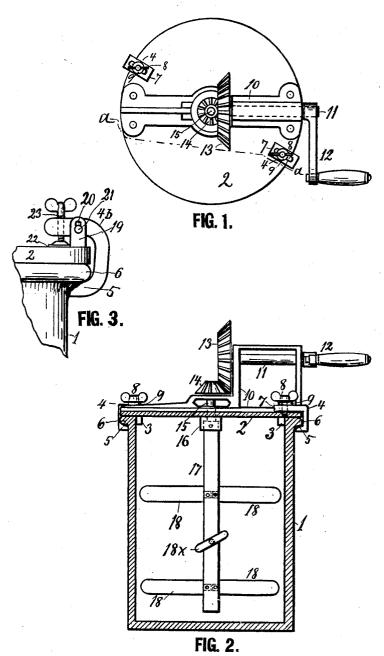
## J. F. MANGAN.

CHURN.

APPLICATION FILED PEB. 6, 1905.



WITNESSES:

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## UNITED STATES PATENT OFFICE.

JOSEPH F. MANGAN, OF ST. PAUL, MINNESOTA.

## CHURN.

No. 813,563.

Specification of Letters Patent.

Patented Feb. 27, 1906.

Application filed February 6, 1905. Serial No. 244,252.

To all whom it may concern:

Be it known that I, Joseph F. Mangan, a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of 5 Minnesota, have invented certain new and useful Improvements in Churns; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in 15 churns, and has for its purpose to provide a cheap and handy churn by combining a simple churning mechanism with a common earthen jar, which is usually found in any household, but may also be furnished as a part of the complete churn, and which is very desirable for said purpose, because it is easy to keep clean and will give no objectionable taste to the butter. This and other objects I attain by the novel construction and arrange-25 ment of parts illustrated in the accompanying drawings, in which-

Figure 1 is a top view of the complete churn. Fig. 2 is a vertical section about as on the line a a in Fig. 1. Fig. 3 is a fractional view 30 of the churn with a further improvement of the clamping mechanism holding the cover on the jar.

Referring to the drawings by reference-numerals, 1 designates a common cylindrical jar, which may hold two gallons or be of any other desired size. Upon said jar is placed a wooden cover 2, which is guided into a central position by guiding-stude 3, slipping inside the jar. Said cover is secured upon the 40 jar by clamps 4, which in Figs. 1 and 2 are shown to consist of hooks beveled at 5, so as to be adapted to beforced more or less inward in under the flange 6 of the jar, while their upper arm 7 is flat and slotted for a thumb-45 screw 8, screwed into the wooden cover and having a shoulder 9, holding the arm 7 firmly in the adjusted position upon the cover. Upon the cover is secured a metallic frame 10, in which is journaled a horizontal shaft 11, 50 having at one end the hand-crank 12 and on | pivot-joint in the bracket and its lower end 100

the other end a bevel-gear 13, driving a bevelpinion 14, fixed on the dasher-shaft 15, on the lower end of which is a socket 16, in which the pendant 17 of the dasher is firmly fixed, and thereby suspended above the bottom of 55 the jar, so as not to need any bottom support, which would be difficult to provide in a jar. The wings 18 of the dasher are flat and secured with one end in the pendant 17, preferably in an oblique position, as shown at 18<sup>×</sup> 60 in Fig. 2; but they may also stand vertical.

In using the churn the cover 2 is simply re-oved while the cream is poured in. Then moved while the cream is poured in. Then it is replaced and fastened and the crank is turned until the butter is formed, as may be 65 observed through a lidded hole in the cover. (Not shown.) The cover is then removed and the dasher with it.

In Fig. 3 the clamp 4b is so modified or improved that it will get a good hold, even if the 70 flange 6 is small or considerably beveled at its under side. This is done by securing upon the cover 2 a small bracket 19, having slotted holes 20, in which trunnions 21 of the clamp are inserted. Upon the foot or projection 22 75 of the bracket presses the end of the thumbscrew 23, thereby drawing the lowest end of the clamp up under the flange 6 and at the same time crowding it inward against the jar, so that it cannot slip off from even a narrow 80 and beveled flange like that indicated in said

Having thus described the invention, what I claim, and desire to secure by Letters Pat-

1. The combination of an earthen jar having about its top an exterior rim, a cover on the jar, the bracket 19 secured upon the cover, a curved clamp having a vertically-playing pivot-joint in the bracket and its lower end 90 engaging the under side of the rim, and in its upper end a thumb-screw pressing upon the cover so as to force the lower end of the clamp in and upward under the rim and lock it in that position.

2. The combination of an earthen jar having about its top an exterior rim, a cover on the jar, the bracket 19 secured upon the cover, a curved clamp having a vertically-playing

engaging the under side of the rim, and in its upper end a thumb-screw pressing upon the cover so as to force the lower end of the clamp in and upward under the rim and lock it in that position, and a hand-operated churning mechanism carried by said cover and operating within the jar.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH F. MANGAN.

Witnesses:

A. M. Carlsen,
Havida Reinholdsen.