

No. 788,070.

PATENTED APR. 25, 1905.

A. N. ROWE.
CHURN.

APPLICATION FILED NOV. 16, 1903.

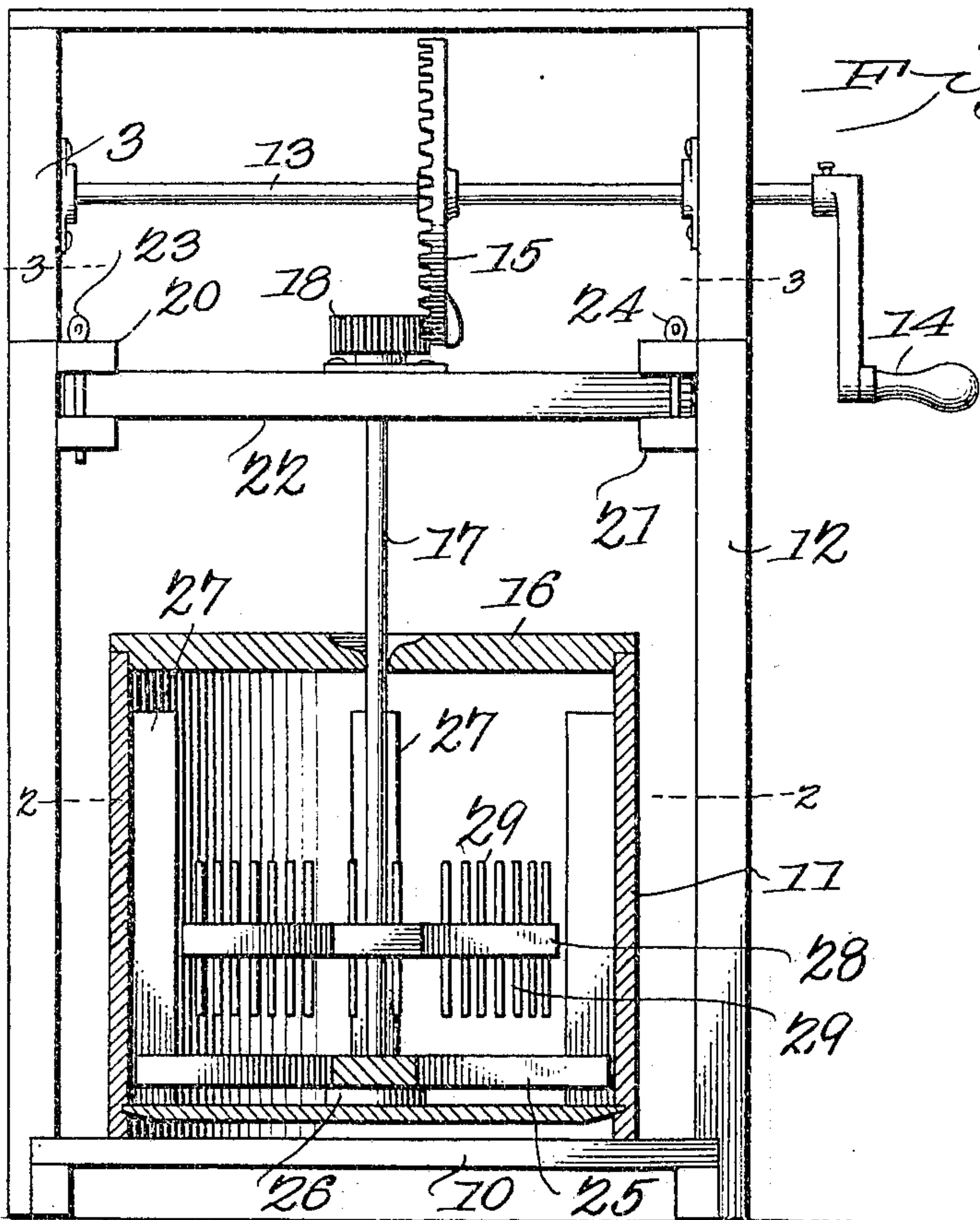


Fig. 1.

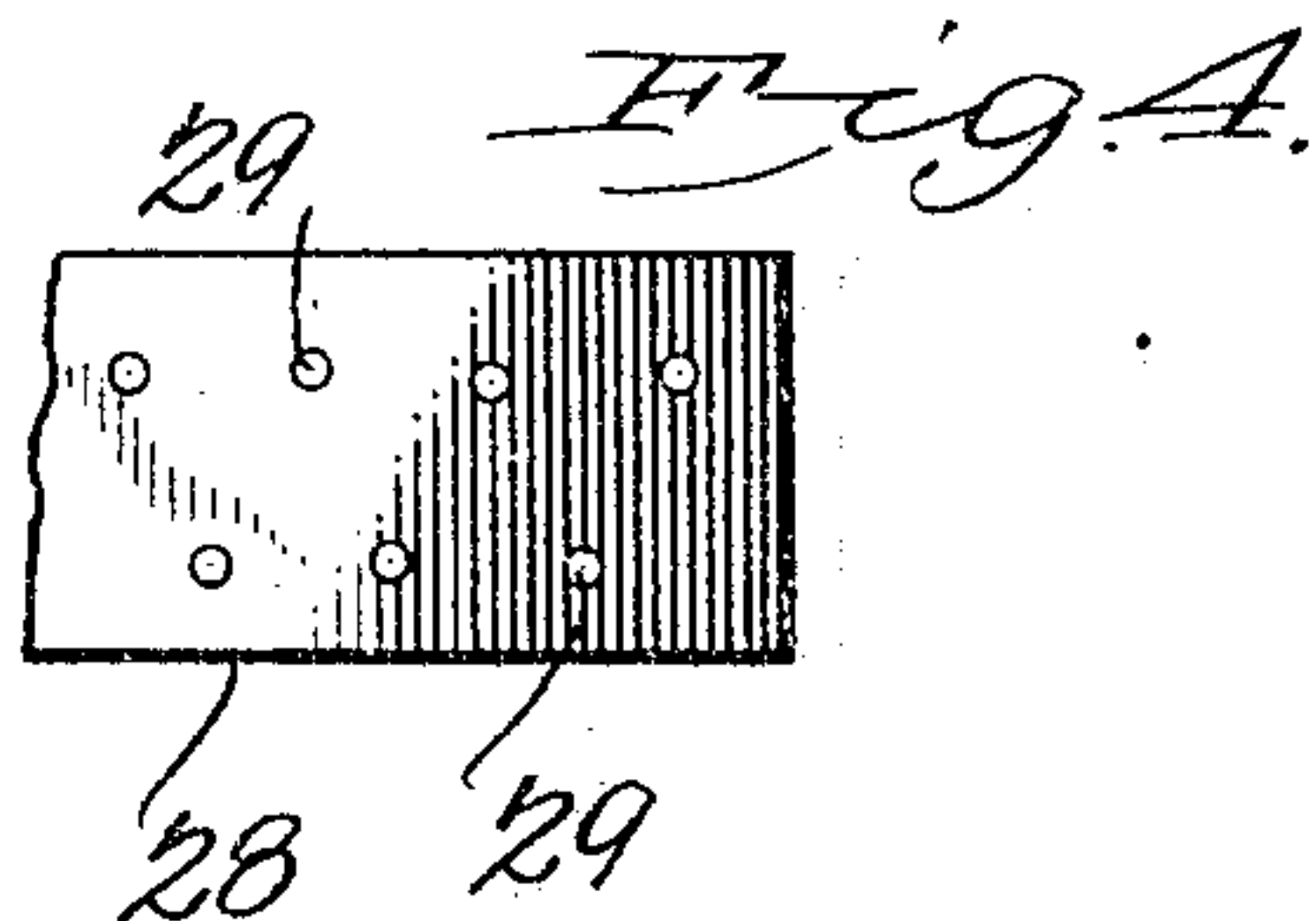


Fig. 4.

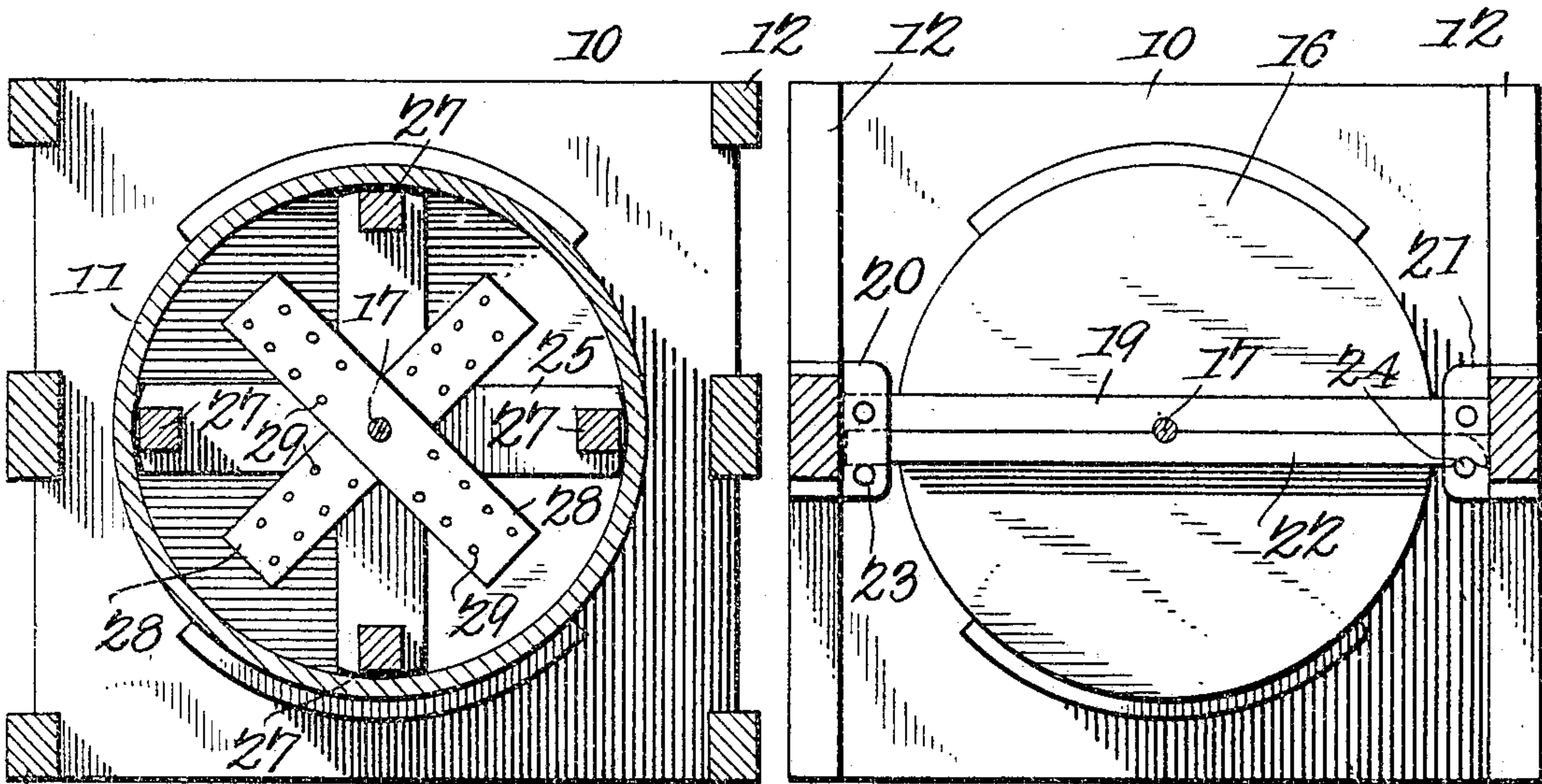


Fig. 3.

Fig. 2.
Witnesses
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UNITED STATES PATENT OFFICE.

ALFRED NUTOM ROWE, OF DONALDSON, MINNESOTA.

CHURN.

SPECIFICATION forming part of Letters Patent No. 788,070, dated April 25, 1905.

Application filed November 16, 1903. Serial No. 181,418.

To all whom it may concern:

Be it known that I, ALFRED NUTOM ROWE, a citizen of the United States, residing at Donaldson, in the county of Kittson and State of Minnesota, have invented a new and useful Churn, of which the following is a specification.

This invention relates to churns, and has for its object to produce a device of this character of simple construction, easily operated and cleaned, and which will operate effectively with the expenditure of a limited amount of labor; and the invention consists in certain novel features of construction, as hereinafter shown and described, and specified in the claims.

In the drawings illustrative of the invention, in which corresponding parts are denoted by like designating characters, Figure 1 is a sectional side elevation. Fig. 2 is a transverse section on the line 2-2 of Fig. 1. Fig. 3 is a transverse section on the line 3-3 of Fig. 1. Fig. 4 is an enlarged detail plan of a portion of one of the dasher-arms detached.

The improved churn construction comprises a base or platform 10, upon which the cream-receptacle 11 is supported and which also supports a framework 12, carrying a drive-shaft 13, having an operating-crank 14 and gear-wheel 15.

The cover of the receptacle is represented at 16 and the dasher-rod at 17, the latter extending through the cover and supported for rotation by a bearing from the frame 12 and carrying a gear-pinion 18 for engagement by the gear 15, as shown.

The support for the dasher-rod consists of a bar 19, secured between brackets 20 21 on the framework 12 and having a half-bearing for the rod 17, and a cap-bar 22, supported detachably, as by pins 23 24, between the brackets, as shown, one or both of the pins being detachable to provide for the removal of the dasher-rod when required.

Within the receptacle 11 is a base-frame 25, formed of one or more transverse bars and preferably spaced from the bottom of the receptacle by a spacer-block 26, as shown.

The base-frame is composed of two mem-

bers crossing each other at right angles, as shown, and to the outer extremity of each of the arms thus formed is secured a vertically-disposed rib 27, the lower end of which is extended downwardly, so as to give it a bearing upon the bottom of the receptacle 11, while the upwardly-extending ends of said ribs are disposed in close proximity to or against the inner wall of the churn-body or receptacle 11, as shown.

Connected to the rod 17 above the frame 25 are one or more flat horizontally-disposed arms 28, and vertically disposed through these arms are a plurality of pins 29, spaced apart and arranged in parallel rows, the pins of one row disposed opposite the spaces between the pins of the adjacent row, as shown.

Any desired number of the arms 28 may be employed, but generally two will be sufficient, as shown, and any number of the pins 29 may be disposed in the arms and spaced any distance apart and as many of the parallel rows of pins used as may be desired or found efficient.

The rod 17 and pins 29 will preferably be of metal, galvanized or otherwise protected from corrosion, while the bars 25 and 28 and the ribs 27 will preferably be of wood.

The dasher and base-frame and its attached ribs are easily removable from the receptacle for cleaning, and every part with which the cream comes in contact is thus easily accessible for that purpose.

By the construction and arrangement of parts herein described it will be seen that the frame which includes the cross-bars 25 and the vertical bars 27 is spaced above the bottom of the cream-receptacle not only by the lateral spacing member, but also by the downwardly-extended ends of the bars 27. It follows that when the dasher is in motion the cream will be agitated in such a manner that a portion thereof will be broken against the edges of the bars 25, which are spaced above the bottom, as shown, while the pins, set staggered with relation to each other in the dasher-arms 28, will very efficiently agitate the cream and cause the formation of butter-globules to take place very quickly, while the gathering of the butter will also be facilitated by the

close and staggered relation of the pins 29 extending through the dasher-arms in both an upward and an outward direction.

Having thus described the invention, what I claim is—

1. In a churn, the combination of a cream-receptacle, a frame supported therein, said frame comprising two members crossing each other at right angles, a spacing member interposed between said members at their points of intersection with the bottom of the receptacle, and uprights at the outer ends of the arms formed by the crossed members, said uprights being extended downwardly to bear upon the bottom of the cream-receptacle and upwardly in contact with the walls of the latter, said frame being thereby spaced above the bottom of the churn; and a dasher stepped for rotation in said frame, and concentrically of the uprights of the latter, said dasher com-

prising a central shaft, transverse, flat, horizontally-disposed arms, each having two or more rows of staggered perforations, and pins extending vertically through said perforations.

2. In a churn, a dasher composed of a plurality of flat blades radiating from a central stem or staff, each of said blades being provided with a plurality of rows of perforations disposed in staggering relation to each other, and pins extending through said perforations and projecting above and below the blades.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ALFRED NUTOM ROWE.

Witnesses:

F. C. TAFT,
OLE WANGE.