

M. W. STAPLES.  
Washing-Machines.

No. 142,958.

Patented September 16, 1873.

FIG. 1.

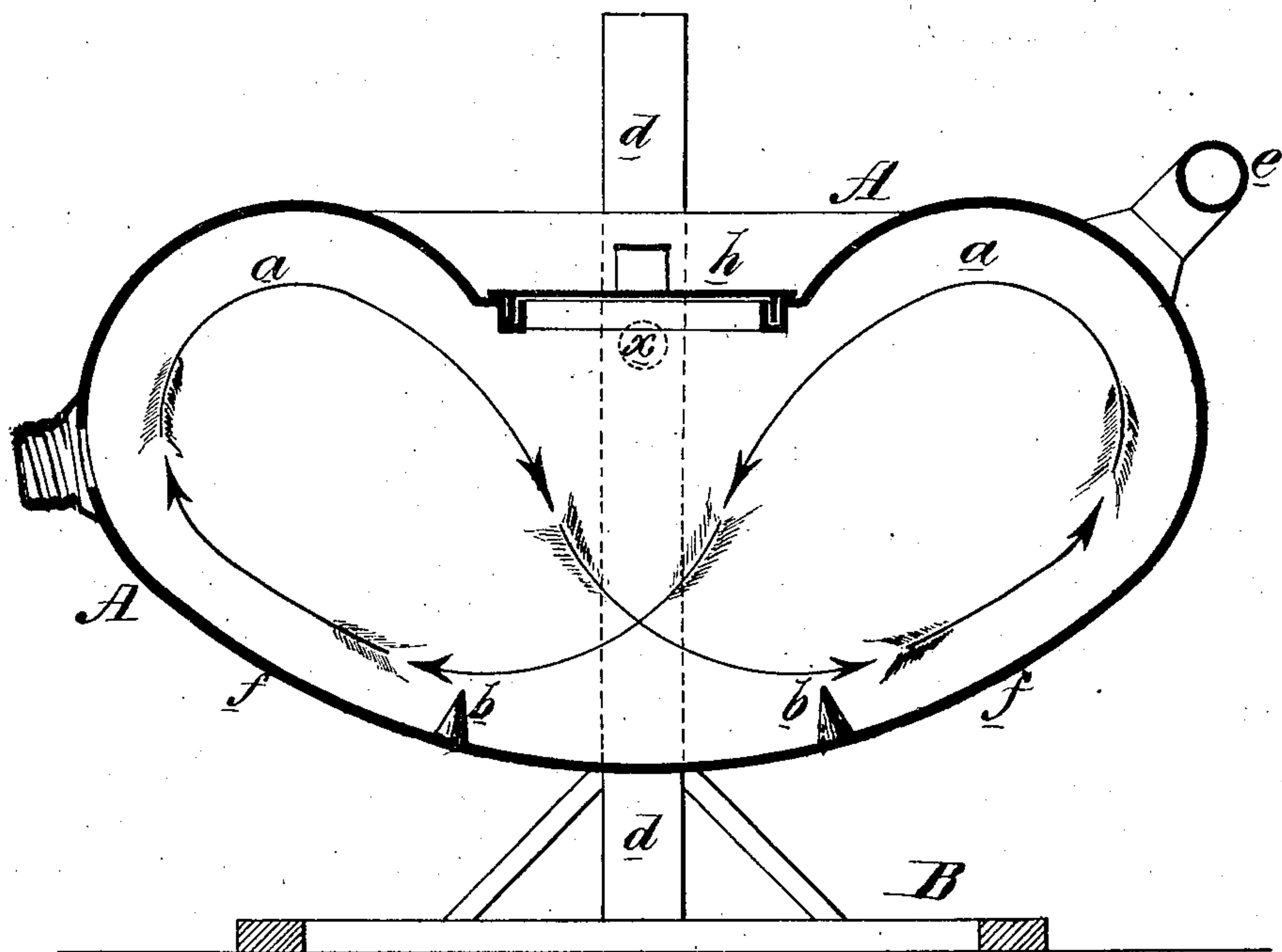
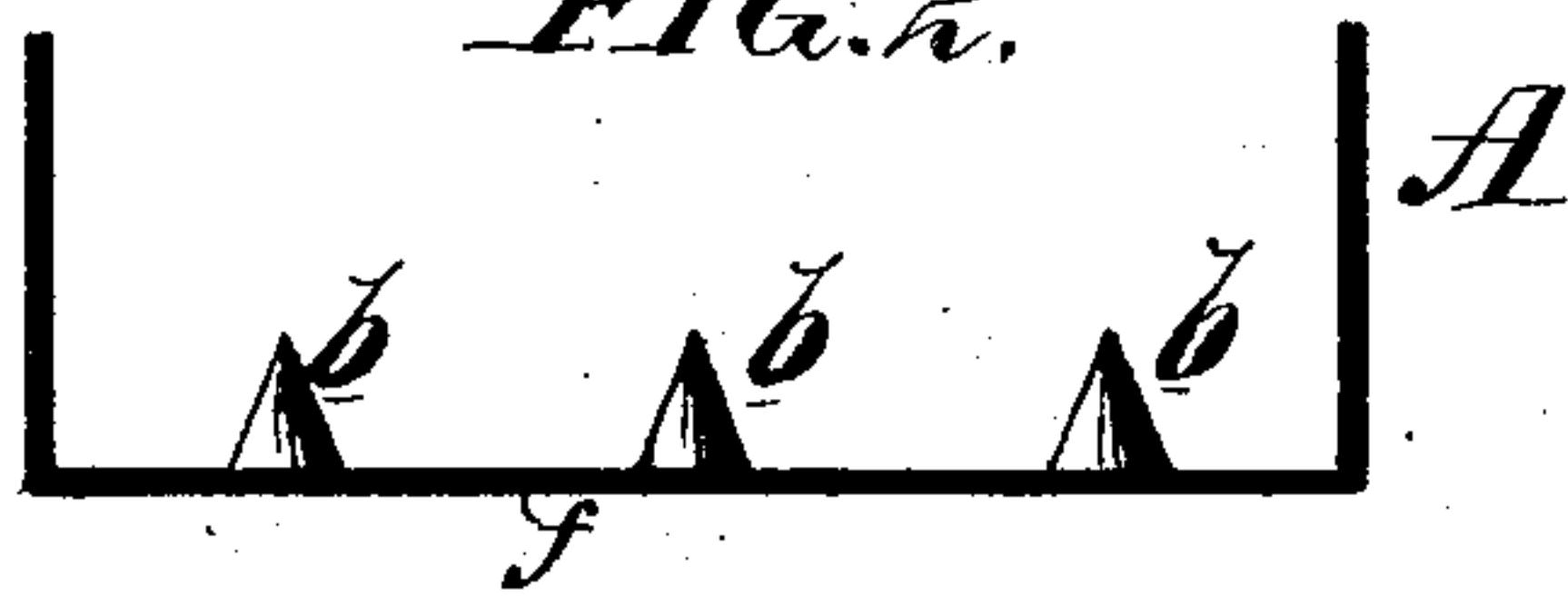


FIG. 2.



Witnesses, John K. Rupertus  
Thomas M. Swan

Moses W. Staples  
By his Atty's.  
Howens and Son

# UNITED STATES PATENT OFFICE.

MOSES W. STAPLES, OF RICHMOND, VIRGINIA.

## IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 142,958, dated September 16, 1873; application filed July 24, 1873.

*To all whom it may concern:*

Be it known that I, MOSES W. STAPLES, of Richmond, Henrico county, State of Virginia, have invented an Improved Washing-Machine, of which the following is a specification:

The object of my invention is a washing-machine, illustrated by the sectional elevation, Figure 1, of the accompanying drawing, and consisting of a vibrating tank or vessel, A, formed with curved walls and spaces *a a* at the top for producing reactions in the currents of water, and the downward flow of the same upon the clothes, and having conical or other projections *b* at the bottom for retaining the clothes in proper position to receive the said reacting currents, all as fully described hereafter. The vessel has trunnions at its opposite sides adapted to bearings in uprights *d*, secured to a suitable base, B, and at one end of the said vessel is a handle, *e*, by means of which it can be swung freely to and fro, the center of vibration being at *x*. At the opposite ends of the vessel, at the top of the same, are spaces *a a*, the curved walls of which merge into the curved bottom *f*, and upon the latter are a number of pointed conical projections, *b*, which I prefer to arrange in rows, as shown in the transverse section, Fig. 2, and which serve to retain and prevent the swaying of the mass of clothes when the vessel is vibrated. The clothes and hot water or suds are introduced into the vessel through an opening in the top of the same, covered by a detachable lid, *h*, and situated midway between the spaces *a a*.

By vibrating the vessel the water is caused

to traverse the curved bottom of the same, first in one direction and then in the other, the currents also following the curve of the walls of the spaces *a*, as indicated by the arrows, which thus produce reactions of the same, causing a forcible downward discharge of water toward the center of the vessel, first on one side and then on the other, and upon the mass of clothes retained in proper position to receive the said currents by the conical or other projections *b*. The currents cross each other at the center of the vessel adjacent to the bottom of the same, describing a figure of eight, as indicated by the arrows, and the action of these cross-currents upon the clothes soon thoroughly cleanses the same.

I am aware that suspended tanks with round bottoms joining the top at right angles have been used; but it will be seen that the water flowing into the angular space thus formed is thrown against the top instead of toward the center and upon the clothes.

I claim—

A washing-machine consisting of a suspended tank having a curved bottom merging into ends rounded, as described, so as to direct the water which flows to said ends back toward the center and upon the clothes, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MOSES W. STAPLES.

Witnesses:

J. D. K. SLEIGHT,  
E. M. CRUMP.