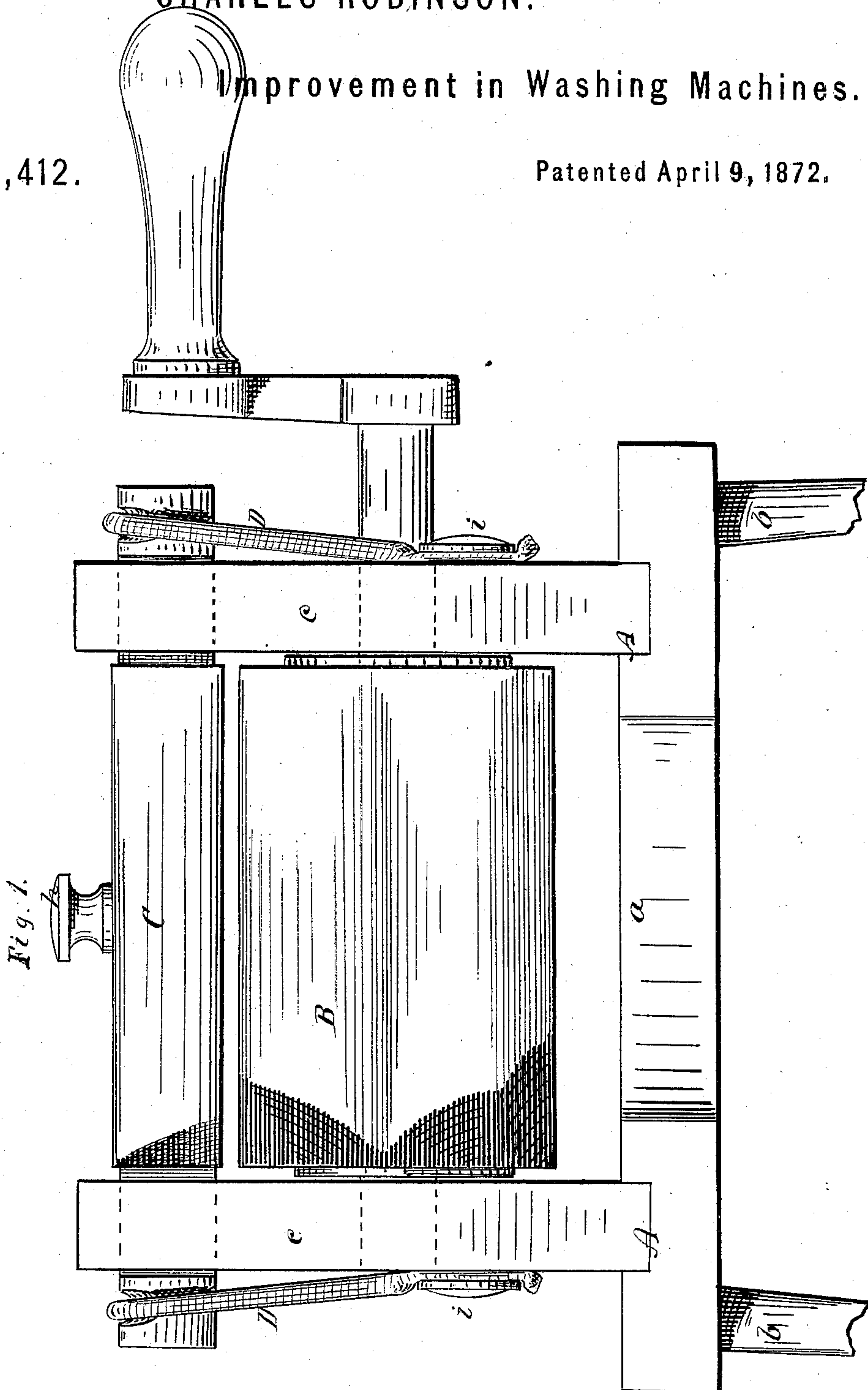


CHARLES ROBINSON.

Improvement in Washing Machines.

No. 125,412.

Patented April 9, 1872.



Witnesses,
E. M. Gallaher
J. C. Lyons

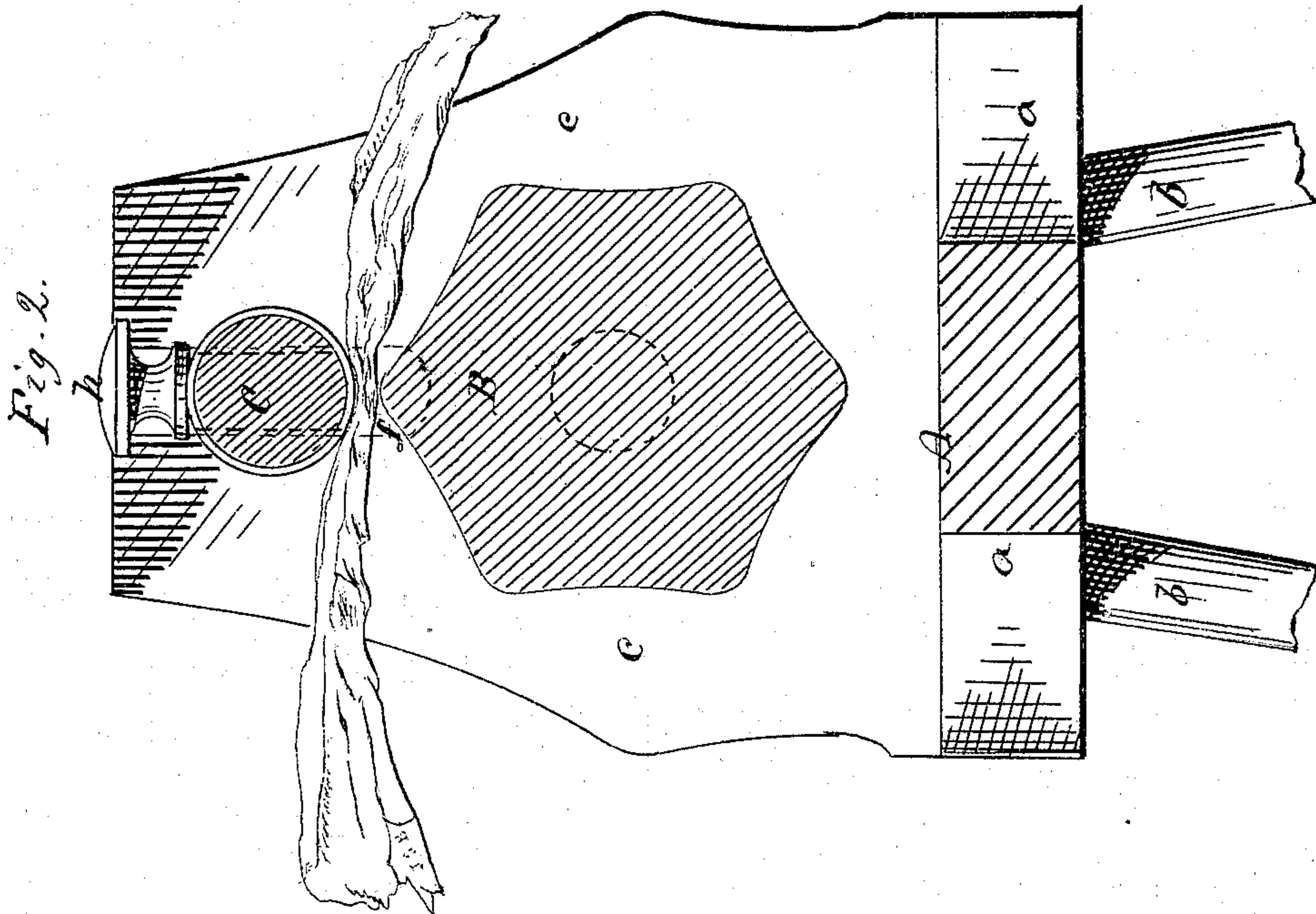
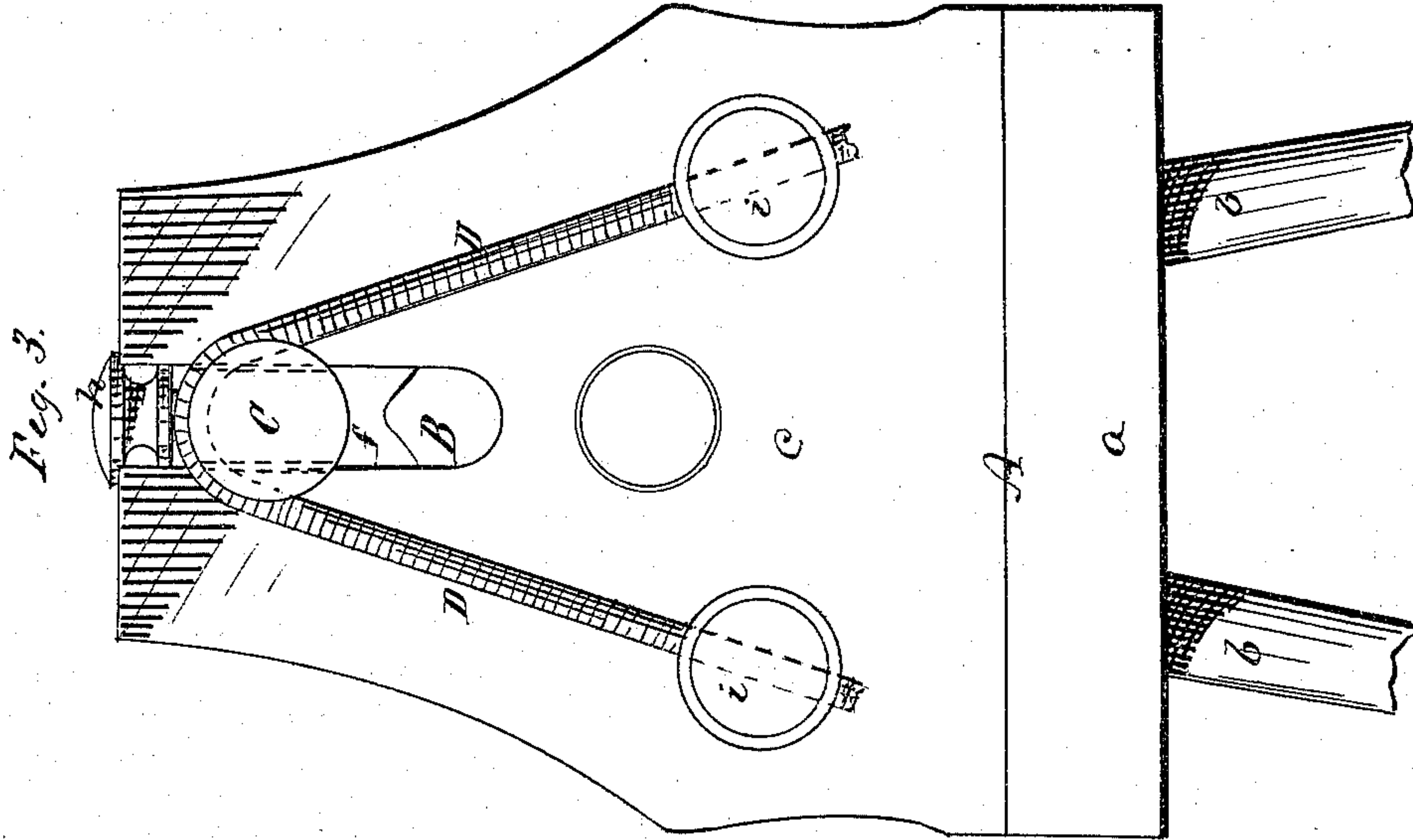
Inventor,
Charles Robinson,
By his atty.,
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UNITED STATES PATENT OFFICE.

CHARLES ROBINSON, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 125,412, dated April 9, 1872.

To all whom it may concern:

Be it known that I, CHARLES ROBINSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Washing-Machine; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing making part of this specification:

Figure 1 being a side view of the washing-machine; Fig. 2, a transverse vertical section of the same; Fig. 3, an end view thereof; Fig. 4, a cross-section of one of the elastic cords employed to give elastic pressure to the rubbing-bar.

Like letters designate corresponding parts in all of the figures.

My improved washing-machine belongs to the class of small machines which are attached to or placed in a tub, and the operation of which is performed by a roller turned with a crank and a stationary rubber pressed toward the roller by springs.

A simple frame, A, composed of a base-board, *a*, either with or without legs *b b*, and with two uprights or standards, *c c*, is sufficient for the machine. If legs are employed they rest on the bottom of the tub; and if not the ends of the board *a* may fit on or between the opposite sides of the tub.

First, I employ a roller, B, of improved shape, for the purpose, as represented most clearly in Fig. 2. It is of hexagonal, as shown, or other polygonal form; the corners being rounded and the intermediate sides preferably being hollowed or fluted somewhat, as represented. This form while it produces the requisite variation in pressure upon the clothes, and the proper friction and rubbing action, at the same time allows the roller to turn more easily and does not wear the clothes so much as do corrugated rubbers, which, however, might be used in this machine.

The rubber C instead of revolving, as in other machines of this class, simply slides up and down in grooves or slots *f f* of the standards without turning, and it is pressed down by springs upon the roller. It is rounded on the lower side, against which the clothes rub, and it may be round, flat, or of any other convenient form on the upper side. To prevent its wearing away too rapidly, and keep it smooth, it is covered with a sheathing of zinc, or its equivalent. By being thus non-revolving it offers a gentle rubbing action to the clothes, which cannot be obtained by a rolling friction. It may have a knob, *h*, to lift it by for inserting the clothes.

The springs D D, which I use to press down the rubbing-bar, are of peculiar construction and arrangement. They are made of elastic cord, composed of several strands of India rubber, wound, as shown in Fig. 4, so that if one strand breaks the rest may remain whole. One of these cords is stretched over each end of the rubbing-bar, fitting in notches thereof, as shown, and held at the ends by screws, bolts, nails, or pegs, *i i*. If they break or become too weak they are easily adjusted in strength or renewed. They are simple and cheap.

Other kinds of elastic cords or bands may be used instead of the special construction herein described.

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

The combination of the roller B, rubber C, and the elastic cords D D, constructed, arranged, and operating substantially as and for the purpose herein specified.

Specification signed by me this 17th day of January, 1872.

CHARLES ROBINSON.

Witnesses:

CHAS. EDMUNDS,
F. H. SMITH.