

(No Model.)

S. TWITCHELL.
BOTTLE WASHING MACHINE.

No. 444,261.

Patented Jan. 6, 1891.

Fig. 2.

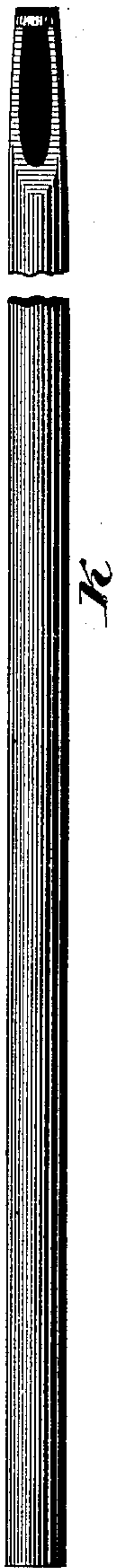
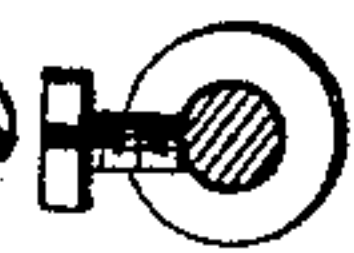


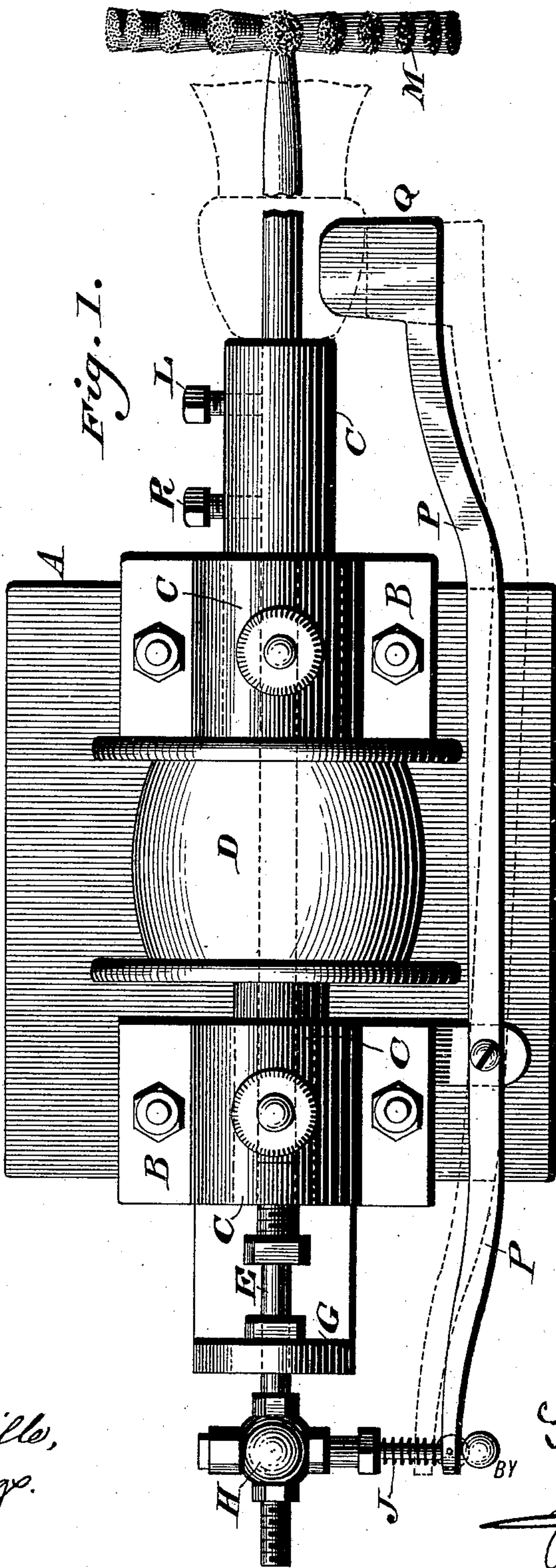
Fig. 3.



WITNESSES:

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Fig. 1.



INVENTOR

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SELDEN TWITCHELL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
S. TWITCHELL & BROTHER, OF SAME PLACE.

BOTTLE-WASHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 444,261, dated January 6, 1891.

Application filed August 30, 1890. Serial No. 363,532. (No model.)

To all whom it may concern:

Be it known that I, SELDEN TWITCHELL, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Bottle-Washing Machines, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a novel bottle-washing machine constructed as hereinafter described.

It further consists of the combination of parts hereinafter set forth.

Figure 1 represents a plan view of a bottle-washer embodying my invention. Fig. 2 represents a view, partly broken, of a detail portion of the device. Fig. 3 represents a transverse sectional view of a modified form of brush-holder.

Referring to the drawings, A designates the frame of the machine, having the uprights B, in which is journaled a hollow mandrel C, rotatable by means of the pulley D thereon.

Leading into one end of the mandrel C is a stationary water-supply pipe E, having a stuffing-box F, for preventing the leakage of the water at the connection of the pipe and mandrel. An arm G, attached to the frame of the machine, serves as a support for the supply-pipe, which latter is provided with a valve H, having a stem J. Inserted in the other end of the mandrel is a brush-holder K, held in place therein by a screw L and adapted to receive the handle of a brush M and retain the same by means of the loop N thereon, so that the brush may be rotated with the said holder. A lever P, pivoted to an attachment of the frame of the device, is connected at one end to the stem J, and is provided at its other end with a head Q, against which the head of a bottle comes in contact when the bottle is placed on the brush. The stem J is surrounded by a spring S, which bears against an extension of the valve and always tends to force the lever P into its normal position—viz., by raising the head Q thereof adjacent to the brush-holder K.

A modified form of a brush-holder K' is shown in Fig. 3, the same having a slot in its side, so that a brush which is adjustable in

said holder may be held in place by the screw R, which works in the mandrel C.

The operation is as follows: The bottle to be washed is placed on the brush and outer end of the holder and is moved so that its head comes in contact with the head Q of the lever P, pushing the said head outwardly, and thereby operating the lever so that it moves the stem J and, opening the valve H, admits water through the pipe E into the adjacent end of the mandrel. The water thus introduced into the mandrel escapes therefrom through the hollow holder K to the brush, so that the latter is supplied with a sufficiency thereof for properly washing the bottle. During the inflow of the water the mandrel is rotated by means of the pulley D, so that the brush rubs against the inner side of the bottle, loosening any particles of dirt thereon, and thereby effectually cleansing the same. When the bottle is withdrawn from the brush, the lever P returns to its normal position, thus closing the valve H and thereby stopping the further inflow of the water into the mandrel, said closing being effected by a spring S on the stem of the valve or otherwise suitably located.

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

1. In a bottle-washing machine, the combination of a rotatable hollow mandrel, a supply-pipe leading to said mandrel and having a valve in connection therewith provided with a stem having a spring thereon, a hollow brush-holder fitting in one end of said mandrel, and a horizontally-disposed pivoted lever fulcrumed to the frame and connected at one end to said spring-controlled valve-stem and having its opposite end held normally adjacent to the brush-holder, substantially as described.

2. In a bottle-washing machine, the combination of a hollow rotatable mandrel, a hollow brush-holder adjustable in said mandrel, a brush adjustable in said holder, a stationary water-pipe leading into said mandrel and provided with a valve having a stem encircled by a spring, and a lever pivoted to the frame and having its one end secured to said spring-encircled valve-stem and its opposite end normally held adjacent to the said brush-holder, substantially as described.

3. In a bottle-washing machine, the combination of a frame or support, a hollow rotatable mandrel journaled in said frame and having a pulley thereon, a stationary water-supply pipe leading into one end of said mandrel and provided with a valve having an extended spring-encircled stem, a hollow brush-holder fitted in the other end of said mandrel, and a rocking lever fulcrumed to the frame and having its one end pivotally connected to the spring-actuated valve-stem and its opposite end formed with a head adapted to engage the bottle when placed over the brush, substantially as described.

4. In a bottle-washing machine, a rotary mandrel, a valved water-pipe connected to one end of said mandrel, and a brush-holder fitted in the opposite end of said mandrel, combined with a pivoted lever connected at one end with the valve of the water-pipe and at its opposite end formed with a head adapted to engage the bottle when in position to be washed, substantially as described.

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Witnesses:

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