C. A. SANDS.

BUTTER-WORKER.

No. 190,252. Patented May 1, 1877.

Fig. 1.

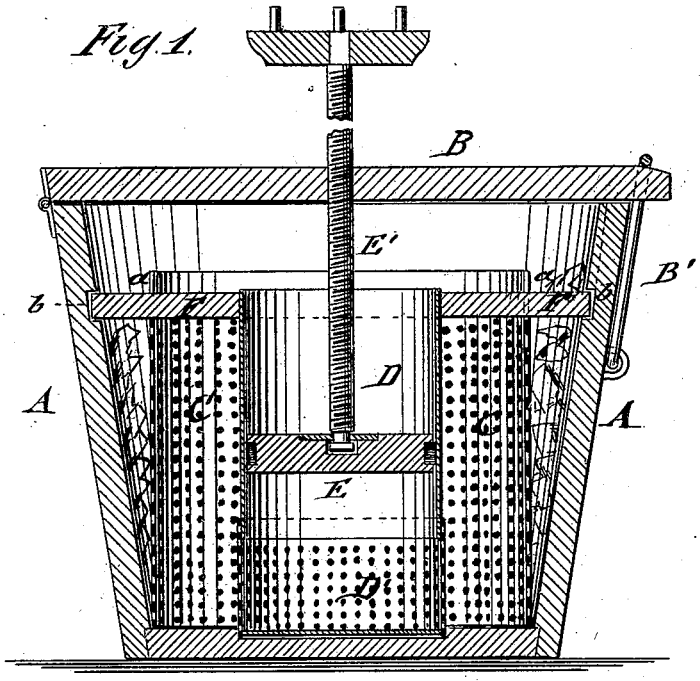
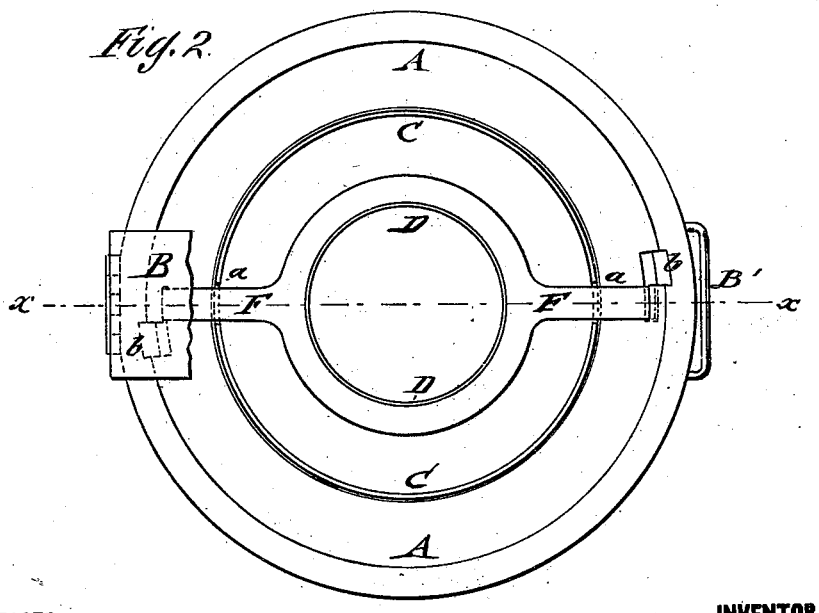


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES A. SANDS, OF BURLINGTON, KANSAS.

IMPROVEMENT IN BUTTER-WORKERS.

Specification forming part of Letters Patent No. **190,252**, dated May 1, 1877; application filed February 3, 1877.

To all whom it may concern:

Be it known that I, CHARLES A. SANDS, of Burlington, in the county of Coffee and State of Kansas, have invented a new and Improved Butter-Worker, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a vertical transverse section of my improved butter-worker on line *x x*, Fig. 2; and Fig. 2 is a top view of the same with follower removed.

Similar letters of reference indicate corresponding parts.

The invention relates to an improved apparatus for working butter, so as to separate the buttermilk, for the purpose of avoiding the greasy condition which most butter obtains by too much handling, while it also cools the butter ready for salting.

The invention consists of a tub with perforated screen, forming with the tub an ice-chamber and an interior cylinder perforated at the lower part, through which the butter is forced by a screw-follower. The interior cylinder and screen are secured detachably to the tub by a diametrical and encircling bar that enters locking-recesses of the tub.

In the drawing, A represents the tub, and C a cylindrical perforated screen that forms with the tub an ice-chamber. A diametrical top piece, B, is hinged to one side of the tub and locked at the opposite side by a hinged bail, B′. The piece B carries the screw-rod E′ of the follower E, that is raised or lowered in an interior cylinder, D, by a top hand-wheel, the follower being provided with a packing-ring to fit tightly into the cylinder D. The lower part D′ of the cylinder D is perforated, for the purpose of forcing the butter from the interior through the perforations into the space between screen and cylinder. The screen and cylinder are firmly retained in position by a diametrical bar, F, that is seated in recesses *a* of the screen and extended around the cylinder, the ends locking into L-shaped recesses *b* at diametrically-opposite points of the tub.

When the locking-bar is turned in the recesses *b* it may be detached from the tub, and the screen and cylinder taken out of the tub, so that all the parts may be thoroughly cleaned, the follower having been first removed by being screwed up until clearing the cylinder, and being then swung with the top piece to the outside of the tub.

When the tub is used for work it is filled with water, which is cooled by the ice placed between screen and tub. The cold water rises to the same level in the interior cylinder as in the outer screen, the butter being placed into the cylinder and forced down by the action of the follower, lowered by the hand-wheel of the screw-shaft.

The butter is forced through the lower perforated part of the cylinder and rises in finely-separated condition, vermicelli like, through the cold water in the space between the cylinder and screen to the surface of the same, when the same process may be repeated, if necessary, to separate the buttermilk entirely from the butter, which is at the same time kept cool for salting. The finely-divided condition of the butter exposes the same thoroughly to the washing action of the water, so that the milk is quickly and effectively separated, and a superior and less greasy butter obtained that is thus less exposed to get rancid and assume the greasy condition in which most butter is sent to market.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A butter-worker, consisting of a tub, perforated screen, interior cylinder with lower perforated part, and sliding follower, the whole constructed and operated substantially as and for the purpose set forth.

2. The combination of the interior cylinder D, recessed screen C, and tub A, having L-shaped recesses with a detachable locking-bar, F, seated in the recesses of screen and tub, and encircling the inner cylinder, to admit ready taking out and cleaning of parts, substantially as specified.

CHARLES A. SANDS.

Witnesses:

PAUL GOEPEL,

C. SEDGWICK.