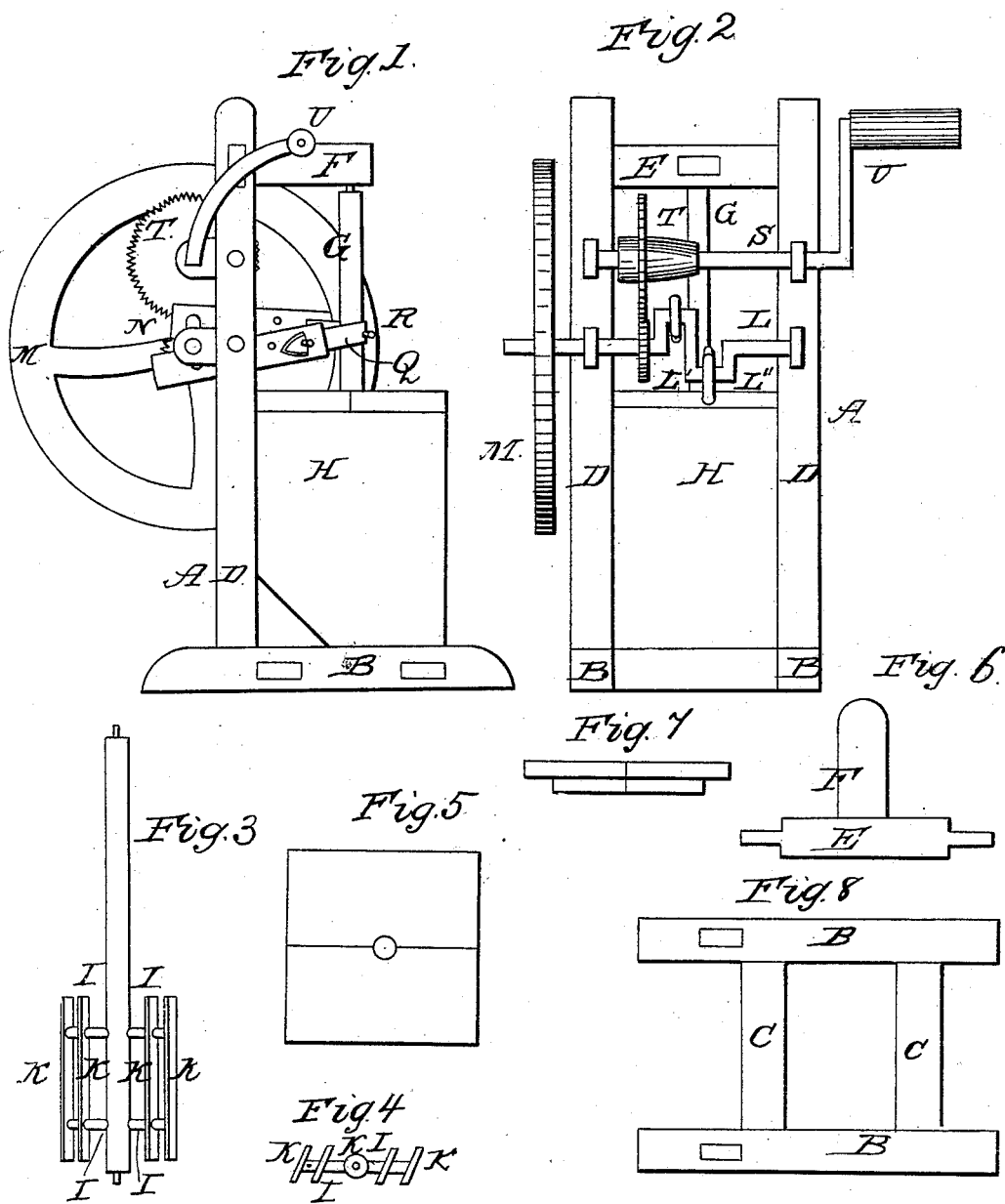


J. S. THOMSON.

Churn.

No. 1,265.

Patented July 27, 1839.



UNITED STATES PATENT OFFICE.

JNO. S. THOMSON, OF LUZERNE COUNTY, PENNSYLVANIA.

CHURN.

Specification of Letters Patent No. 1,265, dated July 27, 1839.

To all whom it may concern:

Be it known that I, JOHN S. THOMSON, of the county of Luzerne and Commonwealth of Pennsylvania, have made a new and useful Improvement in Machines for Churning Butter, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

The principal feature of my invention and improvement consists in so arranging the vertical paddles or buckets on the arms, that they shall force the cream when moving in one direction from the center to the circumference of the churn, and when returning throw it back toward the center, and thus agitate the cream and produce the butter in a very short time.

Figure 1, is a side view of the machine. Fig. 2, rear view; Fig. 3, side view of the dasher; Fig. 4, top view of the dasher; Fig. 5, top of the lid; Fig. 6, cross rail and arm; Fig. 7, edge view of lid; Fig. 8, top of sills and cross pieces.

This machine consists of a frame A made of timber about two inches square. Two sills B B of about eighteen inches long are fastened together by two cross pieces C C, about fourteen inches apart neatly mortised into the sills at or near the ends of them. At one end and on top of these sills are erected two posts D D of about three feet high; these posts are connected by a rail or girt E at the upper end neatly framed into them with an arm F from the center of said rail projecting inward about six or eight inches for the purpose of holding the upper end of the shaft dasher or staff G.

The churn H is made square or round at pleasure and is placed directly under said arm resting on the sills and against the posts. The dasher consists of an upright shaft with two or three arms I placed above each other as the size of the churn may require, passing horizontally through it in the same direction and low enough to be within the churn, to which horizontal parallel arms I are fastened four vertical parallel boards or paddles K, two on one side of the shaft G and two on the opposite side. They are fastened to the arms obliquely at any required angle suitable for producing the intended effect, the angles being obtuse on one side of the arm, and acute on the other

side. The arms pass through mortises in the middle of the paddles and two of these are fixed on the extremities of the arms and two between the extremities and the shaft. All the paddles are placed parallel and at the same angle, the object of thus placing said paddles being to throw the cream toward the center of the churn when moved in one direction and to throw it toward the circumference when returning or moved in a contrary direction, thus agitating it in a high degree and quickly producing the butter. There may be another set of arms inserted into the shaft at right angles to these just described having paddles placed and fixed to them in a similar position. The dasher thus made stands perpendicular and plays on pivots P, P, at each end, the lower playing in a box at the bottom of the churn, and the upper end in the arm F above mentioned.

On the back sides of the posts and about three or four inches higher than the top of the churn is a shaft L hung in boxes and so constructed as to form in the center a double crank L', L'', on one end of this shaft and outside the post is hung a balance wheel M of about 2 feet diameter and about 16 pounds weight. On the inside of the post and on the same shaft L is fixed a metal cog wheel N three inches diameter. On this double crank L' L'' are hung two pitmen O O in a horizontal position extending toward the dasher and having a strap of leather Q or other material attached to the loose end of one of the pitmen. Q passes around the dasher shaft G or a pulley and is made fast to the loose end of the other pitman, by which motion is given to the dasher as the cranks revolve and the pitmen play backward and forward. To prevent the strap from slipping on the dasher shaft a common nail or screw nail R is inserted through the strap into the shaft and the crank L being turned so as to allow half a revolution only and the strap being held by the nail causes the vibratory motion of the dasher. Directly over the shaft is another shaft S hung in like manner with a cog wheel T of 9 inches diameter to match exactly in the small wheel and with a crank and handle V on the other end by which to give motion to the whole machine.

The size of this machine in all its parts may be varied and made larger or smaller

as required, preserving, however, all the proportions for answering small or large dairy purposes.

What I claim as my invention and improvement in the churn and which I desire to secure by Letters Patent consists in—

5 Placing the vertical paddles K K K K obliquely on the horizontal parallel arms I, I, as herein described so that they shall force

the cream when moving in one direction 10 from the center to the circumference of the churn and when turned in an opposite direction or returning throw it back toward the center all as herein described.

JOHN S. THOMSON.

Witnesses:

JOSEPH CAMP,
JOHN ELLIOTT.