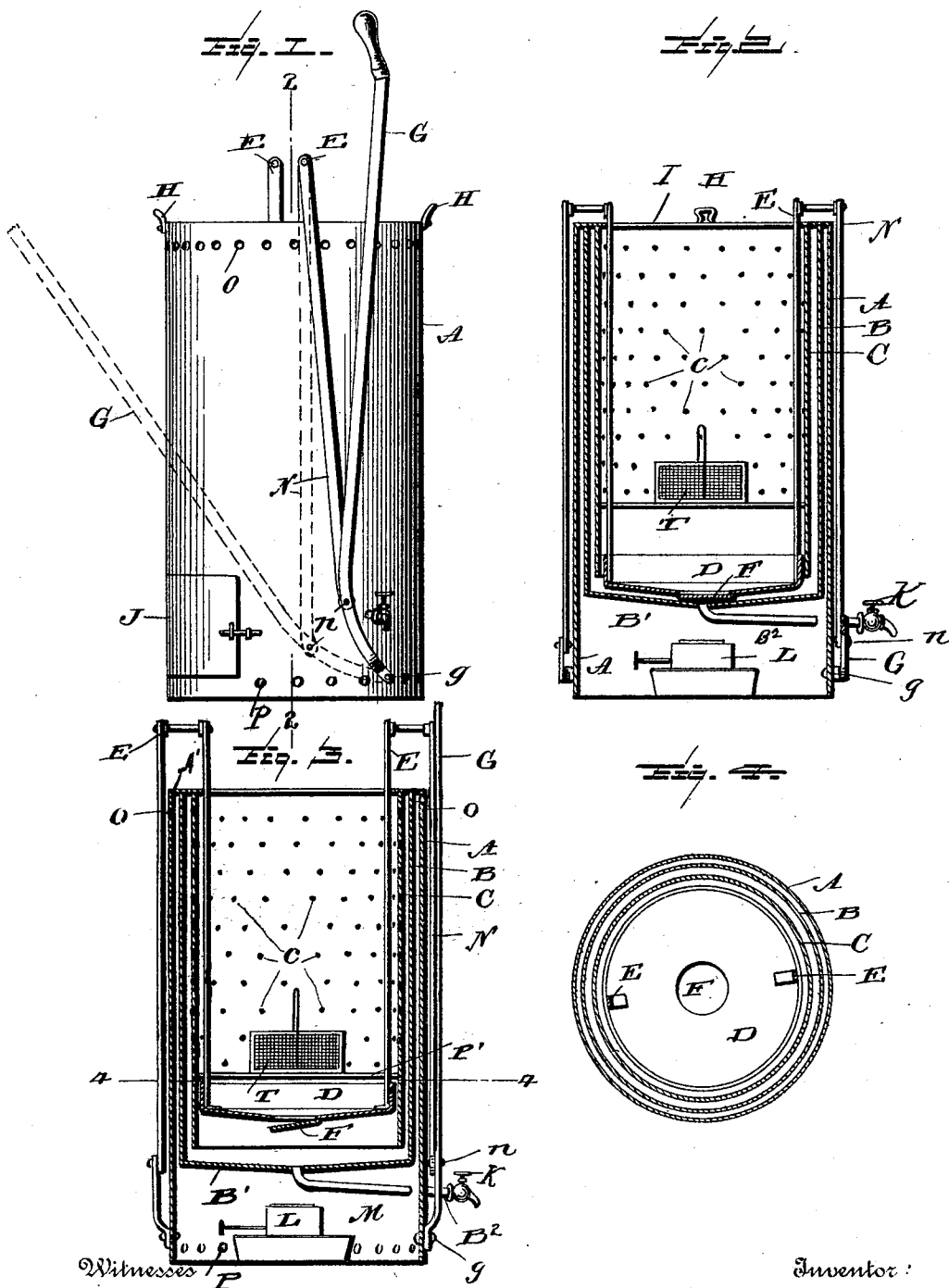
(No Model.)

2 Sheets—Sheet 1.

M. STONE.  
DISH WASHER.

No. 516,557.

Patented Mar. 13, 1894.



Witnesses  
L. C. Hills.  
E. A. Bond

Inventor:  
Melvin Stone,  
by E. B. Storing  
Attorney

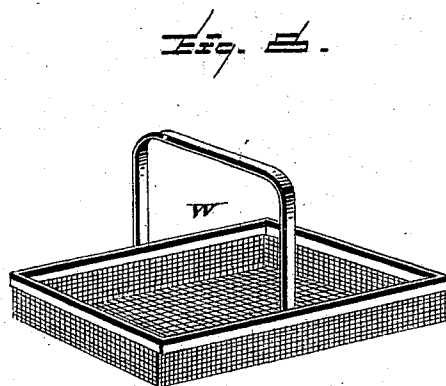
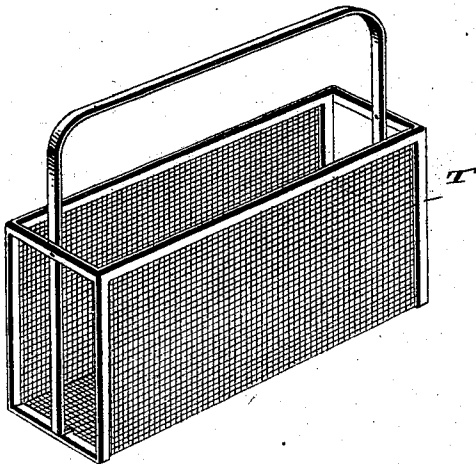
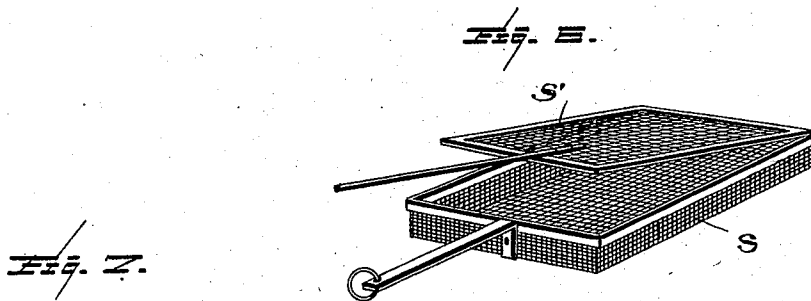
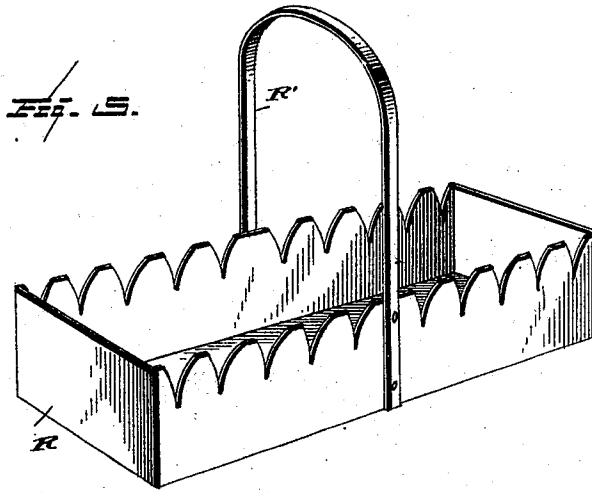
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2 Sheets—Sheet 2.

M. STONE.  
DISH WASHER.

No. 516,557.

Patented Mar. 13, 1894.



Witnesses:

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# UNITED STATES PATENT OFFICE.

MELVIN STONE, OF SAN DIEGO, CALIFORNIA.

## DISH-WASHER.

SPECIFICATION forming part of Letters Patent No. 516,557, dated March 13, 1894.

Application filed June 22, 1892. Serial No. 437,619. (No model.)

*To all whom it may concern:*

Be it known that I, MELVIN STONE, a citizen of the United States, and a resident of the city of San Diego, and county of San Diego, State of California, have invented certain new and useful Improvements in Dish-Washers, the same being designed as an improvement upon the device shown and described in United States Patent No. 467,444, issued to me January 19, 1892; and I do hereby declare that the following is a full, clear, and exact description of the said invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has for its object among others to provide a simple, cheap, efficient and easily-operated device for washing dishes by which the washing of the dishes is accomplished by the spraying of water under pressure.

Other objects and advantages of the invention will appear in the following description and the novel features thereof will be particularly pointed out in the claims.

The invention is illustrated clearly in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification and in which—

Figure 1 is a side elevation of my improved dish washer. Fig. 2 is a central vertical section through the same, on the line 2—2 of Fig. 1 showing the plunger in its lowermost position, with cover removed. Fig. 3 is a similar section showing the plunger in its uppermost position. Fig. 4 is a cross section of the cylinder and exterior jacket on the line 4 4 of Fig. 3 showing also the bottom of the plunger with its valve. Fig. 5 is a perspective view of a rack for handling the plates or dishes when placed in the washer for cleansing. Fig. 6 is a similar view of a crate or flat receptacle for holding knives, forks, spoons and other small articles while being cleansed. Fig. 7 is a perspective view of a basket for holding cups and the like while being cleansed. Fig. 8 is a perspective view of a modified form of tray.

Like letters of reference refer to like parts in all the figures of the drawings.

Referring now to the details of the drawings by letter A designates the outer jacket or cylinder, B a cylinder or jacket arranged

concentric with and within the cylinder or jacket A and extending to within a short distance of the lower end of said cylinder or jacket and having an inclined or conical bottom B' as seen best in Figs. 2 and 3, from the center of which extends a discharge pipe B<sup>2</sup> which passes through an opening in the outer jacket or cylinder A and is provided near its outer end with a cock or faucet K by which the discharge through said pipe may be controlled.

C is an inner cylinder concentric with the cylinders A and B and provided with perforations *c* through which the water may pass. The cylinders B and C are supported by and suspended from cap piece or ring A' supported on the outer jacket A and which may be integral therewith if desired as seen in Figs. 2 and 3; and the outer jacket or cylinder A should be provided near the top and bottom with apertures *o* and P as seen in Figs. 1 and 2 for the purpose of producing a proper draft in the furnace chamber M which is located beneath the inclined bottom of the cylinder B within the jacket A and in which is arranged a suitable heater L, a door J being provided in the outer jacket near its lower end to give access to the heater when desired.

The device is provided with a suitable lid or cover I and with handles H by which it can be readily moved from place to place.

D is a plunger mounted to reciprocate within the inner cylinder C, its bottom being preferably somewhat inclined as seen in Fig. 3 and provided centrally with an opening closed by a valve F mounted to open downwardly as seen in Fig. 3. This plunger has connected therewith the arms E which are suitably secured thereby, said arms extending above the top of the device a sufficient distance to connect with the vertical arm N, the upper end of which is pivotally connected thereto outside the outer jacket while its lower end extends nearly to the bottom of the device where it is pivotally connected as at *n* to the operating lever G which is pivotally connected as at *g* to the outer jacket and its upper end extends a sufficient distance to form an operating handle. The dishes being washed are placed in a tray or basket which is supported upon a suitable support as P' arranged within the inner cylinder at a point

just above the highest stroke of the plunger as seen in Fig. 3. This tray or basket may be made in any desired shape or form such as that designated by R in Fig. 5 being in the  
 5 form of a rectangular receptacle with notched sides in which are placed the plates or dishes, a suitable handle being provided to aid in the manipulation of the tray or basket.

In Fig. 6 I have shown a crate or basket S  
 10 with hinged cover S', and in this crate or basket are placed knives, forks, spoons or other small articles and which are held therein by the closed cover. In Fig. 7 I have shown a deeper basket T designed for holding, cups, saucers and the like and in Fig. 8  
 15 I have shown still another form W which may be employed for holding any desired article or articles. The forms shown in Figs. 6, 7 and 8 have reticulated bottoms and walls  
 20 for the free escape of the water.

With the parts constructed and arranged substantially as herein shown and described, the operation of the parts is as follows: With the parts in the position in which they are  
 25 shown in Fig. 3 with the plunger at the upper ends of its stroke, the valve is open, the dishes are placed in the tray or basket, the water is placed in the cylinder B and the fire being started when the water is sufficiently  
 30 heated the plunger is caused to move downward being fitted to move freely and preferably without contact with the walls of the inner cylinder and as the plunger is forced  
 35 down the valve F is closed and the water in the vessel B and pan B' is forced up into the space between the cylinders B and C and the heated water and steam forced through the perforations c in the form of spray under  
 40 pressure upon the dishes in the tray. In the upward movement of the plunger the valve F is automatically opened and the water in the plunger is discharged. This is repeated at each reciprocation of the plunger. The  
 45 hot water being forced through the perforations under great pressure produces a very efficient cleansing spray which will be forced through every part of the basket or tray T and the dishes therein will be quickly and

perfectly washed; after being washed they may be removed in the tray or basket and  
 50 allowed to drain while another tray or basket is placed in position.

What I claim as new is—

1. In a dish washing machine, the combination of an outer jacket, an inner perforated  
 55 cylinder and an intermediate imperforate cylinder with closed bottom and a plunger fitted to move within the inner cylinder and having an opening in its bottom with a hinged  
 60 valve therefor, substantially as specified.

2. In a dish washing machine the combination of an outer jacket, an inner perforated  
 65 cylinder and an intermediate imperforate cylinder with closed bottom and a plunger fitted to move within the inner cylinder and  
 70 having an opening in its bottom with a hinged valve therefor, the outer jacket being extended below the cylinders to form a heating chamber, substantially as specified.

3. In a dish washing machine the combination of a jacket, an inner perforated cyl-  
 75 indier open at the bottom, an intermediate imperforate cylinder with inclined closed bottom, a plunger with inclined bottom fitted to reciprocate within the inner cylinder and  
 80 provided with an automatically-operating valve in its bottom and means for reciprocating the plunger, substantially as specified.

4. In a dish washing machine the combination of an outer jacket, an inner perforated  
 85 cylinder with open bottom, an intermediate imperforate cylinder with inclined bottom having discharge pipe with valve, a ring at the top closing the space between the said  
 90 jacket and cylinder, a plunger within the inner cylinder and having an automatically-operating valve in its bottom and means for reciprocating said plunger, substantially as specified.

In witness whereof I have hereunto affixed  
 90 my signature in the presence of two witnesses.

MELVIN STONE.

Witnesses:

A. B. SMITH,  
 C. F. KIRBY.