

R. WOOD.
Boiler Washing-Machines.

No. 152,313.

Patented June 23, 1874.

Fig. 1

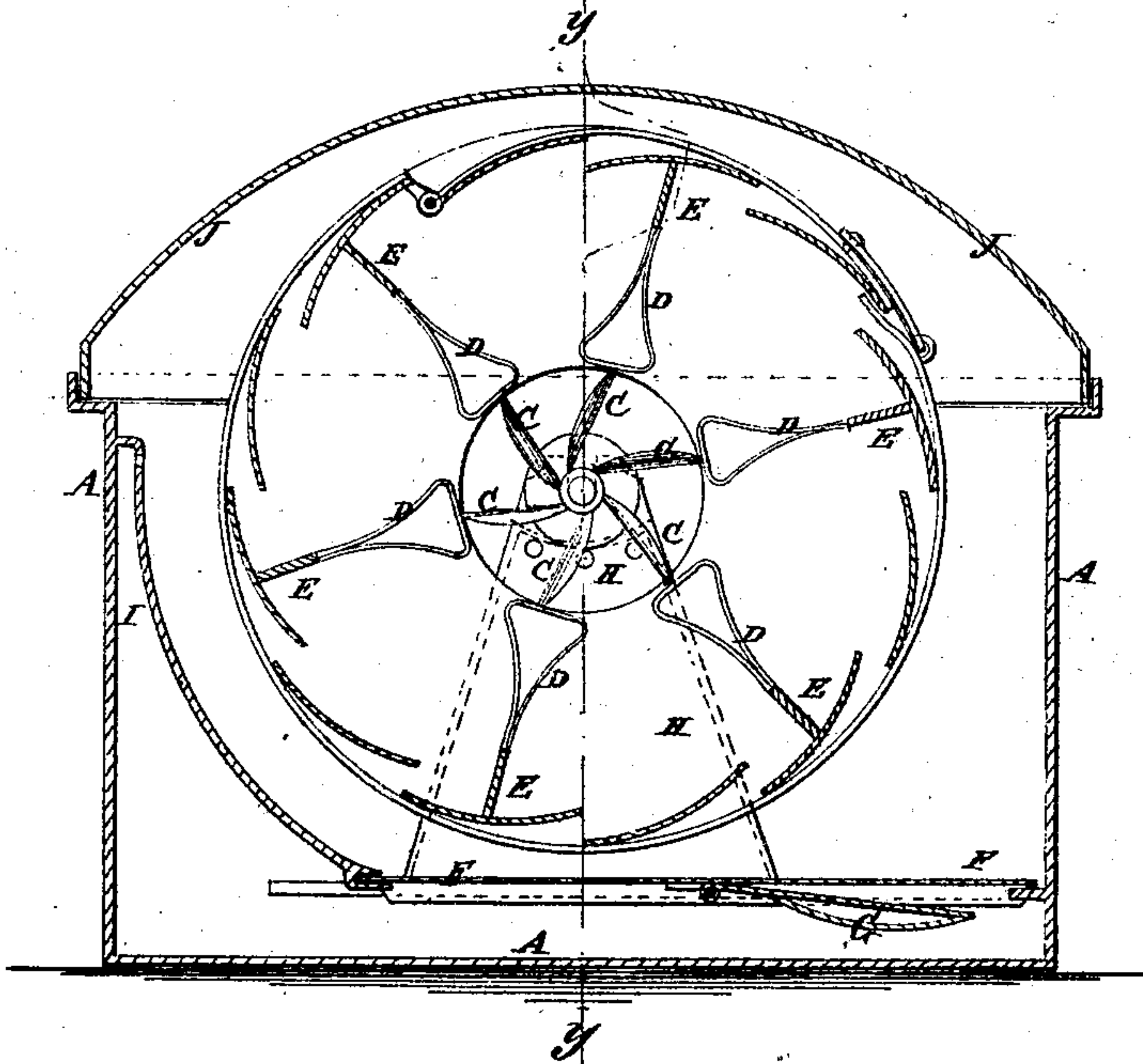
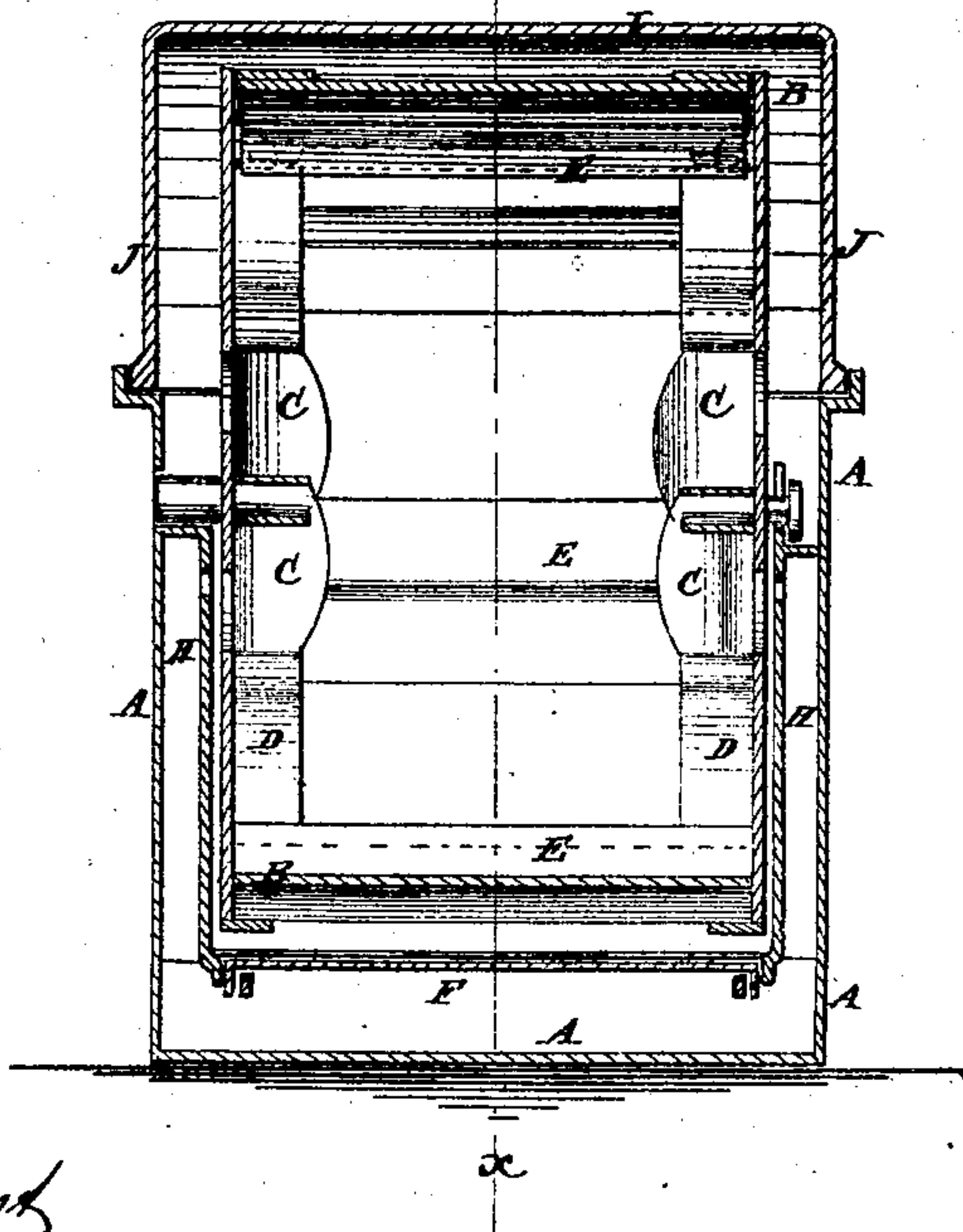


Fig. 2



WITNESSES:

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UNITED STATES PATENT OFFICE.

REUBEN WOOD, OF GRAND LEDGE, MICHIGAN.

IMPROVEMENT IN BOILER WASHING-MACHINES.

Specification forming part of Letters Patent No. **152,313**, dated June 23, 1874; application filed May 1, 1874.

To all whom it may concern:

Be it known that I, REUBEN WOOD, of Grand Ledge, Eaton county, Michigan, have invented a new and useful Improvement in Boiler Washing-Machine, of which the following is a specification:

Figure 1 is a vertical longitudinal section of my improved washing-machine, taken through the line *x x*, Fig. 2; and Fig. 2 is a vertical cross-section of the same, taken through the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved washing-machine, which shall be so constructed that the steam and hot suds may be poured upon the clothes while they are in agitation and constantly changing their places, and may flow off, carrying the dirt with it, and may leave the dirt in the bottom of the boiler, so that it will not again be carried up and deposited upon the clothes.

The invention relates to the combination and construction of parts, as indicated in the claims, and hereinafter described.

A is a boiler, which may be of any convenient size, according to the amount of clothes to be washed at a time. B is a hollow drum or cylinder, the journals of which revolve in bearings attached to the upper part of the sides of the boiler A. In the side of the boiler A, opposite the end of one of the journals, is formed a hole to enable the crank to be conveniently attached to said journal. The heads of the drum are made ring shape, or have a circular hole formed in their centers, and are connected with the journals by concave wings C, as shown in Figs. 1 and 2. From the outer ends of the wings C arms or flanges D lead to the shell of the drum. The flanges D are made broad near the wings C, and narrower toward the shell of the drum, and their ends are connected by cross-flanges E, which extend along the shell of the drum from end to end. The shell of drum B is made in section, the adjacent edges of which are at a little distance from, and slightly overlap, each other, so that the water may flow through readily. A part of the shell of the drum B is detached, and is hinged at one edge, and secured at the other edge by a hook or other convenient

fastening, for convenience in putting in and taking out the clothes. The boiler A is made with a detachable false bottom, F, in which is formed an opening, closed by a valve, G, opening downward, and made hollow, so that it may be closed by the pressure of the boiling water, and opened by the weight of the water in the boiler when that weight exceeds the upward pressure. In the sides of the boiler A are formed passages H, leading from the space below the false bottom F, and terminating just below the journals of the cylinder B, where they have a number of small holes formed in their sides, through which the steam and hot water may be discharged upon the clothes through the openings in the heads of the cylinders B. I is a passage, leading up at the end of the boiler A from the space beneath the false bottom F, and having holes in the upper part of its side, through which water and steam may be discharged upon the clothes through the spaces between the edges of the section of the shell of the drum B.

The passages at the sides and end of the boiler may be both used, or either, as may be desired.

By this construction, as the cylinder B is revolved, the clothes will be carried up by the wings and flanges C D E nearly to the top of the cylinder, when they will give way in the middle of the mass, and fall back into the bottom of the cylinder, so that they will be all the time changing their position, and all the time will have streams of steam and hot water discharged upon them, so that they will be washed clean in a very short time.

The water, as it flows back into the space beneath the false bottom F carries with it the dirt taken from the clothes, and leaves it there, so that very little of said dirt will again be thrown upon the clothes.

The boiler A is provided with a closely-fitting semi-cylindrical cover, J, to confine the steam and water while the washing is being done.

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

1. The combination, with the case or boiler

Δ, having false apertured bottom F, and the passage I with outlets, of the rotary cylinder, having radial plates or arms D, cross plates or flanges E, and a periphery formed of sections, arranged to overlap, with spaces between them, as shown and described.

2. The combination, with case or boiler Δ, having false apertured bottom F, and side

passage H with the rotary cylinder, having openings around the axis, and flanges C arranged thereat, to operate as shown and described.

REUBEN WOOD.

Witnesses:

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