(No Model.)

J. INGELLS.

CHchurn.

No. 385,714. Patented July 10, 1888.

Fig. 1.

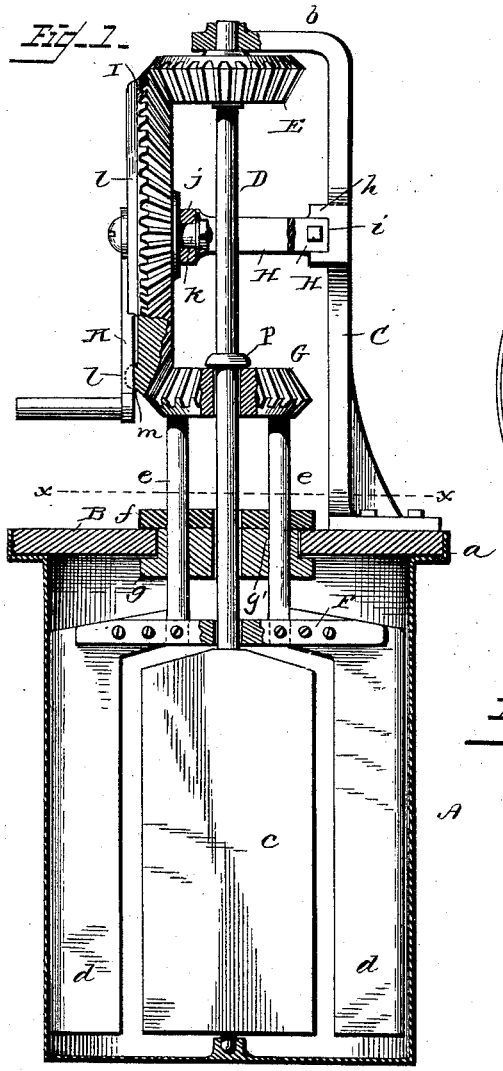


Fig. 2.

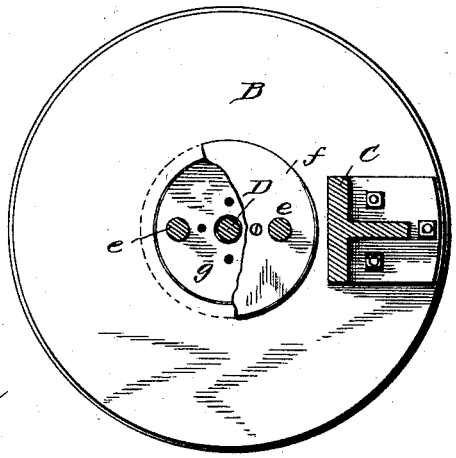
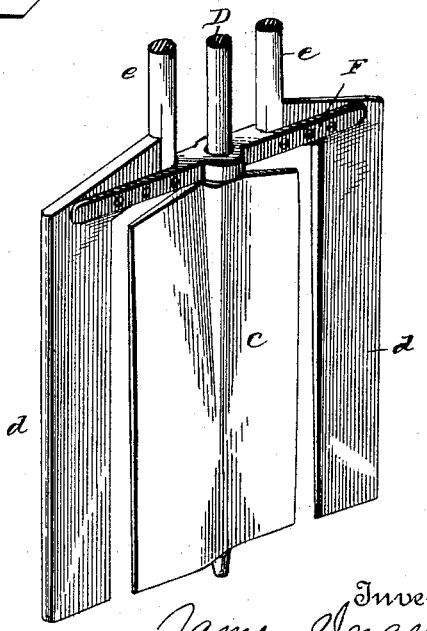


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

JAMES INGELLS, OF ALBA, MICHIGAN.

CHURN.

SPECIFICATION forming part of Letters Patent No. 385,714, dated July 10, 1888.

Application filed April 26, 1888. Serial No. 271,914. (No model.)

To all whom it may concern:

Be it known that I, JAMES INGELLS, a citizen of the United States, residing at Alba, in the county of Antrim and State of Michigan, have invented certain new and useful Improvements in Churns; 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, 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 certain new and useful improvements in churns; and it has for its object to provide a churn which shall be simple and cheap, durable, and very efficient in operation.

To these ends and to such others as the invention may pertain the same consists in the peculiar combinations and in the construction, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the accompanying drawings, and then particularly pointed out in the appended claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a sectional view of my improved churn. Fig. 2 is a horizontal section on line *x x* of Fig. 1, with parts broken away. Fig. 3 is a detail perspective view of the dasher and beaters.

Referring now to the details of the drawings by letter, A designates a churn body, of any suitable material, provided at its upper end with an interior annular flange, *a*, which forms a rest or support for the cover or top B. Rising from the cover B is the standard C, provided at its upper end with the horizontal extension *b*, which may be either integral with the standard or formed separate and rigidly secured thereto, as deemed best. The shaft D has bearings in the extension *b* and in the disks *e g*, as shown, and at its lower end carries the dasher or blade *c*.

E is a bevel-pinion fast on the shaft D just below the extension *b*.

F is a cross bar below the cover, and depending therefrom, one at each side, are the blades or beaters *d*.

Secured to the cross bar F are the rods *e*, to the upper ends of which is secured the bevel-pinion G, through a hole in which the shaft D loosely works.

The cover B is provided centrally with an opening in which works the extension *g'* of the disk *g*. *f* is a disk above the cover, as shown. Both of these disks are secured to the rods *e* and rotate therewith. The shaft D passes loosely through the hole in the cross-bar F.

Secured to the inner face of the standard C is the block *h*, formed upon opposite sides with notches *i*, in which are secured the arms H. These arms receive between them the shaft D, and at their outer ends are connected by a cross-piece, preferably in the form of a disk, as shown at *j*, in which is secured the shaft *k* of the pinion I. This pinion meshes with the pinions E and G, and is provided with a suitable operating-handle. In the drawings I have shown the handle K constructed and connected as follows: The outer face of the pinion I is formed with a flange or rib, *l*, in which is formed a recess, *m*, in which is fitted the handle, the inner end of which is in the form of a disk loosely embracing the shaft *k* and firmly secured to the pinion I. The handle is provided with a suitable knob, *n*.

P is a stop or collar on the shaft D above the pinion G, to limit the upward movement of said pinion.

The operation is apparent, and a detailed description thereof is not thought necessary. Motion being given to the pinion I, the beaters or blades are revolved in opposite directions through the medium of the connections above described.

Having thus described my invention and set forth its merits, what I claim to be new, and desire to secure by Letters Patent, is—

The combination, with the cover and the standard thereon having the horizontal extension *b* at its upper end, of the shaft D, having the blade *c* at its lower end and the pinion E at its upper end, the cross-bar F, the beaters carried thereby, said cross-bar be-

ing perforated for the free passage of the shaft D, the rods rising from said cross-bar, the disks sleeved to and moving with said rods, one upon each side of the shaft, the pinion G, carried by said rods, and the pinion I, meshing with the pinions E and G and provided with a suitable operating-handle, substantially as described.

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

JAMES INGELLS.

Witnesses:
JONATHAN F. MOORE,
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