

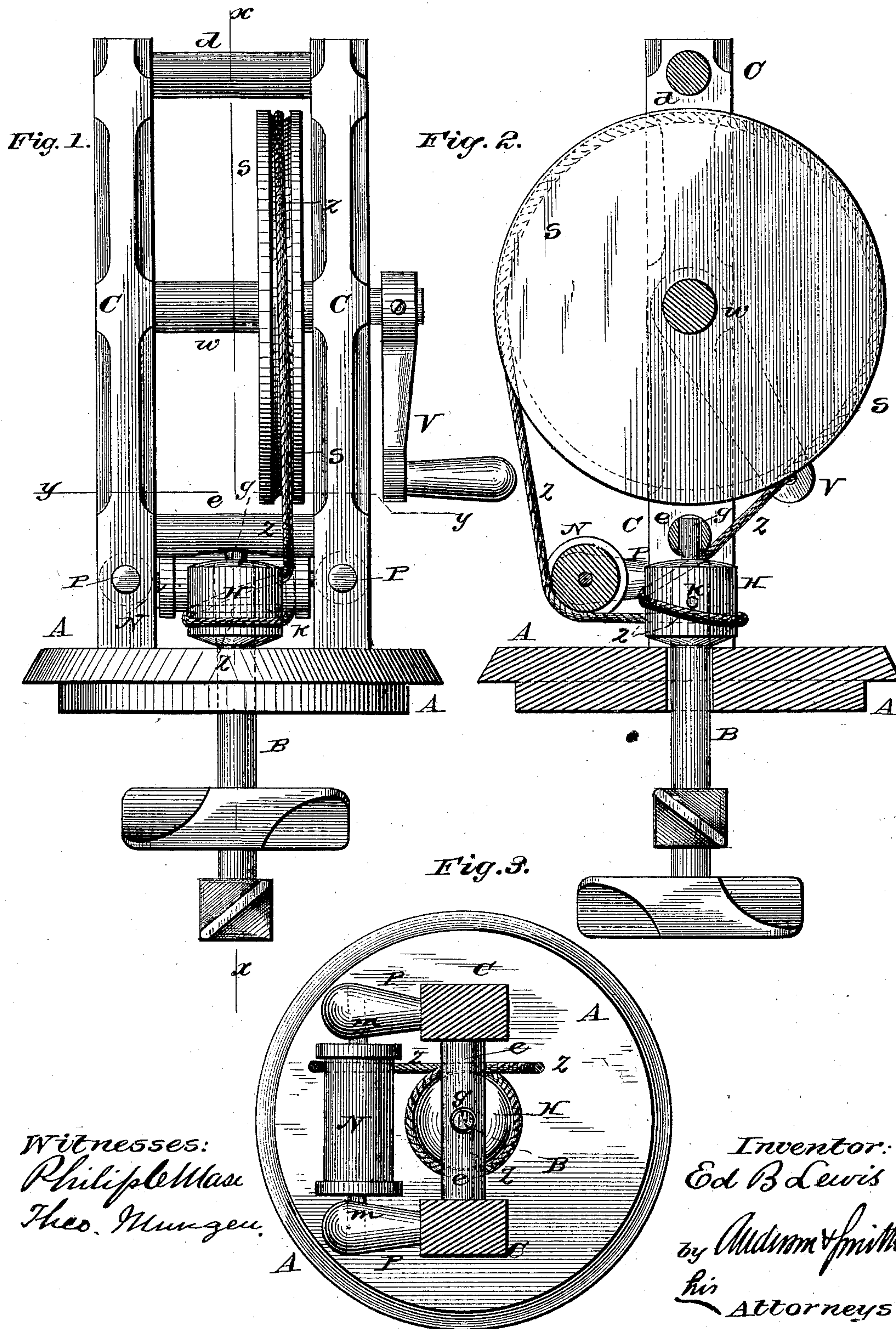
(No Model.)

E. B. LEWIS.

CHURN.

No. 277,752.

Patented May 15, 1883.



Witnesses:  
Philip Mass  
Theo. Munger.

Inventor:  
Ed B Lewis  
by *Audum & Smith*  
his Attorneys.



# UNITED STATES PATENT OFFICE.

EDWARD B. LEWIS, OF KIRBY'S CREEK, ALABAMA.

## CHURN.

SPECIFICATION forming part of Letters Patent No. 277,752, dated May 15, 1883.

Application filed July 1, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, ED. B. LEWIS, a citizen of the United States, and a resident of Kirby's Creek, in the county of Jackson and State of Alabama, 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 an end elevation. Fig. 2 is a vertical section on the line *x x*. Fig. 3 is a horizontal section on the line *y y*.

This invention has relation to devices for operating rotary churn-dashers; and it consists in the construction and novel arrangement of the roller on the head of the dasher-shaft, the cross-bearing therefor between the standards which support the driving-pulley on the churn-cover, the horizontal roller under the driving-pulley and alongside the vertical shaft-roller, and the belt engaging the horizontal and vertical rollers and the drive-pulley, all as hereinafter set forth.

In the accompanying drawings, the letter A designates the churn-cover, and B the dasher-stem passing through a central perforation therein.

C C indicate standards secured to the cover A on each side of the head of the dasher-shaft, and connected above by a cross-bar, *d*, and below by a cross-bar, *e*, which also forms a bearing for the pivot *g* at the upper end of the head of the dasher-shaft. This head consists of a roller or pulley, H, having a vertical axis, and being secured to the stem B by the pin *k*.

Horizontally opposite the upper part of the vertical roller H is located a horizontal roller, N, whereof the pivotal ends are seated in bearings *m* in arms P, which extend from the standards C. Above these rollers, at right angles

to the axis of the horizontal roller and parallel to the axis of the vertical roller, is the driving-pulley S, the shaft of which is journaled in bearings in the standards C. This driving-pulley is laterally arranged, being over one end of the horizontal roller and nearer to one of the standards C than to the other, as shown in the drawings. Between the driving-pulley and the vertical roller H is the lower cross-bar, *e*, which forms a guide for the endless belt *z*, which passes around the vertical roller and under the guide-bar *e* to the driving-pulley, around the latter, and down to the horizontal roller, engaging the same, and thence passing to the vertical roller. A crank-handle, V, is attached to the shaft *w* of the driving-pulley, so that the latter can be easily turned. Its operation will communicate a rapid and easy motion to the dasher-stem.

A drill-stock has been rotated by means of a cord passed around a wheel upon the drill-stock, and also passing around pulleys in the frame in which the drill-stock is supported. An endless belt and pulleys are therefore not broadly claimed herein.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

The churn-motor consisting of the lateral driving-pulley S, journaled to standards C on the churn-cover, the guide-bar *e*, connecting the lower parts of said standards, the vertical roller H on the head of the dasher-stem B, the horizontal roller N under the driving-pulley and alongside the vertical roller, and the endless belt *z*, engaging the rollers and driving-pulley, substantially as specified.

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

EDWARD BAILEY LEWIS.

Witnesses:

GEO. W. MORRIS,  
JOHN W. ELLIS.