

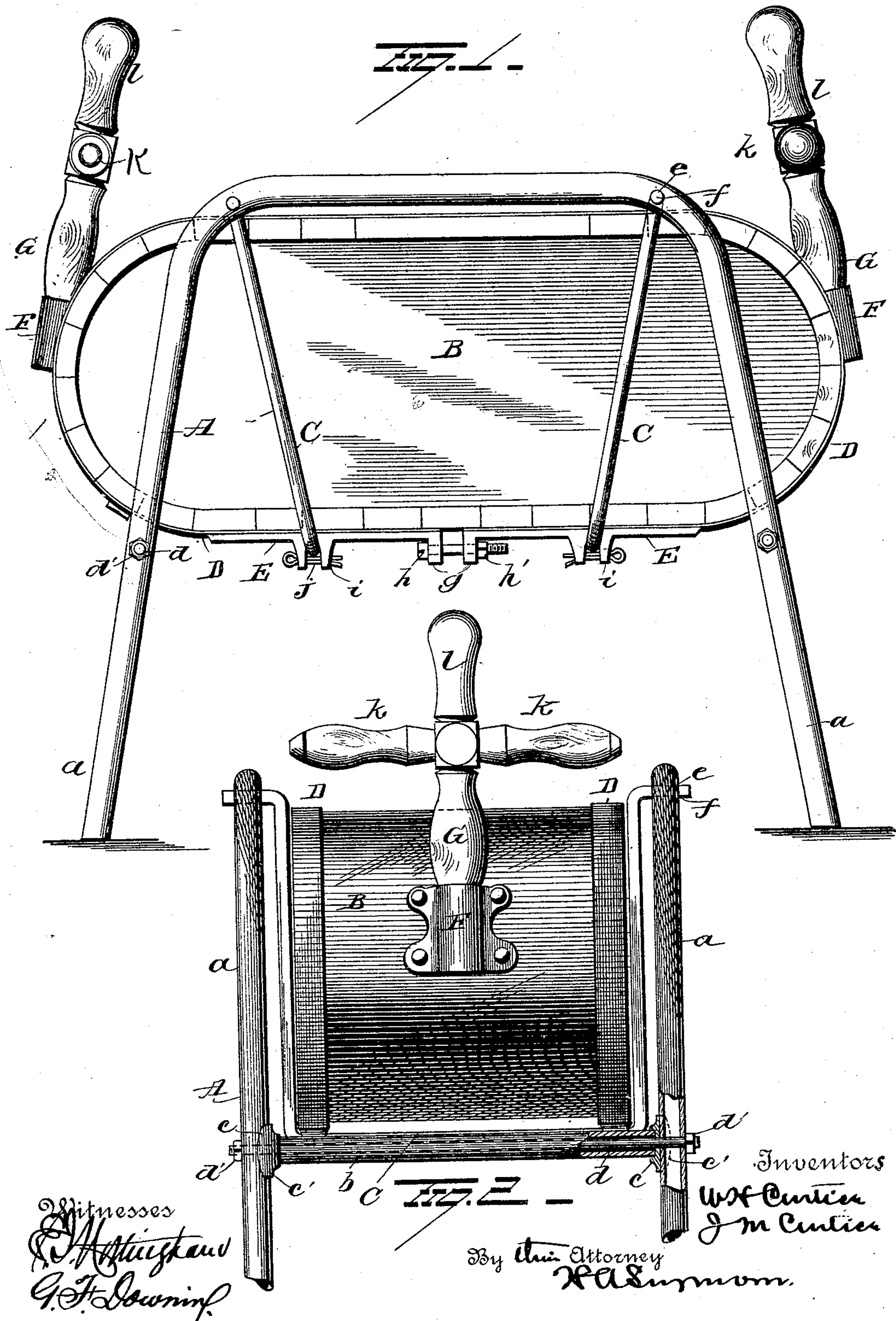
(No Model.)

2 Sheets—Sheet 1.

J. M. & W. H. CURTICE.
CHURN.

No. 459,347.

Patented Sept. 8, 1891.



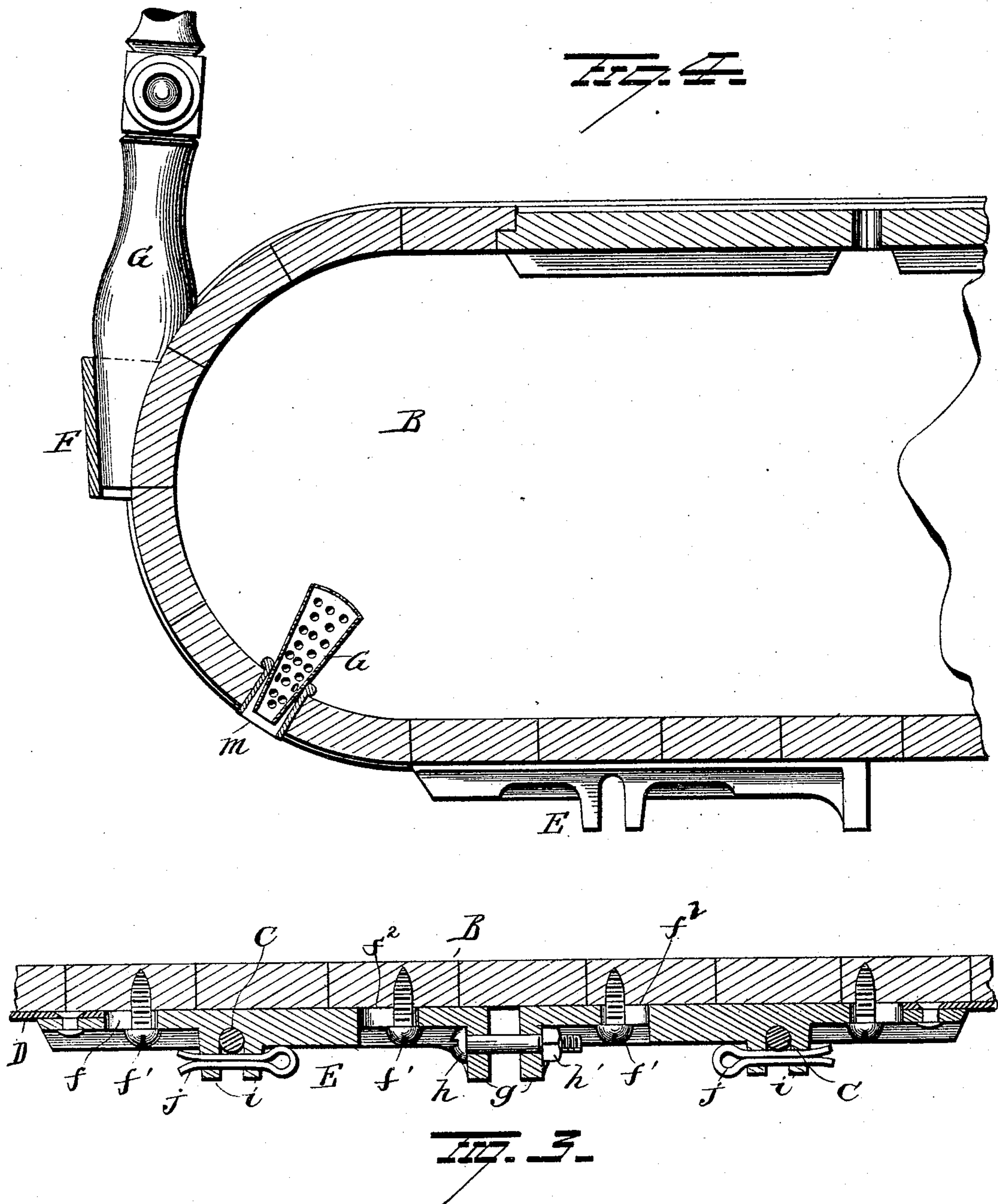
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2 Sheets—Sheet 2.

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Witnesses

E. H. Thompson
G. J. Downing

Inventors

W. H. Curtice
J. M. Curtice

By this Attorney

W. A. Simpson

UNITED STATES PATENT OFFICE.

JESSE M. CURTICE AND WILLIAM H. CURTICE, OF LOUISVILLE, KENTUCKY,
ASSIGNORS TO CURTICE BROTHERS, OF SAME PLACE.

CHURN.

SPECIFICATION forming part of Letters Patent No. 459,347, dated September 8, 1891.

Application filed September 9, 1890. Serial No. 364,451. (No model.)

To all whom it may concern:

Be it known that we, JESSE M. CURTICE and WILLIAM H. CURTICE, citizens of Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Churns; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to an improvement in churns, and more particularly to that class known as "working-body" churns, its object being to so construct the churn that when rocked or swung the contents thereof will be thoroughly agitated.

A further object is to so construct the churn-body that it shall be substantial and warping of the component parts thereof effectually prevented.

A further object is to provide an improved frame for supporting the churn-body.

A further object is to produce a working-body churn which shall be simple and substantial in construction, cheap to manufacture, and effective in the performance of its functions.

With these objects in view the invention consists in certain novel features of construction of parts, as hereinafter set forth, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a side elevation of the churn. Fig. 2 is an end view of the same. Fig. 3 is a detached view of one of the binding-straps and attached parts. Fig. 4 is a detached view of the outlet-spout and strainer therein.

A represents the frame in which the churn-body B is mounted.

The frame A is preferably composed of two standards *a a*, made of iron pipe and bent in inverted-U shape, and connected by cross bars or rods *b* of the same material. The cross-bars *b* are located about midway between the upright portions of the standards *a*, and are provided at each end with collars *c*, having flanges *c'*, adapted to embrace the standards *a*. A rod *d* is passed through each rod *b* and through perforations in the uprights *a*, and provided at their ends with nuts *d'*.

In this way a frame is produced which is very simple as well as substantial in construction.

At the junction of the upright portion and the horizontal portion of each standard *a* perforations *e* are made for the reception of the outwardly-projecting arms *f* of two swinging brackets or hangers C, said brackets or hangers being composed of iron rods bent in U shape and adapted to receive and support the churn-body B, as presently explained. The churn-body B is preferably made of rectangular form, having rounded ends and provided at its edges with bands or straps D of sheet-brass or other suitable material. The ends of each band D at the under side of the body B are attached by means of a rivet or otherwise to iron plates E. The plates E are provided with elongated slots *f²* for the reception of screws *f'*, by means of which the plates E may be adjustably secured to the churn-body, and at their inner ends said plates are provided with perforated ears *g* for the reception of bolts *h*. Each bolt *h* is provided at one end with a head, and at the other end is screw-threaded for the reception of a nut *h'*, whereby the plates may be drawn together, or approximately so, and the bands or straps D tightened. At points between its ends each plate E is provided with two ears *i*, which project downwardly and are adapted to receive between them the horizontal portions of the U-shaped swinging brackets or hangers C, and to maintain said hangers in place between the ears *i* said ears are perforated and keys *j* passed through said perforations. The ears *i* are so located relatively to the ends of the churn-body and frame that when the body B is at rest the brackets or hangers C will assume diagonal positions, or, in other words, so that the pivotal connection of said brackets or hangers will be farther removed from the horizontal axis of the churn-body than the connection of said brackets or hangers to the body. By this construction the churn-body will be permitted to have a decided rocking movement, as well as a reciprocating movement, and in its rocking movement will mark a comparatively small arc of a circle. Thus it will be seen that at each movement of the churn-

body the contents will be thrown violently to one end of the body and caused to rise toward the top thereof and fall by their own gravity, thus causing said contents to be kept in a state of violent agitation during the entire movement of the churn-body.

At each end of the churn-body a socket-piece F is secured and adapted to receive a handle G. This handle G is preferably made with two hand-pieces k l , as shown in Fig. 2, the handle k projecting at right angles to the handle l , so that the churn may be worked from either or both ends and with either one or both hands.

At one end of the churn-body an opening is provided for the reception of the outlet-spout m , which may consist of a metallic thimble adapted to project slightly beyond the exterior of the body and be closed in any suitable manner. Inserted in the spout is a strainer G' , made of perforated metal and of conical shape, as shown in Fig. 4, and having its larger end, which projects into the interior of the churn-body, closed by a piece of the same material.

It is evident that slight changes might be

made in the details of construction of our invention without departing from the spirit thereof or limiting its scope. Hence we do not wish to limit ourselves to the precise details of construction herein set forth; but,

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

In a churn, the combination, with a churn-body, of open bands passing around the latter and provided with sockets near their ends, said bands connected to slide endwise on the churn-body at their ends, and means connected with the ends of the bands for drawing the ends of the bands together to tighten the bands and draw the sockets toward each other, substantially as set forth.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

JESSE M. CURTICE.
WM. H. CURTICE.

Witnesses:

W. S. PARKER,
L. L. ANDERSON.