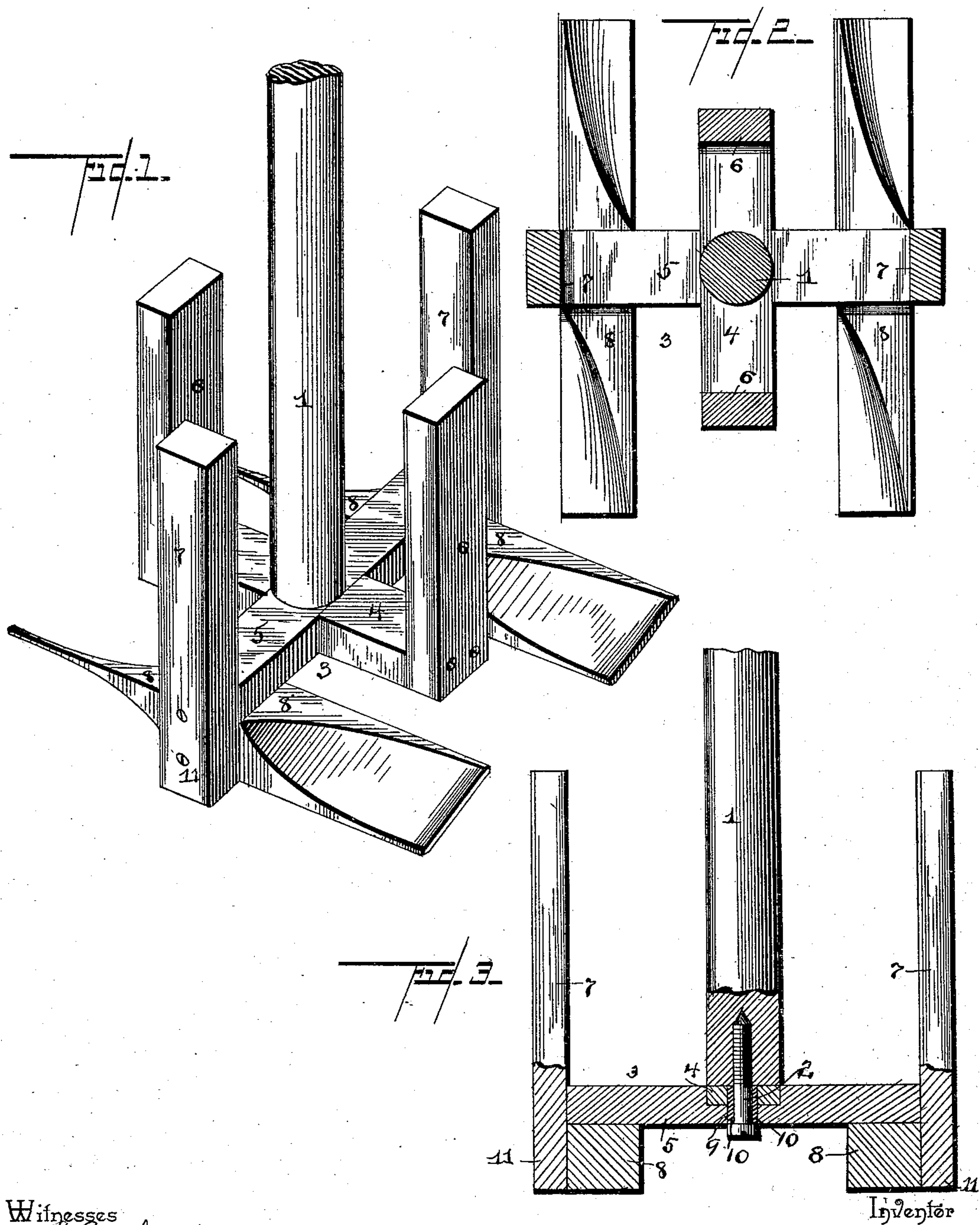


(No Model.)

F. L. McCOY.
CHURN DASHER.

No. 479,830.

Patented Aug. 2, 1892.



Witnesses

J. G. Seitz
A. J. Riley

By *his* Attorneys,

Francis L. McCoy

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Inventor

UNITED STATES PATENT OFFICE.

FRANCIS LINCOLN MCCOY, OF ESKRIDGE, KANSAS.

CHURN-DASHER.

SPECIFICATION forming part of Letters Patent No. 479,830, dated August 2, 1892.

Application filed July 27, 1891. Serial No. 400,811. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS LINCOLN MCCOY, a citizen of the United States, residing at Eskridge, in the county of Wabaunsee and State of Kansas, have invented a new and useful Churn, of which the following is a specification.

The invention relates to improvements in churn-dashers.

The object of the present invention is to simplify and improve the construction of vertically-reciprocating churn-dashers, to provide one which will be inexpensive, strong, and durable, and to decrease the labor on the part of the operator necessary to convert cream into butter.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a perspective view of a churn-dasher embodying the invention. Fig. 2 is a horizontal sectional view. Fig. 3 is a vertical sectional view.

Referring to the accompanying drawings, 1 designates a vertically-reciprocating churn-dasher rod, which may be operated by hand or be connected with suitable operating mechanism and which is provided at its lower end with a centrally-depending journal 2, securing to the dasher-rod a rotary dasher 3. The rotary dasher consists of horizontal bars 4 and 5, vertical blades 6 and 7, and horizontal propelling-blades 8, which cause the dasher to rotate as the dasher-rod is reciprocated in a churn-body. The horizontal bars 4 and 5 are centrally secured together, are arranged at right angles to each other, and provided with a central opening 9, having a suitable bushing 10 and adapted to receive the journal 2 of the dasher-rod. The vertical blades 6 and 7 are secured to the ends of the bars 4 and 5, the former of which is the shorter, and when the dasher rotates the blades 6 of the bars 4 describe a circle within that described by the blades of the bar 5. The lower ends 11 of the blades 7 depend below the bar 5 and serve as means for bracing the horizontal propelling-blades 8, which are secured intermediate their

ends to the lower face of the bar 5 at the ends of the latter and to the inner faces of the lower ends 11 of the blades 7. The horizontal blades at each side of their centers are beveled or inclined and are arranged at an angle, so that they will present their faces to the liquid in ascending and descending, whereby the dasher is caused to rotate. By this construction cream is thoroughly agitated and quickly converted into butter. The dasher moves vertically and also rotates and produces sufficient agitation to require only a short stroke, thereby decreasing the labor of the operator.

The dasher may be constructed of any suitable material, either metal or wood, and the dasher-rod also may be either metal or wood, and if constructed of the latter a ferrule should be employed at the lower end to strengthen the rod. The parts of the dasher may be constructed of both metal and wood, if found necessary or desirable.

What I claim is--

The combination of a vertically-reciprocating dasher-rod and a rotating dasher arranged at the lower end of the dasher-rod and comprising the horizontal bars centrally secured together and crossing each other and arranged at right angles and pivoted at the lower end of the dasher-rod, one of the bars being longer than the other, the vertical blades 6 and 7, secured at the ends of the horizontal bars, the blade 7 being arranged at the ends of the longer bar and having their lower ends depending therefrom, and horizontal propelling-blades secured intermediate of their ends to the ends of the longer bar and to the depending portions of the vertical blades and having their ends disposed at an angle or inclined, said vertical blades being adapted to cause an agitation of the liquid and the propelling-blades to cause a rotation of the dasher, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

FRANCIS LINCOLN MCCOY.

Witnesses:

JOHN D. DILL,
E. S. SEYMORE.