No. 640,111.

Patented Dec. 26, 1899.

H. E. DECKER.

BOTTLE WASHER.

(Application filed July 17, 1899.)

(No Model.)

Fig. 1.

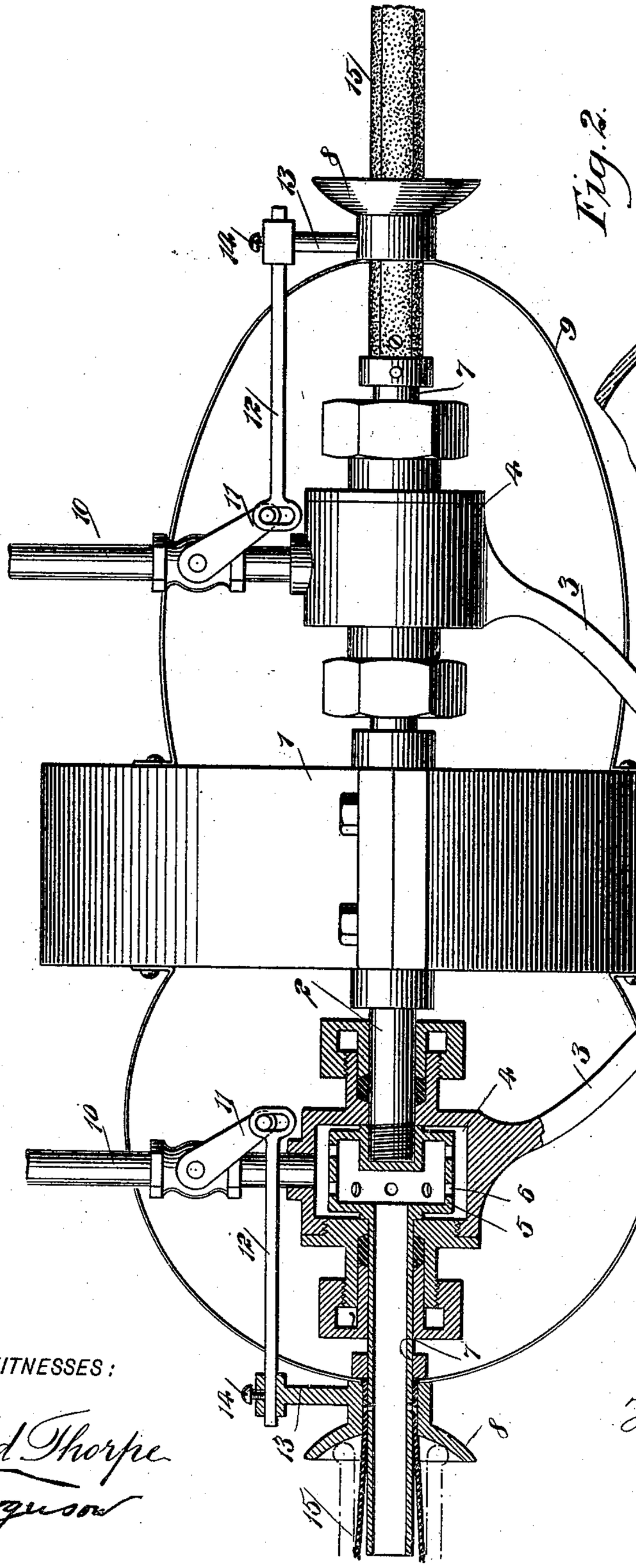
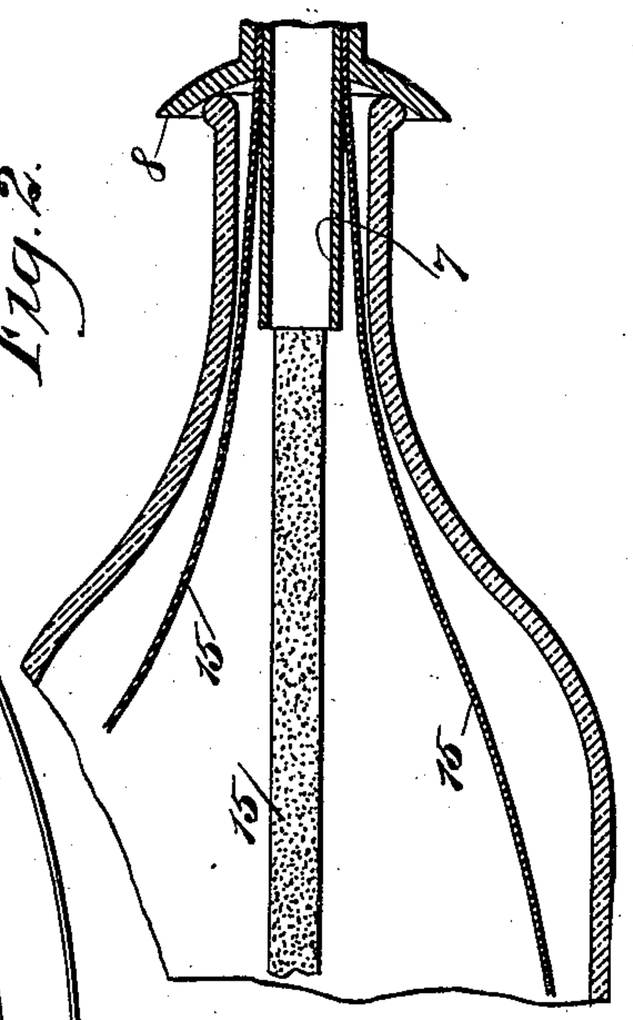


Fig. 2.



WITNESSES:

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HENRY E. DECKER, OF NEW YORK, N. Y.

BOTTLE-WASHER.

SPECIFICATION forming part of Letters Patent No. 640,111, dated December 26, 1899.

Application filed July 17, 1899. Serial No. 724,118. (No model.)

To all whom it may concern:

Be it known that I, HENRY E. DECKER, of the city of New York, borough of Manhattan, in the county of New York and State of New York, have invented a new and Improved Bottle-Washer, of which the following is a full, clear, and exact description.

This invention relates to improvements in machines for washing bottles; and the object is to provide a machine of comparatively simple construction, by means of which bottles can be quickly and thoroughly washed on the inside and in which the water-supply is controlled by movements of the bottle.

I will describe a bottle-washer embodying my invention, and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures.

Figure 1 is a partial section and partial elevation of a bottle-washer embodying my invention, and Fig. 2 is a section showing a bottle in position while washing the same.

The invention comprises a suitable motor arranged within the casing or cylinder 1 and having a shaft 2 extended outward through the opposite sides of the cylinder. The motor may be operated by any suitable means—such, for instance, as by air or water or steam.

The bottle-washing devices are arranged one on each end of the shaft 2; but as they are alike a description of one will answer for both, and it may be here remarked that I do not confine my invention to the placing of two bottle-washing devices on the shaft.

Supported on the cylinder 1 is a bracket 3, having a hollow head 4, which forms a water-chamber. The shaft 2 extends through a suitable stuffing-box and into the water-chamber, where it connects, as here shown, removably with a boxing 5, having perforations 6 through its peripheral wall for the inlet of water. From this boxing 5 a tubular shaft or injector-tube 7 extends outward through a suitable stuffing-box, and movable longitudinally on this tube 7 is a cup-shaped mouthpiece 8, designed to receive the mouth end of a bottle. A yielding connection is made between this mouthpiece 8 and the cylinder 1. As here shown, this connection consists of a C-spring 9, having its central portion connected with the rear end of the mouthpiece 8 at one side of the tube 7 and its ends connected to the cylinder 1.

A supply-pipe 10 leads into the chamber 4, and in this supply-pipe is a valve, to the stem of which a crank 11 is attached, and from the wrist-pin of the crank 11 a link 12 extends to an adjustable connection with an arm 13, extended from the hub portion of the mouthpiece 8. The link 12 passes through a slot in the end of the arm 13, and it is held as adjusted by means of a set-screw 14. Attached to the injector-tube 7 and extended considerably beyond the end thereof are wipers 15, consisting of strips of rubber or similar material.

In operation, when the mouthpiece 8 is in its outermost position, as indicated at the right-hand side of Fig. 1, the bottle is to be passed over the wipers 15 and its mouth end engaged with the mouthpiece 8. Then as the bottle is pushed inward or toward the cylinder 1 and while the tube 7 is in rapid rotation by means of its connection with the shaft the valve in the pipe 10 will be opened to admit water, which by its pressure will pass into the bottle. The rapid rotation will cause the wipers 15 to spread outward by centrifugal action to engage against the inner surface of the bottle and thoroughly wash it. As the bottle is drawn outward the spring 9 will move the mouthpiece 8 with the bottle and also cause the valve in the pipe 10 to be closed.

It is obvious that as this machine may wash two bottles at a time a large number of bottles may be quickly cleansed.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A bottle-washing machine, comprising a motor, a bracket supported on the casing or cylinder of the motor, and having a hollow head, a water-receiver in said hollow head and having a perforated wall, the said receiver having connection with the shaft of the motor, a tubular shaft extended from the water-receiver, a mouthpiece movable longitudinally on the tubular shaft, a spring having its ends attached to the casing of the motor and having its central portion engag-

ing with the rear side of the mouthpiece, and means operated by movements of the mouthpiece to control the supply of water to the water-receiver, substantially as specified.

2. A bottle-washing machine, comprising a motor, a bracket supported on said motor and having a hollow head, a perforated water-receiver in said hollow head and having connection with the motor-shaft, a supply-pipe leading into the hollow head, a valve in said supply-pipe, a tubular shaft having connection with the water-receiver, wipers on said tubular shaft, a mouthpiece movable longitudinally on the tubular shaft, a spring attached to the motor-casing and engaging with the mouthpiece, an arm extended from said mouthpiece, a link having adjustable connection with said arm, and a crank on the valve having connection with said link, substantially as specified.

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Witnesses:
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