D. J. OWEN & J. G. BRYDGES.

Washing-Machines.

No. 136,335. Patented Feb. 25, 1873.

Fig. 1.

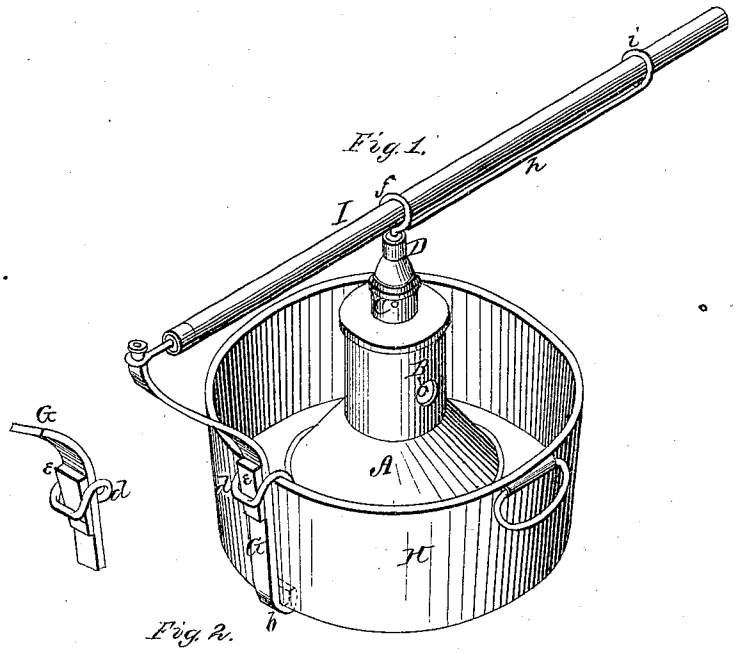


Fig. 2.

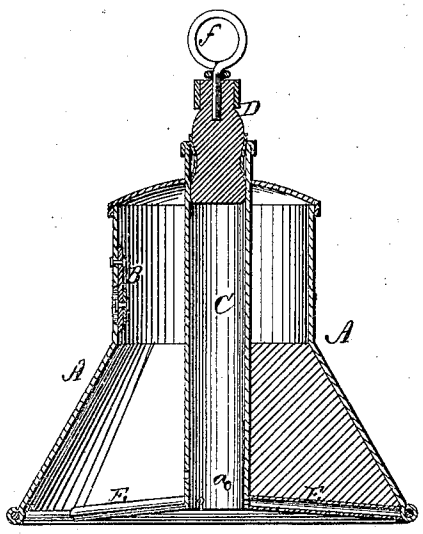
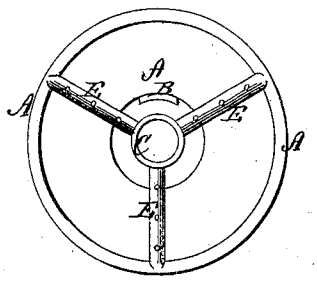


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

DEMUS J. OWEN AND JAMES G. BRYDGES, OF SPRINGVILLE, PA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **136,335**, dated February 25, 1873.

To all whom it may concern:

Be it known that we, DEMUS J. OWEN and JAMES G. BRYDGES, of Springville, in the county of Susquehanna and State of Pennsylvania, have invented certain new and useful Improvements in Washing-Machine; and we do hereby declare that the following is a full, clear, and exact description thereof, that will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing and to the letters of reference marked thereon which form a part of this specification.

The nature of our invention consists in the construction and arrangement of an air-pump or atmospheric washing-machine, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which our invention appertains to make and use the same, we will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view of our entire machine. Fig. 2 is an enlarged longitudinal vertical section of the bell-shaped air-chamber, and Fig. 3 is a bottom view of the same.

A represents a bell-shaped chamber or vessel, closed at the top and open at the bottom. The upper part is round or cylindrical, while the lower part is flaring, as shown particularly in Fig. 2. In one side of the upper cylindrical part is a valve, B, which is attached on the inside and opens inward. Through the center of the bell A passes a tube, C, the upper end of which extends a short distance above the bell, and receives the staff D. Near the lower end in the tube C are openings *a a*, and tubes E E, perforated on their under sides, radiate from the tube C to the lower edge of the bell A, said tubes being braced by suitable wings, if deemed necessary. The lower end of the tube C forms the cup or receptacle to hold soap, which is confined in the same by a cork inserted in the end of the tube, and vents itself to the clothes, when the machine is in motion, through the openings *a a* and the perforated tubes E E. H represents an ordinary wash-tub, to which is attached an iron brace or post, G. The lower end of this brace or post forms a hook, *b*, which hooks on the bottom edge of the tub, and it is then fastened to the top edge by means of a griped link, *d*, and key *e*, as shown in Fig. 1. I represents the handle, which is made fast at the top of the post G by a joint. In the upper end of the staff D of the machine is secured an eye, *f*, through which the handle I passes, and to the eye *f* is attached a rod, *h*, the outer end of which forms a ring, *i*, also around the handle, and by this means the machine can be moved to all parts of the tub. The machine may be made of copper, tin, brass, or any other suitable material.

It is worked up and down by the handle I, and in raising the machine the suction of the clothes and water causes the machine to fill with air through the valve; and when it descends the air, soap, and water are forced through the garments, causing a double action and commotion, cleansing the clothes perfectly without rubbing or wear.

When made of small dimensions, this machine, with tub, post, and handle, will form a very amusing toy for children, and as such we desire also to include it in our patent.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The bell-shaped vessel A with valve B, arranged as described, to form an air-pump washing-machine, substantially as herein set forth.

2. The central tube C, perforated at its lower end, forming the soap-cup, and provided with the perforated tubes E E, for the purposes herein set forth.

3. The combination of the bell-shaped vessel A with valve B, central tube C, and tubes E E, all constructed and arranged as and for the purposes herein set forth.

4. The post or brace G, provided with hook *b*, and fastened to the tub by means of the griped link *d* and key *e*, substantially as herein set forth.

5. The rod *h* with ring *i*, arranged with the vessel A and handle I, substantially as and for the purposes herein set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 10th day of February, 1873.

DEMUS J. OWEN.
JAMES G. BRYDGES.

Witnesses:
W. R. MESEROLE,
CHAS. A. HUNGERFORD.