

(No Model.)

2 Sheets—Sheet 1.

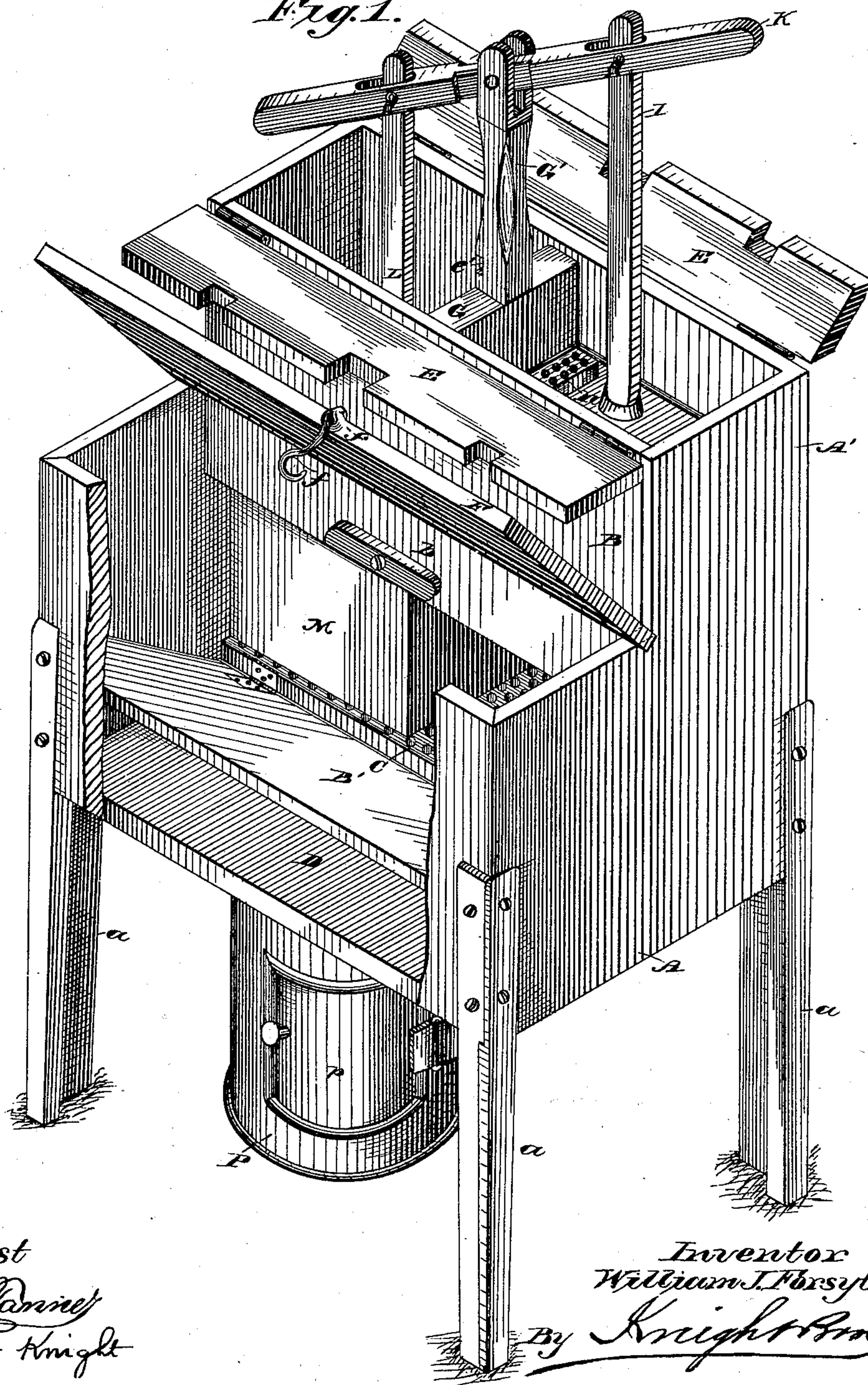
W. J. FORSYTH.

WASHING MACHINE.

No. 279,734.

Patented June 19, 1883.

Fig. 1.



Attest
Herbert Knight

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By Knight Bros.

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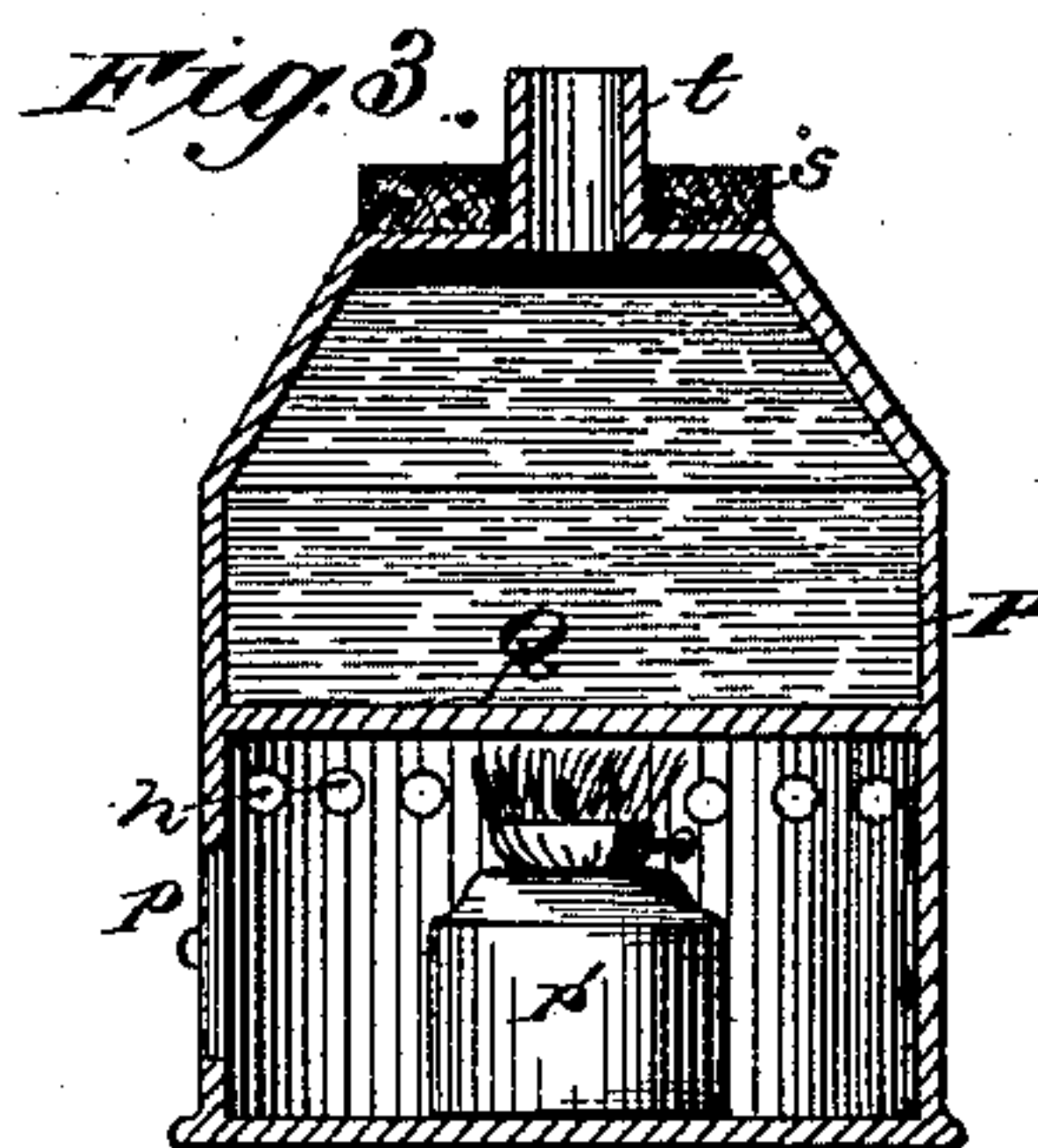
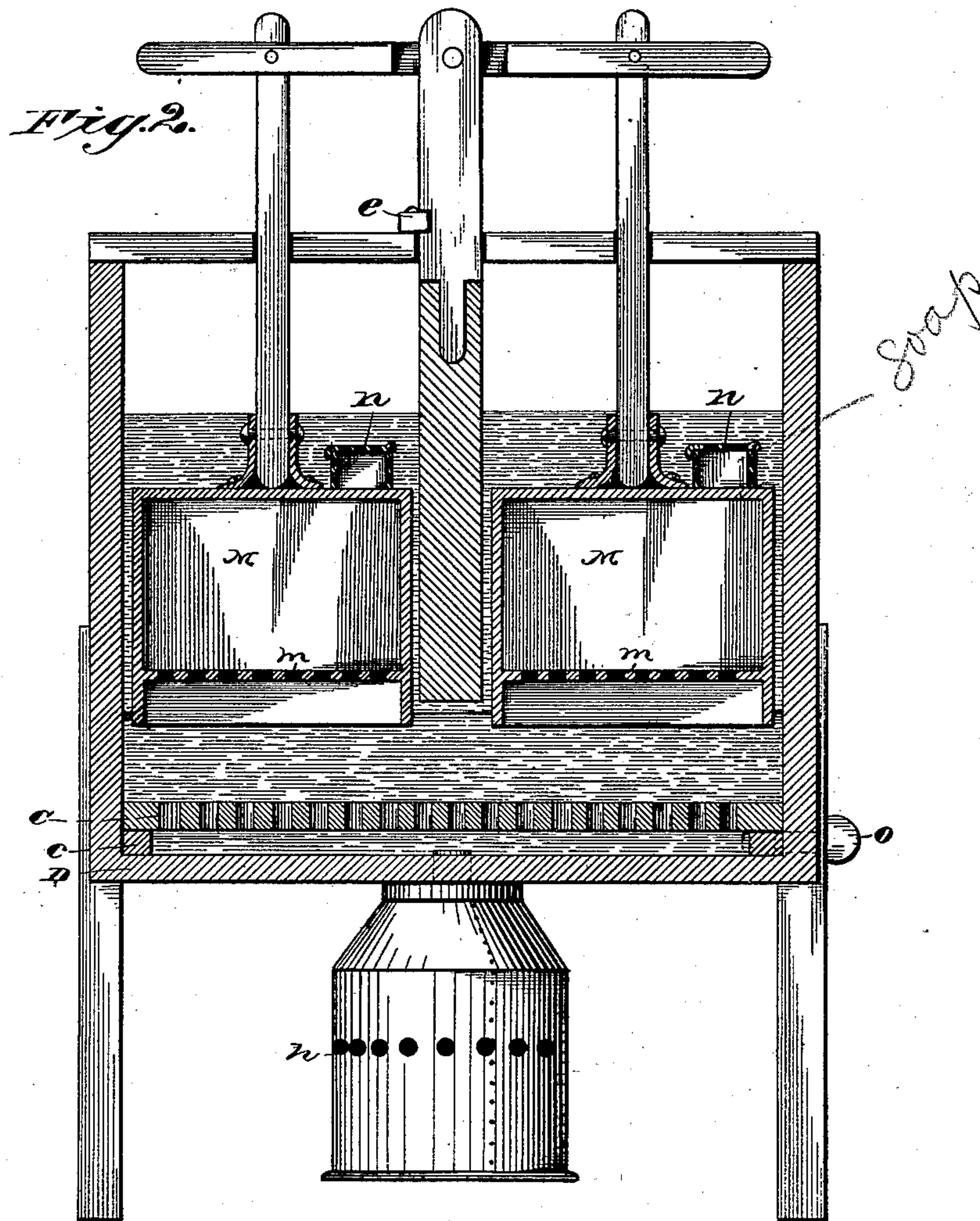
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2 Sheets—Sheet 2.

W. J. FORSYTH.
WASHING MACHINE.

No. 279,734.

Patented June 19, 1883.



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Jas. J. Ganner
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UNITED STATES PATENT OFFICE.

WILLIAM J. FORSYTH, OF LEESBURG, VIRGINIA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 279,734, dated June 19, 1883.

Application filed March 6, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. FORSYTH, a citizen of the United States, residing at Leesburg, in the county of Loudoun, and the State of Virginia, have invented certain new and useful Improvements in Washing-Machines, of which the following is a specification.

My invention relates to a machine having suitable chambers for holding clothes, and provided with hollow plungers capable of pressing the water through and drawing it out of the clothes to be cleaned, thereby expediting the cleansing process and causing a saving of time and labor.

My invention further relates to a water-heating apparatus connected by suitable means to the bottom of the machine, and disposed in such manner that while it is heating the water for washing purposes the machine can be operated without danger from the lamp.

In the accompanying drawings, Figure 1 represents a perspective view of my improved washing-machine, with a portion of the front broken away to show the operative parts. Fig. 2 is a vertical sectional view, looking from the rear. Fig. 3 is a sectional view of the lamp-chamber and boiler, showing the entrance-tube to the body of the machine and the interposed protecting-packing.

A is the main body of the machine, provided with supporting-legs *a a a a* and an upward extension *A'*. This upward extension is partitioned from the main body, as shown at B. A subdivision of this partition is made about one-third the distance from the bottom, the lower portion being hinged to a perforated floor, C, supported by means of strips *c c* on the bottom D. A button, *b*, is provided on the upper section of B, for securing the lower section in place when the machine is to be operated. Shutters *E E*, hinged to the upper side of the extension *A'*, are adapted to close over and confine all material within, their meeting edges joining and being held in close contact by means of latch *e*, dropping in slot *e'*. A similar shutter, F, is provided on the main body for closing that receptacle. A hook, *f*, is attached to its outer edge for securing it tightly in place. In the middle of *A'*, extending from front to rear, is a dividing-wall, G, reaching down as far as the lower edge of the

upper section, B. In the center of the wall G is placed the standard *G'*, to the top of which is pivoted the operating-lever K. At suitable points upon this lever are pivoted the piston-rods L L, having hollow piston heads or plungers M M attached to their lower ends. These hollow plungers are preferably metallic, and are provided on their insides, at a suitable distance above the lower extremity, with perforated diaphragms *m m*, constructed of the same material, forming by this means concave portions in the lower parts of said plungers. Receptacles *n n*, having perforated covers, are placed upon the top of the plungers M M for holding soap. The covers of these receptacles may be hinged to the sides of the receptacles, as shown in the drawings, or they may be adapted otherwise to fit tightly thereon. A bung and vent is shown at *o* for drawing off the water. P represents the lamp-chamber, made also of metal, having a door, *p*, and a lamp, *p'*. At a suitable distance above the flame I place a diaphragm, Q. This division of the chamber P is for the purpose of forming a boiler above the diaphragm Q. A tube, *t*, connects the said boiler with the main body of the machine. Suitable packing, *s*, of rubber or other material, is interposed between the boiler and the main body to give the former a more stable connection, and to protect the latter from unnecessary heat. Escape-holes *h* for the smoke are formed in the chamber.

The operation of my machine is as follows: The articles to be washed are placed in the machine above the perforated floor C, the door B' being then closed and fastened by means of the button *b*. Water is poured into the main portion of the machine, being immediately absorbed through the perforated floor C into the exterior *A'*. This water may be applied hot and kept in that condition by the heating apparatus, or it may be applied cold, deriving its heat from the lamp while in the machine. Pieces of soap are placed in the receptacles *n n*, which soap is dissolved by means of the water entering the perforations in the cover. By this means the soap is at once confined, while in a solid state, to two receptacles, capable of distributing it, when it is dissolved, to all parts of the machine. Sufficient room is left between the sides of the plungers and

the sides of the machine to permit the free flow of water. When the shutters are closed and the lever K operated, the water will be alternately pressed and drawn through the
5 clothes.

I am aware that it is not new in washing-machines or in churns separately to employ alternately-operating plungers pivoted upon a central standard.

10 I am also aware that washing-machines have been constructed with water-heating attachments underneath them, and I do not claim these devices, broadly; but,

15 Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. In a washing-machine, the combination of the main body A, having hinged shutters E,

perforated floor C, supporting-strips *c*, the partition B, having door B', the partially-dividing wall G, having standard G' and operating-lever K, piston-rods L, hollow plungers M, having perforated diaphragms *m*, and soap-receptacles *n*, all substantially as set forth. 20

2. In combination with the machine A, having an aperture in the bottom, the lamp-chamber P, having a tube, *t*, adapted to enter the aperture of the machine, the said chamber P also being provided with a diaphragm, Q, packing *s*, lamp *p'*, door *p*, and escape-holes
30 *h*, all substantially as set forth.

WILLIAM J. FORSYTH.

Witnesses:

GEO. R. HEAD,

R. E. DIVINE.