

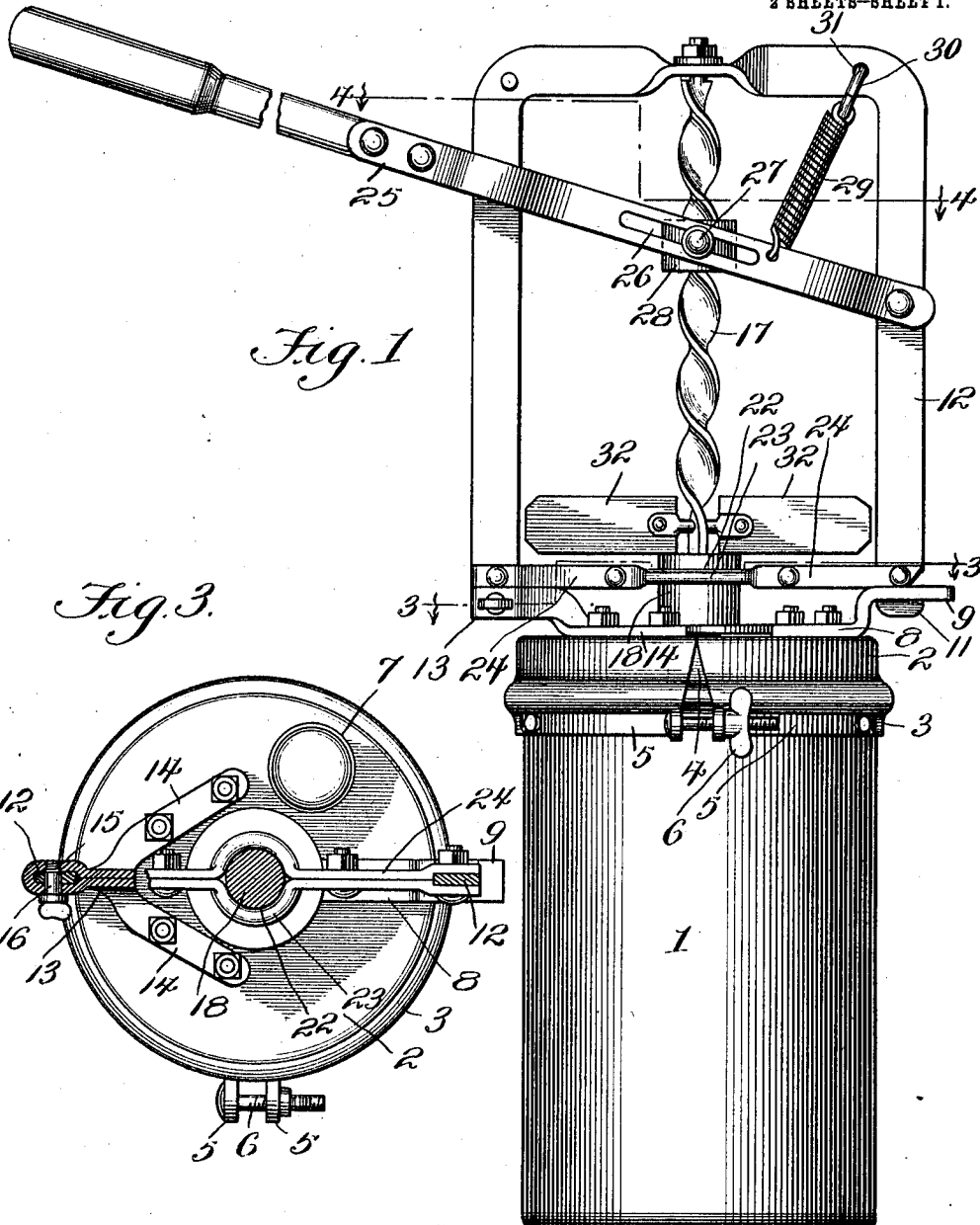
N. J. JOHNSON & R. L. STALANS.
CHURN.

APPLICATION FILED JULY 23, 1910.

1,003,910.

Patented Sept. 19, 1911.

2 SHEETS-SHEET 1.



Witnesses
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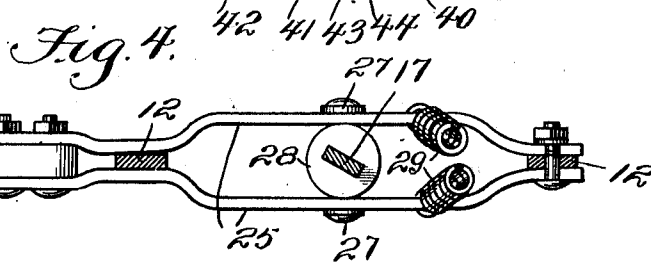
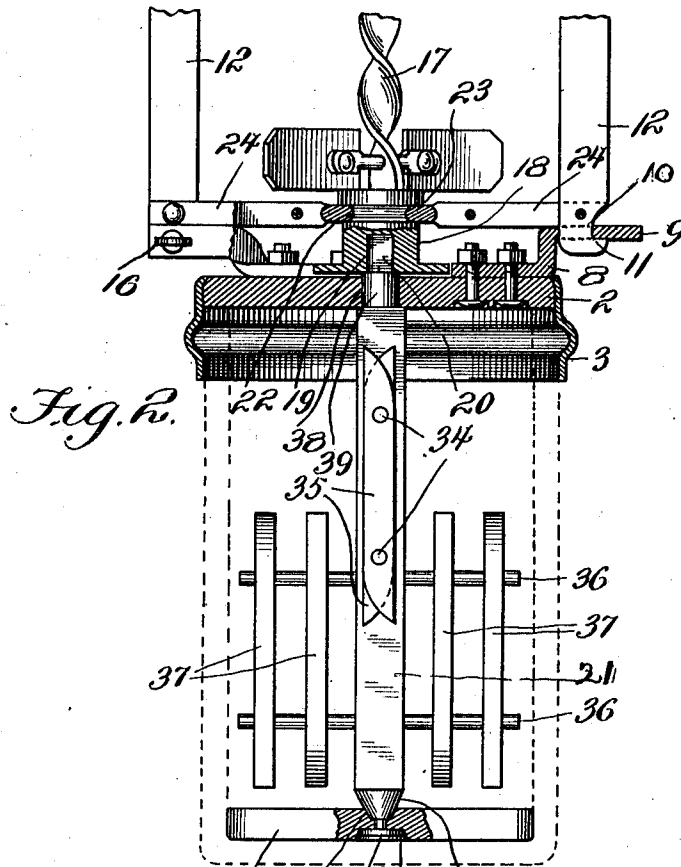
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3 SHEETS-SHEET 2.



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UNITED STATES PATENT OFFICE.

NATHANIEL J. JOHNSON AND ROBERT L. STALANS, OF ATWOOD, OKLAHOMA.

CHURN.

1,003,910.

Specification of Letters Patent. Patented Sept. 19, 1911.

Application filed July 23, 1910. Serial No. 573,559.

To all whom it may concern:

Be it known that we, NATHANIEL J. JOHNSON and ROBERT L. STALANS, citizens of the United States, residing at Atwood, in the county of Hughes and State of Oklahoma, have invented new and useful Improvements in Churns, of which the following is a specification.

This invention relates to churns and more particularly to churn dashers and their operating mechanism.

The object of the invention is the provision of a dasher and an operating mechanism therefor which may be attached to the ordinary type of stone jar or other receptacle and held in operative engagement therewith.

A further object of the invention is the provision of a novel operating mechanism which will connect with and reciprocate the ordinary rotary reciprocating dasher and a still further object of the invention is the provision of an operating means which may be readily attached and detached from the dasher and from the supporting top.

Further objects of the invention will appear as the following specific description is read in connection with the accompanying drawing which forms a part of this application, and in which:

Figure 1 is a side elevation. Fig. 2 is a detail vertical section showing the churn receptacle in dotted lines. Fig. 3 is a horizontal section taken on the line 3—3 of Fig. 1. Fig. 4 is a horizontal section taken on the line 4—4 of Fig. 1.

Referring more particularly to the drawings 1 represents an ordinary stone jar or other receptacle upon which is mounted a top 2 having a depending flange 3 which is split at 4 and connected together by the clamping arms 5 and the set screw 6. The top is apertured at 7 to permit the insertion of cream and also for the inspection of the condition thereof during churning.

Mounted upon the top 2 at one side thereof is a bracket 8 having a raised lateral projecting arm 9 which is slotted at 10 to receive the locking lug 11 of the shaft yoke 12. The opposite end of the shaft yoke is seated in a socket formed between the sides of a bracket 13 whose supporting legs 14 diverge as shown. One side of the bracket 13 is provided with a threaded aperture 15, to receive a set screw 16 which locks the yoke 12 in position upon the top. Jour-

naled in the upper portion of the yoke and depending therefrom is a spiral shaft 17 whose lower end has keyed thereto a bearing collar 18 having a squared socket 19 in its lower end so as to receive the upper squared end 20 of the dasher shaft 21. This collar is peripherally grooved as at 22 so as to receive the bearing portions 23 of the bracing struts 24. These bracing struts are formed by the use of separate pieces of material bolted together and to the yoke and having in their center the semi-circular bends which form the bearing portions 23. Pivotaly mounted to one side of the yoke is a lever 25 which straddles the opposite side of the yoke and is provided intermediate its length with the slots 26 in which are adapted to operate the headed studs 27 carried by the rotating collar 28 which fits and slides up and down upon the spiral shaft 17 so as to rotate the same. The lever is normally raised by spiral springs 29 which are connected to the separate sides of the lever 25 at one end and to a U-shaped clip 30 secured in an aperture 31 in the upper part of the yoke member 12.

In order to keep flies and other insects away from the opening 7 a pair of fans 32 are secured to the lower end of the spiral shaft 17 and extend directly opposite from each other and overlie the aperture 7.

The dasher shaft 21 is squared throughout the major portion of its length and has extending from opposite sides thereof the supporting bars 34 upon which are secured the dasher blades 35. Immediately below the bars 34 are similar bars 36 which extend at right angles to the bars 34 and carry the dasher blades 37. The dasher blades 35 and 37 are spaced apart so as to permit a free passage of the cream and to insure a complete agitation thereof. The upper end of the shaft 21 immediately below the square portion 20 is round as at 38 so as to fit the bearing aperture 39 formed in the center of the top immediately below the collar 18, the lower end of the shaft 21 is made cone-shaped as shown at 40 to fit a cone-shaped socket 41 in the stepping plate 42. A retaining device such as a screw 43 passes through an aperture 44 in the stepping plate and engages the end of the shaft 21 so that the stepping plate will be removed with the dasher. The stepping plate is preferably made of such a length as to fit the receptacle and is placed in position therein with the

dasher and the top placed upon the receptacle and clamped in position with the squared end 20 of the dasher shaft in the socket 18. A suitable handle is attached to the lever 25 and by reciprocating the same, the shaft is given a rotary reciprocating motion which is conveyed to the dasher.

The entire operating frame may be readily removed from the top by disconnecting the set screw 16 and pivoting the frame upon the bracket arm 9, then raising the frame so as to disengage the lug 11.

Having thus described the invention, what is claimed is—

1. A unitary churning attachment comprising a top member adapted to be secured upon a receptacle, bracket supports carried by said top member, a yoke member removably mounted in said bracket supports, bracing struts on the yoke member, a shaft revolvably mounted in the yoke member and struts, means carried by the yoke member for rotating said shaft, a dasher removably

connected to the shaft, and a stepping plate rotatably carried on the end of the dasher adapted to seat in a receptacle.

2. A unitary churning attachment comprising a top member adapted to be secured upon a receptacle, bracket supports carried by the top member, a supporting yoke removably secured to said bracket supports, bracing struts carried by said yoke member, a spiral shaft journaled in said yoke member and bracing struts, means pivoted on the yoke member for rotating the said spiral shaft, a dasher removably connected to the shaft, and a stepping plate rotatably mounted on the end of the dasher and adapted to seat in a receptacle.

In testimony whereof we affix our signatures in presence of two witnesses.

NATHANIEL J. JOHNSON.

ROBERT L. STALANS.

Witnesses:

W. A. JAMES,

JAS. B. ATKINSON.

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