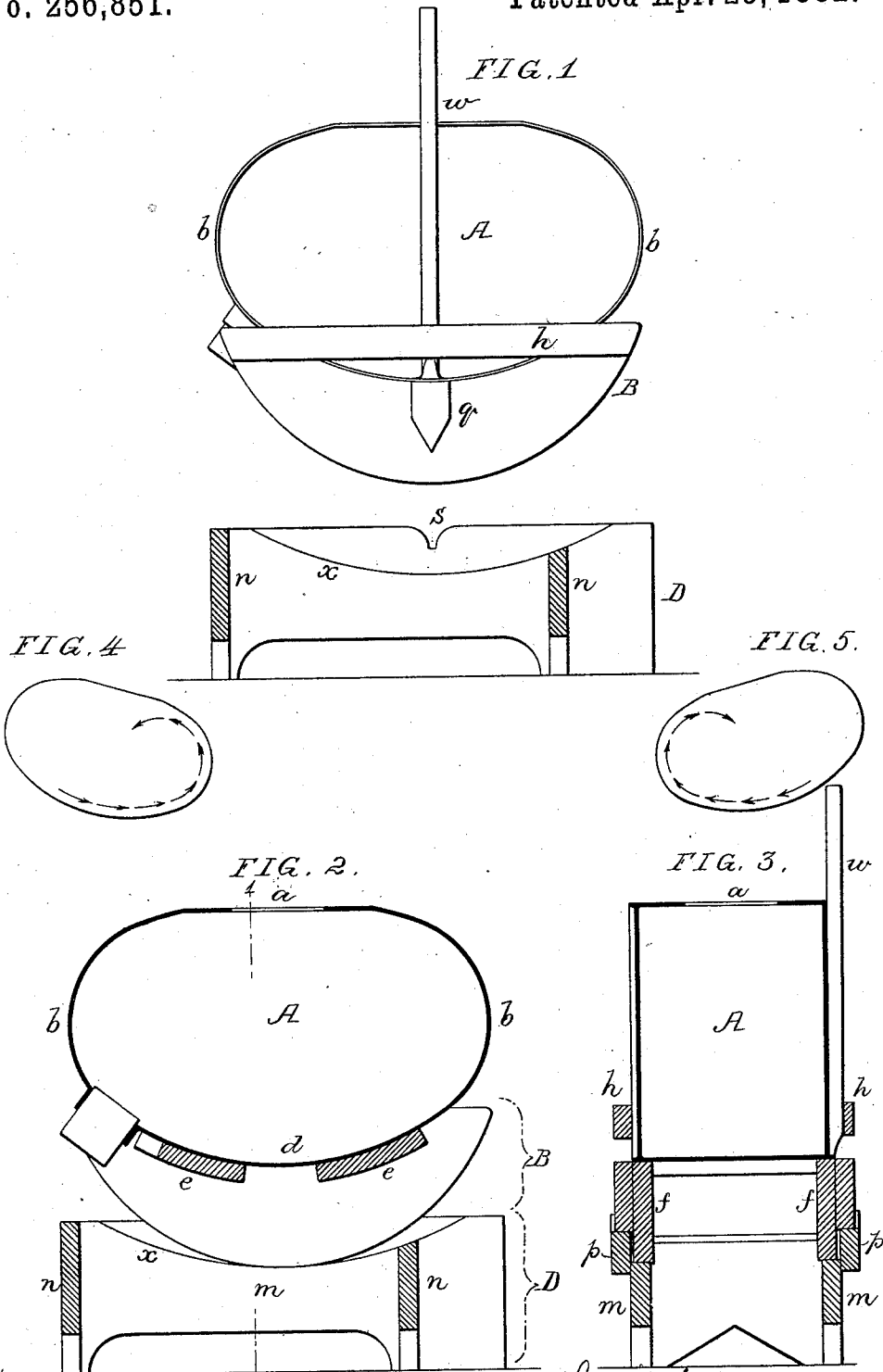


(No Model.)

B. H. OVERHISER.
CHURN.

No. 256,851.

Patented Apr. 25, 1882.



Witnesses:
James F. John,
Harry Smith

Inventor:
Benjamin H. Overhiser
by his Attorneys,
Howson and Son.

UNITED STATES PATENT OFFICE.

BENJAMIN H. OVERHISER, OF ORWELL, VERMONT.

CHURN.

SPECIFICATION forming part of Letters Patent No. 256,851, dated April 25, 1882.

Application filed November 19, 1880. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN H. OVERHISER, a citizen of the United States, residing in Orwell, Addison county, Vermont, have invented certain Improvements in Churns, of which the following is a specification.

My invention consists of a churn constructed in the peculiar manner fully described hereinafter, with the view of causing such an agitation of the cream as to facilitate its conversion into butter.

In the accompanying drawings, Figure 1 is a side view of the body and rocking frame of the churn raised from the base, which is shown in section; Fig. 2, a vertical section; Fig. 3, a transverse section on the line 12; and Figs. 4 and 5 diagrams drawn to a reduced scale and illustrating the action of the churn.

The body or vessel A of the churn may be made of the shape shown in Figs. 2 and 3—that is to say, with a flat top, *a*, and rounded opposite ends, *bb*, which merge into the bottom *d*, the latter being made in the arc of a circle less abrupt than the ends, the sides of the vessel being flat, as shown in Fig. 3.

The rocking frame B consists of the opposite rockers, *ff*, the transverse pieces *ee*, and the longitudinal strips *h h*, secured one to each rocker. The cross-pieces *ee* of the rocking frame are so adapted to the base *d* of the body as to afford a proper support for the same, and the side strips, *h h*, serve to maintain the body in its proper lateral position.

The base D consists of the opposite side pieces, *mm*, and cross-pieces *nn*, connected to the said side pieces, on which are the ways *x*, made in the arc of a circle, and which form the bearings for the rockers *f*, side strips, *pp*, secured to the base serving to maintain the rocking frame in its proper lateral position.

It is essential to my invention that the rockers should be made in the arc of a circle of less diameter than that of the circle of which the ways *x* are the arcs—a feature the successful result of which may be explained as follows:

On rocking the frame and churn-body to and fro it will be gradually arrested at and near the termination of each movement, owing to

the fact that there is a slight elevation of the rocking frame B and vessel A at such times, owing to the concave form of the ways on which said frame rocks. As the vibration of the vessel is arrested at each end of the movement, the cream, owing to curved bottom *d* and rounded ends *b'* of the vessel, will naturally take the course pointed out by the arrows in Figs. 4 and 5; or, in other words, there will be a displacement of the cream at the end of each vibration, and such a general agitation of the cream as to facilitate its conversion into butter. Any tendency of the moving mass of cream to cause the tipping over of the vessel A as it is vibrated is counteracted by the gradual checking of the movement of the vessel near each limit of such movement.

In order to retain the rocking frame within proper limits, I sometimes attach to each side of the rocking frame a pointed projection, *g*, the lower end of which is contained in a recess or notch, *s*, formed on the side of the base, the recesses being too large, compared with the size of the projections, to interfere with the proper operation of the frame.

An operating-handle, *n*, is secured to the side of the vessel, which has at the top a suitable opening through which to pour the cream and withdraw the butter, and a suitable outlet from which the buttermilk may be discharged on removing the plug.

The body A simply rests on the rocking frame, there being no fastenings to interfere with its prompt removal from the said frame.

I claim as my invention—

The combination of the vessel A, free from internal agitating devices, and having a rounded bottom and curved ends of less radius than the bottom, with rockers B, and a base having ways made on a curve less abrupt than the curve of the rockers, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

BENJAMIN H. OVERHISER.

Witnesses:

DAVIS S. WELLS,
J. S. WILCOX.