J. SZENTIVANYI.

POWER MECHANISM FOR CHURNS.

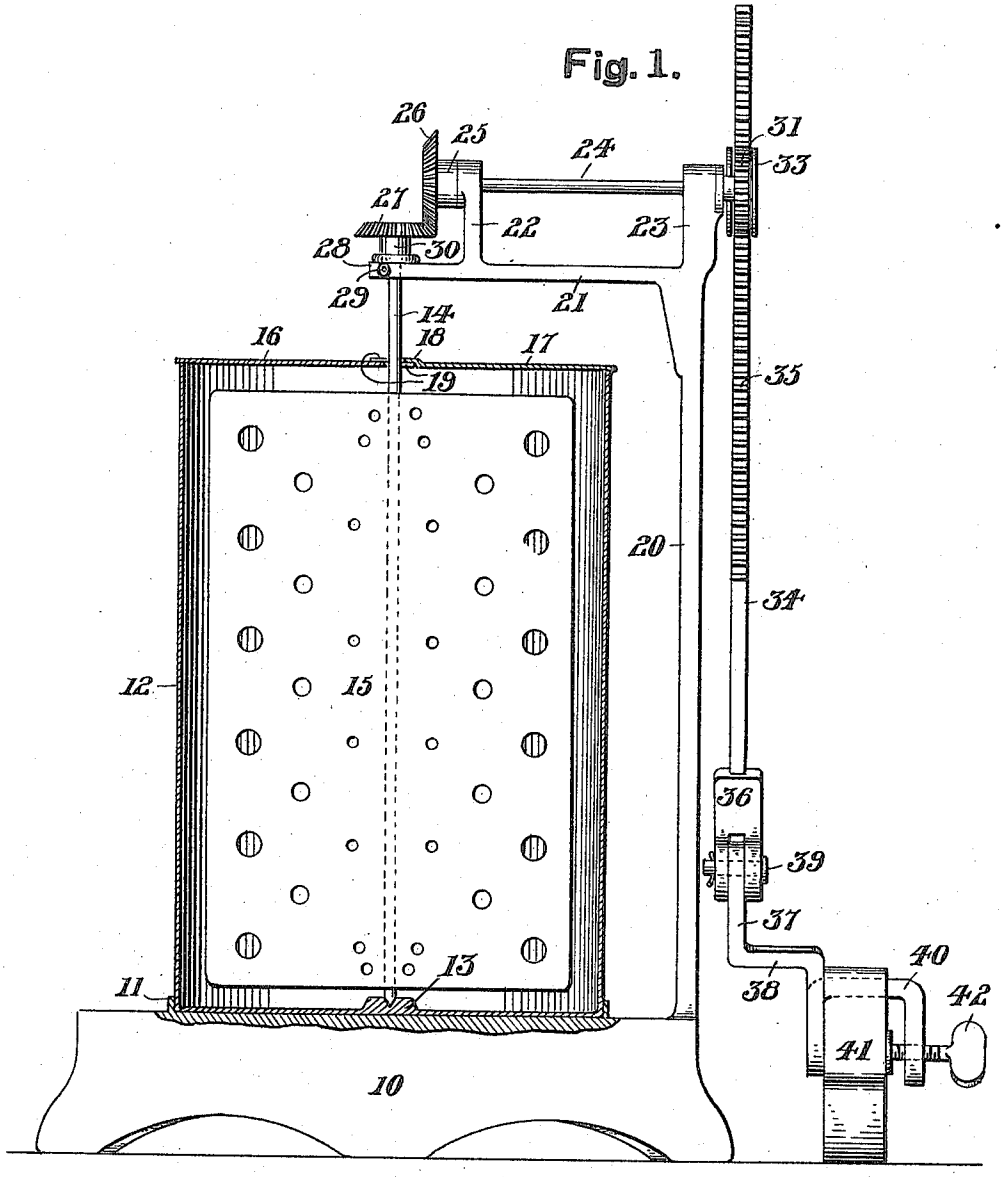
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1,161,547.

Patented Nov. 23, 1915.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 4.

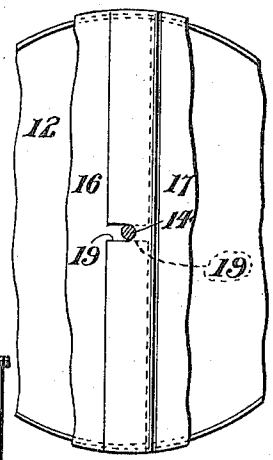


Fig. 3.

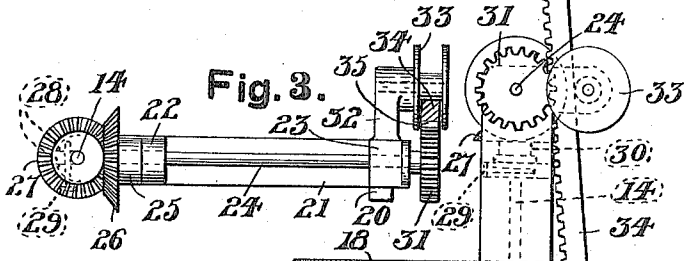


Fig. 2.

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UNITED STATES PATENT OFFICE.

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POWER MECHANISM FOR CHURNS.

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Application filed February 18, 1915. Serial No. 9,124.

To all whom it may concern:

Be it known that I, JOSEPH SZENTIVANYI, a subject of the King of Hungary, residing at East Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Power Mechanism for Churns, of which the following is a specification.

This invention relates to certain new and useful improvements in churns.

An object of the invention is to provide a churn that is automatically operated through the medium of mechanism controlled by the rocking movement of a chair so that the power required to operate the same is obtained through pleasurable efforts.

A further object of the invention is to provide a churn with operating mechanism that is operatively connected to the rocker of a chair and in which there is provided a unitary support for the churn receptacle and the operating mechanism.

With the above general objects in view, and others that will appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts to be hereinafter more fully described and then claimed.

In the accompanying drawings which show the preferred embodiment of the present invention and to which reference is had herein by like characters designating corresponding parts throughout the several views: Figure 1 is a side elevational view of the churn, with the churn receptacle shown in section, and with the operating mechanism therefor connected to the rocker of a chair. Fig. 2 is an end elevational view of the same. Fig. 3 is a top plan view of a portion of the operating mechanism detached from the churn base, and Fig. 4 is a top plan view of a portion of the churn receptacle.

Briefly described, the present invention aims to provide a churn and operating mechanism therefor, which operating mechanism is connected to the rocker of a chair so that power or movement derived from the rocking of the chair will be utilized as a propelling means for the churn mechanism. I have provided a unitary structure including a base support for the churn receptacle and a bracket arm carried thereby for supporting the operating mechanism for the churn.

Referring more in detail to the accompanying drawings, the reference numeral 10 designates the base of the supporting structure, and which base has formed on the upper face thereof an annular flange 11 constituting a seat for the churn receptacle 12. The base 10 is constructed of sufficient weight so that movement of the operating mechanism will cause only a minimum amount of vibration of the base to provide a substantially rigid construction.

The churn receptacle 12 includes the bottom wall having a centrally disposed boss 13 provided in its upper face with a cone-shaped socket to provide a bearing for the pointed lower end of the paddle shaft 14, the shaft 14 carrying suitably constructed radial paddle blades 15, as shown in Fig. 1. A removable cover is provided for the churn receptacle 12 and is shown in detail in Fig. 4 and includes a pair of semi-circular members 16 and 17, the member 17 having a struck-up portion 18 at the meeting edge adjacent the section 16 to overlap the same as clearly illustrated, both sections being provided with central notches 19 to provide a clearance for the paddle shaft 14.

The bracket arm for supporting the operating mechanism includes the vertical arm 20 formed integral with the base 10 and provided adjacent the upper end thereof with a right angularly disposed arm 21, which arm has an upstanding bracket 22. The bracket arm 22 coöperates with the upper end 23 of the member 20 to provide a journal bearing for the shaft 24. The shaft 24 extends inwardly beyond the bracket 22 and has mounted thereon a spacing collar 25, while a bevel gear 26 is carried by the projecting end thereof, and this gear meshes with a bevel pinion 27 carried by the upper end of the paddle shaft 14. The outer end of the arm 21 is bifurcated as at 28 so that the shaft 14 may be moved to the position shown in Fig. 1 by moving toward the end of the said arm and be retained in such position by the pin 29. A spacing collar 30 is mounted on the shaft 14 and disposed between the bevel pinion 27 and the bifurcated end 28 of the said arm so as to hold the gear and pinion in mesh. A gear wheel 31 is mounted on the other end of the shaft 24 and

is spaced outwardly of the member 20. A short arm 32 projects from the upper end of the member 20 and has journaled on a short shaft carried thereby, a flanged wheel 33, the flanges of which at all times inclose the adjacent teeth of the gear wheel 31. The power means for this mechanism includes a rod 34 having a racked face 35 positioned between the flanged wheel 33 and the gear wheel 31 with the teeth thereof in mesh with the teeth of the gear wheel. A head 36 is carried by the lower end of the rod 34 and is bifurcated to receive the projecting arm 37 of the bracket member 38. A pin 39 pivotally mounts the arm 37 in the bifurcated end of the head 36, while the bracket 38 is provided with a U-shaped clamp 40 adapted for positioning over the rocker arm 41 and be fixed thereto as by the thumb screw 42.

It will be readily seen that when the chair receives a rocking motion, such movement will be transmitted through the bracket arm 38 to the rod 34 to cause the same to reciprocate and subsequently impart such movement to the toothed gear 31. Through the train of gearing above described, this movement is finally imparted to the shaft 14 that carries the paddle blades 15 with the result that the contents of the churn receptacle 12 will be churned.

While I have shown and described the preferred embodiment of the present invention, I do not wish to confine myself to the exact details of construction shown, as various forms, modifications and arrangements of parts as shown may be had without departing from the spirit and scope of the invention as claimed.

What I claim as new is:—

A drive mechanism including a support, a shaft journaled in said support, a gear carried by the outer end of said shaft, an arm extending from said support, a stub shaft carried by the arm, a wheel carried by the stub shaft, a rack bar having its toothed face engaged by said gear and its back engaged by said wheel to hold the bar in mesh with the gear, means to reciprocate the rack bar, and means to hold the rack bar and wheel in operative position to said gear, the last-mentioned means including a pair of flanges formed on the wheel and of a width to span the rack and overlap the teeth of the gear wheel.

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

JOSEPH SZENTIVANYI.

Witnesses:
MIKE DENES,
JOHN KORNIVES.

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