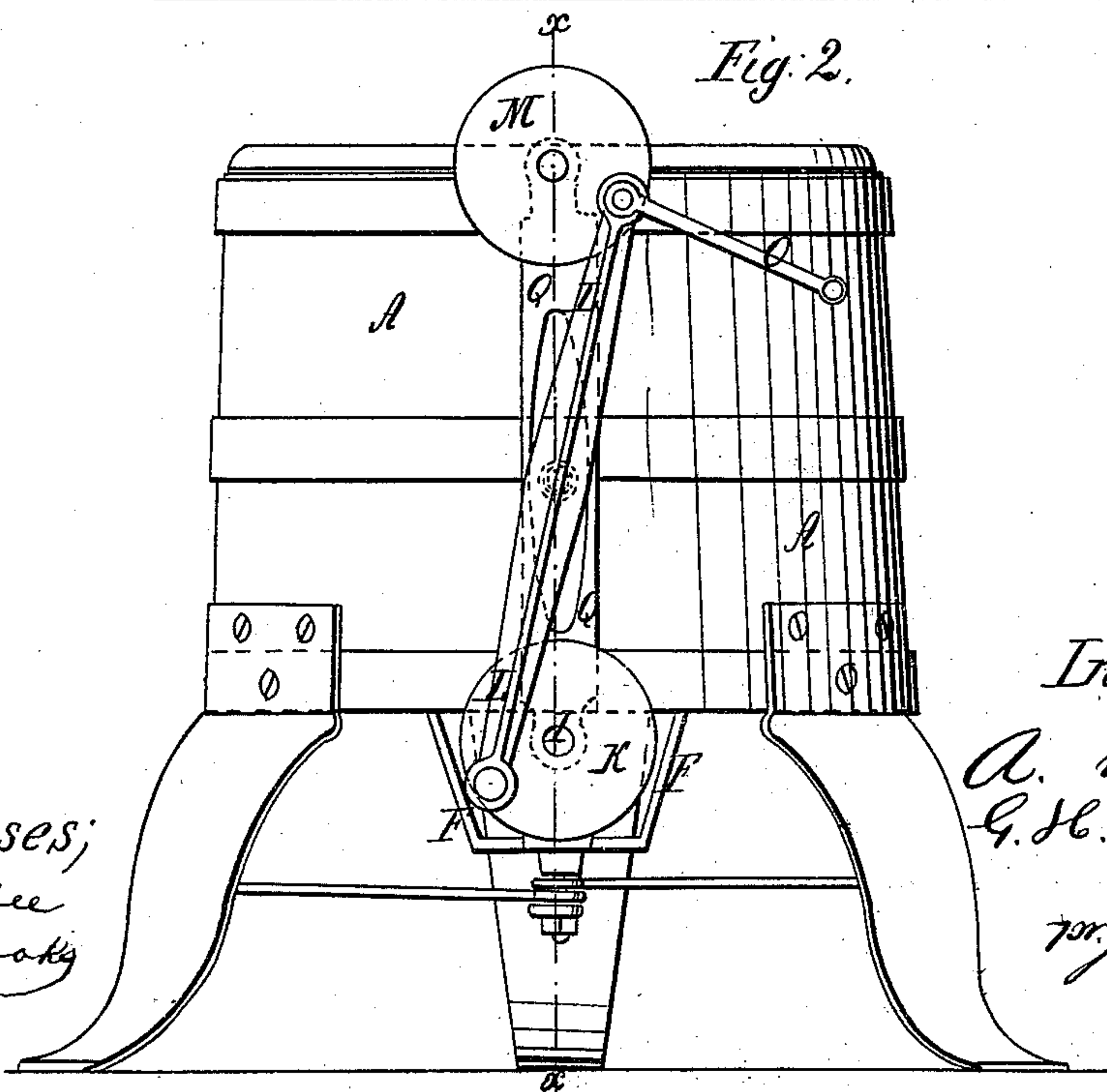
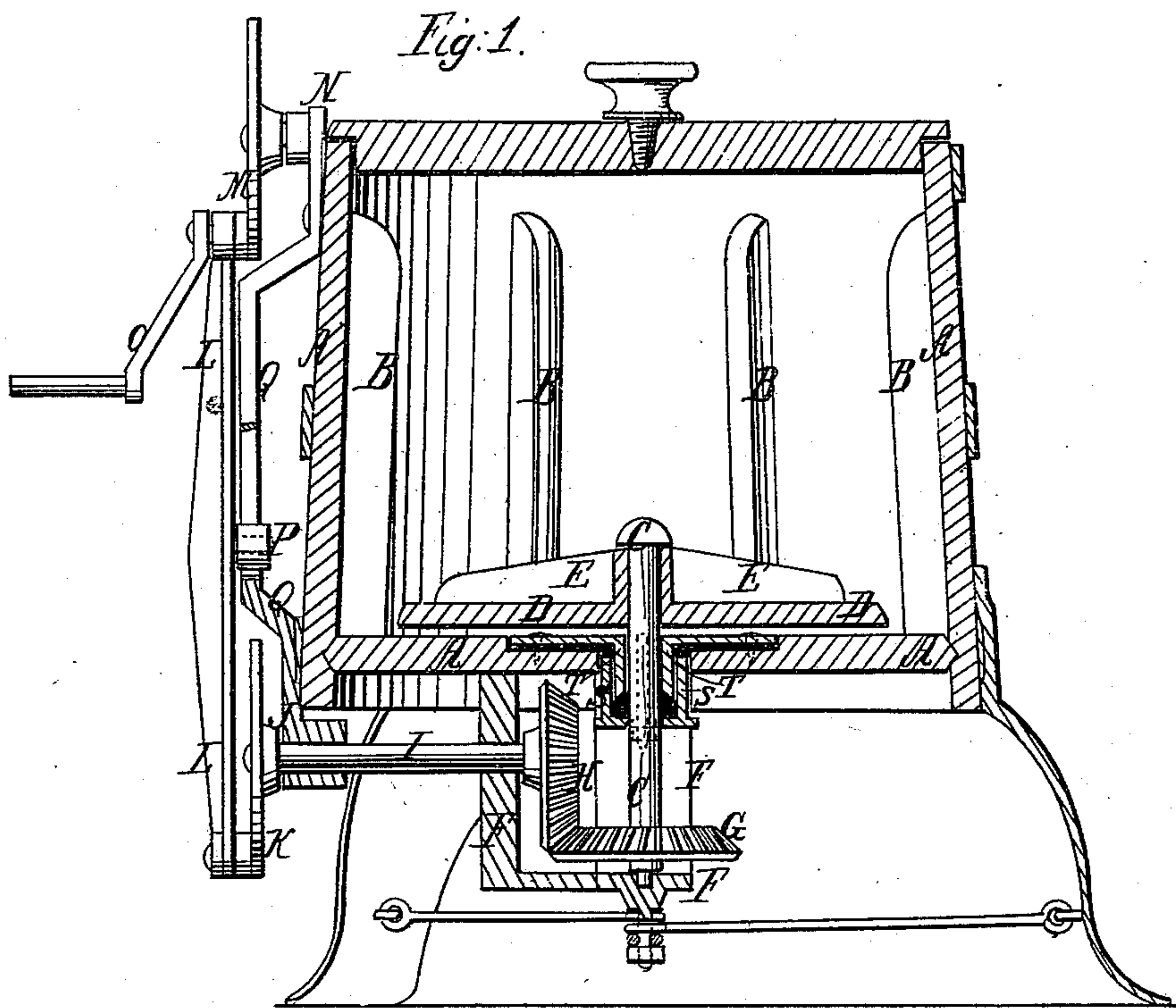


*A. & G. H. King.*

*Washing Mach.*

*N<sup>o</sup> 94,005.*

*Patented Aug. 24, 1869.*



*Witnesses;*  
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# United States Patent Office.

ALEXANDER KING AND GEORGE H. KING, OF PAINESVILLE, OHIO.

Letters Patent No. 94,005, dated August 24, 1869.

## 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 we, ALEXANDER KING and GEORGE H. KING, of Painesville, in the county of Lake, and State of Ohio, have invented a new and improved Washing-Machine; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical section of an improved machine, taken through the line *xx*, fig. 2.

Figure 2 is a side view of the same.

Similar letters of reference indicate corresponding parts.

Our invention has for its object to furnish an improved washing-machine, which shall be simple in construction and effective in operation, doing its work quickly and thoroughly; and

It consists in the construction and combination of the various parts, as hereinafter more fully described.

A is the body of the washing-machine, which is made cylindrical in its general form. The body, A, may be made slightly tapering, if desired, and to the inner surface of its sides is attached a number of upright ribs, B, extending from the bottom to or nearly to the top of said body.

The ribs B should be rounded off upon their inner edges, to prevent them from wearing the clothes.

C is a shaft or spindle, passing down vertically through the centre of the bottom of the body A, and to its upper end is attached a circular plate, D, in such a way as to be carried around by the revolution of the said shaft C.

To the upper side of the circular plate D, is attached a number of radial ribs or flanges, E, the upper edges of which should be rounded off to prevent them from wearing the clothes.

The lower end of the vertical shaft C, revolves in a step in the lower or horizontal part of the bracket F, attached to the lower side of the bottom of the body or tub A.

To the lower part of the shaft C, is attached a bevel-gear wheel, G, into the teeth of which mesh the teeth of the bevel-gear wheel H, attached to the inner end of the horizontal shaft I.

The inner part of the horizontal shaft I, revolves in bearings in one arm of the bracket F, and its outer part revolves in bearings in the arm or bracket J, attached to the lower part of the side of the body A.

To the outer end of the horizontal shaft I, is attached a crank or crank-wheel K, to the crank-pin of

which is pivoted the lower end of the connecting-bar L, the upper end of which is pivoted to the crank-pin of the crank or crank-wheel M, pivoted to the upper part of the body A, or to a bar or bracket, N, attached to the said body.

To the crank-pin of the crank or crank-wheel M, is attached the hand-crank O, by means of which the machine is operated.

To the centre of the connecting-bar L, is attached an inwardly-projecting pin P, which passes through a slot in the vertical bar Q, the ends of which are bent inward, and are attached to the side of the body A, so that the middle or slotted part of said bar may stand out a little from the said body A, as shown in fig. 1.

The slot in the bar Q should be made wider in its middle part, to give the necessary freedom of movement to the bar L, and at the same time enable it to properly control the movements of the cranks or crank-wheels K and M.

R and S are short tubes fitting into each other, and to the outer end of the outer tube, S, and to the inner end of the inner tube T, are attached, or upon them are formed plates, which overlap the outer and inner sides of the bottom of the body A.

The tubes S T are packed with suitable packing, to make them serve as a stuffing-box to prevent the escape of the water. The tubes S T are pressed together, compressing the packing, and at the same time securing the said tubes in place by bolts and nuts, said bolts passing through the bottom of the body A, and through the plates attached to the said tubes S T.

Having thus described our invention,

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

1. The circular plate D E, attached to the end of a vertical shaft C, passing out through the stuffing-box S T, and operated by the bevel-gearing G H, and shaft I, attached to the brackets F and J, in combination with the ribbed body or tub A, all constructed and arranged to operate as herein described and shown.

2. In combination with the devices of above clause, the crank O, cranks or crank-wheels M K, connecting-bar L, pin P, and slotted bar Q, when arranged substantially as herein shown and described, and for the purpose specified.

ALEXANDER KING.  
GEORGE H. KING.

Witnesses:

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H. C. GRAY.