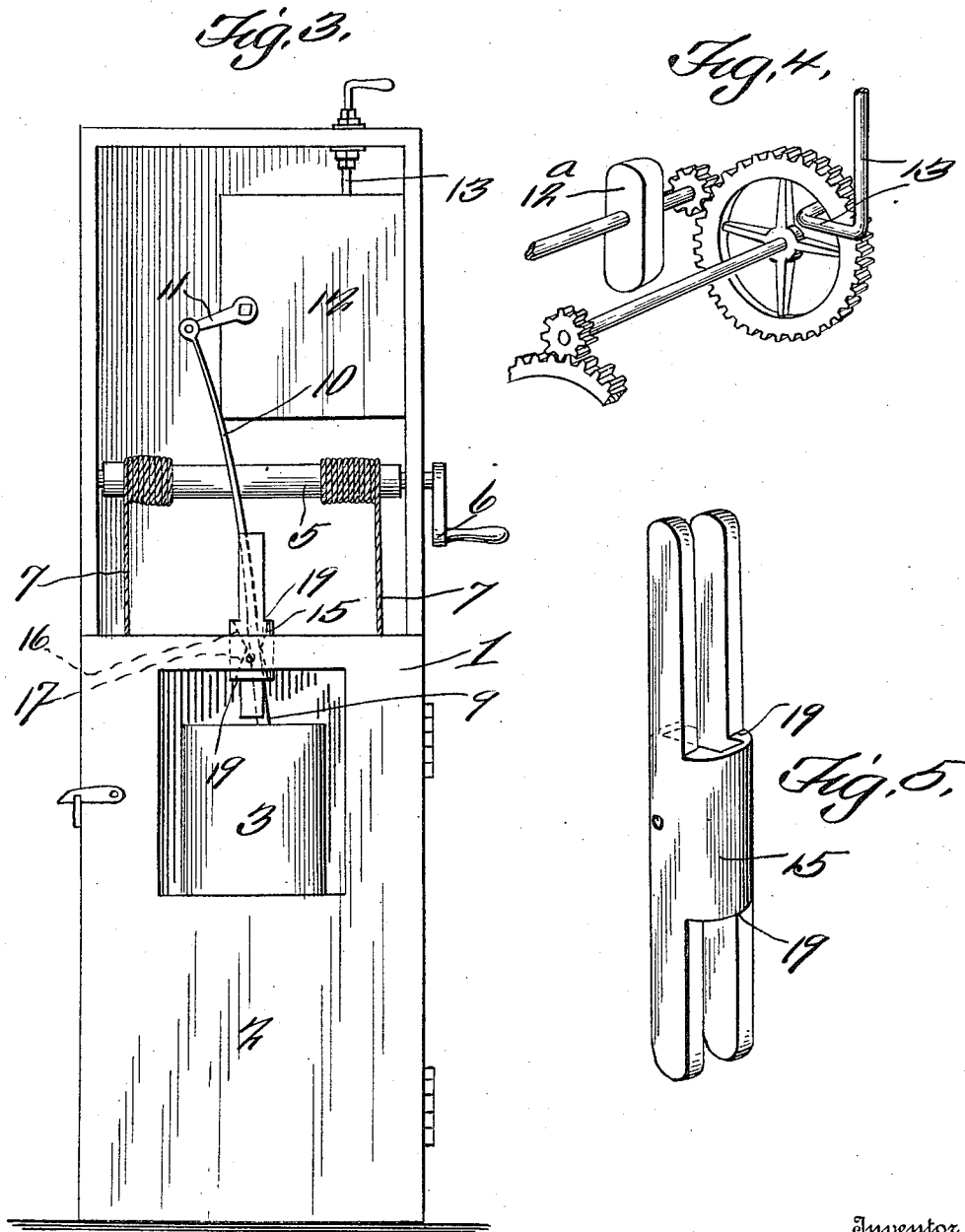


W. LOYD.
CHURNING MACHINE.
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1,050,961.

Patented Jan. 21, 1913.
2 SHEETS—SHEET 2.



Witnesses
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UNITED STATES PATENT OFFICE.

WARREN LOYD, OF MILLTOWN, GEORGIA.

CHURNING-MACHINE.

1,050,961.

Specification of Letters Patent.

Patented Jan. 21, 1913.

Application filed October 26, 1912. Serial No. 727,924.

To all whom it may concern:

Be it known that I, WARREN LOYD, a citizen of the United States, residing at Milltown, in the county of Berrien and State of Georgia, have invented a new and useful Churning-Machine; 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 a new and useful churning machine.

As one of the objects of the invention, it is the aim to provide an improved churning element, including any conventional form of motor, for automatically imparting motion thereto. The improved churning element comprises a churn dasher rod, which terminates at its upper end in a flexible portion having a crank connection with the motor.

Owing to the flexible portion of the churn dasher rod, an essential rod boxing or device is necessitated, which is an important feature of the invention, and which is adapted for preventing the churn dasher rod from binding, in its reciprocal movements.

There are disclosed in the drawings certain features of construction, but in practical fields these features may necessitate alterations, to which the patentee is entitled, provided the alterations are comprehended within the scope of what is claimed.

The invention comprises further features and combination of parts, as hereinafter set forth, shown in the drawings and claimed.

In the drawings:—Figure 1 is a view in elevation, showing the churning machine constructed in accordance with the invention. Fig. 2 is a sectional view. Fig. 3 is a view similar to Fig. 2 showing a different form. Fig. 4 is a detail view. Fig. 5 is a detail view of a member shown in Fig. 3.

Referring more particularly to the drawings 1 designates a casing having a hinged closure 2, and in which casing the churn receptacle 3 including its contents are arranged. The churn receptacle when placed in the casing rests upon a platform 4, which may be elevated, through the medium of the drum 5 including a crank 6, and the ropes 7, to any desired height, so that the churn dasher 6^a may perform its best work. The churn dasher proper 6^a comprises the cross arms 8, upwardly from which the churn dasher rod 9 projects. This churn dasher

rod is rectangular in cross section, as a preferable construction. The upper portion of the churn dasher rod terminates in a flexible portion 10, so as to give laterally as the rod reciprocates, and has pivotal connections to a crank 11 of the motor 12. The motor is of a conventional character, such as that used in a clock mechanism. In other words, a spring motor. One of the shafts of the motor is provided with a balance member 12^a, which lends momentum to the motor. A device 13 constituting a brake, adapted to contact or engage one of the wheels of the motor, acts to stop the motor any desired time.

The churn dasher rod operates through a boxing 15, which is constructed on its interior as shown at 16 and 17, to permit the churn dasher rod to oscillate, during its reciprocal movements. Pivotaly connected upon each side and at each end of the boxing is a member 16^b. These members are held frictionally and yieldably against the churn dasher rod, by the yieldable devices or springs 17^a, the spring action of which is regulated by the elements 18. The members 16^b are held with only sufficient force against the churn dasher rod as to partially retard the same in its reciprocal movements, in order to not permit the rod to operate too fast. These members 16^b do not bear enough to actually stop the rod.

In Fig. 3, the members 16^b are eliminated, and in their stead the boxing is cut away at each end as shown at 19, to allow the churn dasher rod to oscillate slightly during its reciprocal movement.

From the foregoing it is to be ascertained, that there has been devised a simple and efficient churning machine, and one which has been found practical.

The churning element is automatically driven owing to the motor.

The object for rendering the churn receptacle capable of being elevated is to allow the receptacle to be raised sufficiently so that the churning element may enter and operate in the same, and furthermore, to allow the churning element to operate in the lower portion of the receptacle and then in the upper portion, and vice versa.

The invention having been set forth, what is claimed as new and useful is:—

1. In combination with an automatically driven churning element, a casing having a churn receptacle in which said element re-

reciprocates, a boxing secured in the casing and having its upper and lower portions upon each side cut away, a member pivotally connected to the boxing on each side and each end, and yieldable means coöperating with said members for holding them yieldably and frictionally against the churning element.

2. In combination with an automatically driven churning element comprising a rod terminating at its upper end in a flexible portion adapted for connection to a crank of a motor, a casing having a churn receptacle in which said element reciprocates, a

boxing secured in the casing and having its upper and lower portions upon each side cut away, a member pivotally connected to the boxing on each side and each end, and yieldable means coöperating with said members for holding them yieldably and frictionally against the churning element.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WARREN LOYD.

Witnesses:

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