W. F. & N. DAVIS.

Churn.

No. 9,416.

Patented Nov. 23, 1852.

Fig. 1.

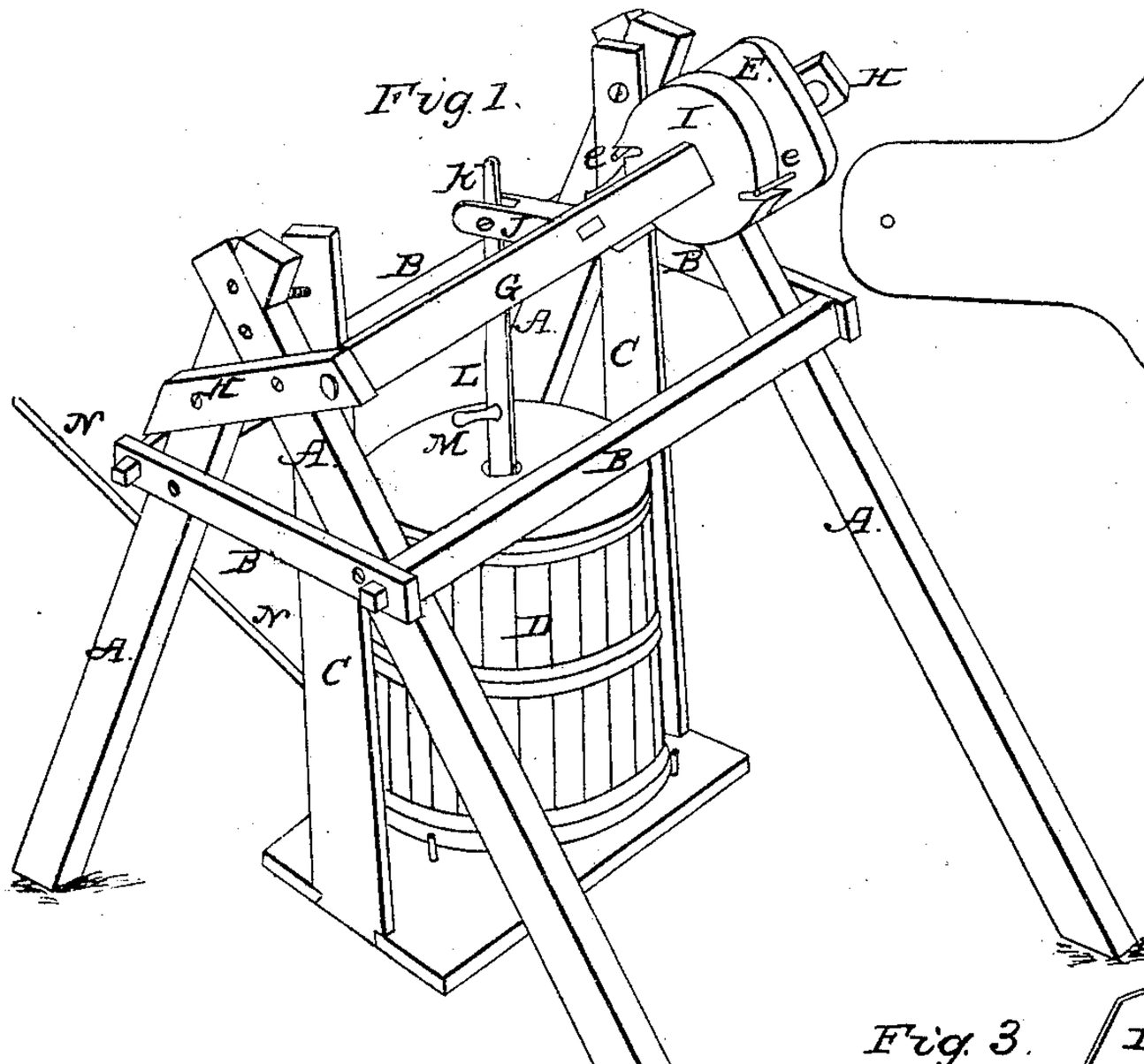


Fig. 2

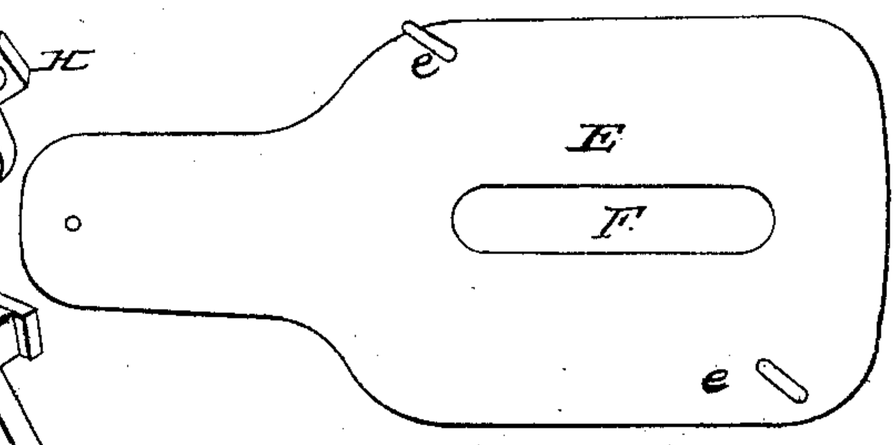


Fig. 3.

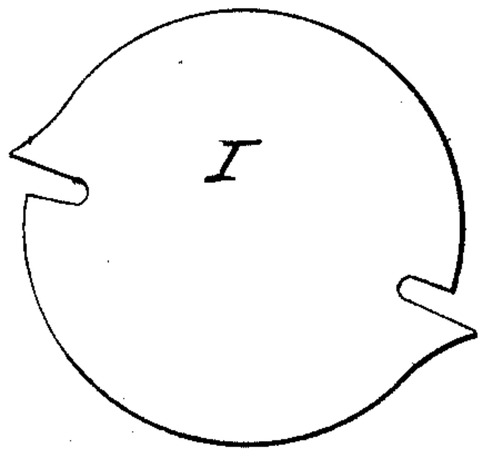
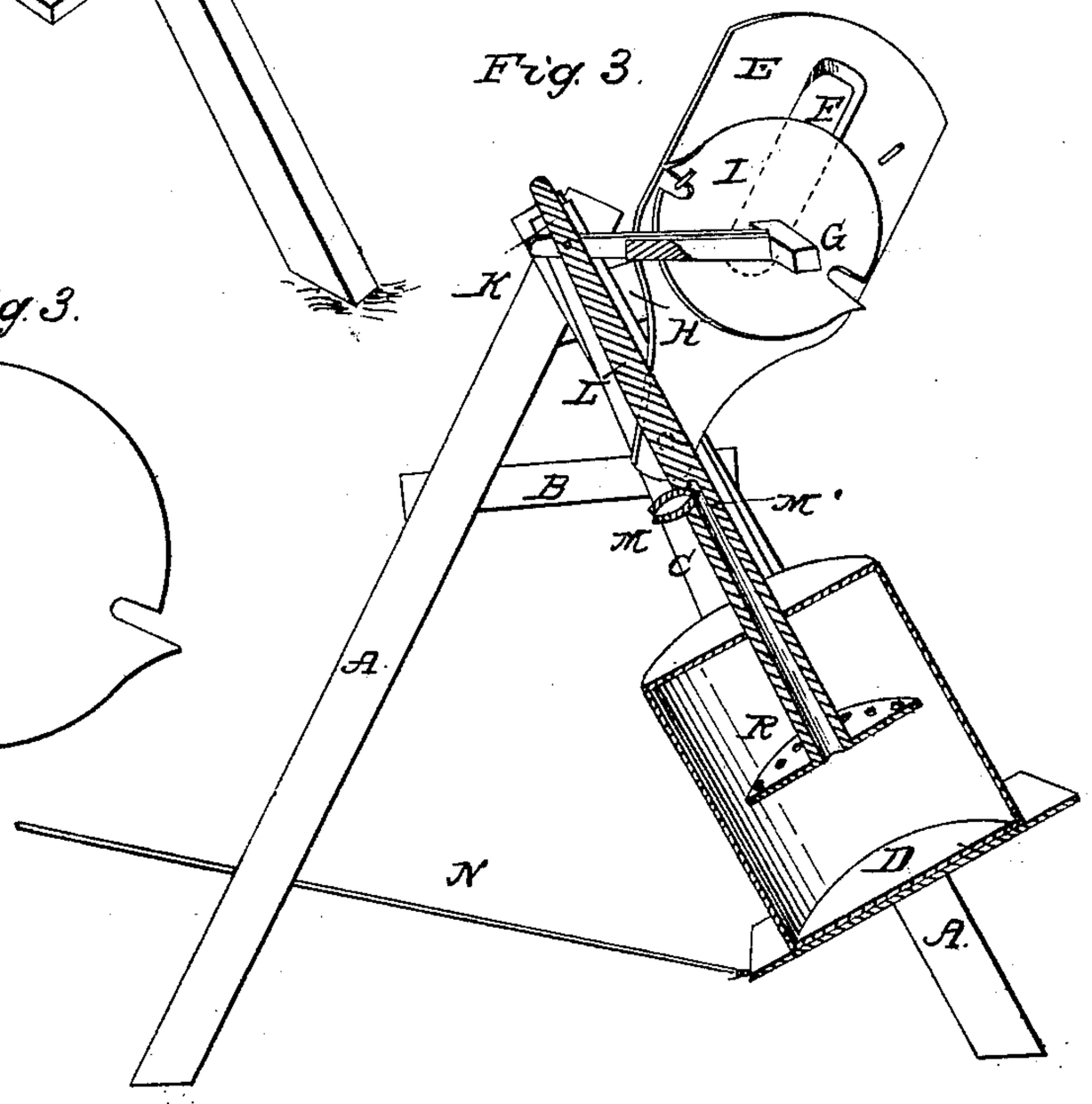


Fig. 3.



UNITED STATES PATENT OFFICE.

WM. F. DAVIS AND NATHAN DAVIS, OF CASTLETON, VERMONT.

SWINGING CHURN.

Specification of Letters Patent No. 9,416, dated November 23, 1852.

To all whom it may concern:

Be it known that we, WILLIAM F. DAVIS and NATHAN DAVIS, of Castleton, in the county of Rutland and State of Vermont, have invented a new and useful Improvement in Churns, denominated "The Oscillating Double-Acting Dash-Churns;" and we do hereby declare that the following is a full and exact description and operation of the same, reference being had to the annexed drawings, making a part of this specification.

The parts in the drawings marked by the letter A are the standards 2 by 1 inches square and 3½ feet long fastened together at the top spreading three feet at the bottom and set upright in pairs 15 inches apart.

The letter B designates the parts of a frame fastened to the standards on the outside for the purpose of steadying the same.

C indicates the parts of the swing or pendulum frame which is made of three pieces of board, one 13 by 14 inches square is fastened to the lower extremity of the two upright pieces which are two inches wide at top and three at the bottom. These upright pieces hang from pins or otherwise passing through them near their tops and also through the standards where they unite at top.

D refers to the tank for containing the cream or milk and is suspended in the pendulum frame. To one of the pendulum bars is attached a connecting board E, the full view of which is seen in the sectional drawing Figure 4. The connecting board E is two inches wide at the end where it is connected with the pendulum bar by means of a pin. The other end is from six to eight inches wide having a slot F in the middle of sufficient capacity to admit of its sliding easily on the rock shaft. This board also contains two pins *e*, *e* the use of which is hereafter described.

G is a rockshaft rounded at the end where it passes through the slot F in the connecting board, and has its points of support in the upper extremity of two diagonal framed cross pieces marked by the letters H, H.

I is a wheel fastened permanently to the rockshaft, by the side of which wheel the connecting board moves. This wheel has two notches cut in it opposite each other of sufficient capacity to receive the pins *e*, *e*.

J is a lever framed permanently into the rockshaft, the other end of which is attached to the dash stick at K by means of mortise and pin. L the dash stick is perforated with a hole ¾ of an inch in diameter extending up to the letter M where a valve is inserted opening into and (reference being had to Fig. 4,) for the purpose of preventing a vacuum underneath the dash.

N, refers to the staff for the purpose of communicating motion to the swing.

Now all of the parts being in their proper place motion is communicated to the swing by means of the staff N. As the swing moves from the center toward the right motion is communicated to the wheel I by means of the upper pin *e*, entering its respective notch, which motion is communicated to the rockshaft and raising the dash by means of the lever I. When the swing returns toward the center a transverse motion is produced by reason of the notch not permitting the pin to pass out until it regains the position which it occupied when the pin entered it. As the swing moves from the center toward the left and back the upper pin leaves the upper notch and the lower pin enters its respective notch, producing substantially the same result as when the upper pin entered the upper notch and passed toward the right and back. Thus we produce two complete motions of the dash from one full oscillation of the pendulum bars.

Now what we claim as our invention and desire to secure by Letters Patent is—

The combination of the swing slotted board wheel rockshaft and lever for the purpose of producing two complete motions of the dash from one full oscillation of the pendulum bars substantially as herein described, to be denominated, the "oscillating double acting dash churn."

WILLIAM F. DAVIS.
NATHAN DAVIS.

Witnesses:
ZIMRI HOWE,
ISAAC DAVIS.