

J. W. ESTES.  
Washing-Machine

No. 220,590.

Patented Oct. 14, 1879.

Fig. 1.

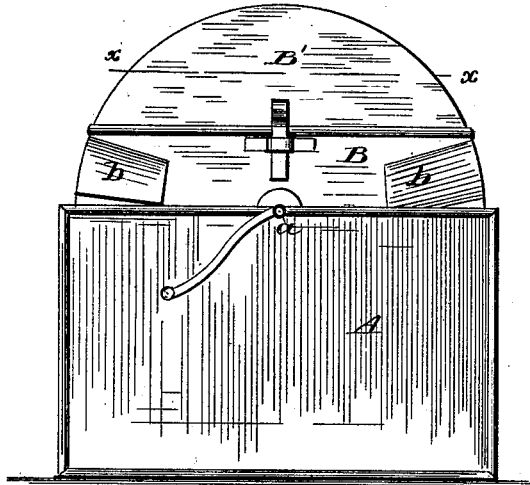


Fig. 2.

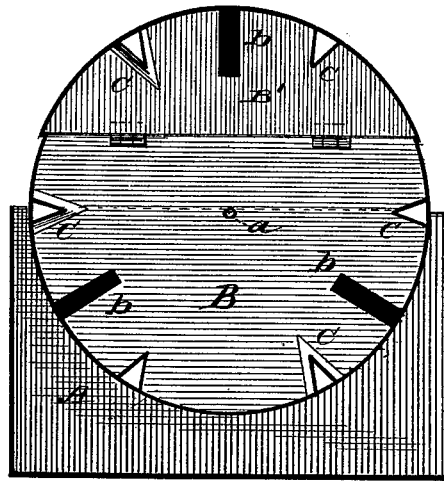


Fig. 3.

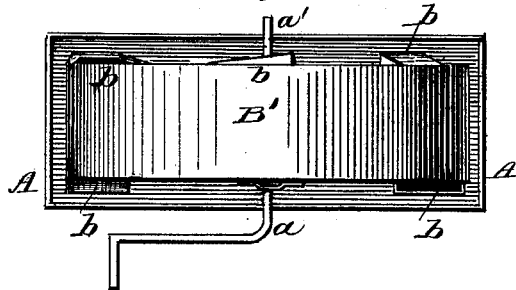
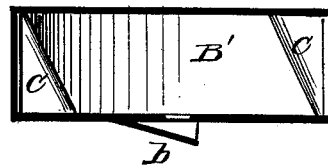


Fig. 4.



Witnesses  
Ed. G. Dieterich  
George Binkenburg

Inventor  
John W. Estes  
By Louis Baggett & Co.  
Attorneys

# UNITED STATES PATENT OFFICE

JOHN W. ESTES, OF BELTON, MISSOURI.

## IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **220,590**, dated October 14, 1879; application filed April 7, 1879.

### *To all whom it may concern:*

Be it known that I, JOHN W. ESTES, of Belton, in the county of Cass and State of Missouri, have invented certain new and useful Improvements in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side elevation of my improved washing-machine. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is a plan view thereof, and Fig. 4 is a detailed sectional view through the line *xx* of Fig. 1.

Corresponding parts in the several figures are denoted by like letters.

This invention relates to certain improvements in washing-machines of that class which consist of a wheel or cylinder hung in a suitable receptacle holding water; and it consists in providing the rotating drum or cylinder with internal peripheral rubbers or beaters, arranged each alternate one with its inclined rubbing-surface extending in an opposite direction to accomplish both the rubbing and turning of the articles being washed simultaneously, the water being supplied to the drum or cylinder by means of buckets or chutes, substantially as hereinafter more fully set forth.

In the drawings, A refers to a water-holding receptacle or vessel, in which the wheel or cylinder B is hung. The wheel or cylinder B is hung in position by means of a crank-shaft, *a*, by which it is also operated, and by means of a short axis, *a'*, projecting from the opposite side of the wheel.

In the sides of the wheel or cylinder are chutes or buckets *b b* for supplying the same with water. For conveniently introducing the clothes or articles to be washed the wheel or cylinder is formed with a hinged section, B'.

To the interior of the periphery of the wheel are supplied a series of inclined rubbers or beaters, C C, the inclination of each alternate one extending in an opposite direction to the preceding one, by which the twofold purpose of simultaneously rubbing and turning the articles being washed is effected in order to thoroughly wash or cleanse the articles.

I am aware that machines of this class have been made before with chutes or buckets in the heads of the drum for conveying water to the inside, and also that deflectors have been used in this class of machines for the purpose of deflecting the water and turning the clothes as the drum is being rotated; nor do I claim either of these constructions broadly; but

What I claim as my improvement, and desire to secure by Letters Patent of the United States, is—

The combination, with the water-receptacle or boiler A, of the rotary drum or cylinder B' B, provided with buckets *b*, alternating with combined rubbers and deflectors C, arranged upon the inner periphery of the drum in such a manner that their inclined faces point alternately in opposite directions, substantially as set forth.

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

JOHN WILLIAM ESTES.

Witnesses:

L. M. TRUMBULL,  
G. W. SMOOTE.