C. M. LONG.

CHURN.

APPLICATION FILED MAY 25, 1909.

935,377. Patented Sept. 28, 1909.

Fig. 1.

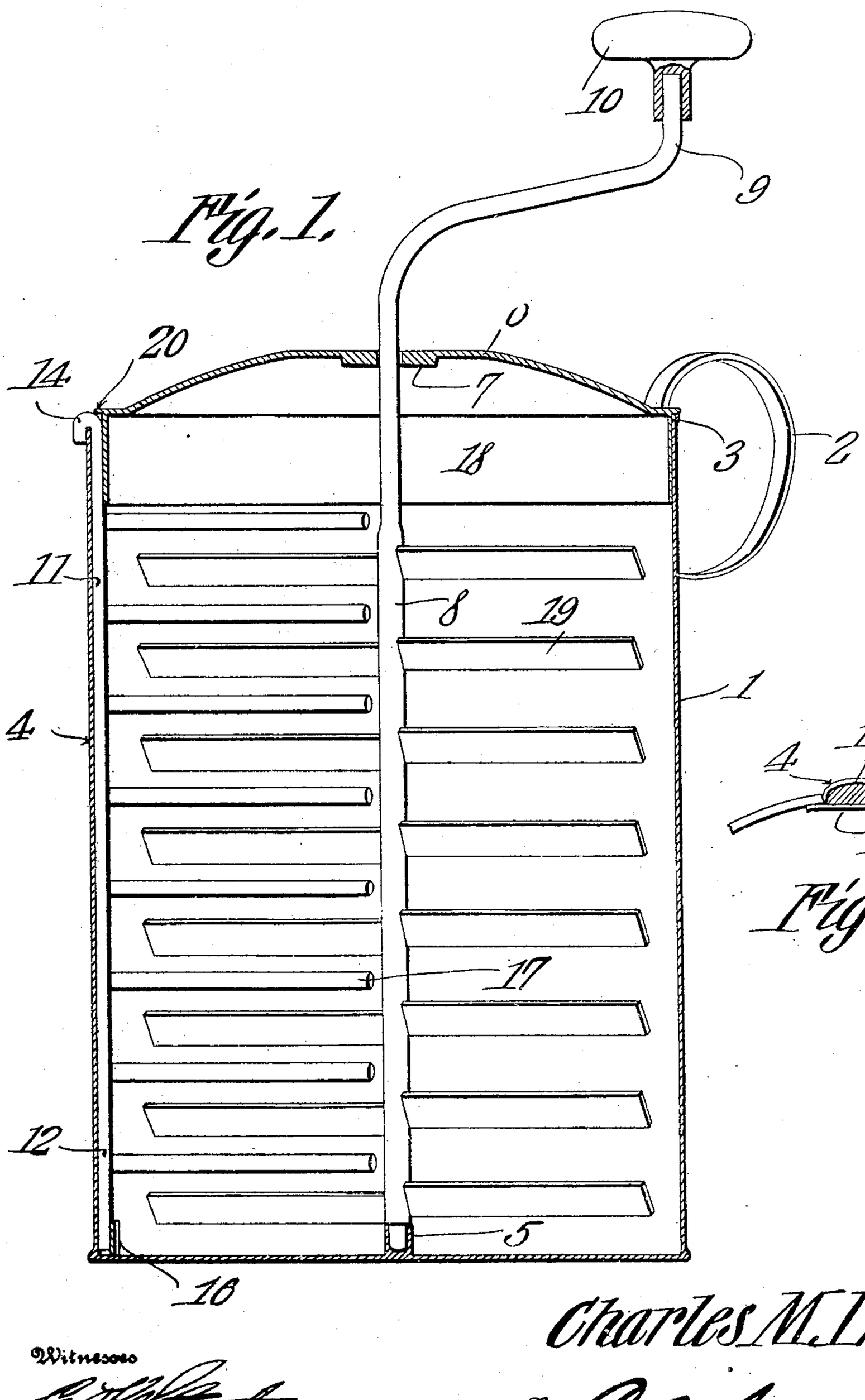

Fig. 2.

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UNITED STATES PATENT OFFICE.

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CHURN.

935,377. Specification of Letters Patent. Patented Sept. 28, 1909.

Application filed May 25, 1909. Serial No. 498,241.

To all whom it may concern:

Be it known that I, CHARLES M. LONG, a citizen of the United States, residing at Newport, in the county of Perry and State of Pennsylvania, have invented a new and useful Churn, of which the following is a specification.

The objects of the invention are, generally, the provision in a merchantable form, of a device of the class above mentioned, which shall be inexpensive to manufacture, facile in operation, and devoid of complicated parts; specifically, the provision, in a device of the class described, of a dasher rack of novel and improved construction, of a can adapted to receive and to house the body of the dasher rack; of a dasher of novel and improved construction, adapted to coöperate with the dasher rack; of a closure for the can adapted to receive the dasher and to hold the dasher rack in its place in the can; other and further objects being made manifest hereinafter as the description of the invention progresses.

The invention consists in the novel construction and arrangement of parts hereinafter described, delineated in the accompanying drawings, and particularly pointed out in that portion of this instrument wherein patentable novelty is claimed for certain distinctive and peculiar features of the device, it being understood that, within the scope of what hereinafter is thus claimed, divers changes in the form, proportions, size, and minor details of the structure may be made, without departing from the spirit or sacrificing any of the advantages of the invention.

Similar numerals of reference are employed to denote corresponding parts throughout the several figures of the drawings.

In the accompanying drawings; Figure 1 shows my invention in vertical transverse section; and Fig. 2 is a fragmental top plan, showing a portion of the rim of the can, the dasher rack being mounted in its place in the groove in the side of the can.

The improved device forming the subject matter of this application is adapted to be made in any size and to be used under any circumstances in which a simple, easily-operated churn is called for. Preferably, however, it is to be fashioned in small dimensions adapted to receive a pound or two of butter. One use to which the device may advantageously be put, is to blend butter and milk together, to form a mass having the substantial consistency of butter, but much less costly, the result being a pure food product adapted to replace creamery or dairy butter, in families of modest circumstances.

In carrying out my invention, I provide primarily a can 1, preferably fashioned from metal and, when constructed in small dimensions, provided with an outstanding handle of the form denoted by the numeral 2. The can 1 is circumscribed at its upper edge by a bead 3 which is notched as denoted by the numeral 15. The can 1 is provided with a longitudinally disposed groove 4, extending downward from the notch 15 to the bottom of the can. The can 1, in its interior, is provided with a centrally disposed bearing 5, assembled with the bottom of the can, and the upper, open end of the can is arranged to be closed by a lid 6, having a rim 18 adapted to fit somewhat closely within the can 1. The lid 6 is centrally provided with a reinforcing element 7, the said element 7 and the lid proper, being apertured in vertical alinement with the bearing 5 which is assembled with the bottom of the can.

The dasher comprises a shaft 8, the lower extremity of which is journaled for rotation in the bearing 5, the said shaft, adjacent its upper end, being journaled for rotation in the apertures in the lid 6 and in the reinforcing plate 7, the said reinforcing plate constituting a bearing for the shaft of the dasher. The shaft 8, at its upper end, flexes by easy curves to form an operating crank 9 whereby the dasher may be rotated, the easy curvatures in the crank 9, permitting the upper extremity of the same to be introduced readily into, and readily removed from, the apertures in the lid 6 and in the reinforcing plate 7, in which the dasher, at its upper end, is journaled for rotation. The upper extremity of the operating crank 9 may be provided with a removable handle 10 of any approved form. The shaft 8 carries laterally extending blades 19, oppositely disposed, and upwardly inclined. The blade upon one side of the dasher is disposed in a parallel plane with the blade opposite to it, upon the other side of the dasher. By this construction, the blades which are disposed upon one side of the dasher are adapted, when the dasher is ro-

tated, to cut the butter and to force the same upward, the blades disposed upon the opposite side of the shaft, in their turn, engaging the butter and forcing it downward, whereby a thorough agitation of the same will be produced.

I further provide, in carrying out my invention, a dasher rack, denoted generally by the numeral 11. This dasher rack comprises a body member 12, taking the form of a rod, preferably plano-convex in cross section, and of slightly greater length than the height of the can 1. The upper extremity of this body member 12 is overbent to form a hook 14 adapted to register in the notch 15 in the edge of the can 1. This hook 14 fits down into the notch 15, flush with the upper edge of the can, and, when the lid 6 is mounted in place, the same will engage the upper extremity of the body member 12, the rim 18 of the lid, engaging laterally, the upper extremity of the body member, and holding the same securely in the longitudinally disposed groove 4 of the can, the said body member 12, owing to its peculiar cross-section, fitting snugly within the groove, and presenting an inner face flush with the inner face of the can 1. From the body member 12, project radially into the interior of the can 1, a plurality of arms 17, adapted to register between the blades 19 of the dasher, when the same is rotated. These arms 17 may be of any form; in the present instance I have shown them as being circular in cross section. The lower extremity of the body member 12 is retained in the longitudinally disposed groove 4 by means of a cleat 16 which is disposed transversely of the groove 4, at the bottom of the same, and terminally assembled with the sides of the can 1.

In practical operation, one pound of creamery butter, to suppose a concrete case, and eighteen ounces of fresh unskimmed milk may be placed within the can 1; or, in case dairy butter is used, twelve ounces of milk will be sufficient for one pound thereof. Salt and butter color may be added to suit the taste of the user, and the can with its contents, placed in a bath of warm water, to remove the chill of the milk and butter. Two or three minutes rotation of the dasher will mingle the contents of the can 1 together, making a pure food product well adapted to replace butter, and much less expensive. When the dasher rack is mounted in the longitudinal groove in the side of the can, the lower extremity of the rack will be securely retained in place by means of the cleat 16. The hooked portion 14 of the body of the dasher rack will engage the upper edge of the can, the notch 15 tending to prevent any lateral movement in the dasher rack. The flange 18 of the closure will hold the upper extremity of the body of the dasher rack against the wall of the can, the outwardly extending portion 20 of the top of the closure, extending upon the hooked portion 14 of the dasher rack and retaining the same against upward movement.

Having thus described my invention what I claim as new and desire to protect by Letters Patent is:

A device of the class described including a receptacle having a longitudinally disposed groove in its inner wall and a notch in its edge alined with the groove; a cleat mounted on the wall of the receptacle adjacent its bottom and extended across the groove; a dasher rack comprising a body member arranged to be mounted in the groove and engageable by the cleat, the inner face of the body being flush with the inner face of the receptacle, the body terminating in a hook arranged to fit in the notch; a closure for the receptacle comprising a rim to fit closely within the receptacle and to engage the body against lateral movement, and a flange to extend above the hooked portion of the body to engage the same against longitudinal movement; and a dasher journaled for rotation in the closure and in the bottom of the receptacle.

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

CHARLES M. LONG.

Witnesses:
PETER D. SMITH,
ABEL LONGACRE.