No. 721,673. PATENTED MAR. 3, 1903.

W. J. CUNNINGHAM.

BOTTLE WASHING MACHINE.

APPLICATION FILED MAR. 1, 1902.

NO MODEL.

Fig. 1.

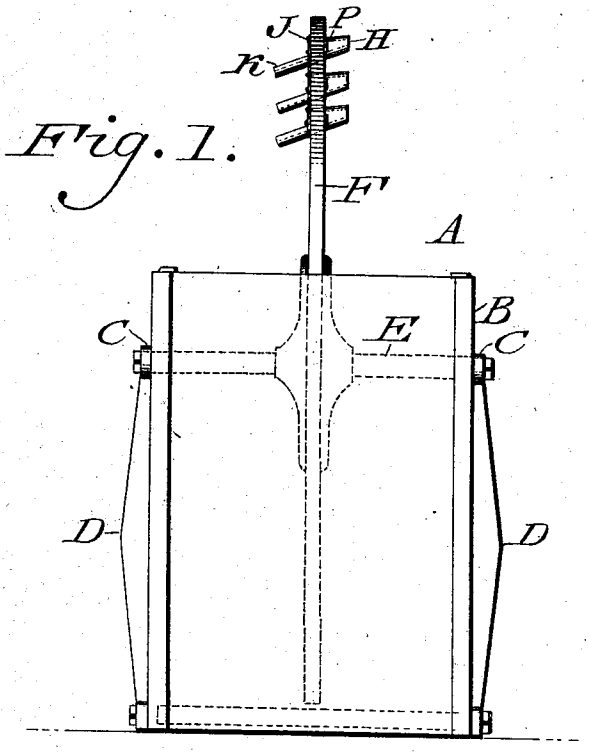


Fig. 2.

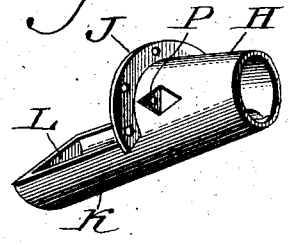


Fig. 3.

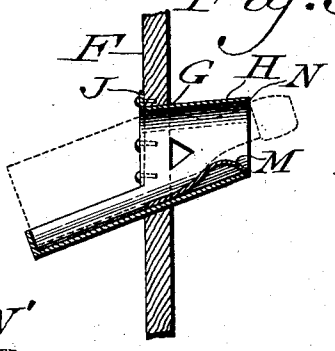
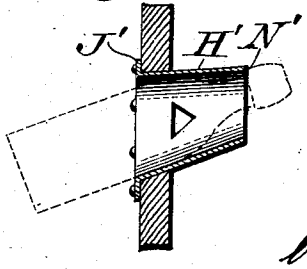


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM J. CUNNINGHAM, OF PHILADELPHIA, PENNSYLVANIA.

BOTTLE-WASHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 721,673, dated March 3, 1903.

Original application filed November 25, 1901, Serial No. 83,542. Divided and this application filed March 1, 1902. Serial No. 96,243. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. CUNNINGHAM, 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, of which the following is a specification.

My invention consists of an improvement in a bottle-washing machine having wheels or disks suitably mounted to revolve in a tank provided with a thimble for holding the bottle on said disks, this application being a division of my application filed November 25, 1901, Serial No. 83,542.

It further consists of novel details of construction, all as will be hereinafter set forth.

Figure 1 represents an end elevation of a bottle-washing machine embodying my invention. Fig. 2 represents a perspective view of a bottle-holder employed. Fig. 3 represents a sectional view of said holder, showing the same in position. Fig. 4 represents a sectional view of a thimble employed.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates a bottle-washing machine consisting of a tank B, having suitable journals C attached thereto, being provided with a suitable stay or brace D on the exterior thereof, said journal C having mounted therein a shaft E, which carries a wheel F, which is provided with suitable openings G, into which is inserted a thimble H, which has a flange J for attaching the thimble to the wheel F, which is provided with an extension K, having a shoulder L, against which the bottom of the bottle when in position is adapted to rest. On the interior of the thimble is a spring M, which is adapted to force up the neck of the bottle so that the shoulder N on the said neck of the bottle will engage with the edge of the thimble.

P designates ears on the thimble, which are also adapted to be secured to the wheel F for locking the thimble in position.

In Fig. 4 I have shown a construction wherein H′ designates the thimble, J′ the flange for attaching the thimble to the wheel, and N′ the shoulder on the neck of the bottle, which engages with the edge of the thimble and where I omit the extension K and spring M, as I do not desire to be limited to these features, as it will be evident that the thimble will operate without the same.

The operation is as follows: A plurality of these thimbles are secured to the wheel F, (in Fig. 1 I have shown for clearness of illustration only a few of these thimbles,) the bottle is passed through the thimble, the spring forcing up the neck thereof, so that the shoulder engages with the edge of the thimble, and the bottle is held in position, the wheel revolving causing said bottle to be immersed in suitable cleansing material which is contained in the tank, it being evident that the extension K and the shoulder L assist in holding the bottle in position, if necessary.

It will be evident that slight changes may be made by those skilled in the art which will come within the scope of my invention, and I do not, therefore, desire to be limited in every instance to the exact construction herein shown and described.

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

1. In a bottle-washing machine, a tank, a wheel mounted thereon, a thimble rigidly secured to said wheel and projecting substantially horizontally therefrom and adapted to engage with a downwardly-facing shoulder on the neck of a bottle in order to hold said bottle on said wheel, said thimble forming the sole means of support for said bottle with respect to said wheel.

2. In a bottle-washing machine, a tank, a wheel suitably mounted therein, an opening in said wheel, and a thimble secured in said opening adapted to engage with a downwardly-facing shoulder on the neck of a bottle in order to hold said bottle therein, said thimble forming the sole means of support for said bottle with respect to said wheel.

3. In a bottle-washing machine, a tank, a wheel suitably mounted therein, an opening in said wheel, a thimble secured in said opening adapted to engage with a downwardly-facing shoulder on the neck of a bottle in order to hold said bottle therein, and an exten-

sion on said thimble in combination with a bottle having a shoulder which is adapted to engage with said thimble.

4. In a bottle-washing machine, a tank, a wheel suitably mounted therein, an opening in said wheel, a thimble in said opening adapted to engage with a downwardly-facing shoulder on the neck of a bottle and means for holding the bottle in proper position in said thimble.

5. In a bottle-washing machine, a tank, a wheel suitably mounted therein, an opening in said wheel, a thimble in said opening, and a spring in said thimble adapted to bear against the bottle, and hold the same in position.

6. In a bottle-washing machine, a tank, a wheel suitably mounted therein, an opening in said wheel, a thimble in said opening adapted to engage with a downwardly-facing shoulder on the neck of a bottle and a shoulder on said thimble against which the bottom of the bottle is adapted to rest.

7. In a bottle-washing machine, a tank, a wheel suitably mounted therein, an opening in said wheel, a thimble in said tank, a spring on said thimble adapted to bear against the bottle, and a shoulder on said thimble against which the bottle is adapted to rest.

WILLIAM J. CUNNINGHAM.

Witnesses:
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