C. B. SEWARD.

CHURN.

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1,066,665.

Patented July 8, 1913.

2 SHEETS—SHEET 1.

Fig. 4.

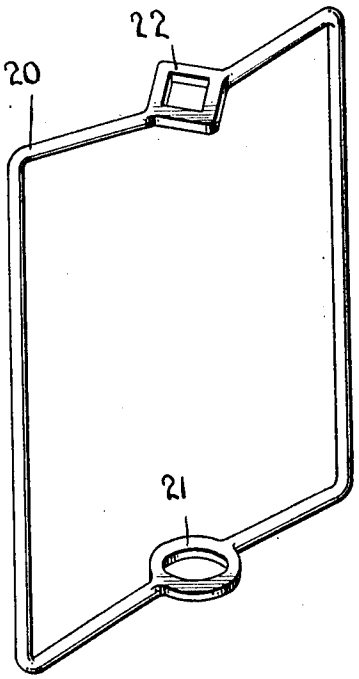


Fig. 1.

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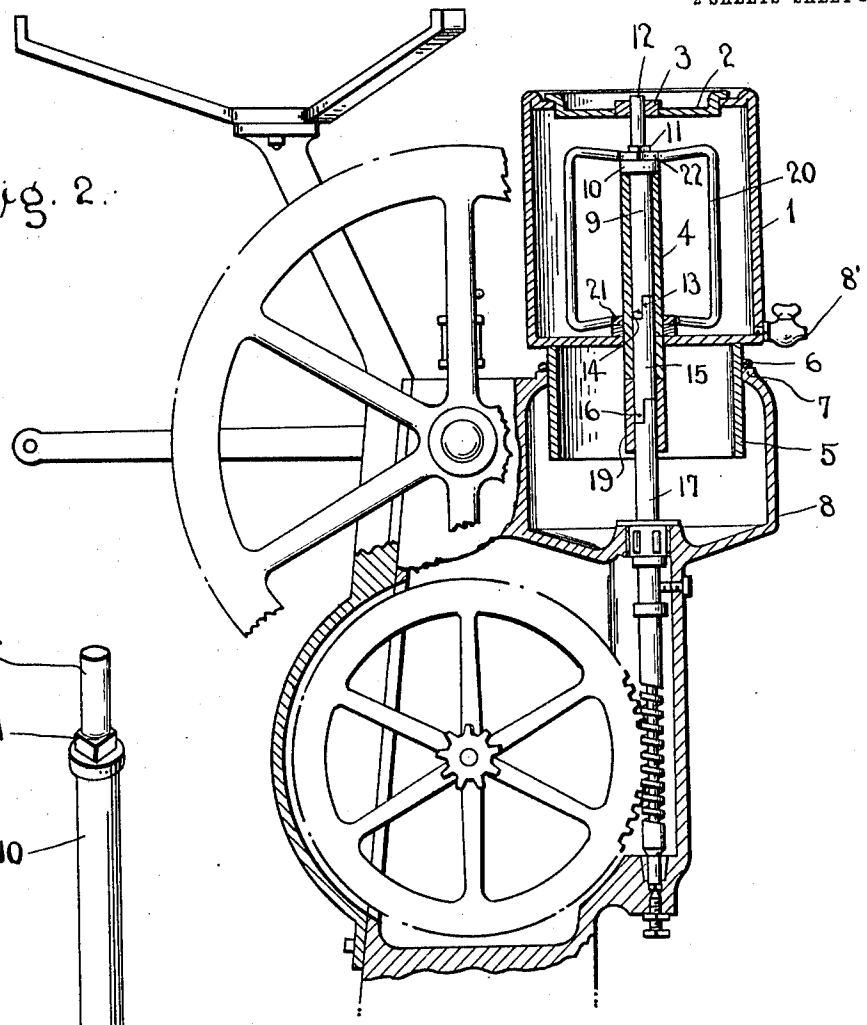
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2 SHEETS—SHEET 2.

Fig. 2.



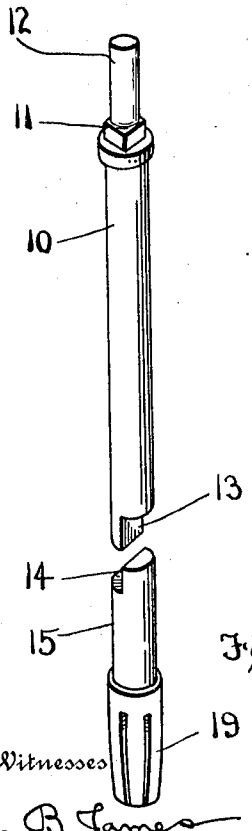
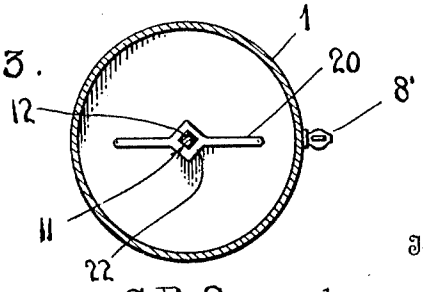


Fig. 5

Fig. 3.



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CHURN.

1,066,665. Specification of Letters Patent. Patented July 8, 1913.

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To all whom it may concern:

Be it known that I, CHARLEY B. SEWARD, a citizen of the United States, residing at Royal Center, in the county of Cass and State of Indiana, 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.

This invention relates to improvements in churns.

One object of the invention is to provide a churn which is particularly adapted for use in connection with a cream separator, and is adapted to be applied thereto and operated by a moving part of the same.

Another object is to provide a churn having an improved construction and arrangement of dasher and dasher operating mechanism.

With these and other objects in view, the invention consists of certain novel features of construction, and the combination and arrangement of parts as will be more fully described and claimed.

In the accompanying drawings: Figure 1 is a side view of my improved churn showing the same applied to a separator; Fig. 2 is a vertical section of the churn and a part of the separator; Fig. 3 is a horizontal section of the churn; Fig. 4 is a detail perspective view of the dasher removed from the churn; Fig. 5 is a similar view of the dasher operating shaft.

My improved churn comprises a body or receptacle 1, which may be of any desired size and constructed of any suitable material, the same being preferably formed of metal. The body or receptacle 1 is provided with a tight cover 2 having therein a centrally disposed shaft bearing 3. In the bottom of the body or receptacle 1 is secured a centrally disposed upwardly projecting shaft receiving tube 4 which projects upwardly in the receptacle to near the upper end thereof, and which has its lower end projecting through and a short distance below the bottom of the receptacle as shown.

Secured to the bottom of the receptacle and projecting a suitable distance below the same is an annular supporting flange 5 having thereon near its upper end an annular stop bead or rib 6, said flange 5 being adapted to be engaged with the bowl supporting member 7 on the cream separator 8 after the bowl has been removed therefrom. In one side of the receptacle or body 1 near the bottom thereof is arranged a cock or faucet 8′ by means of which the buttermilk is drawn from the churn body.

Revolubly mounted in the tube 4 is a dasher operating shaft 9 on which, at the upper end of the tube 4, is an annular shaft supporting flange or collar 10 which engages the upper end of said tube 4 and revolubly supports the shaft therein. The shaft 9 for a short distance above the flange or collar 10 is square as at 11, and above said square portion is arranged a cylindrical extension 12 which engages the bearing 3 in the cover 2 of the churn body. The lower end of the shaft 9 is cut away on one side to form a square notch 13, and said notched end of the shaft is adapted to be engaged with the similarly shaped upper end 14 of a coupling member 15, the lower end of which is also recessed to form a square notch 16 which is adapted to be engaged with the similarly shaped upper end of a power transmitting shaft 17 revolubly mounted in and geared to a driven part of the separator. The notched lower end of the coupling member 15 has secured thereto a split sleeve or socket 19 which engages the connecting upper end of the power transmitting shaft 17 and holds said shaft and the member 15 in operative engagement. By thus arranging the dasher operating shaft 9 and connecting the same with the driven part of the separator, the churn will be operated by the same power which operates the separator.

Revolubly mounted in the churn body is a dasher 20 comprising a rectangular frame, in the center of the lower cross bar of which is arranged a circular bearing ring 21 which is revolubly engaged with the bearing tube 4 of the shaft 9. In the center of the upper cross bar of the frame is a rectangular aperture 22 which is engaged with the square portion 11 of the shaft 9, thereby operatively connecting the dasher with said shaft, so that when the latter is driven in the manner described, the dasher will be rapidly revolved in the body of the churn.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion

and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as claimed.

Having thus described my invention, what I claim is:

1. In a churn, the combination with a hollow supporting member having an opening in its top and an upright power shaft arranged beneath said opening, of a churn body removably supported on said member and having a portion to enter said opening, a tube fixed centrally in the bottom of the churn body, a dasher shaft rotatable in said tube, and a detachable driving connection between the lower end of the dasher shaft and the upper end of said power shaft.

2. In a churn, the combination with a hollow supporting member having a circular opening in its top and an upright power shaft arranged beneath and concentrically with said opening, of a churn body having a depending cylindrical flange removably supported in said openings, a tube fixed centrally in the bottom of the churn body, a dasher shaft rotatably mounted in said tube, and a detachable driving connection between the lower end of the dasher shaft and the upper end of said power shaft.

3. In a churn, the combination with a hollow supporting member having an opening in its top and an upright power shaft arranged beneath said opening, of a churn body removably supported on said member and having a portion to enter said opening, a tube fixed centrally in the bottom of the churn body, a removable cover for the top of churn body and provided with a shaft bearing, a dasher shaft rotatable in said tube and having its upper end removably and rotatably arranged in the bearing in said cover, and a detachable driving connection between the lower end of the dasher shaft and the upper end of said power shaft.

4. A churn to be attached to and operated by a cream separator, comprising a churn body provided with a depending flange and a support engaging shoulder, an upright tube fixed in the bottom of the churn body, a removable cover for the top of the churn body and provided with a shaft bearing, a dasher shaft, a rotatable dasher shaft removably supported on the top of said tube and arranged to rotate in said tube, and a coupling connection to engage the lower end of the dasher shaft.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHARLEY B. SEWARD.

Witnesses:
CHALCE SCHMIDT,
MELLIE MAE BECKLEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."