D. OSGOOD, Jr.

Churn.

No. 831. Patented July 9, 1838.

Fig. 1.

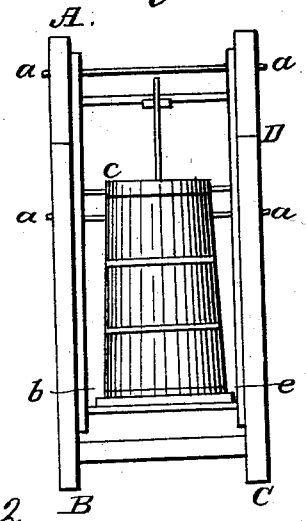


Fig. 2.

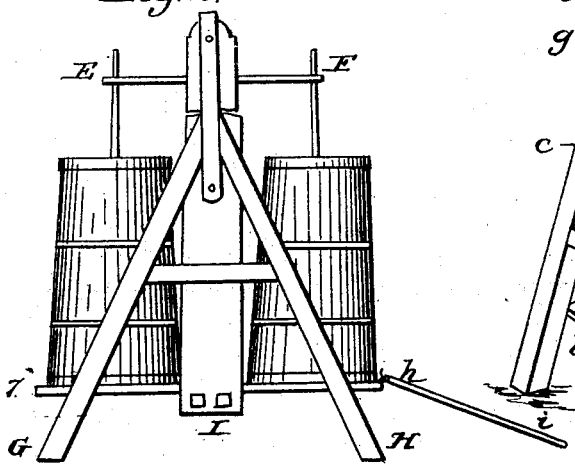
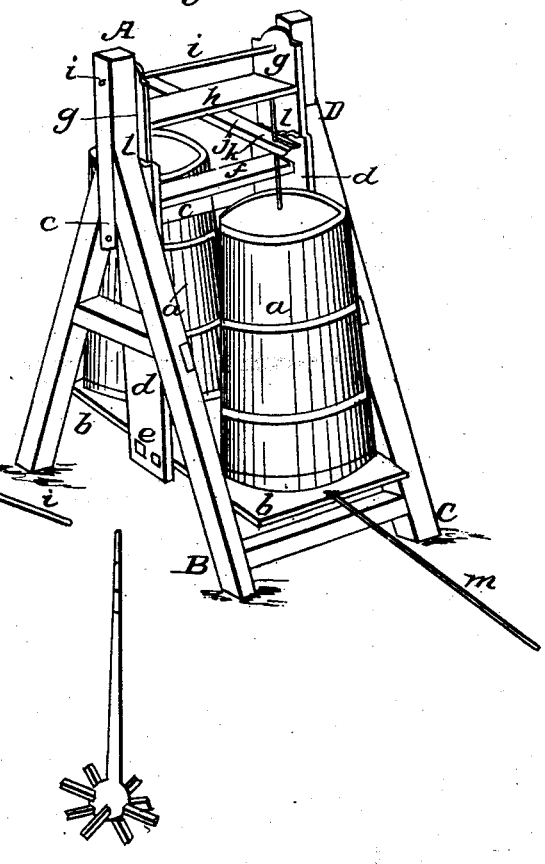


Fig. 3.



UNITED STATES PATENT OFFICE.

DANIEL OSGOOD, JR., OF BLUEHILL, MAINE.

CHURN FOR CHURNING BUTTER.

Specification of Letters Patent No. 831, dated July 9, 1838.

To all whom it may concern:

Be it known that I, DANIEL OSGOOD, Jr., of Bluehill, in the county of Hancock and State of Maine, have invented a new Churning-Machine, which I have denominated "Osgood's Double-Swing Churn."

This improvement consists in the machinery by which the dasher of the common hand churn is made to move up and down by the gravity of the machine, and the cream. It is so constructed that the power required in its operation, compared with the common churn is nearly in proportion to the power required to draw a pendulum in its lateral motion compared with that of raising its weight. This saving of labor is acquired by placing two common churns, Figure 3 (*a a*) on a swinging platform (*b*). This platform is made to swing by being suspended in the frame A, B, C, D, by a rod passing through the frame and two pieces (*d d*) rising from the sides of the platform (*b*) and connected underneath it by a strip of board framed into them (*c*) and supported by another bar or strip of board (*f*) at their tops. In order to produce the motion of the dashers, two other pieces of wood (*g g*) of the same size of the side pieces (*d d*) strongly framed together by a bar (*h*,) are suspended and kept in place by another rod, (*i i*,) passing through them and the top of the frame, in the center of the bar (*h*,) and strongly fastened to it runs at right angles a lever (*j*,) to the end of which the dashers (*k*,) are fastened. The ends of the side pieces (*d*, *d*,) and the corresponding upper, pieces (*g*, *g*,) are cut into teeth or cogs (*l l*,) and mesh into each other so that by swinging the platform (*b*,) by the handle (*m*,) backward and forward the end of the lever (*j*,) alternately raised and depressed giving the downward and upward motion to the dashers.

The dimensions of a machine of suitable size for common use are as follows, viz. (Fig. 1, A, B,) is the height of the frame 3 ft. 1 inch, (B, C) the width of ditto 1 ft. 6 inches, (C, D,) length of the legs 2 ft. 8 inches (*a*, *a*, *a*, *a*) ends of the rods which are 1 ft. apart the cogs or teeth are half way between them (*b*, *c*) the height of the churn 1 ft. 7 inches (*c*, *c*,) diameter of the churn at the bottom 14 inches at the top, 12 inches; timber for frame 1½ inches square (Fig. 2, E, F). The beam attached to the dashers, its length from the center of the dashers 1 ft. 4 inches the bigness 2 by 1 inches, (G, H). Spread of the legs 2 ft. 6 inches (*g*, *h*) stand or platform length 2 ft. 6 inches breadth 1 ft. (I,) the pendulum, from the rod it plays on, down to the top of the platform 1 ft. 4 inches, its breadth 5½ inches, thickness ¾ inch; from the rod up to the center of the cogs 6 inches, the center of the beam that is attached to the dashers, is 5 inches below the rod it plays on, cogs or teeth in the upper end of the pendulum, six in the piece above it which matches, with it pins (*h*, *i*,) the handle by which the machine is worked, and is attached to the platform by a hook and staple. When but one churn is necessary, the other may be dispensed with by substituting any other weight in its stead to balance the one that is used.

What I claim as of my invention is—

The manner in which the dashers are worked by the pendulous motion of the churn in manner substantially as above described.

DANIEL OSGOOD, JR.

Witnesses:
JONAH HOLT,
ISRAEL CHASE.