

H. N. FRENTRESS.
Revolving Body Churn.

No. 227,239.

Patented May 4, 1880.

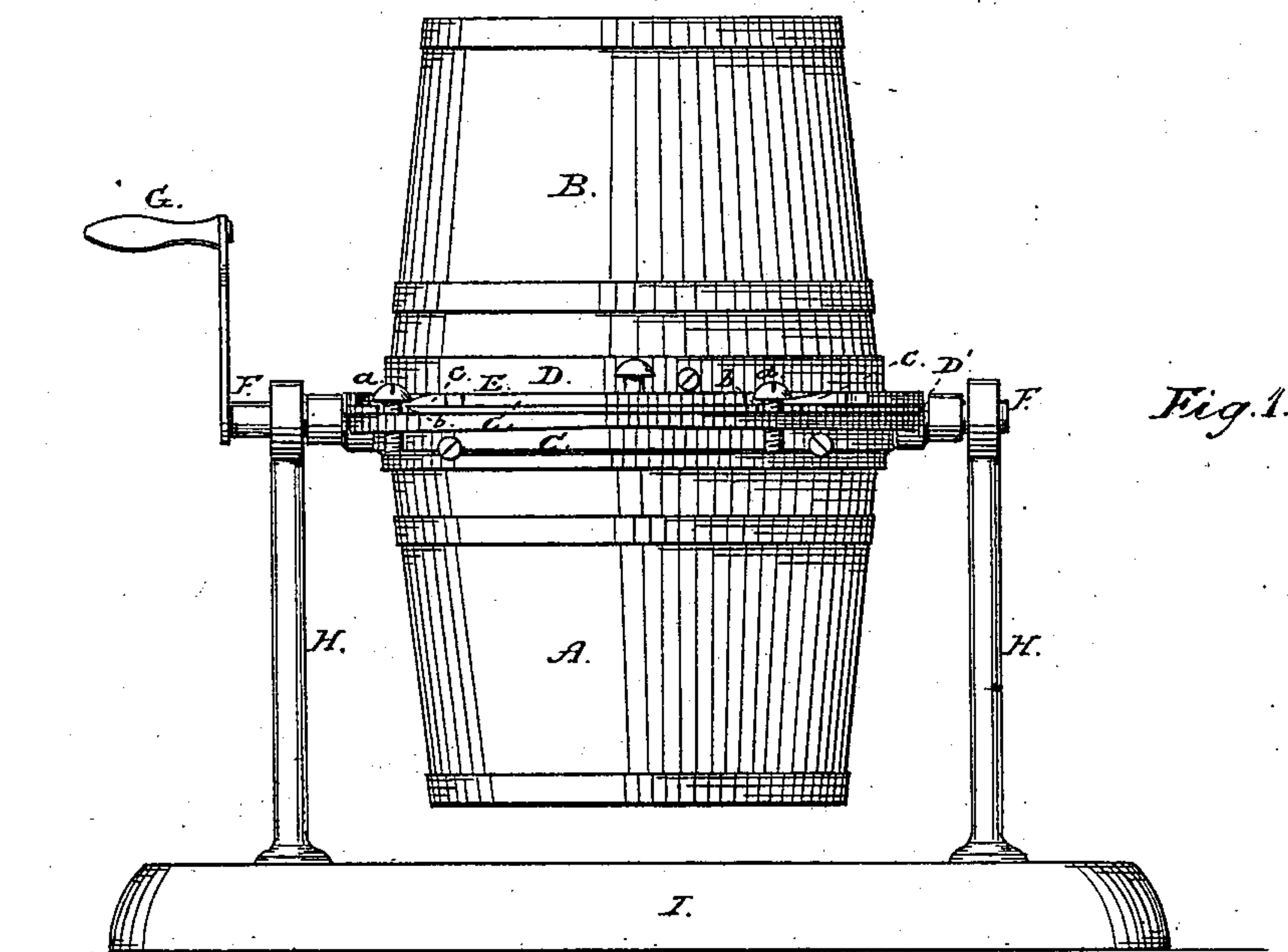


Fig. 1.

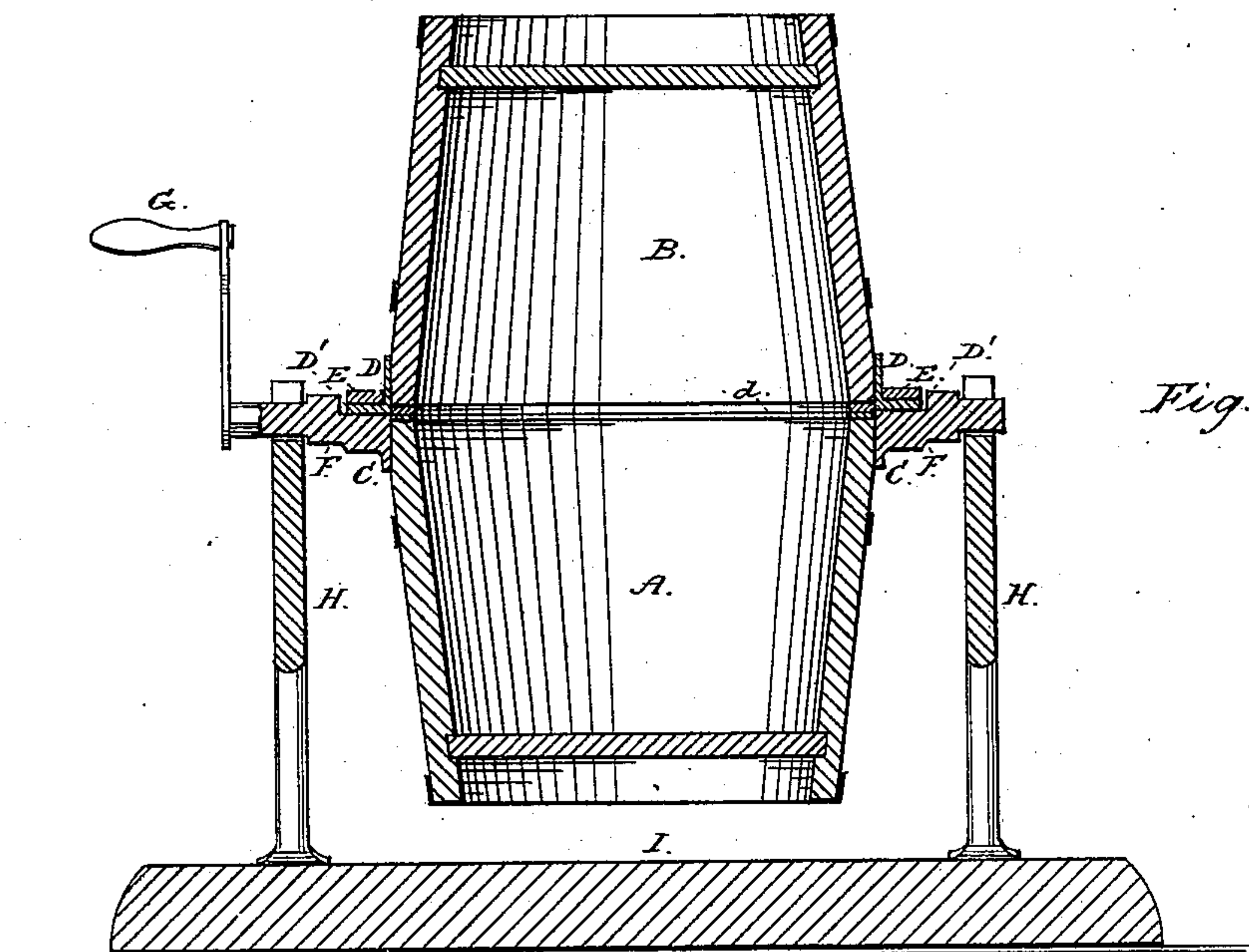


Fig. 2.

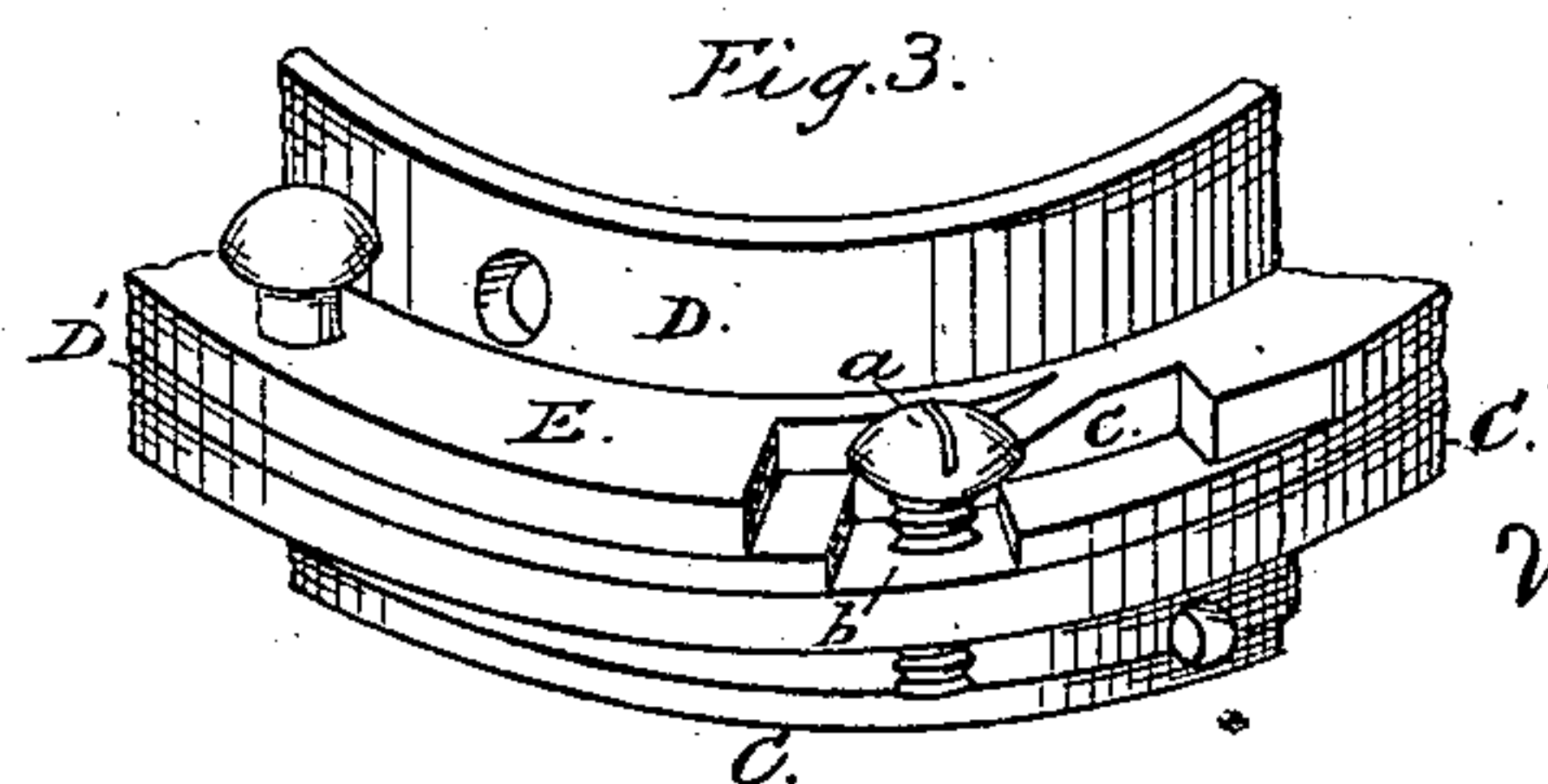


Fig. 3.

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HENRY N. FRENTRESS, OF EAST DUBUQUE, ILLINOIS.

REVOLVING-BODY CHURN.

SPECIFICATION forming part of Letters Patent No. 227,239, dated May 4, 1880.

Application filed November 4, 1879.

To all whom it may concern:

Be it known that I, HENRY N. FRENTRESS, of East Dubuque, in the county of Jo Daviess and State of Illinois, have invented a new and useful Improvement in Revolving-Body Churns; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object I have in view is to produce a churn of that class having revolving bodies of the shape of a barrel, which will be more convenient, both for cleaning the churn and for manipulating its contents, than those heretofore used, will be easy to operate, and in which the cream will not be brought into contact with any metal surface.

My invention therein consists in the construction, combination, and arrangement of the principal operative parts, all as more fully hereinafter described, explained, and claimed.

In the drawings, Figure 1 is an elevation of the churn; Fig. 2, a vertical central section of the same, and Fig. 3 a perspective view of the clamping-rings detached from the body.

Like letters denote corresponding parts.

The churn-body is constructed of two tubs or pails, A B, of equal size. Each tub or pail is made with straight flaring staves, a bottom board, open top, and hoops.

Over the large ends of the tubs or pails are placed metal rings C D, which are properly secured and serve as hoops. These rings have outwardly-projecting flanges C' D'.

The flange C' has headed studs *a* projecting therefrom, and the flange D' has an equal number of slots *b*, which are large enough to pass over the studs.

A ring, E, constructed with slots having wedge-catches *c*, is passed over the bottom of the tub B and rests upon the flange D'. The two tubs being brought together, the studs *a* pass through the slots *b* and through the slots in the locking-ring E, when, by turning such locking-ring and forcing its wedge-catches under the heads of the studs, the tubs will be tightly clamped together and securely held. The studs *a* may be screws or threaded bolts, so as to be capable of adjustment.

Instead of having a separate loose locking-ring, the flange D' may be provided with raised beveled locking-pieces situated at its slots *b*, and the tubs secured together by turning one tub or pail upon the other and forcing these beveled pieces under the heads of the studs.

Packing-rings *d*, of suitable material, are placed between the meeting edges of the pails or tubs within the flanged rings, making a tight joint and preventing contact of the cream with the metal rings. These flanged rings, the studs, and wedge-catches can be employed to secure the heads at the ends of the churn, if desired, or to hold the cover of those barrel-churns which open at one end.

The trunnions F are cast with the flange C' of the ring C, or secured thereto, and project vertically on both sides of such flange, so as to be situated centrally, and one of these trunnions has a hand-crank, G, by which the churn-body is revolved. These trunnions rest in the forked upper ends of standards H, mounted on a base, I, and can be removed from the standards by lifting the trunnions from the bearings.

The rings are so constructed and the trunnions so situated that the two parts of the churn will be balanced, or nearly so.

In using my churn the cream is put in the pail A, which is then raised by its trunnions upon the standards; the pail B is placed upon and secured to the pail A either before or after the trunnions are mounted on the standards.

In churning, the cream is not brought into contact with any metal surface, as is the case with some styles of barrel-churns now in use. After the churning is completed the pail or tub B is detached, and the butter in the tub A can then be easily collected and removed.

By having the churn-body divided at the center a very convenient churn is produced, and one easily handled and cleaned, and by securing the parts together by fastening devices situated at the meeting edges of the tubs or pails the churn is made light and compact and is not at all cumbersome.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A revolving churn-body divided at its center, in combination with outwardly-flanged

metal rings secured to the meeting edges of the two sections, and trunnions cast with or secured to one of the rings, substantially as described and shown.

- 5 2. A revolving divided churn-body, in combination with outwardly-flanged metal rings secured to the meeting edges of the sections, headed studs projecting from one flange through slots in the other flange, and wedge-
10 catches for clamping the flanged rings together, substantially as described and shown.

3. A revolving churn-body divided at its center, in combination with flanged rings secured to the meeting edges of the sections, the headed studs, wedge-ring, and intermediate 15 packing, substantially as described and shown.

This specification signed and witnessed this 26th day of August, 1879.

HENRY N. FRENTRESS.

Witnesses:

MONROE M. CADY,
H. R. MARTIN.