

J. TULL.  
CHURN.

No. 186,641.

Patented Jan. 23, 1877.

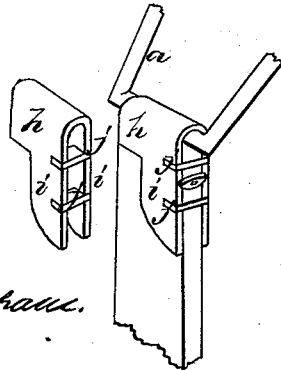
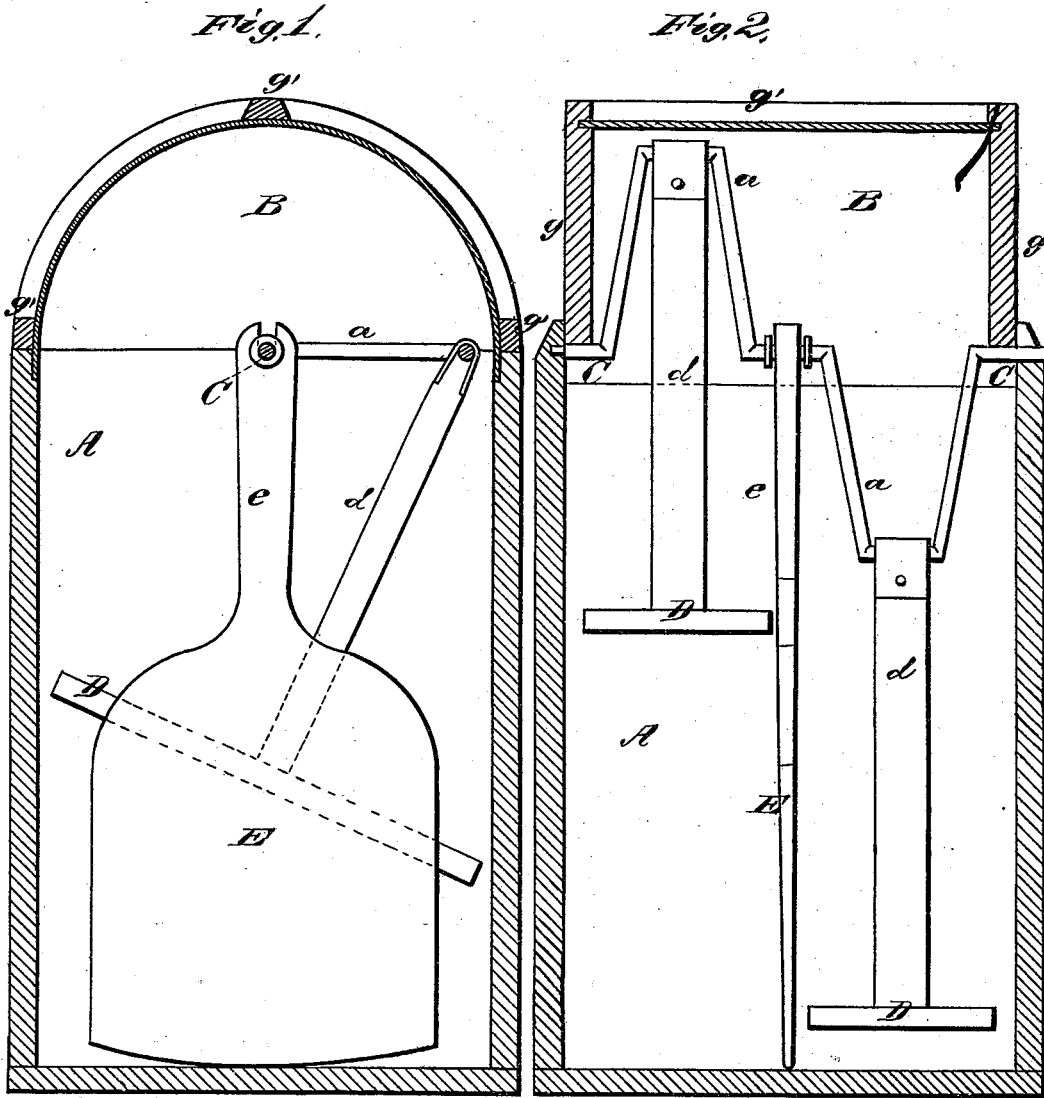


Fig. 3.

WITNESSES  
*E. A. Bates*  
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# UNITED STATES PATENT OFFICE.

JAMES TULL, OF LA FAYETTE, INDIANA.

## IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. 186,641, dated January 23, 1877; application filed May 27, 1876.

*To all whom it may concern:*

Be it known that I, JAMES TULL, of La Fayette, in the county of Tippecanoe and State of Indiana, 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 transverse vertical section of my churn, and Fig. 2 is a longitudinal central section thereof. Figs. 3 are detail views.

This invention has relation to churns; and the nature of my invention consists in the employment, with dashers which are actuated by a double bell-crank, of an intermediate bearing formed on the handle or upper end of a removable partition, which is adapted to be subsequently used as a butter-spade.

A designates a churn-box, which may be of rectangular form. At the upper end of this churn-box is a removable cover, B. C designates a shaft, which has two cranks, *a a*. Each crank has attached to it a rod, *d*, carrying on its lower end a dasher, D, which is preferably perforated. These dasher-rods receive vertical and vibratory motion when the shaft C is rotated, and they transmit a vibratory motion to the dashers. Between the dashers is a partition, E, which is removable, and which is constructed with a handle, *e*, the upper end of which handle *e* is constructed with a notch adapted to afford a bearing for the crank-shaft C.

This partition E serves a twofold purpose— to wit, it is removable, in order that it may readily be cleaned, and it is so shaped that when removed it can be used for working the butter. When in place in the churn-box, it affords a substantial bearing for the crank-shaft between the two dash-rods, and prevents vibration of said shaft.

The cover which I have above described for my churn-box is composed of two solid semi-circular sides, *g g*, secured together by transverse pieces *g' g'*. The side pieces *g* are

grooved to receive an arch composed of sheet metal, the lower termini of which enter the churn-box a short distance, and, together with the side extensions of the churn-box, form close joints, when the cover is hooked down.

By removing this arched cover and inverting it, it affords a suitable vessel in which the butter can be worked.

Rod *d* is preferably attached to crank *a* by means of a metal strap or tip, *h*, which is provided with extensions *i i* that inclose dasher-rod *d*, and with cross-pieces *j j*, that set into recesses *d' d'* in said rod near its upper end. Sufficient space is left between the upper end of dasher-rod *d* and the inside of metal tip *h*, to receive crank-rod *a*. To dasher-rod *d* is pivoted a button, *d<sup>2</sup>*, which, when turned so as to lie horizontal, engages with the edges of extensions *i i*, and so locks tip *h* in place, making a secure, though pivotal, connection between crank-rod *a* and dasher-rod *d*.

This attachment may be applied to either or both cranks and dasher-rods. Its advantages are strength of connection and ease of attachment and detachment.

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

1. The partition E, provided with the handle *e*, notched at its upper end for the reception of the crank-shaft C, and detachable, so as to be used as a butter-worker, substantially as described.

2. A churn-cover, in which the semicircular grooved sides *g g* are secured together by transverse pieces *g' g'*, and arched sheet-metal lining, substantially as described, and for the purpose set forth.

3. The combination of metal tip *h*, having extensions *i i* and cross-pieces *j j*, with crank *a* and recessed dasher-rod *d*, provided with pivoted button *d<sup>2</sup>*, substantially as set forth.

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

JAMES TULL.

Witnesses:

E. GROENENDYKE,  
C. GROENENDYKE.