(No Model.)

A. B. WARD.

CHchurn.

No. 266,564. Patented Oct. 24, 1882.

Fig. 1

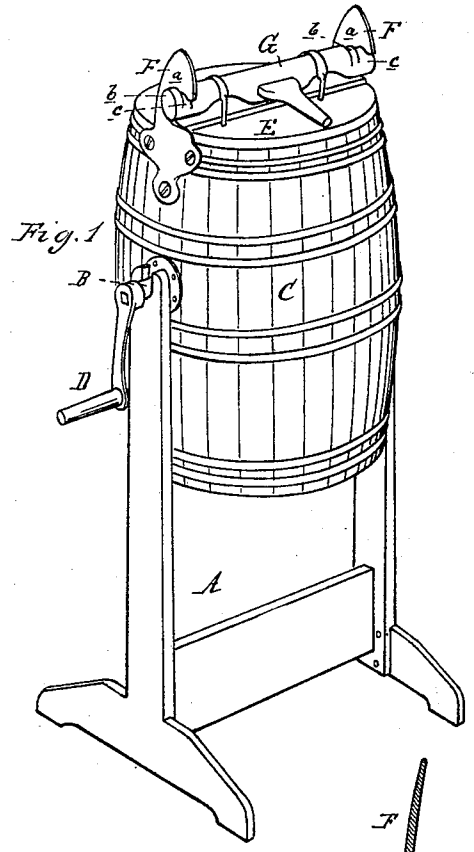
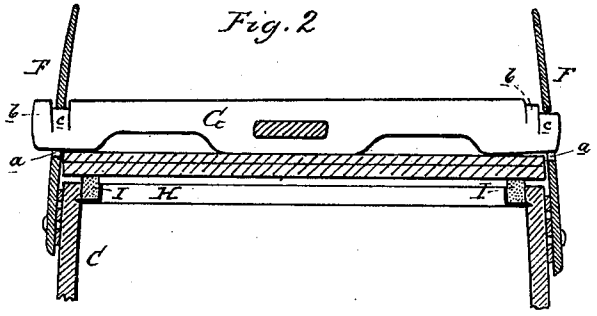


Fig. 2



Attest:
A. Barthel
B. J. Sprague

Inventor:
Arthur B. Ward
by his Atty Wm. S. Sprague

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

ARTHUR B. WARD, OF MILLINGTON, MICHIGAN.

CHURN.

SPECIFICATION forming part of Letters Patent No. 266,564, dated October 24, 1882.

Application filed September 16, 1882. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR B. WARD, of Millington, in the county of Tuscola and State of Michigan, 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.

The nature of this invention relates to certain new and useful improvements in the construction of churns; and the invention consists in the peculiar construction, arrangement, and various combinations of the parts, all as more fully hereinafter set forth.

Figure 1 is a perspective view of my improved churn. Fig. 2 is a central vertical section of the same.

In the accompanying drawings, A represents a suitable frame, the upper ends of the standards of which form bearings for the trunnions B, which are secured to the barrel churn-body C, and which latter is rotated by means of a crank-handle, D.

One end of this churn is closed by a rigid head, as in the ordinary manner, while the opposite end is provided with a removable head or cover, E. Secured to opposite sides of the churn-body, at the open end, are the ears F, which project beyond the end of the churn and are slotted, as shown at *a*. G represents a cam-bar, properly secured to the top of the cover, there being two or more cam-projections upon the lower side of said bar, while upon the opposite side there are two sets of cams, *b c*, either of which may be made to engage with the ears F.

In the open end of the churn-body I place an annular angle-iron, H, one edge of which is retained in a croze and is held therein by the compression of the staves, as in the ordinary manner of securing a head. In the channel formed by this angle-iron I place a ring, I, of cork or other suitable packing, which projects above the chine.

After the milk to be churned has been placed in the churn the cover is put in position and secured by turning down the lever L, which causes an engagement of the cams with the cover and the ears, thus securely locking the cover in place and forcing the same down upon the packing, forming a water-tight joint. When the packing has become compressed by frequent use, so that the cam-shoulders *c* do not force the cover down sufficiently, the cam-bar may be moved laterally, so as to cause the engagement of the cams *b* with the ears.

What I claim as my invention is—

1. In combination with a churn, C, provided with the ears F, the cover E, and cam-bar G, provided with a series of cams upon opposite sides, substantially as set forth.

2. In combination with a churn body, C, provided with an adjustable cover, E, the annular angle-iron H and packing I, substantially as specified.

3. A churn consisting of the body C, cover E, cam-bar G, annular angle-iron H, and packing I, adapted to be rotated in a suitable frame, substantially as and for the purposes herein described.

ARTHUR B. WARD.

Witnesses:
H. S. SPRAGUE,
H. STANLEY.