

(No Model.)

E. I. HARRISON.
CHURN.

No. 454,943.

Patented June 30, 1891.

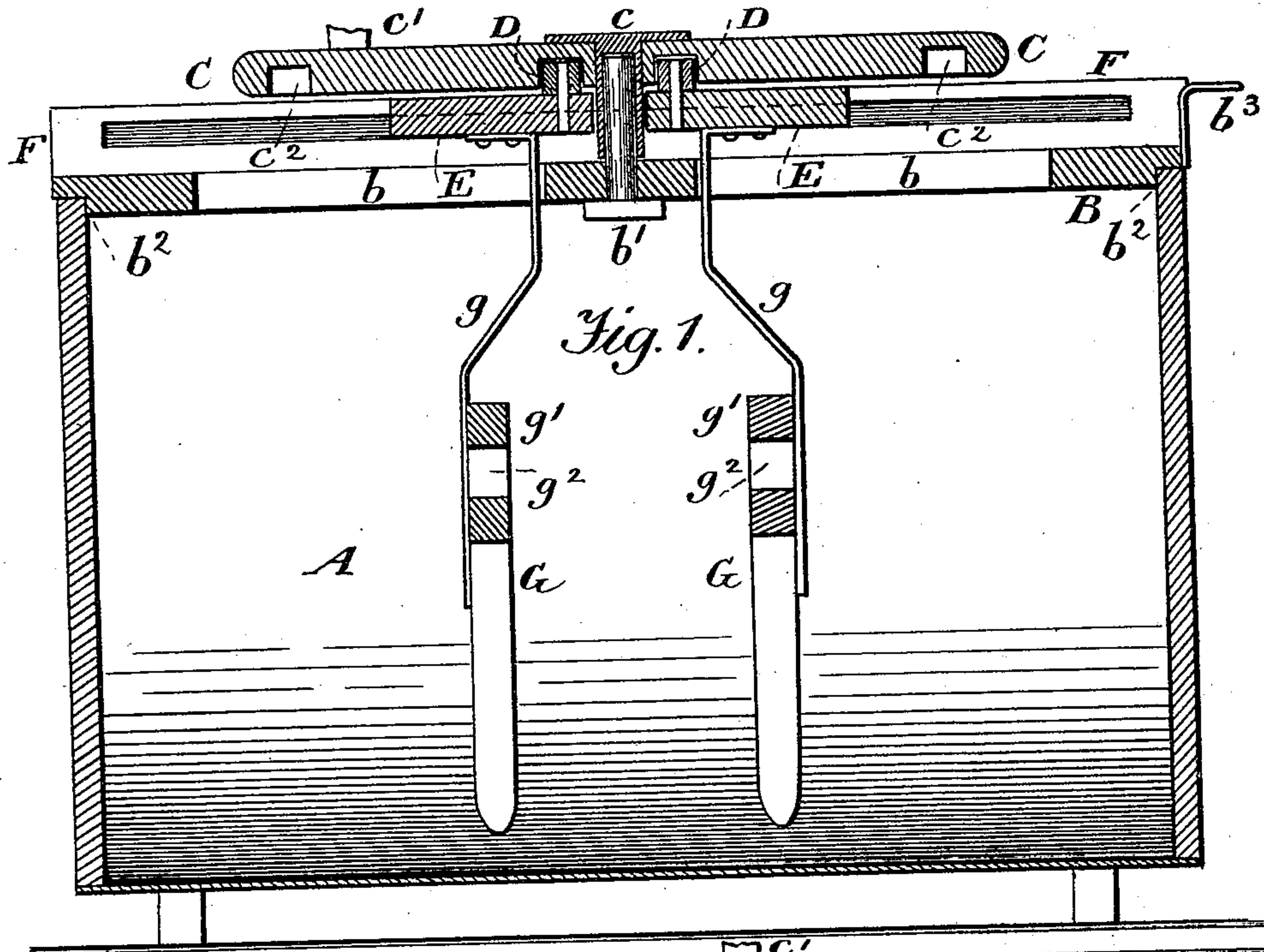
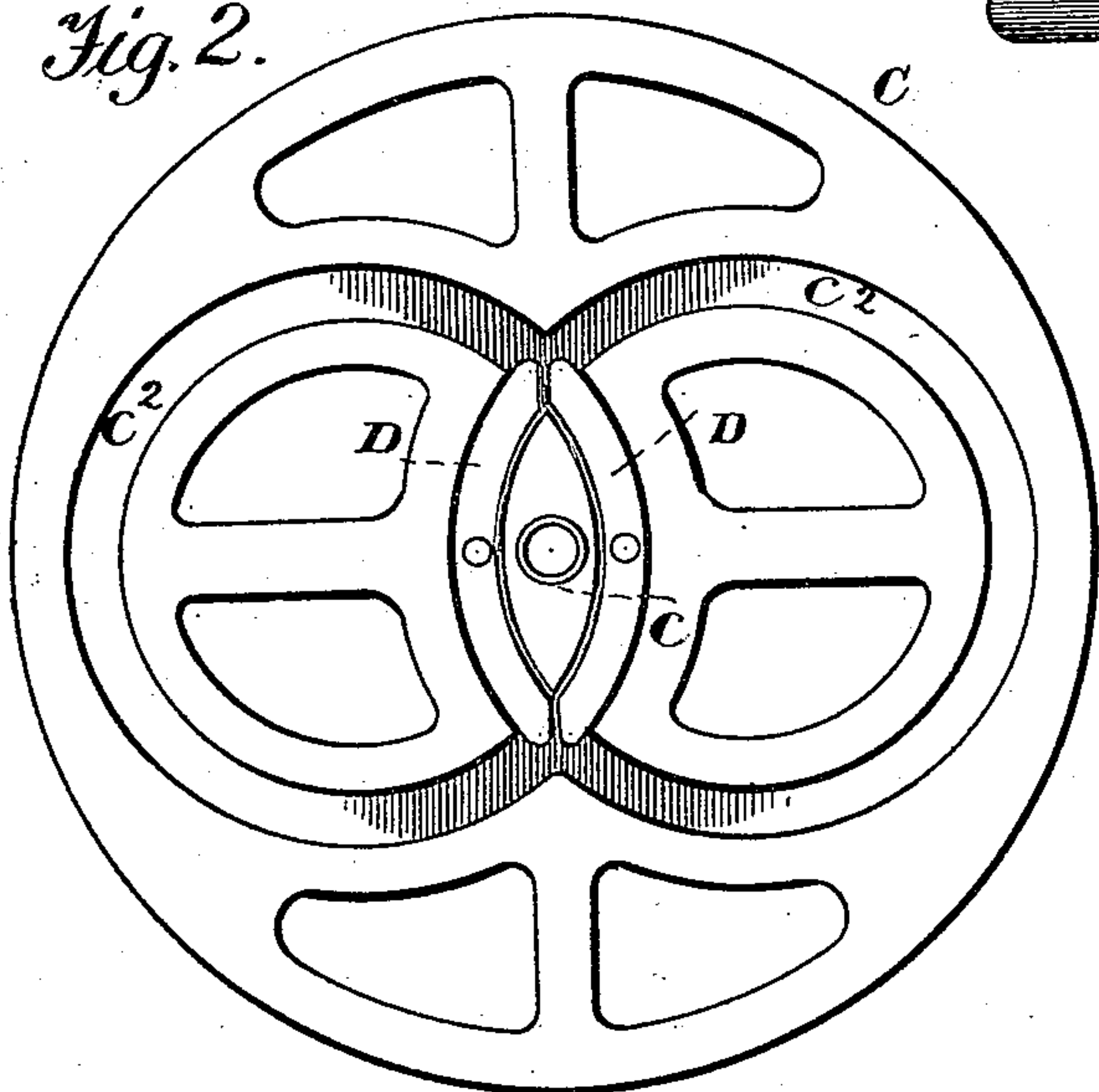
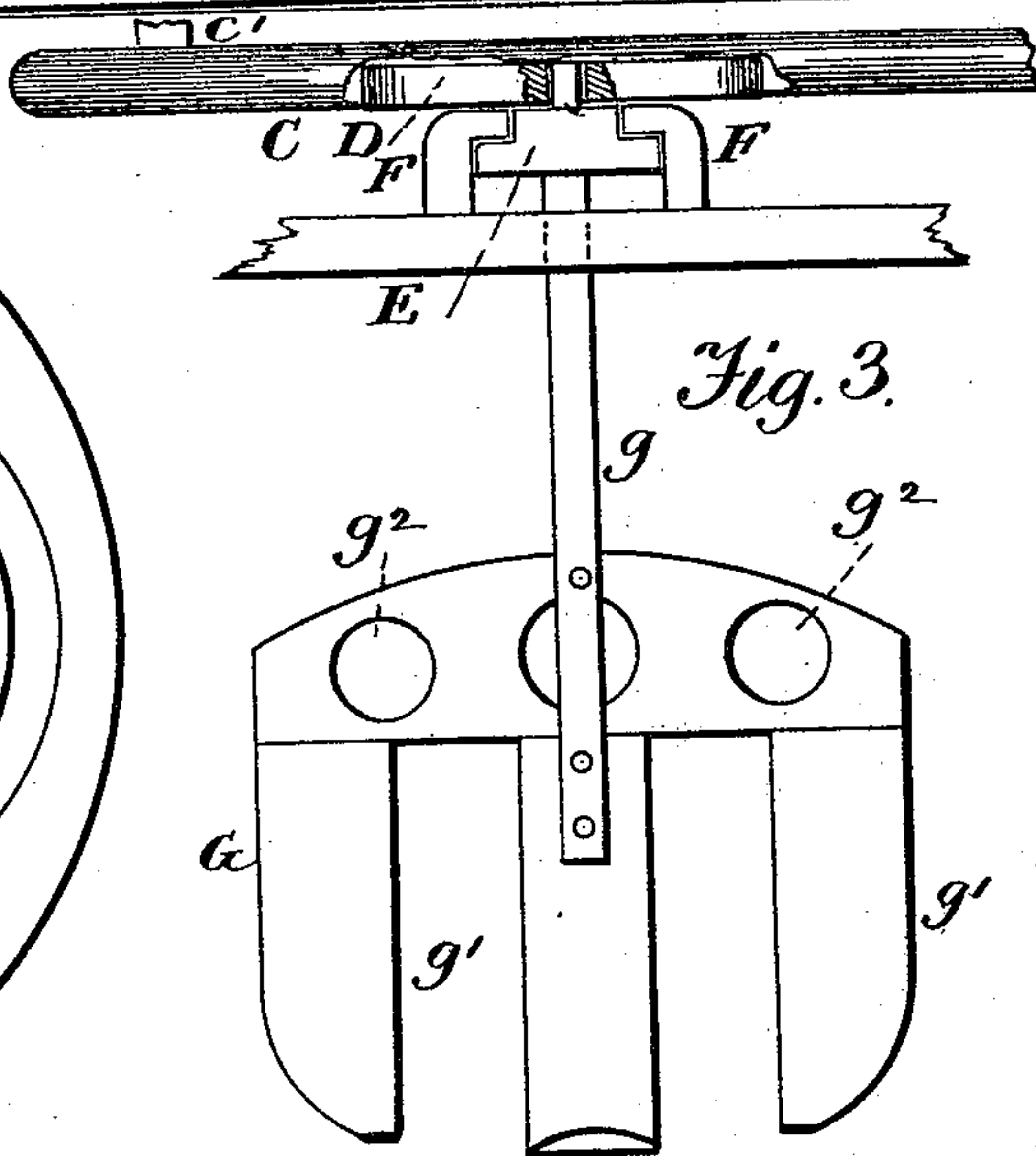


Fig. 2.



Witnesses.
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UNITED STATES PATENT OFFICE.

EDWIN I. HARRISON, OF LEROY, ILLINOIS.

CHURN.

SPECIFICATION forming part of Letters Patent No. 454,943, dated June 30, 1891.

Application filed February 4, 1891. Serial No. 380,227. (No model.)

To all whom it may concern:

Be it known that I, EDWIN I. HARRISON, a citizen of the United States, residing at Leroy, in the county of McLean and State of Illinois, have invented certain new and useful Improvements in Churns; and I do hereby 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 ap-
10 pertains to make and use the same.

The special object of the invention is to reciprocate two dashers in a churn by means substantially as hereinafter described, and pointed out in the claim.

15 Figure 1 of the drawings is a view of a longitudinal section of my churn; Fig. 2, a bottom view of the crank-disk whose rotation reciprocates the two dashers; Fig. 3, an elevation showing one of the dashers connected to its
20 slide and the pivoted arc piece which connects the slide with the disk.

In the drawings, A represents the body of a churn, and B the cover, which has two aligned longitudinal slots $b\ b$ on opposite sides of a central pivot b' . On this pivot is fitted bearing c in the center of a circular disk C, which
25 may be rotated manually by a hand-crank c' . This disk is provided on its under side with two circular grooves $c^2\ c^2$ of equal diameter
30 and with centers equally distant from the center of the disk, but with peripheries intersecting one another. In these grooves work the arc pieces D D, each middle pivoted to a block E, tenoned to slide in grooves of the parallel
35 guides F F. As the disk is rotated, the blocks are carried to and from the center of the disk by the rotation of the arc pieces D D in the disk-grooves $c^2\ c^2$. The blocks E are connected to the dashers G G by means of the

stems or rods $g\ g$, which pass through the cover-slots $b\ b$, so that the dashers shall be simultaneously moved to and from each other to agitate the cream or milk, and thereby make the butter "come" in a few minutes. Each dasher G has a body with the paddles
45 g' and holes g^2 , said paddles or holes being in any preferred number. The cover B sets within the body of the churn and is supported thereon by a peripheral flange b^2 , while one end may be first raised by the handle b^2 , and
50 then the cover, disk, and dashers all removed together, so as to conveniently reach and separate the butter from the buttermilk.

In practice the milk or cream requires but a comparatively brief time in churning. The
55 result is accomplished with little labor. The cover and operative mechanism are easily removed, and there is no part of churn, cover, or churning mechanism liable to get out of
60 order.

Having thus described all that is necessary to a full understanding of my invention, what I claim as new, and desire to protect by Letters Patent, is—

The combination, with blocks E E, oppositely placed in guides upon the top of the churn-cover and connected by stems or rods passing through cover-slots with the dashers, of the arc pieces D D, middle pivoted to said blocks, and the centrally-pivoted rotary disk
65 C, having on its under sides the intersecting circular grooves $c^2\ c^2$, for the purpose set forth.
70

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

EDWIN I. HARRISON.

Witnesses:

JOHN M. STILWILL,
J. B. FRY.