C. W. KINYON & A. T. BROWN.

Rotary Churn.

No. 236,500. **Patented Jan. 11, 1881.**

FIG. 1.

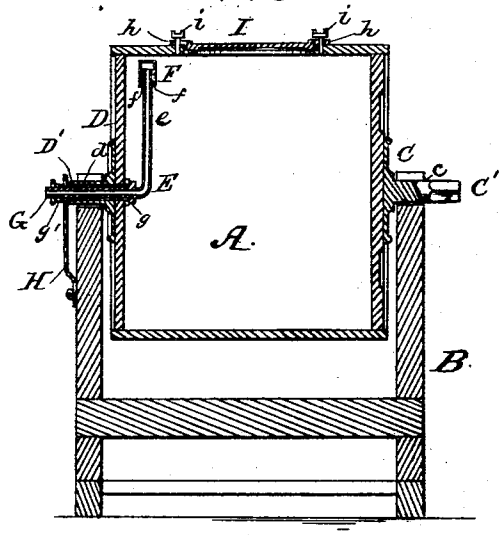


Fig. 4.

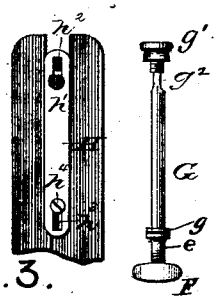


FIG. 2.

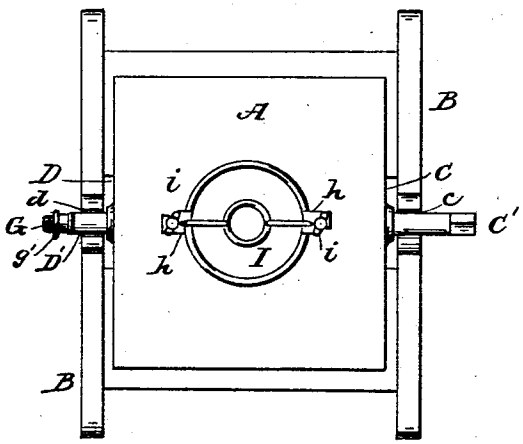
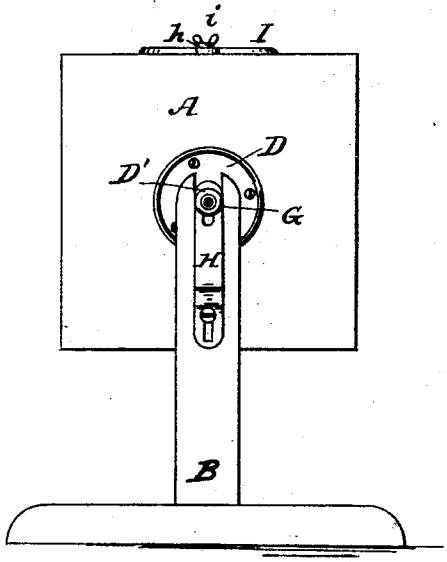


FIG. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES W. KINYON AND ALEXANDER T. BROWN, OF SCOTT, NEW YORK; SAID BROWN ASSIGNOR TO SAID KINYON.

ROTARY CHURN.

SPECIFICATION forming part of Letters Patent No. 236,500, dated January 11, 1881.

Application filed June 23, 1879.

To all whom it may concern:

Be it known that we, CHARLES W. KINYON and ALEXANDER T. BROWN, of the town of Scott, in the county of Cortland and State of New York, have invented certain new and useful Improvements in Rotary Churns; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The invention relates to that class of churns known as "rotary churns," and has for its object to furnish a device for ventilation, as will be more fully hereinafter specified. This object we attain by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 illustrates a vertical sectional view of our improved churn; Fig. 2, a top view; Fig. 3, a side elevation; and Fig. 4, a detached view, showing the ventilating-tube with flattened surfaces, the holding-clasp, and confining-nut.

A indicates the body of a churn mounted on a suitable frame-work, B. The letter C indicates a plate secured to one side of the churn and provided with a shaft, C′, mounted in a journal, *c*, which shaft is adapted to receive the motive power. D indicates another plate, secured to the churn on the side opposite to the plate C, and is provided with a hollow shaft, D′, mounted in a journal, *d*, said hollow shaft being adapted to receive one arm of an elbow ventilating-tube, E. The inside or vertical arm, *e*, of the ventilating-tube E is provided with a hood, F, fitted over the end of said arm, the said hood being provided with openings *f f*, which connect with the opening in the upper end of the arm *e*. The arm G, which passes through the hollow shaft D′, is provided near the elbow with a shoulder, *g*, which is adapted to bear against the inner side of the churn. The outer end of said arm is screw-threaded and receives a screw-threaded nut, *g′*. Said arm is flattened on each side, as shown at g^2, and, by means of an adjustable clasp, H, having eye *h′* and connected slot h^2, said clasp H being vertically adjustable by means of a slot, h^3, and set-screw h^4, as shown, said tube is prevented from turning with the shaft through which passes the arm G, and the arm *e* is securely held in a vertical position during the revolution of the churn-cylinder.

We furnish a cover, I, either of wood or metal, provided with projecting and oppositely-turned hooks *h h*, adapted to be secured by means of thumb-screws *i i*.

We are aware that it is not new to furnish an elbow vent-tube or ventilator having a thumb-screw in an adjustable lever, said thumb-screw being intended to hold the ventilating-tube in a fixed position; but with such construction there is liability to injure the tube by the continuous grinding friction of the screw when the churn is in operation, as must be obvious.

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

1. The combination of the hollow revolving shaft D′, journaled as shown, the nut *g′*, and adjustable clasp H *h′* h^2 h^3, with the elbow-ventilator E G *e*, having hood F, provided with connecting-openings *f f*, and flattened at point of contact with the adjustable clasp H, to prevent turning, substantially as and for the purpose set forth.

2. The clasp H, having slots *h′* h^2 h^3, as shown, one to adjustably secure the same to the frame B, and the other to grasp the flattened portion g^2 of the vent-tube E G, combined with said ventilator, the hollow revolving shaft D′, and suitable set-screw, h^4, as and for the purpose set forth.

In testimony that we claim the foregoing as our own we have affixed our signatures in presence of two witnesses.

CHARLES W. KINYON.
A. T. BROWN.

Witnesses:
C. H. REID,
L. SCHULTZ.