N. B. BROWN.
Churn.

No. 205,045. Patented June 18, 1878.

Fig. 1.

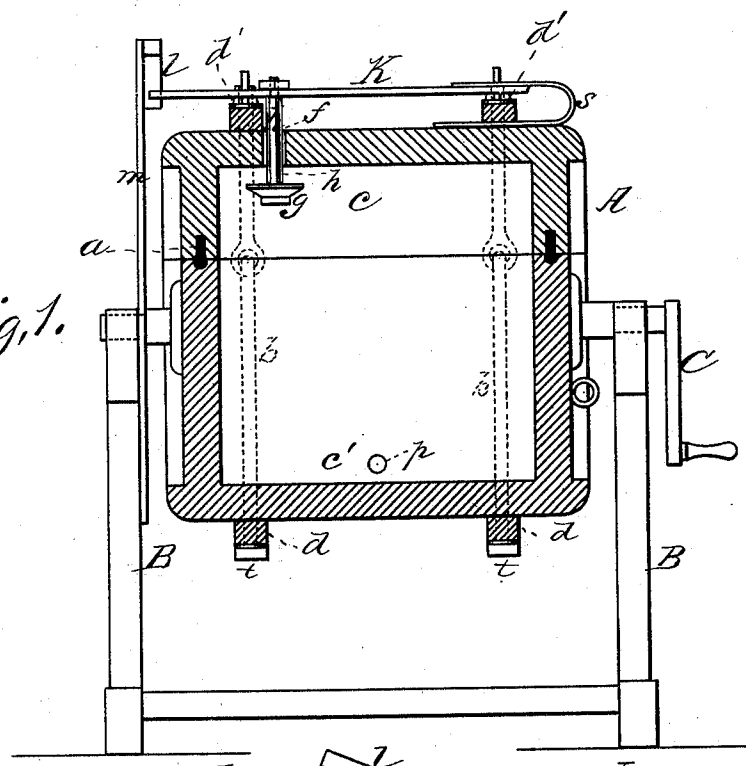
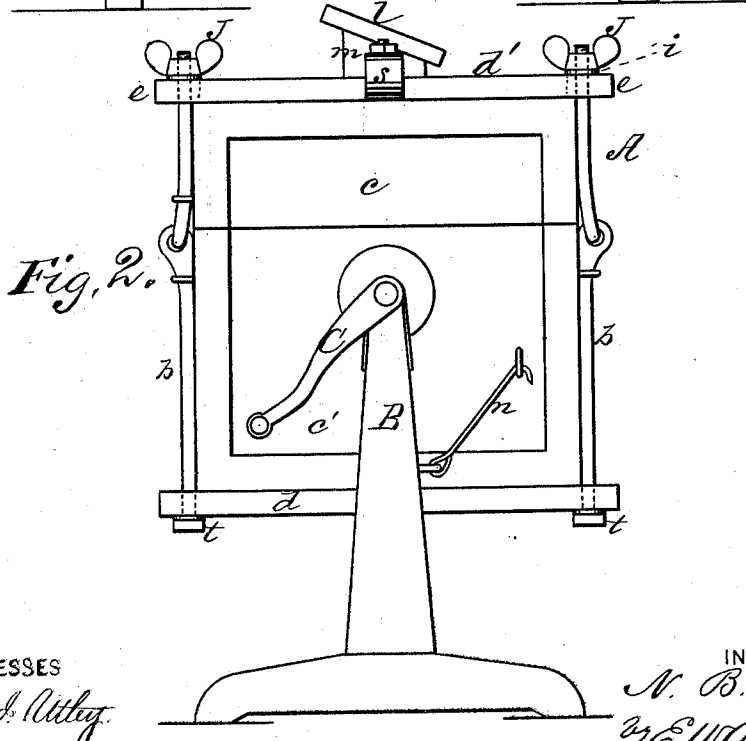


Fig. 2.



WITNESSES
Mary J. Utley.
F. J. Mash.

INVENTOR
N. B. Brown,
by E. W. Anderson.
ATTORNEY

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

NATHANIEL B. BROWN, OF ANTWERP, NEW YORK.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. **205,045**, dated June 18, 1878; application filed May 14, 1878.

To all whom it may concern:

Be it known that I, NATHANIEL B. BROWN, of Antwerp, in the county of Jefferson and State of New York, have invented a new and valuable Improvement in Churns; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a vertical section of my improved rotary churn, and Fig. 2 is an end view thereof.

This invention has relation to improvements in revolving box-churns; and the nature of the invention consists in the construction and novel arrangement of parts, as will be hereinafter more fully explained.

In the annexed drawings, the letter A designates an ordinary churn-box, journaled so as to rotate vertically in a stand, B, and actuated by means of a crank, C, or by other suitable mechanism. This box is preferably square, and is made in two sections, *c c'*, the former being the shallower of the two. Section *c* has upon its edge a rubber or other suitable packing, *a*, that is let into a sufficiently deep groove formed therein to hold it properly, and section *c'* a shallow groove in its edge, into which the said packing is received.

The sections *c c'* are clamped together by means of the jointed rods *b*, extending through cleats *d* upon the bottom of the section *c'*, and prevented from being drawn out of said cleats by a nut, *t*, applied in the usual way upon their ends. The upper ends of these rods engage notches *e* in similar cleats *d'* upon the box-section *c*, and, a washer, *i*, having been passed over their ends, set or thumb screws J are applied thereon, which, being set up, effectually clamp the sections of the box together, compressing the packing, and forming a perfect joint.

The section *c* has a vent-hole, *f*, closed by a valve, *g*, upon the end of a rod, *h*, which is secured to a lever, K, connected at one end to the top of the section by a U-shaped spring, *s*. This lever extends outward beyond the side of the box, and at each revolution of the latter comes in contact with an inclined cam-strip, *l*, secured to an upright, *m*, erected on the stand, and is depressed thereby, thus opening the valve and ventilating the box.

Sometimes, if I so elect, the lever may be hinged to the top of section *c*, and the valve held against the vent by a coiled or other spring interposed between the lever and lid-section.

By loosening the set-screws and disengaging the rods from the notches in the cleats *d'*, the lid-section *c* may be removed bodily, exposing the whole interior of the section *c'*, in which the butter may be then worked, salted, and otherwise prepared for market. The section *c'* is held steady during these operations by a hook, *n*, and the buttermilk drained off through a hole in the side, closed by a spile or plug, *p*, or by means of a suitable faucet.

This box being made in sections, every part of its interior can be got at and cleaned and exposed to the sunlight. It is thus very easily kept sweet and fresh.

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

1. The combination, with the section *c'*, having cleats *d* across its bottom, and the section *c*, having similar cleats *d'*, with end notches *e*, of the jointed rods *b*, secured to cleats *d*, and adapted to be received in the notches *e* of cleats *d'*, and the clamp-nuts J, substantially as specified.

2. The combination, in a rotary churn, with the box A, having vent *f* in its top, of a valve, *g*, closing said vent, a valve-stem, *h*, a spring-actuated lever, K, and a cam-strip, *l*, above the box, substantially as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

NATHANIEL B. BROWN.

Witnesses:

J. D. RADIGAN,

A. R. HOGAN.