

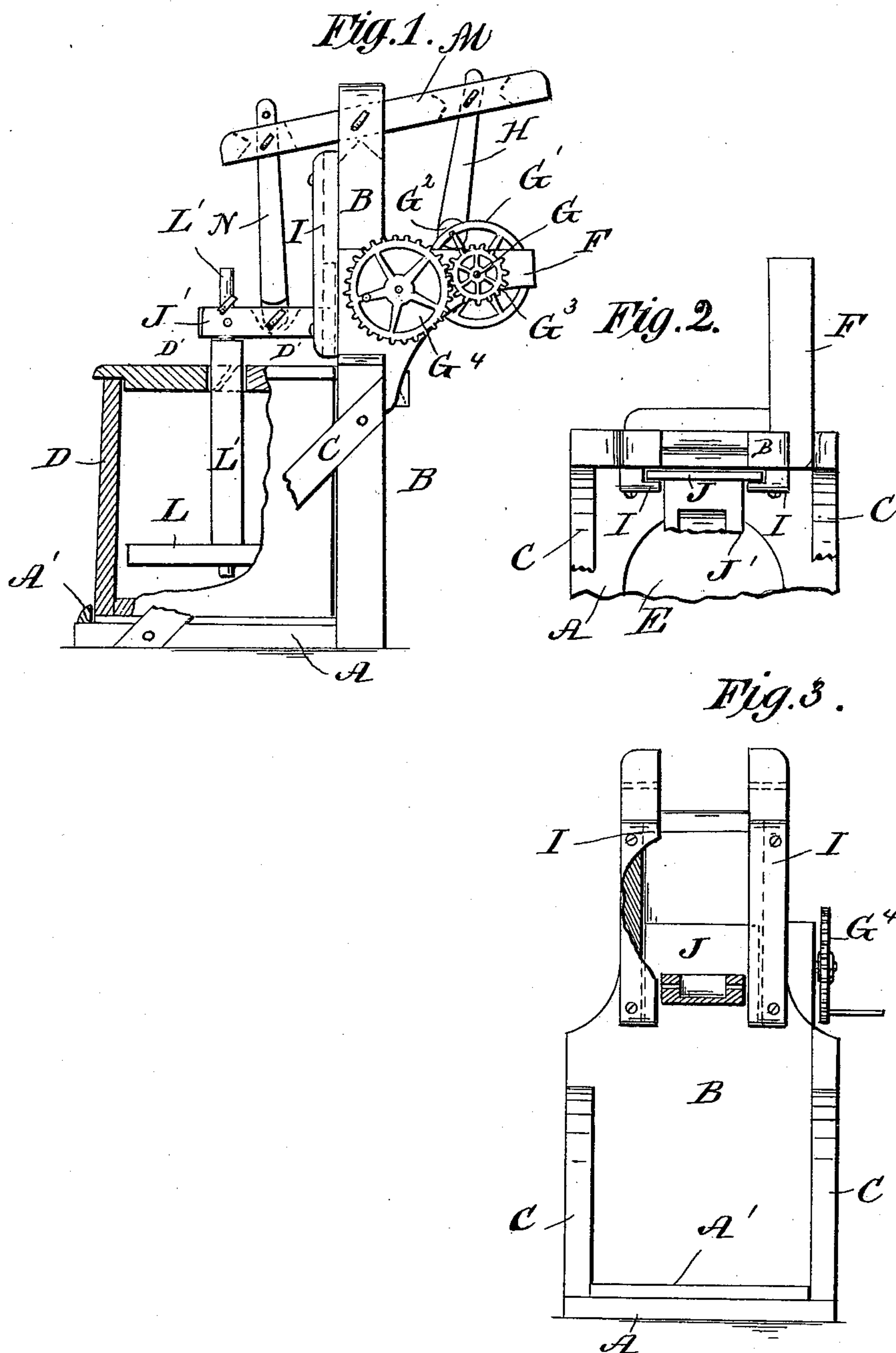
(No Model.)

J. P. & J. M. LUCAS.

DEVICE FOR OPERATING CHURN DASHERS.

No. 329,751.

Patented Nov. 3, 1885.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOSIAH P. LUCAS AND JOHN M. LUCAS, OF CADIZ, OHIO.

DEVICE FOR OPERATING CHURN-DASHERS.

SPECIFICATION forming part of Letters Patent No. 329,751, dated November 3, 1885.

Application filed February 26, 1885. Serial No. 157,124. (No model.)

To all whom it may concern

Be it known that we, JOSIAH P. LUCAS and JOHN M. LUCAS, citizens of the United States, residing at Cadiz, in the county of Harrison and State of Ohio, have invented certain new and useful Improvements in Devices for Operating Churn-Dashers; and we 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.

This invention relates to operating mechanism intended especially for use with washing-machines and churns, and aims to provide a construction by which to easily, evenly, and rapidly operate the dasher or pounder; to which end it consists in certain novel constructions and combinations of parts, which will be hereinafter described and claimed.

In the drawings, Figure 1 is a side view of our improvement with the churn-body or suds-box broken in section. Fig. 2 is a detached view in plan of a portion of the supporting-frame and the cross-head, and Fig. 3 is a front view of the supporting-head with cross-head in position and one of the guides partially broken away.

The main or supporting frame of our device comprises a base, A, and an upright, B, mounted on one end of said base. The base is provided at its front edge with a retaining step or cleat, A', which, together with the side braces, C, and the upright B, suffice to retain the box or body D, when the latter is made in the shape shown.

To adapt the framing to receive a cylindrical churn-body or suds-box, we provide the base A with a central concavity or seat, E, as shown in Fig. 2. An arm, F, extends rearwardly from the upright B and serves as a support for the drive-gearing. This drive-gearing consists of a drive-shaft, G, having a fly-wheel, G', and a crank-wrist, G², to which to connect the pitman H, presently described. This drive-shaft may be driven by a hand-crank secured or formed on it; but

we provide it with a gear-pinion, G³, meshed with an adjacent gear-wheel, G⁴, the latter being provided with a handle, as shown. On the front of the upright we secure or form guides I I, in which the cross-head J is held and movable vertically, as will be seen. This cross-head is provided with a rigid arm, J', the outer end of which is connected with the rod L' of the dasher L. This dasher operates within the box or body; and in order to facilitate the operation of the contents of the suds-box or body without detaching the parts J' L' we form the lid of the body D in sections D' D', as most clearly shown in Fig. 1. The lever M is pivoted on the upright B, and has its front end connected by a pitman, N, with the arm J', and the said pitman connects with the arm J' about midway between the cross-head and the point where the arm J' and rod L' connect. By this arrangement of the point of connection of parts N and J' the force is so applied that it obviates any binding action of the cross-head in its slides, and gives an even steady movement to the dasher or pounder rod in a true vertical line. The rear end of the lever is connected by pitman H with the crank G², so that the said pitman will operate the lever as the drive-shaft is revolved.

By our invention it will be noticed the dasher or pounder rod, by reason of its connection with the cross-head through means of a rigid arm, is caused to operate in a true line, and all lateral swinging movement of such rod is obviated.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

The herein shown and described churning device, consisting of the following elements, in combination: the vessel D, base A, cleat A', side braces, C, upright B, the latter mounted on one end of the base, opposite the cleat, guideways I, secured to the face of the upright, arm F, projected rearwardly from the upright, a cross-head held and vertically movable in the guideways, an arm, J', extending from the cross-head, the churn-dasher L', attached to the outer end of the arm J', a lever,

M, pivoted on the upright B above the guide-
ways, and arms J' and F, a pitman, N, con-
necting the forward end of the lever with the
arm J', midway of the cross-head and rod L',
5 a second pitman connecting the rear end of
said lever with a crank on a shaft journaled
to the arm F, and intermeshing gearing G³ G⁴,
carried by the arm F and revolving said crank,
substantially as and for the purpose specified.

In testimony whereof we affix our signatures 10
in presence of two witnesses.

JOSIAH P. LUCAS.
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Witnesses:

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