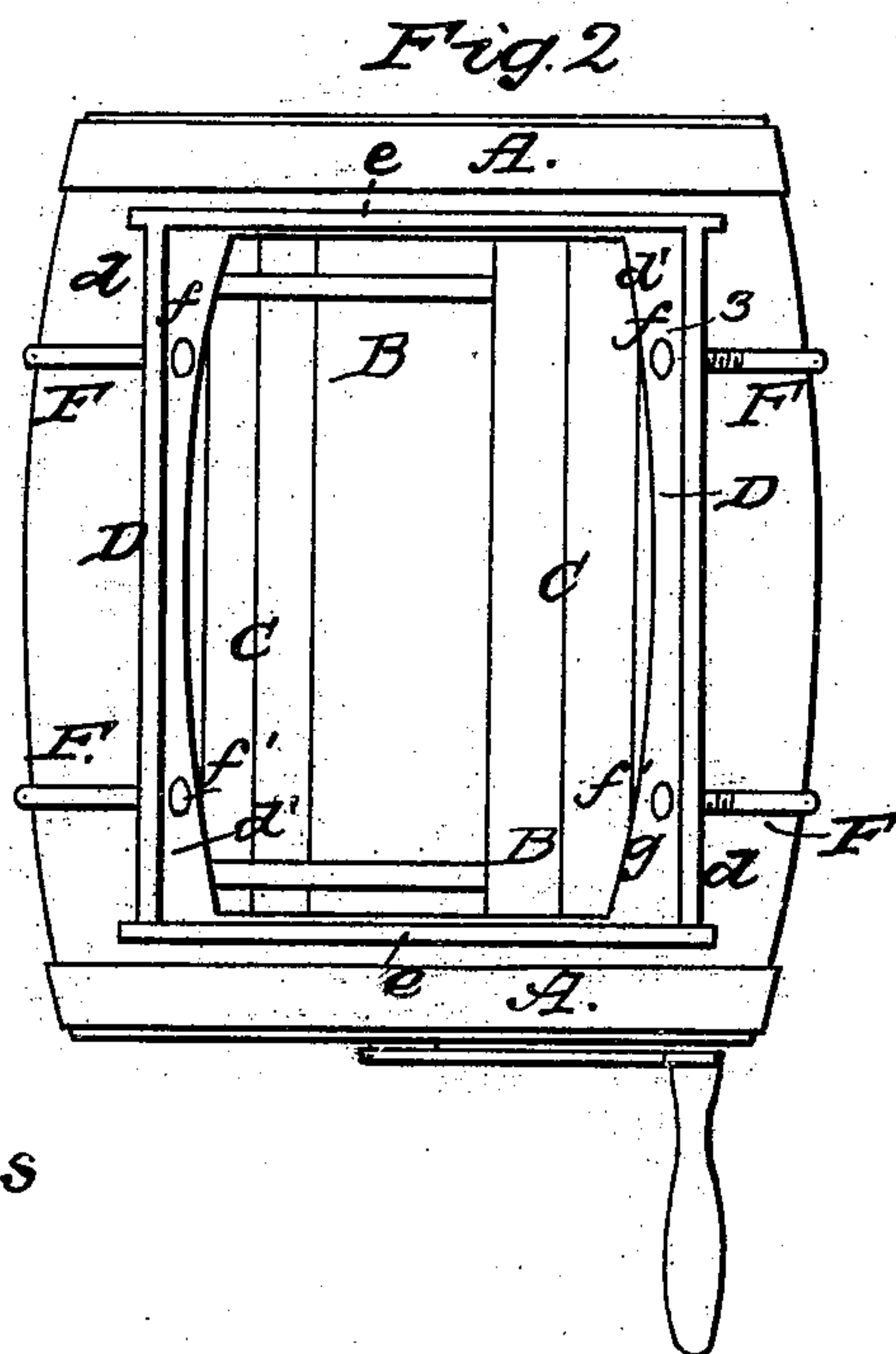
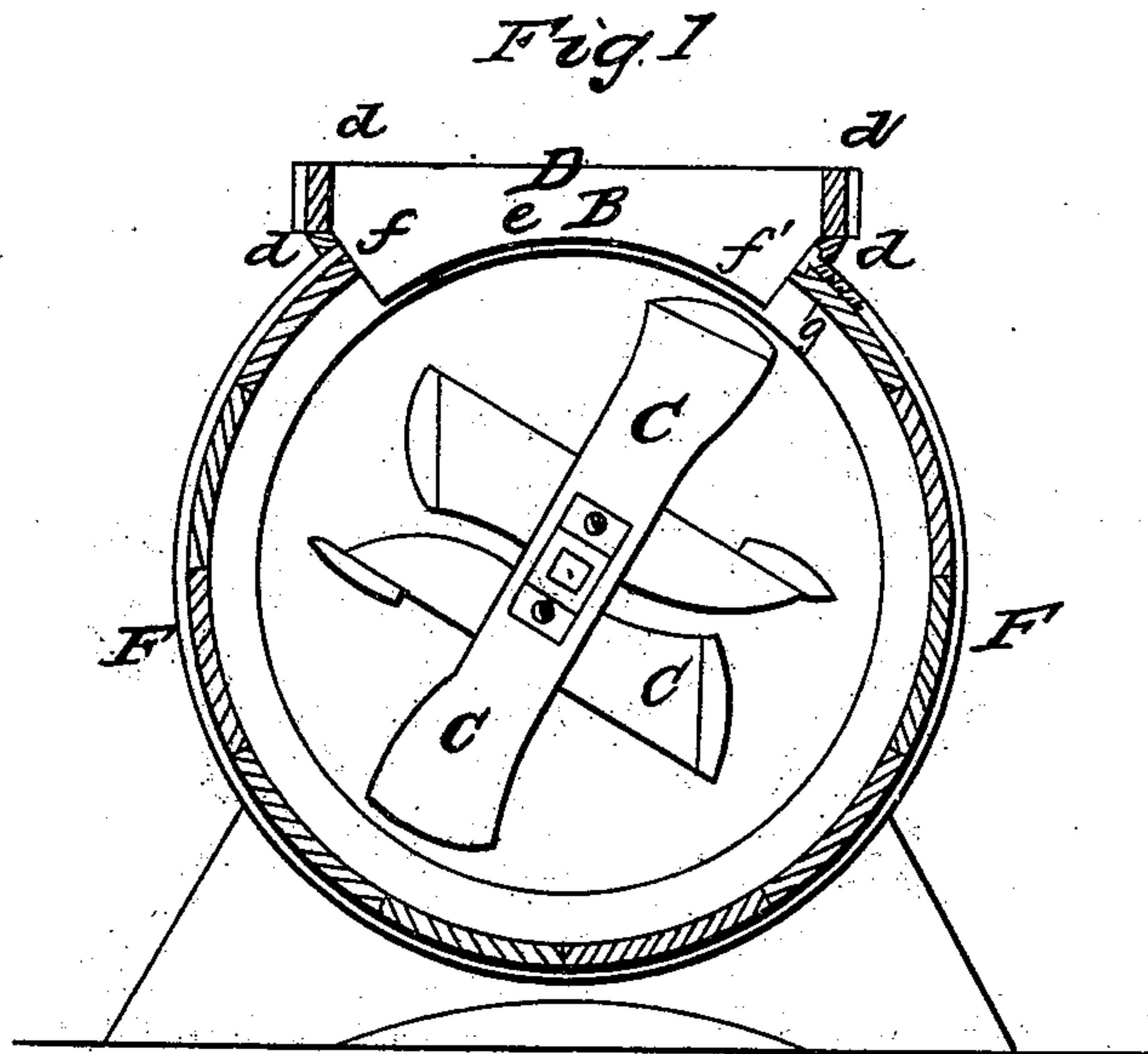


L. H. MUZZEY.

Churn.

No. 42,013.

Patented March 22, 1864.



witnesses
B Robertson
R Mason

Inventor
L H Muzzy
by his Attorneys
Baldwin & Sons

UNITED STATES PATENT OFFICE.

LUCIUS H. MUZZY, OF SPRINGFIELD, OHIO.

IMPROVEMENT IN BARREL-CHURNS.

Specification forming part of Letters Patent No. 42,013, dated March 22, 1864.

To all whom it may concern:

Be it known that I, LUCIUS H. MUZZY, of Springfield, in the county of Clark and State of Ohio, have invented a certain new and useful Improvement in Barrel-Churns, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which make part of this specification, and in which—

Figure 1 represents a vertical transverse section through a churn embracing my improvement, and Fig. 2 a plane or top view of the same.

It is well known to economical housekeepers that the barrel-shaped churn possesses many advantages over those of any other form; and it is the object of my invention to correct the objectionable features of this form of churn as now used.

My improvement consists in making the opening in the side of the barrel-churn so large as to permit the use of a dasher nearly as long and of a diameter nearly as great as the internal capacity of the barrel will admit, while the crank is arranged in two parts so securely fastened that the center of the barrel can be made as strong as desired, and when the staves contract or shrink they can be tightened at pleasure by the center hoops.

In forming my churn I secure the staves of the barrel around the heads by one or more hoops, A, on each end. I then cut an opening B, as large as desired for the admission of a dasher, C, (shown in red lines in the drawings) in the upper side of the barrel. The curb D is made in two parts, *d d'*, the lower part consisting of two side pieces, *d'*, which are made to match the edges of the staves on the opposite sides of the opening, and project sufficiently above the staves to have their upper edges in a plane just above the bulge of the barrel. The upper portion, *d*, of the curb is formed so that its sides rest with a close joint on the plane surfaces of the lower side pieces, while the end pieces, *e*, pass down to the lower edge of the staves, and are cut in an arch corresponding with that of the internal diameter of the barrel. The upper and lower parts of the curb may be united in any convenient or proper manner. The frame is then fitted neatly into the opening B, and fastened by tacks or screws to the edges and ends of the staves. Two or more hoops,

F, of round or square metal rods or wire (of sufficient strength) are made with heads *f* at one end and screw-threads *f'* on the other, and these are passed through one side of the lower part of the curb, into which the heads are countersunk, and around the barrel and through the other side of the curb, and resting all around directly on the staves. Screw-nuts *g* are now run on the screwed ends of these center hoops, and turned until the hoops draw the edges of the staves closely together, and the nuts are likewise countersunk in the curb. The dasher (having journals, one of which is square at its outer end) is mounted in collars placed centrally on the inside of the heads, and one of the collars pass through the head to permit a crank-key to be placed on the square end of the journal to give the dasher axial rotation. The details of this arrangement are shown in red lines in the drawings, by which it will be seen that one set of dashers can be folded close up to the other to facilitate their removal from the churn. These parts, however, constituting no part of the subject-matter herein claimed, a detailed description of them is deemed superfluous.

It is obvious from the foregoing description that whenever the staves may shrink apart at the center of the barrel they may be tightened by a few turns of the nuts *g* so as to be perfectly water-tight.

My invention thus enables me to secure a large opening in the barrel-churn, (to insert a large dasher, and to keep the churn clean in all its parts with certainty and comparative ease,) while the strength of the central portion of the barrel is absolutely secured, and any shrinkage of the staves can easily be corrected.

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

The combination of the curb, the tightening screw-hoops, and the barrel of the churn, when constructed, arranged, and operated substantially in the manner described, and for the purposes set forth.

In testimony thereof I have hereunto subscribed my name.

LUCIUS H. MUZZY.

Witnesses:

REUBEN MILLER,
G. W. BALIE.