

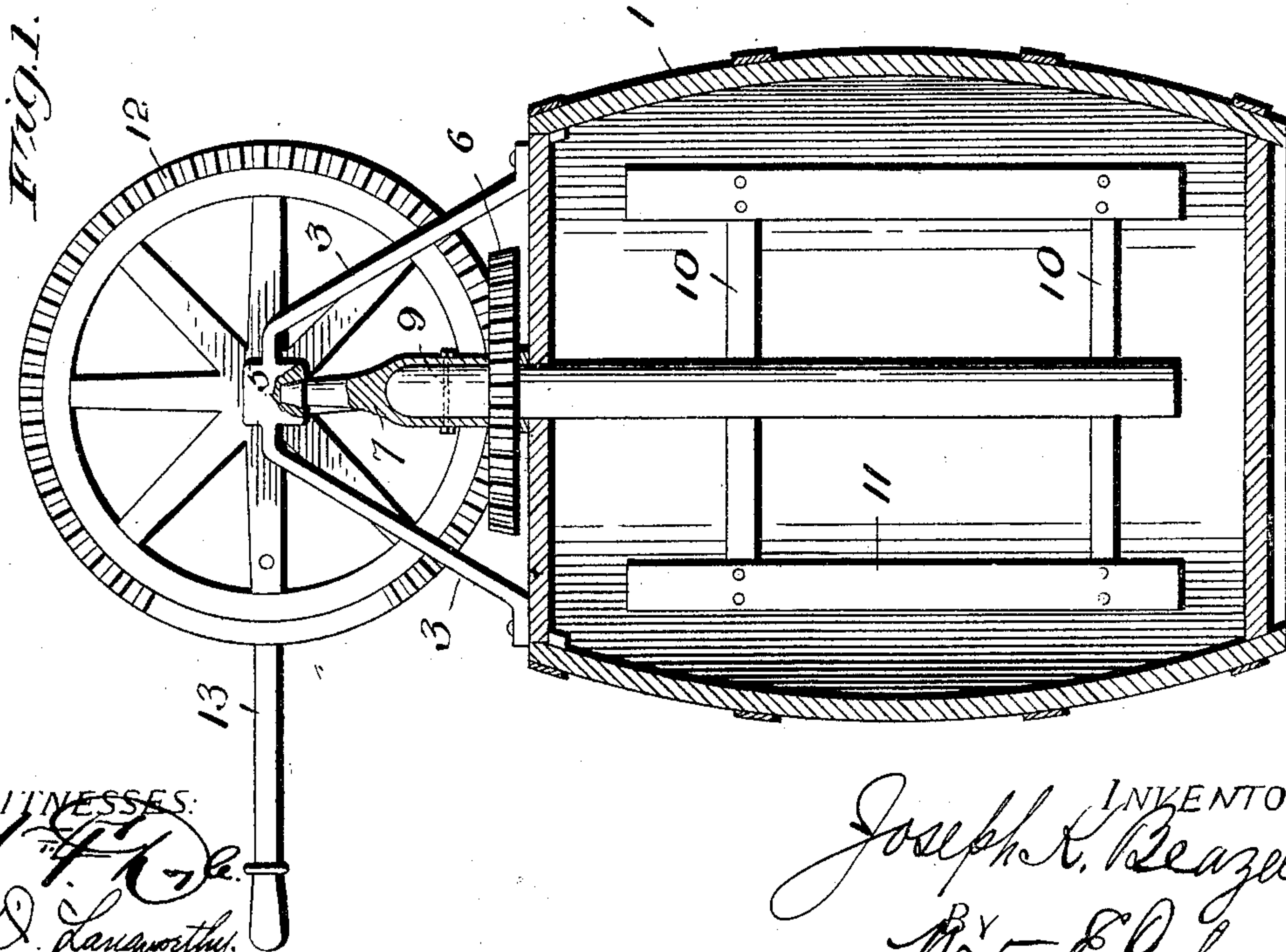
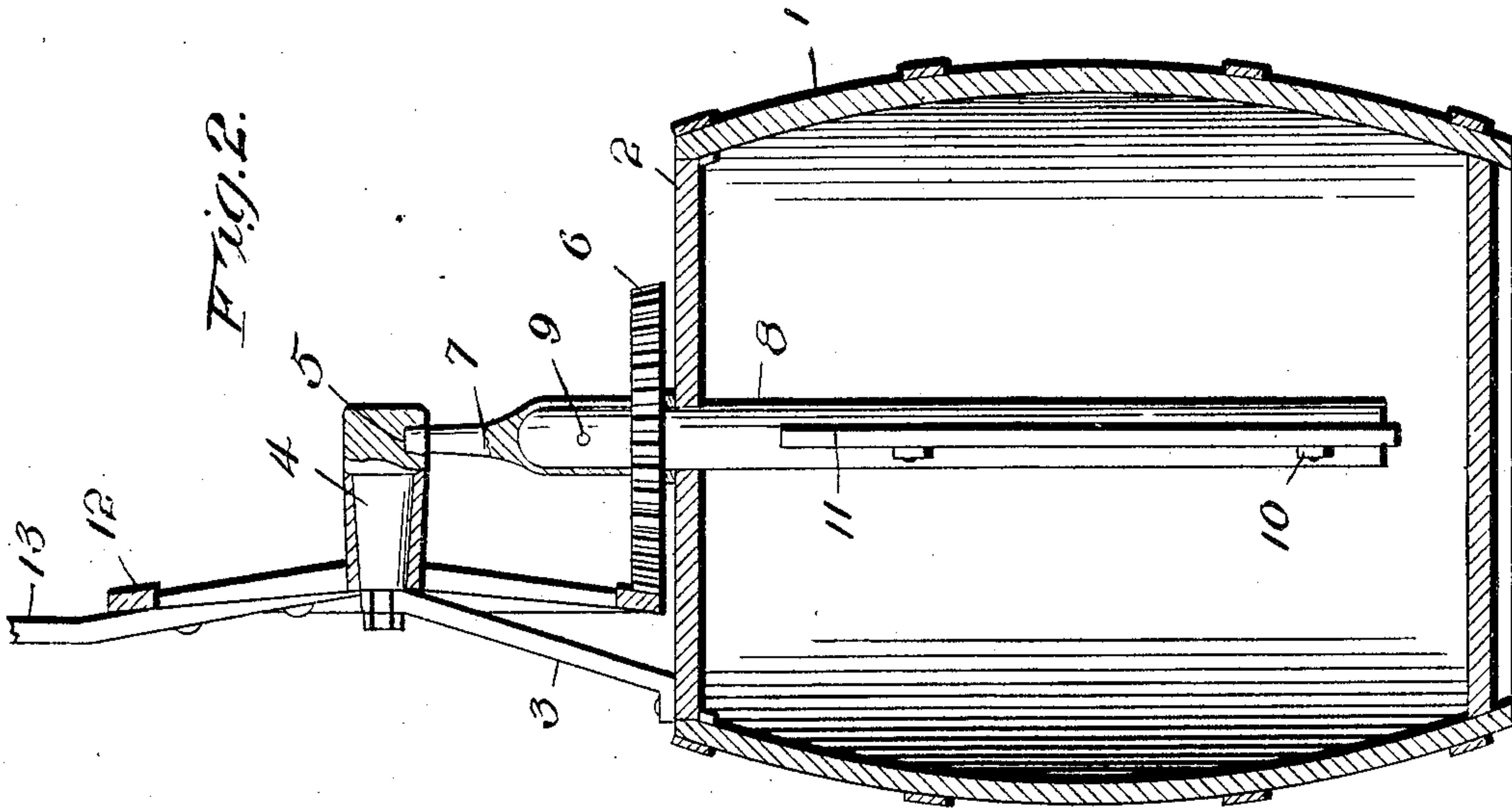
No. 798,592.

PATENTED SEPT. 5, 1905.

J. K. BEAZELL.

CHURN.

APPLICATION FILED FEB. 21, 1905.



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JOSEPH K. BEAZELL, OF LACYGNE, KANSAS.

CHURN.

No. 798,592.

Specification of Letters Patent.

Patented Sept. 5, 1905.

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To all whom it may concern:

Be it known that I, JOSEPH K. BEAZELL, a citizen of the United States, residing at Lacygne, in the county of Linn and State of Kansas, have invented certain new and useful Improvements in Churns, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to churns, and more particularly to that class wherein a reciprocating motion is imparted to vertical paddles or dashers, one of the objects being to provide a device of the character described that shall be simple in construction and effective in operation.

Further objects and advantages of my invention, as well as the structural features by means of which said objects are attained, will be made clear by an examination of the specification, taken in connection with the accompanying drawings, in which the same reference-numerals indicate corresponding portions throughout, and in which—

Figure 1 is a side elevation, partly in section; and Fig. 2 is a vertical section taken at right angles to Fig. 1.

1 designates the body of the churn; 2, the cover; 3, a frame removably mounted thereon and carrying the hub 4, having a projecting block 5 mounted rigidly thereon or formed integral therewith.

6 designates a horizontal gear-wheel having rigidly mounted thereon or formed integral therewith an axle 7, suitably journaled in the block 5, said axle 7 being hollow at its lower end and adapted to receive a vertical shaft 8, held in place therein by means of the bolt 9. This shaft passes through an opening in the gear-wheel 6 and also in the cover 2, said openings constituting bearings for said shaft which extend downward into the body of the churn to within an inch of the bottom. Rigidly mounted on this shaft are horizontal cross-bars 10, covering the vertical paddles or dashers 11. Mounted on the hub 4 is a vertical gear-wheel 12, the teeth of which form a mesh with the horizontal gear-wheel 6. The diameter of the horizontal gear-wheel 6 is only one-half that of the vertical gear-wheel 12, so that the two constitute a miter-gear. Rigidly

mounted on said wheel 12 is a handle 13, by which the same is operated.

In operation the cream is placed in the body of the churn 1 and the handle 13 moved over from right to left, thus actuating the gear-wheel 12, which in turn imparts motion to the horizontal gear-wheel 6, and the paddles are rotated. The handle 13 is then returned to the right, as shown in Fig. 1, and in being so returned the paddles 11 are rotated in the opposite direction. By moving the handle back and forth through an arc comprising one-half of a circle which the handle would travel if carried clear around a reciprocating motion is constantly imparted to the paddles 11, and this motion causing a greater agitation of the cream than would be caused if the paddles were given a continuous rotary motion, the globules are more completely broken, and the butter is separated quicker and with greater ease than in other churns.

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

In a churn, the combination, with a suitable receptacle, of a cover therefor, a vertical shaft suitably journaled in the cover, an upper and a lower paddle mounted transversely on the shaft, vertical paddles mounted on the transverse paddles, one on each side of the shaft, a horizontal gear-wheel mounted on the shaft above the cover, a vertical hollow axle formed integral with said gear-wheel and adapted to receive the upper end of the shaft which is removably mounted therein, a vertical gear-wheel meshing with the first to form a miter-gear, a suitable frame supporting the vertical gear-wheel, a hub carried by the frame and upon which said vertical gear-wheel is adapted to rotate, and a block carried by the end of the hub and serving as a bearing for the upper end of the hollow axle, substantially as described.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

JOSEPH K. BEAZELL.

Witnesses:

JNO. H. CARTMELL,
E. B. BARR.