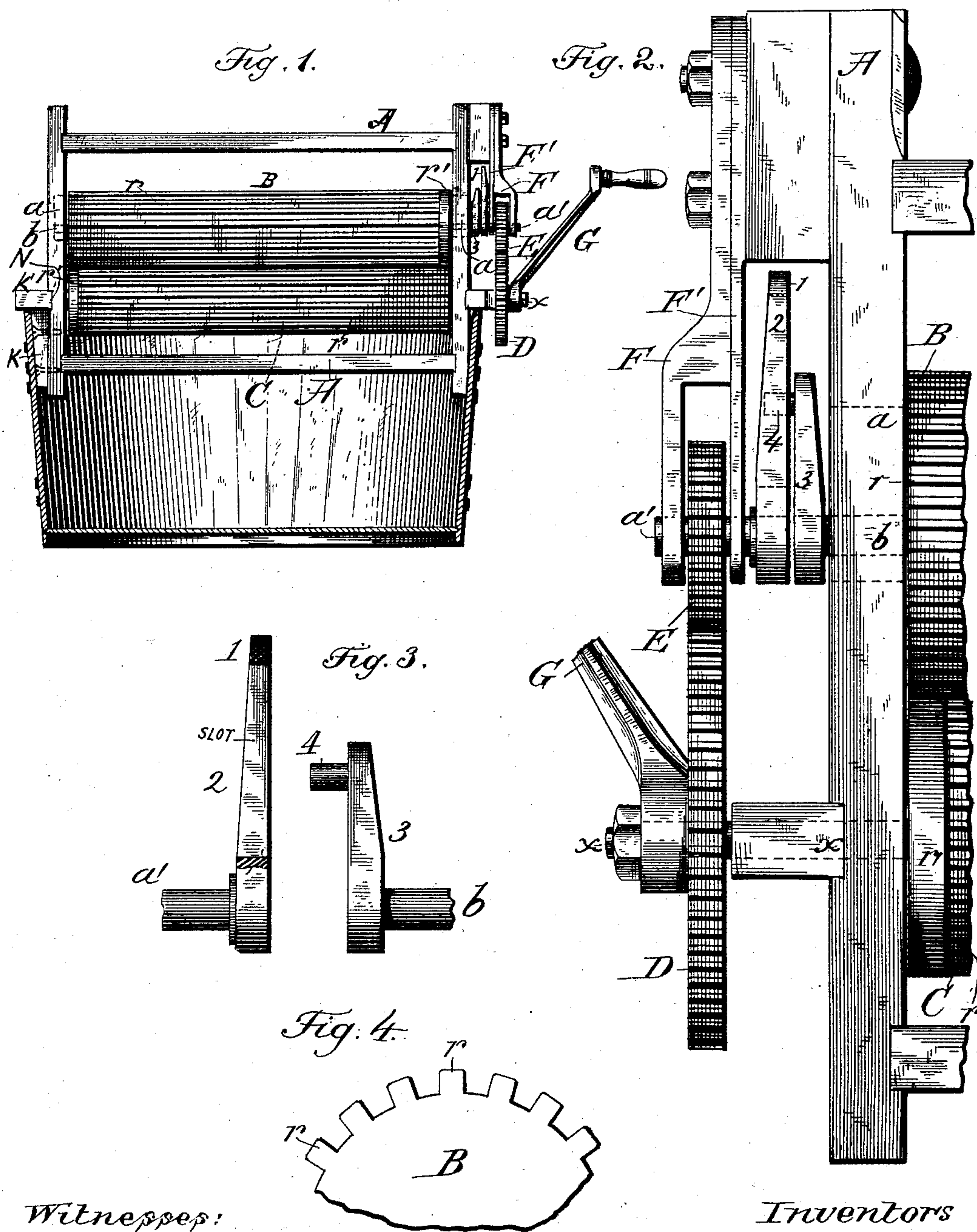


(No Model.)

A. SLY & H. E. GILE.
ROLLER WASHING MACHINE.

No. 327,201.

Patented Sept. 29, 1885.



Witnesses:

L. C. Hills.
W. B. Masson.

Inventors

Austin Sly and
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per J. W. Cragin, Atty.

UNITED STATES PATENT OFFICE.

AUSTIN SLY AND HENRY E. GILE, OF LEBANON, NEW HAMPSHIRE.

ROLLER WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 327,201, dated September 29, 1885.

Application filed February 26, 1885. (No model.)

To all whom it may concern:

Be it known that we, AUSTIN SLY and HENRY E. GILE, citizens of the United States, residing at Lebanon, in the county of Grafton and State of New Hampshire, have invented certain new and useful Improvements in Roller Washing-Machines; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

The object of our invention is to provide a simple and labor-saving roller washing-machine, one which will not injure clothes.

The nature of our invention will be described below, and pointed out in the claims.

In the drawings, Figure 1 is a front elevation of the whole machine. Fig. 2 is a front elevation in broken section, showing the gears and the manner of turning the upper roll and allowing it to rise without separating the gears. Fig. 3 is a broken detail view of the slotted arm on the small gear-shaft and the crank-arm and pin on the shaft of the upper roll. Fig. 4 is a partial side view of the upper roll, showing the shape of the flutes or ribs.

Like letters refer to like parts.

A represents the frame. B is the upper roll, and C the lower. The said upper roll is one-quarter larger than the lower in diameter—that is, if roll B is four inches in diameter roll C should be three inches, or the ratio of five inches to three and one-half, or thereabout, would answer. Roll B will present about twenty-four inches of rolling-surface to about nine inches for roll C, according to the first dimensions given. Both rolls have flutings or ribs *r r*, which are flat-topped and have beveled or smoothed edges. The ribs on the roll B may be three-eighths of an inch wide, and those on roll C somewhat narrower, if desired. To prevent the flutings from interlocking, each roll has at one end a smooth rim, *r' r'*. To allow thick clothes to pass through, the upper roll has vertical play, its shaft rising in slots *a a* at either side of the

frame. These slots should be of such length as to give at least one and one-fourth inch rise for said roll to answer all reasonable requirements. To advantageously scrub the clothes, it is desirable that the upper roll should be revolved twice as fast as the lower, and it is done as follows: Upon the shaft *x* of roll C is the crank G and the gear D, which latter, being five inches in diameter, turns gear E, of half the diameter of gear D, or two and one-half inches. The short shaft of gear E is journaled in the arms F F', bolted to the end of the frame. At the inner end of said shaft, on *a'*, is keyed an arm, 1, having a rectangular slot, 2, which should be two and one-half or more inches long. On the end of the upper roll-shaft, which is journaled in slots *a a* of frame A, is fastened a crank-arm, 3, having the integral pin 4. This pin passes through slot 2, so that when arm 1 is rotated by the small gear-shaft it rotates the pin 4, arm 3, and the shaft *b* of the upper roll. The slot 2 is made somewhat long to give ample play to pin 4 when roll B rises in slots *a a*, and at the same time the small gear will not be lifted from the larger.

To fasten the machine, the frame is pushed into the tub some four inches.

In order to provide for different-sized tubs, a horizontal piece, K, is provided at the lower left-hand corner of the frame A. This piece has a head, K', which is secured in the horizontal groove N in the frame.

To make the frame wedge in the tub, the lower right-hand side is inclined; also the piece K. The latter is screwed to the frame, and the head K' rests on the rim of the tub. The piece K may be made to fit different tubs by sawing off each end, which shortens the chord the former makes with its side of the tub.

Having fully described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The upper roll having a plain band on one end, and the flat-topped ribs with beveled edges, formed by narrow striations, combined with the lower roll, having a plain band on the opposite end and similar ribs, the frame and the turning-gears, as set forth.

2. The roll C and its shaft x , combined with crank G and gear D, the gear E, of less diameter, having the slotted arm 1 2 on the end of its shaft x' , the crank-arm and pin 3 4 5 on the upper roll-shaft, 3, the upper roll, B, having more diameter than the lower, and the frame A, having slots $a a$, as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

AUSTIN SLY.

HENRY E. GILE.

Witnesses:

SOLON A. PECK,

CHARLES A. DOWNS.