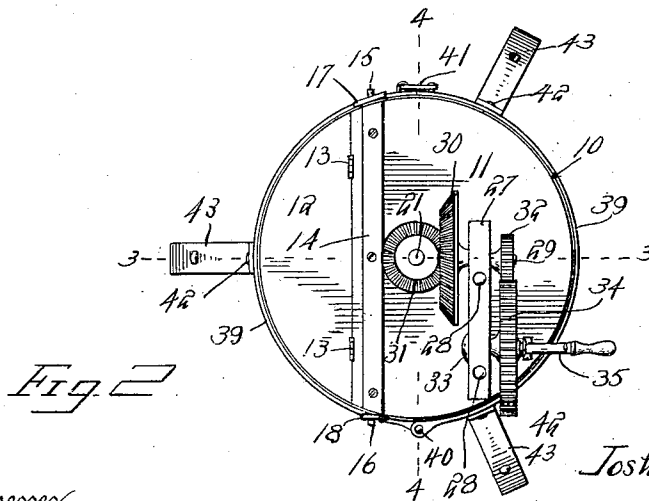
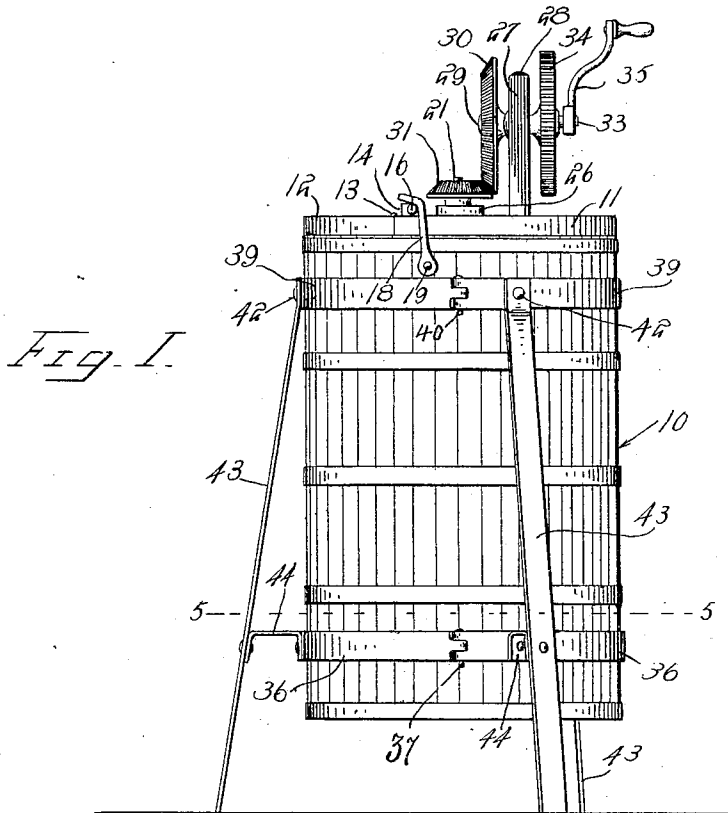


J. E. DINWIDDIE.
CHURN.
APPLICATION FILED SEPT. 29, 1909.

977,077.

Patented Nov. 29, 1910.

2 SHEETS—SHEET 1.



Witnesses
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C. H. Woodward

Inventor
Joshua E. Dinwiddie.

By

Handwritten signature of the attorney.

Attorneys

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2 SHEETS-SHEET 2.

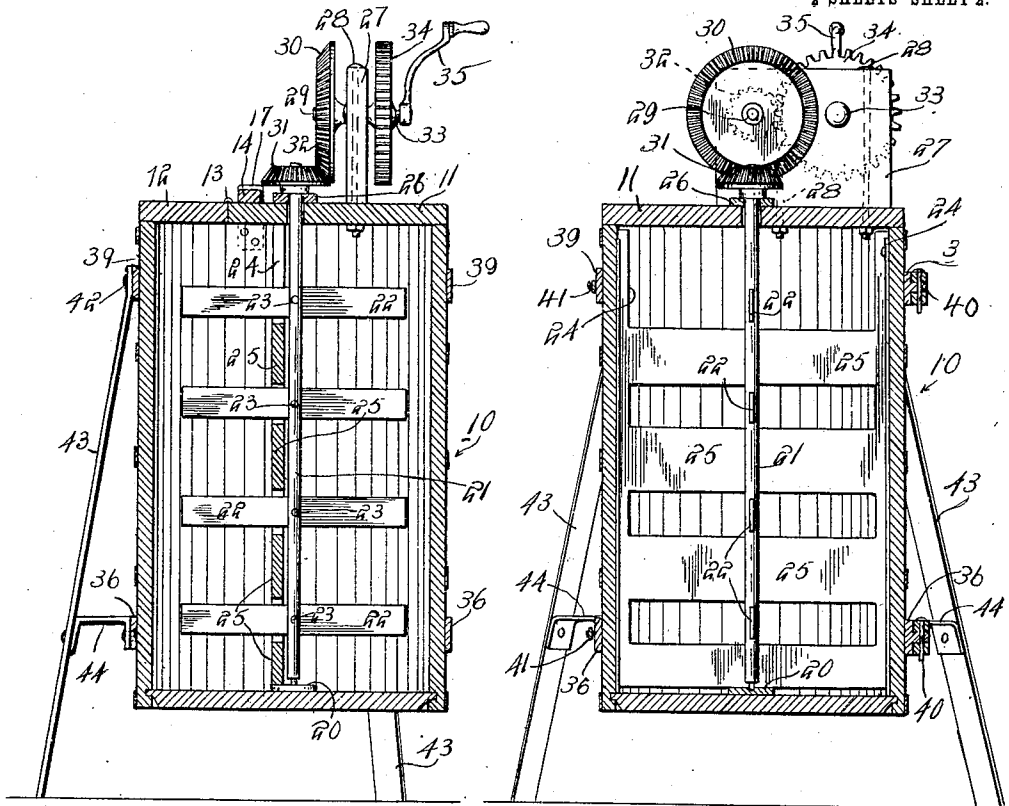


Fig. 3.

Fig. 4.

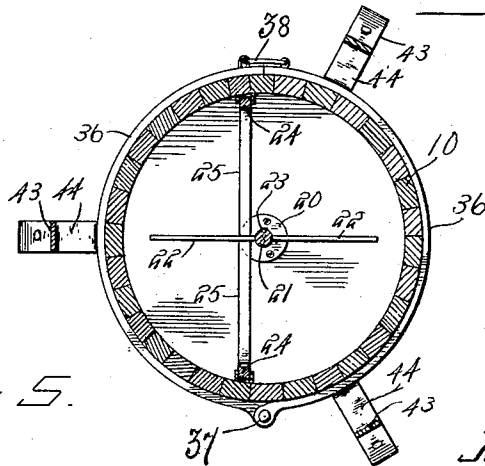


Fig. 5.

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UNITED STATES PATENT OFFICE.

JOSHUA E. DINWIDDIE, OF FARMINGTON, KANSAS.

CHURN.

977,077.

Specification of Letters Patent. Patented Nov. 29, 1910.

Application filed September 29, 1909. Serial No. 520,181.

To all whom it may concern:

Be it known that I, JOSHUA E. DINWIDDIE, a citizen of the United States, residing at Farmington, in the county of Atchison, State of Kansas, have invented certain new and useful Improvements in Churns; and I do hereby 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, and has for its object to improve the construction and increase the efficiency and utility of devices of this character.

With this and other objects in view, the invention consists in certain novel features of construction as hereafter shown and described and then specifically pointed out in the claim, and in the drawings illustrative of the preferred embodiment of the invention.

Figure 1 is a side elevation of the improved device. Fig. 2 is a plan view of the same. Fig. 3 is a section on the line 3—3 of Fig. 2. Fig. 4 is a section on the line 4—4 of Fig. 2. Fig. 5 is a section on the line 5—5 of Fig. 1.

In the improved device is embraced a body or cream receptacle 10, of the barrel form, and preferably of wood and provided with a two-part closure 11—12, the portion 11 of the closure being the larger and hingedly united at 13 to the smaller portion 12. Connected to the larger closure portion 11 is a plate 14 having reduced extensions 15—16 at the ends, the extensions projecting beyond the surface of the body 10.

Rigidly connected to the receptacle 10 at one side is a small plate 17 having an aperture in its upper end through which the reduced terminal 15 of the plate 13 extends, while a hook 18 is mounted to swing at 19 upon the receptacle 10 at the opposite side and engages over the other projecting terminal 16 of the plate. By this means the larger closure member 11 is detachably secured to the receptacle 10, while the smaller portion 12 is hingedly coupled to the larger portion 11, and provides for access to inspection of the interior of the receptacle without disturbing the larger closure portion 11. Connected to the bottom of the receptacle 10 is a step plate 20, and stepped in this plate is a vertical dasher shaft 21 having a plurality of transverse paddles 22, the latter

preferably secured to the dasher shaft by rivets or bolts 23. Detachably located in the receptacle 10 is a vertical stop-frame comprising side members 24 and transverse members 25, the transverse members corresponding in number to the paddles 23 and so located that the paddles will pass between the transverse stop members 25 when the shaft 21 is rotated, as hereafter more fully described.

Connected to the larger closure member 11 is a wear plate 26 through which the upper end of the shaft 21 extends, and by which the shaft is rotatively coupled to the closure member 11, as hereafter more fully described. Connected to the closure member 11 is a standard 27, preferably in the form of a wooden block secured in position by relatively long bolts 28, and provided with two transverse bearing apertures spaced apart. Fitting through one of the apertures in the standard 27 is a stub-shaft 29 and connected to the stub shaft at one side of the standard 27 is a bevel gear 30 meshing with a bevel pinion 31 upon the upper end of the stub-shaft 21, while upon the opposite end of the stub shaft 29 is a gear pinion 32. Mounted for rotation through the other aperture of the standard 27 is another stub shaft 33 carrying a gear wheel 34 which meshes with the gear pinion 32. Connected to the stub shaft 33 is an operating crank 35. By this arrangement it will be obvious that when the crank 35 is rotated the dasher-shaft 21 will be rapidly rotated through the coaction of the gears 30—34 and pinions 31—32. As the paddles 22 are rotated with the dasher shafts the churning action is produced between the paddles and the stop members 25. The member 11 being detachably connected to the receptacle 10, the dasher shaft and its paddles together with the operating mechanism being likewise connected to the closure 11, these parts may be readily removed from the churn when the hook 18 is released, and the plate 24—25 being likewise detachable can be readily removed, so that the interior of the churn and all of the operating parts may be readily and thoroughly cleansed after each churning operation, as will be obvious.

Surrounding the receptacle 10 near its lower portion is a two-part band 36 hingedly united at 37 and with a hook and staple device 38 arranged to detachably couple the ends of the band members, as shown in Fig.

4. Surrounding the receptacle 10 near its upper part is a similar two-part band 39 hingedly united at 40 at one side and provided with detachable fastening devices 41
5 at the opposite sides, the two parts 36—39 being substantially arranged, as shown.

Connected at 42 to the upper band 39 are leg members 43, which are inclined outwardly and downwardly, as shown, and form
10 supports for the band 39. The band member 36 is coupled to the leg members 43 by tie members 44, as shown. Any required number of the leg members may be employed, but generally three will be used, as
15 shown. The leg members 43 being arranged to extend outwardly at all directions form effectual braces to the band members and coact therewith to form an efficient support for the churn receptacle and its attachments,
20 and insure the requisite steadiness of action to the latter.

The bands and the legs are formed of metal as light as possible consistent with the strains to which they will be subjected, and
25 are preferably of steel, and are also preferably galvanized or otherwise coated or treated to prevent corrosion. All of the metal parts of the churn are likewise galvanized or otherwise treated for the same
30 purpose.

The bands 36—39 being each arranged in two parts hingedly united, they may be separated to enable them to be detached from or attached to the receptacle 10, as required. The improved device is thus rendered readily
35 portable when required, or placed in condition for ready cleansing after each churning action. The receptacle 10 and other parts may be of any required size or capacity without material structural changes in this part
40 of the device.

What is claimed is:—

The combination with a churn including a receptacle, of upper and lower bearing bands spaced apart and surrounding said
45 receptacle, each bearing band being formed in two parts hingedly united at one side and detachably coupled at the other side, a plurality of supporting legs connected at one end to said upper bearing band and directed
50 outwardly and downwardly therefrom, and a connecting member between each of said leg members and the lower bearing band.

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

JOSHUA E. DINWIDDIE.

Witnesses:

A. S. HALL,

H. D. SEBRING.