

*J. Geiger,
Churn.*

No. 88,289.

Patented Mar. 30. 1869.

Fig. 1.

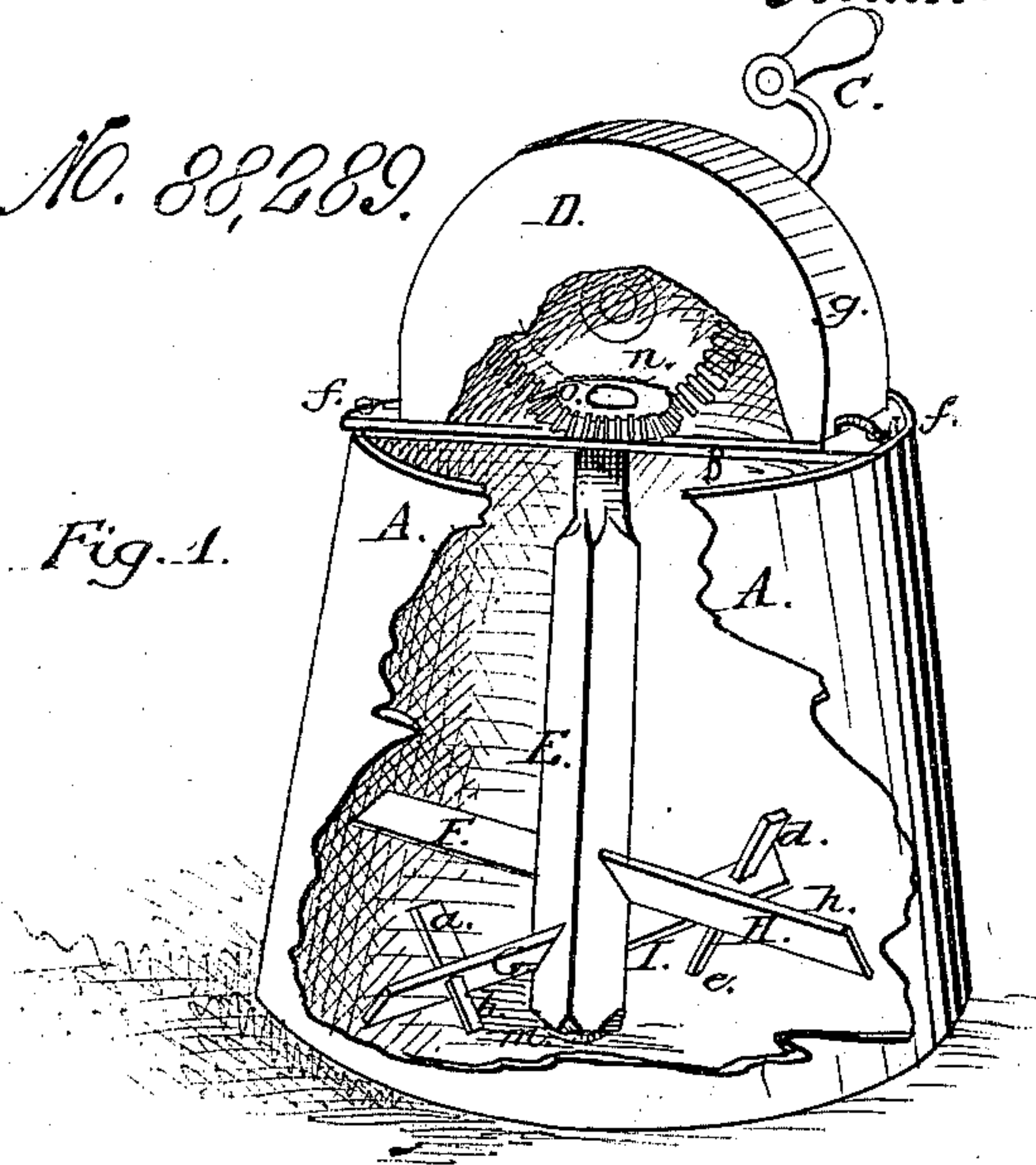


Fig. 2.

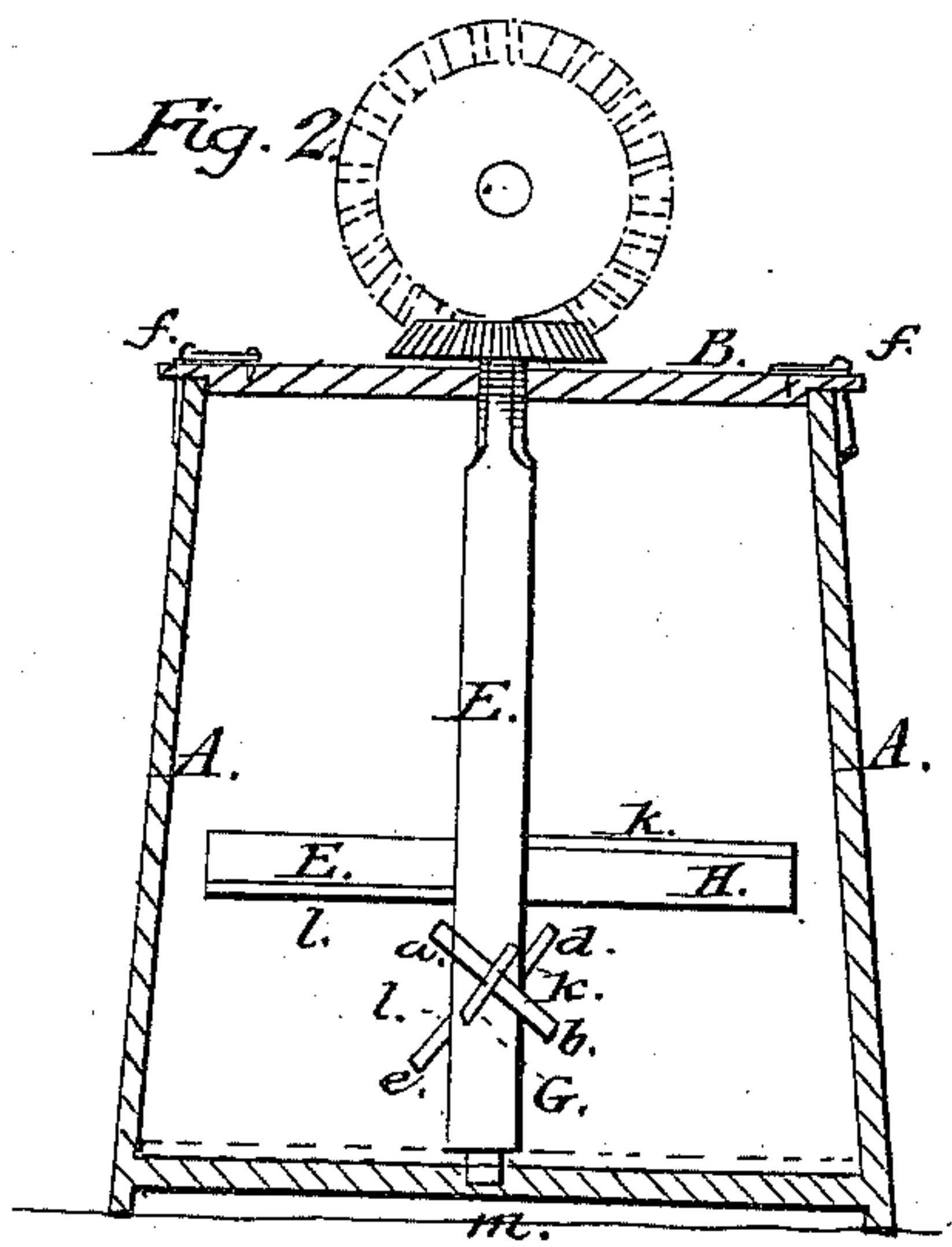
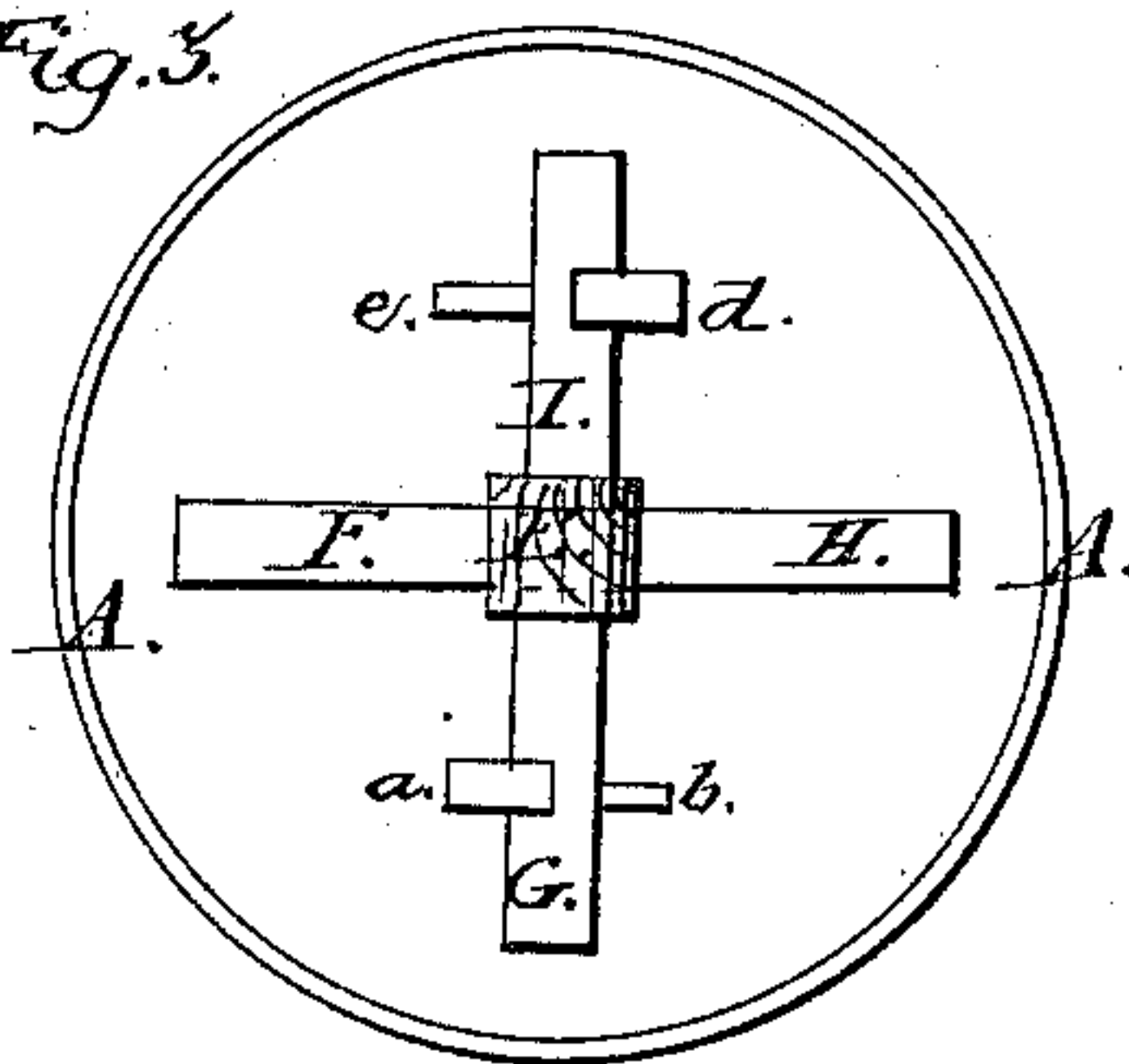


Fig. 3.



Witnesses:

*Jacob T. Forrer
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Inventor:

John Geiger,



JOHN GEIGER, OF PEORIA COUNTY, ILLINOIS.

Letters Patent No. 88,289, dated March 30, 1869.

IMPROVEMENT IN CHURNS.

The Schedule referred to in these Letters Patent and making part of the same.

Be it known that I, JOHN GEIGER, of the county of Peoria, and State of Illinois, have invented a new and useful Churn for Making Butter, which I verily believe is fully described in the following specification; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view.

Figure 2, a vertical section.

Figure 3, a plan or superficial view.

In the drawings, like letters refer to like parts.

I now proceed to describe the construction of this churn.

The churn A consists of an ordinary cylindrical reservoir, or frustum of a cone, for ordinary purposes, about sixteen inches deep, by ten inches diameter at top, and thirteen inches diameter at bottom.

The dashers F G H I are set on the vertical shaft E, at right angles to it and to each other. They may be about two inches wide and about one-half inch thick, and long enough to reach to within a short distance of the sides of the churn.

The face of each alternate dasher is inclined at a different angle to its neighbor. Thus the face of the dasher marked F, is set into the shaft E at an angle of about forty-five degrees from vertical. The next one, G, has the same obliquity, but precisely an opposite inclination, or at a right angle to the plane of the first dasher above mentioned, F. So alternately with each dasher, of which I prefer to have four, F G H I.

The upper and lower edges of each dasher, I cut vertically, (see G, fig. 2,) as seen at letters k and l. I also set the opposite dashers G I, a little distance lower on the shaft E, that the "following-dashers," F and H, meet the surge, or spray raised by the lower, and preceding dashers G I.

To increase the action of the churning-process, I in-

sert the "cutters," or teeth *a b c d*, in the face of each of the lower dashers G I, and which are to facilitate the division of the creamy particles from the butter-milk.

The shaft is operated by proper gearing, attached to the surface of the churn-cover B, and may be composed of a larger, *n*, mitre-wheel as a motor, and a smaller one, *o*, attached to the projecting upper end of the shaft, above the cover B.

The latter may be removed from the churn, to remove the butter, by unhooking the two hooks *f f*, thus removing the gearing and box, with the cover, and the shaft, with its dashers.

The operation of this churn needs very little description. The butter is produced in the course of ten minutes, by the peculiar construction of the "dashers" and "cutters."

The large current, or spray forced up by the dashers on the lowest end of the shaft lettered G I, and in which are inserted the cutters, is met and forcibly repelled by the opposing force of the "following-dashers" F and H, which meet the surge at a right angle or less, thus producing a thorough separation of the "buttery" particles from the cream.

Having thus fully described my invention,

What I claim therein as new, and desire to secure by Letters Patent, is—

In a churn, the combination of the cutters *a b c d* on the lower dashers, with the horizontal oblique dashers F G H I, set on a vertical shaft, each alternate dasher having its face at right angles to the face of and a little above the plane of the face of its forerunning dasher, as and for the purposes described.

JOHN GEIGER.

Witnesses:

JACOB T. FORRER,

WILLIAM L. MOSS, Jr.