

E. HUSHER.
Churn.

No. 168,024.

Patented Sept. 21, 1875.

Fig. 1.

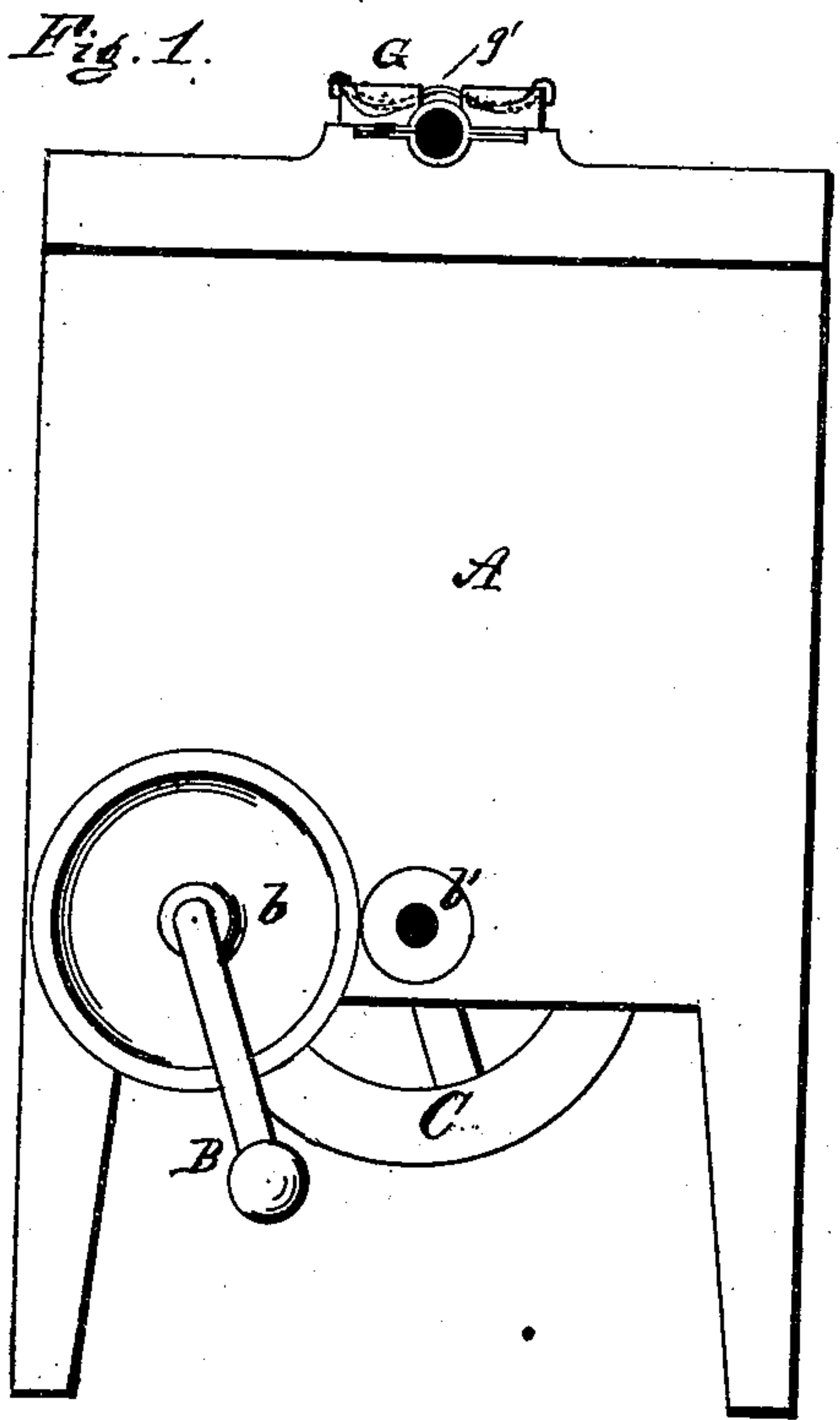


Fig 2.

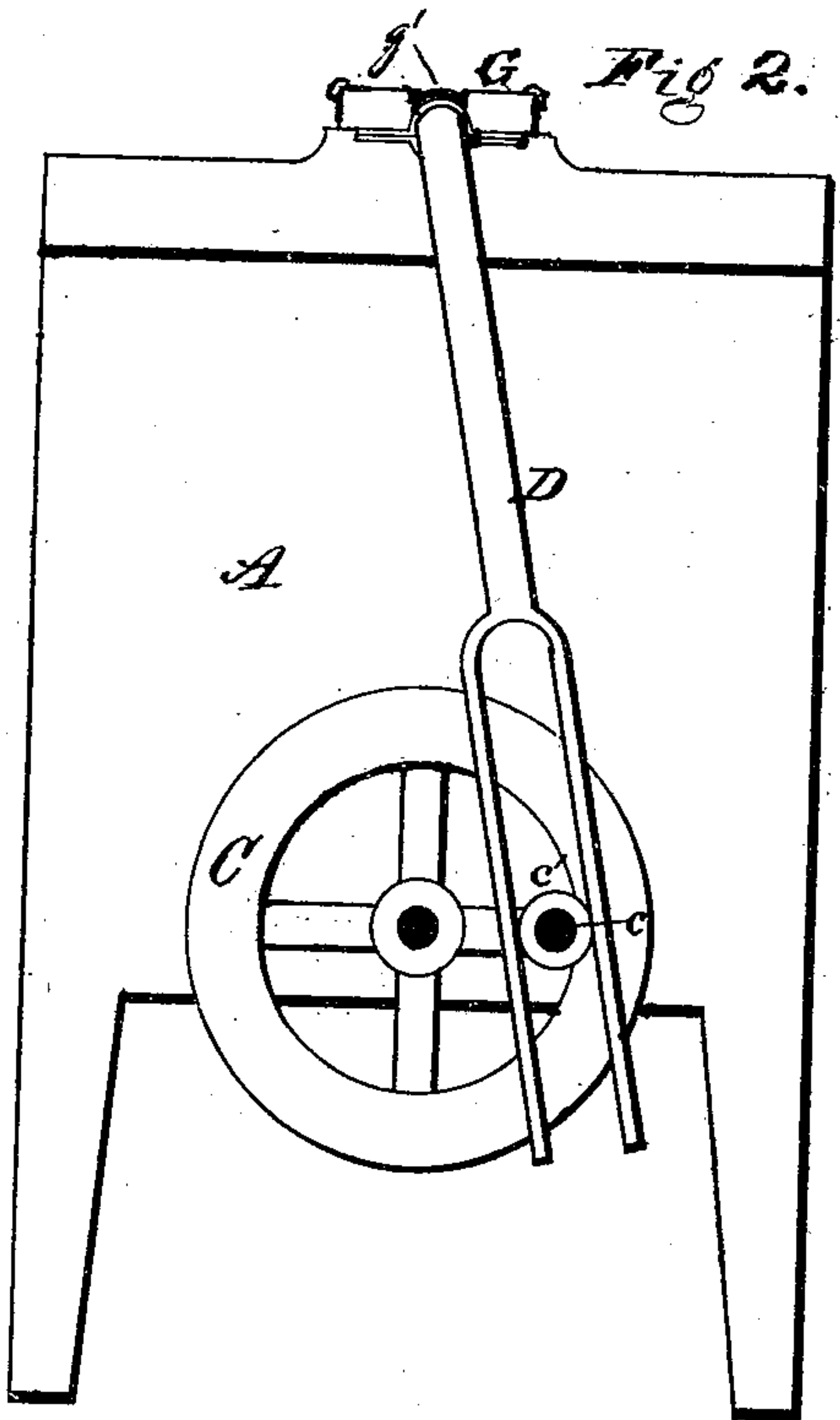
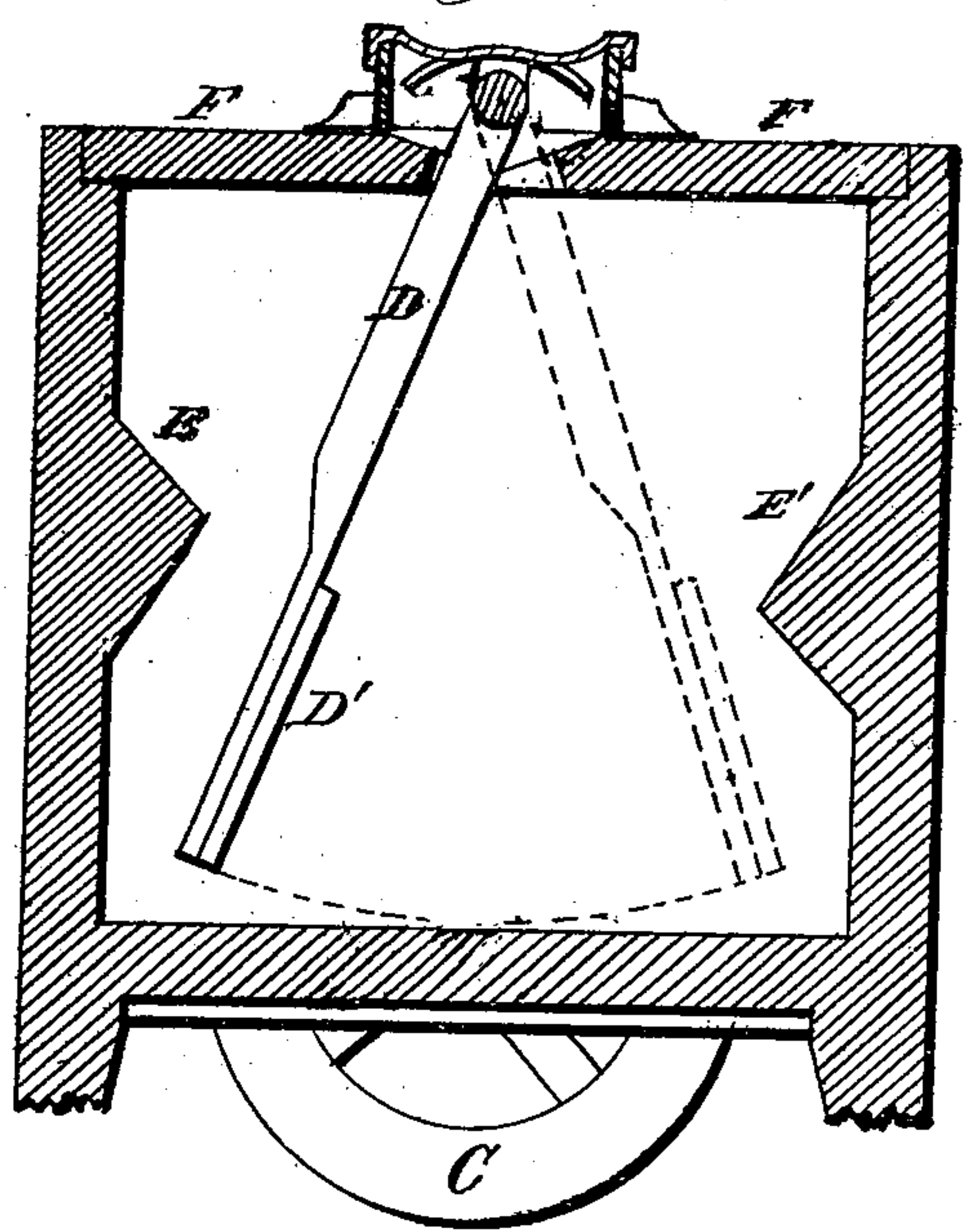


Fig 3.



Witnesses
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UNITED STATES PATENT OFFICE

ELIJAH HUSHER, OF SCOTT DALE, PENNSYLVANIA.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. **168,024**, dated September 21, 1875; application filed July 15, 1875.

To all whom it may concern:

Be it known that I, ELIJAH HUSHER, of Scott Dale, in the county of Westmoreland and State of Pennsylvania, 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figures 1 and 2 are end views. Fig. 3 is a vertical transverse section of my invention.

My invention relates to improvements in reciprocating churns; and consists in three points, viz: First, in the means I employ to obtain a reciprocating paddle-motion, all connections and joints being outside the churn-body. It is an ordinary crank and fly-wheel, the latter having a pin on which is placed a loose roller, running in a slotted or forked arm or link, which is a part of the paddle-arm, and moves with it. Secondly, in a hopper, and loose concave lid, with air-vents placed on the lid at the opening, through which passes the arm bearing the paddle. The object of this is to prevent splashing, and allow air to enter, to facilitate the churning. Thirdly, in the breakers placed on the dash-walls of the churn inside. These are placed at different heights, and are intended to cause the butter to collect all in one place, as hereinafter shown, and form in a roll, so as to shorten the operation and save time in manipulation.

Referring to the accompanying drawings, A is the body of the churn; B, a crank turning the pinion *b*, which meshes in a smaller pinion, *b'*, whose shaft passes through to the other side, ending as the axle of fly-wheel C. This fly-wheel has a pin or crank, *c*, carrying a loose roller, *c'*, which moves in the forked or slotted lever D, which, at the top of the churn, is bent over through a bearing at each side of the churn on separate cross-bars. These are thus placed to allow of oiling without the risk of the oil dripping into the cream. From the middle point of this angle of D extends downwardly another arm, a part of itself, which carries a plain or perforated single dasher, D'. On one of the walls, opposite the dasher, and slightly higher than its top edge,

is a lateral breaker, E; and on the other wall, slightly lower than the top edge of the dasher, is a similar breaker, E'. These operate as follows: When the dasher is thrown toward the higher breaker E, the under surface of the latter being inclined, the tendency of the cream is to fly over the top of the dasher to the other side. When the dasher is thrown toward the lower breaker E', the edge of the latter being lower down, no such tendency arises, but the cream is violently agitated in a rolling motion. Thus the constant motion toward one spot is ever kept up, with the result stated of causing the butter to collect on one particular side of the churn-dasher, and, by the rolling motion there imparted, to gradually collect into one single roll of itself. This will at once be seen to be a great saving of time and labor now expended in "gathering."

The cover F of the churn is divided into two portions, having an opening at the center of junction for the arm of the dasher. Around this opening a hopper, G, is formed, with a concave-shaped cover, *g'*. The splash strikes the cover *g'*, falls back to the hopper, whence it drops again into the churn. The cover *g'* being loose, or provided with air-vents, admits a plentiful supply of air to the interior.

I claim as my improvements—

1. In combination with the fly-wheel C, carrying the pin *c* and roller *c'*, and attached to a shaft located at the bottom of the churn, the dasher-shaft journaled on top of the churn, and having the depending arm D terminating in a link open at its lower end, to facilitate connection and removal, substantially as shown and described.

2. The hopper G and concave cover *g'*, so arranged as to catch the splash and admit air, as set forth.

3. In combination with the reciprocating paddle D', two breakers, E E', arranged, in respect to the dasher, substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 17th day of June, 1875.

ELIJAH HUSHER.

Witnesses:

T. A. CONNOLLY,
JOS. B. CONNOLLY.