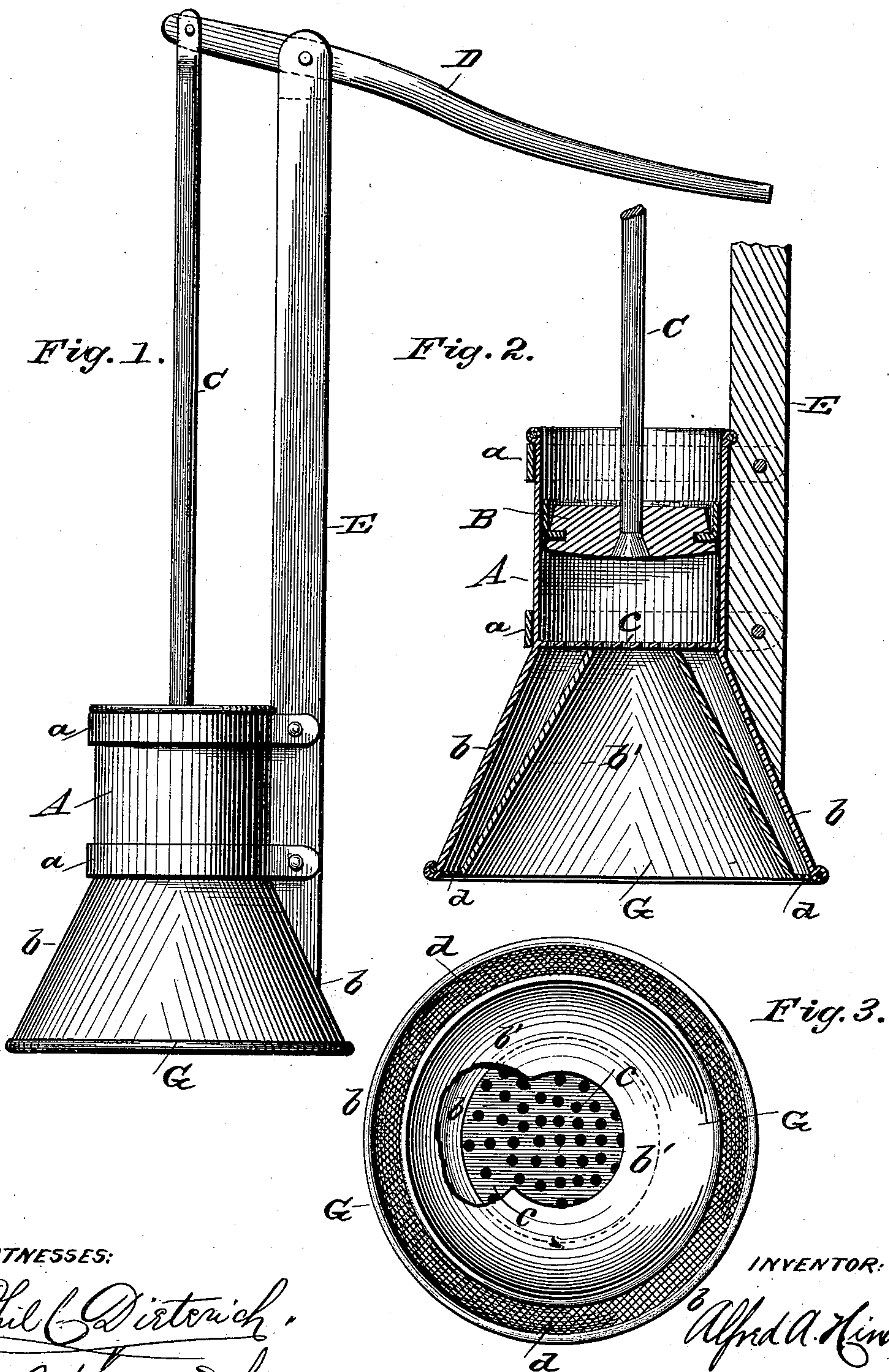


(No Model.)

A. A. HINDS.
WASHING MACHINE.

No. 326,501.

Patented Sept. 15, 1885.



WITNESSES:

Phil G. Dietrich,
W. R. Keyworth.

INVENTOR:

Alfred A. Hinds
By his Attorney.
W. Alexander

UNITED STATES PATENT OFFICE.

ALFRED A. HINDS, OF LEXINGTON, INDIANA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 326,501, dated September 15, 1885.

Application filed January 15, 1885. (No model.)

To all whom it may concern:

Be it known that ALFRED A. HINDS, of Lexington, in the county of Scott and State of Indiana, have invented certain new and useful
5 Improvements in Washing - Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon,
10 which form part of this specification, in which—

Figure 1 is a side elevation of my improved clothes-washer complete. Fig. 2 is a diametrical section through the lower part of the
15 same, and Fig. 3 is a bottom view.

This invention relates to that class of hand or portable clothes-washers wherein water is forcibly driven back and forth through the clothes by means of a plunger working in a
20 cylinder, like a pump.

Prior to my invention washers of this kind have been constructed with a piston or plunger cylinder having a downwardly-flaring or inverted-funnel-shaped distributor, and therefore I do not broadly claim such devices.
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My object is to employ, in combination with a plunger-cylinder, a double-wall flaring or funnel-shaped base, and reticulated diaphragms at both ends of said base, as will be fully understood from the following description, when taken in connection with the annexed drawings.
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A designates a cylinder in which works a plunger, B, suitably packed and secured to a plunger-rod, C. The upper end of the rod C is pivoted to a lever-handle, D, which has its fulcrum at the top of a strong staff, E. To this staff a cylinder, A, is rigidly secured, preferably by means of bands *a a*.
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G designates a double-wall funnel or water-distributor, which is suitably secured to the bottom of the cylinder A, and which forms a downwardly - flaring extension thereof, as clearly shown in Figs. 1 and 2. The funnel-distributor G is composed of an outer wall, *b*, and an inner wall, *b'*, which latter has a greater angle than the outer wall, *b*, so as to contract the volume of water entering the cylinder during the ascent of the plunger, and to
45 spread the water evenly over the fabrics dur-

ing the descent of the plunger. At the junction of the funnel-walls *b b'* with the cylinder A is a perforated diaphragm, *c*, and at the flaring ends of said funnel-walls is an annular reticulated diaphragm, *d*.
55

When the plunger is raised by depressing the long arm of the lever-handle, water will be drawn up through the space between the two funnel-walls, and also up through the inner funnel into the cylinder A. When the plunger is forced down, the water will be forced downward and outward and evenly distributed upon and through the fabrics.
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By reason of the employment of finely reticulated or perforated diaphragms *c d* and the contraction of the inner funnel-wall, *b'*, as shown and described, the device will not be clogged by the fabrics, and water will be forcibly jetted through them, and they can be thoroughly cleansed.
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Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a clothes-washer, the combination of the double-wall funnel, the plunger-cylinder, and the two perforated diaphragms *c d*, all constructed and adapted to operate substantially in the manner and for the purposes described.
75

2. The herein-described washing-machine, consisting of the cylinder A, the plunger B, the plunger - rod C, the vertical support E, having the cylinder strapped to its lower end, the hand-lever D, pivoted to the upper ends of the support E and plunger-rod and adapted to reciprocate the latter, the double funnel G, secured to the lower end of the cylinder and consisting of the outer wall, *b*, and inner wall, *b'*, the perforated diaphragm *c*, covering the lower end of the cylinder, and the perforated diaphragm *d*, covering the space between the lower ends of the walls *b* and *b'*, all substantially as described.
80 85 90

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.
95

ALFRED A. HINDS.

Witnesses:

LAMBERT E. MACE,
JEFFERSON GLADDEN.