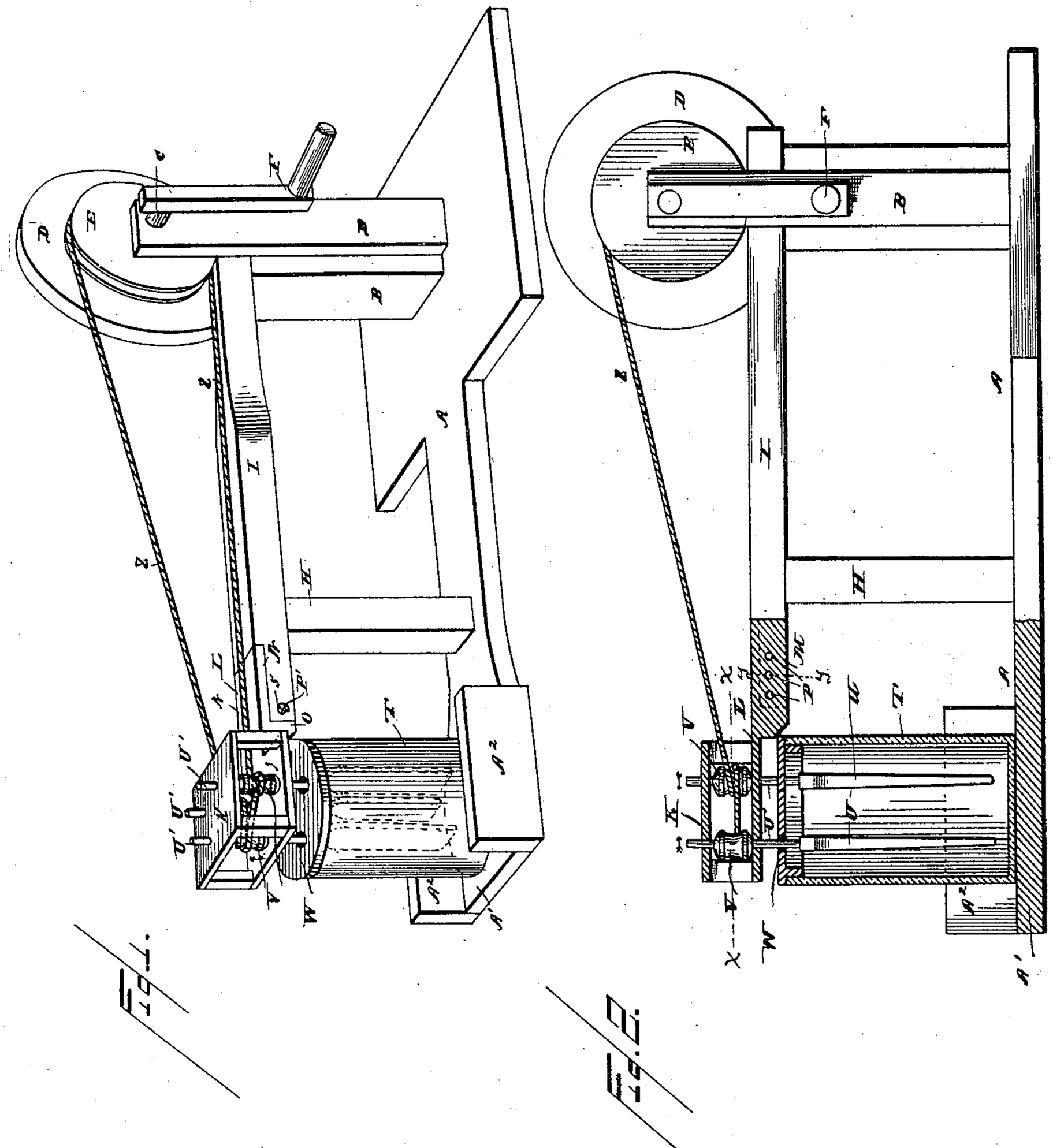
(Model.) 2 Sheets—Sheet 1.

J. N. DRAUGHON.

CHURN.

No. 356,105. Patented Jan. 18, 1887.



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(Model.) 2 Sheets—Sheet 2.

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FIG. 3.

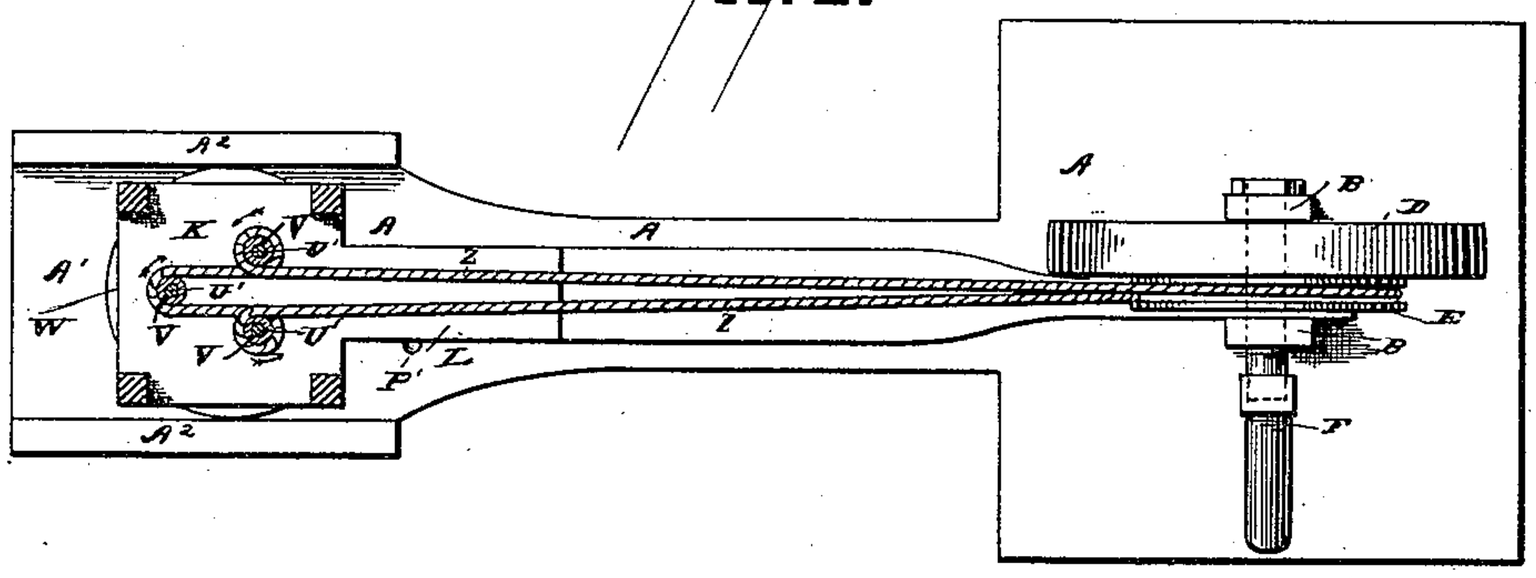
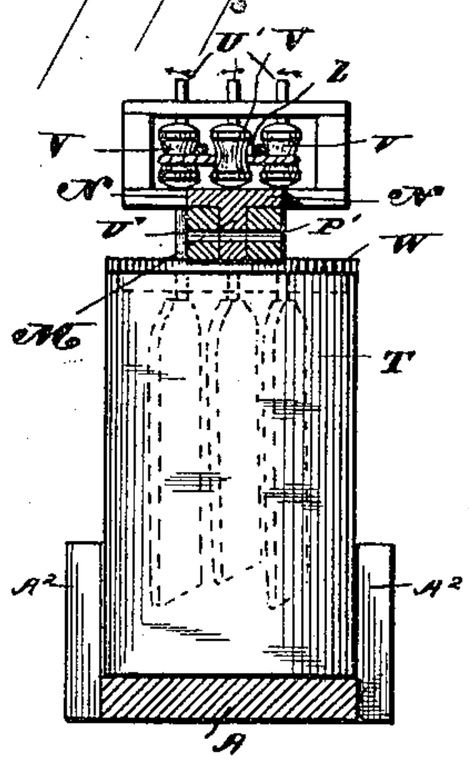


FIG. 4.



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UNITED STATES PATENT OFFICE.

JAMES NORFLEET DRAUGHON, OF MANY, LOUISIANA.

CHURN.

SPECIFICATION forming part of Letters Patent No. 356,105, dated January 18, 1887.

Application filed September 29, 1886. Serial No. 214,857. (Model.)

To all whom it may concern:

Be it known that I, JAMES NORFLEET DRAUGHON, a citizen of the United States, residing at Many, in the parish of Sabine and State of Louisiana, have invented a new and useful Improvement in Churns, of which the following is a specification.

My invention relates to an improvement in churns; and it consists in the peculiar construction and combination of devices that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a churn embodying my improvements. Fig. 2 is a side elevation of the same, partly in vertical section. Fig. 3 is a top plan view, partly in horizontal section, on the line *x x* of Fig. 2. Fig. 4 is a detail transverse section taken on the line *y y* of Fig. 2.

A represents a base or platform, from one end of which projects a vertical standard, B, the upper end of which is bifurcated.

C represents a horizontal shaft, which is journaled in the upper bifurcated end of the standard B, and to the said shaft is rigidly attached a fly-wheel, D, and a pulley, E. To one end of the shaft C is attached a crank-handle, F.

At a suitable distance from the standard B is a vertical standard, H, and to the upper end of the said standards B and H is attached a horizontal bar, I, the outer end of which projects slightly beyond the standard H.

K represents a box or case, which is provided on one side with a horizontal arm, L. The said arm is provided on its upper edge with flanges N, and from the lower side of the said arm, at the center thereof, depends a vertical longitudinal flange, M. Shoulders O are formed at the outer end of the flange M, and in the latter are made the horizontal series of transverse openings P. The outer end of the bar I is provided with a longitudinal slot, R, adapted to receive the flange M, and the upper side of the said projecting end of the bar I is recessed to receive the flanges N. Transverse aligned openings S extend through the outer ends of the bar I, and a pin, P′, passes through the said openings, and also through one of the openings P of the arm L.

From the foregoing description it will be readily understood that the box or case K is attached to the bar I by a lap-joint, and that the said box or case may be adjusted toward or from the pulley E. The outer end of the base A forms a support, A′, for the churn-body T, and the said support A′ is provided with vertical sides A^2, which embrace the lower ends of the churn-body and secure it in place.

U represents a series of dashers or blades, which are substantially wedge-shaped, and are provided at their upper ends with vertical shafts U′, that have their bearings in the case or box K. To the said shafts, between the upper and lower sides of the said case, are attached small grooved pulleys V.

As herein shown, there are three of the dashers U, but any desired number more than one may be used. W represents the flanged cover of the churn, which is provided with openings through which the shafts on the churn dashers or blades extend.

The churn-body is placed upon the support A′, and a suitable quantity of cream is placed therein, and the box or case K has its arm L attached to the outer end of the bar I. The cover of the churn rests upon the upper edge thereof, and the churn dashers or blades extend downwardly in the churn, nearly to the bottom thereof. An endless cord, Z, is passed over the pulley E and over the small grooved pulleys V, and is wrapped around the said pulleys, preferably in opposite directions, so that when the crank is turned the said pulleys, and consequently the dashers or blades, will be caused to rotate at a high rate of speed and in opposite directions, as shown by the arrows, Fig. 3.

When the crank is rotated, the cream is thoroughly agitated in the churn, and as the churn-dashers are arranged around the center of the churn and are rotated at a high rate of speed, and are wedge-shaped in cross-section, being smaller at their lower ends, their inclined sides act upon the cream so as to force it downwardly in the center of the churn. This causes air-bubbles to be drawn down in the center of the body of the cream and to ascend at the sides of the churn, and thus the cream is thoroughly aerated.

By making the case or box K which carries the churn-dashers adjustable toward or from the operating-pulley E the endless cord is kept

at the requisite tension, in order to insure rotation of the dashers.

Having thus described my invention, I claim—

1. The box or case K, having the bearings for and carrying the dashers, in combination with the bar I, and the arm L, projecting from the box K and detachably and adjustably fitted to the arm I.

2. In a churn, the combination of the arm I and the crank-wheel at one end thereof with the box K, having the arm L detachably and adjustably fitted to the arm I, the rotating dashers journaled in the said box and having pulleys on the upper ends of their stems, and the endless cord connecting the said pulleys with the crank-wheel, substantially as described.

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

JAMES NORFLEET DRAUGHON.

Witnesses:
AMOS S. PONDER,
JOSEPH D. STILLE, Jr.