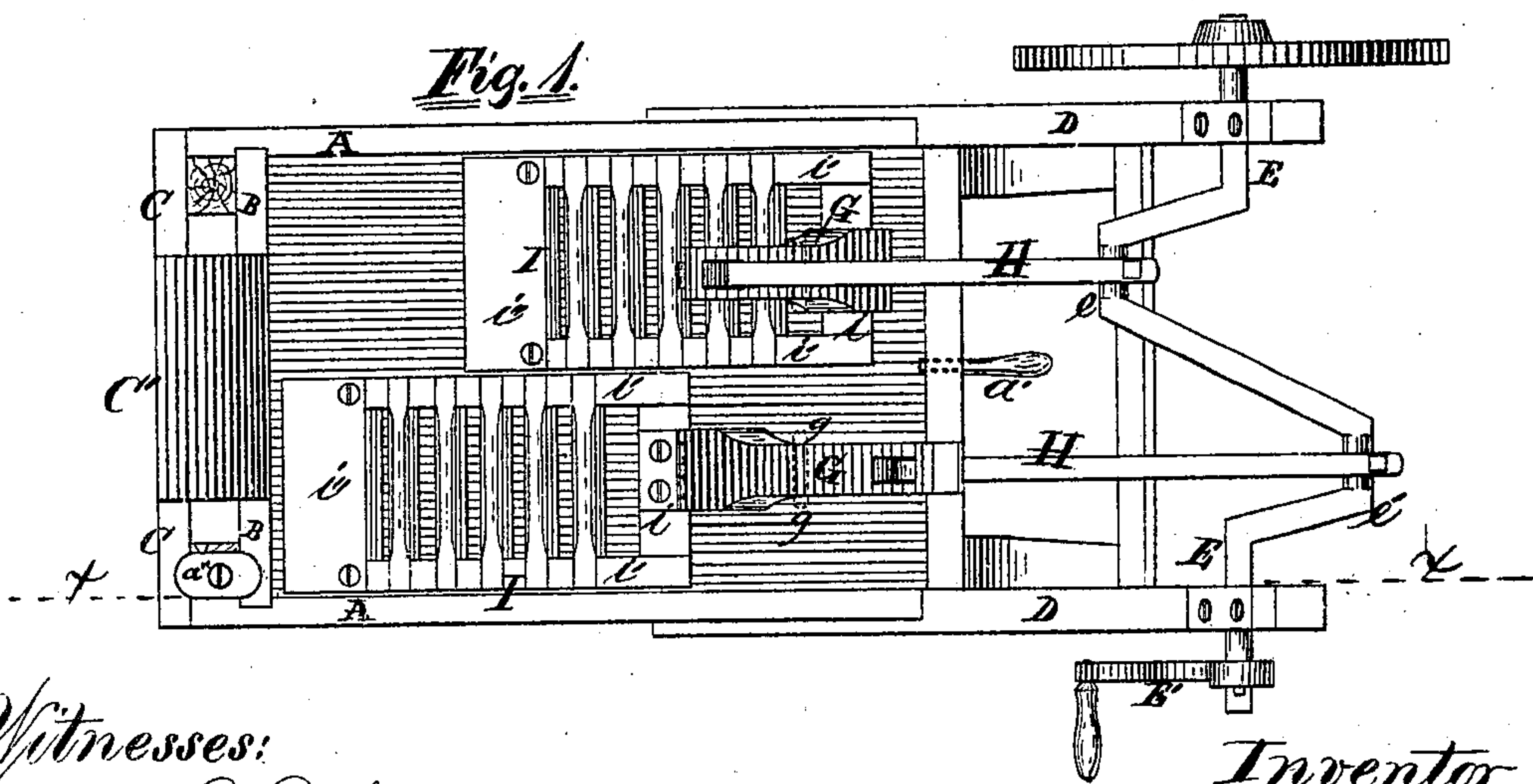
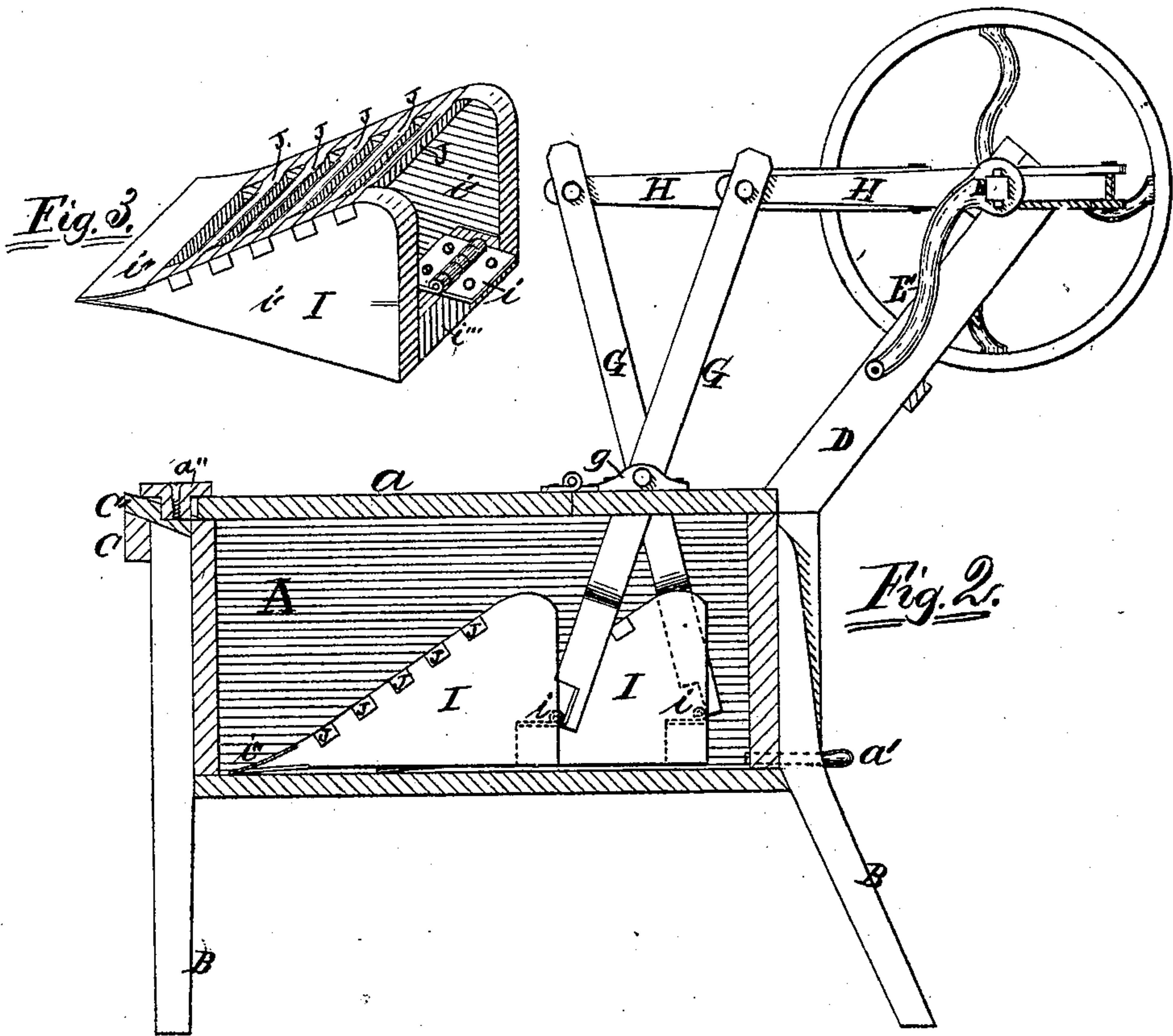


W. CHURCH.

Improvement in Washing-Machines.

No. - 132,521.

Patented Oct. 29, 1872.



Witnesses:

Platt R. Richards.

M. H. Barringer,

Inventor,

Warren Church,

W. B. Richards
att'y.

UNITED STATES PATENT OFFICE.

WARREN CHURCH, OF LA HARPE, ILLINOIS.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 132,521, dated October 29, 1872.

To all whom it may concern:

Be it known that I, WARREN CHURCH, of La Harpe, county of Hancock and State of Illinois, have invented certain Improvements in Washing-Machines, of which the following is a specification:

The nature of my invention relates to improvements in that class of washing-machines in which the beaters or squeezers are operated in the suds-box by a double or triple crank; and the invention consists in the peculiar construction of the beaters, and in the manner of connecting them with the cranks, all as hereinafter fully described.

In the accompanying drawing, Figure 1 is a top or plan view of a machine embodying my invention, with the cover removed; Fig. 2 is a vertical sectional view of Fig. 1 on the plane of the line *x x*; and Fig. 3 is an isometrical perspective view of one of the beaters.

General Description.

A is the suds-box, rectangular in form, as shown, and provided with a lid, *a*, for convenience of access to its interior, and with a scupper, *a'*, near its bottom, through which the water may be drawn from its interior. B B B B are legs, supporting the machine. C is a transverse bar, to which a wringer may be attached, and C' is an inclined board which will receive the water dropping or falling from the wringer, and carry it into the suds-box. D D are standards or arms extending upward from the box A, and provided at their upper ends with suitable bearings for a double crank, E, with its cranks *e e'* in opposite radial directions from the shaft, and with a hand-crank, E', on its outer end. G G are rock-shafts, pivoted below their centers in blocks *g g g g* on the lid of the box A, with their lower ends in the interior of the box A and their upper and longer ends connected by connecting-rods H H with the cranks *e e'*. I I are the beaters, connected by hinges *i i* with the lower ends of the rock-shafts or levers G G. The beaters I are formed each of two side pieces, *i' i'*, each piece being a plain right-angled triangle—their perpendiculars next the bottom of the

box A, their bases in rear or next the rock-shafts G, and their hypotenuses upward. The triangular pieces *i' i'* are connected at their apexes or forward ends by transverse bars *i'' i''*, which are either formed of non-corrosive metal or of wood, and coated with such metal. *i''' i'''* are bars connecting the bases of each pair of pieces *i' i'*, and are the parts to which the hinges *i i* are attached. J J J J J are transverse bars connecting the pieces *i' i'* on their hypotenuse sides.

The operation of my invention is as follows: The clothes and suds, being prepared in the usual manner, are placed in the box A forward of the beaters I I; the lid *a* is then closed and secured by a button, *a''*, or other fastening. Now, by turning the crank E', it will be plain that the rock-shafts G G will be oscillated by the double crank E, and the beaters I I reciprocated or advanced and retreated alternately; the rock-shafts G G serving as levers to increase the pressure of the beaters I I, and their lower ends, describing arcs of circles, will give a rocking motion to the beaters, which will aid in rolling the clothes and exposing them in different positions to pressure between the beaters and the front side of the box A. The bars J J J J J will act as rubbers, while the articles being washed are pressed against and over their upper surfaces, and the spaces between them will allow the water to pass through when pressed out of the said articles. When the washing is completed the lid *a* may be raised, the clothes removed, and the water withdrawn through the scupper *a'*.

Claim.

What I claim as my invention is—

The beaters I, constructed as described, with side pieces *i'* and transverse bars J, in combination with the pivoted levers G, when the latter are hinged to the base of the beaters, and operated in the manner and for the purpose substantially as set forth.

WARREN CHURCH.

Witnesses:

BENJ. WARREN,
J. M. ROBINSON.