W. F. LOCKWOOD & W. H. YORK.

CHURN.

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1,070,147. Patented Aug. 12, 1913.

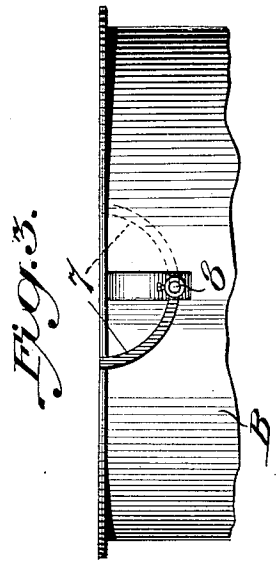

Fig. 3.

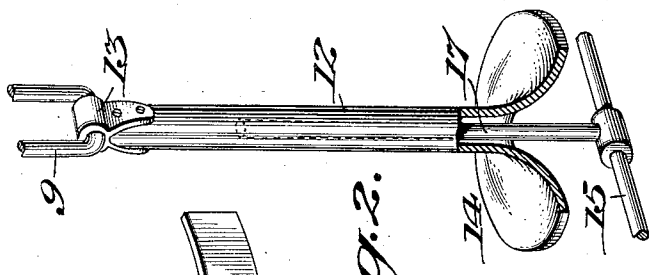

Fig. 2.

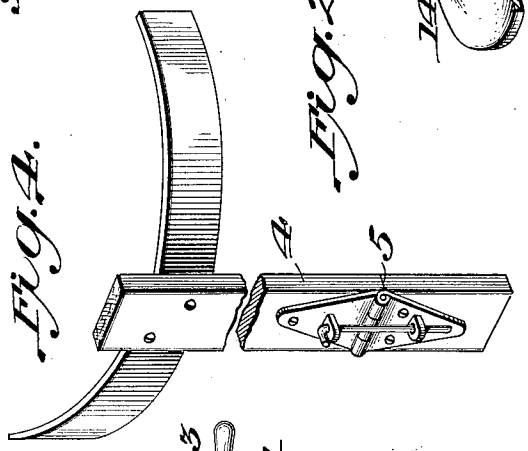

Fig. 4.

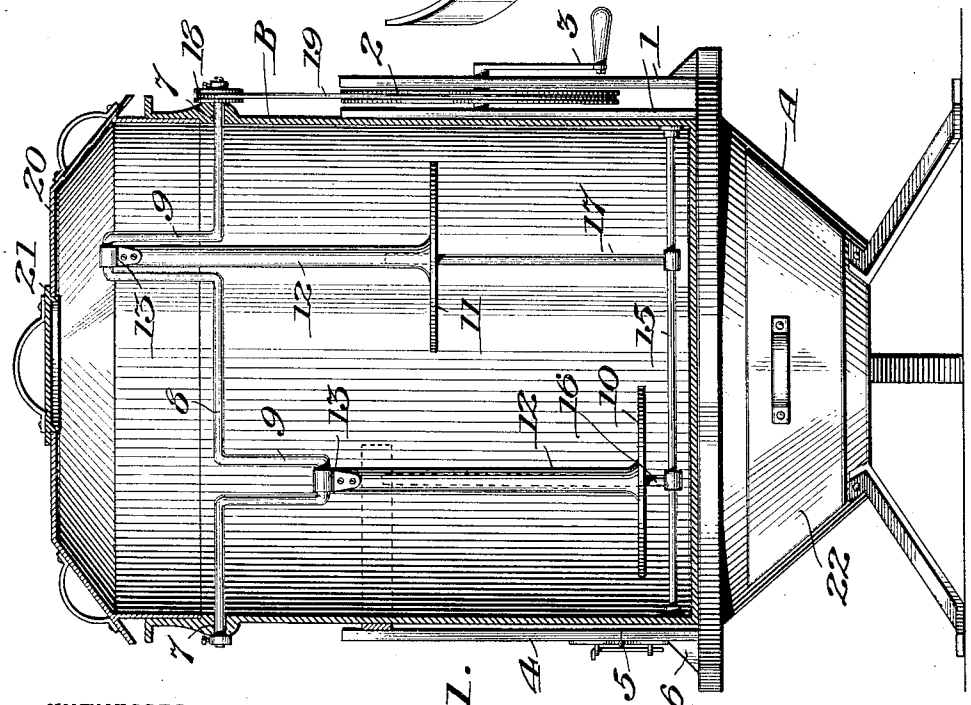

Fig. 1.

WITNESSES

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CHURN.

1,070,147. Specification of Letters Patent. Patented Aug. 12, 1913.

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To all whom it may concern:

Be it known that we, WILLIAM F. LOCKWOOD and WILLIAM H. YORK, citizens of the United States, residing at Hollis, in the county of Harmon and State of Oklahoma, have invented certain new and useful Improvements in Churns, of which the following is a specification.

Our invention relates to an improvement in churns, and more particularly to that type having a plurality of reciprocating dashers mounted to move in the receptacle or can.

The object is to provide a churn in which the dashers have a positive reciprocating movement, and while working vertically, exert an angular impelling force to the liquid, forcing it against the sides of the receptacle, and at the same time agitating the liquid.

A further object is to provide a churn which is self-contained, and which may be readily disassembled to be cleaned.

This invention consists of certain novel features of construction and combination of parts which will be hereinafter described and pointed out in the claims.

In the accompanying drawings: Figure 1 is a view in side elevation with a can section to show the arrangement of the dashers; Fig. 2 is an enlarged detail perspective view more clearly to illustrate the means for holding the dasher to its operating path. Fig. 3 is a detail view to show the manner of mounting the crank-shaft, and Fig. 4 is an enlarged detail perspective view to better illustrate the clamp for holding the can in place.

The stool or base A is adapted to receive the can B. This can is in top plan circular, rectangular, or of any other desired shape. At one side of the base A a standard 1 is erected, and a power wheel 2 is revolubly mounted on the standard. A crank 3 is secured to the wheel for revolving it. The can B is adapted to fit against the standard 1 at its one side, and a clamp 4 is mounted on the base at the opposite side to engage with the can and hold it in position on the base. This clamp is hinged at 5, so that it may be swung away from the can as the can may be removed and a bracket 6 is secured to the base and engages with the clamp for holding it in its operative position. Slots 7—7 are formed in the upper edge of the can at opposite sides, and a crank shaft 8 is received in these slots. The crank shaft 8 has the two cranks 9 disposed diametrically opposite, dashers 10 and 11 each have the pitman rods or tubes 12—12 secured thereto to extend upwardly and form a stem. A bearing 13 is secured on the upper ends of the rods 12 and one of the cranks 9 works in each of the bearings 13. The dashers 10 and 11 have their centers open to establish communication to the centers of rods 12, a shaft 15 is mounted to the bottom of the can B to extend parallel with the crank shaft 8, and upwardly extending guide rods 16 and 17 are journaled on the shaft 15. The guide 16 passes through the opening of the dasher 10 and guide rod 17 passes through the opening of the dasher 11. A belt wheel 18 is secured on the end of the crank shaft 8, and a belt 19 is received around the drive wheel 2, and a belt wheel 18, so that as the wheel 2 is turned by the crank 3, the crank shaft 8 is actuated. A cover 20 is constructed to fit in and close the top of the can B, and this cover 20 has a supplemental cover 21 which closes the opening through which the liquid is poured into the can, and the contents of the can inspected as the churn or operation proceeds. If desired, a drawer 22 may be built into the base A.

The operation is as follows: The drive wheel 2 is turned through the crank 3. The belt 19 transmits the rotary movement to the belt wheel 18 and the shaft 8 is revolved. The dashers 10 and 11 are reciprocated through their connection with the cranks 9 of the crank shaft and through their connection with the guide rods 16 and 17 and the loose connection of the latter with shaft 15 they are swung to be at an angle from the horizontal. In this way an angular impelling motion is transmitted to the liquid, and it is forced from beneath or above the dasher against one side or the other of the can, from which it is guided back to the dasher and the operation continues.

It is evident that slight changes might be made in the form of arrangement of the several parts described, and hence we do not wish to limit ourselves to the exact construction herein set forth;—but:—

What we claim as new and desire to secure by Letters Patent is:—

1. A churn comprising a can, a crank shaft carried in the upper end of the can, a plurality of dashers connected to be reciprocated by the movement of the crank shaft, means for holding the dashers to their direct path of travel while permitting an angular

swinging movement of the same, and means for transmitting the movement of the crank shaft.

2. A churn comprising a can, a crank shaft received in the upper end of the can and having oppositely disposed cranks thereon, a dasher, each of said dashers having an opening through its approximate center, connected with each of said cranks, a shaft mounted at the lower end of the can, guide rods journaled on said shaft to have swinging movement and received through the opening in each of the dashers for holding the said dashers in their path of movement as they are reciprocated, and means for revolving the crank shaft whereby the dasher will be reciprocated.

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

WILLIAM F. LOCKWOOD.
WILLIAM H. YORK.

Witnesses:
J. M. MARR,
J. M. HENDRICK.