

M. S. Harsha,

Washing Machine.

N^o 84,058.

Patented Nov 17, 1868.

Fig: 3.

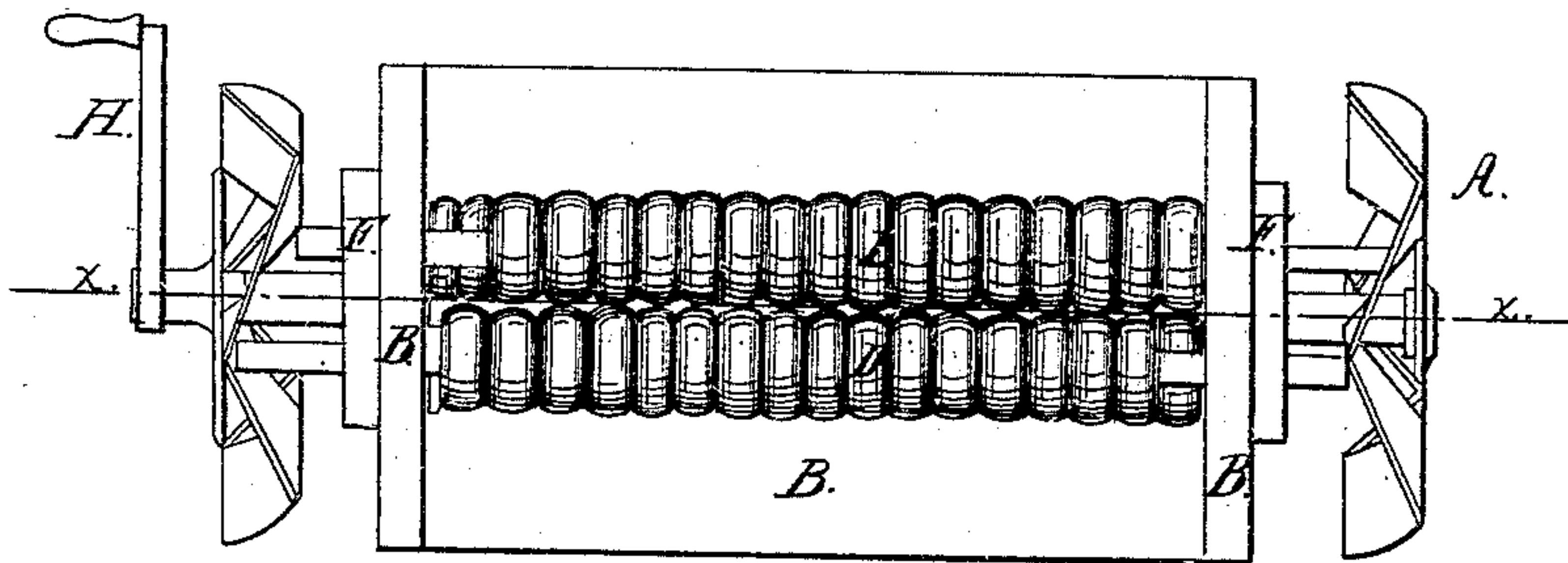


Fig: 2.

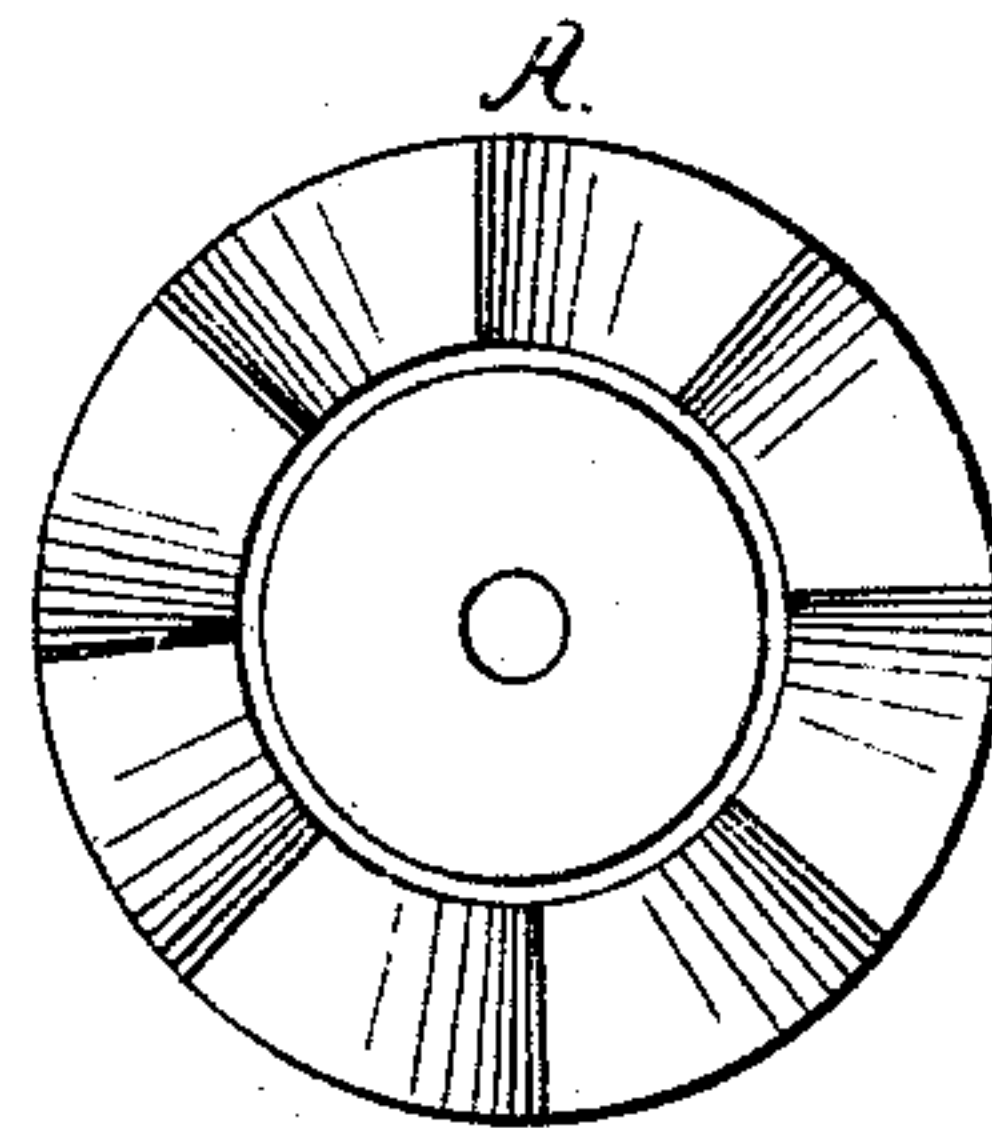


Fig: 4.

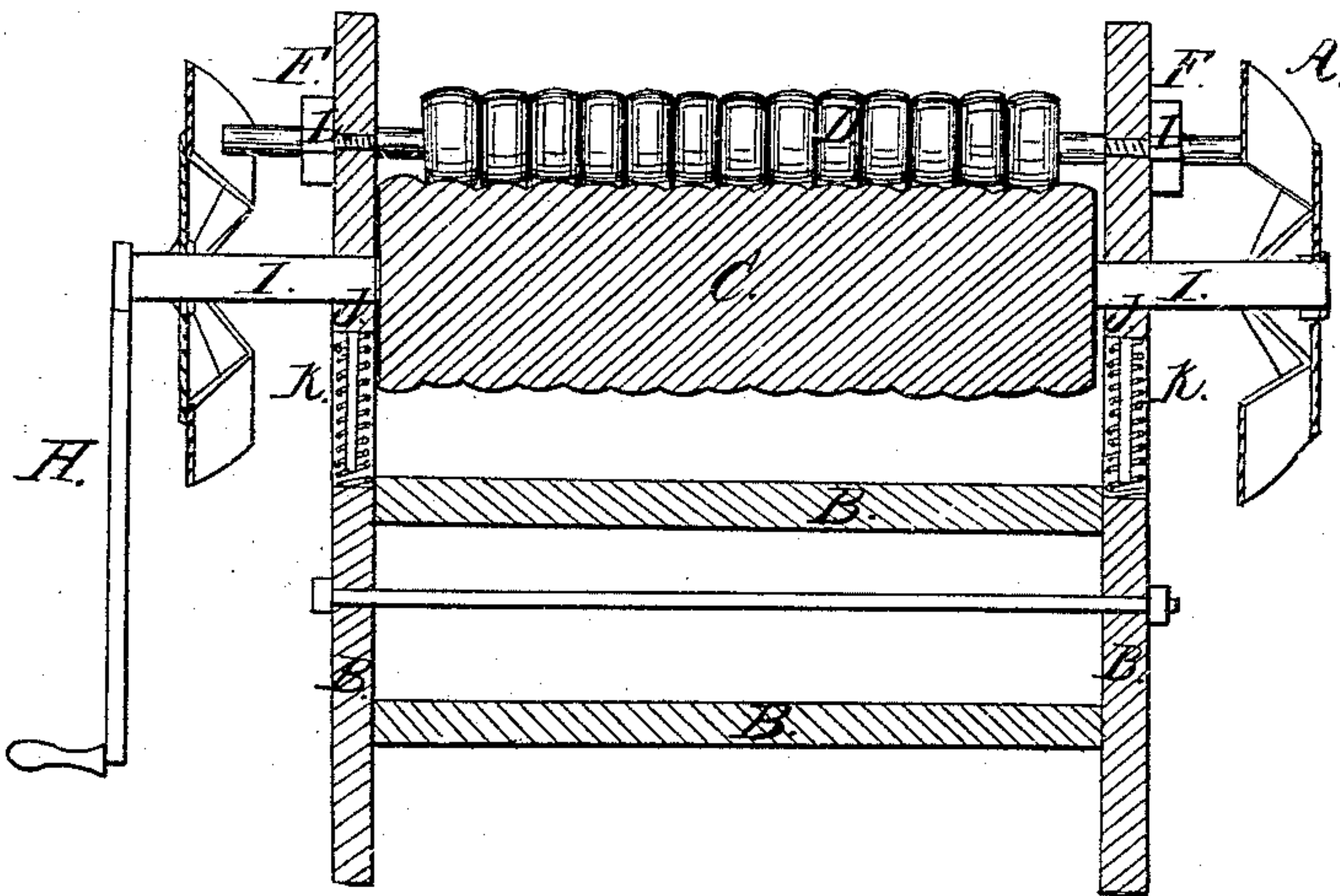
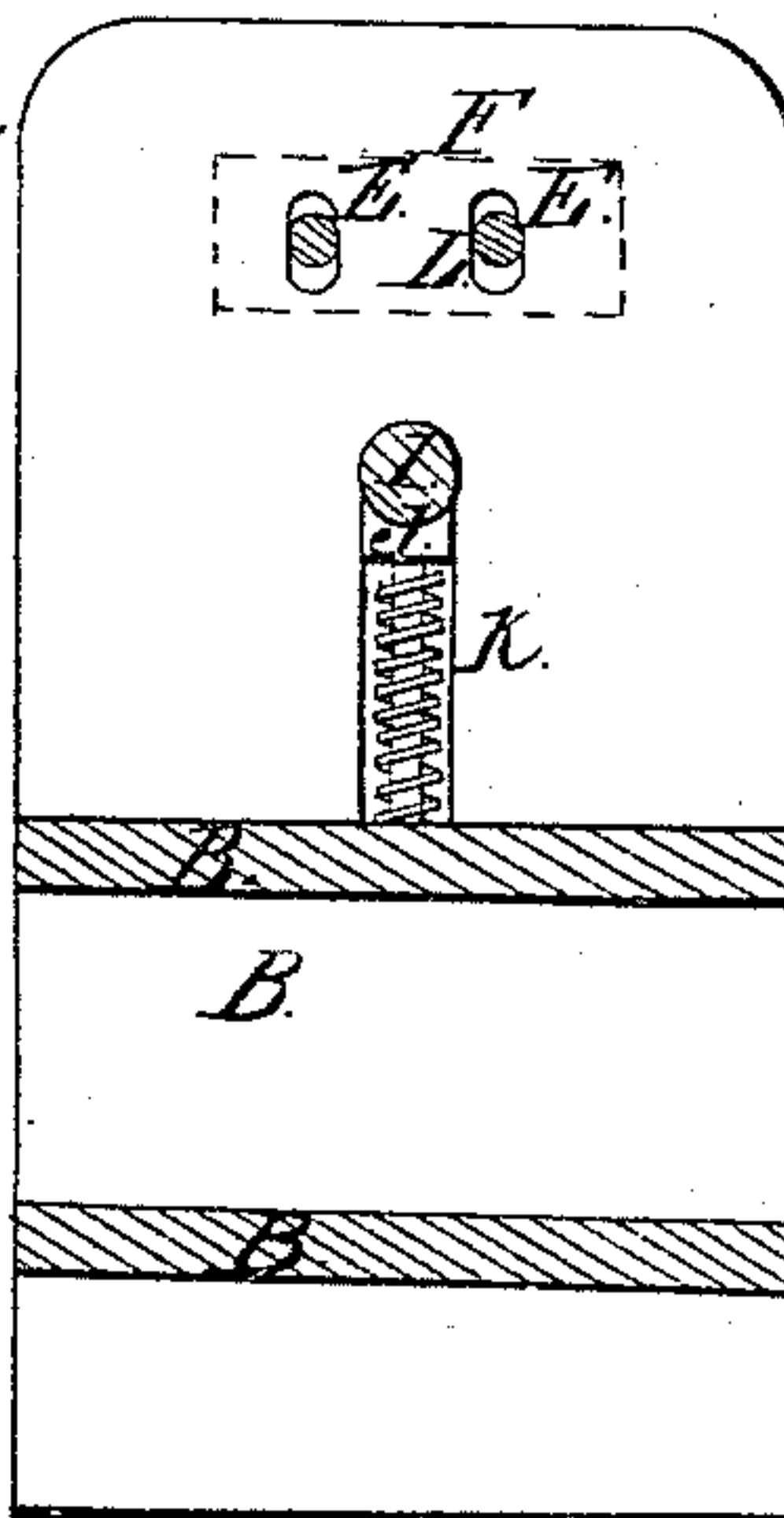


Fig: 5.



Witnesses:

*J. L. Coburn
O. G. Henderson*

Inventor:

*Mortimer S. Harsha
by Coburn & Harris
Atty's*

United States Patent Office.

MORTIMER S. HARSHA, OF BATAVIA, ILLINOIS, ASSIGNOR TO
HIMSELF AND EDWIN MEREDETH, OF SAME PLACE.

Letters Patent No. 84,058, dated November 17, 1868.

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, MORTIMER S. HARSHA, of Batavia, in the county of Kane, and State of Illinois, have invented a new and useful Improvement in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and the letters and figures marked thereon, which form a part of this specification, and in which—

Figure 2 represents a detached view of the wheel A;

Figure 3, a top or plan view of my machine;

Figure 4, a vertical sectional view at the line x in fig. 3; and

Figure 5, an end elevation of the machine.

My invention relates to that class of washing-machines in which the clothes are passed between rollers; and it consists in a novel device, whereby the bearings of the adjustable rollers are allowed to vibrate to admit the passage of uneven thicknesses between the rollers, as hereinafter more fully described.

To enable those skilled in the art to understand how to manufacture and use my invention, I will describe the same with particularity.

The same letters of reference refer to the corresponding parts in the different figures.

I make a frame, B, and corrugated rollers, C and D, which I place in said frame, as shown in accompanying drawings.

On the shaft of the wheel C, I put a crank, H, and also two wheels, A A, which have their sides corrugated, or are so constructed as to form a series of cams, and they must be so arranged on the shaft that the compression on one wheel will be opposite the projection or elevation on the side of the opposite wheel.

The rollers D D have shafts or spindles, which extend through slots E E in the frame B, and have bearings in the pivoted pieces F, and extend out to the corrugated wheels A, so that, as they are revolved, they, by operating against said spindles, give the rollers D D a constant vibrating lateral motion.

The pressure upon the surface of the rollers D, as the clothes pass between the rollers C and D D, causes them to revolve.

The bearings of the spindles I are movable, and are

supported upon the springs K, so that the roller C yields to admit of different thicknesses of garments passing between the rollers, and, at the same time, all be subjected to pressure. And the bearings of the spindles of the rollers D being in the pieces F F, which are pivoted at their centres to the frame B, by the screws L L, the said rollers are not held rigid, but any thick article coming under one of the rollers, raises it up, and, at the same time, by vibrating the pieces F F, presses the other roller down, and, as the thick place passes along under the other roller and raises it, the first roller is pressed down. By this arrangement thick places or bunches can pass between the rollers, and, at the same time, one of the rollers D is constantly pressing upon the roller C.

In the operation of my machine, it is secured firmly in any suitable, well-known manner, in an ordinary tub, which will hold the water and the clothes to be washed. The operator turns the crank H, and places a garment so that it is caught between the rollers C and D. As the garments are being drawn between said rollers by the rotary motion given them by turning the crank H, they are not only pressed between the rollers, but the vibrating motion of the rollers D D rubs the clothes between the surfaces of the rollers C and the rollers D D.

Having thus fully described the construction and operation of my invention,

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

The combination of the bars F F, pivoted at their centres to the frame B, the two rollers D D, having bearings in opposite ends of said oscillating bars F F, the roller C, arranged beneath and between said rollers D D, and the cam-wheels A A, all arranged and operating so as to give the rollers D D a rotating, a longitudinal, and an oscillating motion with respect to the roller C, substantially as herein shown and set forth.

MORTIMER S. HARSHA.

Witnesses:

THOS. MEREDITH,

CHAS. C. STEPHENS.