(No Model.) 2 Sheets—Sheet 1.

B. C. WOODROME.

WASHING MACHINE.

No. 375,664. Patented Dec. 27, 1887.

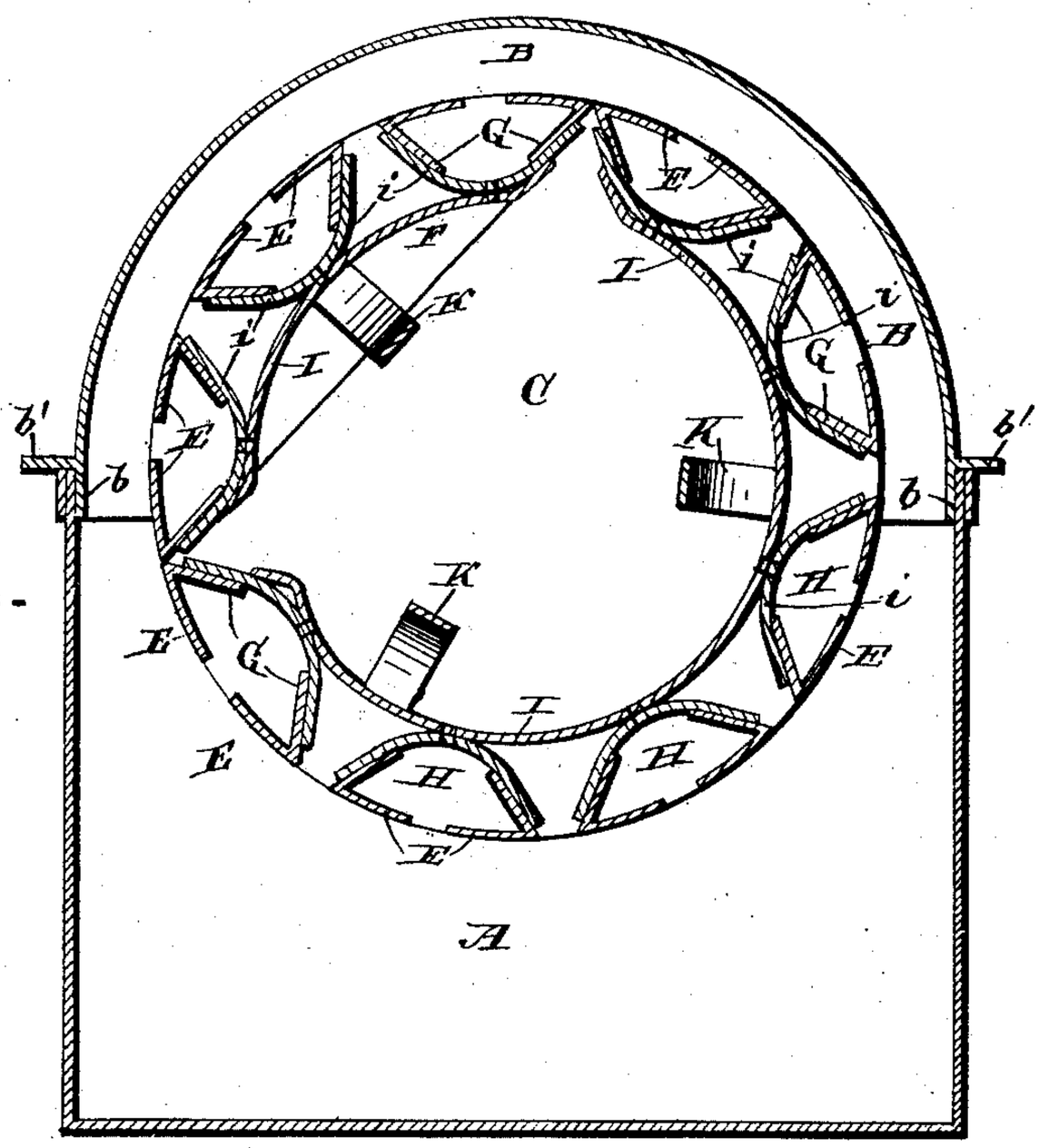

Fig. 1.

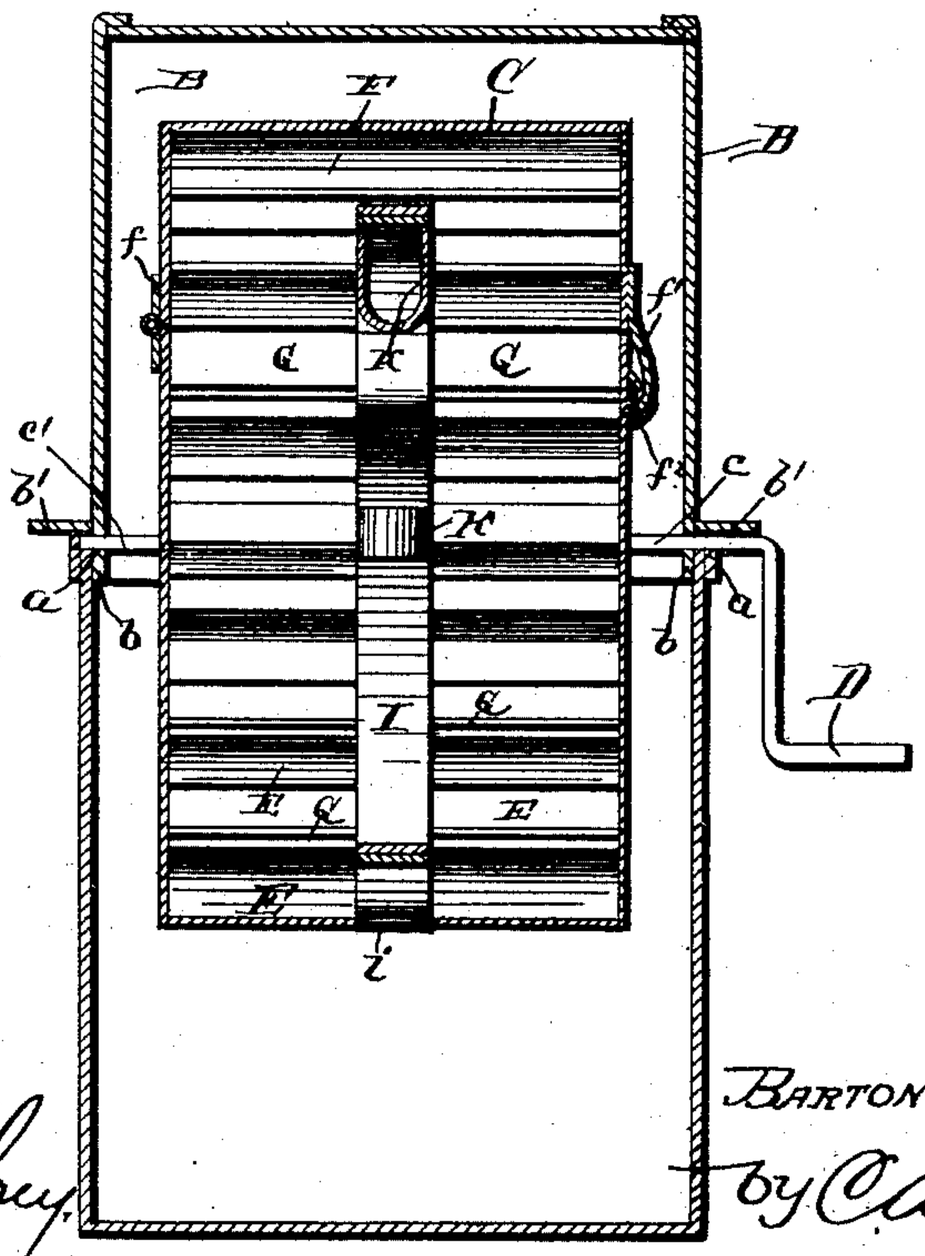

Fig. 2.

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(No Model.) 2 Sheets—Sheet 2.

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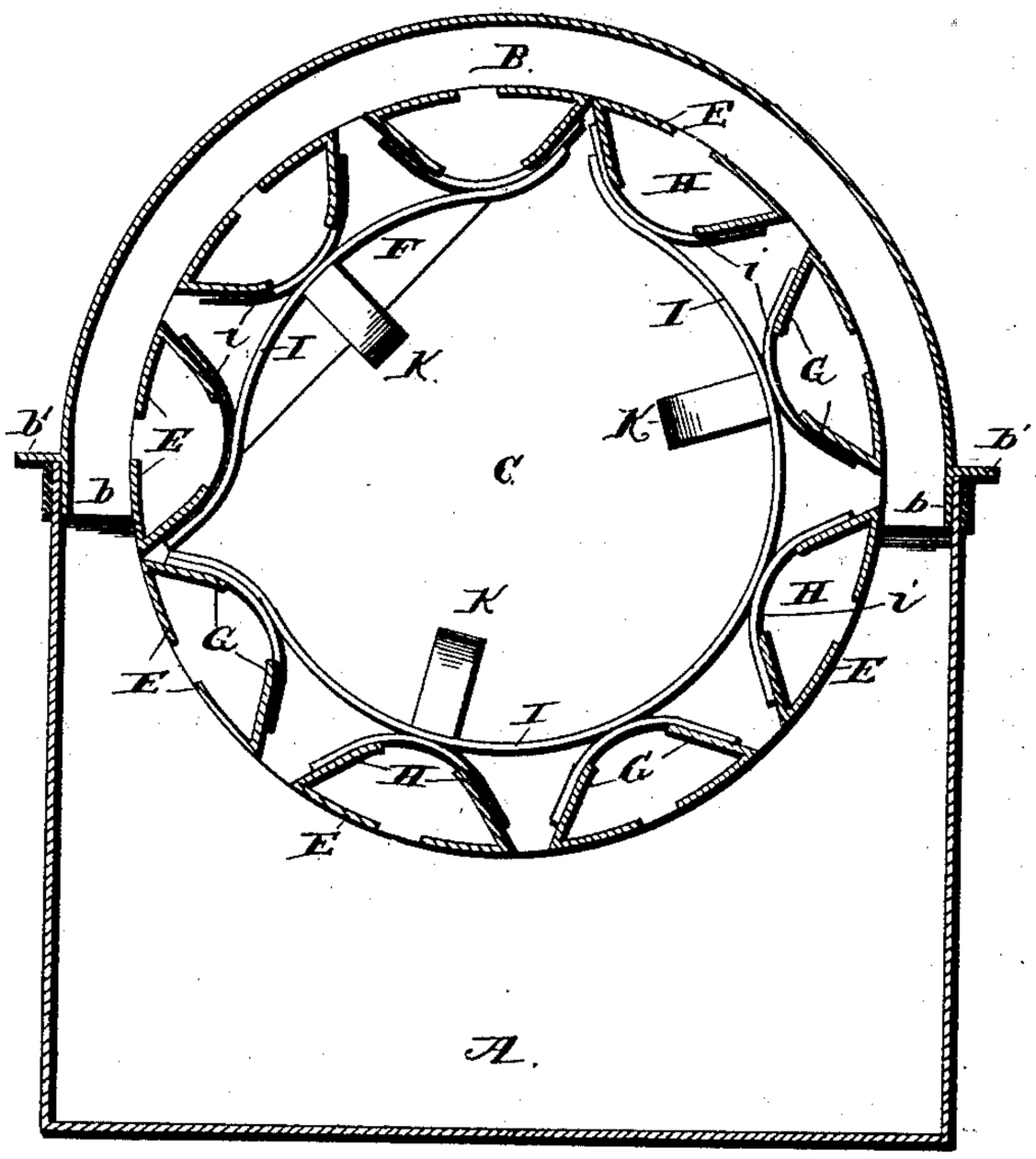
Fig. 3.



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UNITED STATES PATENT OFFICE.

BARTON C. WOODROME, OF WEST PLAINS, MISSOURI.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 375,664, dated December 27, 1887.

Application filed August 12, 1887. Serial No. 246,738. (No model.)

To all whom it may concern:

Be it known that I, BARTON C. WOODROME, a citizen of the United States, residing at West Plains, in the county of Howell and State of Missouri, have invented a new and useful Improvement in Washing-Machines, of which the following is a specification.

My invention relates to improvements in washing-machines in which the cleansing is accomplished by the action of steam and water combined; and it consists in a certain novel construction and arrangement of parts, fully set forth hereinafter, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a longitudinal section through the center of the device. Fig. 2 is a central transverse sectional view of the same. Fig. 3 is a longitudinal section taken on the line *x x* of Fig. 2, and looking toward the center of the machine.

Referring by letter to the drawings, A designates the outer box or boiler, having the journals or bearings *a a* in the upper edges at the sides, and B is a cap or cover curved in longitudinal section to fit on the upper side of the boiler, and having the depending flange *b*, to fit within the upper edge of the boiler, and the lateral flange *b'*, to bear on the upper edge of the same.

C designates an interior revolving drum provided on the sides with the trunnions *c c'*, to bear in the journals *a*, and the trunnion *c* is extended beyond the bearing to form a crank, D, to enable the drum to be rotated. The drum is circular in form, and the periphery thereof is composed of transverse slats or bars E E, having small spaces between them, for a purpose hereinafter explained.

F designates a section of the drum which is separated from the body, and provided on one side with hinges *f f*, and on the opposite side with a spring-latch, *f'*, to engage under a catch or stud, f^2, on the side of the body of the drum.

G represents flanges or bars, which are secured to the edges of the bars or slats E inside of the drum, and the said flanges are inclined inwardly, so as to form buckets or receptacles H H, adapted to receive and hold water. The flanges G are inclined in different directions alternately, so that the open sides of the buckets are presented alternately in opposite directions.

The boiler A is designed to be nearly filled with water, and the drum is rotated in the same, and it will be seen that the lower side of the drum will be continually in the water, while the upper side thereof is above the same. Therefore, when the drum is rotated the buckets become filled with water while in the same, and when they are drawn out and ascend to near the top of the revolution the water will be discharged and will fall straight down. The object in arranging the buckets alternately in opposite directions is that the action will be the same whether the drum is rotated one way or the other.

I designates a ring or band arranged around the center of the drum on the inside and connected by braces *i i* to each of the buckets, so that a strain upon one of them will be distributed by the band to those on both sides, and thus reduce the liability of damage.

K K designate loops or projections on the inside of the band I at intervals around the circumference thereof, the object of which will be explained.

The boiler being filled with water, (boiling,) the clothes are placed within the drum and the hinged section or cover thereof closed and locked, thus forming a circular drum. The drum is now rotated by means of the handle, and the boiling water is carried by the buckets up to the top of the cap or cover B and discharged down upon the clothes. This, as is well known, has the effect of rapidly cleansing the clothes, as the falling water penetrates the same and washes out the dirt very effectually. The clothes are further engaged by the projections or loops and carried up near the top of the device and then allowed to drop; and it will be readily seen that, being saturated with water and steam, they will drop very heavily, and the water and steam will be forced through the fabric, thus aiding materially in the cleansing operation. The clothes are thus continually raised out of the water by the projections on the ring or band, dropped back into the water, (thereby forcing the steam and water through them,) and then drawn through the water and again raised as before; and this, taken in connection with the fact that there is a continual fall of water on the clothes from the buckets, produces a rapid and thorough cleansing of the fabrics.

The boiler may be set on the fire while operating the drum, and thus there will be a concentration of steam in the upper part of the cap or cover B through which the clothes are passed, and this will also aid in the cleansing process.

Having thus described my invention, I claim—

1. The combination, with the boiler A, of the circular drum C, journaled in said boiler, the slats E, arranged transversely on the periphery of the drum, with openings between them, and having the inwardly-inclined flanges G, thereby forming buckets H, having converging sides, the braces *i i*, secured to said converging flanges, and the band I, extending around the inner side of the drum and secured to each of the braces *i*, substantially as specified.

2. In a washing-machine, the combination, with the boiler A, of the drum C, journaled within the boiler, buckets H H, arranged around the periphery of the drum, the ring I within the drum and connected with the said buckets, the projections or loops K K on the said band to engage the clothes, as described, and the crank D, to enable the drum to be rotated, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

BARTON C. WOODROME.

Witnesses:
JAS. L. NICHOLAS,
H. W. CONKLING.