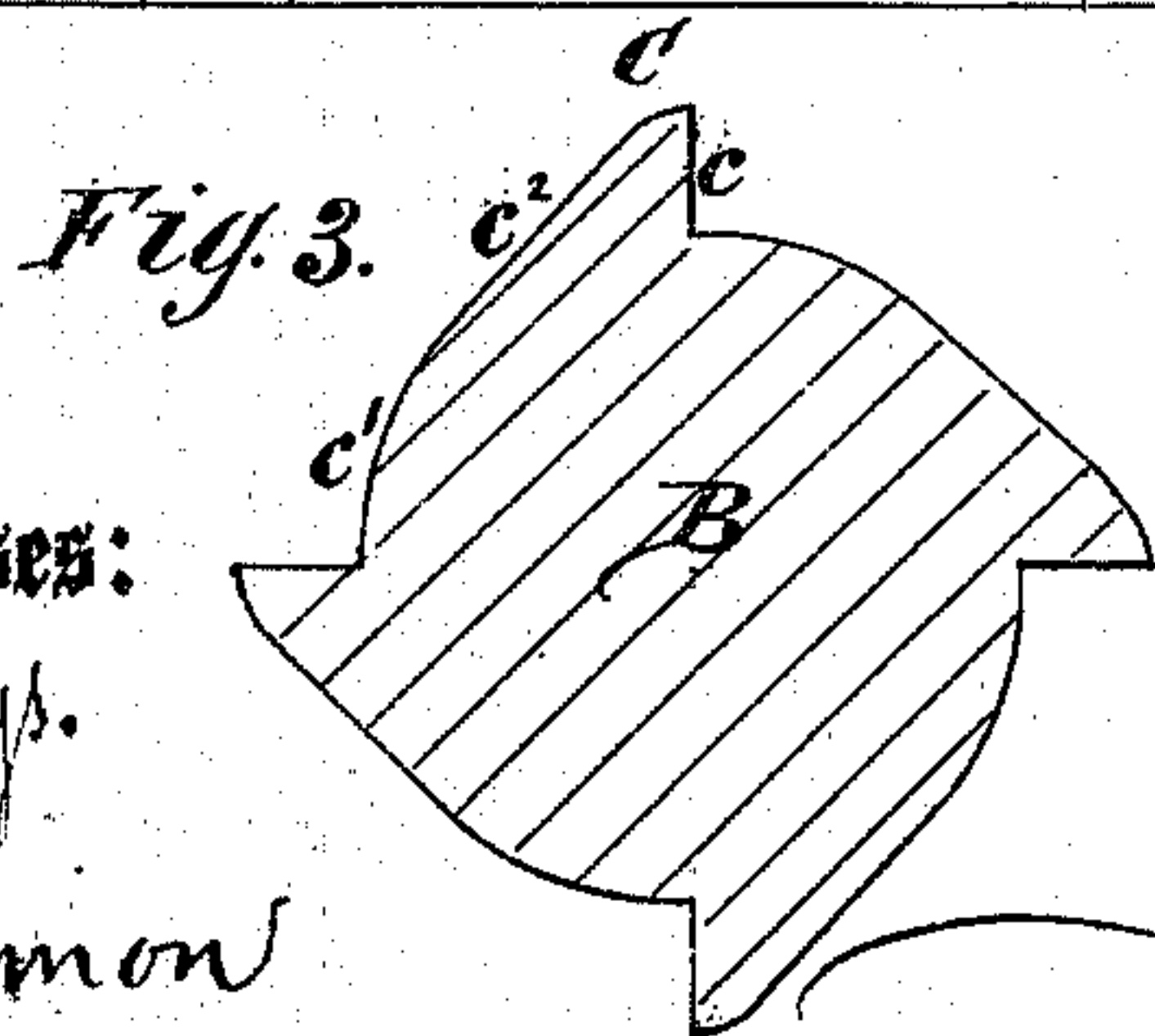
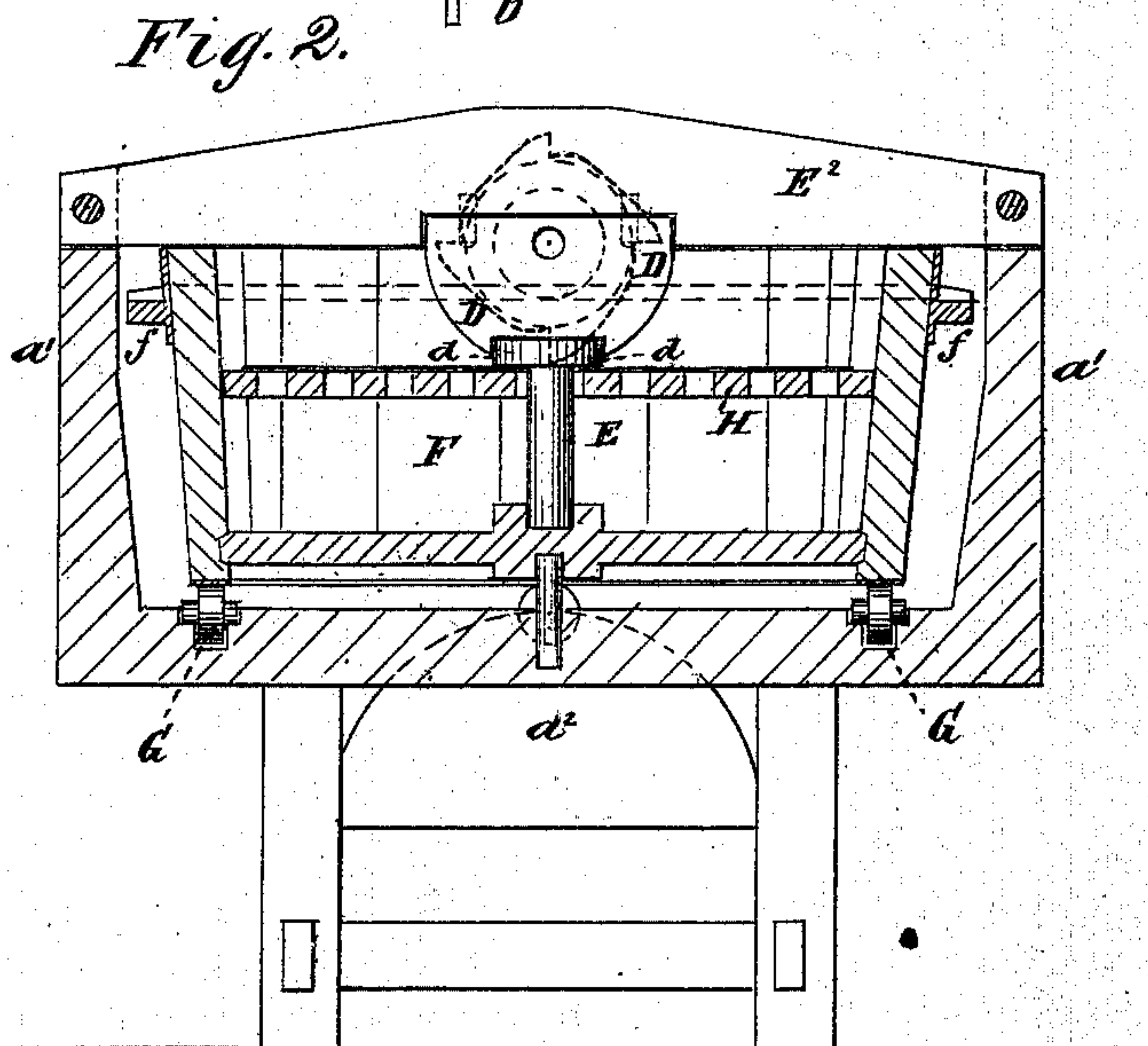
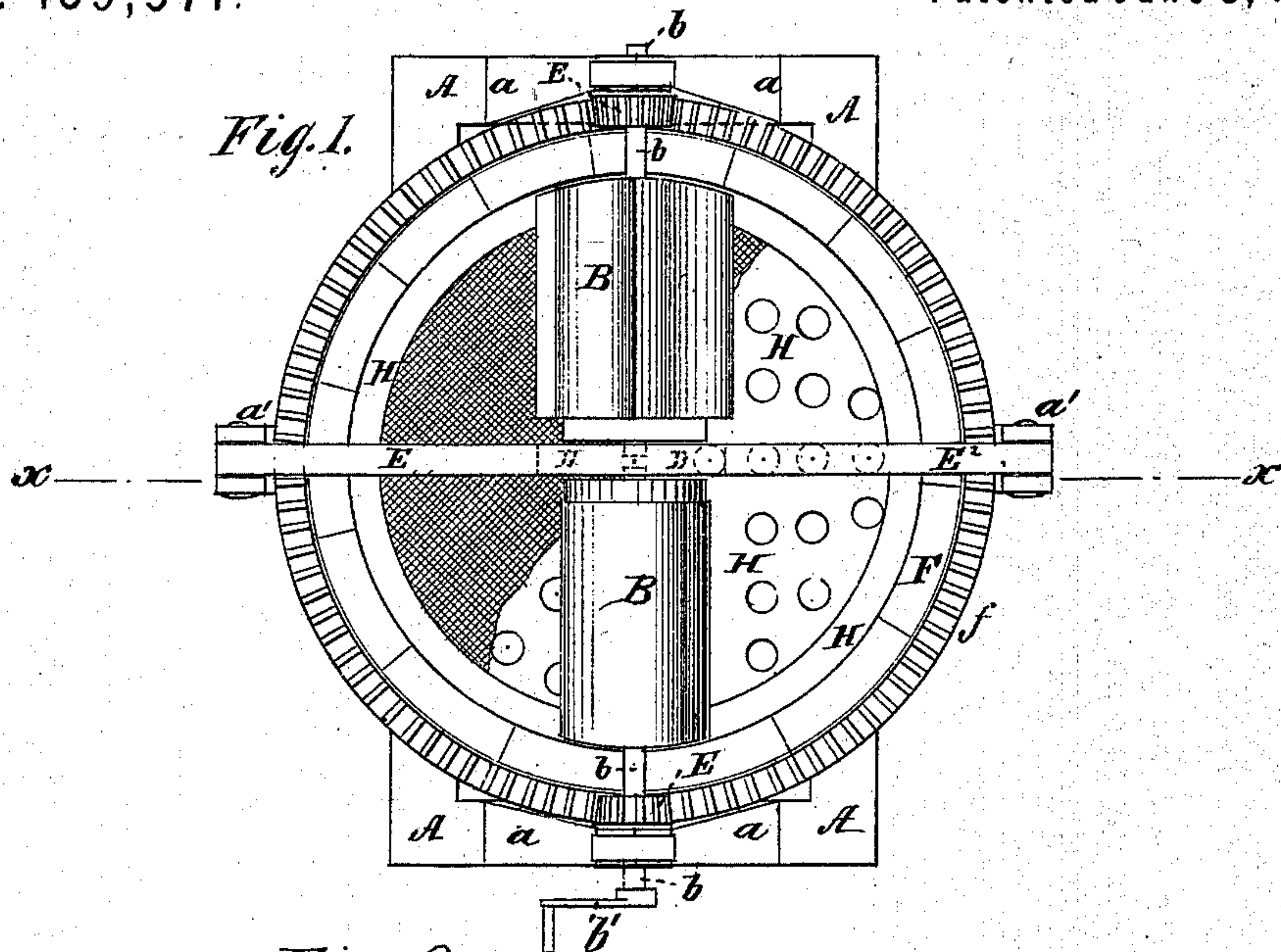


W. N. GOLDEN.
Butter-Workers.

No. 139,571.

Patented June 3, 1873.



Witnesses:
G. Mathys.
Solon A. Remon

Inventor:
Warren N. Golden
per *[Signature]*
Attorneys.

UNITED STATES PATENT OFFICE.

WARREN N. GOLDEN, OF COLDWATER, MICHIGAN.

IMPROVEMENT IN BUTTER-WORKERS.

Specification forming part of Letters Patent No. **139,571**, dated June 3, 1873; application filed March 17, 1873.

To all whom it may concern:

Be it known that I, WARREN N. GOLDEN, of Coldwater, in the county of Branch and State of Michigan, have invented a new and useful Improvement in Butter-Workers; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a top view. Fig. 2 is a vertical section in line xx of Fig. 1. Fig. 3 is a cross-section of a butter-worker.

The invention relates to means for working butter rapidly, thoroughly, and inexpensively. It will be first fully described in connection with all that is necessary to a full understanding thereof, and then clearly pointed out in the claims.

In the drawing, A represents any suitable frame, upon which is placed the uprights $a^1 a^1$, that have suitable bearings to receive shafts $b b$, one of which has a crank, b' . The butter-workers have paddles C, whose back surfaces rise therefrom in a plane passing through axis, while their working-faces curve decreasingly forward at c^1 from the edge, and then have a flat surface, c^2 . By this construction the surface of paddle first flattens out the butter and gives pressure that increases until the maximum is attained on the end curve c^1 . These two revolving butter-workers B B are of corresponding size and construction, each having a separate bearing in the middle upright D, and a separate pinion, E, to make them work independently of one another. This bearing-upright D is supported on a washer, d , and a king-bolt, E^1 , about which is swiveled the rotary butter-holder F. E^2 is a bar, hinged to one of the uprights a^1 , and secured by a pin to the other, or secured detachably to both. It serves to hold the bearing D firmly in place, and prevents the butter-workers from rising vertically. The latter rests and travels upon the friction-rolls G, journaled in the extension pieces $a^1 a^1$ and $a^2 a^2$. It is also provided with a circular-rack, f , which gears with the pinions E E, that are thus enabled to turn it at a given rate of speed. The butter-workers, when employed to make fine butter, have about the same diameter as the

pinions E E, but when used for coarse common butter this is not necessary. The butter-holder has a perforated false bottom, H, over which is placed the usual strainer-cloth, and below which is the ice-chamber. Water is poured into the butter-worker until it fills the ice-chamber, and rises a short distance above the strainer-cloth. The operation is as follows: The butter being placed upon the strainer the crank b' is turned, and causes the paddles first to press upon and flatten out the butter, squeezing it gradually until the end-curve c^1 is reached. The table, then moving on, carries the butter at an angle to the next worker, B, where it is pressed in an entirely different direction. This effectually expresses all the butter-milk. The water and butter-milk being now withdrawn through a suitable outlet in the bottom of the butter-holder, fresh water may be introduced, and the butter may be re-worked. The shafts b have open or two-part hinged bearings, so that, by raising the bar E^2 , everything may be lifted out of the way, and free access allowed to the butter or for cleaning the various parts.

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

1. The butter-workers, having paddles, with the end-curve c^1 , and flat surface c^2 , as and for the purpose described.

2. The bar E^2 , hinged or secured, detachably, to uprights $a^1 a^1$, and combined with the middle bearing D, as and for the purpose set forth.

3. Two butter-workers, having independent shafts revolving in opposite directions, and each with its own pinion combined with a racked butter-holder, F, as described, so that one crank, operated by a single person, can turn two butter-workers, as well as the butter-holder, by the same movement, and thus do nearly, or quite, double the usual amount of work.

The above specification of my invention signed by me this 13th day of March, A. D. 1873.

W. N. GOLDEN.

Witnesses:

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