

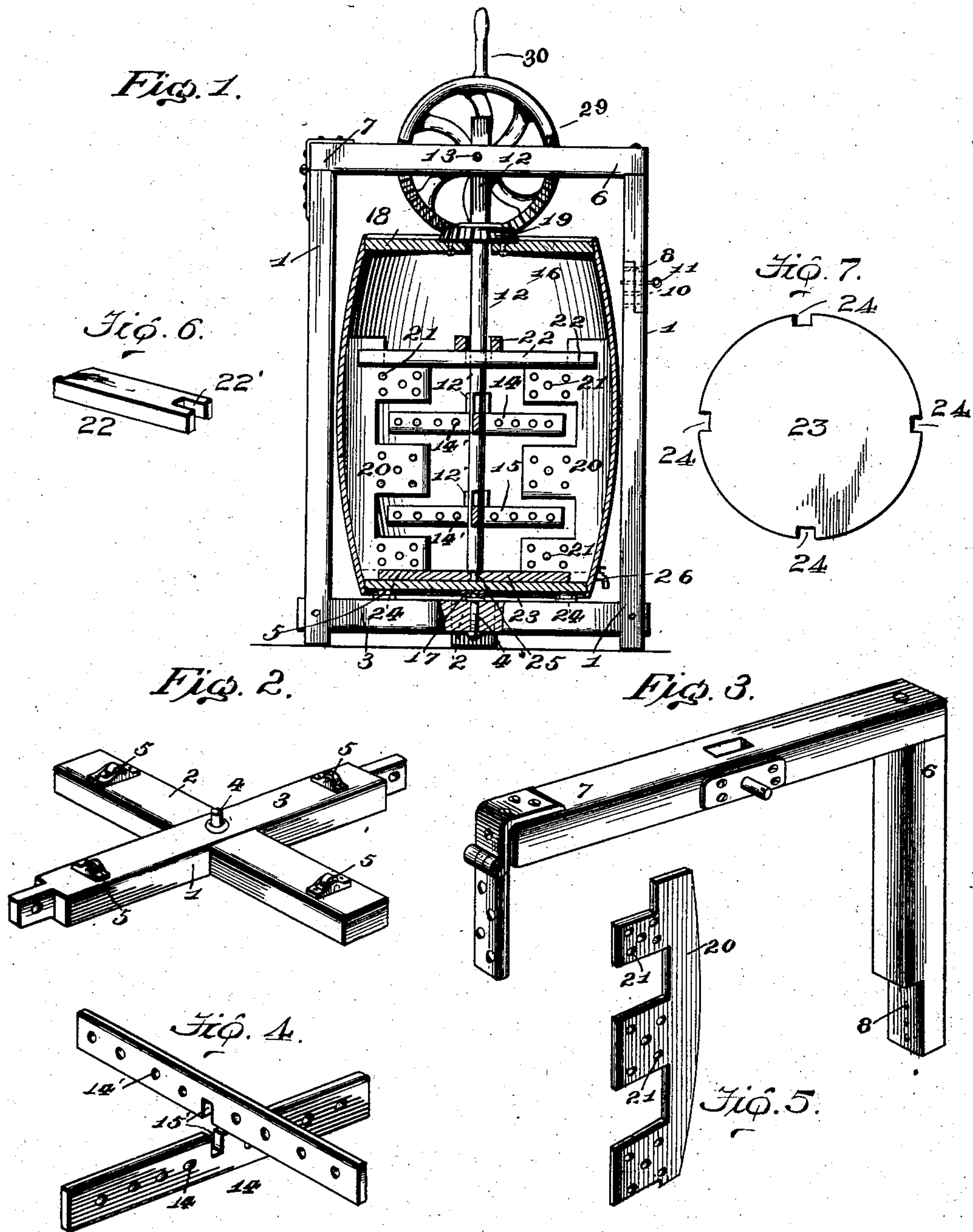
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L. VAN OLST.
CHURN.

APPLICATION FILED FEB. 9, 1901.

NO MODEL.



Witnesses

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UNITED STATES PATENT OFFICE

LAMMERT VAN OLST, OF ORANGE CITY, IOWA.

CHURN.

SPECIFICATION forming part of Letters Patent No. 721,255, dated February 24, 1903.

Application filed February 9, 1901. Serial No. 46,700. (No model.)

To all whom it may concern:

Be it known that I, LAMMERT VAN OLST, a citizen of the United States, residing at Orange City, county of Sioux, State of Iowa, have
5 invented certain new and useful Improvements in Churns, of which the following is a specification.

My invention relates to working-body churns, and more particularly to the frame
10 or mounting for the churn-body.

One object of the present invention is the provision, in a working-body churn, of a frame of novel construction, whereby churn-bodies of different sizes can be readily mounted
15 therein and dismounted with ease.

Another object is to provide an improved frame or mounting for the churn-body which will reduce friction and steady the churn-body while it is in movement.

20 A further object is the provision of a novel form of dashers or blades for use in the churn and which can be readily placed in position or removed.

My object in general is to provide a churn
25 of the class described, of simple, durable, strong, and inexpensive construction, which can be operated easily and be readily taken apart for cleansing or for the purpose of filling it or removing its contents.

30 Having the foregoing objects in view, the invention consists of certain improved features and novel combinations of parts more fully set forth hereinafter and recited in the appended claim.

35 In the accompanying drawings, Figure 1 is a side elevation of the complete churn with the churn-body in section; Fig. 2, a detail of the bottom of the frame; Fig. 3, a detail of the adjustable connection for the hinged top of the frame; Fig. 4, a detail view of a pair of
40 dashers, and Fig. 5 a detail view of one of the breakers; Fig. 6, a detail of an end of one of the bracing-bars; Fig. 7, a detail of the notched head or disk.

45 In the drawings I have illustrated a barrel-churn and a frame construction of wood, as such constitutes the preferred embodiment of the invention; but it is obvious that other constructions are not thereby excluded and
50 might often be resorted to. The frame is made with a lower portion 1, suitably shaped to conform to the outline of the churn-body,

whose base, composed of the members 2 and 3, is provided with a bolt 4, constituting a pintle-bearing where said members meet. On
55 the members 2 and 3, near the extremities thereof, are positioned antifriction bearings or rollers 5. The upper portion 6 of the frame is hinged at one end 7 to one of the upright members 1, while it is provided at its other
60 depending end with a vertically-disposed row of horizontal pin-holes 8. The other upright member 1 is provided with a vertical series of transverse pin-holes 10, corresponding with holes 8. The free end of the member 6 is
65 adapted to be held at varying heights by a pin 11, inserted through any of the holes 8 and 10.

Depending from a squared socket in the center of the member 6 is a dasher-shaft 12,
70 which is removably held by a pin 13 and carries the dashers 14 and 15. These dashers have horizontal perforations 14' and are arranged in crossed pairs and notched at 15', whereby they are locked rigidly by a wedge-
75 pin 12', passed through the opening in the shaft 12.

The churn body or barrel 16 is provided with a bearing or socket 17 on its lower head receiving pintle 4, while the shaft 12 passes
80 loosely through the removable head 18, which constitutes a cover for the churn-body, whereby the body is mounted to turn on a vertical axis. The bottom of the barrel or body rests on the antifriction-rollers 5 near its chimes,
85 and its weight is thereby supported on them, while the pintle 4 acts as a pivot for the body, in consequence of which the body can be turned very easily and is steadied in its
90 movements. On the upper head of the barrel is a rack 19, meshing with a mutilated gear 29, having a suitable handle 30, whereby the barrel may be given a rotary reciprocating motion.

The breakers 20 are preferably provided
95 with holes 21 and are arranged vertically within the barrel and adjacent its sides, being conformed to the contour thereof. They are held clamped tightly against the sides of the barrel by bars 22, having notched ends 22'
100 straddling the breakers, and the shaft 12 passes loosely through holes in said bars. The bars are of such length that after the breakers have been positioned on opposite

sides of the barrel said bars can be first engaged with one and then forced down against the other, thus wedging them firmly in position. One or more pairs of the breakers may
5 be used, as found desirable. In the bottom of the barrel is a head or disk 23, having notches 24, which receive the lower ends of the breakers 20 and assist in securing them in position. This disk has a central bearing
10 25 for the end of shaft 12.

I provide a faucet 26 at the bottom of the barrel to draw off buttermilk, so that water may then be introduced and the butter washed without removing it from the churn.

15 The construction is such that the shaft 12 and dashers 14 and 15 remain stationary, while the barrel and breakers 20 move, the dashers passing back and forth through the notches in the breakers.

20 The adjustability of the frame member 6 through the agency of the holes and pin makes it possible to accommodate bodies or barrels which are of slightly different lengths and to so position the barrel that it will re-

25 volve freely and yet without any up-and-down play. As the breakers and dashers are removable, they can be taken out of the churn for the removal of the adhering butter or cleansing, and the top of the frame can be

30 swung back or clamped down easily, and the churn can thus be removed or placed in position with facility. When the frame 6 is to be raised, the pin 13 is first pulled out, leav-

ing the shaft 12 stationary in the barrel and allowing the frame to swing upwardly with-
35 out hindrance.

I am aware that the frame could be made in several pieces and of different form from that shown and that different forms of operating mechanism and different shapes and
40 styles of churn-bodies employed. I do not, therefore, limit myself to the precise features as shown and described; but

What I claim as new, and desire to secure by Letters Patent, is—
45

In a churn, the combination of a lower frame comprising cross-bars and upright pieces, of an upper frame having one side hinged to one of the upright pieces and on its other side a depending portion adapted to en-
50 gage the other upright piece, a churn-body positioned between the upright pieces of the lower frame and having its lower end journaled on said cross-bars, a stationary dasher-shaft carrying dashers located in the churn-
55 body, which is detachably and adjustably connected to the upper hinged frame, and means whereby an adjustment is effected between the depending portion of the upper frame and the lower frame.
60

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

LAMMERT VAN OLST.

Witnesses:

J. VANDER MEIDE,

E. VAN OLST.