(No Model.)

B. F. BURTNER & C. E. BODLEY.

WASHING MACHINE.

No. 265,570. Patented Oct. 10, 1882.

Fig. 1.

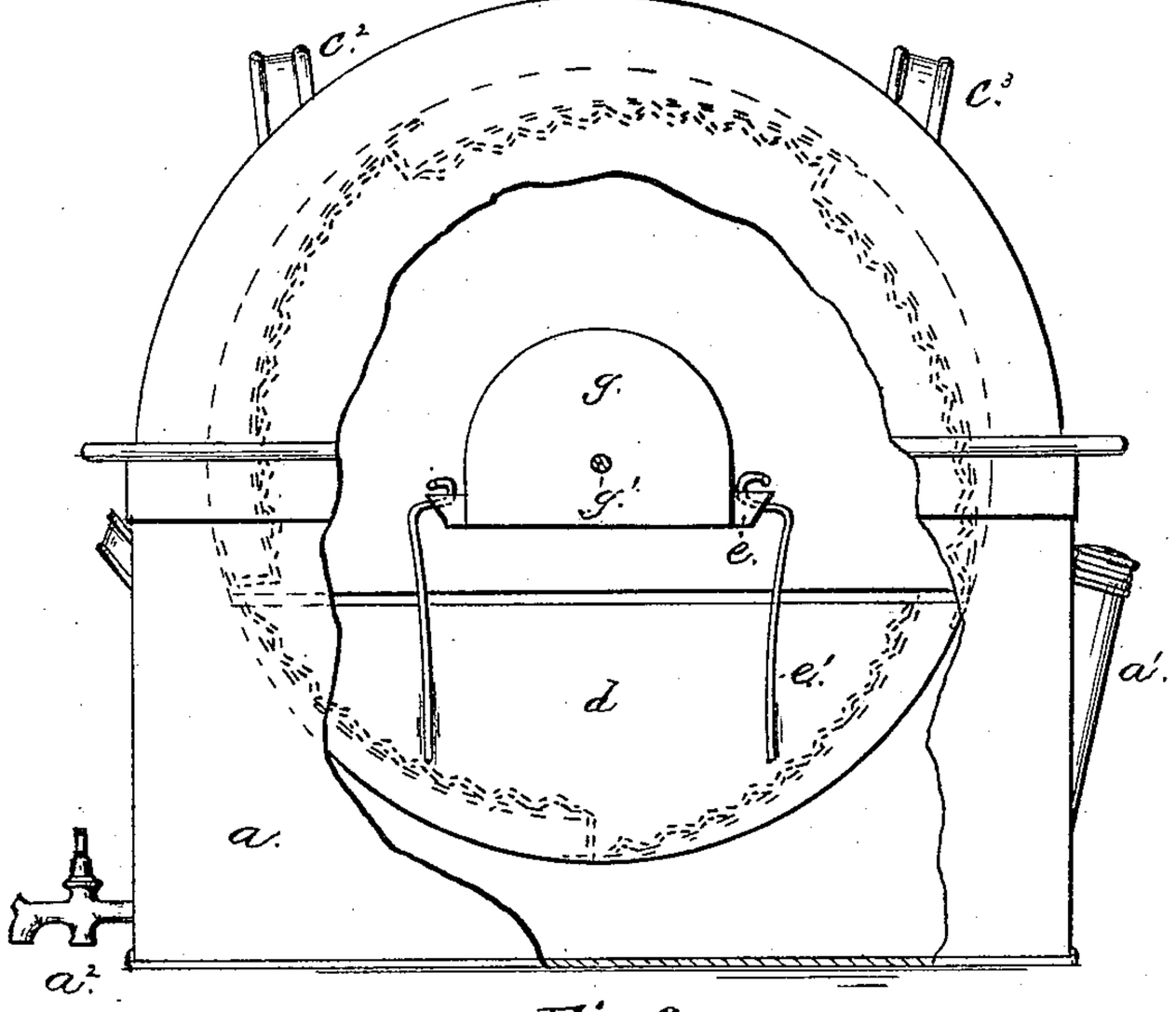

Fig. 2.

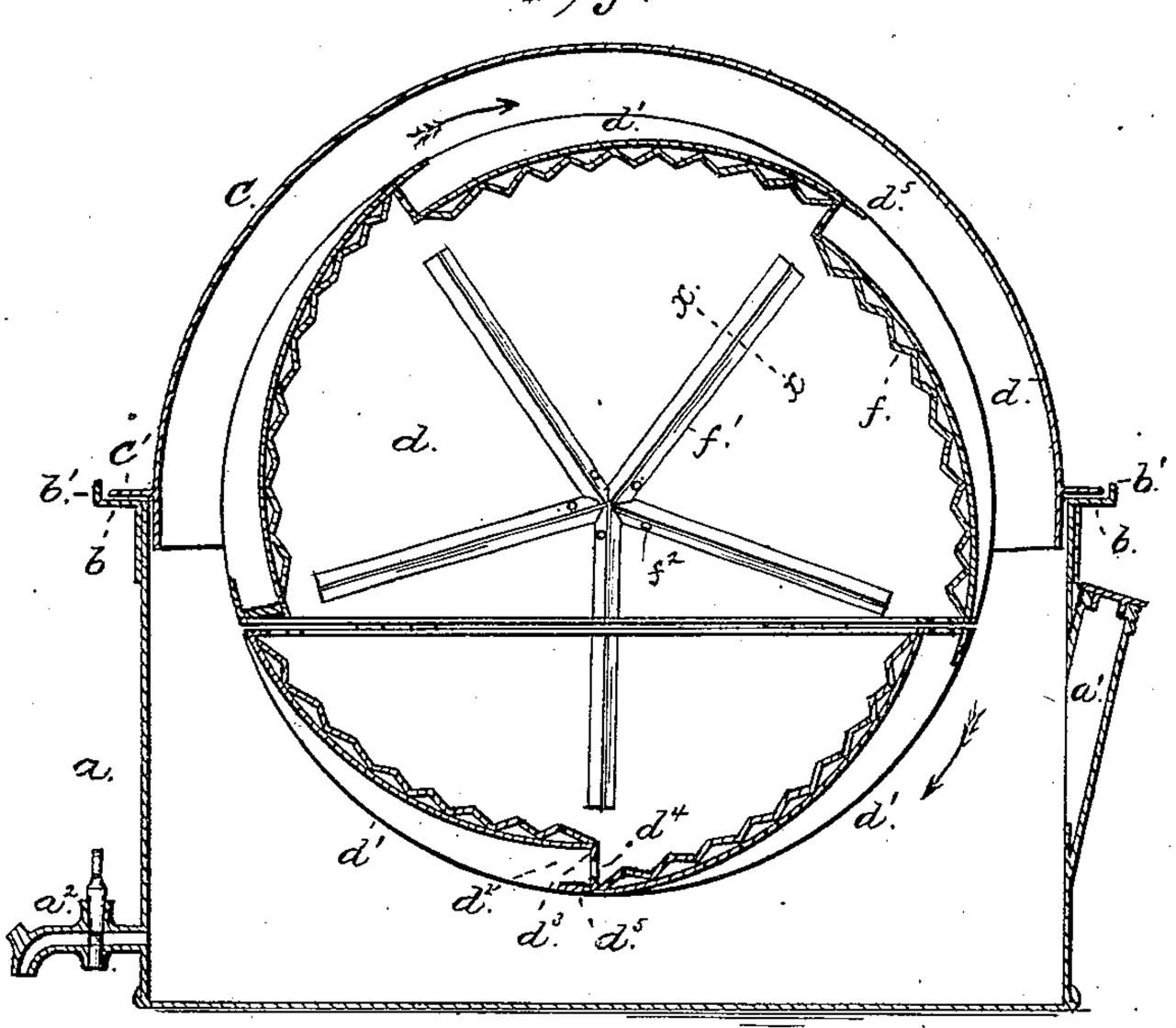

Fig. 3.

Fig. 4.

Witnesses:
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UNITED STATES PATENT OFFICE.

BENJAMIN F. BURTNER AND CHARLES E. BODLEY, OF CHRISMAN, ILLINOIS.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 265,570, dated October 10, 1882.

Application filed May 31, 1882. (No model.)

To all whom it may concern:

Be it known that we, BENJAMIN F. BURTNER and CHARLES E. BODLEY, citizens of the United States, residing at Chrisman, in the county of Edgar and State of Illinois, have invented certain new and useful Improvements in Washing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in washing-machines; and it consists in the construction and arrangement of the several parts, as will be hereinafter fully described and specifically pointed out in the claims.

In the drawings, Figure 1 is a side view, with part of the outer tank broken away; and Fig. 2 is a vertical section of a machine constructed according to our invention. Fig. 3 is a section on line *x x*, Fig. 2, and Fig. 4 is a detail view, showing an elevation of one of the buckets.

a represents a tank, having a tube, *a'*, screw-capped as shown, by which the tank may be filled when the cylindrical clothes-carrier is placed therein, and a stop-cock, a^2, near the bottom of the tank, so it may be readily emptied when desired. In the side of the tank are formed journal-bearings for the gudgeons of the revolving clothes-carrier hereinafter described.

From the top of the tank on all sides we extend the horizontal flange *b'*, having the vertical rim on its edge. This construction serves as a seat for the flange on the lid and serves to retain the steam and water in the boiling tank.

c is the lid, having a flange, *c'*, near its lower end, adapted to be set down on flange *b'*.

c^2 c^3 are handles for raising the lid. This lid, in connection with the tank, provides a complete casing for the cylindical clothes-carrier hereinafter described.

d represents the cylinder into which the clothes to be washed are introduced, the body of which is made preferably of zinc, and mounted upon journals *g'* with exact central bearings, to one of which the crank is attached. The periphery of this cylinder is composed of a series of eccentric segments, *d'*, each of which has its forward or outer end, d^5, extended over the rear or inner end of the next segment in front thereof.

d^3 is a plate having its inner end secured to the rear end of the segment and extended in a true radial line to the under side of the next segment in rear thereof and connecting the adjacent sections, as shown. We provide this plate with a series of openings, d^4, through which the water passes as it is raised in the operation of the device. With the portion d^5, rear of segment, perforated radial plate d^3, and the ends of the cylinder we provide a bucket, d^2, which raises the water in the operation of the device. By this construction we secure a constant and uniform diffusion of the water and steam to all the mass of clothes within the cylinder. The ends of the cylinder form the sides of the bucket d^2. When the top plate, d^5, is not employed we have a thorough drenching of the clothing as each section is passing through the water; but its use provides a bucket which raises water above the surface of the water in the tank and drenches the clothing through openings d^4 during a great portion of the revolution of the cylinder.

f represents a longitudinally-fluted surface or wash-board, formed on and covering the inner side of each segment, and composed of rubbers extended from end to end of the cylinder. These rubbers are arranged close to the openings through radial plate d^3, and, in addition to their rubbing effect on the clothes, secure a more beneficial diffusion of the water as it is dashed through the openings d^4 than is otherwise secured.

f' represents radial pipes secured to the inner sides of the ends of the cylinder converging at the center thereof and open at their outer and provided with holes f^2 near their inner or meeting ends. These pipes correspond in number to the plates d^5, and are arranged in line therewith, with their outer ends opening close to the inner end of said plates, as shown. Thus in the operation of the device as the cylinder is revolved water enters the openings f^2, and by the centrifugal force is thrown out at the open ends, and, striking the water coming through openings d^4, the two volumes combine, forming a large body, which is thrown on the clothing, giving a better result than is attained by the smaller volume.

The plates *g* on each side of revolving cylinder should be of good size and approved material, to give strength and prevent oxidation, as it is to these the gudgeons *g'* are attached on which the cylinder is mounted.

The cylindrical clothes-carrier is by preference composed of two sections hinged together on one side, and provided on the opposite side with locking mechanism. In the construction shown we employ stops *e* on one section, fixed to journal plates, *g*, and having their under sides beveled and arranged in position to engage spring-bars *e'*, secured on the opposite sections, the said spring-bars having their upper ends bent and arranged to embrace stops *e*, as shown in Fig. 1. The joint of the two sections is preferably across, next two of the plates d^3, and at this point we construct both sections with plates d^3, having the openings d^4 and coincident, as shown in Fig. 2, so that being held close to one another when the sections are brought together they form practically a single plate, as shown.

In the operation of the machine it is preferably seated on a stove or furnace and water placed in the tank *a*. The clothing to be washed is placed in the cylinder *d*, and the said cylinder is revolved by crank connected to one of the gudgeons, *g'*, in the direction of the arrows. It will be seen that when so revolved the clothing is thoroughly steamed through one set of openings while being drenched with water through another; also, that by the peculiar construction of the interior of the cylinder, the clothing cannot be caught and torn or otherwise injured as the said cylinder is revolved.

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

1. In a rotary washing-machine, the carrier *d*, composed of a series of eccentric segments, *d'*, each having its forward and outer end projected over the rear and inner end of the next segment placed in front thereof, the radial plates d^3, having their inner edges secured to the rear ends and their outer edges secured to the outer ends of the adjacent segments and closing the intervening space between the overlapping ends thereof, the plates d^3 being perforated by a series of small openings, d^4, and secured to the outer ends of the segments slightly in rear of the end, whereby a projection, d^5, is provided, substantially as set forth.

2. The combination, in a washing-machine, of the eccentric segments *d'*, the plates d^3, perforated with a series of openings, d^4, and secured to and closing the intervening space between the overlapping ends of the segments, and the longitudinally-fluted surfaces *f*, arranged substantially as and for the purposes set forth.

3. In a rotary washing-machine, the combination, with the eccentric segments *d'*, having their ends overlapped and secured together by radial plates d^3, of the series of radial pipes *f*, having their outer open ends near to and in the same radial line with the radial plates d^3, substantially as set forth.

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

BENJAMIN F. BURTNER.
CHARLES E. BODLEY.

Witnesses:
JOHN W. CRAWFORD,
W. S. WALTRISS.