

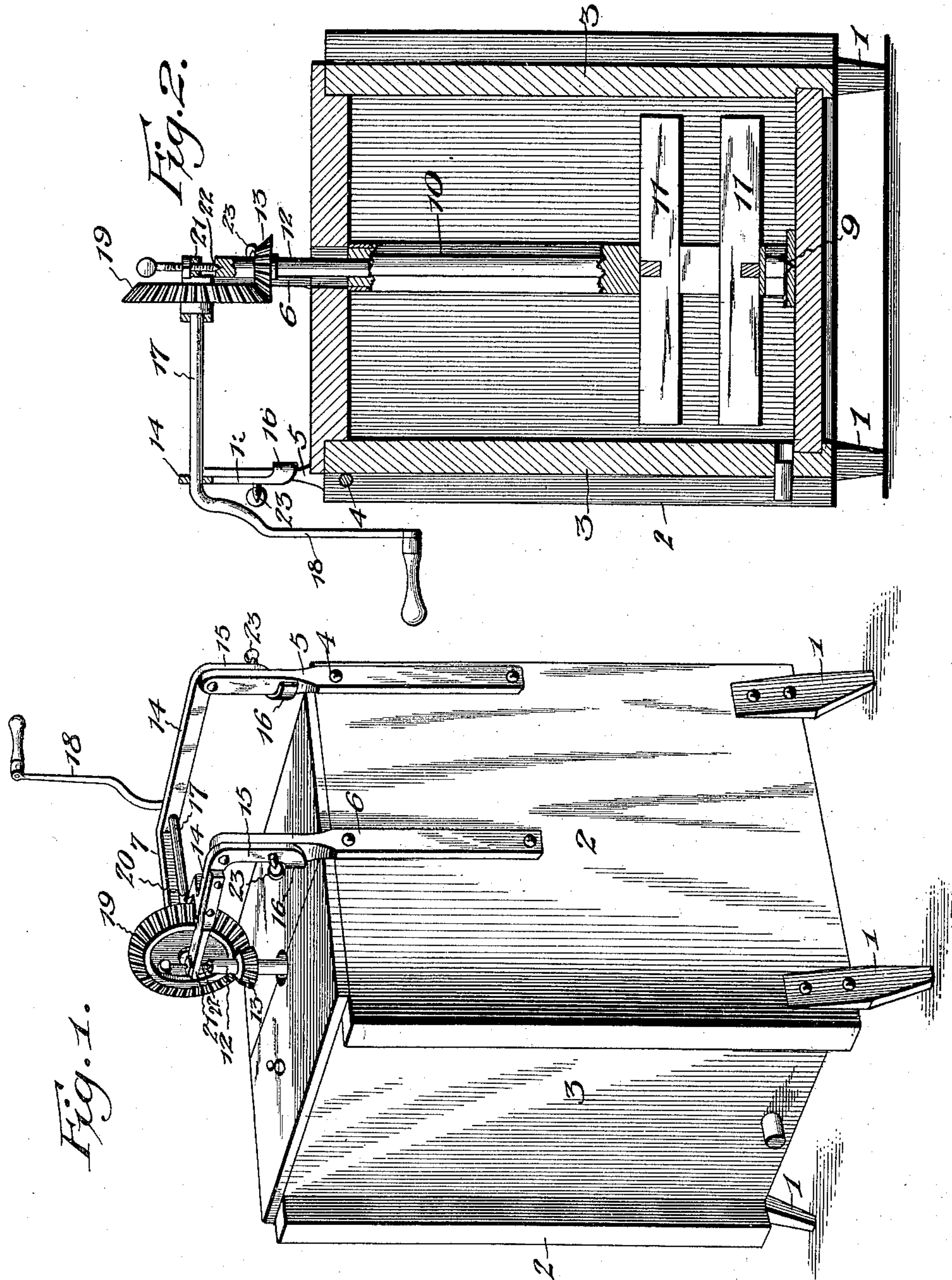
No. 627,150.

Patented June 20, 1899.

J. W. STRABALA.
CHURN.

(Application filed May 6, 1898.)

(No Model.)



Witnesses

A. Roy Appleman

[Signature]

By *his*

Attorneys,

Joseph W. Strabala Inventor.

Chas. Snow & Co.

UNITED STATES PATENT OFFICE.

JOSEPH WILLIAM STRABALA, OF KALONA, IOWA.

CHURN.

SPECIFICATION forming part of Letters Patent No. 627,150, dated June 20, 1899.

Application filed May 6, 1898. Serial No. 679,954. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH WILLIAM STRABALA, a citizen of the United States, residing at Kalona, in the county of Washington and State of Iowa, have invented a new and useful Churn, of which the following is a specification.

My invention relates to churns, and has for its objects to provide a simple, compact, and efficient construction and arrangement of churn-dasher-operating mechanism and means for supporting the same and for displacing the operating mechanism to release the churn-dasher, and also to provide suitable means for the adjustment of the parts to secure an efficient coöperation thereof.

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 central vertical section of the same.

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

The churn-receptacle, which is supported by suitable legs or standards 1, preferably consists of side walls 2 and end walls 3, set back from the vertical edges of the side walls to provide for the connection of the side walls, particularly at one edge, by means of a transverse tie-bolt 4. This tie-bolt is utilized as a means of securing to one of the side walls of the churn-receptacle a bracket-arm 5, and secured to the same side wall is a companion bracket-arm 6, both of said bracket-arms extending above the upper edges of the receptacle-walls to support a swinging frame 7. The receptacle is provided with a removable sectional cover 8, and stepped at its lower end in a suitable socket 9 on the floor of the receptacle is a dasher-staff 10, having flat radial blades 11, preferably consisting of bars which extend diametrically through the dasher-staff and are centrally interlocked, as shown in Fig. 2. The upper end of the dasher-staff is reduced to form a spindle 12, carrying a bevel-pinion 13.

The swinging frame 7 is of looped construction, with its side arms 14 pivotally mounted,

respectively, upon the upper extremities of the bracket-arms 5 and 6 and having depending extensions 15, terminating in stirrups 16, which engage the inner edges of the bracket-arms to limit the downward movement of the swinging frame. The advantage of this construction of swinging frame is that I am enabled to support the same solely by means of bracket-arms arranged at one side of the churn-receptacle, said swinging frame being sufficiently braced to withstand any ordinary strains applied by the operating mechanism thereto.

Mounted in transversely-alined bearings in the opposite side arm of the swinging frame is a driving-shaft 17, having an operating-crank 18, and said shaft also carries a driving-gear 19, which meshes with the pinion on the dasher-spindle when the swinging frame is in its normal position. Endwise movement of the driving-shaft is prevented, respectively, by the crank-arm and the driving-gear, and the arm of the swinging frame contiguous to which the driving-gear is arranged is offset, as shown at 20, to provide for the inward extension of a stay-arm 21, also carried by the swinging frame and provided with a terminal adjustable bearing-point 22 for engagement with a center socket in the upper end of the dasher-spindle.

From the above description it will be seen that in order to release the dasher for removal from the receptacle it is simply necessary to raise the inner end of the swinging frame, by which the dasher-operating mechanism is supported, such operation accomplishing the simultaneous disengagement of the bearing-pin 22 from the upper end of the dasher-spindle and the driving-gear from the pinion on the dasher-spindle; but in order to prevent accidental disarrangement of the parts during operation I provide the depending extensions of the swinging-frame side arms with set-screws 23, adapted to impinge terminally against the side surfaces of the supporting-brackets. In practice these bracket-arms may be slightly indented to form sockets for the reception of the inner extremities of the set-screws. Also, obviously, the bearing-pin which is carried by the swinging frame may be adjusted to take up wear in the bearings of the dasher-staff.

By attaching the brackets 5 and 6 to a side wall of the receptacle and supporting them independent of the receptacle lid or cover, even when the looped frame is in its normal or horizontal position, with the bearing-pin in engagement with the socket in the upper end of the dasher-staff, the lid or cover is free for removal when it is desired to inspect the contents of the receptacle. In other words, the mounting of the operating mechanism is independent of the lid or cover of the churn-receptacle, and yet when in its operative position both the operating mechanism and the means whereby the same is supported are arranged practically within the area of the receptacle.

I preferably use flat paddles in connection with the dasher of my improved churn, for the reason that they more effectually agitate the contents of the churn-receptacle, and thus hasten the separation of the butter, while at the same time a dasher of this construction may be kept in a hygienic condition without difficulty.

Various 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—

The herein-described churn having a receptacle provided with a removable cover, bracket-arms fixed to and rising from one side wall of the receptacle, to allow independent removal of the cover, a looped swinging frame 7 having side arms pivotally mounted upon said bracket-arms and provided with depending extensions 15 terminating in stirrups to engage the inner edges of the bracket-arms when said frame is in a horizontal position, set-screws for securing the stirrups in engagement with the bracket-arms, churn-dasher-operating mechanism mounted upon said frame, and a bearing-pin carried by the frame for engagement with a socket in the upper end of a dasher-spindle when the frame is in a position overhanging the churn-receptacle to support that portion of the frame which is remote from its pivot-points, substantially as specified.

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

JOSEPH WILLIAM STRABALA.

Witnesses:

A. M. HUFF,
W. GRADY.