(No Model.)

J. LASSWELL.

CchurN.

No. 348,331. Patented Aug. 31, 1886.

Fig. 3.

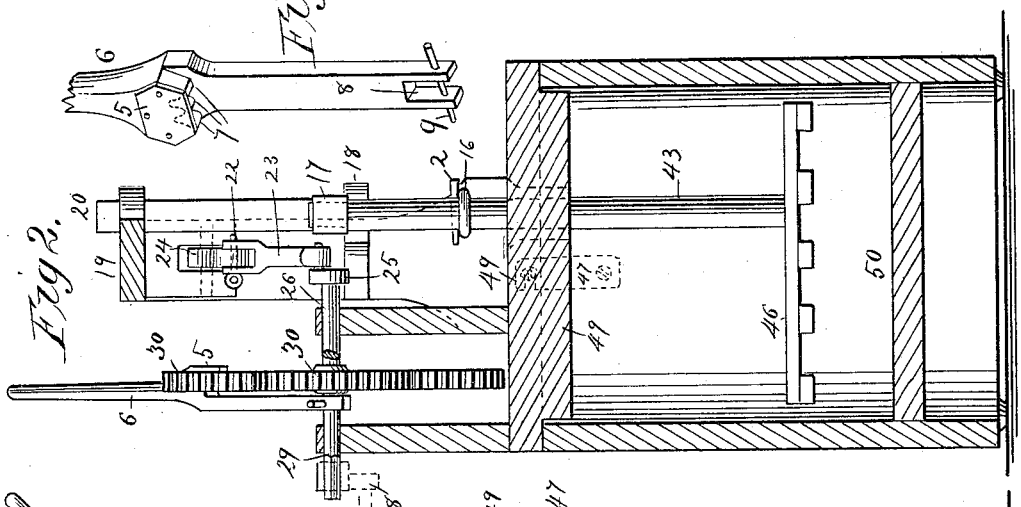

Fig. 2.

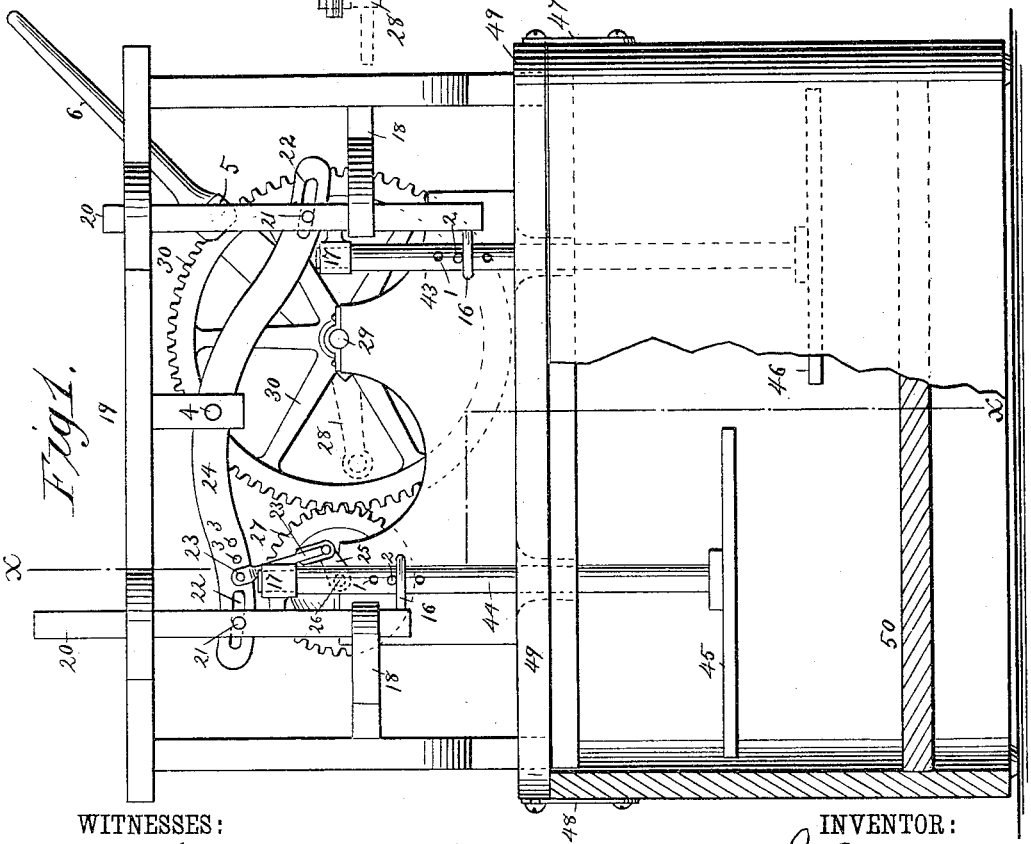

Fig. 1.

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JOHN LASSWELL, OF AUGUSTA, KANSAS.

CHURN.

SPECIFICATION forming part of Letters Patent No. 348,331, dated August 31, 1886.

Application filed April 12, 1886. Serial No. 198,573. (No model.)

To all whom it may concern:

Be it known that I, JOHN LASSWELL, of Augusta, in the county of Butler and State of Kansas, have invented a new and Improved Churn, of which the following is a full, clear, and exact description.

My invention relates to improvements in churns; and it consists in the peculiar construction and arrangement of parts, as hereinafter fully described, and pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the figures.

Figure 1 is a side view of my improved form of double-acting churn, a portion of the churn body or barrel being broken away to disclose the construction. Fig. 2 is a vertical cross-sectional view taken on line *x x* of Fig. 1, the crank-shaft being broken away to disclose the construction of the operating-lever; and Fig. 3 is a detail view illustrating the construction of the lever-arm employed at times to drive the churn.

Referring now to the general arrangement illustrated in the drawings above referred to, 50 represents the churn body or barrel, which is preferably made in the form of an oblong box provided with a cover, 49, that is held in place by catches 47 48. Within the churn-body there are arranged two dashers, 45 and 46, that are carried by vertical dasher shafts or rods 43 44, that are secured to the operating mechanism in a manner to be presently described.

The driving or operating mechanism is supported by a proper frame-work that is fixed to the upper face of the cover 49, and consists of a large gear-wheel, 30, mounted on a shaft, 29, that is provided with a crank-arm, 28, the said gear-wheel 30 meshing with a smaller wheel, 27, that is carried by the crank-shaft 26. The crank-arm 25 of the shaft 26 is connected to a beam-lever, 24, by means of a pitman or connecting-rod, 23, and the ends of this lever 24 are formed with elongated slots 22, in which rest the pins 21, that are carried by vertical strips 20, said strips being supported by and arranged to slide in ways formed in the frame 19 and in brackets 18, projecting inward from the vertical posts of said frame.

The upper ends of the dasher-rods 43 44 are of irregular form, and fit within correspondingly-formed sockets 17, that are carried by the vertical strips 20. The weight of the dashers and their rods is supported by loops 16 that project inward from the lower ends of the strips 20, the dasher-rods being provided with apertures 1 1, through which pins 2 are passed, the irregular-shaped portion at the upper end of the dasher-rod being elongated so that the relative position of the dashers may be changed by raising or lowering the dashers and by changing the position of the pins 2. The beam-lever 24 is also provided with a number of apertures, 3 3, and it will be readily understood that by connecting the pitman 23 at a point closer to the fulcrum 4 of the said lever, the throw of the lever and consequently the throw of the dashers will be increased.

Ordinarily the churn would be driven by the crank-arm 28; but under certain circumstances it would be desirable that the dasher should be driven by a lever, as 6, the construction of said lever being best shown in Fig. 3—that is, the lever is provided with a projecting shoulder, 5, upon the under side of which there are a number of teeth or projections, 7, that are arranged to fit between the teeth of the gear 30, while the extreme lower end of the lever is formed with a recess, 8, that fits over the shaft 29, the lever being held in position by a pin, 9, that is passed through apertures formed in the bifurcated end of the lever, the pin passing beneath the shaft, as will be readily understood. In this case the lever is moved forward and back, and a reciprocating motion is imparted to the dasher.

Each dasher-rod is surrounded by a tin cup, which prevents the milk or cream from spreading over the top or cover of the churn. These cups are shown in dotted lines in Fig. 1.

The churn described will be found to be very effective in operation, acting to produce the butter in an exceedingly short time.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a churn, the combination, with a frame supported on a churn-body, of a walking-beam, 24, pivoted to the same and having its ends slotted, vertically-sliding strips 20, connected to the slotted ends of the walking-beam by pins 21, and provided with sockets 17 and loop 16, the dashers 43 44, having apertures 1, the pins 2, fitting in said apertures, and means for operating the walking-beam, substantially as shown and described.

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Witnesses:
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