

(No Model.)

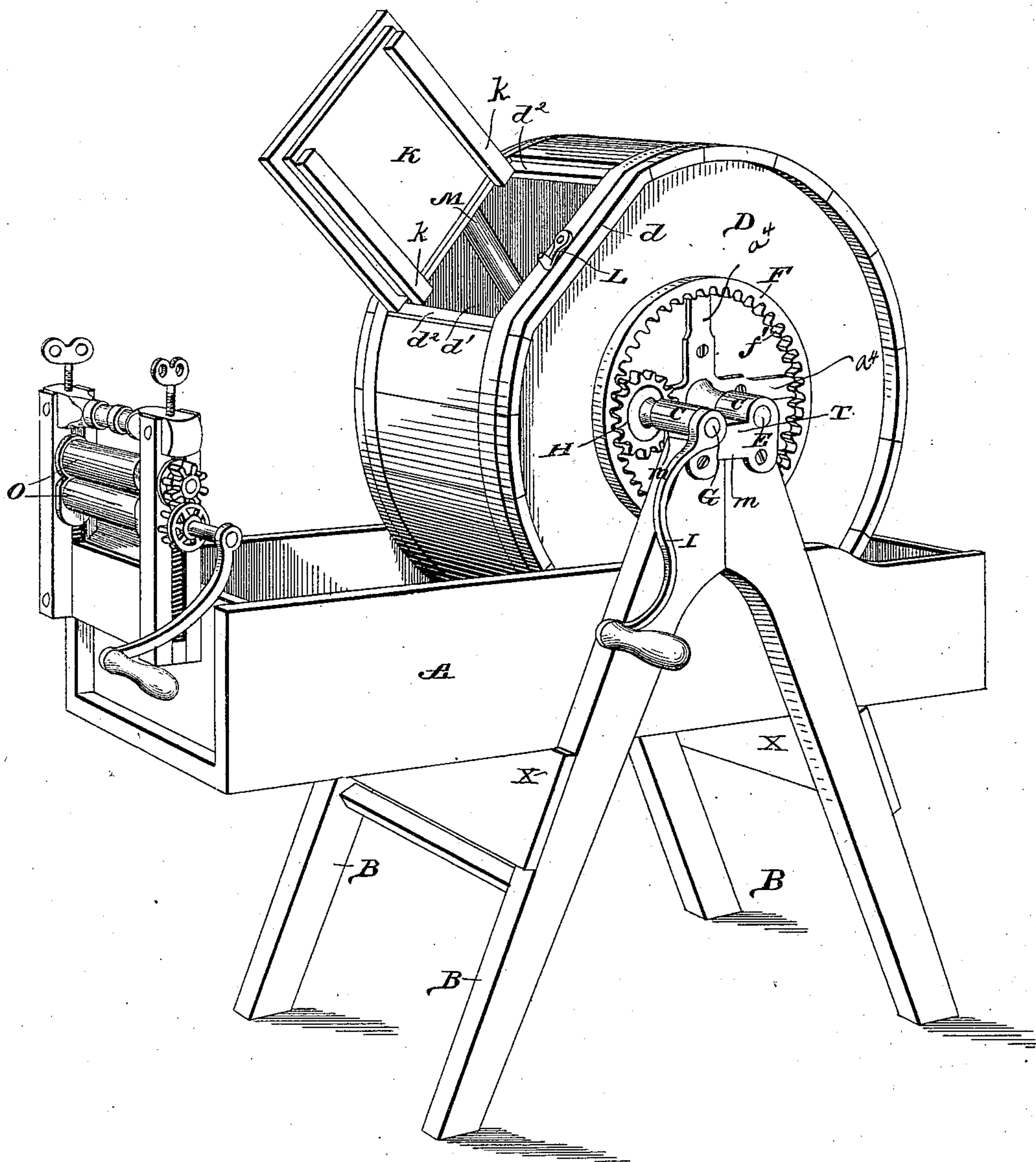
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H. C. SMITH.
WASHING MACHINE.

No. 355,350.

Patented Jan. 4, 1887.

Fig. 1.



Witnesses

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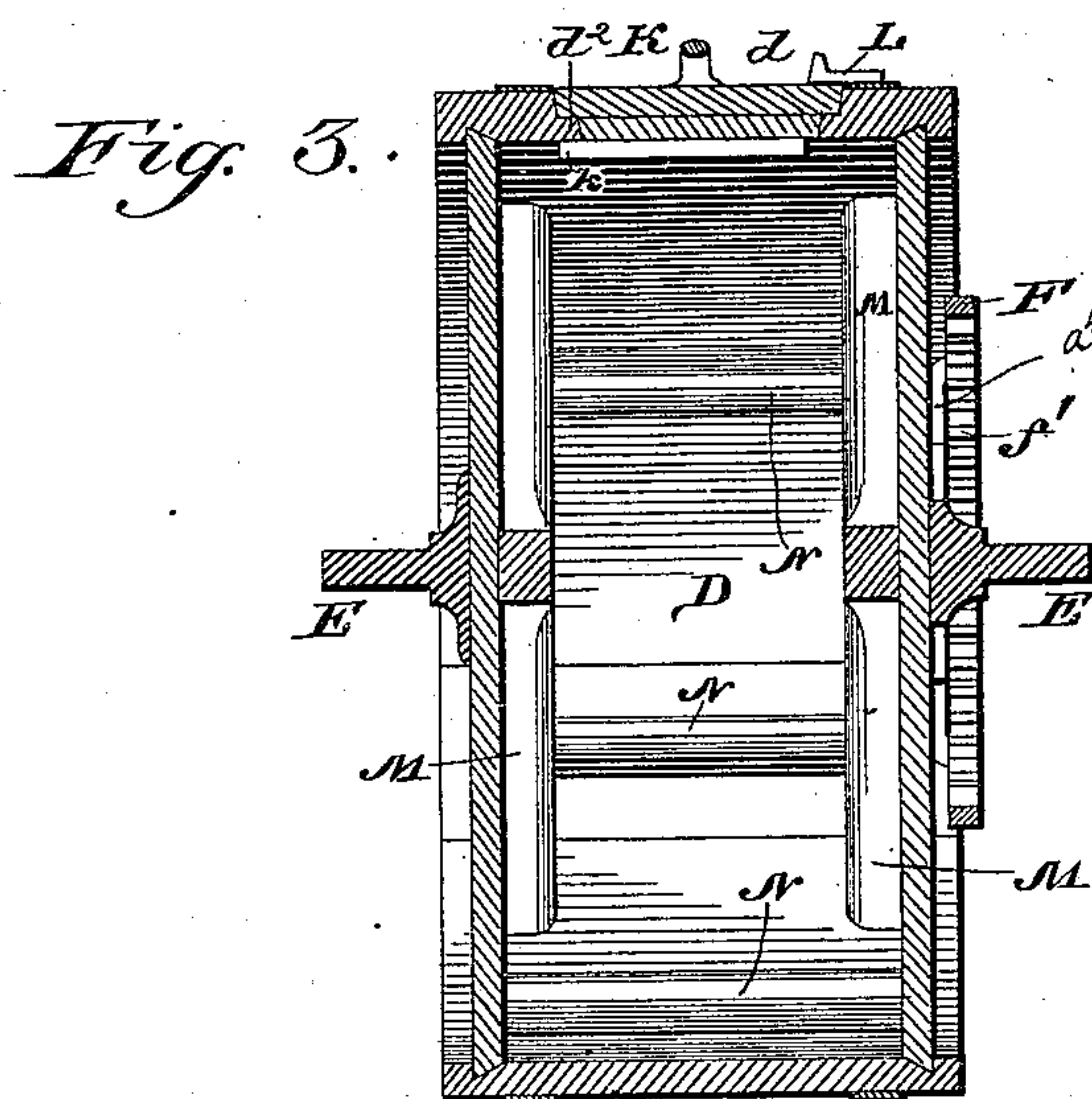
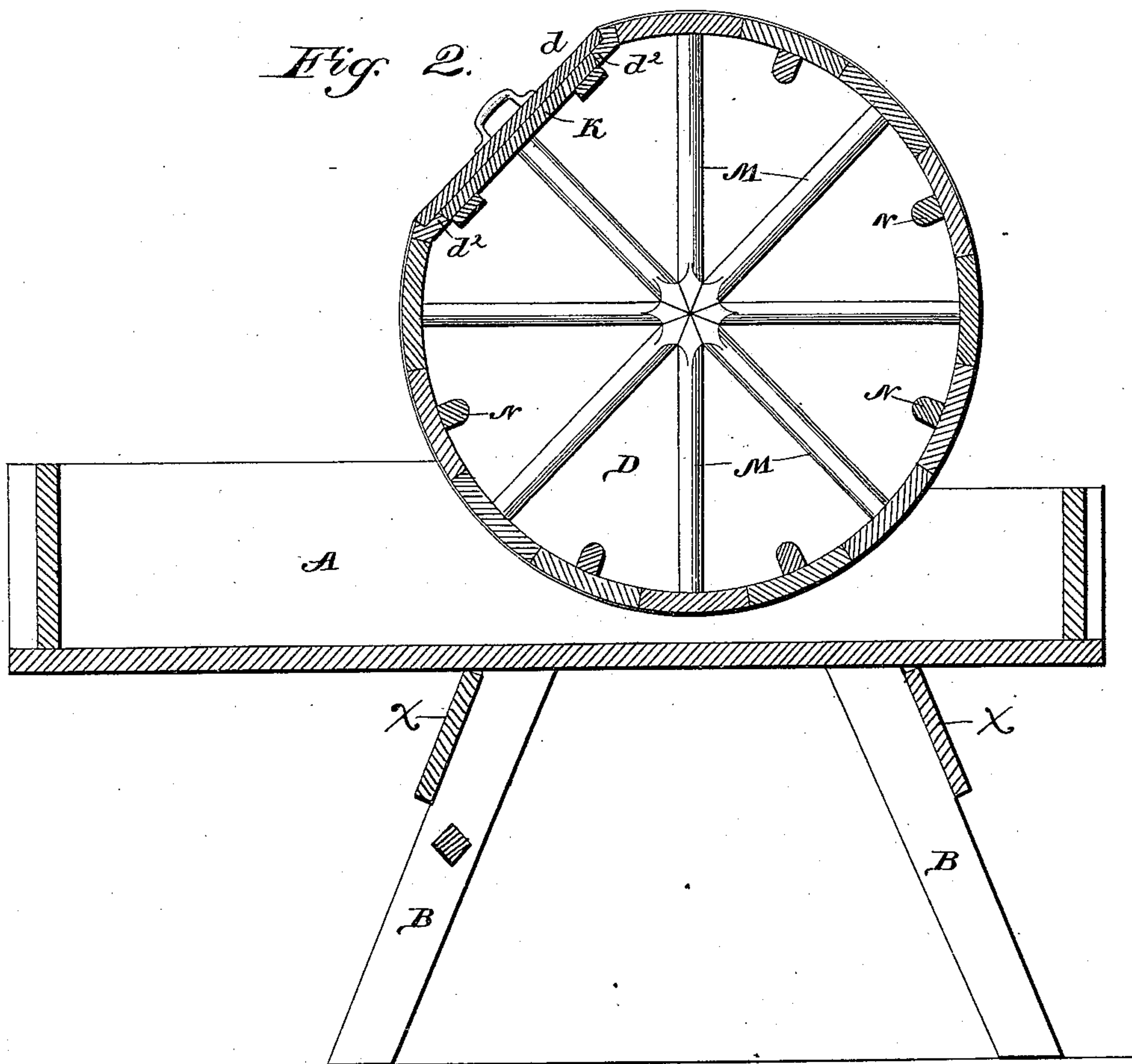
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Witnesses

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Inventor,

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UNITED STATES PATENT OFFICE.

HENRY CALVIN SMITH, OF EAST RANDOLPH, NEW YORK.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 355,350, dated January 4, 1887.

Application filed May 8, 1886. Serial No. 201,569. (No model.)

To all whom it may concern:

Be it known that I, HENRY CALVIN SMITH, a citizen of the United States, residing at East Randolph, in the county of Cattaraugus and State of New York, have invented a new and useful Improvement in Washing-Machines, of which the following is a specification.

My invention relates to an improvement in washing-machines; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a washing-machine embodying my improvements. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a vertical transverse sectional view of the rotating drum.

A represents a rectangular suds-box, which is provided with suitable diverging supporting-legs, B, the upper ends of which converge toward a point and are provided with bearing-boxes C, which are supported at a suitable distance above the upper edge of the suds-box. The legs B are provided with cross-bars α , which, while forming braces for the legs, contribute to the support of the suds-box, as the latter rests upon the cross-bars. The bearing-boxes C (two in number) are formed in a single casting, T, that fits over the tops of the diverging legs, and have projecting or depending flanges $m m$, which fit around the outer and inner sides of the legs, as clearly shown in Fig. 1. Screws are passed through the flanges of the casting to hold it to the legs.

D represents a rotating drum, which is provided with projecting central spindles, E, that are journaled in the bearing-boxes C. To one end of the drum is attached a wheel, F, which is provided with interior spur-teeth, f' . The spindles E are shown as formed integral with the arms or spokes α^4 , the latter being secured to the outer edge of the wheel F. Screws are passed through the arms or spokes to hold the spindle and the wheel to the drum.

In one of the bearing-boxes C is journaled a short horizontal shaft, G, which is arranged parallel with one of the spindles E, and to the inner end of the said shaft is attached a spur-

pinion, H, which meshes with the teeth f' of the wheel F. To the outer end of the shaft G is attached a crank-arm, I, by means of which the shaft G may be rotated, and thereby cause the drum D to revolve in the suds-box, as will be very readily understood.

The drum D has one side flattened, as at d , and is provided with an opening, d' , which is closed by a cover, K. The said cover is provided on its inner side with laterally-extending flanges k , one end of which projects beyond the inner side of the flanges d' , with which the opening d' is provided. The free outer side of the cover is secured to the drum by means of a pivoted button, L, with which the said drum is provided. On the inner sides of the heads of the drum are arranged radial ribs or flanges M, and on the inner side of the rim or periphery of the drum is arranged a series of transverse bars or flanges, N. These flanges N and M obstruct the inner sides of the drum, and cause the articles to be washed, which are placed in the drum together with a suitable quantity of suds, to be thoroughly rubbed and subjected to the purifying action of the suds as the drum is rotated.

On one end of the suds-box A is secured a pair of wringer-rolls, O, which are provided with a suitable operating crank-handle. After the clothes have been rubbed sufficiently by rotating the drum D, as hereinbefore described, they are taken from the drum and rinsed in the water contained in the suds-box, and then passed between the wringing-rollers O.

Having thus described my invention, I claim—

1. In a washing-machine, the diverging legs B, in combination with the casting T, secured to and connecting the tops of both legs and formed with two integral boxes, C, the drum having the spindle E, working in one of the boxes, the integral gear F, secured to the side of the drum, the gear H, engaging the internal gear, F, the shaft G of the gear H, working in the other box C, and an operating-crank for the shaft G, as set forth.

2. In combination with the drum, the wheel F, having internal gear-teeth, the drums or

spokes a^4 , secured at their outer ends to the wheel F, the spindle E, formed integral with the arms or spokes, the bearing-box C' for the spindle E, the gear-wheel H, engaging the internal gear-teeth of the wheel F, and the shaft 5 G, the box C for the said shaft, and a handle, I, therefor, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

HENRY CALVIN SMITH.

Witnesses:

SAMUEL J. BENEDICT,
CYRUS FAULKNER.