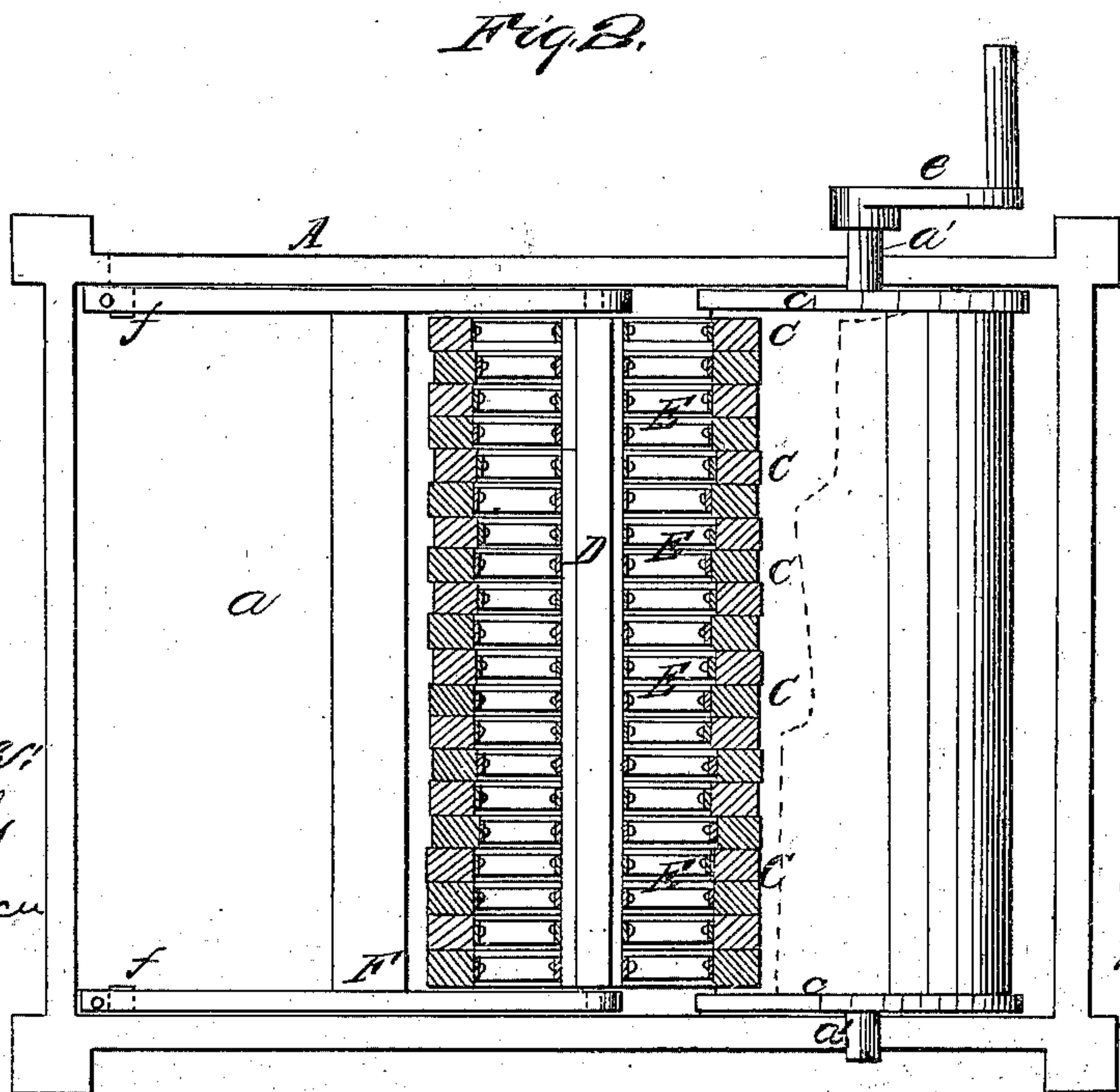
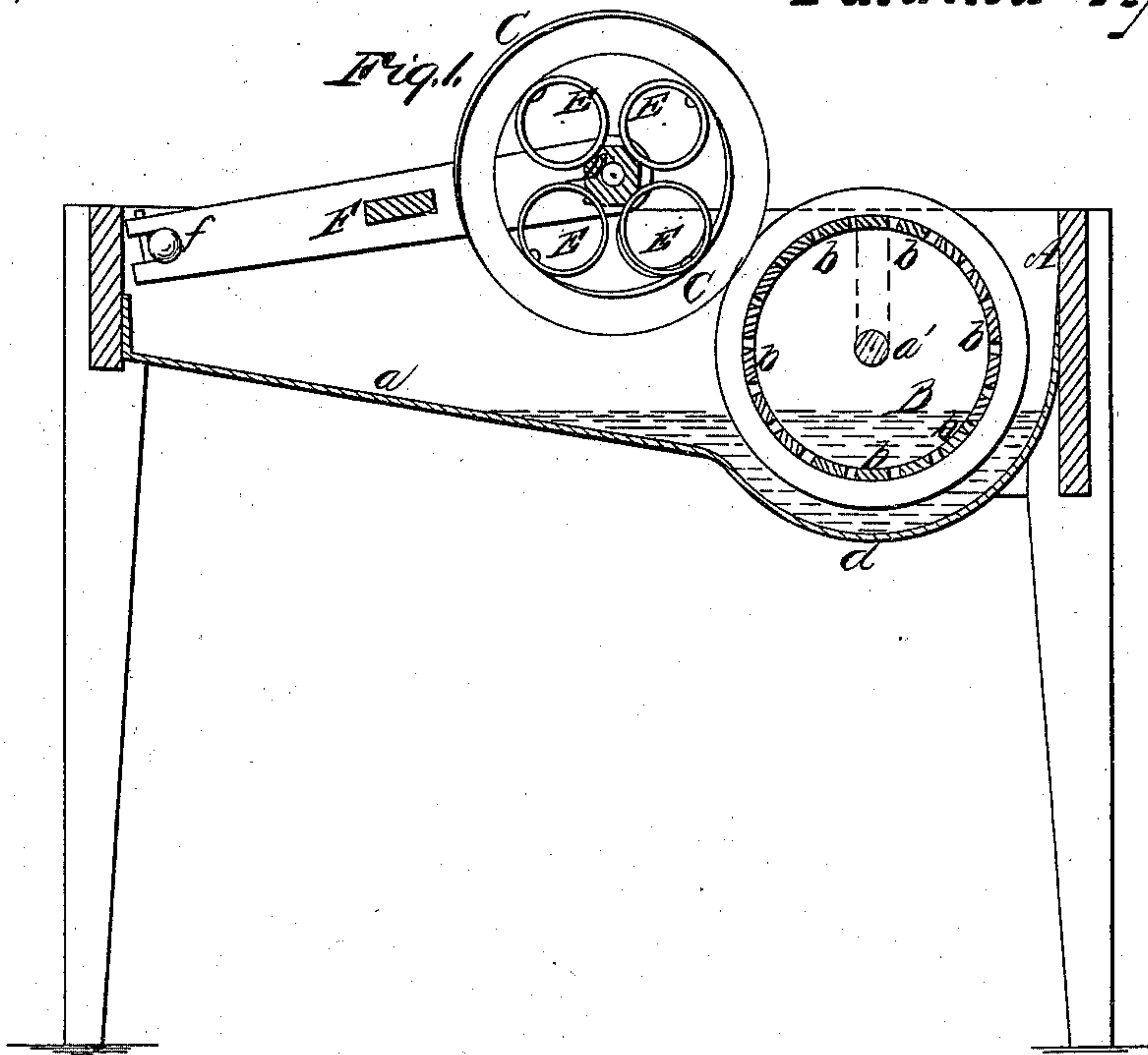


E. T. Shepard,
Washing Machine,
Nº 32,150. *Patented Apr. 23, 1861.*



Witnesses:
J. W. Coombs
R. S. Spencer

Inventor:
E. T. Shepard
per Munroe & Co.
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UNITED STATES PATENT OFFICE.

E. T. SHEPARD, OF GALLIPOLIS, OHIO.

WASHING-MACHINE.

Specification of Letters Patent No. 32,150, dated April 23, 1861.

To all whom it may concern:

Be it known that I, E. T. SHEPARD, of Gallipolis, in the county of Gallia and State of Ohio, have invented a new and Improved Washing-Machine; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1, represents a longitudinal vertical section of this invention. Fig. 2, is a plan or top view of the same.

Similar letters of reference in both views indicate corresponding parts.

This invention consists in the arrangement of a series of rings each of which is supported by four (more or less) springs secured around the circumference of a rotary shaft having its bearings in a swinging frame in combination with a slatted rotary clothes cylinder in such a manner, that the several rings bear on the surface of the clothes wrapped around the slatted cylinder, and that on rotating the said cylinder the clothes are carried through under the rings, which latter by means of the springs supporting them accommodate themselves to the inequalities in the surface of the clothes.

To enable those skilled in the art to make and use my invention I will proceed to describe its construction and operation with reference to the drawing.

The box or tube A, is made square or rectangular and of any convenient size. The bottom *a*, is inclined toward the front end of the tub causing the water to collect under the main cylinder. The main cylinder B, rotates on trunnions *a'*, which have their bearings in slots in the sides of the tub and its surface is constructed of a series of slats *b*, which are secured at small distances apart in the disks *c*, forming the ends or heads of the cylinder. These disks project beyond the outer surface of the slats and the cylinder rotates in that end of the tub which is the deepest and which may be provided with a cavity *d*, so as to increase the depth of the water under the cylinder, as clearly shown in Fig. 1 of the drawing. This cylinder, which is rotated by means of a crank *e*, or in any other convenient manner, receives the

clothes to be washed, said clothes being wrapped around the cylinder in such a manner, that one piece holds the other.

The washing is effected by the action of a series of rings C, which are secured to a rotary axle D, by means of springs E, as clearly shown in Fig. 1. These springs are arranged side by side so that they form a continuous cylinder as clearly shown in Fig. 2, and if no pressure is exerted on either of the rings, the surface of the cylinder formed by them is even and unbroken. A sufficient number of rings are employed to fill out the space between the disks *c*, of the main cylinder B, and said rings may either be placed close together or at small distances apart as may be desired.

The axle D, has its bearings in a frame F, which swings on pivots *f* secured in the sides of the tub in such a position, that the rings C, when left to follow their gravity, bear down on the surface of the main cylinder as clearly shown in the drawing.

The operation is as follows: A small quantity of water is poured into the tub just sufficient to pass through the spaces between the slats *b*, into the interior of the main cylinder, and the clothes are wrapped around said cylinder as previously stated. The frame F, is now turned down so that the rings C, bear on the clothes, and the main cylinder is rotated. The clothes are thereby carried through under the rings C, and the friction of said rings on the clothes together with the pressure exerted by them and the motion of the clothes through the water effects the washing.

The principal advantage of this invention is that the rings C, yield to any irregularities which may occur in the surface of the clothes, each ring being capable to recede independent of the rest, so that a uniform pressure is exerted on every part of the clothes. Furthermore the danger of tearing off or breaking buttons is entirely obviated.

By this machine the washing of all kinds of clothes can be effected without the least injury to the fabric and all its parts are so constructed, that they do not easily get out of order.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent; is,

The arrangement of a series of rings C,
5 secured to a rotary axle D, by means of
springs E, and suspended in a swinging
frame F, in combination with the rotary

slotted cylinder B, constructed and operating substantially in the manner and for the purpose shown and described.

E. T. SHEPARD.

Witnesses:

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