J. F. CHESEBRO.

WASHING-MACHINE.

No. 177,802. Patented May 23, 1876.

Fig. 2

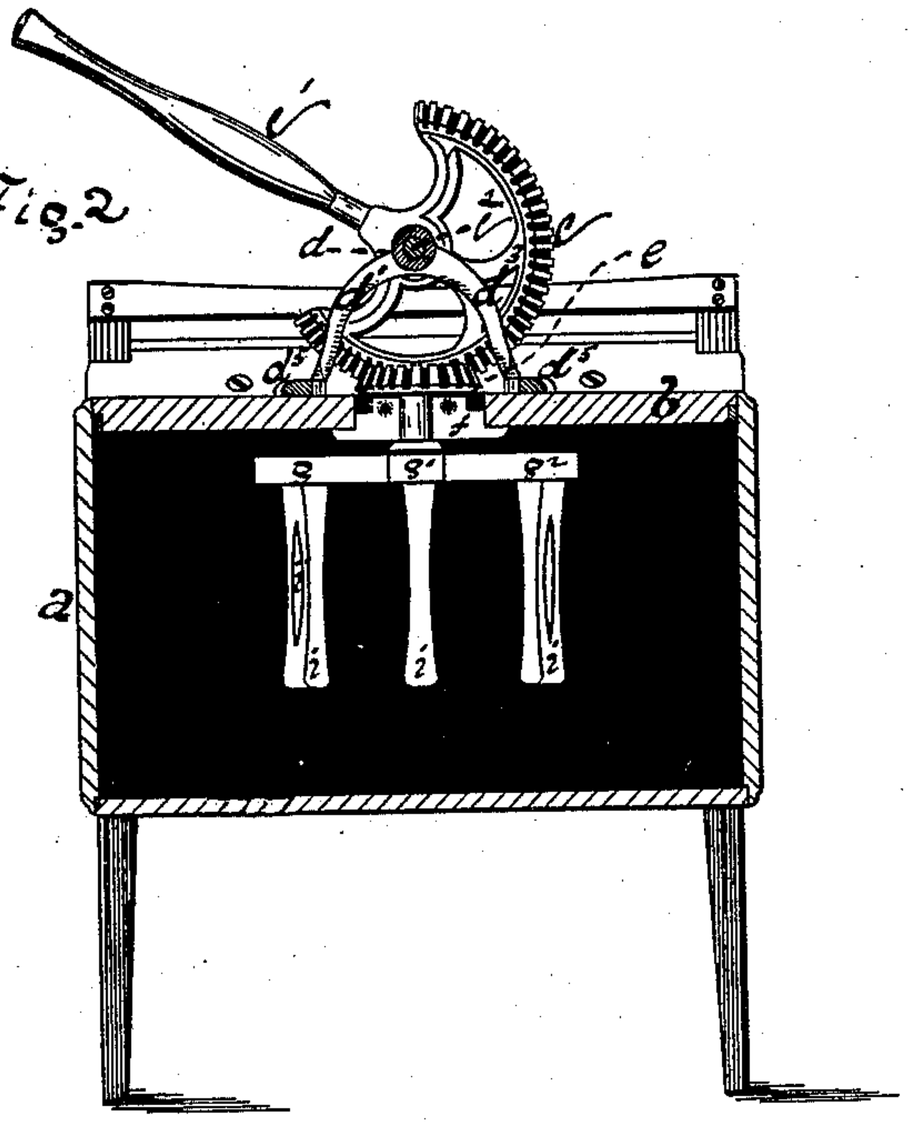


Fig. 3

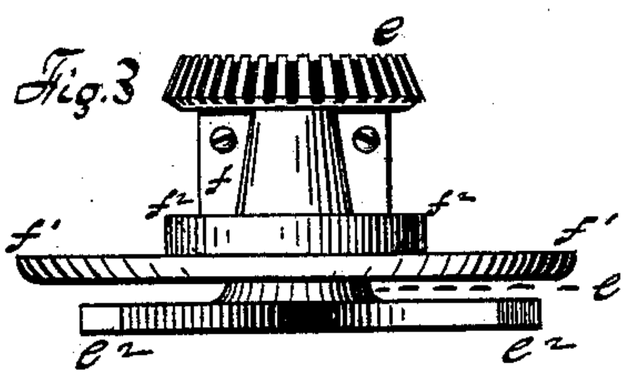


Fig. 5

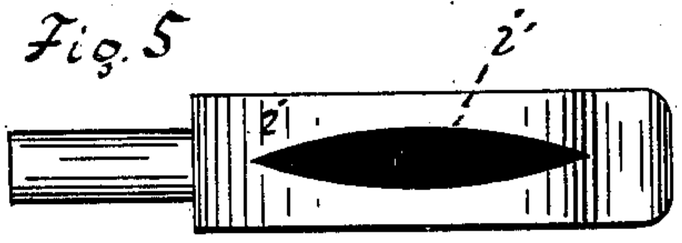


Fig. 6

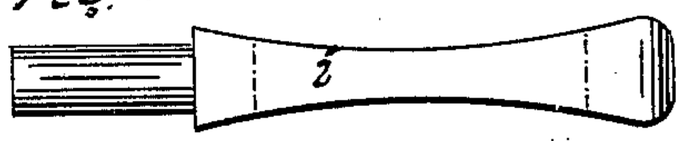


Fig. 1

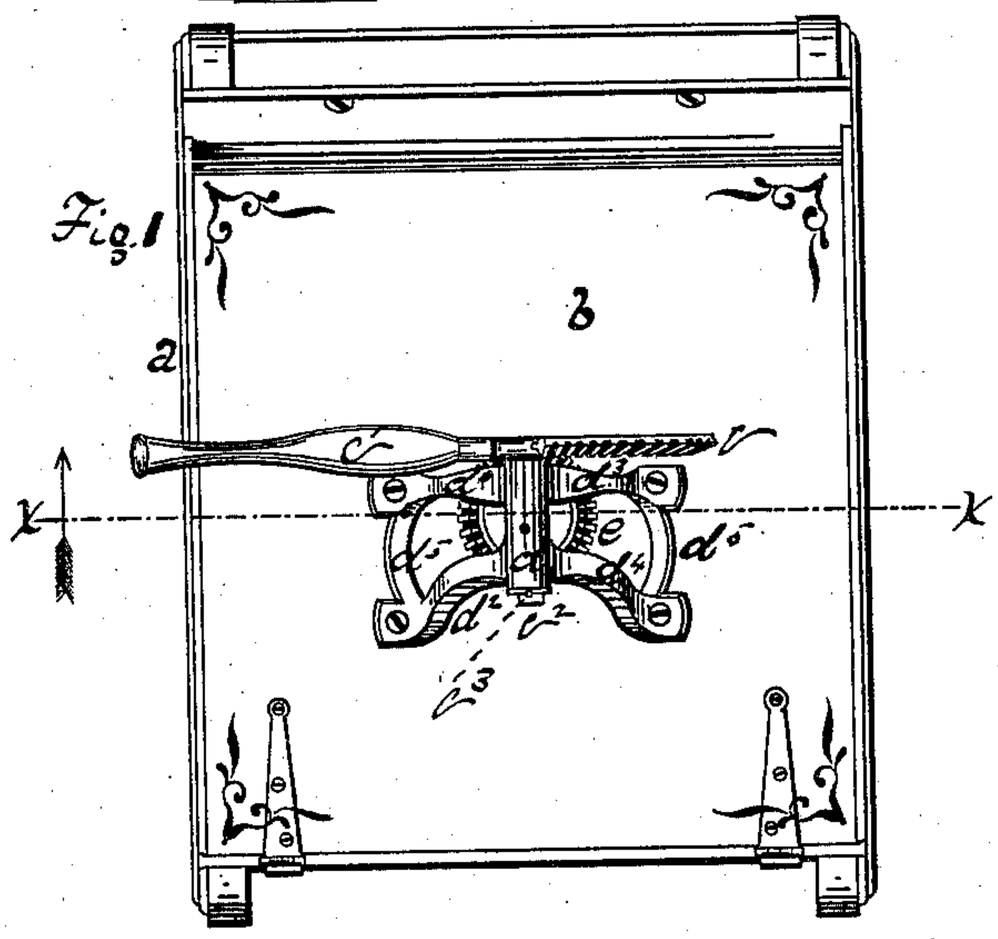


Fig. 4.

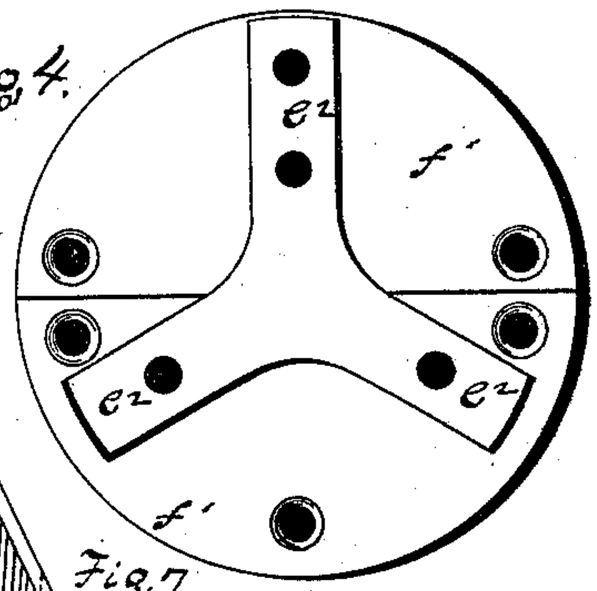


Fig. 7

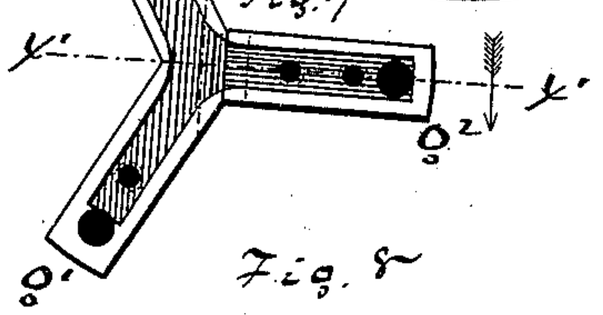
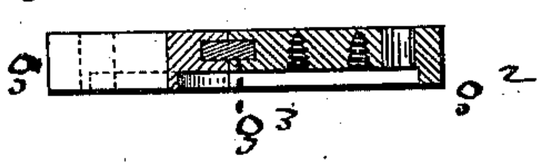


Fig. 8



Witnesses:

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UNITED STATES PATENT OFFICE

JAMES F. CHESEBRO, OF TRENTON, NEW JERSEY.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **177,802**, dated May 23, 1876; application filed October 27, 1874.

To all whom it may concern:

Be it known that I, JAMES F. CHESEBRO, of Trenton, in the county of Mercer, and State of New Jersey, have invented new and useful Improvements pertaining to a Clothes-Washer, of which the following is a specification, reference being had to the accompanying drawings, where—

Figure 1 is a top view of a clothes-washer embodying my improvements. Fig. 2 is an elevation view of the same with the box or containing case cut in cross-section on the plane *x x*. Fig. 3 is a detail side view of the pinion made use of, the metallic arm-supports, and the flanged journal-box made use of. Fig. 4 is a detail bottom view of the parts shown in Fig. 3. Fig. 5 is a view of one of the agitating-fingers which depend from the arms—a face view, so to speak. Fig. 6 is an edge view of the finger shown in Fig. 5. Fig. 7 is a detail top view of the arms made use of. Fig. 8 is a view of the arms shown in Fig. 7, in section on plane *x' x'*.

The feature of the invention is a pinion, pinion-shaft, and arm-supports cast all in one piece, in combination with duplicate flanged journal-boxes.

The letter *a* denotes a rectangular box or case, lined, by preference, with sheet metal, and supported on legs. The letter *b* denotes the cover for the same. The clothes to be washed are placed within the box *a* with a proper amount of water, or soap and water, or other cleansing-fluid. The letter *c* denotes a sector-gear, to which reciprocating rotary motion may be given through the medium of the lever-handle c^1. This sector-gear has a shaft, c^2, molded and cast upon it, and this shaft just fits in the journal-box *d*, being kept from coming out by pin c^3. The journal-box *d* is cast in one piece with the legs d^1 d^2 d^3 d^4, having connecting-webs d^5 at their lower ends. The legs d^1 d^2 diverge from each other, as do d^3 and d^4, for the sake of giving strength and steadiness, and the webs d^5 are for the same purpose. The set of legs d^1 d^2 diverge from the set d^3 d^4, for the purpose of allowing this hub-support to sit astride the pinion underneath, which should be in the center of the cover. The sector-gear *c* meshes into and gives reciprocating rotary motion to the pinion *e*, which, with its shaft e^1 and arm-supports e^2, is molded and cast all in one piece. This pinion, shaft, and arm-support is supported by the duplicate journal-box halves *f f*, which are bolted or screwed together. This journal-box, as a whole, fits into a corresponding orifice made in the cover *b*, the collar f^2 fitting to such orifice, and is fastened to the cover by screws running through the flange f^1.

The metallic arm-supports e^2 are mortised into the tops of the arms *g* g^1 g^2, perferably of wood, and secured thereto by screws, or the like. *g* and g^1 are made in one piece, and g^2 is kept in position therewith by a cross-mortise cut partially in both pieces and filled by wedge or pin g^3.

From the under side of the arms depend agitating-fingers *i*, preferably of wood, perforated from front to rear by mortise *i'*, which allows the free passage of the water through the pin when it is agitated, preferably of the shape shown. The base or lower end of each pin broadens or flares outward on both faces so as to lift the clothes or, at least, counteract their tendency to fall to the bottom of the box. I prefer that the upper end of the pin should broaden or flare in the same manner; but this is not so essential.

It is plain that all the machinery shown can be attached to a common round cover for a common round tub, and be used in that relation as well as in the relation shown.

I claim as my invention—

The pinion *e*, shaft e^1, and arm-supports e^2, cast in one piece, in combination with the duplicate journal-box halves *f f* bearing the flange f^1, all as described.

JAMES F. CHESEBRO.

Witnesses:

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