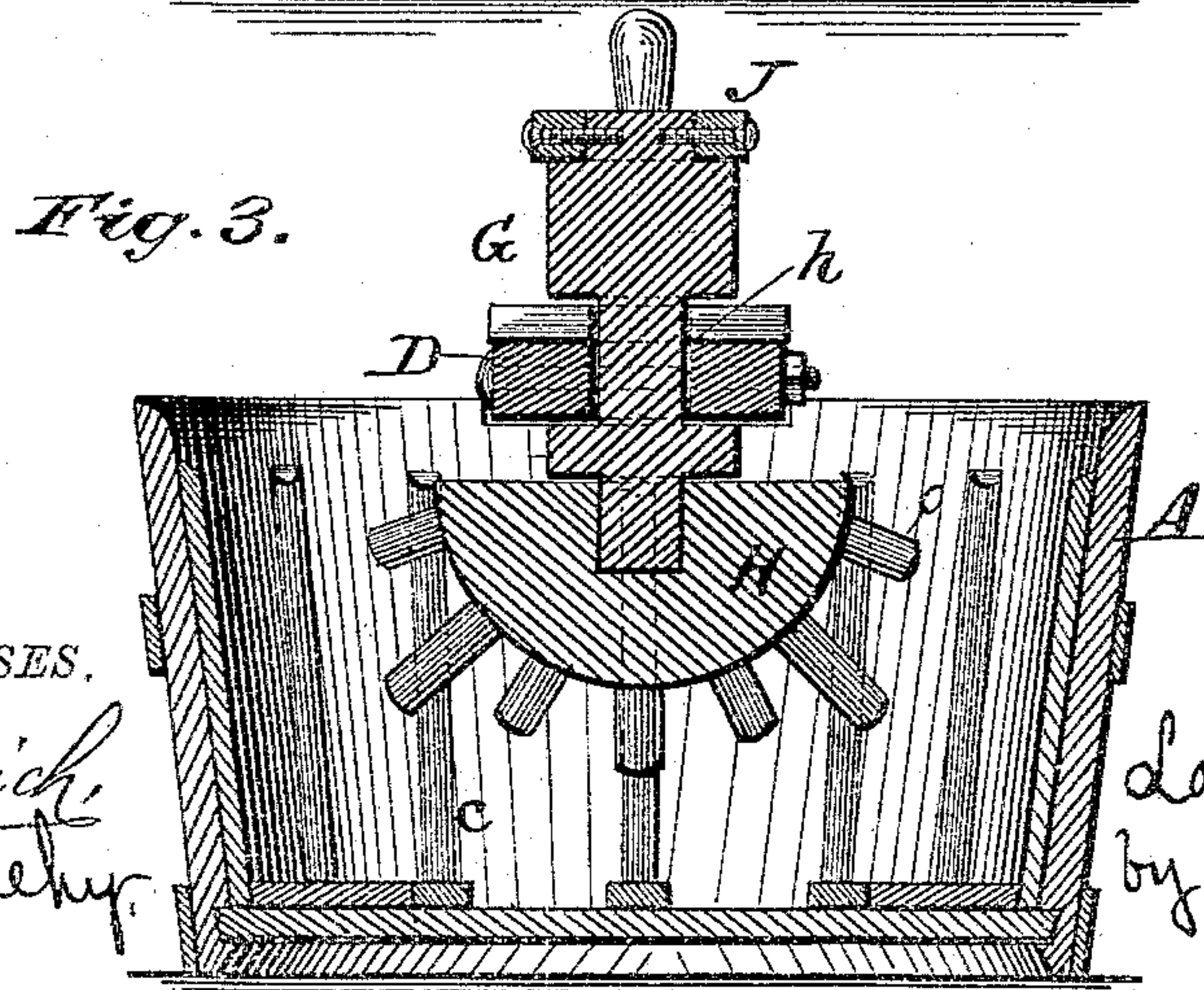
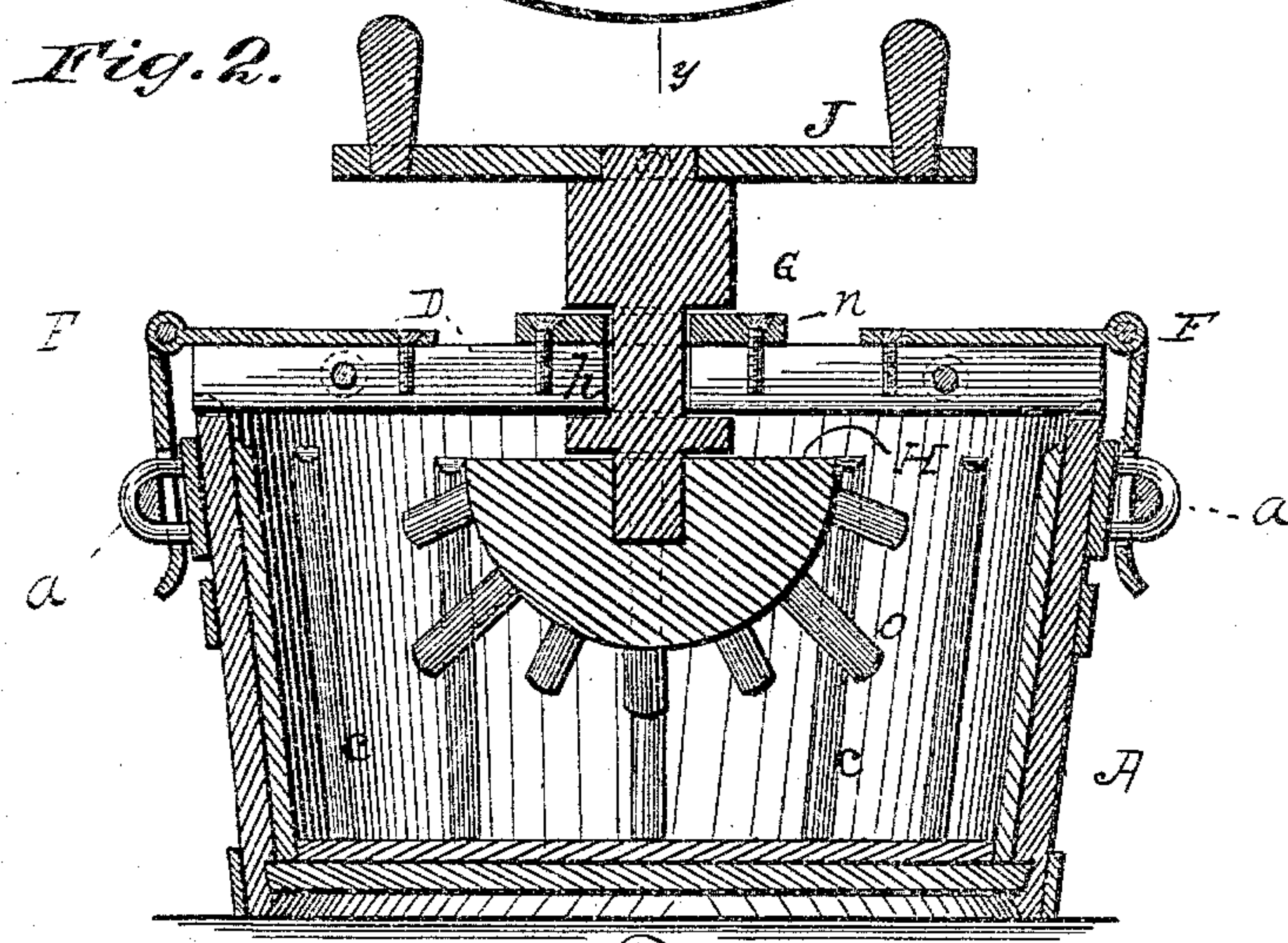
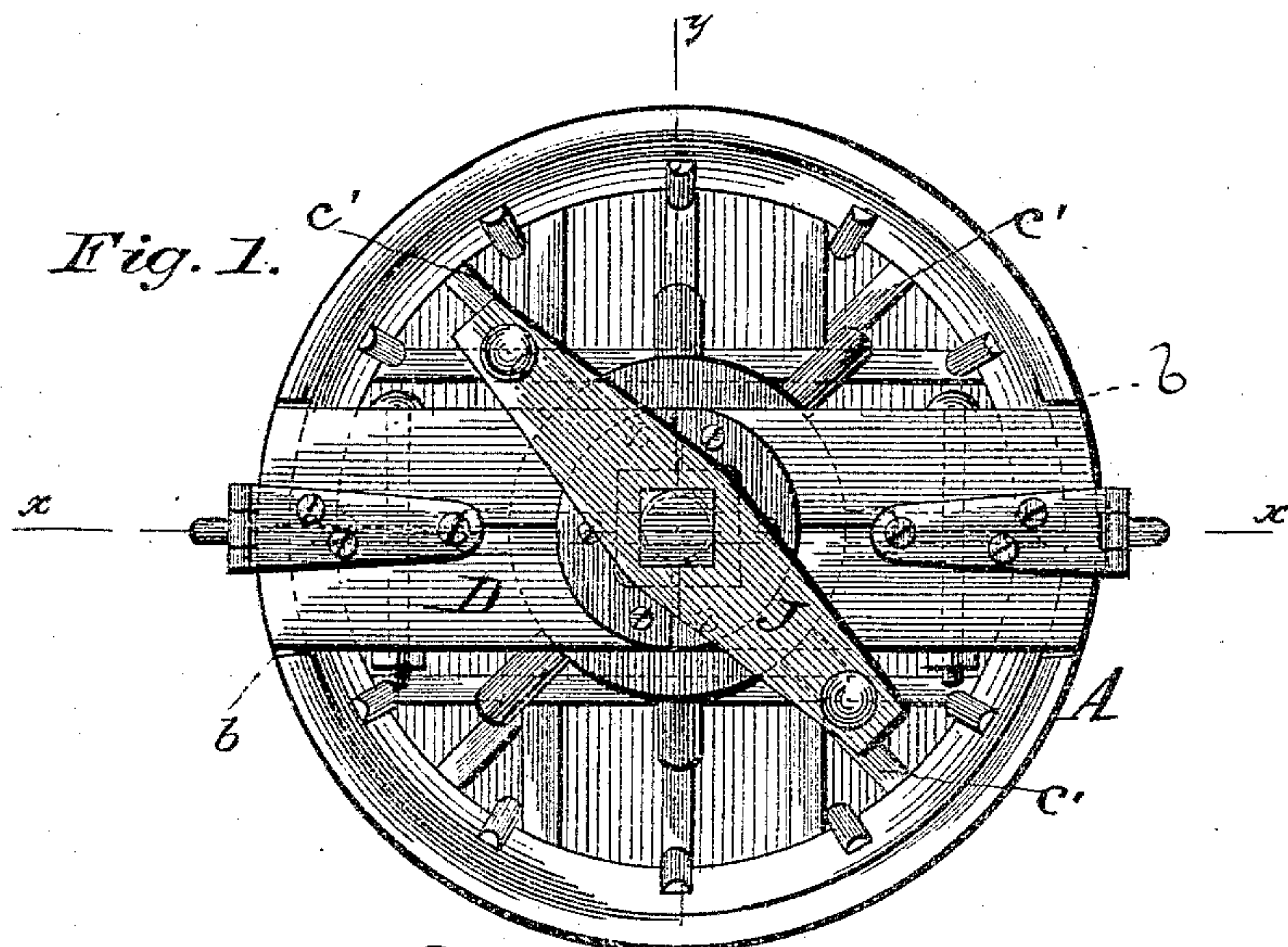


(No Model.)

L. REINHARDT.
WASHING MACHINE.

No. 381,643.

Patented Apr. 24, 1888.



WITNESSES.

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UNITED STATES PATENT OFFICE.

LOUISA REINHARDT, OF LOUISVILLE, KENTUCKY.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 381,643, dated April 24, 1888.

Application filed April 23, 1887. Renewed March 15, 1888. Serial No. 237,247. (No model.)

To all whom it may concern:

Be it known that I, LOUISA REINHARDT, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, 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.

My invention relates to washing-machines; and it consists in the novel construction and arrangement of devices herein specified, and particularly pointed out in the claim annexed.

In the annexed drawings, Figure 1 is a top view of my improved machine complete. Fig. 2 is a vertical section through the machine in the plane indicated by dotted line *xx* on Fig. 1. Fig. 3 is a vertical section in the plane indicated by dotted line *yy* on Fig. 1.

The letter A of the drawings represents a circular tub provided with holding-ears *a a*, and it is recessed on its top at *b b* to receive and hold the cross-bar D, hereinafter described. This tub is also provided with ribs *c'*, which are secured vertically, horizontally, and diagonally to its inner wall and bottom, as represented on the drawings. The diagonally-arranged ribs *c'* are intended to serve not only as rubbing-bars, but also to partially close the spaces formed by the ribs arranged at right angles, and prevent the goods being washed from becoming packed in such spaces.

The letter D indicates a cross-bar, whose width is only sufficient to fit snugly in the recesses *b b* on the top of the tub, and is provided with hinged and slotted hasps F adapted for locking over the ears *a a*, to keep the cross-bar firmly in position.

It will be observed that the bar D is formed of two pieces of board or plank, which are bolted together and made separable by means of screw-threaded bolts and nuts. This construction enables me to arrange the large standard G, hereinafter described, in such manner that the cross-bar shall be clasped both at top and bottom by the enlarged portions thereof, as shown.

G represents a standard, to the upper end of which is firmly attached the double crank and

handles, (marked J.) A portion of this standard is cut away, as shown at *h*, to correspond with a small opening in the cross-bar, through which it is passed, thereby forming a collar both above and below said bar. A washer, *n*, is interposed between the upper side of the cross-bar and the upper collar of the standard. This also must be formed in two sections, and nailed or otherwise secured to the cross-bar.

The letter H represents a hemisphere, preferably of wood. In this hemisphere I arrange a series of radial arms (marked *o*) in the manner shown, to the end that when the hemisphere is rotated said arms shall serve to reach and rub the goods being washed against the ribs of the tub.

The standard G is securely attached at its lower end to the top of the hemisphere, preferably by passing said lower end into a suitable recess found in the hemisphere and gluing or cementing it therein. It is obvious that such connections may be formed by a plate attached to the collar on the standard, and screws passing through such plate into the top of the hemisphere.

I attach especial importance to hemisphere H and the manner in which the radial arms are arranged thereon, for while I am aware that disks with similar washing-arms have heretofore been used, such disks fail to furnish the permanency and ready means provided by the hemisphere for arranging the arms in the direction desired, making them secure against ordinary strain. I furthermore attach importance to the construction of the large standard D and the means I have provided for connecting it with the cross-bar, as I find such construction affords great strength and solidity to the operating parts.

It is obvious that my machine is operated by the double crank J either by one hand or two, as the nature of the case may require.

An essential feature of my invention consists in the novel manner of mounting the shaft of the rotative hemisphere H, whereby this shaft is prevented from vertical motion, and may be detached from the two-part cross-bar D, the latter being readily removable from the tub, the parts of said bar being firmly held together by bolts and nuts and a two-part washer,

n, the joint of which crosses the joint of the said bar, as clearly shown in Fig. 1.

Having described my invention, I claim—

5 The combination, with a wash-tub recessed at *b b*, and provided with ears *a a*, of the rotative standard *G*, bearing an armed rubber and a crank, and provided with an annular groove, the two-part cross bar bolted together

and provided with loops, and the two-part washer *n*, all substantially as specified. 10

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

LOUISA REINHARDT.

Witnesses:

J. SPEED PEAY,

JOHN FOWLER.