

(No Model.)

J. H. COOKUS.

CHURN.

No. 309,204.

Patented Dec. 16, 1884.

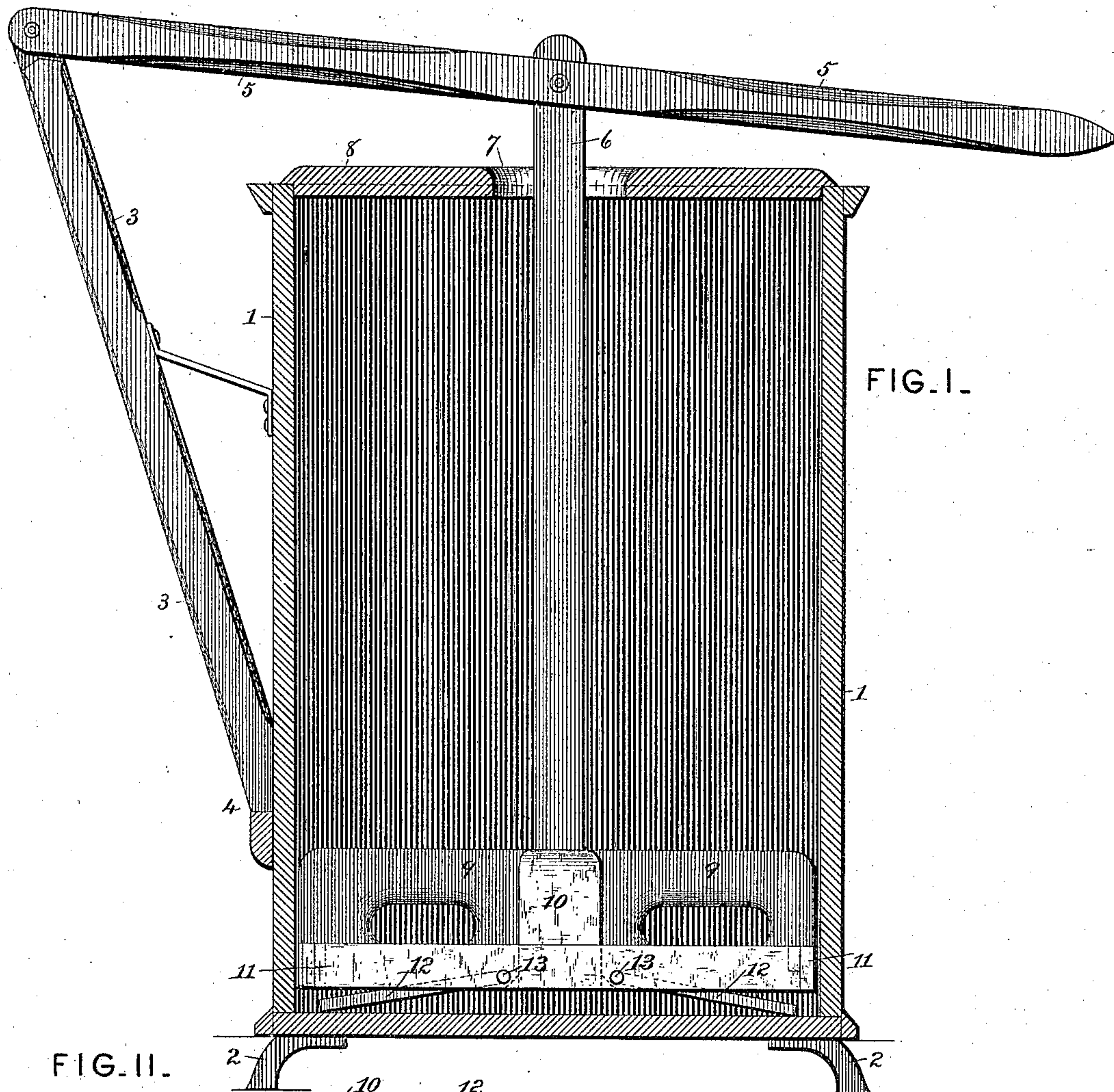


FIG. I.

FIG. II.

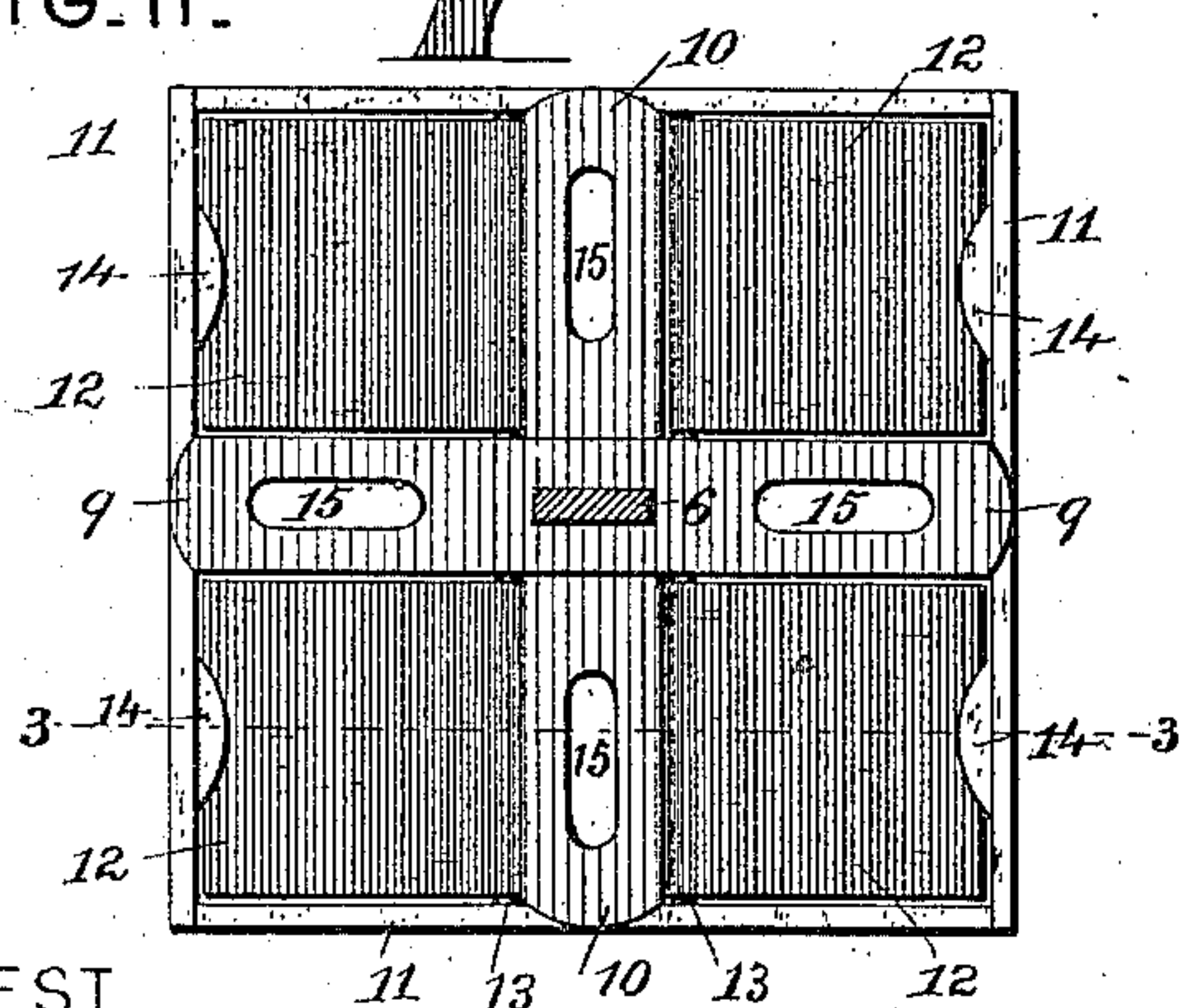
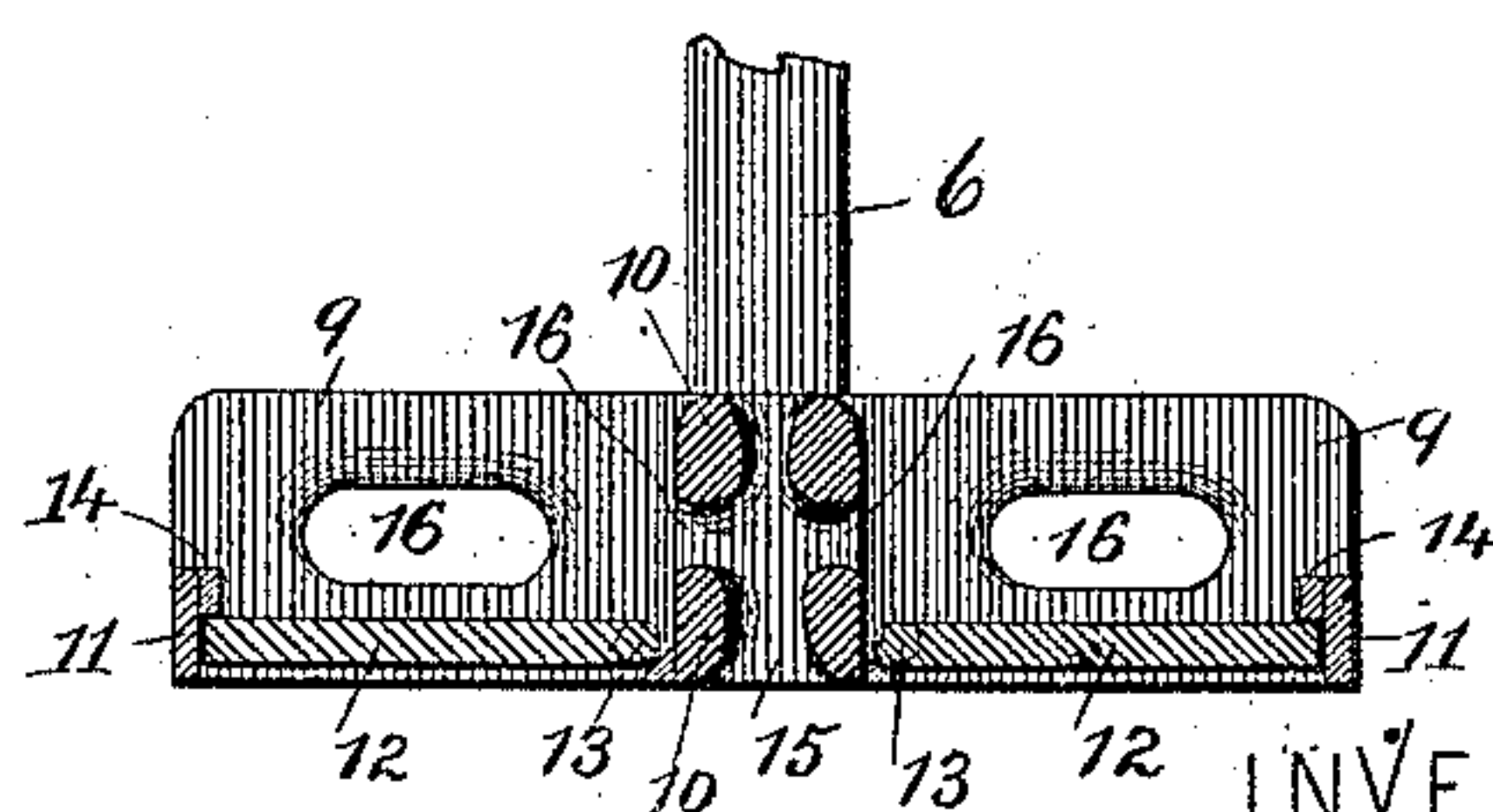


FIG. III.



ATTEST.
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UNITED STATES PATENT OFFICE.

JAMES HENRY COOKUS, OF EAGLE CITY, IOWA.

CHURN.

SPECIFICATION forming part of Letters Patent No. 309,204, dated December 16, 1884.

Application filed February 20, 1884. (No model.)

To all whom it may concern:

Be it known that I, JAMES HENRY COOKUS, a citizen of the United States, residing at Eagle City, in the county of Hardin and State of Iowa, have invented certain new and useful Improvements in Churns, of which the following is a specification.

My improvement relates to that class of churns having a vertical tub or barrel within which the dasher is given a vertical reciprocation.

The object of my invention is to provide means, first, for the economy of strength in the reciprocation of the dasher; and, second, for the more thorough agitation of the cream, with the result of effecting a more speedy separation of the butter than is possible with any churn now in use. To this end my improved churn is provided with a tub or barrel, preferably square in cross-section, having rigidly fixed to one side an arm the end of which serves as a fulcrum-point for the dasher-operating lever, which is pivoted at one end to the said arm and at the center to the top or any intermediate point of the dasher-staff. The dasher proper is made in rectangular form by means of two cross-bars, to which are hinged four valves or wings seated upward against the bottom of the dasher, and opening downward when the dasher is raised, to allow the passage of the cream. When the dasher is depressed, however, the wings are pressed to their seats, and the cream forced through apertures formed therefor in the cross-bars.

In order that my invention may be more fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a vertical sectional view of my improved churn. Fig. 2 is a plan view of the dasher. Fig. 3 is a vertical sectional view of the same on the line 3 3, Fig. 2.

1 represents the tub or barrel of my improved churn, preferably of rectangular shape, and supported by short legs 2 2 from the floor.

3 is a rigid arm, fixed to the barrel of the churn at 4 by any suitable means, and extending somewhat above the top of the churn to receive the end of a lever, 5, which is pivoted thereto. To the middle of the said lever 5 is hinged the dasher-rod 6, means being thus provided for the reciprocation of said dasher-rod through the medium of the lever. The dasher-rod passes through the slot 7 in the top

8 of the churn, such slot being of sufficient length to allow a slight horizontal vibration to the dasher-rod. To the lower end of the dasher-rod is fixed the dasher proper, made of two cross-bars, 9 10, with a surrounding frame, 11, of rectangular form. Four valves or wings, 12 12, are hinged at 13 13 to the frame and cross-bars, and so hung as to open freely downward, but to be limited in their upward movement by studs or blocks 14 on the frame. Instead of the arrangement here shown the wings may be pivoted at any other point between the cross-bars and frame, and the position of the studs 14 be changed accordingly. The cross-bars 9 10 are apertured vertically at 15 and horizontally at 16, said apertures 15 16 intersecting at their mid-length, so as to form a four-way recess in the cross-bars.

It will be seen that the above-described arrangement is such that when the dasher is raised the wings or valves will open and allow the free passage of the cream; but when the dasher is forced down, the valves close upwardly against their seats 14, forming a flat surface through which the cream cannot pass, and forcing it, therefore, up through the ways in the cross-bars, and thus causing a great agitation of the cream and a consequent speedy separation of the butter.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. In combination with a reciprocating dasher-rod, a dasher formed of cross-bars and wings or valves hinged thereto, said cross-bars being apertured vertically and also horizontally above said wings or valves, substantially as set forth.

2. In combination with a reciprocating dasher-rod, the dasher composed of two apertured cross-bars, an encircling frame, and wings or valves hinged thereto, substantially as and for the purpose set forth.

3. The reciprocating dasher consisting of cross-bars 9 10, having vertical and horizontal ways, as shown, and wings or valves hinged to the cross-bars, and adapted to close upwardly against fixed blocks or projections on the dasher, substantially as set forth.

JAMES HENRY COOKUS.

Witnesses:

W. A. GREER,
JOHN HETZEL.