M. B. CRESWELL.

CHURN.

No. 181,913. Patented Sept. 5, 1876.

Fig. 1.

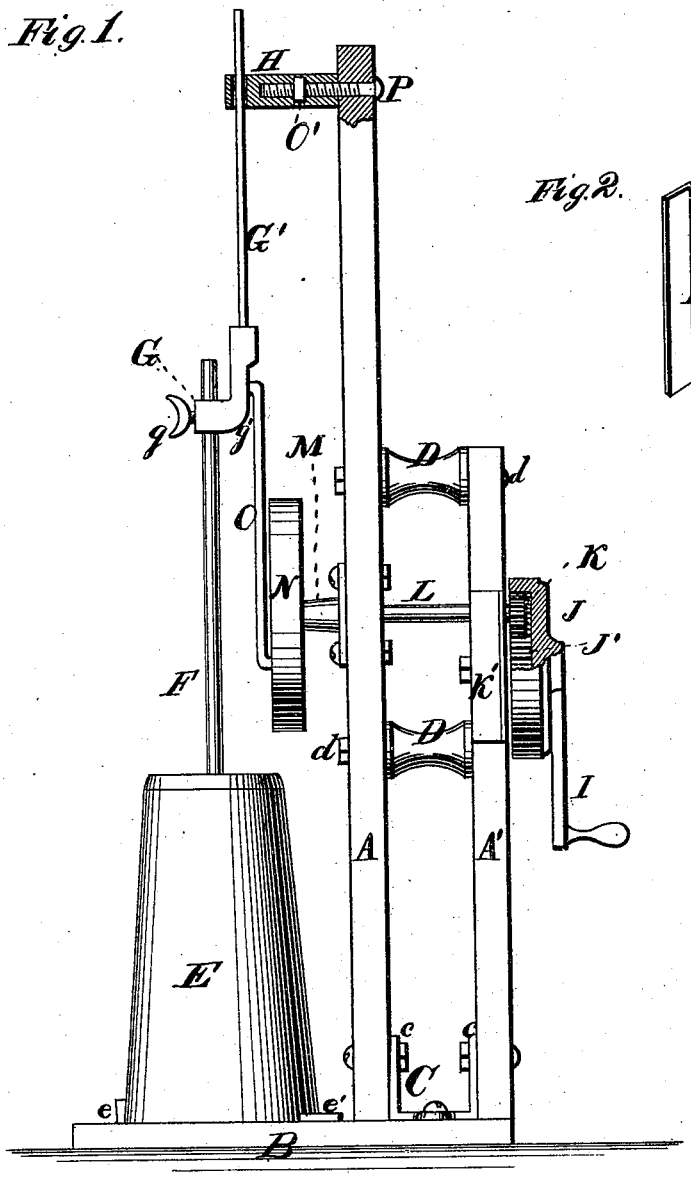

Fig. 2.

WITNESSES

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MILTON B. CRESWELL, OF WASHINGTON, IOWA.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. **181,913**, dated September 5, 1876; application filed June 17, 1876.

To all whom it may concern:

Be it known that I, M. B. CRESWELL, of Washington, in the county of Washington and State of Iowa, have invented a new and valuable Improvement in Churns; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation 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.

Figure 1 of the drawings is a representation of a side elevation of my churn. Fig. 2 is a detail view of the shield.

This invention relates to devices for operating churn-dashers; and it consists in certain improvements in churns, as will be hereafter more fully set forth.

In the annexed drawings, A A′ represent standards, which are secured to a bed-piece, B, by a plate, C. This plate is bolted or otherwise removably attached to said bed-piece, and is provided with vertical flanges *c c*, which in like manner are removably attached to said standards. These standards are bound together above by bolts *d d*, passing through sleeves D D, whereby the said standards are locked, so as to constitute a rigid frame; but all these attachments are removable. E is a churn-box, secured to bed-piece B by pin *e* and curved clamping-piece *e′*, or any similar devices, and provided with an ordinary vertically-reciprocating plunger or dasher rod, F. On the upper part of dasher-rod F slides a sleeve, G, secured by an adjusting-screw, *g*, and rigidly connected by a curved or elbow arm, *g′*, to a guide-rod, G′. Said guide-rod has vertical motion through the perforated end of arm H, which projects horizontally from the upper part of standard A. By this arrangement the dasher may be withdrawn from the churn without disconnecting any of the parts except sleeve G. I is a crank, which turns a wheel, J, which is pivoted on standard A′, and internally geared at J′. This internal gear meshes with pinion K on the end of shaft L, journaled in said standards A and A′. The forward end of shaft L projects a short distance from standard A and over churn E; and it is strengthened and sustained by sleeve M, which is secured to standard A. This end of rotating shaft L carries a wheel, N, which operates a crank-shaft, O, that is pivoted at its upper end to elbow-arm *g′*. As wheel N revolves the plunger or dasher rod rises and falls alternately, and the churning is thereby effected.

To prevent access to gears J′ and K I fasten a metal plate or wing, K′, to the standard A′, one end of said plate being bent at right angles to said standard, so as to form a shield for said gears. In this way I not only protect the gearing from dirt and other extraneous matter, but also obviate all danger of children or careless persons having their fingers injured by the revolving teeth.

Arm H is firmly but detachably secured to standard A by a screw-threaded bolt, P, which passes through the top of said standard, and engages with a nut, O′, within arm H. Said arm is provided with a recess or entrance on its under side for the insertion or withdrawal of said nut, and with an end perforation connecting therewith, which is adapted to allow the entrance of the end of the bolt.

Sleeve M is useful for enabling shaft L to extend some distance beyond standard A without being subject to great strain. The object of this extension is to prevent similar strain from coming upon the dasher-rod or crank-shaft.

What I claim as new, and desire to secure by Letters Patent, is—

The combination of the dasher-rod F, socketed sleeve G, with bent arm *g′*, crank-shaft O, crank-wheel N, sleeve M, and suitable gearing.

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

MILTON B. CRESWELL.

Witnesses:

JOHN F. ACKER,

C. H. MCEWEN.