No. 635,009. Patented Oct. 17, 1899.

J. D. ATKINSON.

DISH WASHING MACHINE.

(Application filed Apr. 1, 1898.)

(No Model.)

Fig. 1

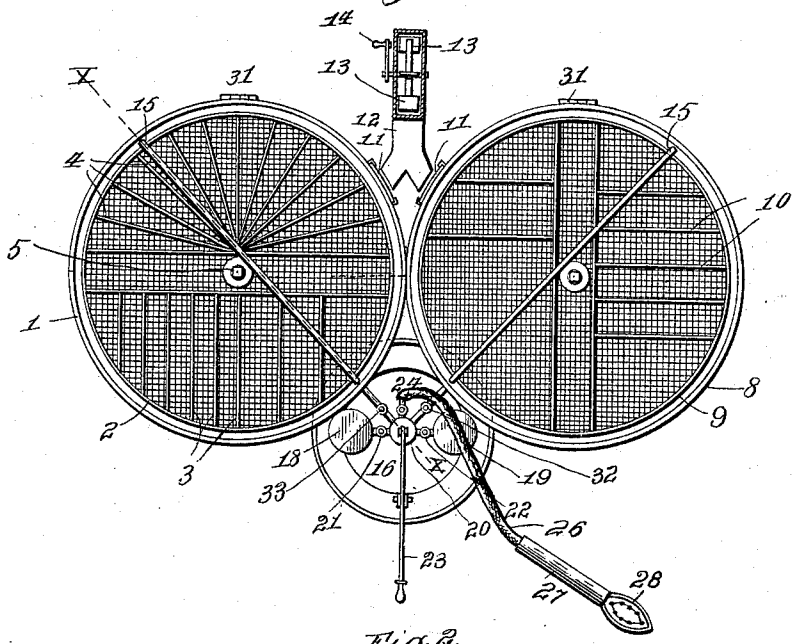


Fig. 2.

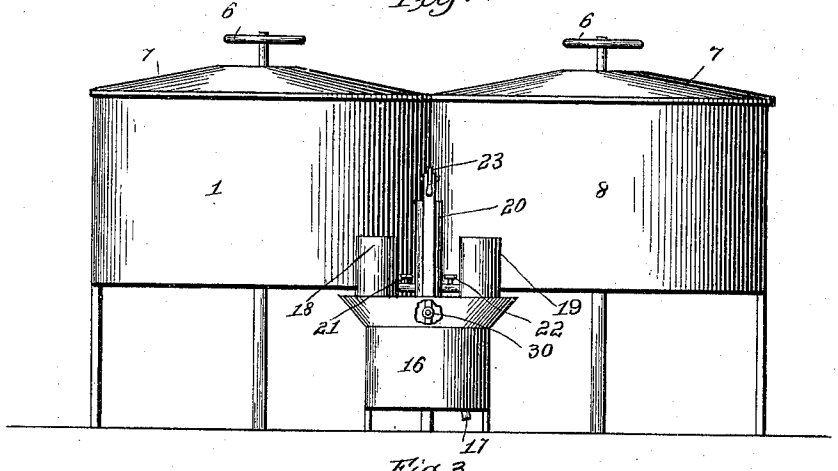


Fig. 3.

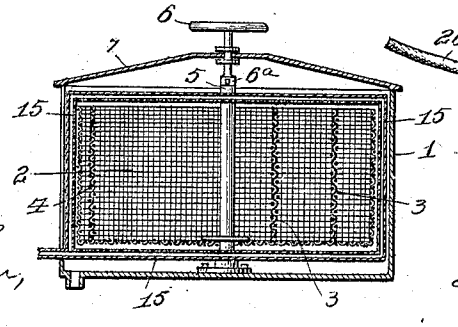
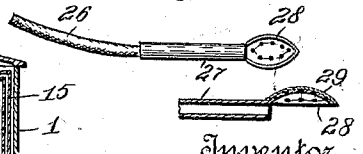


Fig. 4.



Witnesses
Herbert Bradley,
Edward K. Allen,

Inventor
John D. Atkinson.

By Knight Bros
Attorneys

UNITED STATES PATENT OFFICE.

JOHN D. ATKINSON, OF SEATTLE, WASHINGTON.

DISH-WASHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 635,009, dated October 17, 1899.

Application filed April 1, 1898. Serial No. 676,118. (No model.)

To all whom it may concern.

Be it known that I, JOHN D. ATKINSON, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented a certain new and useful Improvement in Dish-Washing Machines, of which the following is a specification.

In the drawings, Figure 1 is a top plan view of my improved washing-machine, parts being in section. Fig. 2 is a side elevation of the same. Fig. 3 is a detail sectional view of one of the receptacles on the line *x x*, Fig. 1. Fig. 4 is a detail view of the flexible tube, with its non-flexible tubular end and spoon-shaped extension.

The object of my invention is to produce a cheap and practical dish-washing machine; and it consists of improved means whereby the dishes may be subjected to cold or hot water baths and finally dried by means of an air-blast.

Referring to the accompanying drawings, 1 represents one of the receptacles employed in my machine, such receptacle being especially adapted for washing dishes.

2 is a basket or crate mounted upon a shaft 5, said shaft being journaled at its lower end in a suitable bearing secured to the bottom of the receptacle 1. This crate or basket is formed of wire-netting and is provided with parallel partitions 3 on one side of its center and radial partitions 4 on the other side, said partitions being formed of fine-mesh wire.

6 is a hand or other power wheel having a suitable stem, upon the lower end of which is formed a socket 6^a, made, preferably, square and adapted to firmly engage the upper end of the shaft 5, which is also square. The stem of the wheel 6 is journaled in the cover 7.

8 is a receptacle similar to that just described and indicated by the reference-number 1.

9 is a wire basket or crate pivotally mounted within the receptacle 8 as described in connection with the basket 2. The wire partitions 10, formed in the basket 9, run parallel to but at some distance from each other, and on one side of the crate it will be noticed that only two partitions are formed. The object of this arrangement is to adapt this receptacle for pans, kettles, and other large cooking utensils.

The receptacles 1 and 8 are each provided with doors 11. (Best seen in Fig. 1.) Immediately back of and in line with said doors 11 I locate a blast-fan casing 12, provided with diverging mouths which register, respectively, with the doors 11 in said receptacles.

13 is a blast-fan pivotally mounted in the casing 12, to which is connected a suitable means for supplying power, such as the crank-handle 14, said casing being suitably supported.

15 is a perforated pipe secured within the receptacles 1 and 8 and looped around the four sides of the baskets or crates 2 and 9, with the perforations next to said crates.

16 is a waste-water receptacle located in front of and between the receptacles 1 and 8 and connected to said receptacles by any suitable means.

17 is an outlet secured in the bottom of the waste-water receptacle.

18 and 19 are water-receptacles in which I store, respectively, hot and cold water.

20 is a hand force-pump mounted upon the waste-water receptacles and secured between the water-receptacles 18 and 19, said pump being connected to said receptacles by means of the valve connections 21 and 22.

23 is the pump-handle.

The water-receptacles 18 and 19 may, if desired, be connected with a supply system.

24 is a valved connection secured to the bottom of the force-pump, and 26 is a flexible tube connected with the valved connection 24.

27 is a tube of metal or other non-flexible material secured to the outer end of the flexible tube 26, and 28 is a spoon-shaped extension integral with the tube 27, said spoon-shaped portion being perforated.

29 is a piece of fibrous material secured to the convex surface of said spoon-shaped portion 28 by means of suitable thread or fine wire laced in the perforations formed in the said spoon-shaped portion, as clearly shown in the detail section which forms a part of Fig. 4.

30 is a valved connection between the pump and the waste-receptacle.

The operation of the machine is as follows: The dishes are placed on edge between the partitions of proper size, the covers 7 are then swung on their hinges 31 over the receptacles and the enlarged ends 6^a of the wheel-stem engage the upper angular end of the shaft 5. The receptacles 18 and 19 being supplied with water and the pump connected to the ends of the pipes 15, the valve 21 or 22 is opened, according to the kind of water required, and the pump operated, thereby forcing the water through the pipe 15 into the receptacle, where it escapes from said pipe through the perforations and is sprayed on the dishes from the bottom, top, and sides as the basket or crate is revolved by means of the hand-wheel 6, thus assuring a thorough drenching. The rotary motion given the dishes by the revolution of the basket or crate throws water to the sides with considerable force, thereby more thoroughly loosening and throwing off the foreign substance on the dishes. After the dishes have been sprayed a sufficient time the cover is thrown back for purpose of inspection, and if it is thus found that any foreign substance still clings to the dishes the tube 27, with its spoon-shaped end 28, is connnected with the pump by opening the valve connection between the pump and the tube 26 and such foreign substance removed by rubbing the fibrous material 29 on the dish, said fibrous material being moistened by the water flowing through the tubes 26 and 27 from the pump. The water is drained from the washing-receptacle to the waste-receptacle 16, and if it is found necessary to reuse the waste water this may be done by opening the valve connection 30, thereby connecting the pump with the waste-receptacle. The washing-receptacle being drained of all water, the door 11 is opened and the fan 13 put in operation, thereby directing the air-blast against the dishes in the basket or crate for the purpose of evaporating the moisture on the dishes.

When it is desired to direct the water from the pump to only one receptacle, valve 32 or 33 is closed, whereby the pump is only in connection with the desired receptacle.

Having thus described my invention, what I claim is—

1. A dish-washing machine comprising two receptacles provided with dish-holding crates and spray-pipes, a waste-chamber located between and suitably connected with the said receptacles, hot and cold water reservoirs surmounting the waste-receptacle, and a force-pump located between the said last-named receptacles and having valved connection therewith, and valved connections leading from the pump to the spray-pipes in the first-named receptacles.

2. In a machine of the character described, the combination with the two receptacles, revolving dish-holding crates pivotally mounted in said receptacles, a spray-pipe looped over, under and on the sides of said respective dish-holding crates, of a waste-receptacle located between and connected by drain-pipes to the first-named receptacles, a force-pump located on top of the waste-receptacle and having valved connection therewith, and hot and cold water reservoirs also secured on top of the waste-receptacle and having respectively valved connection with said force-pump, and a separate valved connection connecting the said pump to the respective spray-pipes in first-named receptacles.

3. In a dish-washing machine, the combination with the dish-holding receptacles of a force-pump connected with said receptacles and a cleaner comprising a flexible tube connected with said pump, a non-flexible tubular end having a spoon-shaped extension provided with fibrous material secured on its convex face.

JOHN D. ATKINSON.

Witnesses:
OTTO DIECKMANN,
JOHN J. PHELAN.