

H. DEXTOR.
Washing-Machines.

No. 138,319.

Fig. 1.

Patented April 29, 1873.

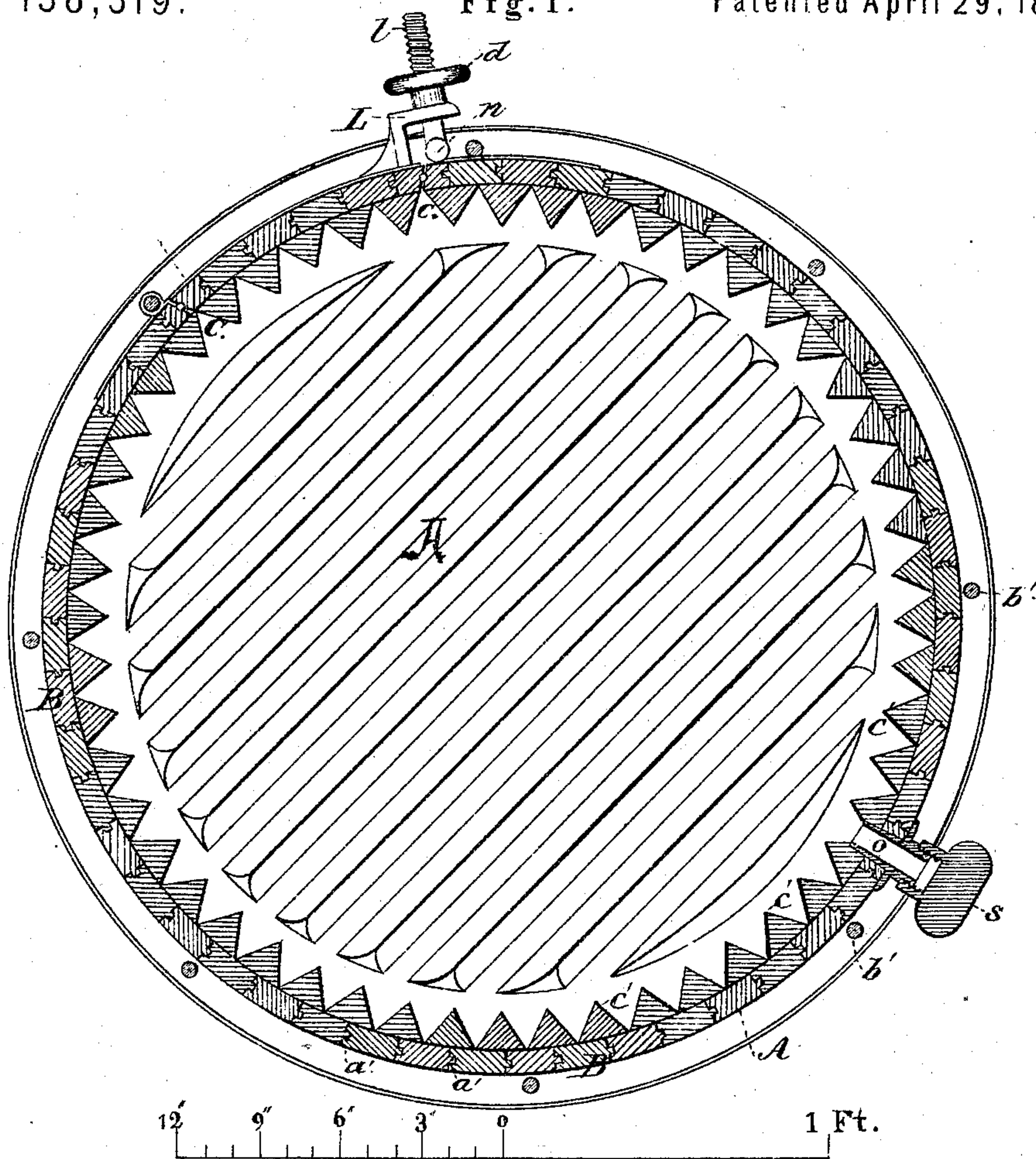
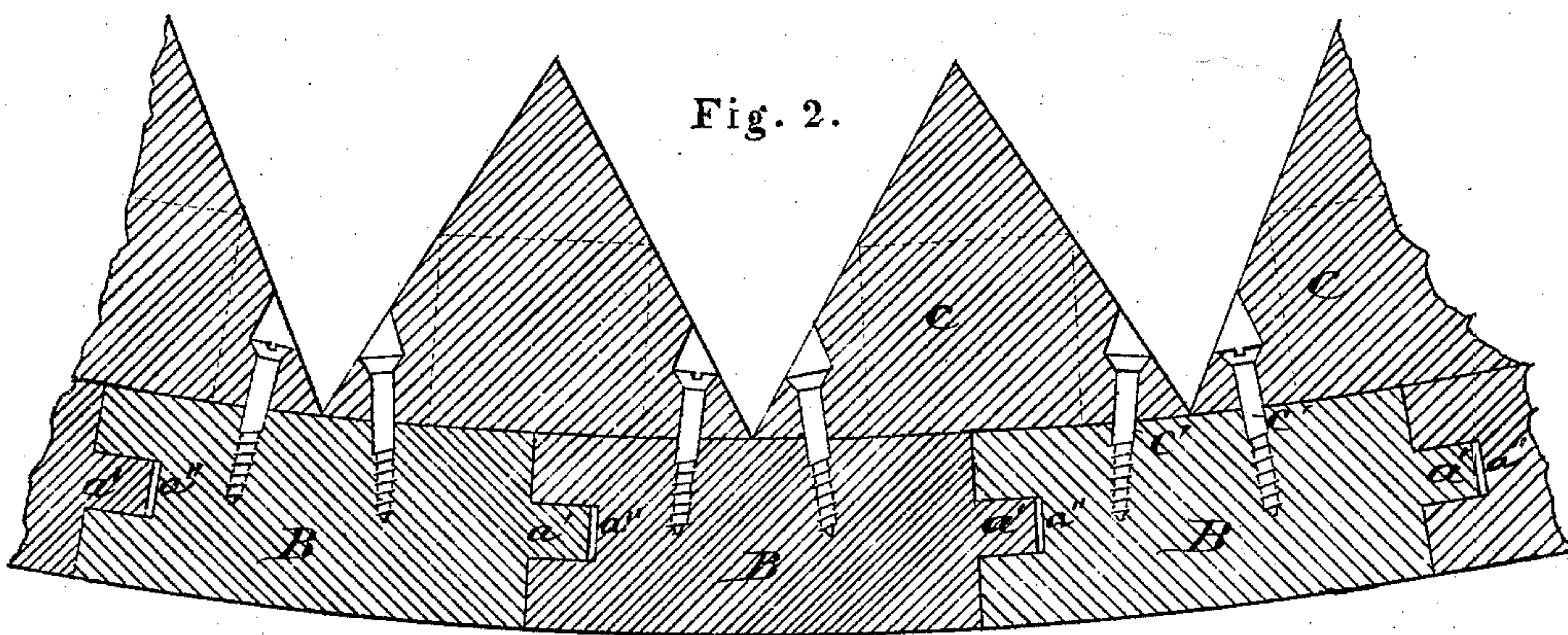


Fig. 2.



WITNESSES:

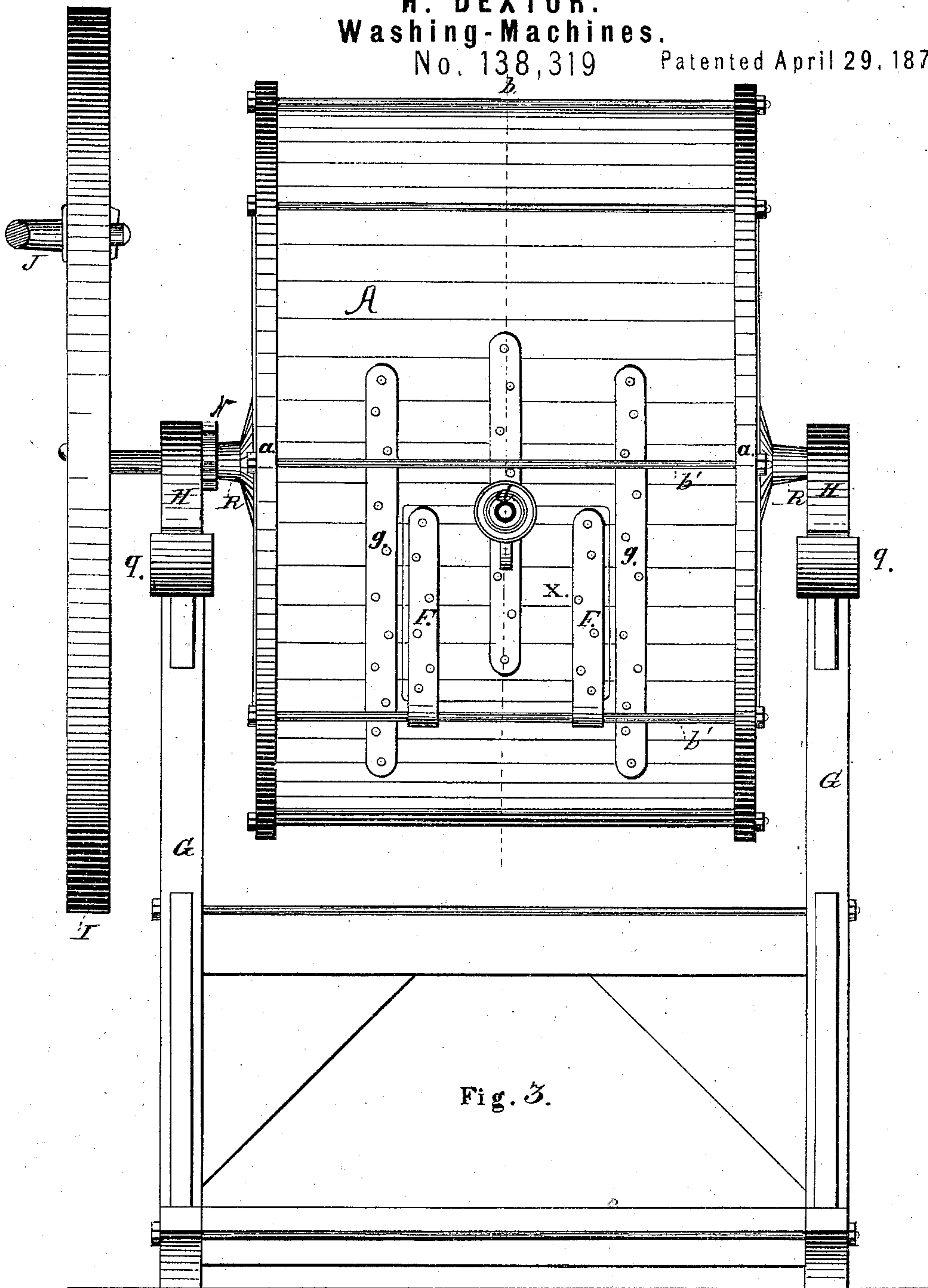
Philipp Wiedmer.
Fred Trillman.

INVENTOR:

Herm. Dextor.

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WITNESSES,

Philipp Wiedmer
Fred Frillman

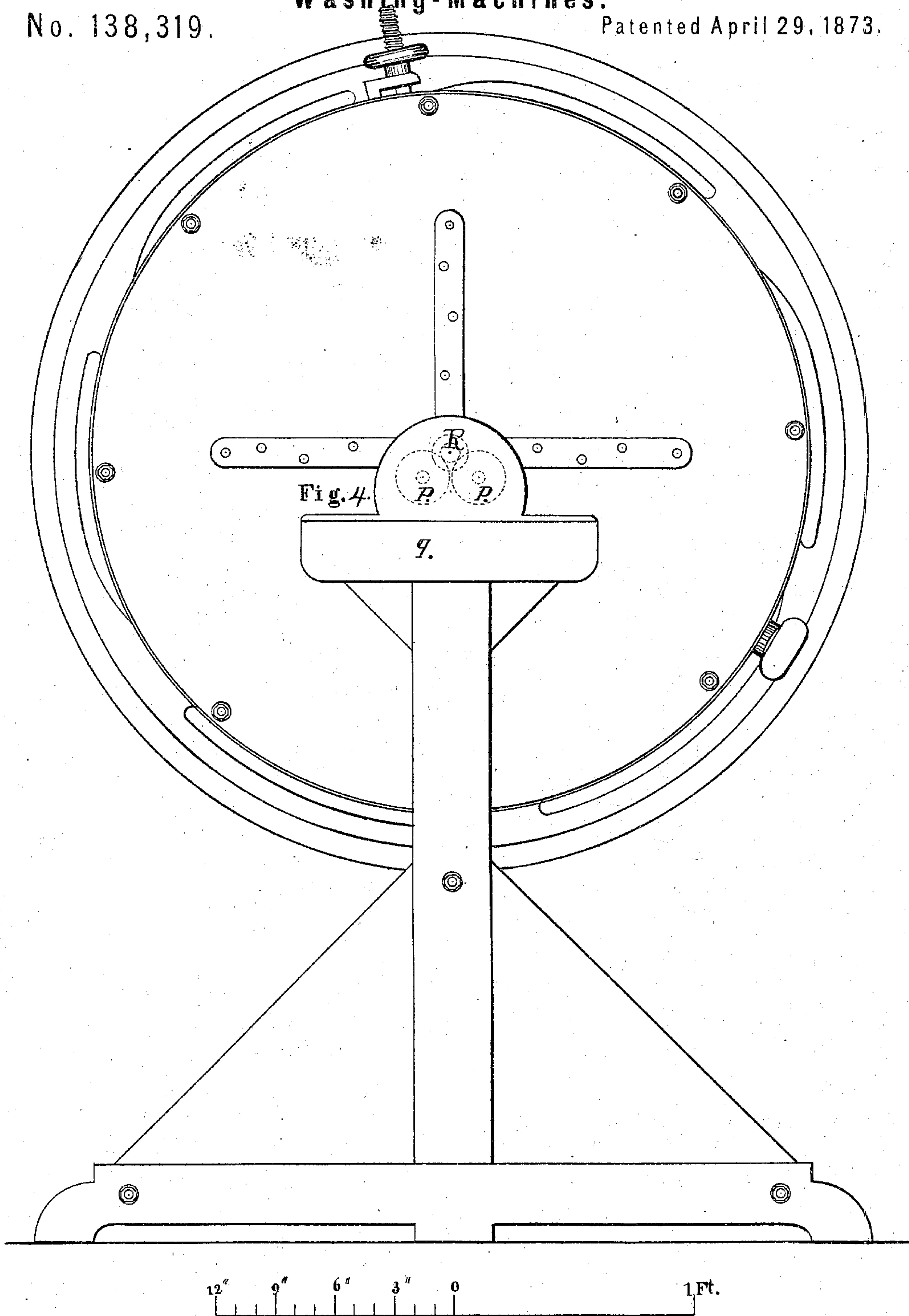
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WITNESSES:

Philip Wiedner.
Fred Frillman.

INVENTOR:

H. Dextor

UNITED STATES PATENT OFFICE.

HERMAN DEXTOR, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **138,319**, dated April 29, 1873; application filed September 6, 1872.

To all whom it may concern:

Be it known that I, HERMAN DEXTOR, of Chicago, in the county of Cook and State of Illinois, have invented certain Improvements in Washing-Machines, of which the following is a specification:

This invention relates to certain improvements in washing-machines; and consists, among other things, as follows: In constructing the cylindrical vessel of a washing-machine from a series of strips or slats, each of which is provided with a tongue and groove on its opposite edges, in such a manner that when the edges of the said strips or slats are brought together the tongue of each one will fit the groove of the adjacent one, and thus, when a sufficient number are in position to form a cylinder, the whole can be bound firmly together and produce tight-fitting joints. The ends of the cylinder are closed by heads which are adjustably connected together by rods passing along outside of the cylinder through the rims of the heads that project beyond the circumference of the cylinder. The inner surface of the vessel and of the heads is lined with a corrugated metallic surface, or with triangular-shaped pieces of wood, the object being to produce a rubbing-surface, to the action of which the clothes are subjected when the machine is in operation. An opening is made in the vessel through which water and material to be washed are introduced, said opening being controlled by a door having a peculiarly-constructed locking device, and with a packing so as to form a water and steam tight joint. The vessel rotates with its journals, which have their bearings upon friction-rollers arranged within cases rigidly secured to and supported by side standards, between which the vessel is free to be rotated.

In the drawing, Figure 1 is a transverse central section of the improved washing-machine, showing the mode of joining the staves and the interior rubbing-surface. Fig. 2 is an enlarged view of a series of the strips or slats, and the corrugated or ribbed lining. Fig. 3 is a front view of the machine and its supporting frame-work. Fig. 4 is an end view of the same.

Referring to the drawing, the letter A designates a cylindrical vessel, designed for use as a revolving washing-machine, it being made

up from a series of strips or slats, B B, each of which is formed with a tongue, *a'*, and groove *a''*, upon its opposite edges, constructed so that if a sufficient number of said strips or slats are brought together and arranged in a circular position, a cylinder can be formed that will possess a water or steam tight joint, the security of which can be further increased by coating or interposing between the edges any well-known cement capable of withstanding the action of water and heat. The two ends of this cylindrical vessel are closed by means of the heads *a a*, the diameter of which exceeds the external diameter of the cylinder, so that when the said heads are placed in position a rim or flange from each will project beyond the outer surface of the cylinder, through openings in which rods or bolts *b' b'* pass, to connect and bind the heads firmly to the cylinder. The bolts extend longitudinally along the outside of the cylinder, and, being provided with nuts, the heads are capable of being removed when desired, to repair any portion of the interior; and, furthermore, by screwing up or adjusting of the nuts, the heads can be made to compensate for any contraction that might occur, and thus reproduce the original water-tight joint. The interior of the cylinder, together with the heads, is lined with any desired form of metallic or wooden rubbing-surface, which can be made in one or more pieces, as found most convenient. In the present instance the rubbing-surface is shown as being made up from a series of triangular-shaped pieces of wood or rubber, *c c*; and such I prefer to use, as the action of the same upon the clothes is less injurious to the material, less expensive, and furthermore free from corrosion. The pieces *c c* will, in most instances, be arranged upon the strips B, and secured thereon by screws, as shown, so as to break joints with the same, thereby increasing the strength of the cylinder and rendering more secure all liabilities to break. An opening is made in the cylinder, and the same provided with a hinged door, X, which is lined with a suitable packing along its edges, so as to form a close joint when brought into use for closing the opening. The door when closed is forced down and locked into its seat by means of the screw-threaded rod *l*,

carrying the thumb-nut *d*, and pivoted upon the strap *n*, so as to be made to engage or disengage with the slotted catch *L* on the door, so that if the rod be in the slot of plate *L* and the nut *d* adjusted down upon the rod and on the plate *L*, the door will be pressed down into its seat and held tightly in its place. A discharge-opening is formed in the cylinder to remove the water after washing, and said opening in the present instance is provided with a tube, *o*, and screw-stopper *s*, but any convenient form of plug or stopper may be used. The heads of the vessel carry the journals *R R*, which have their bearings upon friction-rollers *P P*, arranged in the cases *H H*, secured upon the bars *q q* of the side standards *G G* of the platform or base, said parts being braced and strengthened in the usual manner in such structures. The journal *R* is provided with a balance or power wheel, *I*, having crank *J*, by which means the operator transmits rotary motion to the machine, the balance-wheel causing the machine to run smooth and steady. A pawl engages with a ratchet-wheel, *N*, on the journal *R*, in order to retain the vessel in a stationary position, with the opening upward, so as to supply the vessel with water or clothes, or to remove the latter after being cleansed.

The mode of washing clothes by means of a revolving cylinder is so apparent that a de-

tailed description of the operation is not deemed essential. It is sufficient to say that when the machine is in operation the clothes with the water will be subjected to a continuous and gentle rubbing action upon the corrugated or ribbed lining, and as a natural consequence much time, labor, and expense saved.

Having thus described my invention, I claim—

1. The body *A*, composed of the tongued-and-grooved strips *B B* and heads *a a* and their projecting rims, united by the bolts *b' b'*, as described, in combination with the interior corrugated lining or pieces *c c*, substantially as herein shown and set forth.

2. The door *X* and its elastic packing, in combination with the cylinder *A*, pivoted screw-rod *l*, nut *d*, and slotted plate *L*, as herein shown and set forth.

3. The cylindrical body *A*, made as described, and provided with the heads *a a* and interior corrugated surface *c c*, in combination with the journals *R R*, incased friction-rollers *P P*, and standards *G G*, all constructed and arranged substantially as described, for the purpose specified.

HERM. DEXTOR.

Witnesses:

PHILIP WIDMER,
JACOB LUDWIG.