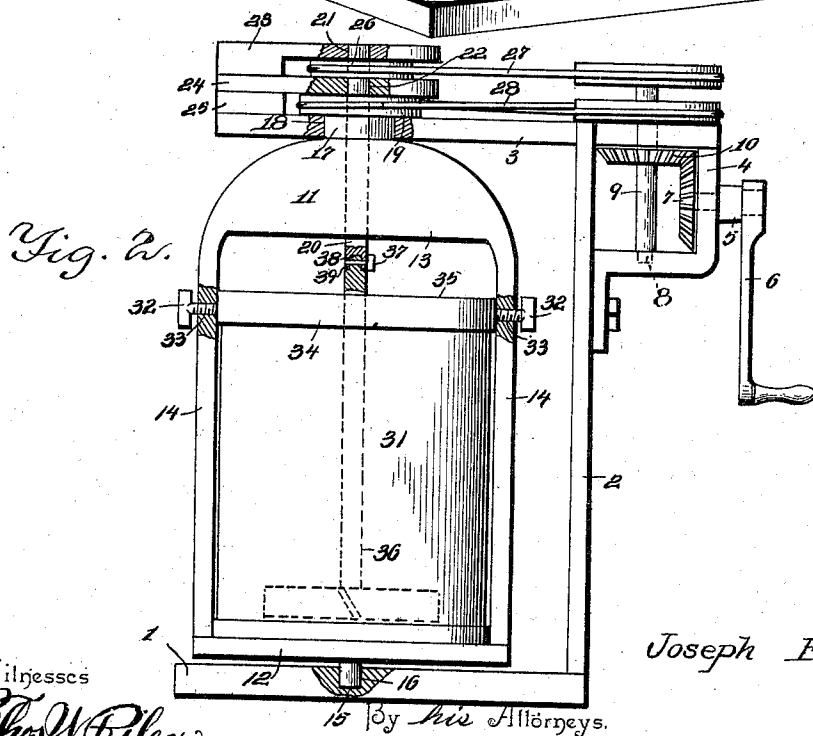
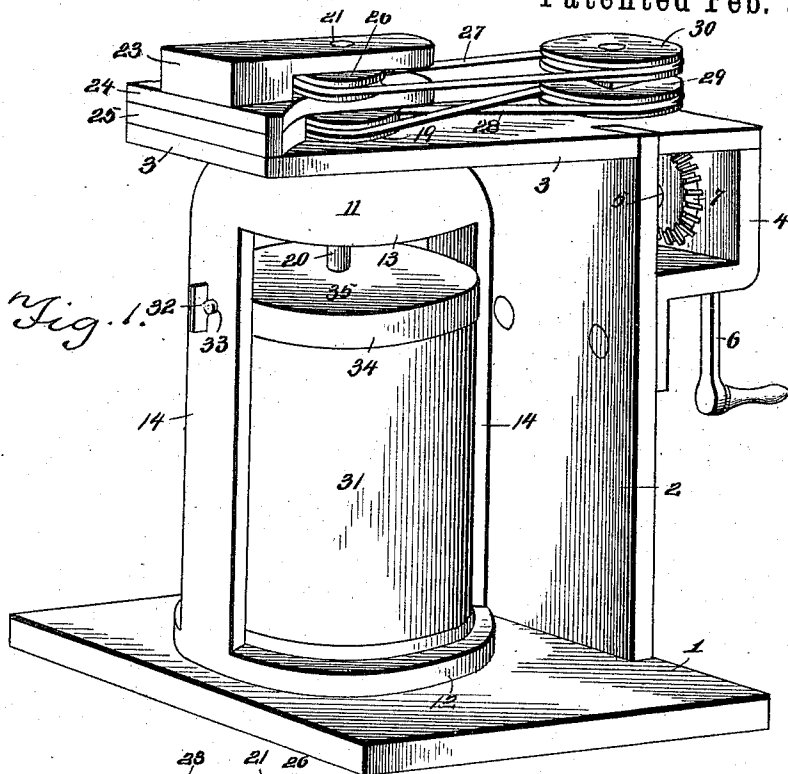


(No Model.)

J. EVERHARD.
CHURN.

No. 576,440.

Patented Feb. 2, 1897.



Inventor
Joseph Everhard,

Witnesses

Charles W. Riley
E. J. [Signature]

15 by his Attorneys.

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

JOSEPH EVERHARD, OF ROUND ROCK, TEXAS.

CHURN.

SPECIFICATION forming part of Letters Patent No. 576,440, dated February 2, 1897.

Application filed January 19, 1895. Serial No. 535,504. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH EVERHARD, a citizen of the United States, residing at Round Rock, in the county of Williamson and State of Texas, have invented a new and useful Churn, of which the following is a specification.

My invention relates to churns, and has for its object to provide a simple, efficient, and durable device wherein the churn tub or receptacle consists of a can of simple construction having a central opening in its lid or cover for the dasher-staff, said receptacle being supported and rotated by means of a frame adapted for that purpose, and, furthermore, to provide means whereby the mounting and dismounting of the receptacle are facilitated.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claim.

In the drawings, Figure 1 is a perspective view of a churn constructed in accordance with my invention. Fig. 2 is a vertical section of the same.

Similar numerals of reference indicate corresponding parts in both figures of the drawings.

The supporting-frame consists of a base 1, from which rises a standard 2, supporting a horizontal arm or cross-piece 3, extending forwardly over the base and rearwardly beyond said standard. A bracket 4 is attached to the rear side of said standard to support a crank-shaft 5, having a crank or handle 6 and fitted at its inner end with a bevel-gear 7. Stepped at its lower end in a socket 8 in the horizontal portion of said bracket and mounted at an intermediate point in a bearing in the rearwardly-extending portion of the horizontal arm or cross-piece 3 is a vertical shaft 9, provided below the plane of the lower surface of said bar with a bevel-gear 10 to mesh with that which is carried by the crank-shaft.

11 represents an open-sided yoke-shaped rotary frame having a horizontal disk 12, forming a base or seat, a cap or dome 13, and side connecting-uprights 14, which are preferably integral with said cap and disk. Depending from the base or seat 12 is a trunnion 15, which is stepped in a socket 16 in the base of the

frame, and rising from the cap is a tubular trunnion 17, which is mounted in a bearing 18 in the forwardly-extending portion of the arm 3. This tubular trunnion terminates above the plane of said bar in a pulley 19, and mounted for rotation in the tubular trunnion is the vertical dasher-staff 20, which is also arranged in bearings 21 and 22 in the horizontal arms 23 and 24 of a bracket 25, which is arranged upon the front extremity of the arm 3. A pulley 26 is fixed to the dasher-staff between the arms 23 and 24, and suitable means for communicating motion in opposite directions to the pulleys 26 and 19 are provided, such as belts 27 and 28, which are driven by pulleys 29 and 30, secured to the vertical shaft hereinbefore described, the lower belt being crossed.

The churn tub or receptacle 31 is arranged upon the disk forming the bottom of the rotary frame and is held in place by set-screws 32, which are fitted in the threaded openings 33 in the uprights of said frame and bear at their inner ends against the flange 34 of the top or cover 35 of said receptacle. The dasher 36 is arranged within the receptacle, and the portion thereof which projects above the plane of the top or cover is detachably connected to the lower end of the staff by means of a pin 37, which engages registering transverse perforations in a tongue 38 on the dasher, fitting in a socket 39 at the lower end of said staff.

Any suitable construction of receptacle may be employed in connection with my improved churn, said receptacle being preferably cylindrical and having a lid or cover provided with the above-described flange 34, which extends exteriorly around the upper edge of the body of the receptacle for engagement by the set-screws 32, and the only preparation of such a receptacle which is necessary in order to adapt it for use in connection with my churn is to form the central opening in the lid or cover. This receptacle may be introduced and removed laterally through either open side of the rotary frame, and the only function of the uprights 14 is to convey the rotary motion of the cap to the base and support securing devices to prevent vibration of the receptacle toward the open sides of the frame. Hence the removal of the pin 37, by

which the dasher is secured to the staff, and the loosening of said set-screws releases the receptacle, which may be removed without dismounting or otherwise affecting any other part of the mechanism. The set-screws, which are described, for securing the cover of the receptacle in place and securing the receptacle against vibration constitute a simple and efficient form of device for this purpose, but it will be understood that other means equally as efficient and within the knowledge of the skilled mechanic may be substituted therefor, and that various other changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, what I claim is—

In a churn, the combination with a stationary supporting-frame having a lower base portion, and an upper bearing 18, of a rotary frame permanently mounted within the stationary frame and having a base-disk provided with a depending trunnion stepped in

the base portion of the stationary frame, and opposite open sides to permit of the ready introduction and removal of an ordinary receptacle adapted to be seated upon and to turn with the base-disk, said rotary frame also having an upper cap portion 13 provided with an integral centrally-located tubular trunnion 17, turning in the bearing 18 of the stationary frame, and a horizontal pulley 19, formed on the upper side of and integral with said trunnion, fastening means for securing the receptacle within the rotary frame so that it will turn therewith, suitable gearing having a belt connection with said pulley 19, and a suitably-operated dasher-staff having a bearing in the tubular trunnion 17 of the rotary frame, substantially as set forth.

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

JOSEPH EVERHARD.

Witnesses:

LYNN RUSSELL,
J. M. BLACK.