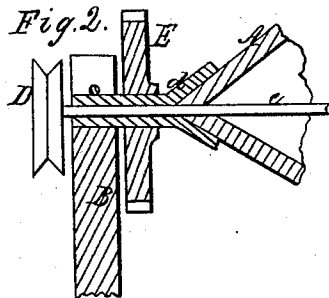
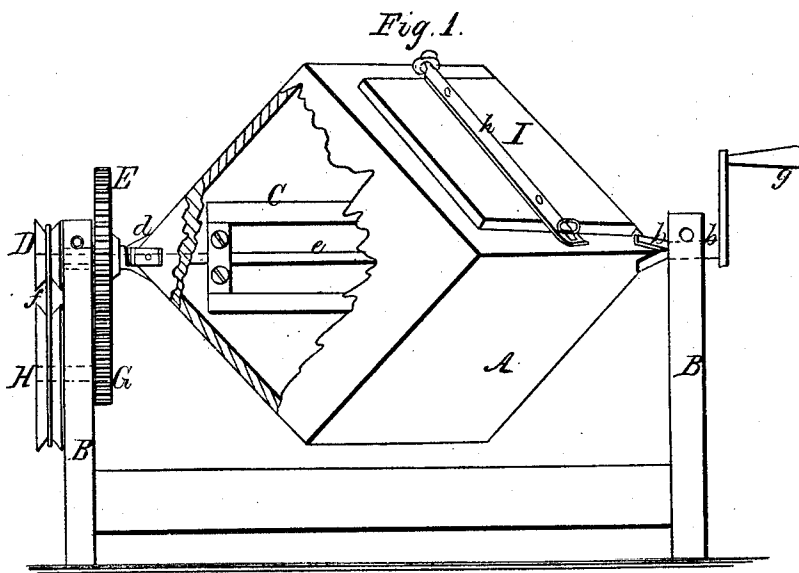


T. HAIGH.

Churn.

No. 81,896.

Patented Sept. 8, 1868.



*Witnesses.*

*Wm A Morgan  
G. L. Cotton.*

*Inventor.*

*T. Haigh  
per Wm L  
Attorneys.*

# United States Patent Office.

THOMAS HAIGH, OF HARRISBURG, PENNSYLVANIA, ASSIGNOR TO HIMSELF  
AND CHARLES M. LIGHTNER, OF SAME PLACE.

*Letters Patent No. 81,896, dated September 8, 1868.*

## IMPROVEMENT IN CHURNS.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, THOMAS HAIGH, of Harrisburg, in the county of Dauphin, and State of Pennsylvania, have invented a new and useful Improvement in Churns; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a front elevation of my improved churn, and having a portion of the box broken away, to exhibit the dasher within.

Figure 2 is a detail sectional view of one of the trunnions, enlarged, also showing part of the gearing, dasher-shaft, frame, and box.

This invention consists in a cubical or oblong box, by means of suitable trunnions affixed to any two diagonally opposite corners of the said box, and providing the box with an internal dasher or revolving frame, which is actuated by suitable mechanism to revolve in a contrary direction to the box, and thus produce a thorough agitation of the milk, whereby butter will be formed in a short time.

In the accompanying drawings, A is the box, and *b d* the trunnions at the diagonal corners, the said trunnions having bearings in the frame-posts B B.

C is the dasher-frame on the shaft-rod *e*. One end of this rod has a bearing in the trunnion *d*, and, passing through the said trunnion, is provided with a grooved wheel, D.

This trunnion also bears a cog-wheel, E, which engages with a smaller cog-wheel, G, the shaft of which latter bears a grooved pulley, H, which, in connection with a belt, *f*, transmits motion to the wheel D, and through it to the dasher C.

The trunnion *b* is provided with a crank-handle, *g*. By turning the crank, the box A and the dasher C are revolved in opposite directions, and from the proper difference in the diameters of the several wheels in the operative mechanism, the dasher is revolved at the proper effective velocity, which, together with violent surging and fluctuation of the cream, occasioned by rapidly-changing inclinations of the sides of the box, conduces to the production of the butter in a comparatively short time.

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

1. Suspending the cubical box between the posts B B, by attaching the trunnions *b d* to two of its diagonally opposite corners, whereby, as the box is rotated, the inclinations of its sides are rapidly changed, as herein shown and described.

2. The cog-wheels E G, and pulleys D H, and hollow trunnion *d*, all operating together, substantially as described, in combination with the diagonally-suspended box and its dasher, all substantially as shown and described, and for the purpose set forth.

The above specification of my invention signed by me, this fifth day of June, 1868.

THOS. HAIGH.

Witnesses:

JOHN A. SHEPLER,

W. S. BOWER.