

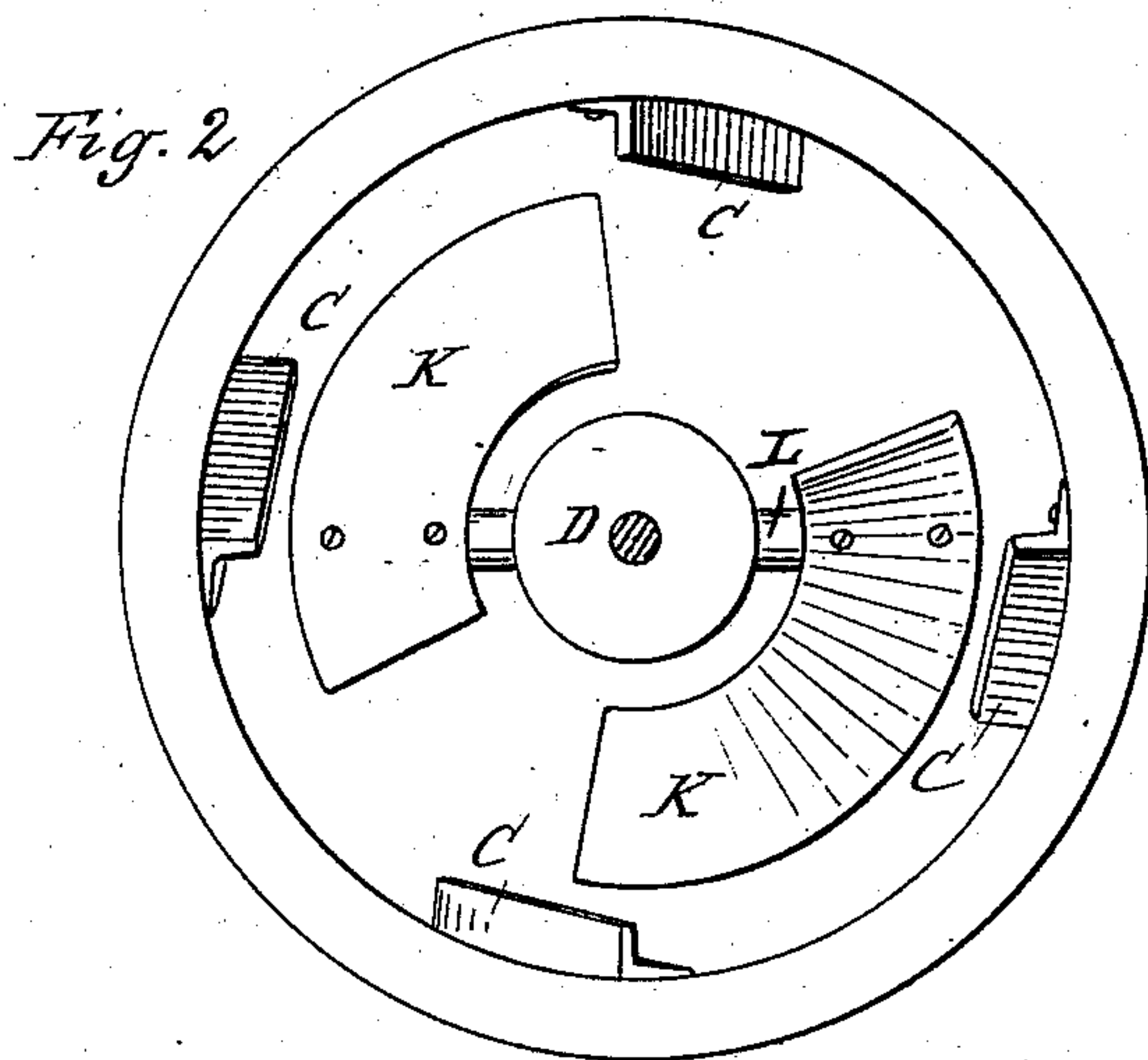
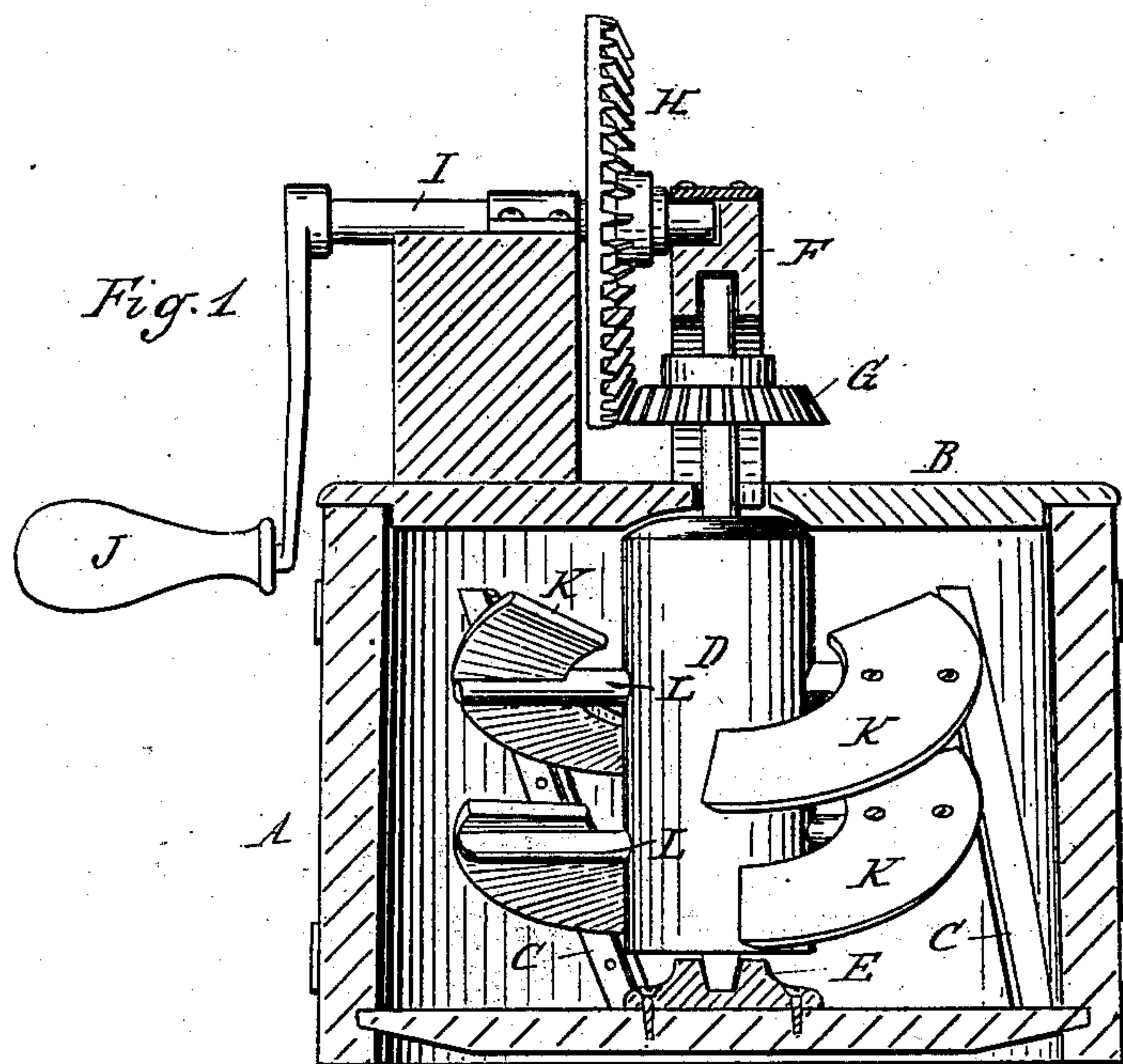
(No Model.)

G. R. BARNES.

CHURN.

No. 272,516.

Patented Feb. 20, 1883.



Attest:
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UNITED STATES PATENT OFFICE.

GEORGE R. BARNES, OF BOAZ, WISCONSIN.

CHURN.

SPECIFICATION forming part of Letters Patent No. 272,516, dated February 20, 1883.

Application filed February 4, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE R. BARNES, of Boaz, in the county of Richland and State of Wisconsin, have invented new and useful Improvements in Churns; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

10 The invention relates to improvements in churns; and the novelty consists in the construction and arrangement of parts, as will be more fully hereinafter set forth, and specifically pointed out in the claim.

15 The invention is fully illustrated in the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a sectional elevation; Fig. 2, a plan view.

20 Referring to the drawings, A represents the tub or body of the churn, constructed in the ordinary manner, and provided with a cover, B, formed preferably in two parts. Upon the inner wall of this body I rigidly secure a suitable number of breakers C, consisting of right-angled strips having one wing extending toward the center of the tub and the other wing beveled and secured to the walls of the tub, as shown in Fig. 2 of the drawings.

30 D represents the dasher-shaft, one end of which is stepped in a bearing, E, while the upper end is provided with an extension of smaller diameter, projecting above the cover and fitted in a bearing in the saddle F, which is secured to one portion of the cover. The extension of the shaft is provided with a bevel-gear, G, which meshes with and is rotated by the bevel-wheel H on the horizontal shaft I, said shaft being provided with a crank, J, by which it may be rotated. The shaft D is made of large size from the bottom of the tub to the cover, in order to displace the cream in the tub, so that it will be exposed to the dasher-blades K of the shaft at the periphery of churn, where the dasher-blades have the most effect. The size of the shaft also causes it to

act partly as a float to relieve friction on the lower pivot.

The blades K are each curved and secured at one end to a cross-bar, L, fastened to the shaft in such a manner that the long end of one blade extends toward the short end of the blade opposite to it.

The upper end of the enlarged portion of the shaft fits into a concavity formed in the covers, so as to keep the cream from flying out of the hole in the cover through which the small portion of the shaft passes.

In practice, the churn being charged with cream, the shaft is rotated and the spirally-arranged blades cause the cream to flow up and over the blade, and it is caught by the next succeeding blade, so as to break any current which would naturally follow the blades, while the breakers C, secured at an angle to the body of the churn, check such current as would occur at the skirt of the cream, while the beveled back flange of the breakers serves to throw the cream inward toward the dasher.

I am aware that churns have heretofore been provided with angular breakers and with rotating spiral dashers, and I do not claim such devices.

What I claim is—

In a churn, the combination, with the tub A, of the angularly-placed breakers C, each consisting of a right-angled strip having one wing attached to the inside of the tub and beveled to throw cream outward and the other wing extending toward the dasher, the spindle D, of large diameter, extending from top to bottom of the churn, and having a convex upper end, the cover having a concave recess to receive the convex portion of the spindle, the cross-bars L, and the curved blades K, secured to said bars at one end, with their opposite ends extending downward, substantially as described.

GEORGE R. BARNES.

Witnesses:

JAMES H. MINER,

JAMES H. BERRYMAN.