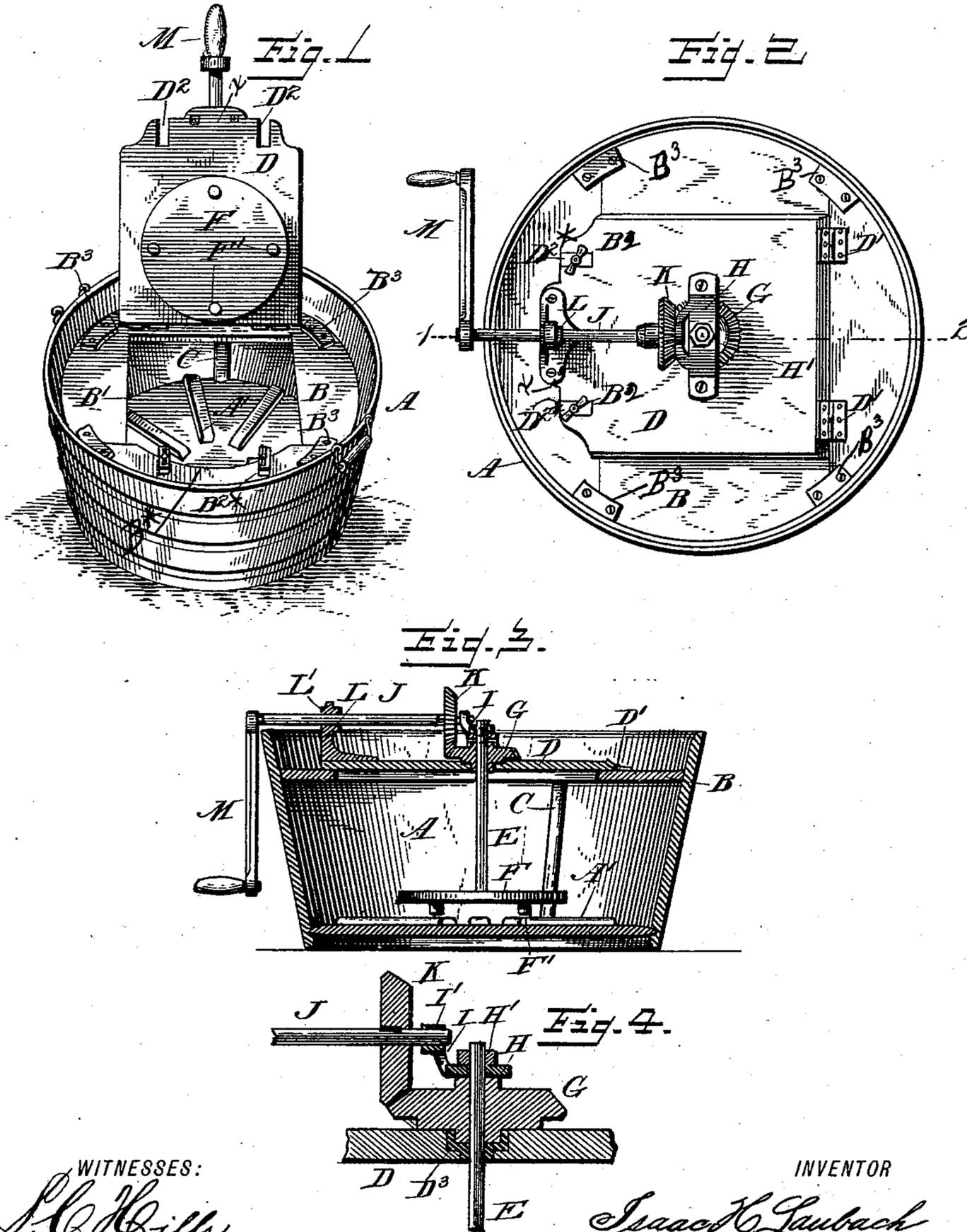


(No Model.)

I. H. LAUBACH.
WASHING MACHINE.

No. 353,074.

Patented Nov. 23, 1886.



WITNESSES:
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ISAAC H. LAUBACH, OF PEN ARGYL, PENNSYLVANIA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 353,074, dated November 23, 1886.

Application filed May 17, 1886. Serial No. 202,459. (No model.)

To all whom it may concern:

Be it known that I, ISAAC H. LAUBACH, a citizen of the United States, residing at Pen Argyl, in the county of Northampton and State of Pennsylvania, have invented certain new and useful Improvements in Washing-Machines, of which the following is a specification, reference being had to the accompanying drawings.

This invention has relation to that class of washing-machines known as "rotating," my object being to provide a machine that is simple of construction, cheap, and effective; and the invention consists in certain features of construction, hereinafter set forth and particularly pointed out in the claim.

Referring to the drawings, Figure 1 is a perspective of a washing-machine constructed in accordance with my invention, the cover thereof being open. Fig. 2 is a plan view. Fig. 3 is a vertical section on the line 1 2 of Fig. 2 of the same, and Fig. 4 is an enlarged similar section in detail.

Like letters indicate like parts in all the figures.

A represents any suitable tub or other receptacle, into which a tightly-fitting covering, B, is inserted—in this instance, by means of supports, as C, and also by reason of the edge of said covering being beveled. At the center of the covering B is a substantially rectangular opening, B', and secured to said covering, by means of hinges D', is a lid or cover, D, adapted to fit said opening. The lid D is provided at its front edge with insets or recesses D², in which cleats D^{2*} fit, said cleats being provided with turn-buttons B², whereby said lid when closed is secured against both lateral and vertical displacement during the operation of the machine.

The covering B may be composed of as many separate pieces as desired; but I have found it both convenient and advantageous to form it of four pieces and secure them together by cleats B³, the section which supports the front edge of the cover being cut away, as at B^{3*}, to make room for the passage of the agitator F when the cover is raised.

The object of forming the cover in sections is to have the grain of the wood run in different directions, so that warping will not take place, as would be the case if the cover were of

a single piece. By this construction the cover is much stronger, and is held securely together by the cleats or brackets B³.

At the center of the lid D is an aperture, in which is fitted a collar, D³, which forms a bearing for a vertical spindle, E. Rigidly attached to the lower end of the spindle E is an agitator, F, of disk form, in the bottom of which is inserted a series of pegs or projections, F', which are adapted to rotate upon a series of ribs, A', secured to and radiating from the center of the bottom of the tub or receptacle. At the opposite or upper end of the spindle E is rigidly secured a miter-gear, G, which rotates with the spindle and in bearing D³, formed in the top of the lid D.

The spindle E, having the miter-gear G, is supported in position and at a suitable distance by means of a bridge-piece, H, and nut H', and projecting from the bridge-piece H, and at a right angle thereto, is an upwardly-extending bracket, I, having a bearing, I', formed therein, in which is adapted to rotate a crank-shaft, J, having a miter-gear, K, which is adapted to mesh with the gear G. The opposite end of the shaft J is supported in a bearing, L', formed in the end of an upwardly-extending bracket or standard, L, secured to a projecting portion, X, of the lid D, and said opposite end is bent to form or may be provided with a crank-handle, M. By projecting the lid, as at X, opposite its hinge-edge, the journaled standard can be mounted upon the lid, and yet midway between the crank M and pinion K. This obviates the necessity of employing two standards—one located near the gear K and one near the crank M—in which case the advantages of being able to mount the entire operating mechanism upon the hinged lid could not be secured.

From the above it will be seen that all the mechanism for operating the washer is mounted directly upon the lid or cover D, which may readily be opened and closed to remove and replace soiled clothes, as necessary, without the inconvenience of removing any of the mechanical devices for operating the machine.

The advantages of my invention and the operation thereof will be readily understood from the foregoing description, in that it will be seen that by turning the handle M the shaft J will rotate the gear K, which rotates the

gear G, shaft or spindle E, and the agitator F, and thus clothes within the tub will be readily and thoroughly cleansed.

5 The under surface of the gear G is projected in the form of a hub, which is adapted to fit the bearing D³, so that it is supported thereon and therein, rendering the machine at this point capable of long service.

10 Of course it will be understood that changes in the relative proportions in the gears K and G may be made, so that, for instance, one rotation of the handle M will cause the agitator F to rotate two or three times.

15 Having thus fully described my invention and its operation, what I claim, and desire to secure by Letters Patent, is—

The combination of the tub A, having the cover-sections B, secured as at B³, one of said

sections being provided with cleats D^{2*}, projecting therefrom, the lid D, hinged to one of 20 said sections and projected as at X, and recessed as at D², to receive the cleats D^{2*}, with the standard L, mounted on the projecting end X, and carrying a shaft, J, provided with a crank, M, at its outer end and a pinion or 25 gear, K, at its opposite end, and with the agitator-rod E, having the gear G, journaled in the lid, and the bridge-piece H, extended as at I, to form a journal, I', for the shaft J, 30 substantially as specified.

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

ISAAC H. LAUBACH.

Witnesses:

L. S. SHROPE,
ALBERT BEEBE.