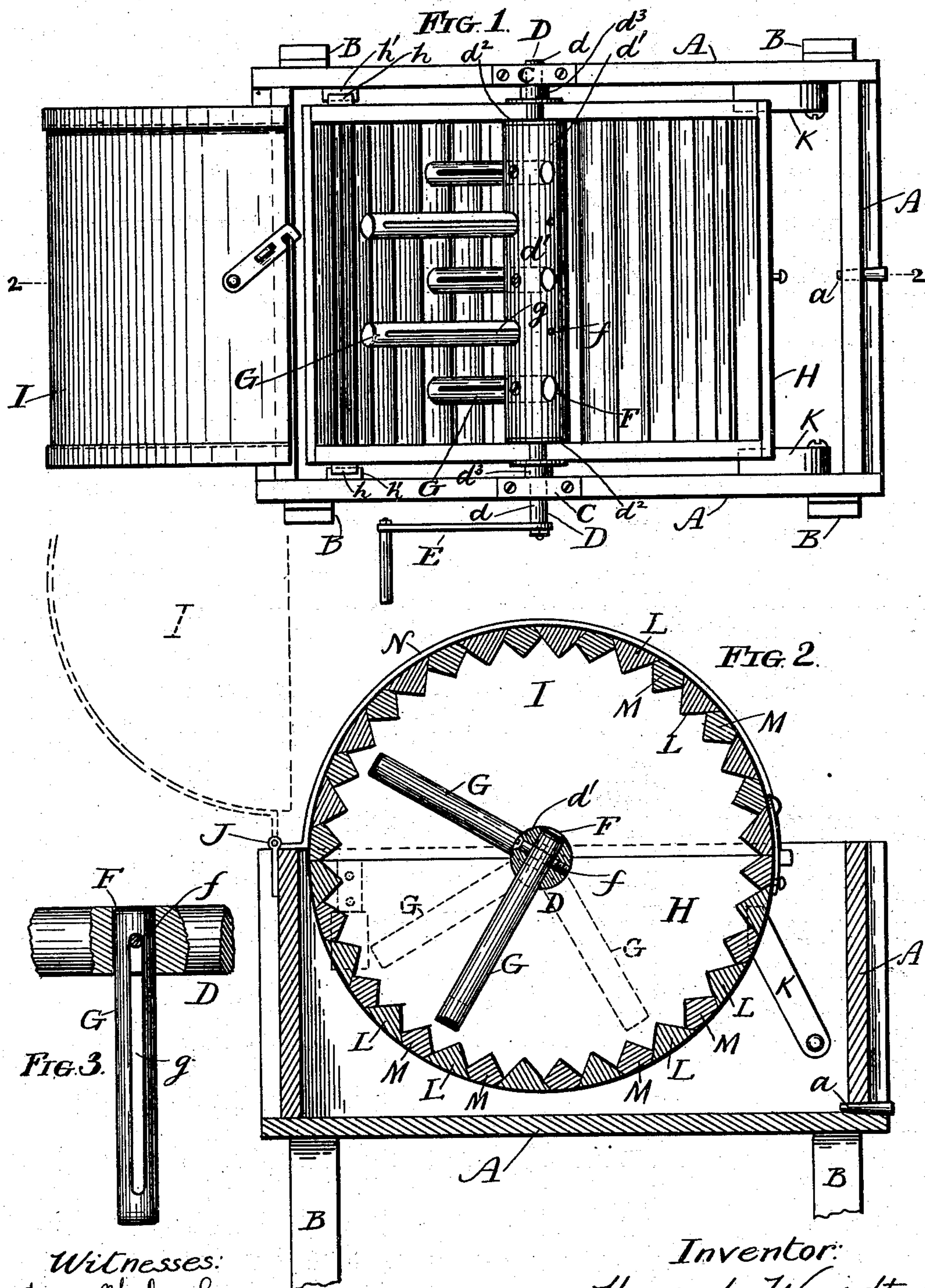


(No Model.)

H. DE WEERDT.
WASHING MACHINE.

No. 503,779.

Patented Aug. 22, 1893.



Witnesses:
Anne M. Cooper.
J. Halpern.

Inventor:
Henry de Weerd
By Gridley Hopkins
His Atty's.

UNITED STATES PATENT OFFICE.

HENRY DE WEERDT, OF CHICAGO, ILLINOIS.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 503,779, dated August 22, 1893.

Application filed February 13, 1893. Serial No. 462,068. (No model.)

To all whom it may concern:

Be it known that I, HENRY DE WEERDT, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Washing-Machines, of which the following is a specification, reference being had to the accompanying drawings, which are made a part hereof, and in which—

Figure 1 is a plan view of the improved washing machine with the cover of the drum thrown back. Fig. 2 is a vertical section of the improved washing machine with the cover of the drum in place, the plane of the section being indicated by the line 2—2, Fig. 1. Fig. 3 is a fragmentary view showing some of the parts in detail and on a larger scale.

The object of the present invention, generally stated, is to improve the construction of washing machines, and to this end the invention consists in certain features of novelty that are particularly pointed out in claims hereinafter.

In the drawings A represents a box, which is supported by suitable legs B, and at or near the bottom thereof has an opening for the escape of water, a plug *a* being provided for closing it when desired. Journaled in suitable bearings C and supported by the sides of the box A is a shaft D, provided upon the outside of the box with a crank E for turning it. This shaft, as shown in the drawings, is made up of two round rods *d*, and a cylinder *d'*, of somewhat greater diameter than said rods, each of the rods being secured to one end of the cylinder by means of a plate or disk *d*². The shaft thus constructed is held against endwise movement by means of flanges *d*³, which have contact with the inner faces of the sides of the box A. The shaft is provided with a number of openings F, each of which openings extend diametrically through the shaft, and in each of which fits loosely a rod G having a longitudinal slot *g*, through which slot passes a pin *f* supported by the shaft. This arrangement is such that as the shaft rotates, and as the rods *g* successively approach a vertical position, they slip endwise through the shaft, as indicated by dotted lines in Fig. 2. As shown in drawings, I have so arranged these rods that one series project from the

shaft at right angles to the other series, but my invention is not necessarily limited to this particular arrangement.

The rods or beaters G are inclosed within a drum, formed in two half sections H and I, the former of which is located within the box A and is suspended from the shaft D in such manner that when desired it may be inverted so as to dump its contents into the box A. In order to hold it in the position shown in the drawings it is provided on its sides with projections *h* that come in contact with the top sides of similar projections *h'* on the box A. These projections prevent the lower half of the drum from moving in one direction; and struts K, pivoted to the box A and engaging notches in the drum upon the opposite side of its center of motion, prevent it from moving in the other direction. The upper half I of this drum is connected, by a suitable hinge J, with the box A, so that it may be placed either in the position shown by full lines in Fig. 2; i. e., resting upon the lower half H, or it may be thrown back as indicated by dotted lines in said figure, and as shown by full lines in Fig. 1, giving access to the interior of the part H.

The drum is constructed of a pair of heads and a number of slats or strips L and M. Each of the heads is formed in two half sections, and has in its periphery a number of V-shaped notches. A cross-section of one of the strips L presents a triangle, and a cross-section of one of the strips M presents a truncated square. The strips M are placed in alternate notches of the heads with their V-shaped sides inward, and said strips are of such size and shape that their inner sides fill the notches in which they fit, and their sides adjacent these inner sides occupy the planes of the sides of the adjacent intervening notches. The result of this is a deepening of the intervening notches, and in these deepened notches the strips L are placed with their V-shaped sides presented inward, so that they rest partly on the heads of the drum and partly on the edges of the strips L all of the strips being secured in place by nails or other suitable means.

The drum thus constructed is very strong, and has on its interior a number of longitudi-

nal, V-shaped ribs. If desired, bands N may be carried around one or both sections of the drum, in order to still further strengthen it.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. In a washing machine, a receptacle constructed of heads having notches and having projecting sides lying in the planes of the adjacent sides of the intervening notches in their edges, a number of strips placed in alternate notches, a number of strips placed in the intervening notches and bearing partly on the heads of the receptacle and partly on the first named strips, and means for securing said strips in place, substantially as set forth.

2. In a washing machine, the combination with the box A and a shaft D journaled therein, of a drum formed in two half sections H and I, the lower of which is suspended from said shaft, so as to be movable upon said shaft to an inverted position means for holding the the lower section of the drum against tilting, while in use a hinge connecting the upper section of the drum to the box A, and suitable beaters situated within the receptacle and carried by the shaft, substantially as set forth.

3. In a washing machine, the combination with a receptacle, of a shaft, a number of beaters supported thereby and projecting therefrom, said beaters being free to be moved by gravity with relation to the shaft as it revolves, substantially as set forth.

4. In a washing machine, the combination with a receptacle, of a shaft having a number of openings extending diametrically through it, a beater fitting in each of said openings, and means for limiting the endwise movement of the said beaters, said beaters being free to be moved endwise by gravity with relation to the shaft as it revolves substantially as set forth.

5. In a washing machine, the combination with a receptacle, of a shaft having a number of openings extending diametrically through it, a longitudinally movable beater occupying each of said openings and having longitudinal slots, and pins supported by the shaft and passing through said slots, substantially as set forth.

HENRY DE WEERD.

Witnesses:

N. C. GRIDLEY,
J. HALPENNY.