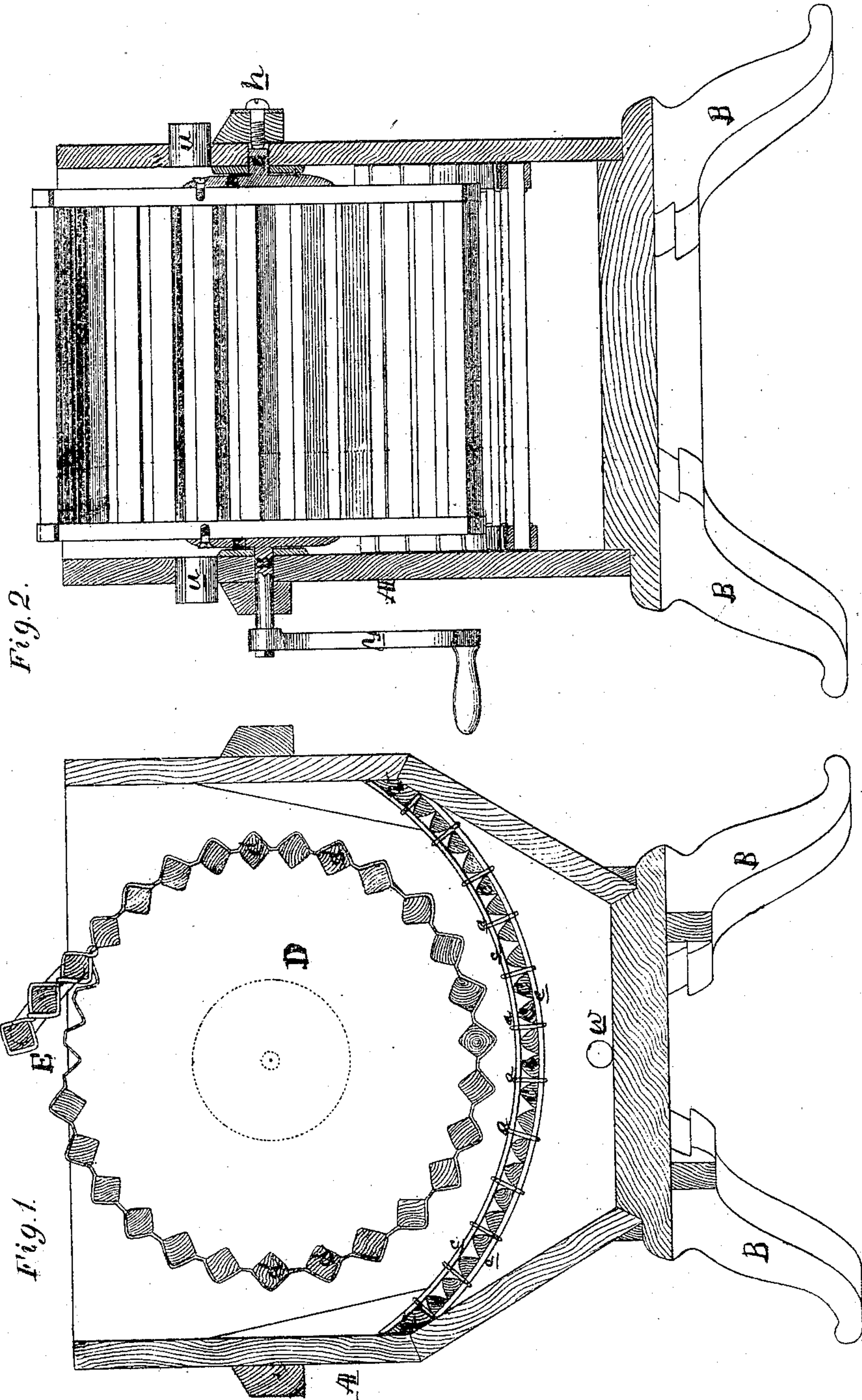


L. B. Hartt,

Washing Machine.

No. 98,591.

Patented Jan. 4. 1870.



Witnesses
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United States Patent Office.

LIONEL B. HARTT, OF DETROIT, MICHIGAN.

Letters Patent No. 98,591, dated January 4, 1870.

IMPROVED WASHING-MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, LIONEL B. HARTT, of Detroit, in the county of Wayne, and State of Michigan, have invented a new and valuable Improvement in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1, of the drawings, is a longitudinal section of my washing-machine, and

Figure 2 is a cross-section thereof.

My invention relates to washing-machines; and

It consists mainly in the construction and novel arrangement of devices, intended to serve as efficient means or aids in cleansing soiled garments.

The letter A, of the drawings, represents a box of a quadrangular form, but sloping inward toward its bottom, as shown, and arranged upon its legs B.

The letter C represents a series of corrugated ribs, arranged between two spring-poles at each end, and held in place by small wires, *a*, that respectively pass between the ribs, and are clasped around the spring-poles, in the manner shown on fig. 1. The spring-poles are marked *c* on the drawings. These ribs and spring-poles are arranged in the box A, at the point shown on fig. 1, in such manner as to allow the ends of the lower poles to rest upon the bevelled part of the box, and be held in place by the pressure of said poles against the sides of the box. It follows that said ribs and poles are removable at will, without the use of screws, latches, buttons, or other similar device.

The letter D represents a large wheel, arranged to rotate upon suitable bearings, as shown in Figure 3, and having upon its periphery a series of corrugated ribs or slats, marked *d*, which are held in place by metallic straps at each end, said straps being screwed to the disks of the wheels respectively, and thereby made removable.

At the point E, I make a hinged door in the cylinder D, which may be opened or closed at will.

The letters *n* represent plates, attached by screws to the respective ends or disks of wheel D, and have, on their outer sides, journals *s*, upon which the wheel is rotated. My method of removing the wheel from the

box, is to remove these plates therefrom, when the wheel becomes entirely disengaged from the box, and may be taken out at will.

My mode of removing these plates is as follows:

I make circular openings in each side of the box, above the journal, and insert therein plugs or stoppers *u*. When I desire to remove the plates from the wheel, and thereby to be enabled to remove the wheel itself, I remove these stoppers *u*, and then, through the openings thus made, I can reach the heads of the screws that hold the plate to the wheel-disks, and remove said screws with an ordinary screw-driver.

In order to give greater security to the ribs and spring-poles below the wheel, I affix slats *v* to the inner side of the box, which serve as stops or resting-bars for the ends of said poles, and aid materially in keeping them in place.

Clothes are washed in my machine by placing them in suitable suds, between the corrugated slats of the wheel and the ribs within the spring-poles, or very much of such washing may be done by placing soiled garments inside the wheel. In either case, the wheel must be rotated by its crank *y*.

The suds are drawn off through a pipe and suitable faucet at the point *w*.

At the point *h*, of the drawings, I arrange a screw, which passes into or against the end of the journal. The object of this device is to enable the operator, by turning the screw *h*, to force the wheel closely against the opposite side of the box, and thereby prevent leakage. This screw *h* passes through a plate which is made to fit closely to the outer side of the box, and which, being attached with screws, is easily removable.

What I claim, is—

The combination and arrangement of the ribs C, spring-poles *c*, cylinder D, stoppers *u*, with their openings as described, substantially as and for the purposes specified.

In testimony that I claim the above, I have hereunto subscribed my name, in the presence of two witnesses.

LIONEL B. HARTT.

Witnesses:

F. G. RUSSELL,
HUGH POST.