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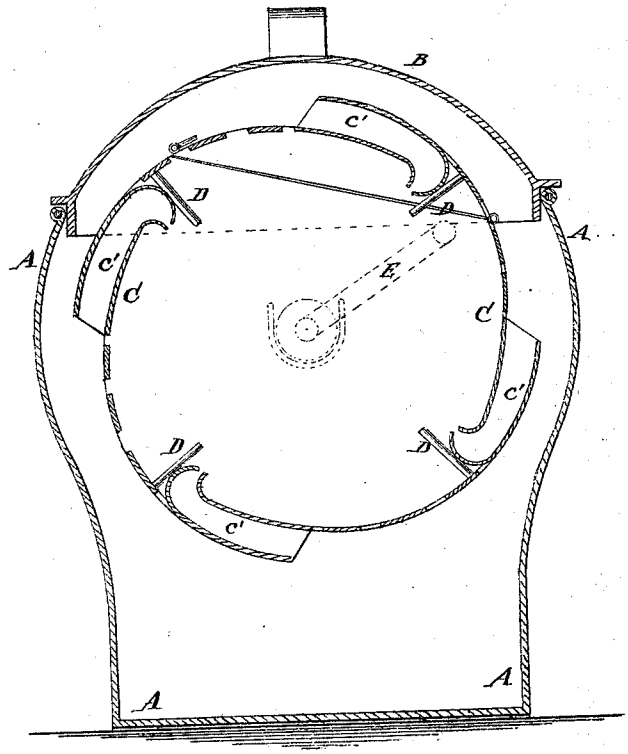
I. J. WELLS.

Improvement in Washing Machines.

No. 122,792. Patented Jan. 16, 1872.



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UNITED STATES PATENT OFFICE.

ISAAC J. WELLS, OF SPRING VALLEY, NEW YORK.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 122,792, dated January 16, 1872.

Specification describing a new and useful Improvement in Washing-Machine, invented by ISAAC J. WELLS, of Spring Valley, in the county of Rockland and State of New York.

The figure is a detail vertical cross-section of my improved machine.

My invention has for its object to furnish a simple, convenient, and effective washing-machine which shall be so constructed as to wash the clothes quickly and thoroughly and without injuring them; and it consists in the washing-cylinder and boiler, constructed as hereinafter more fully described.

A is the boiler, the lower part of which is made in the ordinary manner. The upper part of the sides of the boiler A swell or bulge, as shown in the figure, so as to have a curve corresponding with the curve of the washing-cylinder. The boiler A is provided with a cover, B, in the ordinary manner, but which should curve so as to be a continuation of the curve of the sides of the boiler A, as shown in the figure. This construction adapts the boiler to receive a larger cylinder, while taking up no more space upon the stove than would be possible with an ordinary boiler, and at the same time allows the cylinder to be placed longitudinally in said boiler. C is the washing-cylinder, upon which are formed buckets *c'* which extend the entire length of the cylinder, and any desired number of which may be used, according to the size of the cylinder. The lower edges of the inner and outer walls of the buckets *c'* are curved inward, project within the wall of the cylinder, and are drawn together so that the discharge-slots of said buckets *c'* may be narrower than their ingress-slots or mouths. The buckets *c'* are made deep, as shown in the figure, so as to contain a comparatively-large amount of water, which water escapes gradually through the narrow discharge-slots as it is forced out by the weight of the water in the buckets as the cylinder is revolved, so as to be projected upon the clothes. The outer wall of each bucket *c'* gradually approaches the axis of the cylinder, so that the outer wall of each bucket and the inner wall of the succeeding bucket may be a continuous spiral curve, as shown in the figure, the outer edges of the mouths of all the buckets being at the same distance from the axis of the cylinder. The walls of the cylinder C, between the buckets *c'*, are slotted, as shown in the figure, to allow the water to escape freely from said cylinder. D are pins which are attached to the wall of the cylinder, to the curved inwardly-projecting part of the outer wall of the buckets *c'*, and should be connected with the inwardly-projecting part of the inner walls of the said buckets. This latter connection, which is not shown in the drawing, is designed to strengthen the pins D and at the same time to prevent the discharge-slot from being widened by the pressure of the water in said buckets. The pins D, any desired number of which may be used, are designed to stir the clothes and prevent them from being rolled into a compact roll by the revolution of the cylinder C. By this construction the water will be taken up by each bucket in a solid sheet, and will be discharged gradually upon the clothes as the cylinder revolves, said discharge continuing until the bucket has reached the upper part of the cylinder. The cylinder C is made in two unequal parts, which are hinged to each other at one edge and are connected at their other edges by a sliding bolt or other convenient fastening, so that the smaller part may serve as a door for the convenient insertion and removal of the clothes. The ends of the cylinder C are pivoted to the boiler A, one of said pivots having a crank, E connected with it through the wall of the boiler A, for operating said cylinder. The cylinder C may be pivoted to the boiler crosswise or lengthwise, as may be desired. The latter arrangement I prefer, as greatly increasing the working capacity of the machine.

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

1. The washing-cylinder C provided with buckets *c'*, constructed and operating substantially as herein shown and described, and for the purpose set forth.

2. The combination of the stirrer-pins D with the washing-cylinder C *c'*, substantially as herein shown and described, and for the purpose set forth.

ISAAC J. WELLS.

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