S. W. DILLIN.
Bottle-Washer.

No. 212,841. Patented Mar. 4, 1879.

FIG. 1.

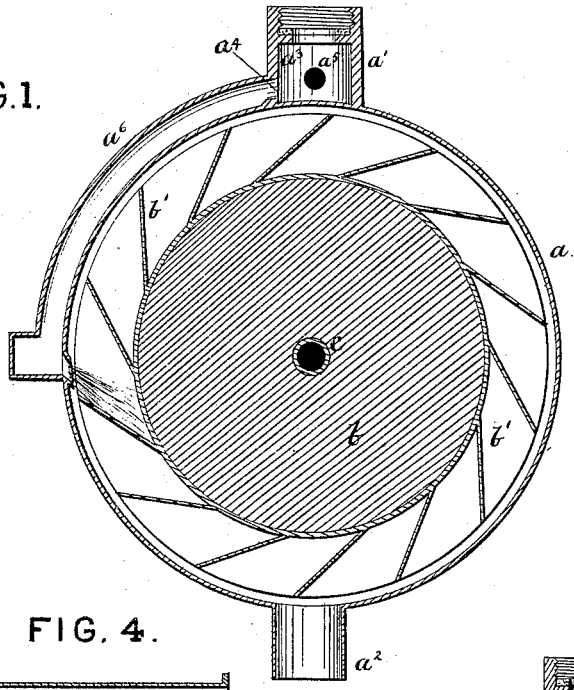

FIG. 4.

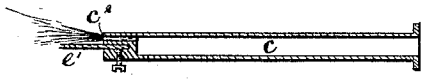

FIG. 2.

FIG. 3.

WITNESSES

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UNITED STATES PATENT OFFICE.

SAMUEL W. DILLIN, OF TOLEDO, OHIO.

IMPROVEMENT IN BOTTLE-WASHERS.

Specification forming part of Letters Patent No. **212,841**, dated March 4, 1879; application filed November 21, 1878.

To all whom it may concern:

Be it known that I, SAMUEL W. DILLIN, of Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Bottle-Washers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which 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 has for its object to provide a device which may be attached to a hydrant pipe or nozzle on a water tank or reservoir, and adapted to wash and cleanse the inside of bottles and other vessels the inner sides of which are difficult of access by the ordinary means.

It consists of a suitable casing having an inlet and an outlet pipe, and having a motor-wheel supported therein on a hollow axle, one end of which projects beyond the casing, and is provided with suitable means for holding the brush, and with an outlet for the discharge of water into the vessel to be cleansed, and having suitable ducts leading from the inlet-pipe to the hollow axle and motor-wheel, all of which will be hereinafter fully explained.

In the drawings, Figure 1 is a vertical longitudinal section, and Fig. 2 is a vertical cross-section, showing the construction of my invention; and Figs. 3 and 4 are detail views.

a is the casing, having the inlet a^1 and the outlet a^2. The inlet a^1 does not enter directly into the casing, but is formed with a chamber or reservoir, a^3, outside of the casing, in which chamber or reservoir there are two openings, a^4 a^5, which let water into the two pipes or ducts a^6 a^7, which convey the water as hereinafter explained. *b* is the motor-wheel, placed in the casing *a*, and having its periphery provided with a series of buckets, b^1, as shown. It is supported on the hollow axle *c*, which is supported in suitable bearings in the casing *a*. One of the ends of the axle *c* projects slightly into a small chamber or reservoir, *d*, while its opposite end, c^1, projects beyond the casing a suitable distance and is provided with a socket and set-screw, or other suitable fastenings, by which the handle c' of a brush, sponge, or other device, *e*, may be securely fastened thereto.

In the outer end of the projecting end c^1 of the axle *c* there is made a small opening, c^2, from which the water is thrown onto the brush *e* and into the bottle or other vessel in the process of cleansing the latter.

The pipe or duct a^6 conveys the water from the chamber or reservoir a^3 to the buckets of the wheel *b*, as shown. The pipe a^7 conveys the water from the reservoir a^3 to the hollow axle *c*, which conveys it and throws it into the bottle or other vessel from the opening c^2. Different ways by which the sponge or brush may be attached to the axle *c* are shown in Figs. 2, 3, and 4.

I do not claim any novelty in the mode of attachment.

The operation of the device is very simple. The water enters at the inlet a^1, and part passes through the duct a^6 to and turns the wheel *b*, which revolves the brush or sponge *e*. Another part of the water passes through the duct a^7 and the hollow axle *c*, and is discharged at the opening c^2 into the vessel to be cleansed and onto the sponge or brush. When bottles are to be cleansed I employ a brush which can be readily slipped into and will then expand so as to fill the space within said bottle. For vessels with wide mouths a sponge or other suitable device may be employed.

The device is set, by preference, so that the axle *c* is in a horizontal position, and the bottle is slipped on over the brush and end of said axle. Where there is no supply of hydrant-water a tank—as, for instance, a large bucket—may be used. On the under side or bottom of this tank may be attached a stop-cock and nipple, to which the inlet-pipe a^1 may be attached. Sufficient column of water can thus be obtained to drive the wheel *b* with sufficient force to give effective operation to the brush or sponge.

This device is admirably adapted for use by druggists who have numberless bottles to be cleansed. It is set in motion by turning the water on by means of a suitable stop-cock, and its motion is stopped by cutting off the supply of water.

This device could be made without the axle

c being hollow, as described. In this case, water would first have to be poured into the bottle or vessel to be cleansed; but I prefer to make it, as described, with the hollow axle.

I am aware that a hollow axle, operated by a motor-wheel, and having a water-exit and means for holding a brush or other cleansing device in its outer end, is not new, and I do not claim, broadly, such construction.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is

In an automatic bottle and vessel cleanser, the combination, with the casing a, having inlet a^1 and outlet a^2, and having the ducts a^6 a^7, of the motor-wheel b and hollow axle c, supporting said motor-wheel, and having its end c^1 extended beyond the side of the casing and provided with an opening, c^2, and suitable means for securing the handle of a brush, e', substantially as and for the purposes set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

S. W. DILLIN.

Witnesses:
M. B. CARNEY,
JNO. P. CRENNON.