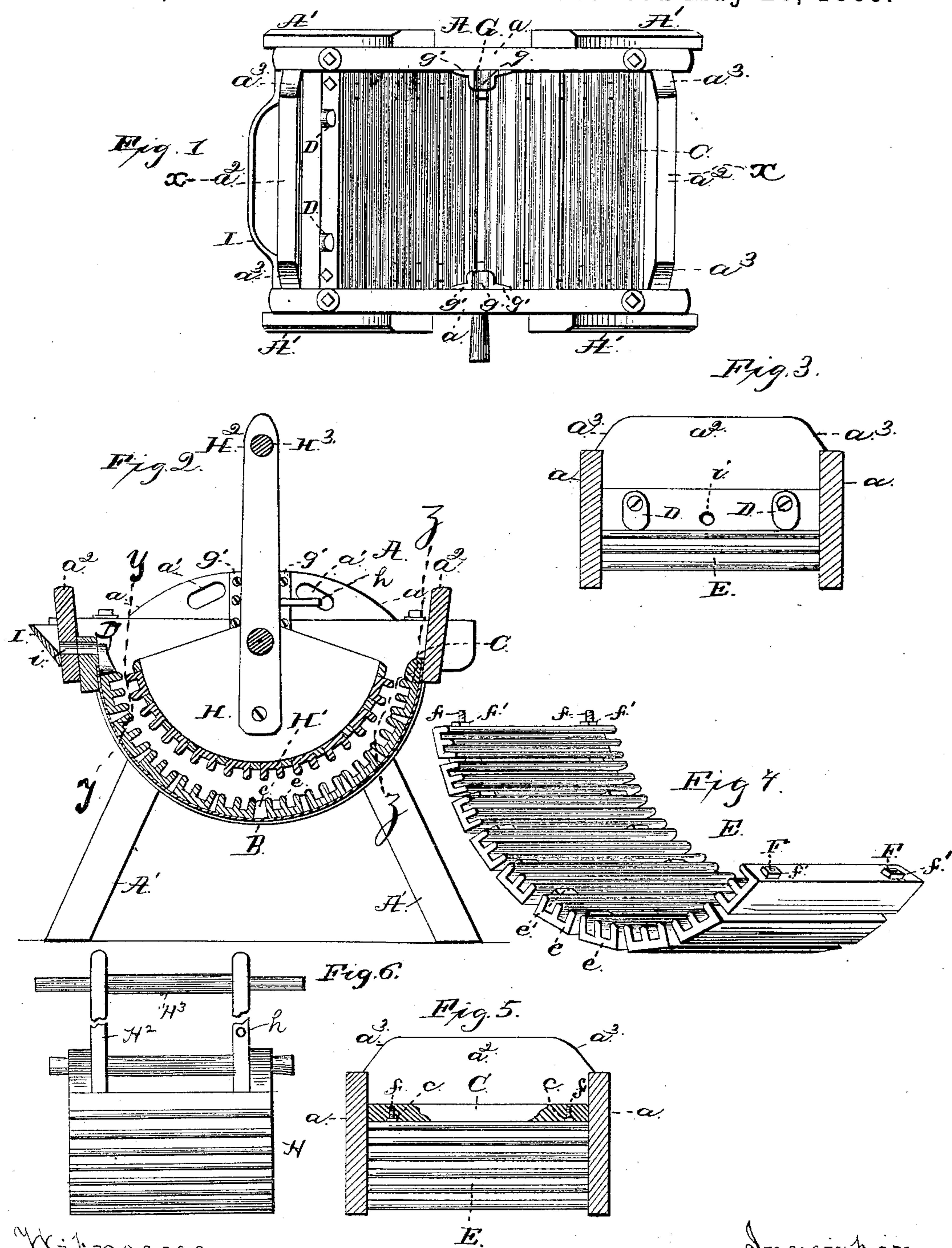


(Model.)

G. DUNWOODY.  
WASHING MACHINE.

No. 318,709.

Patented May 26, 1885.



Witnesses  
N. A. Clark  
P. B. Irwin.

Inventor  
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# UNITED STATES PATENT OFFICE.

GRANT DUNWOODY, OF PEORIA, IOWA.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 318,709, dated May 26, 1885.

Application filed October 23, 1883. (Model.)

*To all whom it may concern:*

Be it known that I, GRANT DUNWOODY, a citizen of the United States, residing at Peoria, in the county of Mahaska and State of Iowa, have invented certain new and useful Improvements in Washing-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention pertains to improvements in washing-machines; and it consists in the novel construction and combination of the several parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a top plan view of my suds-box with the rubber-bed in place and the rubber removed. Fig. 2 is a vertical longitudinal section on line *xx*, Fig. 1. Fig. 3 is a detached sectional view on about line *yy*, Fig. 2. Fig. 4 is a detail perspective view of the flexible rubber-bed. Fig. 5 is a detached section on about line *zz*, Fig. 2, the cleat being broken away, part in section, to show the sockets; and Fig. 6 is a detail view of the rubber.

The suds-box *A* is mounted on legs *A'*, and its side boards, *a*, are provided with hand-openings *a'*. The end boards, *a''*, are extended up above the side boards, and are cut away at *a'''* on each end, as most clearly shown in Figs. 1, 3, and 5. The bottom *B* of the box is curved in the arc of a circle, as shown, and is preferably made of zinc or other suitable sheet metal. A cleat or bar, *C*, is secured at one end of the bottom *B* and transverse thereto, as shown. It projects out beyond the bottom and forms a shoulder in its lower edge, against which the end of the rubber-bed is secured. It is provided with sockets *c* in this under face, which receive the studs projected from the rubber-bed, presently described. On the inner side of the suds-box, opposite the cleat *C*, I pivot buttons *D*, which may be turned on their pivots to clamp the rubber-bed in place. This rubber-bed *E* is made flexible, and is preferably composed of a series of slats, *e*, arranged parallel to each other, and held apart by blocks *e'*, the said slats and blocks being connected by wires *F*, as shown. This rubber-bed is

provided on one end with studs *f*, preferably provided by the extended ends of the clamping-wire *F*. This wire is provided on its opposite ends with nuts *f'* turning on threads, as shown, and clamping the sections of the rubber-bed firmly together.

In placing the bed in the box the studs *f* are inserted up in the sockets *c*, the end of the rubber-bed resting against the cleat *C*, as shown. The opposite end of the rubber-bed is then pressed down against the bottom *B* in the position shown in Fig. 2. The buttons *D* are then turned down against the end of the rubber-bed, and the same is held firmly in the box in such manner that it may be easily removed and replaced at will. The elastic or flexible construction of the rubber-bed permits it to readily conform to the curved bottom of the box, and its easy removability facilitates the thorough cleansing of the box and rubber-bed and the drying thereof, and the rusting of the metal parts and rotting of the wooden ones is consequently avoided. The journal-supports *G* are made of metal, provided with the central slot, *g*, the base of which forms the bearings for the rubber-trunnions. This support *G* has lateral flanges *g'*, which are perforated with screw-openings, and it is secured on the inner face of the side board of the suds-box by screws turned through said openings. By this construction the journal-supports are secured on the inner face of the side boards, and the slotting or mortising of the latter is avoided. The rubber *H* has curved rubbing-surface *H'*, and has trunnions fitted to the bearings *g*, as will be readily understood. The handles *H''* of the rubber are connected near their upper ends by the handle proper or rod, *H'''*, which extends laterally beyond the handles *H''*, and will rest over the cut-away portions *a'''* of the boards *a''* when the handles are turned down against the said boards. These extended portions of rod *H'''* are the parts grasped by the operator, and the hands are not injured when the handle-bars are brought down on the boards *a''*. A soap box or receptacle, *I*, is secured on the end of the suds-box, and communicates with the latter through an opening, *i*, so that the drippings of the soap will pass back into the suds-box. *h* is a rod, secured to one of the bars *H''* of the rubber and projecting outward, as

shown, in position to be hooked over the end of the suds-box and hold the rubber out of the way when clothing is being placed in or removed from the same.

5. Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination, in a washing-machine, of the suds-box having a curved bottom, B, a stop-bar, C, secured in the suds-box and having sockets *c* in its under side, a button or buttons, D, arranged on the inner side of the suds-box, opposite bar C, and the rubber E, consisting of transverse rubber-bars strung on

flexible rods, whereby it may conform to the curvature of the bottom B, the said rubber being provided with projections *f*, entering the sockets *c* and clamped to and against the full length of the bottom B, between the bar C and buttons D, substantially as and for the purposes specified.

In testimony whereof I affix my signature in presence of two witnesses.

GRANT DUNWOODY.

Witnesses:

WILSON ALLEN,  
D. R. MOORE.