

S. C. WILSON.

Churn.

No. 68,273.

Patented Aug. 27, 1867.

Fig. 2

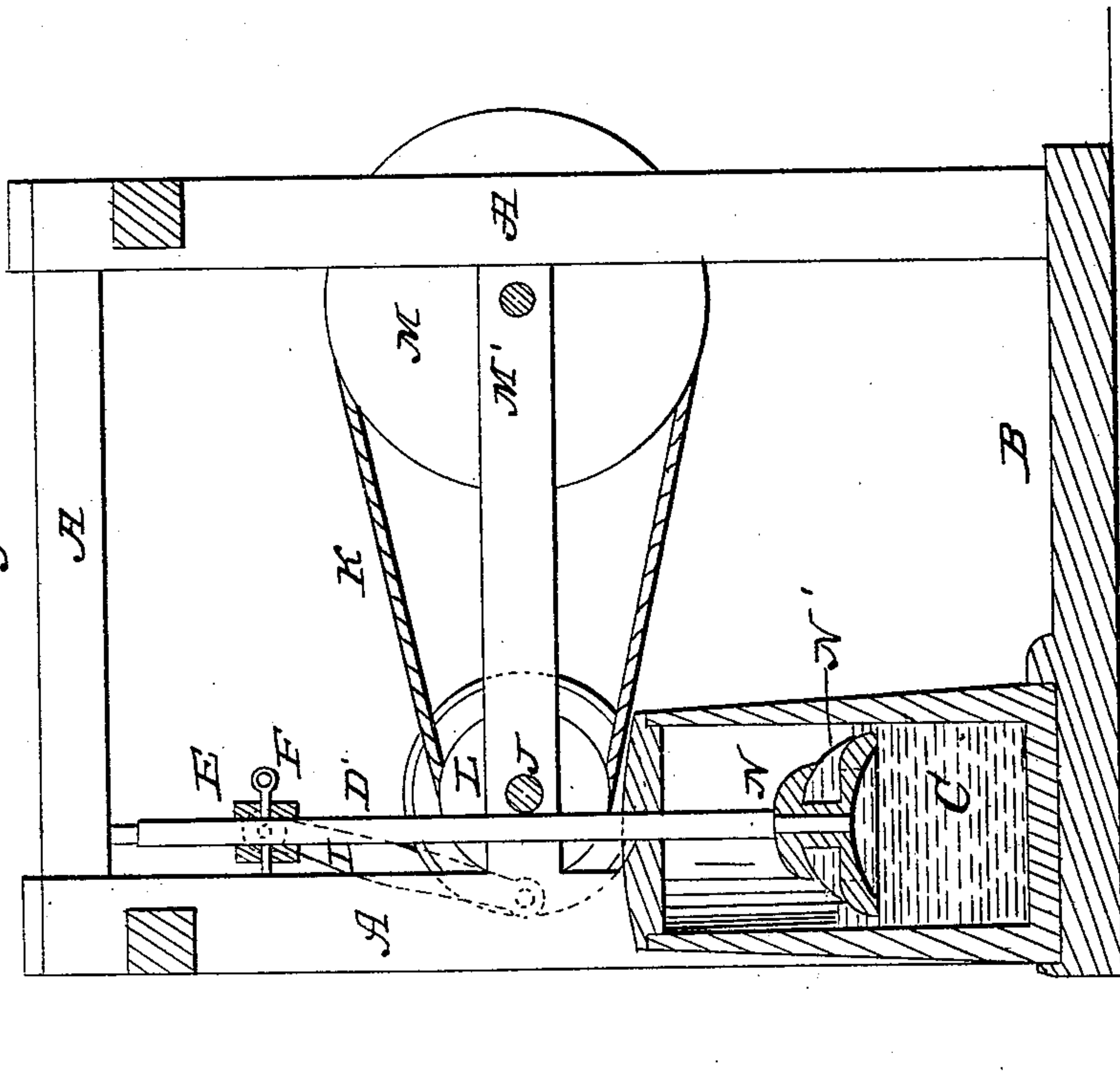
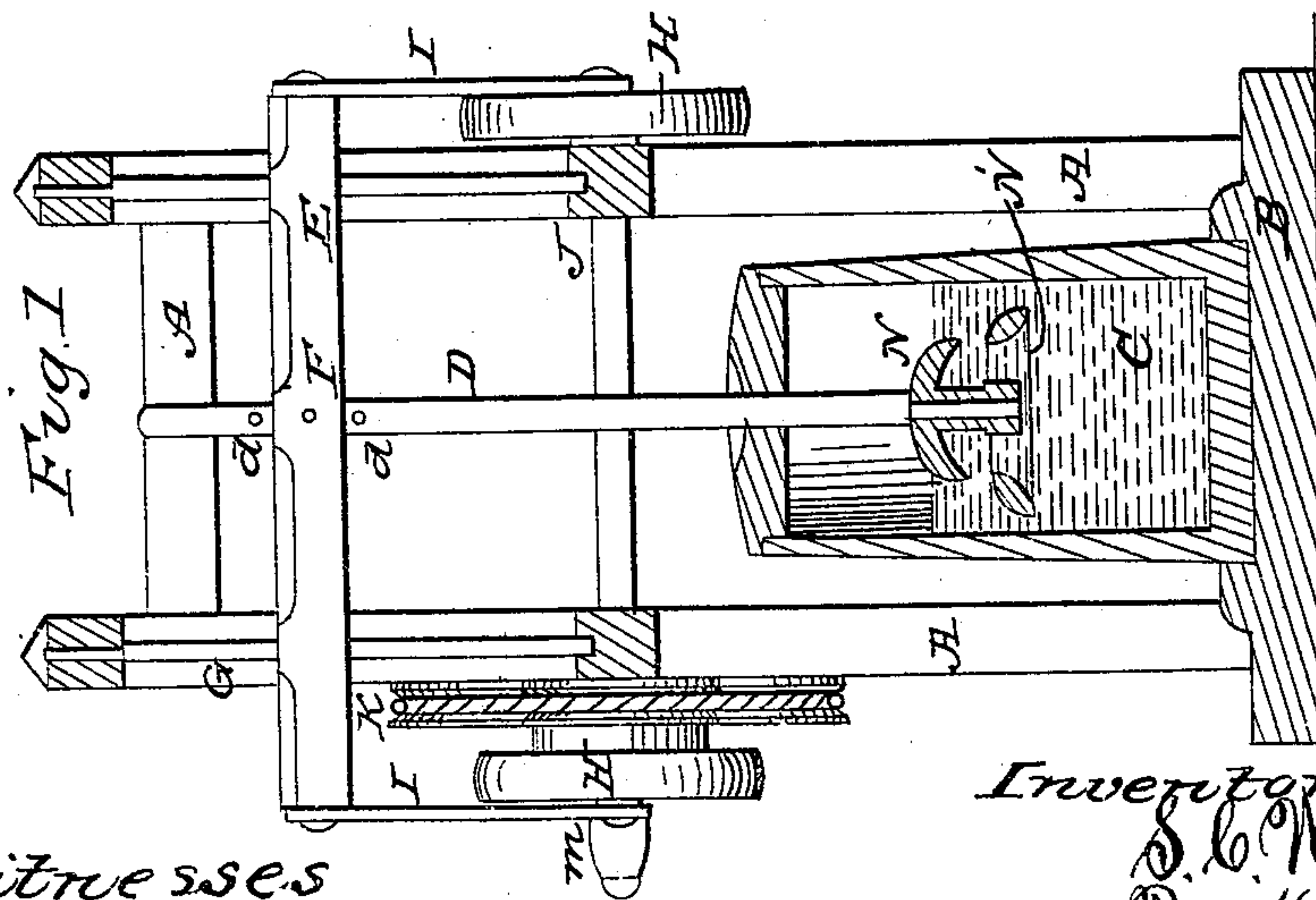


Fig. 1



Witnesses
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UNITED STATES PATENT OFFICE.

SAMUEL C. WILSON, OF OLNEY, ILLINOIS.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. **68,273**, dated August 27, 1867.

To all whom it may concern:

Be it known that I, SAMUEL C. WILSON, of Olney, in the county of Richland and State of Illinois, have invented a new and useful Improvement in Churns; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which are made a part of this specification.

This invention consists, first, in a novel arrangement of appliances for imparting a rapid vertical reciprocating motion to the churn-dasher; second, in a peculiar construction of the dasher, designed to expedite the formation of the butter.

Figure 1 is a transverse section of a churning apparatus illustrating my invention. Fig. 2 is a longitudinal section of the same.

Similar letters of reference indicate corresponding parts in the two figures.

A is a frame, upon one end of the base-piece B of which is mounted the cylinder-churn C, the dasher of which is operated by the vertically reciprocating rod D'. This rod is adjustably attached to the cross-bar E, by means of the pin F, which may be shifted from one of the holes *d* to another, in order to vary the operating position of the dasher. The cross-bar E traverses the vertical guide-rods G G, and receives motion from two crank-wheels, H H, through the medium of the connecting-rods I I. The crank-wheels H H are keyed upon the opposite ends of a transverse shaft, J. The shaft J receives motion through a band, K, and pulley L from the large pulley M, which is mounted upon the shaft M', and turned by means of the handle *m*. By reason of the difference in the size between the pul-

leys L and M, the former is adapted to turn with great speed, and impart a correspondingly rapid motion to the dasher, through the medium of the cross-bar E, crank-wheels H H, and rods I I. By having two crank-wheels acting upon both ends of the bar, as represented, the steady as well as rapid and uniform motion of said bar is secured. The dasher consists of an annulus, N', and a convex-concave deflector, N, the latter occupying a position just above the former. As the dasher descends, the cream, passing through the annulus N', impinges against the concave surface of the deflector N, and is projected outward, and as it ascends the cream forces itself down through the annulus. The agitation and friction thus produced effect the rapid transformation of the cream into butter.

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

1. The arrangement of the dash-rod D', cross-bar E, shaft J, crank-wheels H H, connecting-rods I I, pulleys L M, and band K, substantially as and for the purpose explained.

2. The dasher, consisting of the annulus N' and convex-concave deflector N, substantially as described.

To the above specifications of my improved churn-dasher and machine for churning I have this day signed my hand and seal, May 14, A. D. 1867.

SAMUEL C. WILSON. [L. S.]

Witnesses:

J. C. SCOTT,

JAMES C. DUNCAN.