

S. E. FELTS.

CHURN.

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1,017,522.

Patented Feb. 13, 1912.

FIG. 1.

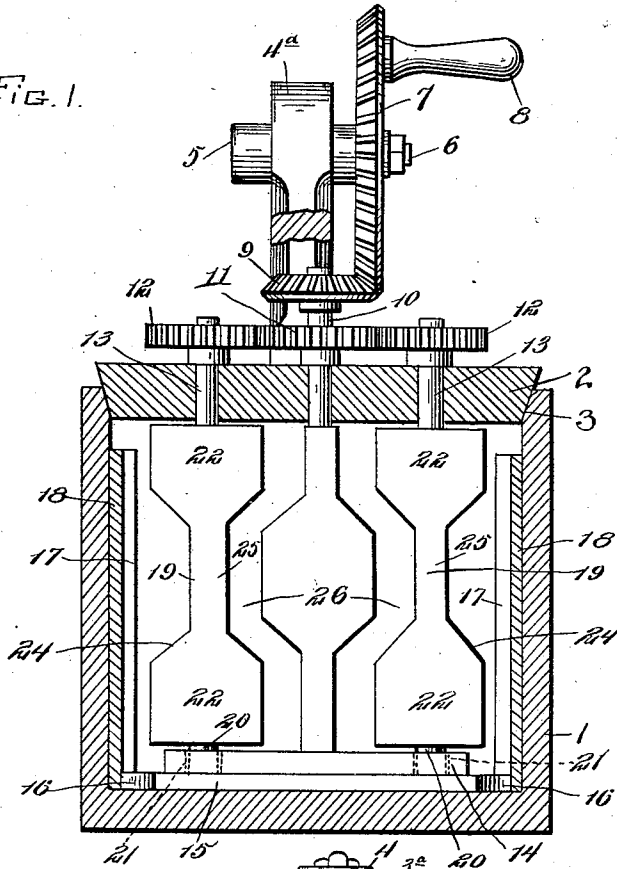
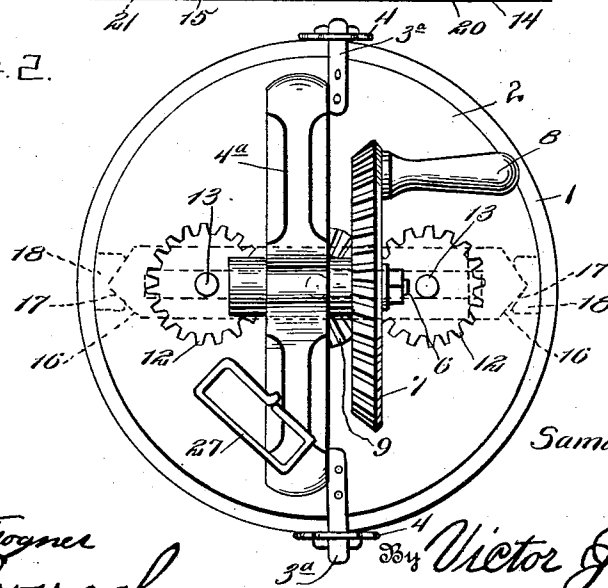


FIG. 2.



Witnesses

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CHURN.

1,017,522.

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To all whom it may concern:

Be it known that I, SAMUEL E. FELTS, a citizen of the United States, residing at Keokee, in the county of Lee and State of Virginia, have invented new and useful Improvements in Churns, of which the following is a specification.

The present invention relates to certain novel and useful improvements in churns and has particular application to a churn provided with a plurality of dasher blades actuated from a common source of power, and so correlated and arranged that the churning may be thoroughly and rapidly accomplished.

In carrying out my invention, it is my purpose to provide a churn which will embody the desired features of simplicity and efficiency.

Furthermore, I aim to provide a churn having a number of dasher blades of such form and construction, that while operated from a common source of power, such as a crank, and through a simple arrangement of gearing, all of said blades will operate in unison upon the material within the receptacle to rapidly and thoroughly churn the same.

With the above-recited objects and others of a similar nature in view, the invention consists in the construction, combination and arrangement of parts, set forth in and falling within the scope of the appended claims.

In the accompanying drawing:—Figure 1 is a view in side elevation of a churn embodying my invention, the receptacle and cover of the churn being shown in cross section. Fig. 2 is a top plan view.

Referring now to the accompanying drawings in detail, the numeral 1 designates the receptacle for the cream to be churned, which receptacle may be made of any desired shape or size and of any suitable material, such as wood.

The top or cover of this churn is indicated by the numeral 2 and is provided with a tapered periphery 3 so as to seat snugly and tightly at the top of the receptacle when applied thereto, said cover being provided with outwardly and oppositely extending studs 3^a designed to be engaged by the pivoted handles or rings 4 connected to the body of the receptacle whereby the cover may be firmly held or locked in position.

Mounted upon the top of the cover is a

frame 4^a, in the present instance in the form of an inverted V, said frame having a transverse bore 5 forming a bearing for the stationary shaft 6 at the end of which stationary cross shaft is revolvably mounted a relatively large vertically disposed beveled gear wheel 7 adapted to be rotated by means of the handle 8. Said beveled gear 7 is designed to mesh with the horizontally disposed bevel pinion 9 carried at the projecting end of the central shaft 10. Keyed to the shaft 10, directly below the pinion is a gear wheel 11, meshing with and interposed between the gear wheels 12—12 carried by the vertical shafts 13—13 which, like the shaft 10, extend through the covering or top of the churn. The central shaft 10, is journaled at its lower end in the cross bar 14 carried by the base bar 15, the latter having its ends beveled as at 16 to fit within the V-shaped grooves 17 in the vertical guides 18 extending at opposite sides of the receptacle.

By providing the guides and forming the base as shown and described, the churning mechanism is held in position during the churning operation. The shaft 10 has formed at approximately the center thereof, and preferably integral therewith a relatively large dasher blade in the present instance approximately hexagonal in form. Each of the side shafts 13—13 carries the dasher blades 19—19 which extend vertically between the bottom of the cover and the cross bar 14, said blades having short studs 20—20 which are journaled in sockets 21—21 near the ends of the cross bar, so that said blades may turn freely. Each blade is formed with the enlarged end portions 22—22, at the top and bottom of the blades, said enlarged ends of the blade being inwardly inclined as at 24, so that the center portion of each blade is formed of a straight bar like member 25, the spaces 26 formed by the cut away portion of each blade permitting the passage of the hexagonal blade of the central shaft when the churn is operated.

It will be seen that by the peculiar construction of my blade the material in being churned will be thoroughly agitated, the side blades rotating in opposite directions to the central blade, and passages being formed between the blades themselves and the blades and sides of the receptacle for the passage

of the material being churned. If desired, the frame on the top of the cover may be provided with a handle 27 by means of which the cover and the churning mechanism may be readily lifted from the receptacle.

From the above description, taken in connection with the accompanying drawing, the construction and manner of employing my invention will be readily apparent. It will be seen that my churn is composed of relatively few parts, and those arranged in such manner that the cream may be thoroughly agitated, the peculiar construction of the blades materially assisting in the operation.

I claim:—

1. In a churn, the combination of a receptacle, a removable base plate therein, a central dasher blade carried by the base member and provided with an enlarged central portion, side dasher blades having reduced central portions, and means for ro-

tating all of the dasher blades, the enlarged central portion of the dasher blade passing the side dasher blades at the reduced portion of the latter.

2. In a churn, the combination of a receptacle having grooved guide ways, of a base member adapted to slide in and be retained by the guide ways, a central dasher blade, and side dasher blades journaled at their lower end portions in said base member, said central dasher blade being arranged to turn between the side dasher blades a cover for the churn, shafts for the dasher blades extending through the cover, and gearing for rotating all of said shafts.

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

SAMUEL E. FELTS.

Witnesses:

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