

(No Model.)

A. LÜTTINGER.
WASHING MACHINE.

No. 339,107.

Patented Mar. 30, 1886.

Fig. 1.

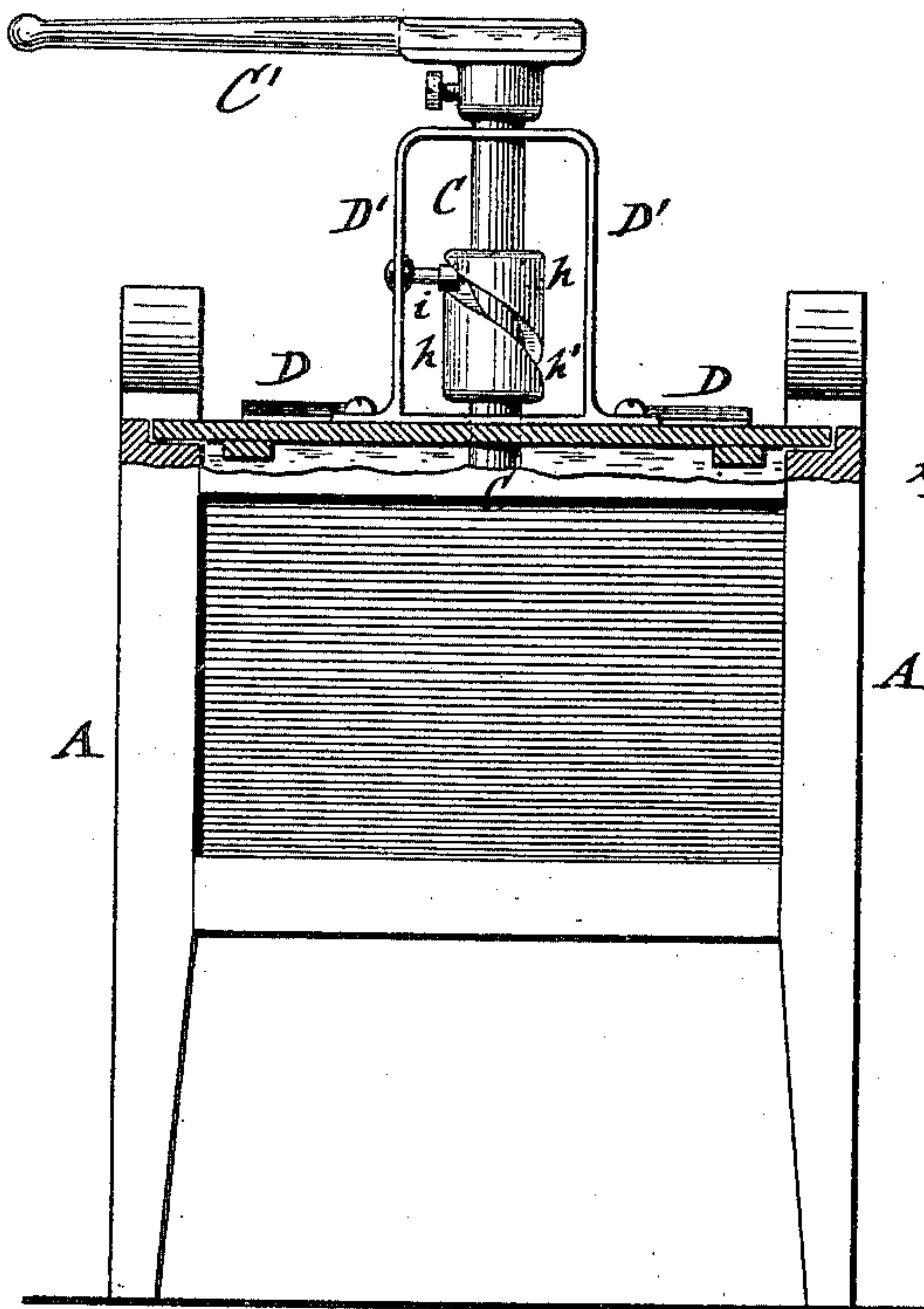


Fig. 2.

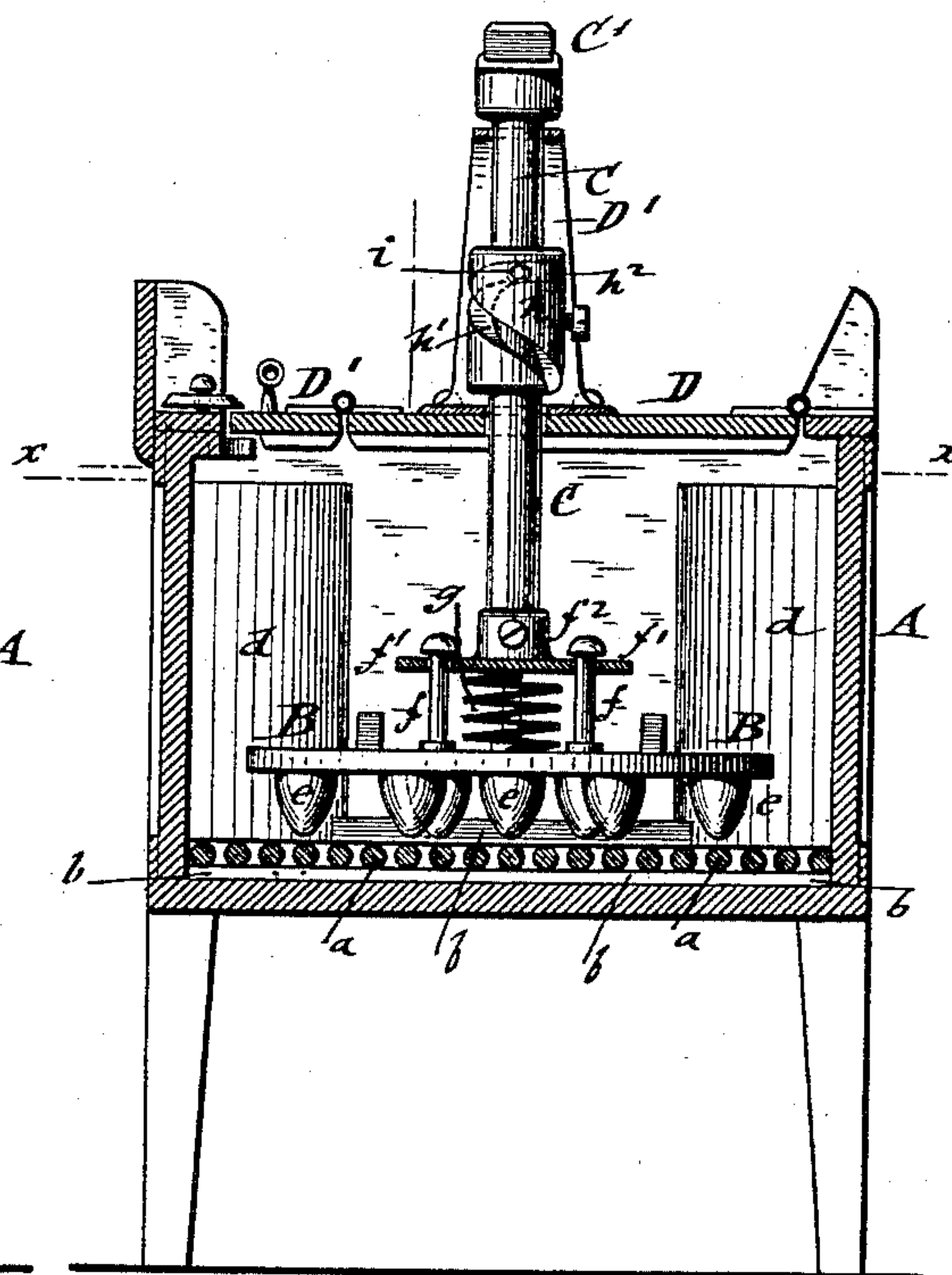
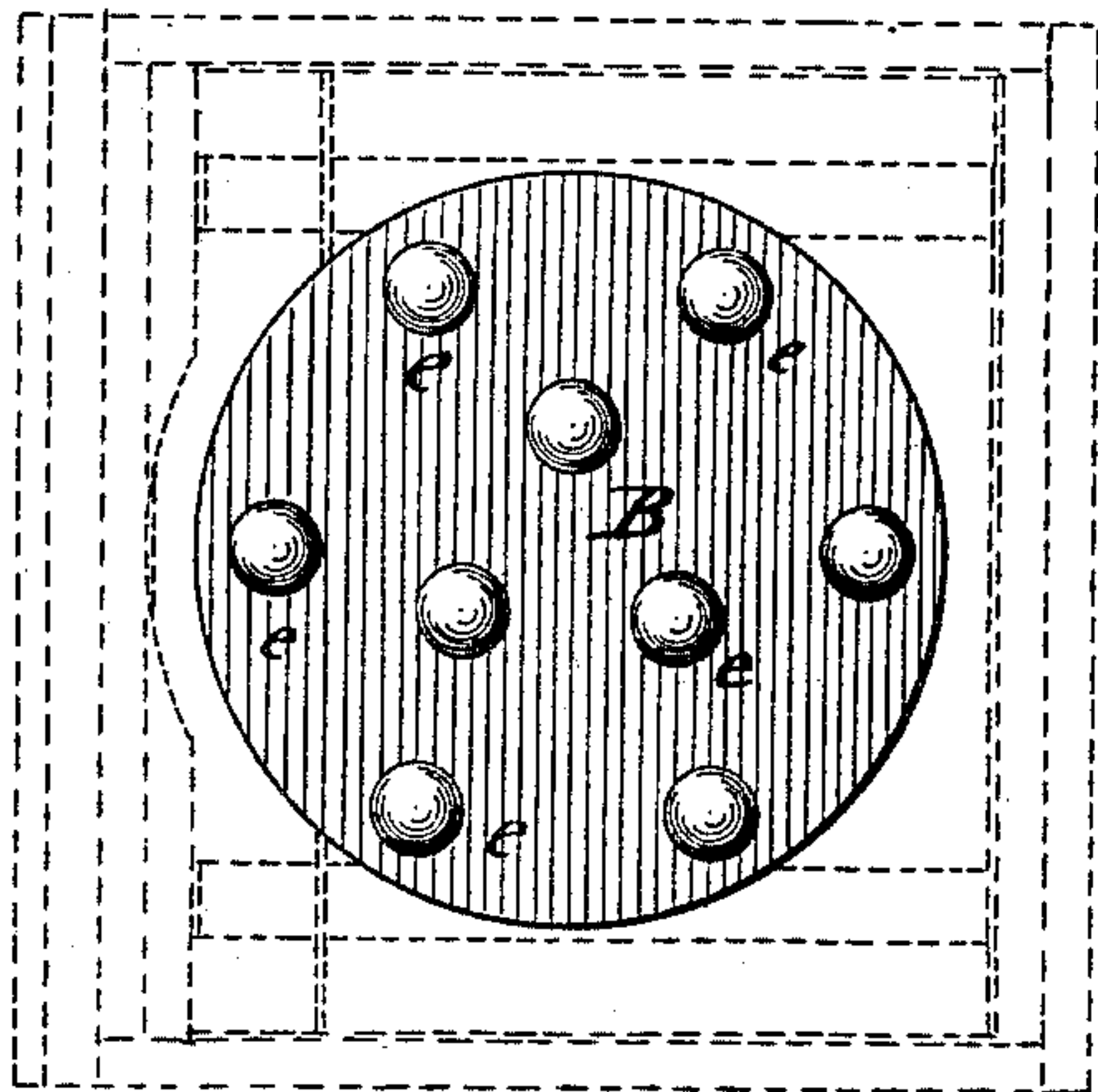


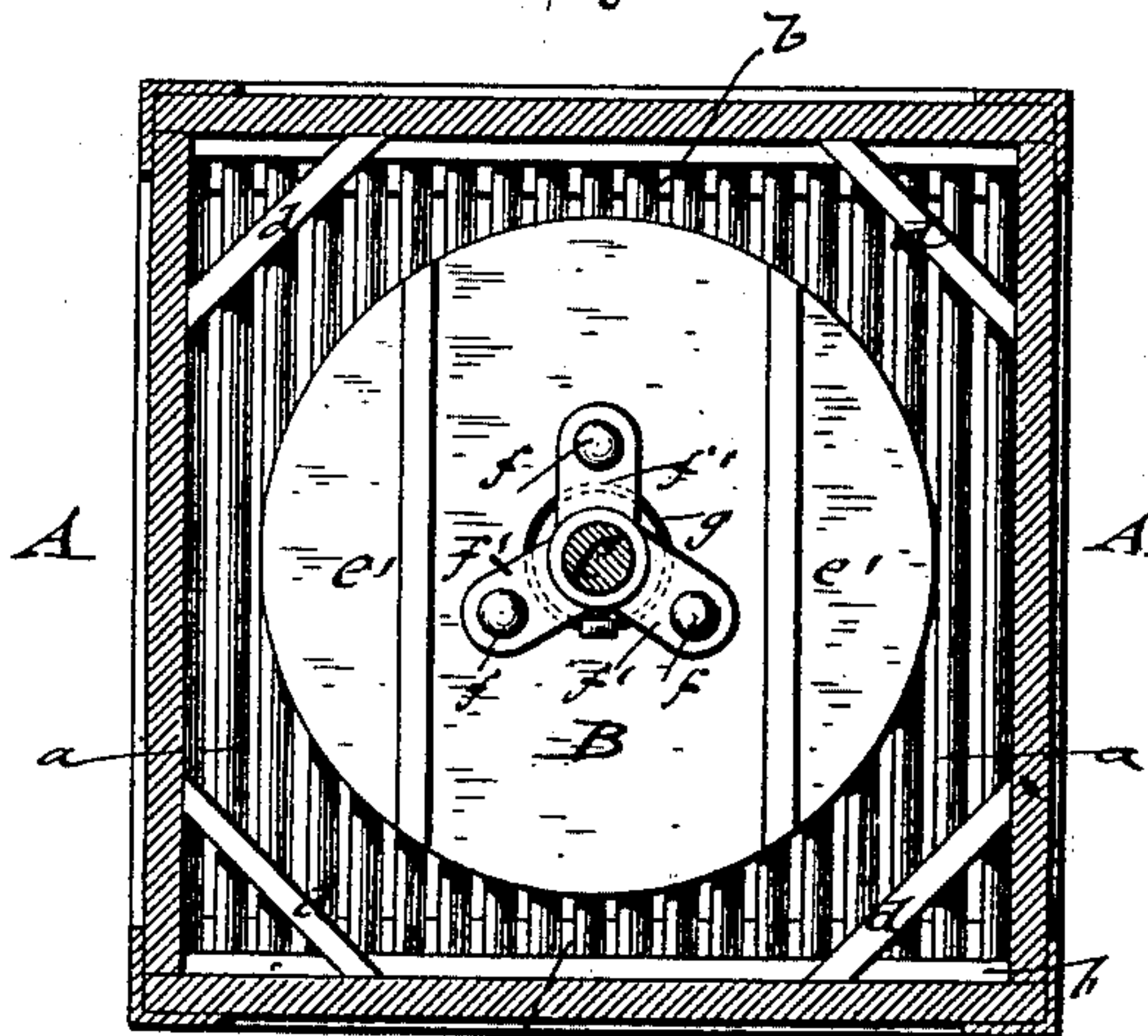
Fig. 4.



WITNESSES

F. W. Rosenbaum.
Ernst Wolff

Fig. 3.



INVENTOR

Adam Lüttinger
By his Attorneys
Ernst & Rosenbaum

UNITED STATES PATENT OFFICE.

ADAM LÜTTINGER, OF NEW YORK, N. Y.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 339,107, dated March 30, 1886.

Application filed May 14, 1885. Serial No. 165,414. (No model.)

To all whom it may concern:

Be it known that I, ADAM LÜTTINGER, of the city, county, and State of New York, have invented certain new and useful Improvements in Washing-Machines, of which the following is a specification.

This invention has reference to certain improvements in washing-machines of that class in which a horizontal and spring-cushioned rubber is vertically and axially reciprocated, so as to work on the clothes in the suds-box and impart a rubbing action to the same; and the invention consists of simple and effective means whereby the rubber is vertically reciprocated, as will be more fully described hereinafter, and finally be pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation, partly in section, of my improved washing-machine. Fig. 2 is a vertical transverse section of the same. Fig. 3 is a horizontal section on line *xx*, Fig. 1; and Fig. 4 a bottom view of the rubber.

Similar letters of reference indicate corresponding parts.

A in the drawings represents a suds-box, preferably of square shape, which is provided at the bottom with transverse slats *a*, of round shape, that are supported by suitable straps, *b b*. The suds-box A is provided at the corners with vertical angle pieces *d d*, that prevent the clothes from passing into the corners of the suds-box and facilitate their return toward the middle of the same, where they are more effectively exposed to the action of the rubber B. The rubber B is made of disk shape, of as large a diameter as the size of the suds-box will permit. The rubber is provided with downwardly-projecting teats *e*, of conically-tapering shape, and re-enforcing top cleats, *e'*. It is guided by fixed and headed posts *f f* on perforated lugs *f'* of a hub, *f''*, that is attached to the lower end of a vertical shaft, C, which turns in bearings of the lid D of the suds-box, and of a yoke, D', supported on said lid. To the upper end of shaft C is applied a lever-handle, C', by which the rubber B is horizontally reciprocated. A strong spiral spring, *g*, is interposed between the rubber B and the hub *f''* at the lower end of the shaft C, the spring *g* and posts *f f* cushioning and guiding the rubber, so that the same can set itself readily to the varying quantity

and position of the clothes in the suds-box. To the spindle C is keyed, above the lid D, a sleeve, *h*, that is provided with a spiral groove, *h'*, into which projects a pin, *i*, having an anti-friction roller at the end, being rigidly attached to the yoke D', as shown clearly in Fig. 1. The spiral groove *h'* has at its upper end a horizontal extension or rest, *h''*, as shown in dotted lines in Fig. 2, so that the rubber, when arriving at its lowest position, can continue its rotary motion to some extent, so as to move the clothes forward.

By reciprocating the handle D' the sleeve *h* is moved by its spiral groove along the pin *i*, so as to impart to the rubber a rotary-reciprocating motion and simultaneously a vertically-reciprocating motion. The lid D is hinged to the suds-box and provided at one side with a hinged auxiliary section, D'', that can be readily opened for inspecting the clothes in the suds box. During the washing operation the lid and its auxiliary section are locked to the suds-box by suitable fastening devices.

When the clothes are to be removed from the suds-box, the rubber is first raised as far as the sleeve *h* will permit, after which the lid can be readily raised, together with the rubber C, and thrown into open position. In the lowermost position of the rubber the lid could not be opened, as the same would abut against the supporting-rail of the lid at the upper edge of the suds-box.

My improved washing-machine has the advantage that the clothes can be readily and effectively cleaned, as the same are kept in motion and exposed to friction and pressure by the action of the rubber, which receives a combined rotary and vertically reciprocating motion by means of a simple mechanism, so that the machine can be worked effectively with little effort.

I am aware that washing-machines with horizontal spring-cushioned rubbers provided with teats and means for imparting a rotary and vertically-reciprocating motion to the same have been used heretofore, and I do not claim this feature, broadly, but desire to limit myself to the special means by which this motion is produced.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of a suds-box, a horizon-

tal spring-cushioned rubber having downwardly-projecting teats, a vertical shaft to which the rubber is attached, a handle attached to the upper end of the shaft, a spirally-grooved sleeve keyed to the shaft above the lid, and a supporting-yoke having a fixed pin along which the sleeve is guided, substantially as set forth.

2. The combination of a suds box, a horizontal spring-cushioned rubber, a shaft connected to the rubber and guided in bearings of the lid, and of a yoke attached to the lid, a handle attached to the upper end of the shaft, a

sleeve keyed to the shaft above the lid and having a spiral groove with a horizontal extension at the upper end, and a fixed pin attached to the yoke and extending into the groove of the sleeve, substantially as specified.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

ADAM LÜTTINGER.

Witnesses:

PAUL GOEPEL,
CARL KARP.