G. W. PATTERSON & M. L. WILLIAMS.

CHURNS.

No. 180,154. Patented July 25, 1876.

Fig. 1.

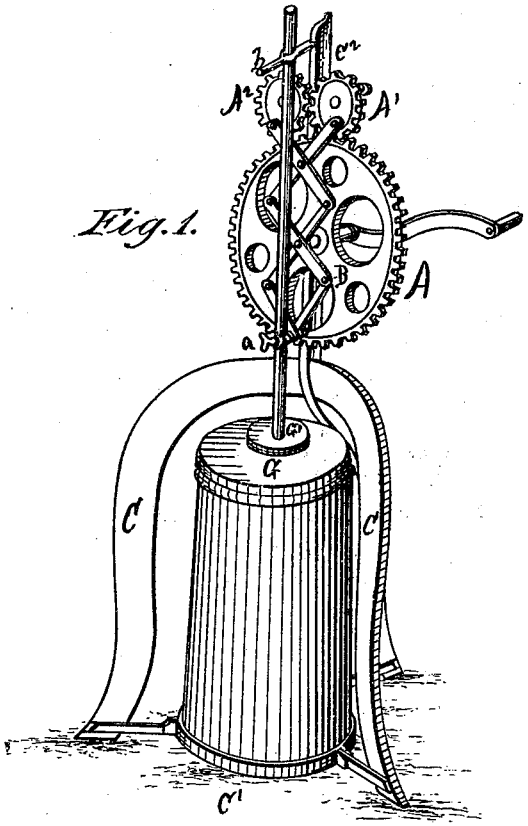
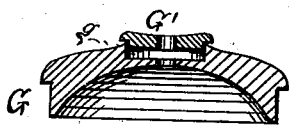


Fig. 2.



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UNITED STATES PATENT OFFICE.

GEORGE W. PATTERSON AND MARTIN L. WILLIAMS, OF ROCKFORD, ILL.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. **180,154**, dated July 25, 1876; application filed May 4, 1876.

To all whom it may concern:

Be it known that we, GEORGE W. PATTERSON and MARTIN L. WILLIAMS, of Rockford, in the county of Winnebago and State of Illinois, have invented a new and useful Improvement in Churns; and we do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 is a perspective view of the churn with the stand, gear, &c., in working position. Fig. 2 is a cross-section taken through the center of the cover, showing the recess in the same.

Similar letters of reference denote corresponding parts in both figures.

The object of this invention is to provide a simple device whereby the ordinary dash-churn may be used with an increased motion of the dash, with but little expenditure of force to operate the same.

The invention consists of a system of lazy-tongs, in connection with gear-wheels, whereby the dasher is raised perpendicularly, and is readily attached and detached at the will of the operator, all of which will be hereinafter described.

A represents the master-wheel; A^1, the pinion gearing into the same; and A^2, the idle-pinion, which meshes into pinion A^1. To the pinions A^1 A^2 are pivoted the upper legs of the lazy-tong bars B, the lower legs of the same being pivoted together by the bolt connecting them with the dasher-handle. *a* is the screw-clamp securing the lazy-tongs to the dasher. C is the frame, preferably made of metal, provided with three or more legs, which branch out sufficiently far at the bottom to receive the platform C^1, upon which the churn rests. This platform may be made of any desired shape, to conform to the churn resting upon the same, and is connected in any suitable manner with the legs of the frame C. Connected with the frame or tripod C is an upright, C^2, to which are journaled the gear mechanism, by which the dasher is operated. To the top of the upright C^2 is secured a dog or lever, *b*, having a hinge-connection with the same, and provided with a hole, through which the dasher-handle rises and falls.

When it is necessary to remove the dasher from the churn, this lever *b* is raised from a horizontal to a perpendicular position, which can be readily done when the dasher is at its lowest throw. The coupling *a* being removed, the churn can be detached, as will be readily understood.

The lid G (see Fig. 2) is made with a cavity, *g*, and having a supplementary lid, G′, so made that a space is left between the lids, for the purpose of preventing any overflow of the cream, the hole in the lid G being of smaller dimensions than in the supplementary lid G′.

It will be observed that by this construction the dasher works rapidly, and the tendency will be to overflow or spatter. To prevent this, these lids have been devised. The upper lid G′ will remove nearly all cream that adheres to the dasher after it has passed lid G, the cavity *g* receiving the scrapings from the upper lid, and the same will be returned into the churn through the opening in the lid proper.

The operation is as follows: When the churn is to be used, it is placed upon the platform, which is provided with a rim, or other means for securing the bottom. The cream is poured in, the dasher and lids placed in position. The dasher is coupled with the tongs. The latch or top lever is swung down, and acts as a guide to the dasher, and the wheel is revolved by the turning of the crank until the butter is made.

By this system of gears and levers the dasher is raised and lowered perpendicularly without any swaying whatever, and does not wear the lid, as is usually done by the hand-motion.

The speed can be regulated at will, according to the size of the gear used, and the whole is simple and easy in operation.

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

1. The combination and arrangement of the

lazy-tongs, gear-wheels A A^1 A^2, for propelling the churn-dasher, substantially as described.

2. The combination of clamp or coupling *a*, lazy-tongs B, gear-wheels A A^1 A^2, dog or lever *b*, and upright C^2, all arranged and operating as described.

This specification signed and witnessed this 25th day of March, 1876.

GEORGE W. PATTERSON.
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Witnesses:
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