

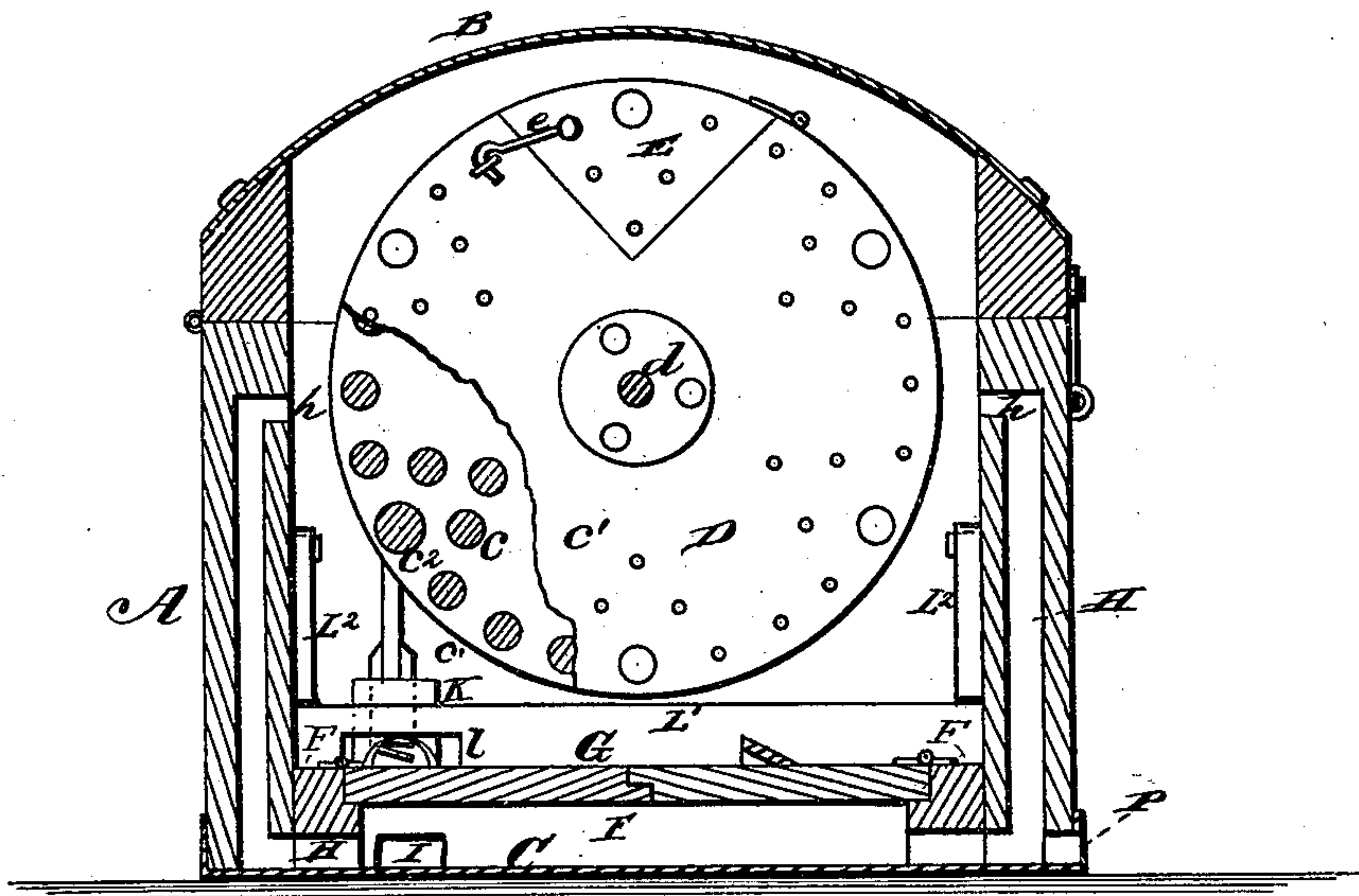
(No Model.)

J. R. TALLEY, B. B. & G. W. BAST.  
Washing Machine.

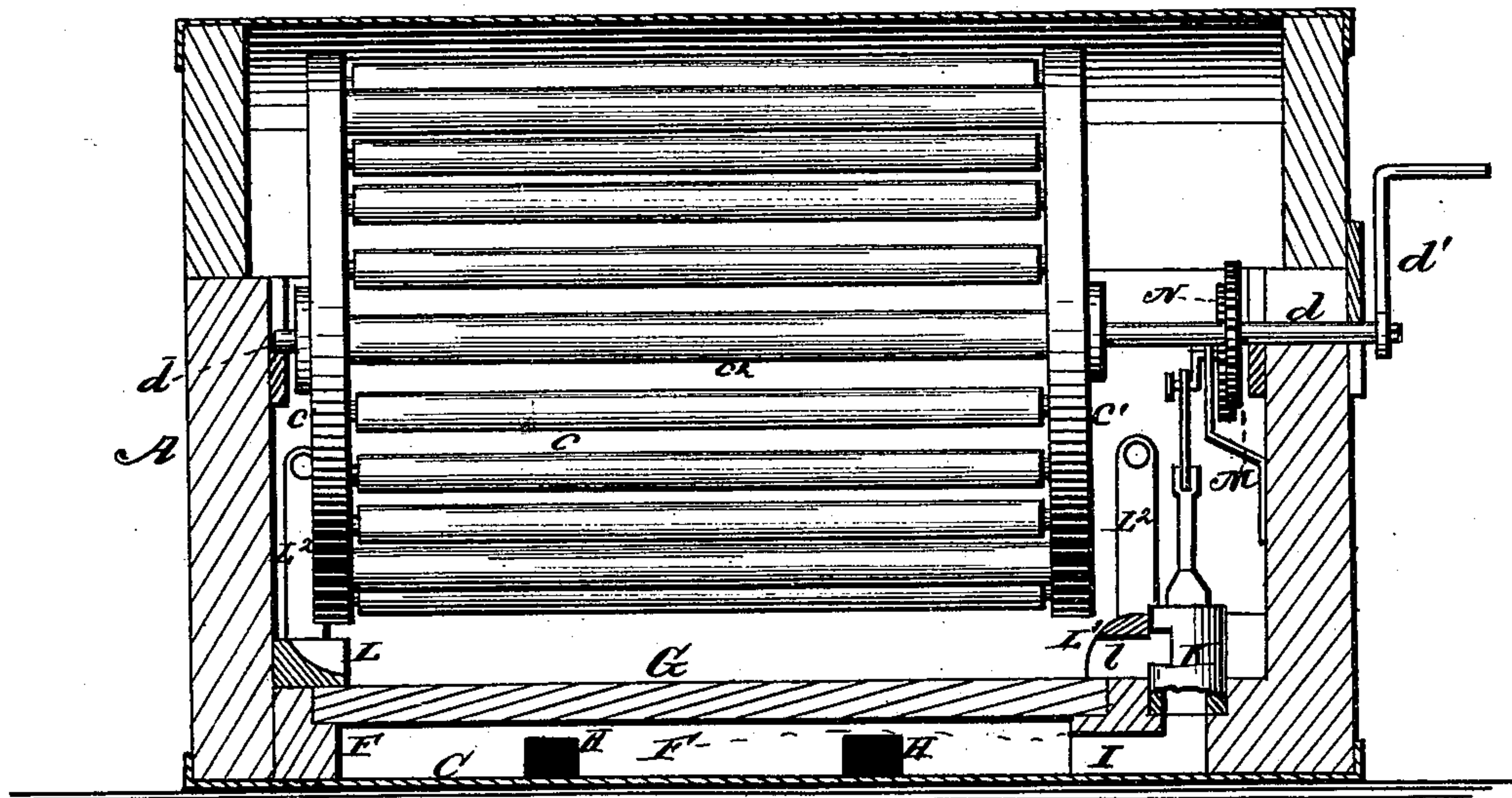
No. 231,119.

Patented Aug. 10, 1880.

*Fig. 1.*



*Fig. 2.*



WITNESSES

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# UNITED STATES PATENT OFFICE.

JESSE R. TALLEY, BENJAMIN B. BAST, AND GEORGE W. BAST, OF JACKSON, MISSOURI.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 231,119, dated August 10, 1880.

Application filed March 13, 1880. (No model.)

*To all whom it may concern:*

Be it known that we, JESSE R. TALLEY, BENJAMIN B. BAST, and GEORGE W. BAST, of Jackson, in the county of Cape Girardeau and State of Missouri, have invented certain new and useful Improvements in Washing-Machines; and we 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 representation of a vertical section of our washing-machine, and Fig. 2 is a longitudinal sectional view of the same.

Our invention relates to that class of washing-machines in which the clothes to be washed are placed in a rotary cylinder and there subjected to the direct action of steam and water.

Our improvement consists in the construction and arrangement of parts, as fully set forth in the following description and particularly pointed out in the claims.

A designates the body of the machine, which is provided with a cover, B, and a metal bottom, C. The cylinder D is provided with the usual journals *d*, having their bearings in the body A, one of the journals being made square at its end, so that the handle *d'* may be fitted thereon, as is common with this class of machines. The inner face of the cylinder presents a series of X-shaped angles, which are formed by the rollers *c*, journaled in the sides *c'* of the cylinder. Bars *c''* are also secured in said sides, and located between the outer pairs of rollers of each one of these set of rollers. Hence the arrangement of each sets of rollers will be about in the form of an equilateral triangle, with the apices of the triangles extending toward the axis of the cylinder.

A sector, E, is cut from each side of the cylinder, and then hinged thereto, so that these sectors, with one set of rollers, may be swung back from the cylinder, in order to admit of the introduction or removal of clothes from the cylinder. Hooks *e*, or other suitable fastenings, are employed for locking the said sectors down in place.

The body of the machine has a false bot-

tom, comprising side bars, F, and hinged lids G. Passages H lead from the space below the false bottom up through the sides of the body A of the machine to outlets *h*, which open alongside of the cylinder within said body A. A passage, I, also leads from the space below the false bottom, through one of the side strips or bars, F, to a pump-barrel, K, which is seated in said strip. The hinged lids G of the false bottom are held down by means of two independent cross-strips, L L', and bottoms L<sup>2</sup>, which are turned down upon the strips after the said strips are placed across the covers or lids G.

The strip L' has an opening, *l*, which, when the strip is fitted down in place, leads to an inlet-opening formed in the pump-barrel. This pump-barrel is provided with an ordinary piston, plunger-rod, and valve, and is worked by a gear, M, upon one of the journals of the cylinder, said gear actuating a gear, N, which has a crank connected with the piston-rod of the pump.

P designates an outlet for draining off water from the space below the false bottom. This outlet may be provided with a plug or a suitable stop-cock.

The operation of our improved washing-machine is as follows: The clothes to be washed are placed within the cylinder, the proper quantity of water introduced into the machine, and heat applied under the metal bottom of the body A. The steam generated below the false bottom will rise up through the passages H, and thence pass out through the openings *h*, which will direct the steam against the cylinder, whence it will pass, between the bars rollers thereof, into the cylinder and against the clothes. As the cylinder is rotated the clothes will be caught upon the angular projections and be successively raised and dropped, the angles being timed so that as the clothes drop from one of the angular projections formed by the hereinbefore-described disposition of the rollers they will be caught by the next succeeding projection, and hence thoroughly agitated and rolled around. This presents all parts of the articles within the cylinder to the action of the steam and effectively washes them.

During the rotation of the cylinder the pump



will be worked through the gearing hereinbefore described, and in consequence whereof the water within the upper portion of the main body A will pass through the opening l into the pump, whence it will be forced down into the space below the false bottom through the pump-barrel and the opening I. Thus, after the steam has done its work, the water of condensation will be returned to the space below the false bottom, where it will be again converted into steam, which will again rise and act upon the clothes.

After the washing has been completed the clothes will be taken out of the cylinder and the water drained off through the outlet hereinbefore described.

To cleanse the bottom the hinged lids of the false bottom may be opened by first swinging round the buttons and then removing the strips which lie across the covers.

What we claim, and desire to secure by Letters Patent, is—

1. In a washing-machine, the cylinder com-

posed of an annular series of rollers arranged in triangular sets, and the sides D, in which the rollers are journaled, substantially as shown and set forth.

2. In a washing-machine, a cylinder having openings between its rollers, in combination with its inclosing-casing having a false bottom, and passages formed in the sides of the casing for the flow of water from below said bottom up the sides of the casing and out against the cylinder, and a pump arranged within the casing and having its piston-rod connected with the gear N, substantially as set forth.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

JESSE ROBERT TALLEY.

BENJAMIN BELL BAST.

GEORGE WASHINGTON BAST.

Witnesses:

J. W. MILLER,

J. T. WOOD.