J. W. DOWDEN. CHURN.

APPLICATION FILED JUNE 17, 1905.

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UNITED STATES PATENT OFFICE.

JOHN W. DOWDEN, OF PEARL, LOUISIANA.

CHURN.

No. 812,190.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, John W. Dowden, a citizen of the United States, residing at Pearl, in the parish of Calcasieu and State of Louisi-5 ana, have invented certain new and useful Improvements in Churns, of which the following is a specification.

This invention relates to improvements in churns, and more particularly to that type 10 wherein the dasher is caused to reciprocate rapidly back and forth within the churnbody.

It has for its object to produce a device of this character which, owing to certain pecul-15 iarities of construction, will very readily convert the cream into butter.

A further object is to devise a churn which will be very simple and durable in construction and which can be manufactured at a 20 minimum expense.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference 25 is to be had to the following description and accompanying drawings, in which-

Figure 1 is a perspective view of the churn. Fig. 2 is a longitudinal sectional view. Fig. 3 is a front view of the churn, showing it ad-30 justed so as to obtain a long stroke of the dasher. Fig. 4 is a similar view showing it adjusted so as to obtain a short stroke of the dasher. Fig. 5 is a detail view of the reciprocating rod.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The numeral 1 designates the base, which 40 is provided with a cup 2 for the reception of the churn-body 3 and from which rises a vertical standard 4, having a stub-shaft 5 secured thereto at an intermediate point and provided at its upper end with bearings to receive 45 the shaft 6. These bearings comprise two clamp members 7, which are adjusted by means of a screw 8 and which are provided at each end with metal rings 9 to receive the wear. These rings 9 are split so that they 50 can be adjusted to fit the shaft 6 by means of | upper end with a bearing comprising two 100

the screw 8. A drive-wheel 10 is mounted upon the stub-shaft 5 and is preferably provided with conical bearings, as seen in the drawings. A flexible member 11, which may take the form of a belt or chain, passes 55 around the drive-wheel 10 and also around a smaller wheel 12, mounted upon an end of the shaft 6. A crank-wheel 13 is mounted upon the opposite end of the shaft 6 and has connection with the pitman.

It will be observed that the crank or pin 15 is adjustable in that it can be placed in either of the holes 16 in order to regulate the stroke of the dasher. The pitman 14 is bifurcated at each end, one of which clamps 65 around the pin 15, while the other end is hollowed out so as to receive a ball at the end of the reciprocating rod 17. This reciprocating rod operates in two horizontal arms 18, secured to the upright standard 4, and is 70 provided at its lower end with a threaded recess by means of which the dasher-rod is attached. The dasher-rod passes into the churn-body through a central opening in the cover 20 and is provided with a dasher 21, 75 which is formed of spring metal and gives life to the operation and greatly facilitates the formation of butter. The dasher-rods may be made in varying lengths, according to the amplitude of the stroke which is determined 80 by the position of the pin 15. Packing 22 may be placed in the cup 2, if desired, so as to form a cushion for the churn-bottom 3 and hold the same securely in position.

It will thus be understood that when the 85 drive-wheel is caused to rotate motion will be transmitted through the shaft 6 to the dasher, rod 17 and that same will be given a recipro-cating motion. The churn-body 3 is preferably made of glass, so that the progress of the 90 operation can be conveniently watched from the outside.

The whole device may be mounted upon casters or rollers 23, if desired, and can then be easily moved from place to place.

Having thus described the invention, what is claimed as new is-

In a churn, the combination of a base, a standard rising therefrom and provided at its clamp members having a split metal ring between them which takes the wear and can be adjusted to fit the shaft, a shaft mounted in the bearing and having a crank-wheel at one end, a churn-body supported upon the base, a dasher having operative connection with the crank-wheel, and means for causing the crank-wheel to rotate.

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

 ${\rm JOHN~W.} \underset{\rm mark}{\overset{\rm his}{\times}} {\rm DOWDEN.} \quad [{\rm r.~s.}]$

Witnesses:
A. L. Lyons,
H. C. Gill.