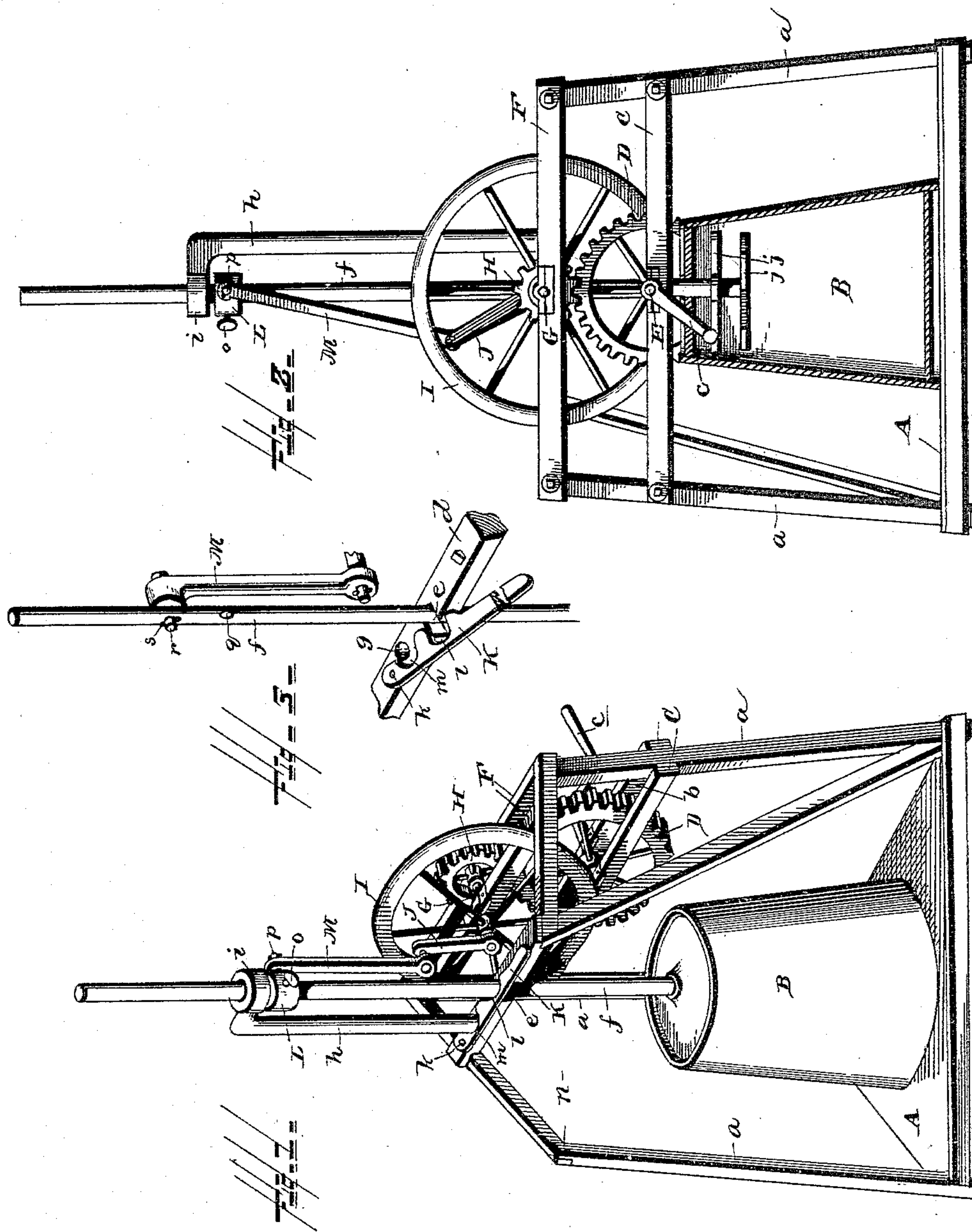


(No Model.)

W. F. LITTLE.
CHURN.

No. 411,667.

Patented Sept. 24, 1889.



Witnesses
Albert Spidew.
Wm E. Fernal

Inventor
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UNITED STATES PATENT OFFICE.

WILLIAM F. LITTLE, OF JONESBOROUGH, ARKANSAS.

CHURN.

SPECIFICATION forming part of Letters Patent No. 411,667, dated September 24, 1889.

Application filed June 19, 1889. Serial No. 314,786. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. LITTLE, a citizen of the United States, residing at Jonesborough, in the county of Craighead and State of Arkansas, have invented certain new and useful Improvements in Churns; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

This invention relates to certain new and useful improvements in churns, and more particularly to the means for operating the dashers.

The invention consists in the peculiar combinations and the construction, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly pointed out in the appended claim.

The invention is clearly illustrated in the accompanying drawings, which with the letters of reference marked thereon form a part of this specification, in which—

Figure 1 is perspective view of a churn embodying my invention. Fig. 2 is a side elevation with the churn-body shown in vertical section. Fig. 3 is a perspective detail with parts broken off.

Referring now to the details of the drawings by letter, A designates a suitable base or platform upon which is supported the churn-body B. This frame is composed of the posts *a*, suitably secured to the base, which latter is shown as triangular in form; but of course the shape of the base may be varied at will. The frame of which the posts form a part is designed to support the operating mechanism. Attached to two of the posts are the horizontal bars C, upon opposite sides thereof, as shown, so as to form a space *b* between them, in which space the pinion D is designed to work. This pinion is carried by a shaft E, journaled in suitable bearings in the bar C and provided with a suitable crank and handle *c*, by which it may be operated.

F are horizontal bars attached to the same posts above the bars C, and in these bars is journaled a shaft G, parallel with the shaft E.

His is a smaller pinion carried by the shaft G, and designed to mesh with the pinion D, as shown, so that motion of the pinion D drives the pinion H. On the shaft G is the fly-wheel I, and on the inner extended end of the shaft G is a link or arm J, rigid thereon. A cross-bar *d*, secured to the upper bars of the frame has an opening *e*, through which the dasher-shaft *f* loosely works, and in this cross-bar is also formed a hole *g*, in which fits the lower end of the standard *h*, provided at its upper end with a ring *i*, through which the dasher-shaft loosely plays in its reciprocation. The dasher-shaft carries the dashers *j*, of any suitable construction, working in the churn-body in the usual manner. Pivoted at *k* to the cross-bar *d* is a locking-lever K, provided with two notches *l* and *m*, the former designed to engage the dasher-shaft and prevent lateral movement or displacement thereof, and the other engaging the standard *h* to steady it in its position. The notches *l m* in the lever K are of different sizes, the notch *l* being larger to allow of free reciprocation of the dasher-shaft, and the notch *m* of such size as to press firmly against the standard *h* when the lever is in the position in which it is shown in Fig. 1, the lower edge of the wall of the notch being extended inward, as shown clearly in Fig. 3, to form a better grip on the standard. This is important. The opening for the passage of the dasher-shaft through the cross-bars is open at one side, so as to allow the said shaft to be moved sidewise when it is desired to remove it for the purpose of repairs, cleaning, or otherwise.

L is a sleeve or collar on the dasher-shaft and provided with a set-screw *o*, by means of which it may be vertically adjusted thereon, the shaft being preferably extended a sufficient distance above the collar to provide for adjustment. Pivotaly attached to a lateral lug *p* from this collar is the pitman M, the opposite end being pivotaly connected with the link or arm J; or, instead of employing the collar on the shaft, the shaft may be provided with a plurality of holes *q*, through which may be passed the pivot-pin *r* of the pitman M, the same being secured against displacement by means of a pin or keys. In order to weaken the shaft as little as possible when the construction shown in Fig. 3 is em-

ployed, the holes therein are made alternately at right angles to each other, as shown.

The operation is simple and apparent, and a description thereof is not deemed necessary, the invention residing in the details of construction and the operation being readily understood from the above description when taken in connection with the drawings.

What I claim as new is—

10 The combination, with the frame and the cross-bar *d*, provided with an opening for the passage of the dasher-shaft and open at one side, of the dasher-shaft, the standard *h*, supported in a socket in the cross-bar parallel
15 with the dasher-shaft, the mechanism for reciprocating the dasher-shaft, and the locking-

lever *K*, pivoted at one end on said cross-bar and provided with the notches *l* and *m* to engage said shaft and standard, said notches being of different sizes, the notch *l* being 20 larger to allow free reciprocation of the dasher-shaft, and the notch *m* smaller to bind the standard *h*, substantially as shown and described, and for the purpose specified.

In testimony that I claim the above I have 25 hereunto subscribed my name in the presence of two witnesses.

WILLIAM F. LITTLE.

Witnesses:

JOHN W. OWENS,
S. H. McELNANY.