

M. J. BARROW.  
Churn-Power Mechanism.

No. 219,061.

Patented Sept. 2, 1879.

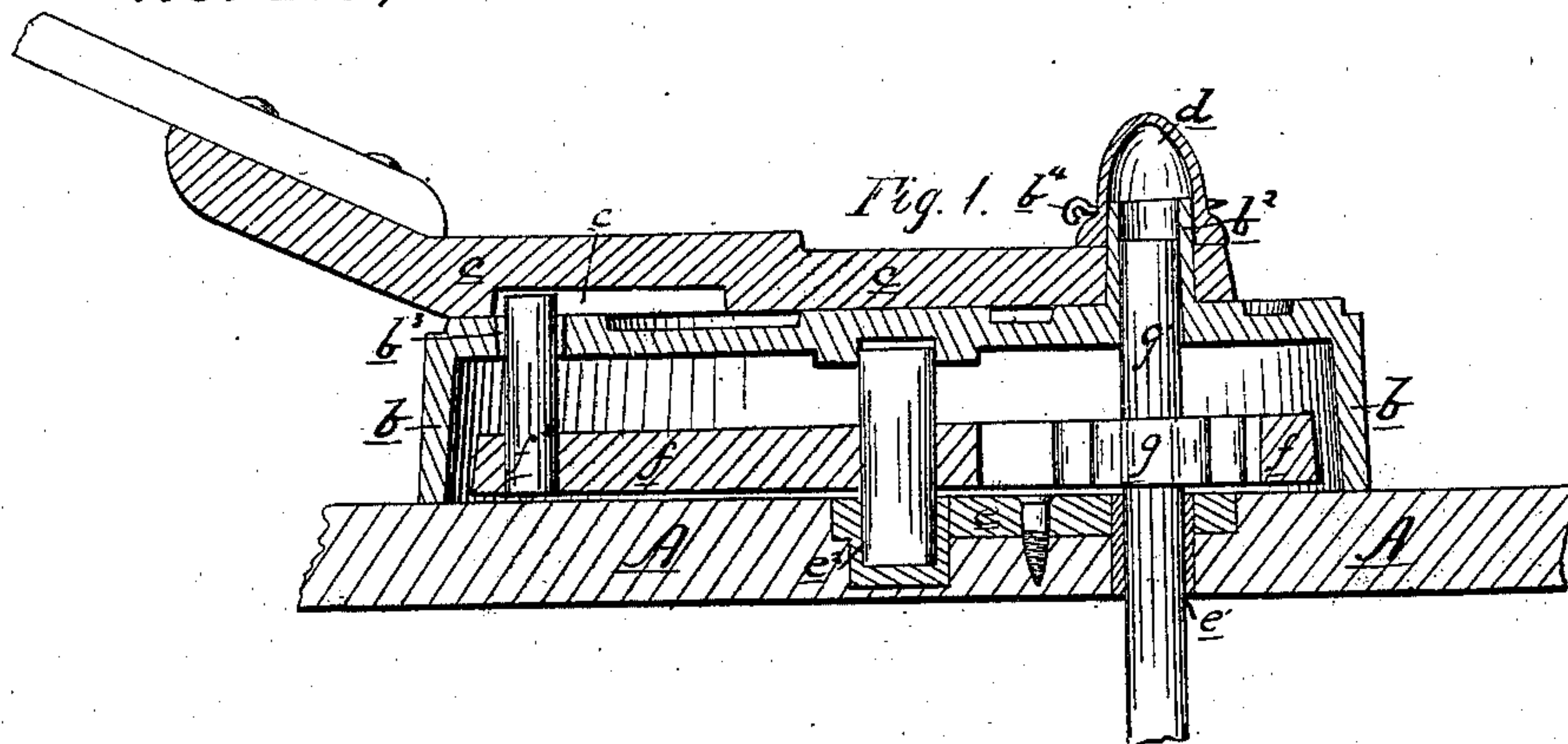


Fig. 2.

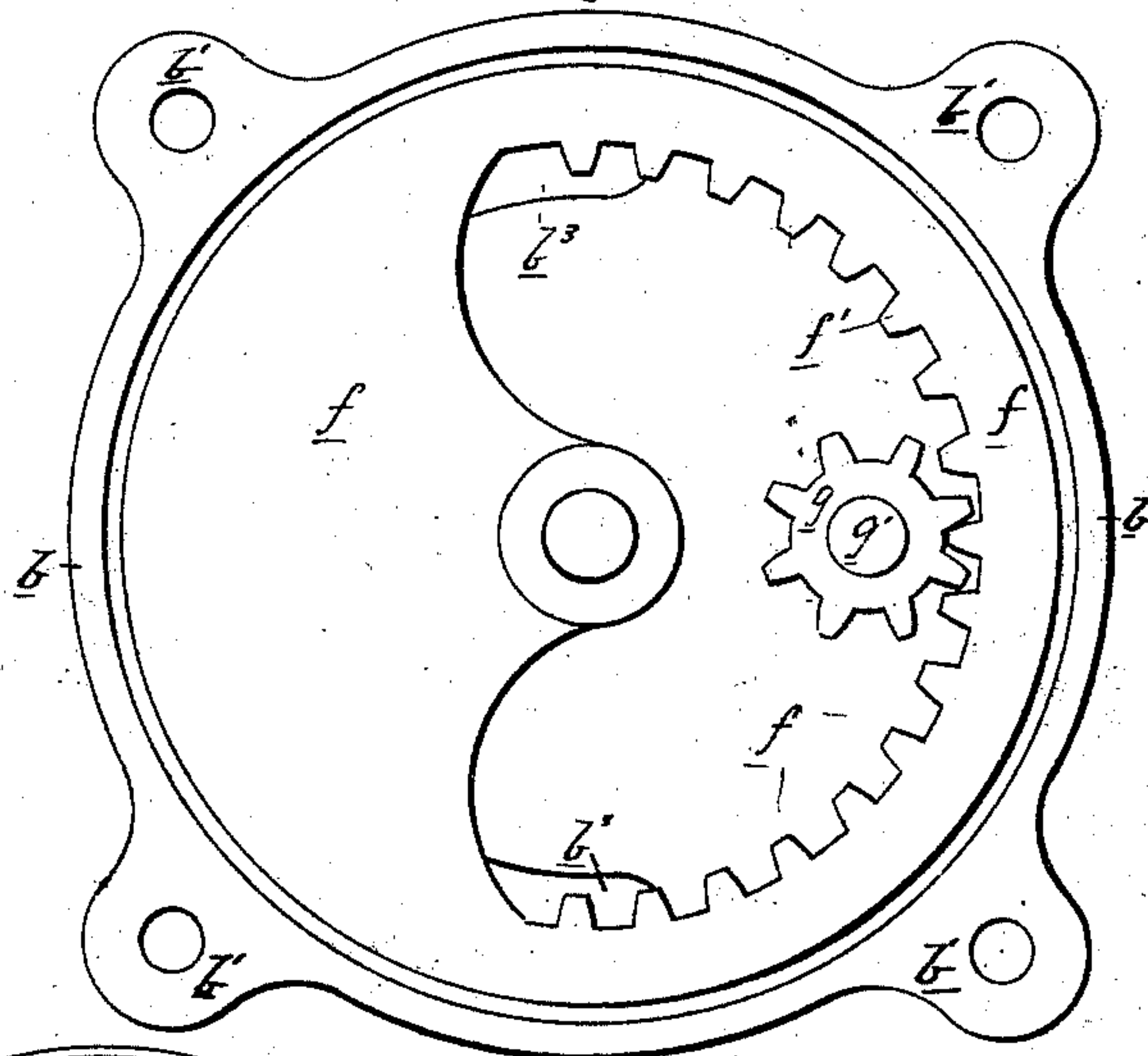


Fig. 3.

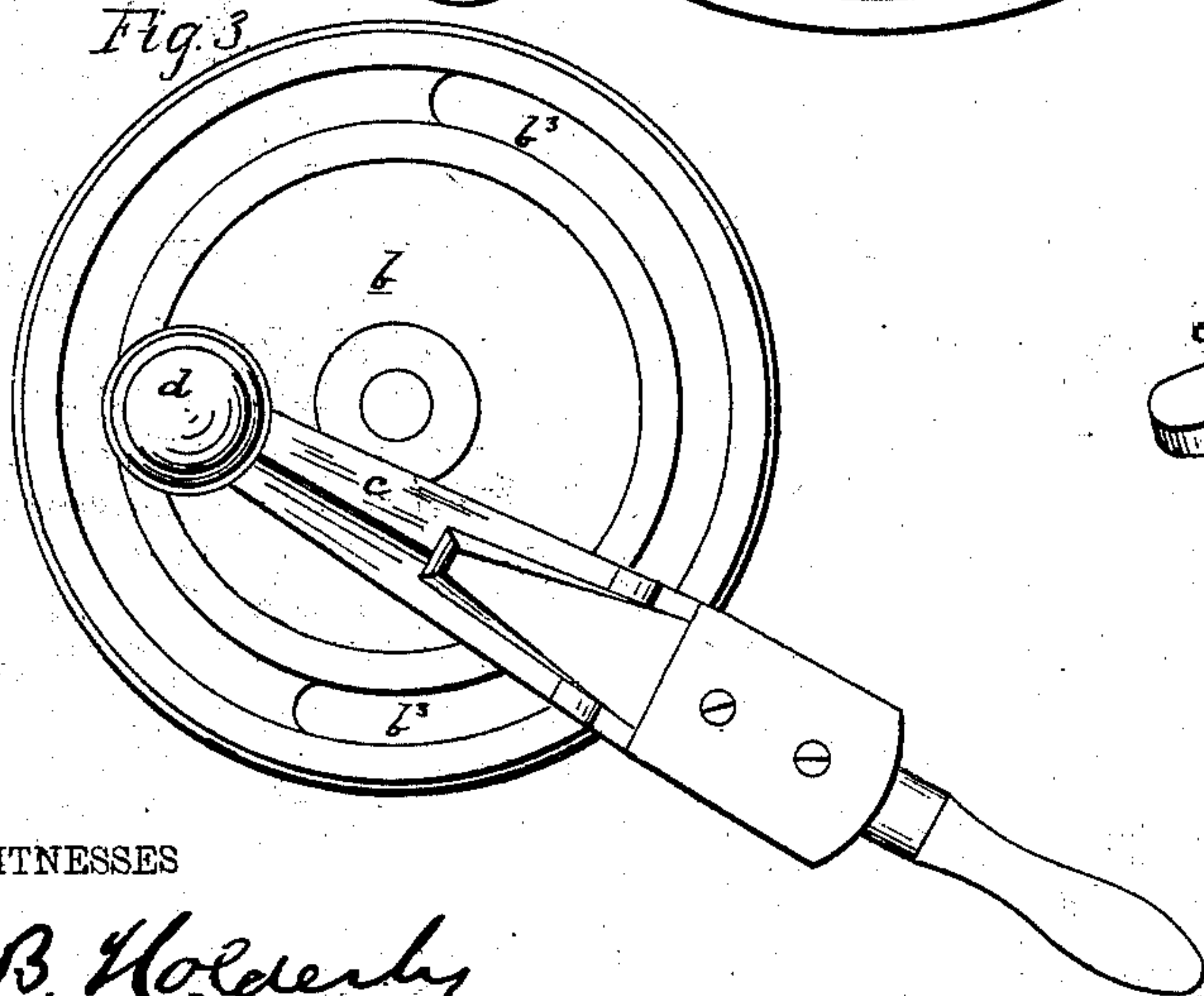
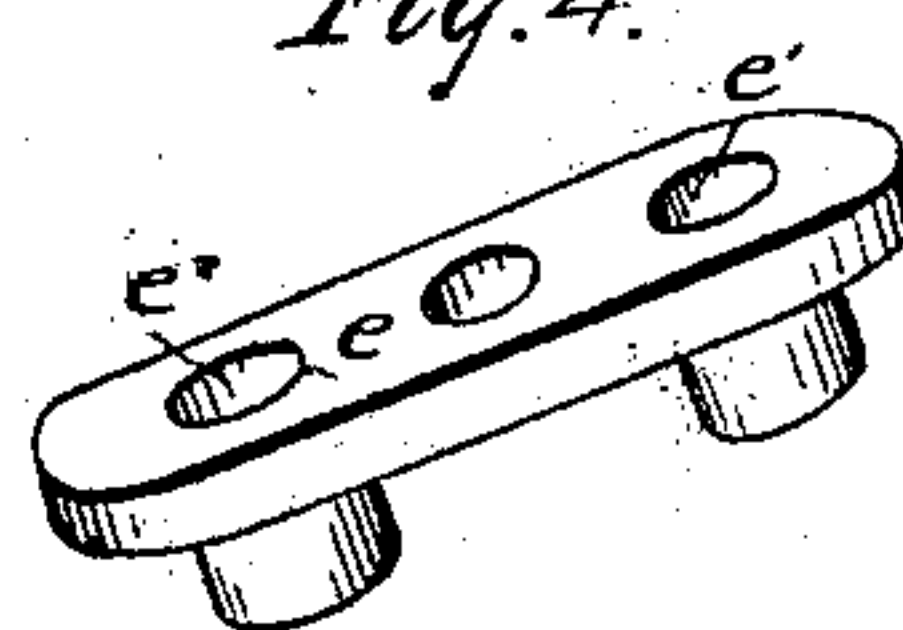


Fig. 4.



WITNESSES

J. B. Holderby  
F. D. Thomson

INVENTOR

Marion J. Barrow

By R. S. W. Lacey, ATTORNEYS



# UNITED STATES PATENT OFFICE.

MARION J. BARROW, OF ROODHOUSE, ILLINOIS, ASSIGNOR OF ONE-HALF HIS RIGHT TO GEORGE W. ARMSTRONG, OF SAME PLACE.

## IMPROVEMENT IN CHURN-POWER MECHANISMS.

Specification forming part of Letters Patent No. **219,061**, dated September 2, 1879; application filed June 13, 1879.

*To all whom it may concern:*

Be it known that I, MARION J. BARROW, of Roodhouse, in the county of Greene and State of Illinois, have invented certain new and useful Improvements in Churn-Power Mechanisms; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention consists in a slotted casing, a journal-plate, gear-wheels, and other mechanism combined and arranged to be readily attached to the top of a churn or other vessel, all of which will be hereinafter fully explained, and pointed out in the claims.

Figure 1 is a vertical section of my invention. Fig. 2 is an under-side view of the same. Fig. 3 is a top view. Fig. 4 is a detached view of the journal-plate.

A represents the top or lid of a churn, ice-cream freezer, washing-machine, or other vessel to which my invention may be applied and in which a reversible rotary movement of the shaft is required. *b* is the casing, provided with projecting lugs *b*<sup>1</sup>, by which it is secured to the top or lid A. The top of the casing is provided with a hollow standard, *b*<sup>2</sup>, which serves as a fulcrum for the handle and as a journal for the pinion-shaft, as hereinafter explained.

Formed around near the rim of the casing is a semicircular slot, *b*<sup>3</sup>, through which projects a pin fixed on the main gear-wheel, hereinafter described.

*c* is the handle or operating-lever. It is provided with a bearing in one end, which is placed over and turns on the hollow standard *b*<sup>2</sup>, and it is held in place by the key *b*<sup>4</sup>, which is put through the upper end of the standard, as shown.

The hollow standard is covered by a cap, *d*, held in place by the key *b*<sup>4</sup>. On the under side of the handle *c* there is formed the longitudinal slot *c*<sup>1</sup>, into which the pin on the main gear-wheel projects.

*e* is the journal-plate, provided with bearings *e*<sup>1</sup> *e*<sup>2</sup>, and it is held in place in the top A by a screw or other suitable fastening. The top A is recessed to receive the plate *e*, which is so arranged as to bring the bearings *e*<sup>1</sup> at the center or other part of the churn where the operating-shaft or dasher enters.

*f* is the main gear-wheel, provided with the internal segmental gear *f*<sup>1</sup>, and is journaled in the casing *b* and the bearing *e*<sup>2</sup> of the journal-plate *e*. *f*<sup>2</sup> is a pin which is fixed to and near the rim of the wheel *f*, and projects upward through the slot *b*<sup>3</sup>, and into the slot *c*<sup>1</sup> on the under side of the handle *c*, as shown in Fig. 1. The slot in the handle permits the necessary adjustment to the varying radial distance between the fulcrum or standard and the pin *f*<sup>2</sup> in the to-and-fro movement of the handle.

*g* is a pinion fixed on the dasher-shaft *g*<sup>1</sup>, and is so journaled in the casing *b* and the bearing *e*<sup>1</sup> of the journal-plate *e*, that it meshes with the internal rack *f*<sup>1</sup> of the main wheel.

The application and operation of the device are very easily understood.

In the construction of the device I have shown the journal-plate *e* so arranged that a recess or mortise must be made in the top A to receive it; but it will be readily understood that the casing can be so constructed that the plate *e* will rest on the top of said lid A, thus obviating all labor of cutting a mortise to receive it.

The journal-plate could also be extended laterally, and secured to the under edges of the rim of the casing, so that the entire device could be lifted without the parts becoming separated.

While I have described my invention as a mechanism for operating churns, it will be readily understood that it is equally adapted to operate washing-machines, ice-cream freezers, or other devices in which a reciprocating movement is to be given to a central shaft.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with the casing *b*, constructed with the semicircular slot *b*<sup>3</sup> and hollow standard *b*<sup>2</sup>, the journal-plate *e*, having

bearings  $e^1$   $e^2$ , and shaft  $g'$ , of the gear  $f$ , having pin  $f^2$ , pinion  $g$ , and handle  $c$ , provided with slot  $c^1$ , to receive the end of the pin  $f^2$ , substantially as and for the purposes set forth.

2. In a mechanism for giving a reversible rotating movement to the shaft of a churn or other vessel, the combination, with the main driving-wheel having a fixed pin,  $f^2$ , in its rim, of the handle  $c$ , turning on a fixed pivot or center of motion,  $b^2$ , and having a slot,  $c'$ , on

its under side to receive the end of the pin  $f^2$ , substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

MARION JASPER BARROW.

Witnesses:

JAMES L. PATTERSON,  
W. T. LITTON.