No. 649,345. Patented May 8, 1900.

S. PATTERSON.

WASHING MACHINE.

(Application filed Jan. 4, 1900.)

(No Model.) 2 Sheets—Sheet 1.

FIG. 1

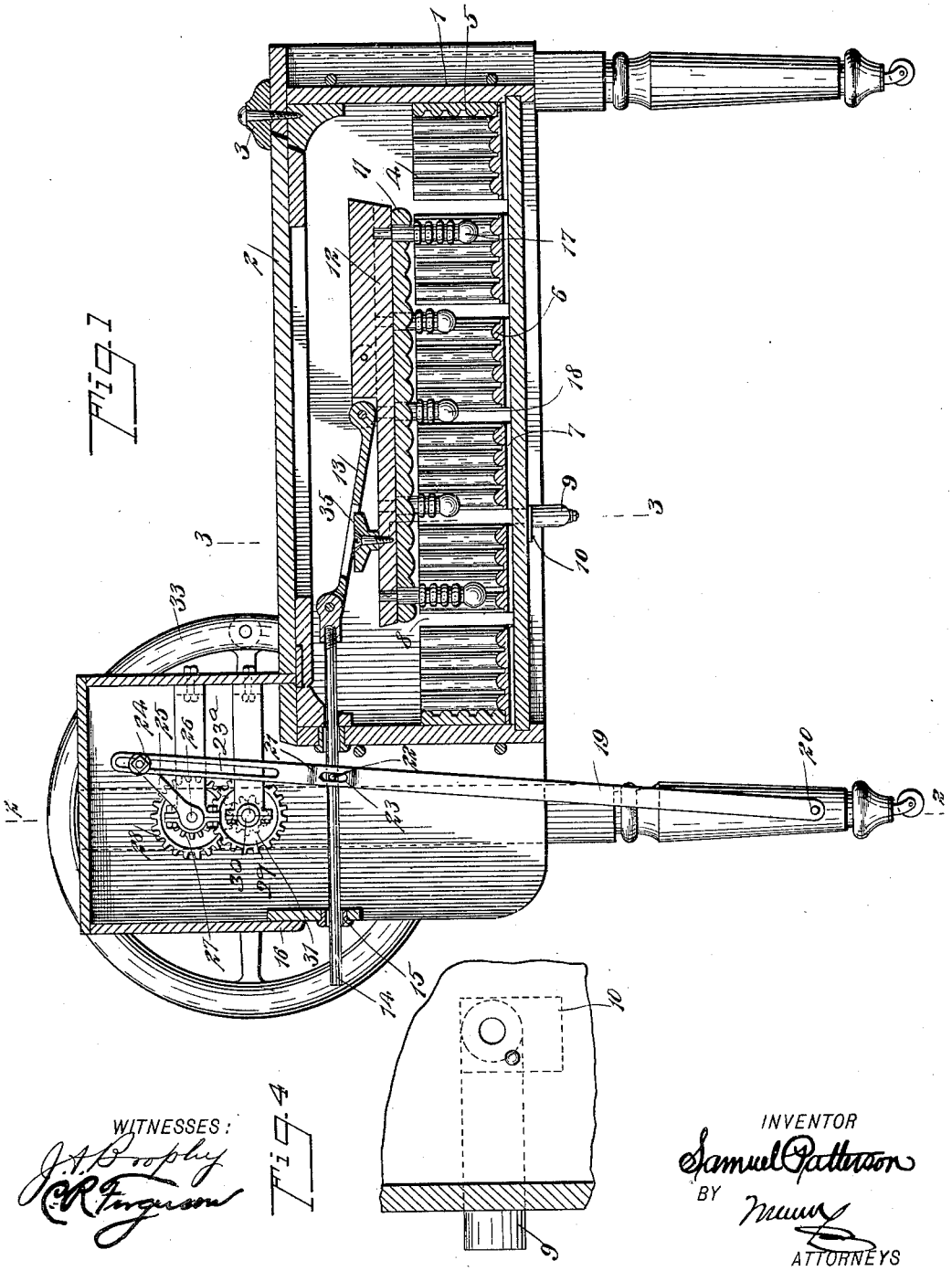

FIG. 4

WITNESSES:

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C. R. Ferguson

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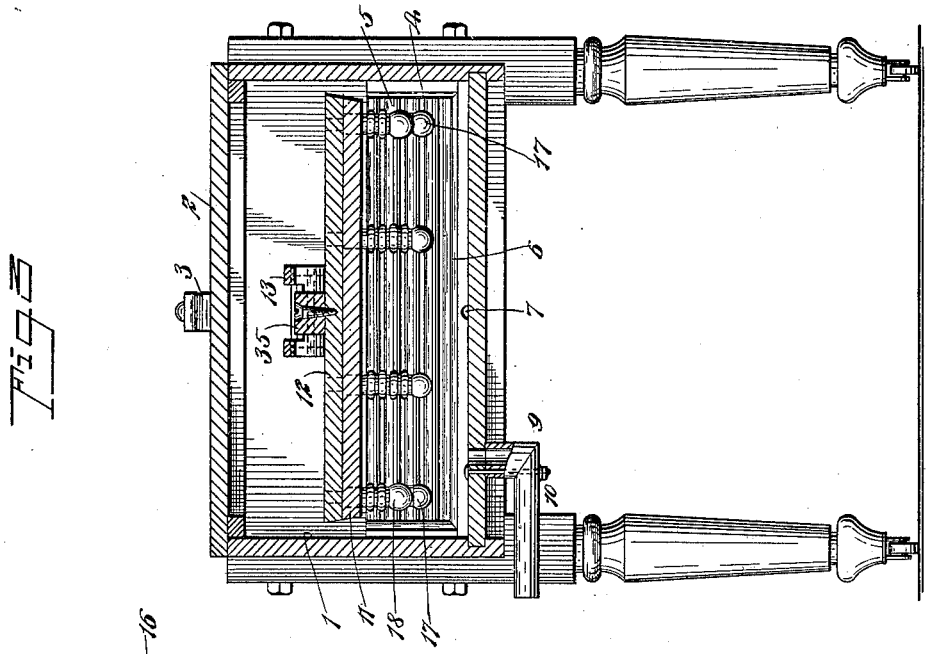

FIG. 1.

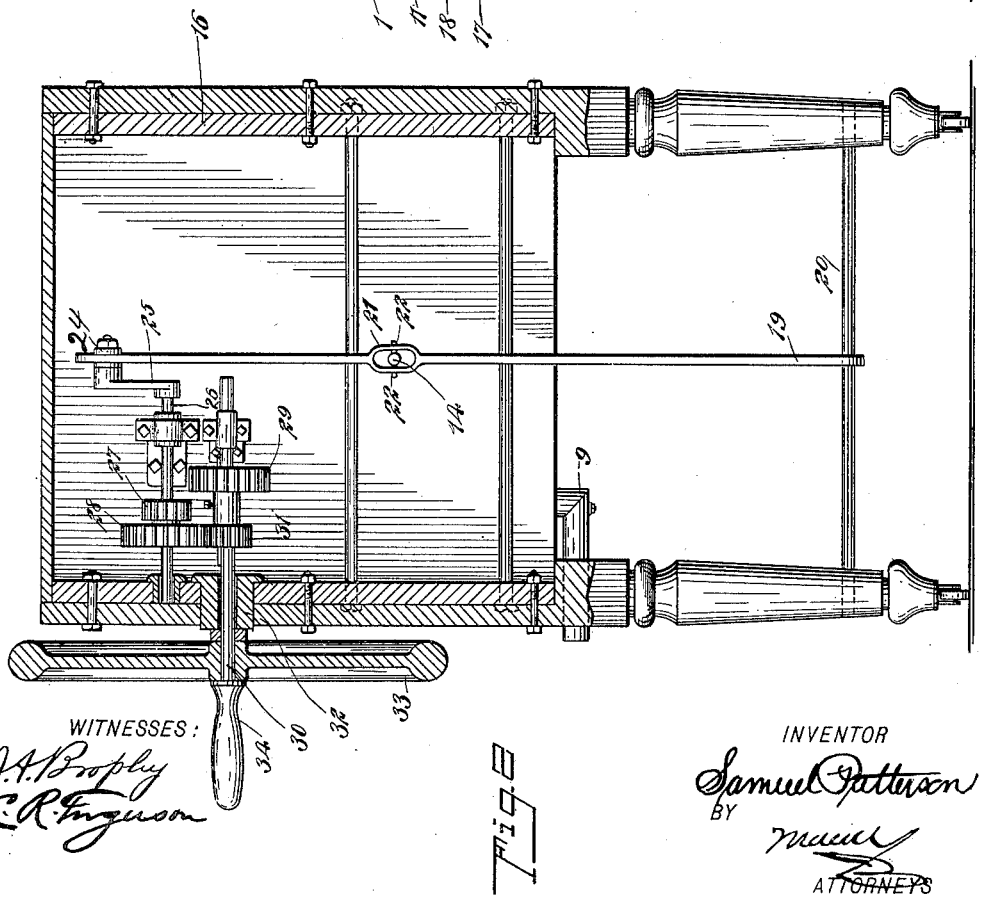

FIG. 2.

WITNESSES:

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UNITED STATES PATENT OFFICE.

SAMUEL PATTERSON, OF WILKES-BARRÉ, PENNSYLVANIA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 649,345, dated May 8, 1900.

Application filed January 4, 1900. Serial No. 356. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL PATTERSON, a citizen of the United States, and a resident of Wilkes-Barré, in the county of Luzerne and State of Pennsylvania, have invented a new and Improved Washing-Machine, of which the following is a full, clear, and exact description.

This invention relates to improvements in washing-machines; and the object is to provide a washing-machine of simple construction that may be easily operated and by means of which clothes may be quickly and thoroughly washed.

I will describe a washing-machine embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional elevation of a washing-machine embodying my invention. Fig. 2 is a section on the line 2 2 of Fig. 1. Fig. 3 is a section on the line 3 3 of Fig. 1, and Fig. 4 is a detail view showing a drain-pipe and a cut-off.

Referring to the drawings, 1 designates the box-like body portion of a washing-machine having a cover 2, which may be held in a closed position by means of a button 3 or otherwise. Arranged along the sides of the body portion are scrubbing-blocks 4, having vertically-disposed inwardly-extended beads or ribs, and on the ends of the body portion are scrubbing boards or blocks 5, which have inward projections or beads extended transversely of the machine, while on the bottom are beaded or ribbed scrubbing-blocks 6. The side and end blocks extend about half-way up the inner surface of the body portion, and a drain-space 7 is arranged underneath the bottom blocks. This drain-space 7 communicates with spaces 8 between the ends of adjacent side blocks and also communicates with a drain-pipe 9, mounted to swing on the bottom of the body portion and having attached to it a gate or valve 10, adapted to close communication with the drain-pipe when the pipe is swung in one direction on its pivot-bolt and to open communication when the pipe is swung to the position indicated in Fig. 4.

Arranged to reciprocate in the machine-body is a presser and rubber consisting of a transversely-corrugated plate 11, mounted on a block 12, from which a pitman 13 extends to a connection with a rod 14, mounted to reciprocate longitudinally, the said rod passing through an opening in an end wall of the machine-body and also passing through a bearing 15, arranged in a boxing 16, mounted on one end of the machine. At its ends the presser and rubber has downwardly-extended pins 17, and at its sides are downwardly-extended pins 18. The several pins are circumferentially beaded, as shown, and the side pins are somewhat shorter than the end pins. By this construction the presser and rubber will be permitted to move smoothly over and through the material to be washed and also to follow downward in the same.

An actuating-bar 19 is mounted to rock on a shaft 20, connected to the end legs of the machine, and with this actuating-bar the rod 14 has pivotal connection. As here shown, the rod 14 extends through a loop 21, formed in the actuating-bar, and from the rod 14 pins 22 extend outward through slots 23 in the side walls of the loop 21. Above its connection with the rod 14 the bar 19 is provided with a longitudinal slot 23^a, into which the wrist-pin 24 of a crank 25 passes. The crank 25 is mounted on a shaft 26, on which are attached a pinion 27 and a gear-wheel 28. The pinion 27 is adapted to engage with a gear-wheel 29 on a driving-shaft 30, and the gear-wheel 28 is designed to be engaged with a pinion 31 on said driving-shaft 30. These several gears constitute a change-gearing, so that the machine may be operated at a greater or less speed, as desired.

To change the gear connection, the gears 29 and 31 are mounted to slide on the shaft 30, but to rotate therewith. The shaft 30 has a bearing in a bushing 32, extended through a wall of the boxing 16, and on the front end of the driving-shaft is a fly-wheel 33, to which a crank-handle 34 is attached.

In operation upon turning the shaft 30 the crank 25 will be carried around, imparting a swinging motion to the actuating-bar 19, which by operating the rod 14 back and forth will impart a corresponding motion to the presser and rubber in the machine, causing the same to agitate the material in the body

of the machine, rubbing the same against the corrugations of the several rubbing boards or plates, and should the material being washed pile up at the center the presser and rubber will move evenly downward because of the pins 18 being shorter than the end pins 17.

The driving-gear is all arranged in the boxing 16, so that there will be no danger of its catching in the clothing of a person operating the machine.

The presser and rubber may be removed from the machine, if desired, and when so removed the connection 13 will be held from swinging with relation to the presser and rubber by means of a button 35 on a block 12 and adapted to pass through an opening in said connection 13 and to be turned upon the upper side thereof. After the washing of course the water may be drawn off through the drain 9.

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

1. A washing-machine, comprising a body portion, a presser and rubber movable horizontally in said body, a reciprocating rod, a connection between said rod and the presser and rubber, an upwardly-disposed actuating-bar on which the reciprocating rod has a sliding motion, a crank having its wrist-pin engaging in a slot in the bar, and a change-gearing for operating the crank, substantially as specified.

2. A washing-machine, comprising a body portion, a presser and rubber movable horizontally and vertically in said body, a reciprocating rod, a swinging connection between said rod and the presser and rubber, an upwardly-disposed actuating-bar, a pin extended from the reciprocating rod into a slot in said bar, a crank having its wrist-pin engaging in a slot in the bar, and a gearing for operating the crank, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SAMUEL PATTERSON.

Witnesses:
MARY PATTERSON,
THEO. RENNFERN.