

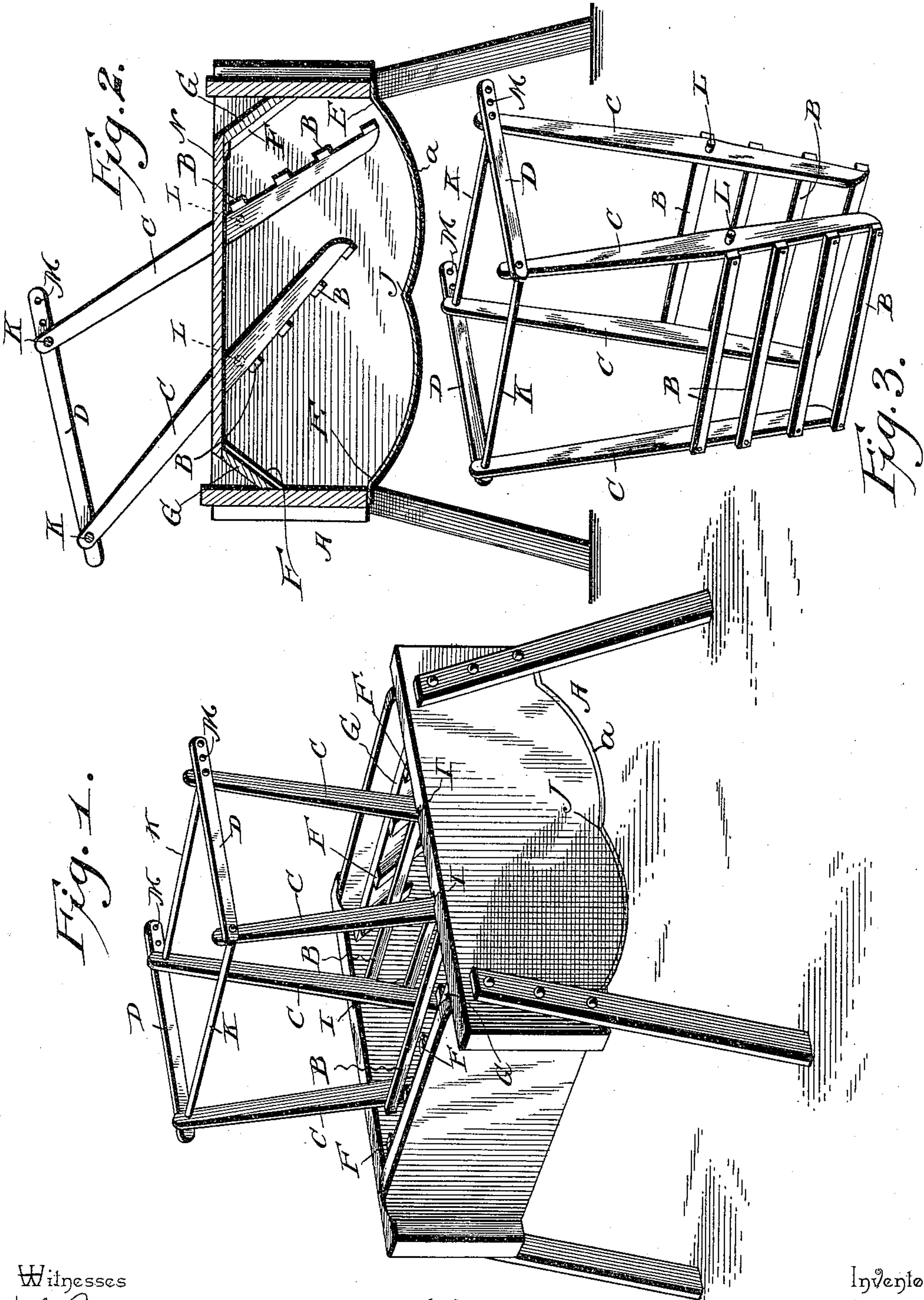
No. 617,673.

Patented Jan. 10, 1899.

J. M. COULTER.  
CLOTHES WASHING MACHINE.

(Application filed July 14, 1896.)

(No Model.)



Witnesses

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# UNITED STATES PATENT OFFICE.

JAMES M. COULTER, OF GROVE CITY, PENNSYLVANIA.

## CLOTHES-WASHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 617,673, dated January 10, 1899.

Application filed July 14, 1896. Serial No. 599,079. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES M. COULTER, a citizen of the United States, residing at Grove City, in the county of Mercer and State of Pennsylvania, have invented a new and useful Clothes-Washing Machine, of which the following is a specification.

The invention relates to improvements in washing-machines.

10 The object of the present invention is to improve the construction of washing-machines and to provide a simple, inexpensive, and efficient one capable of rapidly and thoroughly washing clothes.

15 The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

20 In the drawings, Figure 1 is a perspective view of a washing-machine constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a detail perspective view of the oscillating levers and their connections.

25 Like letters of reference designate corresponding parts in all the figures of the drawings.

30 A designates a washing-machine body composed of parallel sides and ends and a bottom *a*, which is oppositely curved, as shown, to provide a central transverse apex or rib and two concave depressed portions which lie between the transverse rib *J* and the ends of the washing-machine body. The washing-machine body, which is supported by suitable legs, is provided at the inner faces of its sides with bearing-recesses *I*, receiving journals *L* of levers *C*. The bearing-recesses are arranged in pairs, and the levers *C*, which are fulcrumed between their ends, extend above and below the cover of the washing-machine body and are arranged in pairs.

45 The pairs of levers which alternately engage the clothes being washed have their lower portions connected by transverse slats *B*, spaced apart and forming, with the levers, independent oscillating clothes-engaging frames which cooperate with inclined pounding-faces located at the ends of the washing-machine body, near the top thereof, as clearly illustrated in Fig. 2 of the accompanying

drawings. The clothes being washed are divided into two parcels and are placed within the washing-machine body between the oscillating frames and the inclined pounding-faces, which consist of inclined partitions or boards *G* and inclined slats *F*, secured to the inner faces of the partitions and extending from the upper to the lower edges thereof. The slats *B* are arranged at the outer edges of the levers, and the water and suds which are expelled from the clothes by the squeezing operation are allowed to run off between the inclined slats *F* and the horizontal slats *B*. After the clothes are released by the oscillating frames they fall upon the ends *E* of the bottom and roll down the inclined portions, thereby changing the positions of the clothes and bringing fresh portion of the same in contact with the pounding-faces, whereby they are operated on uniformly. The central transverse rib of the bottom limits the inward movement of the clothes when the same roll down the inclined end portions of the bottom.

The upper ends of the levers of each pair are connected by transverse rungs or handle-bars *K*, passing through the levers and extending beyond the same to form pivots for a pair of adjustable connecting-bars *D*. The connecting-bars *D* are provided at one end of the washing-machine with perforations *M*, which permit the distance between the rungs or handle-bars to be varied.

The oscillating frames which engage the clothes operate on the same alternately and in their action on the clothes are independent of each other, one of the frames moving backward or inward, while the other is swinging outward or forward, to engage the clothes. The washing-machine has a double action and it may be operated by either one or two persons.

The washing-machine body, as illustrated in Fig. 2 of the accompanying drawings, is provided with a suitable cover *N*, extending from one inclined partition *G* to the other and supported by the same and by the slats *F* thereof.

The washing-machine, which is simple and comparatively inexpensive in construction, is easy to operate and may be used by either one or two persons. It is double-acting and



it is adapted to subject the clothes to the action of hot water and suds and squeeze them, so that the suds and dirt will be expelled. When the clothes are relieved of pressure, they fall upon an inclined surface and are caused to rotate, whereby they are thoroughly and uniformly subjected to the action of the machine. The swinging frames operate alternately on the clothes and the connecting side bars D enable them to be adjusted to secure the necessary throw.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

1. In a washing-machine, the combination of a washing-machine body, a pair of simultaneously-movable frames fulcrumed on the washing-machine body at different points between the ends thereof and extending above the said body, the lower portions of the frames being arranged to squeeze the clothes alternately between them and the ends of the body, and connections between the upper ends of the frames, whereby the machine may be operated at either or both ends, substantially as described.

2. In a washing-machine, the combination of a body, oscillating levers arranged in pairs at opposite sides of the washing-machine body

and fulcrumed on the same at different points between the ends thereof, slats disposed transversely of the body and connecting the levers of each pair and adapted to squeeze clothes between them and the ends of the body, transverse rungs forming handles and connecting the upper ends of the levers, and the side bars adjustably connecting the pairs of levers and pivoted to the same by the said rungs, substantially as described.

3. In a washing-machine, the combination of a body provided with an oppositely-curved bottom, forming a central transverse rib or apex and presenting two upper concave faces at opposite sides of the same, the ends of the bottom being inclined and adapted to cause clothes to roll toward the center, the inclined partitions located above the ends of the bottom and provided with slats, and the simultaneously-movable swinging frames, fulcrumed at different points between the ends of the body, and cooperating with the pounding-faces formed by the inclined partitions and slats substantially as described.

In testimony whereof I, the said JAMES M. COULTER, have hereunto set my hand.

JAMES M. COULTER.

Witnesses:

ROBERT C. TOTTEN,  
WALTER FAMARISS.