

M. SULLIVAN.

Churns.

No. 151,936.

Patented June 9, 1874.

Fig. 1.

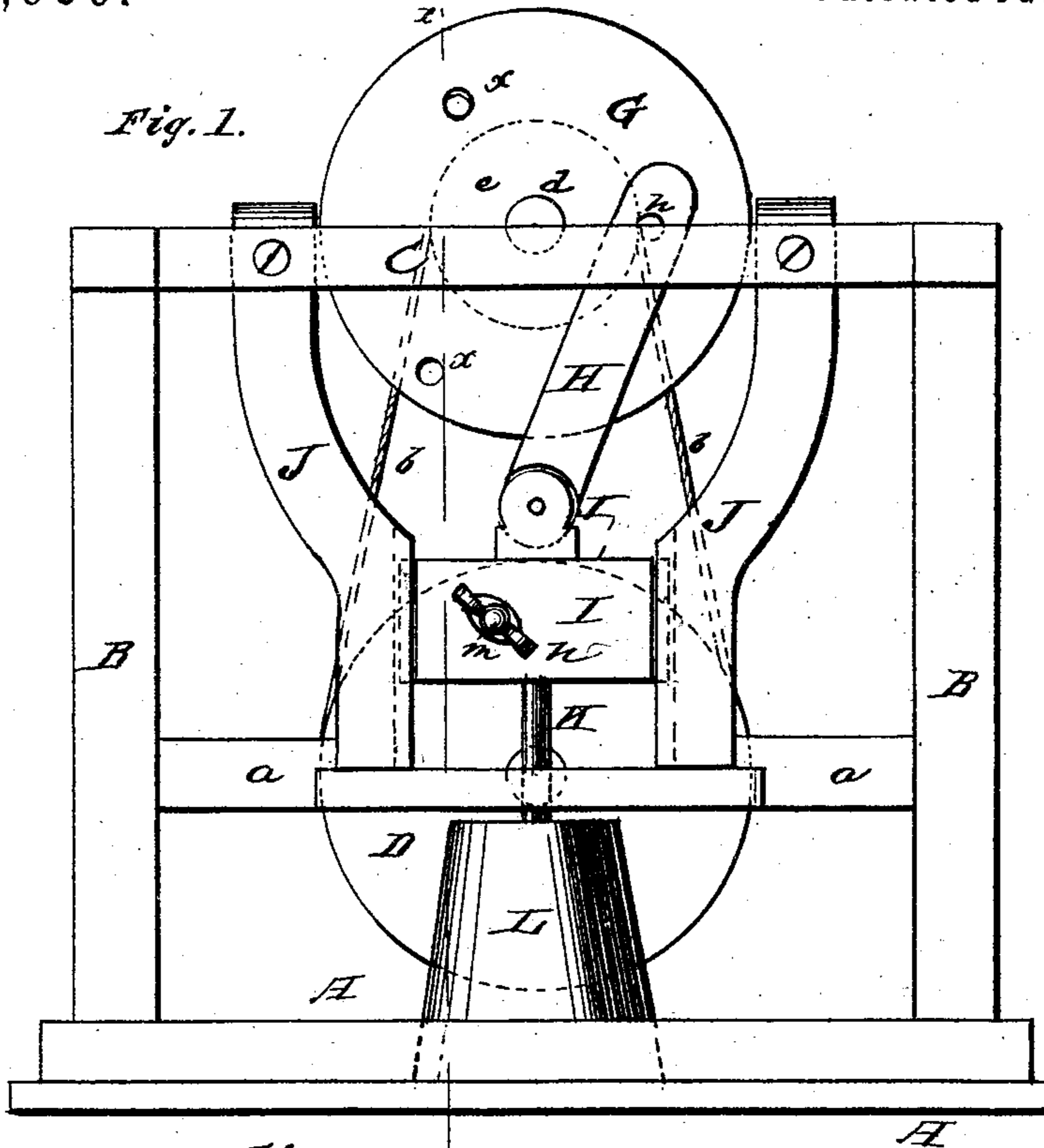
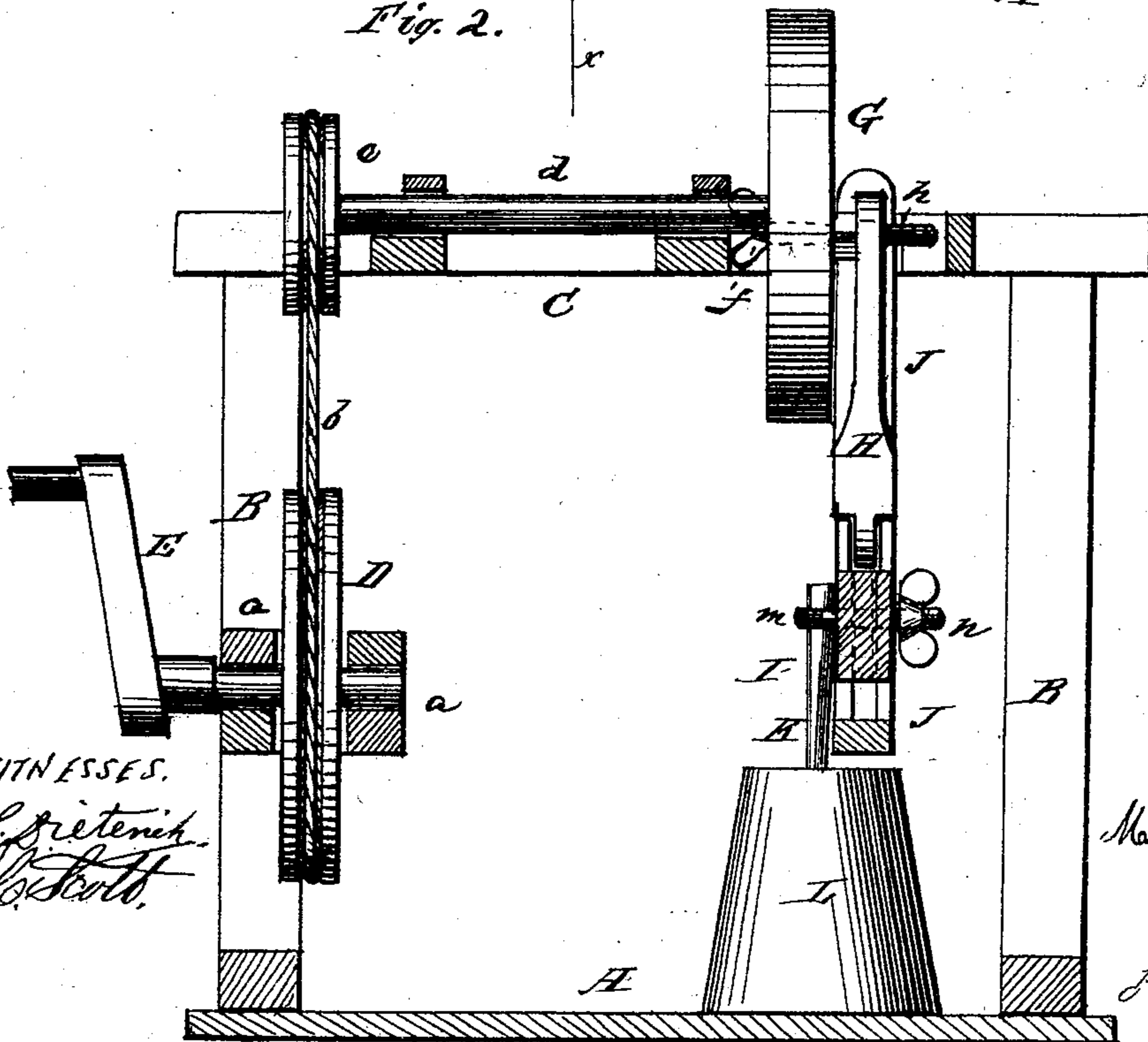


Fig. 2.



WITNESSES.  
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# UNITED STATES PATENT OFFICE.

MICHAEL SULLIVAN, OF MUCKWA, WISCONSIN.

## IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. **151,936**, dated June 9, 1874; application filed April 20, 1874.

*To all whom it may concern:*

Be it known that I, MICHAEL SULLIVAN, of Muckwa, in the county of Waupaca and State of Wisconsin, have invented certain new and useful Improvements in Churns; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in the construction and arrangement of mechanism for operating a vertically-reciprocating churn-dash-rod, as will be hereinafter described.

In the accompanying drawing, Figure 1 is an end view of my improved churn, and Fig. 2 is a sectional view of the same.

A represents a platform, of any suitable dimensions, upon which are erected two parallel vertical frames, B B, connected at their upper ends by a horizontal frame, C. In one of the vertical frames B is a short horizontal shaft, *a*, having on its outer end a crank, E, by means of which it is revolved. On the shaft *a* is secured a circumferentially-grooved wheel, D, which is connected by a belt, chain, or cord, *b*, with a pulley, *e*, on the end of a shaft, *d*, placed in suitable bearings on top of the horizontal frame-piece C. On the inner end of the shaft *d* is secured a fly-wheel, G, through which are made two or more holes, *x*, at different distances from the center. Through either one of these holes passes a bolt, *h*, fastened by a thumb-nut, *f*, and upon said bolt is placed the pitman H, the lower end of which is pivoted between ears on a cross-head, I, moving in guides J J, attached to and depending from the top frame C. These guide-frames are secured to the top piece of the main frame, and are widened at their tops to per-

mit the fly-wheel G to come directly over the churn, so that the dash-rod K will work in the churn directly under said fly-wheel. By changing the bolt *h* in different holes on the fly-wheel G the length of the stroke of the cross-head I passes an eyebolt, *m*, which is fastened by means of a thumb-nut, *n*, and the dasher-rod K is passed through the eye of the bolt, so as to be clamped against the cross-head by tightening up the nut *n*. L represents any ordinary churn having a vertically-reciprocating dasher, of which K is the dasher-rod. By turning the crank E the fly-wheel G is revolved rapidly, and this gives to the cross-head I a vertically-reciprocating motion. The dasher-rod K being attached to the cross-head, the dasher obtains also the required reciprocating motion. By the movement of the bolt *h* into different holes on the fly-wheel, the stroke of the dasher may be easily regulated, and the dasher-rod K can be adjusted up and down in the eyebolt *m*, and by these adjustments the power may be made to suit any churn and any amount of cream in the churn.

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

The brace-guides J J, widened at their upper ends to permit the arrangement of the perforated fly-wheel G immediately above the churn, and also having grooves at their lower ends to guide the cross-head I, to which the dash-rod K is secured by the adjustable devices *m* and *n*, as herein described.

In testimony that I claim the foregoing as my own I hereby affix my signature in presence of two witnesses.

MICHAEL SULLIVAN.

Witnesses:

JOHN B. ENGINE,  
H. C. SCOTT.