Burke & Gasette,

Rotary Churn.

No. 50,684. Patented Oct. 31, 1865.

Fig: 1.

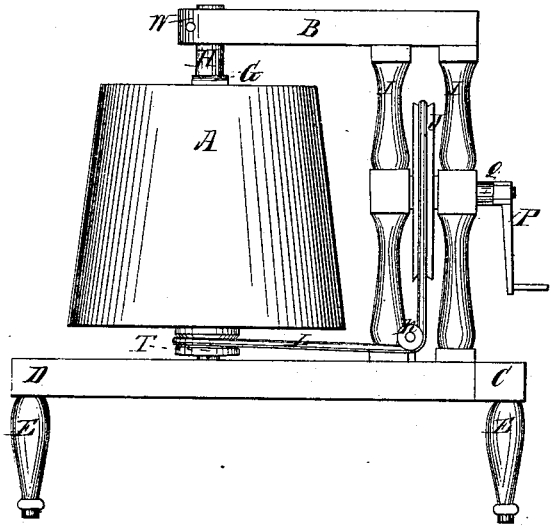


Fig: 2.

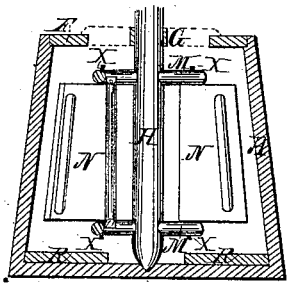


Fig: 3.

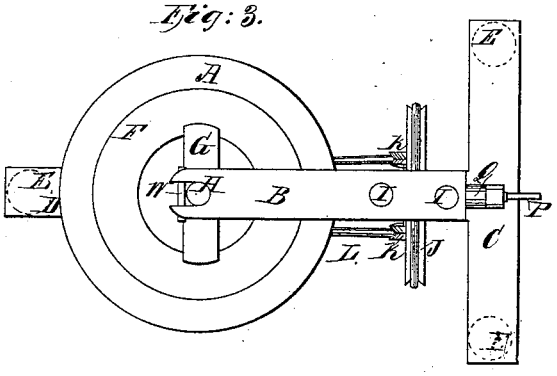
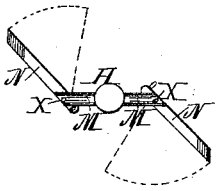


Fig: 4.



Witnesses:
Geo. G. Chapin
Lewis Umbach

Inventors:
Thompson J Burke
S. B. Gasette

UNITED STATES PATENT OFFICE.

THOMAS J. BURKE AND S. B. GASSETTE, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. **50,684**, dated October 31, 1865.

To all whom it may concern:

Be it known that we, THOMAS J. BURKE and S. B. GASSETTE, of Chicago, in the county of Cook and State of Illinois, have invented an Improved Churn; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and letters of reference marked thereon, making a part of this specification, in which—

Figure 1 is a longitudinal elevation of our improved churn. Fig. 2 is a sectional elevation of the barrel of the churn including an elevation of the dasher, standard, and the wings or dashers. Fig. 3 is a top or plan view of our improved churn. Fig. 4 is a top view of the standard and dashers.

The nature of our invention consists in providing a convenient and speedy method of manufacturing butter from cream or milk by constructing a churn with a new kind of dashers, also by allowing the atmosphere to come in contact with the top of the cream continuously during the process of churning, and by constructing a substantial frame and gearing for supporting and operating the same.

To enable others skilled in the art to make and use our invention, we will describe its construction and the method of using the same.

First, as a foundation or frame-work for the support of the various parts of our churn, we use the strong and substantial parts shown at C and D, which are put together in the form of a T and supported by the three legs E. We then attach the posts, as shown at I, to the frame D for the purpose of supporting the shaft *a* of the wheel J; and to the top of the posts I, by means of tenons, we attach the part B, which we denominate a "crane," and is used for the purpose of supporting the top of the standard or part H.

In working our churn the outside of the same or barrel part revolves around a given center while the dashers or part N remain stationary. To accomplish this we make a step in the bottom of the inside of the churn, as shown at S, for the purpose of keeping the dasher standard H in a vertical position and vertically over this step and in the end of the crane B is cut the gain that supports the top of the part H in such a manner as not to allow the same to revolve.

At W is shown the pin, which is taken out when the standard H is required to be detached from the crane B.

At M, Figs. 2 and 4, is shown the arms that support the wings or dashers N. The dashers N are held in place by means of the small dowels X, in such a manner as to allow the dasher to revolve with a hinge-like motion, the object of which is to allow the dashers to be shut together so that they may be taken out of the opening at the top of the churn.

At G is shown the partial lid, which is only used to steady the top of the barrel of the churn when in motion.

At F is shown the rim or flange, which is used to prevent the cream from rising and runing over the top of the churn, the balance of the top of the churn-barrel not covered by the rim F, and the partial cover G is left open for the purpose of admitting the atmosphere.

At R, Fig. 2, is represented small corrugations, of which we use from four to eight, according to the size of the churn, and are used to give motion to the cream.

The gearing used in turning the barrel of the churn A is the wheel J, pulley T, and guide-pulleys K. The guide-pulleys K being set in such a position as will guide the band L correctly relative to the wheel J and the pulley T. The pulley T is attached to the bottom of the barrel of the churn A, the barrel therefore revolving the same as the pulley.

P represents the crank used in propelling the churn.

At *o*, Figs. 2 and 4, is shown the shoulders on the dashers N, which act as a fulcrum and keep the dasher in position when the cream is forced against them.

Operation: In the elevation represented at Fig. 1 all parts are adjusted for putting the cream in the churn, which can be done by means of the opening in the top of the churn between the parts F and G. This being done, the operation is completed by turning the crank P in such a direction as will cause the cream, when carried around with the barrel of the churn A, to be forced against the sides of the dashers N, (indicated by the dotted lines as shown at Fig. 4.) If this is not attended to the dashers N will shut so near together that the cream near the outside of the barrel of the churn will not receive sufficient friction. After the but-

ter has been separated from the milk we turn the crank P in the opposite direction for the purpose of gathering the butter. In taking the butter from the churn it is first necessary to take out the pin W, which will loosen the standard H in the gain at the end of the crane B, so that the part G, standard H, and dashers N can be lifted out of the churn, thus giving room to take out the butter and clean the churn. When the barrel of the churn A is in motion the centrifugal force of the cream in the churn is broken by the dashers N and the surplus force is fully checked by means of the flange F, thereby obviating the necessity of a cover for the center of the churn.

Having fully described our device, what we claim as our invention, and desire to secure by Letters Patent of the United States, is—

1. The combination of the frame G and D with the standards I and crane B, as set forth.
2. The combination of the flange F with the barrel of the churn A, as set forth.
3. The combination of the dashers N with the arms M, all substantially as described, and for the purposes set forth.

THOMAS J. BURKE.
S. B. GASSETTE.

Witnesses:
GEO. L. CHAPIN,
LEWIS UMLAUF.