

(Model.)

2 Sheets—Sheet 1.

J. H. TAYLOR.  
CHURN.

No. 345,087.

Patented July 6, 1886.

Fig. 1.

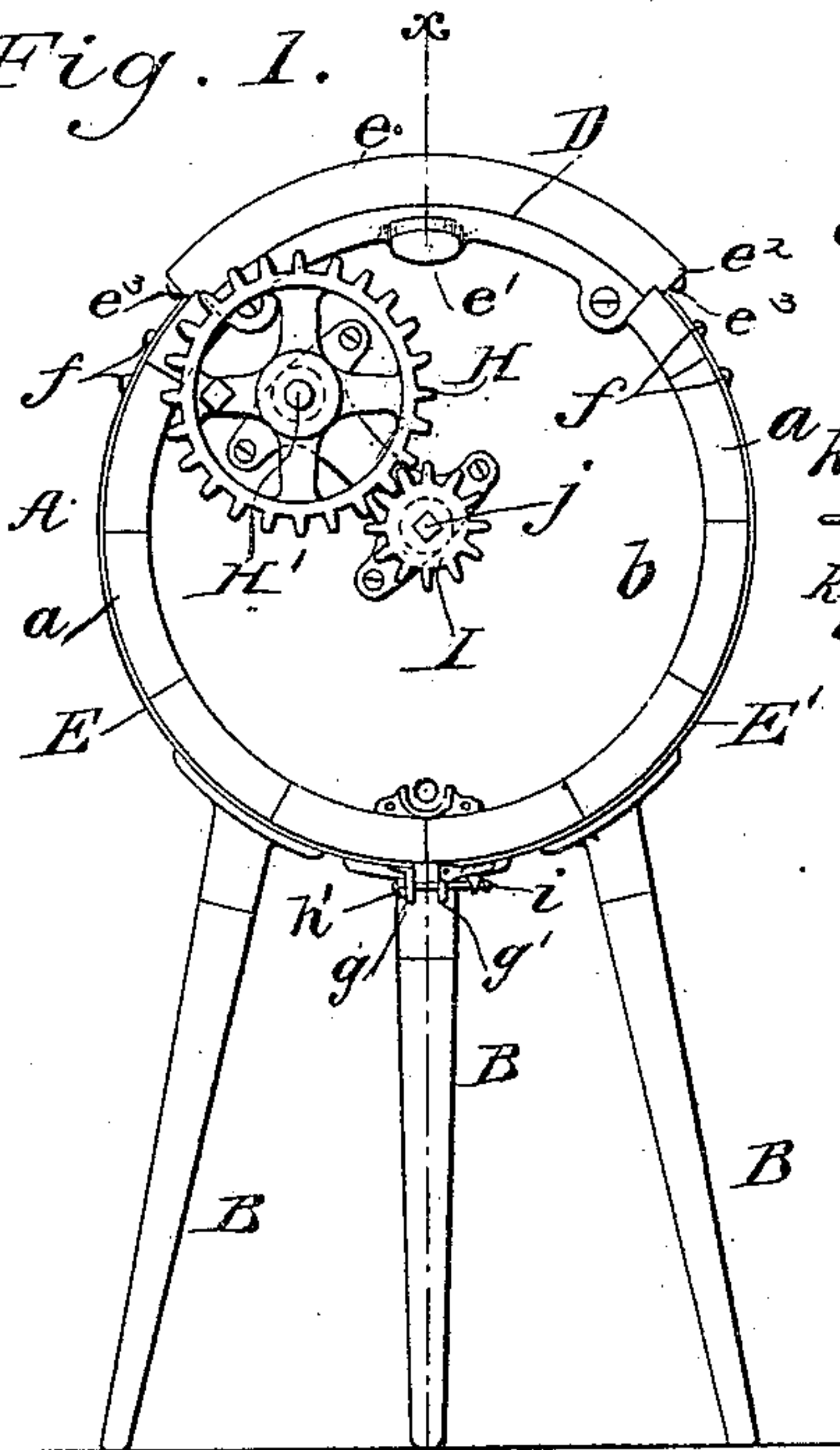


Fig. 2.

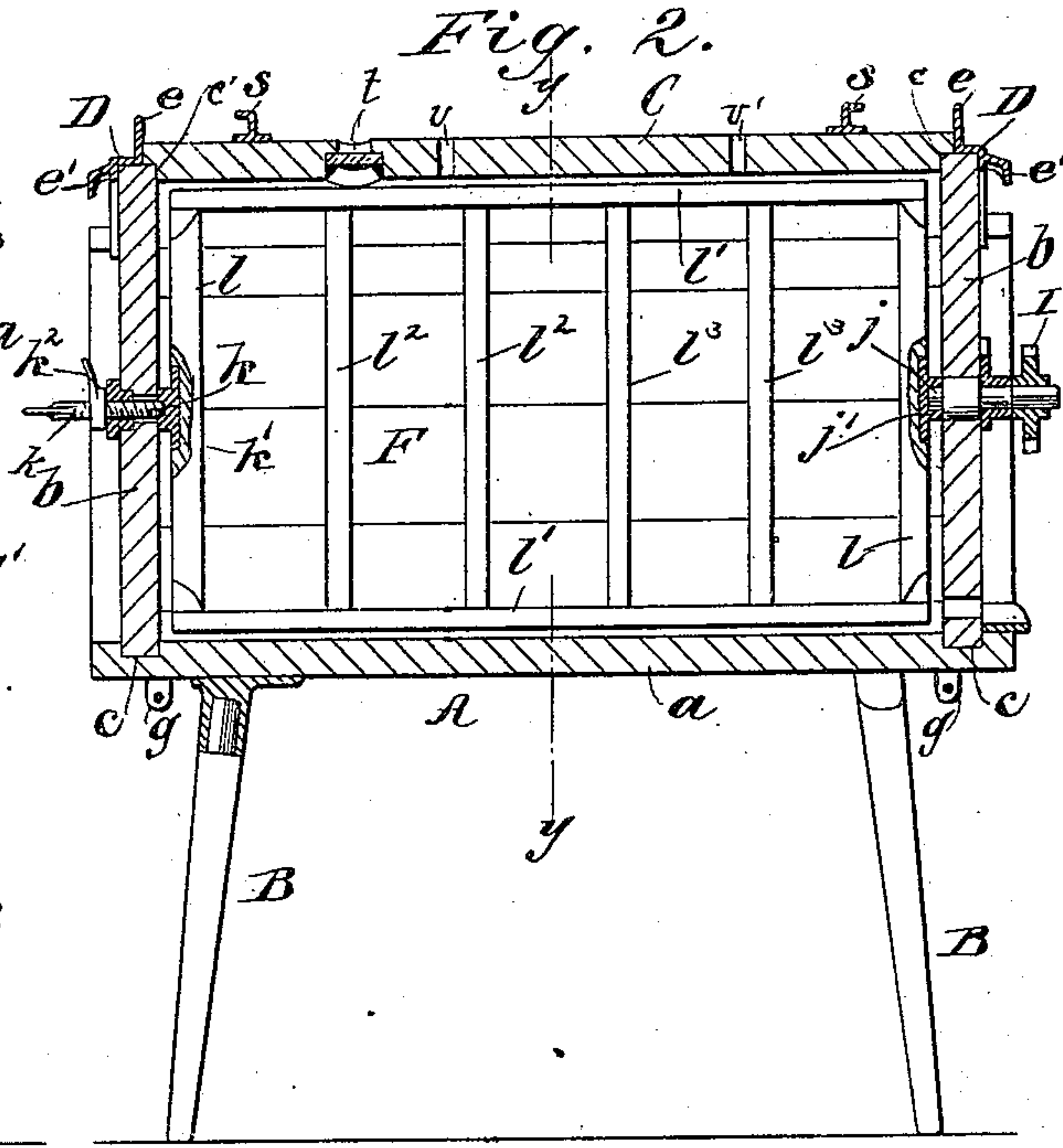


Fig. 3.

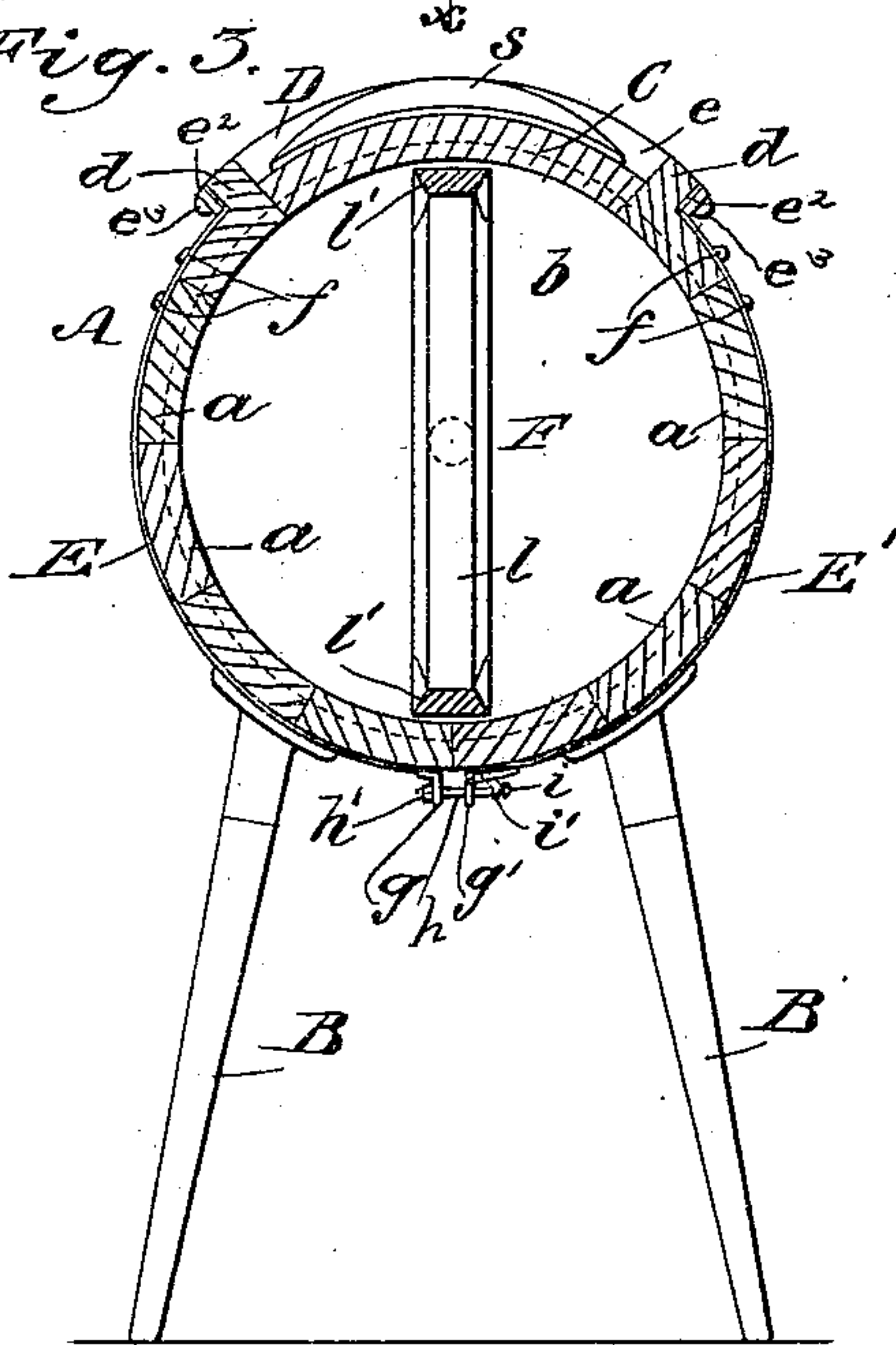
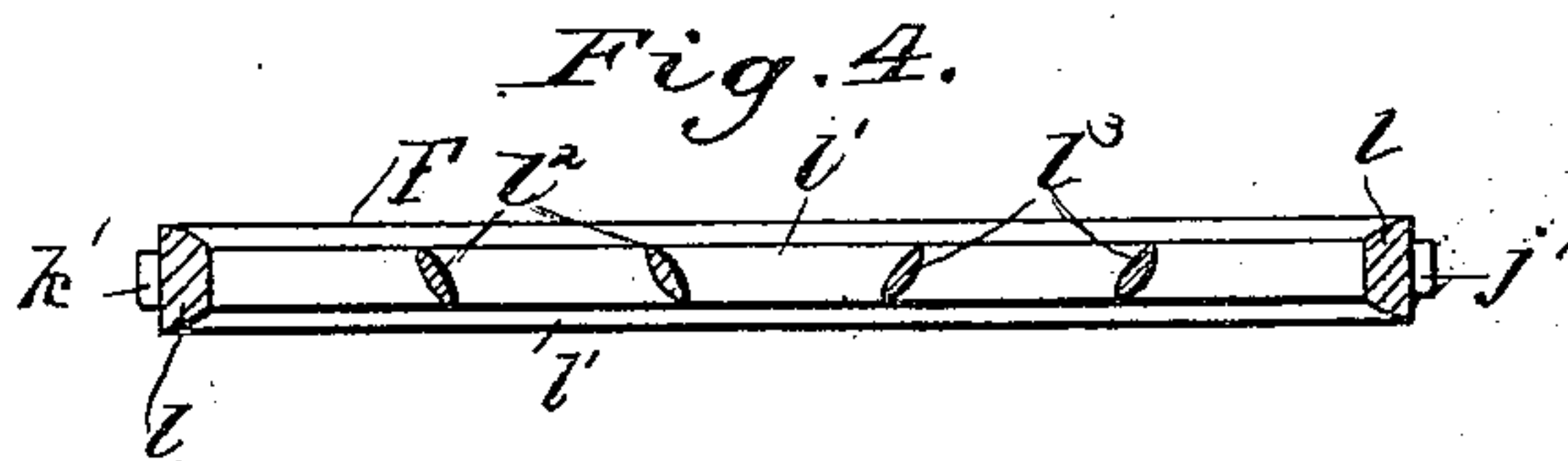


Fig. 4.



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BY *Munn & Co.*  
ATTORNEYS.

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2 Sheets—Sheet 2.

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Fig. 5.

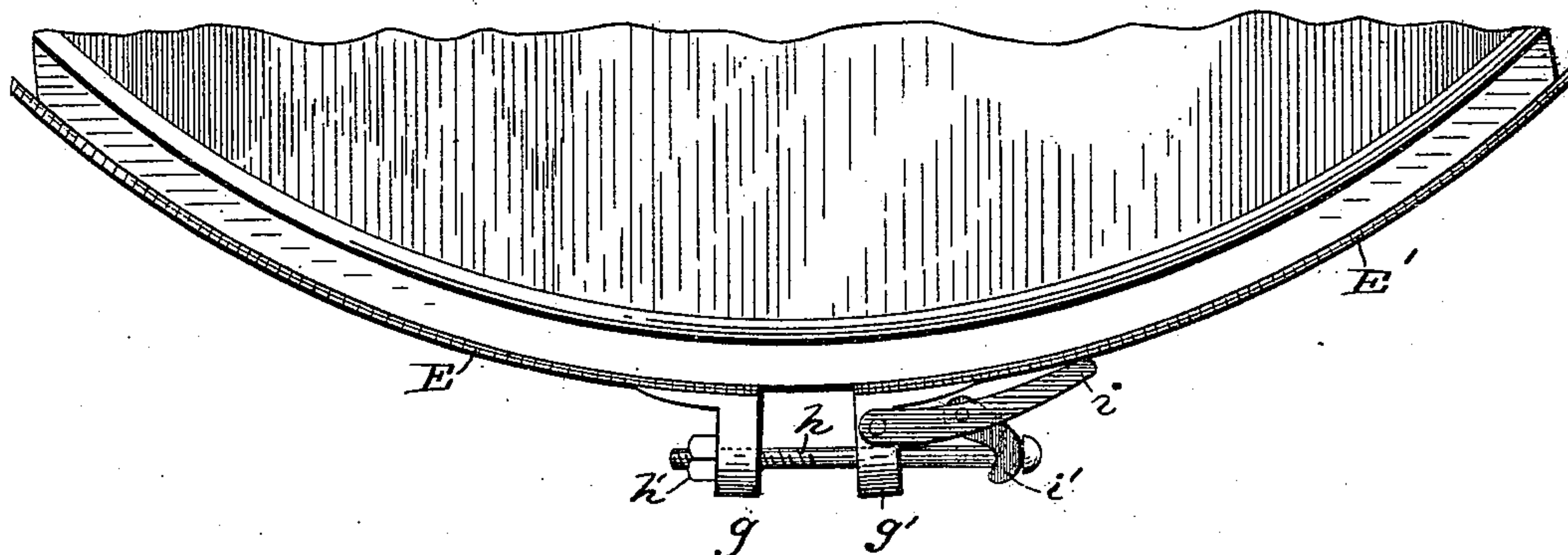


Fig. 6.

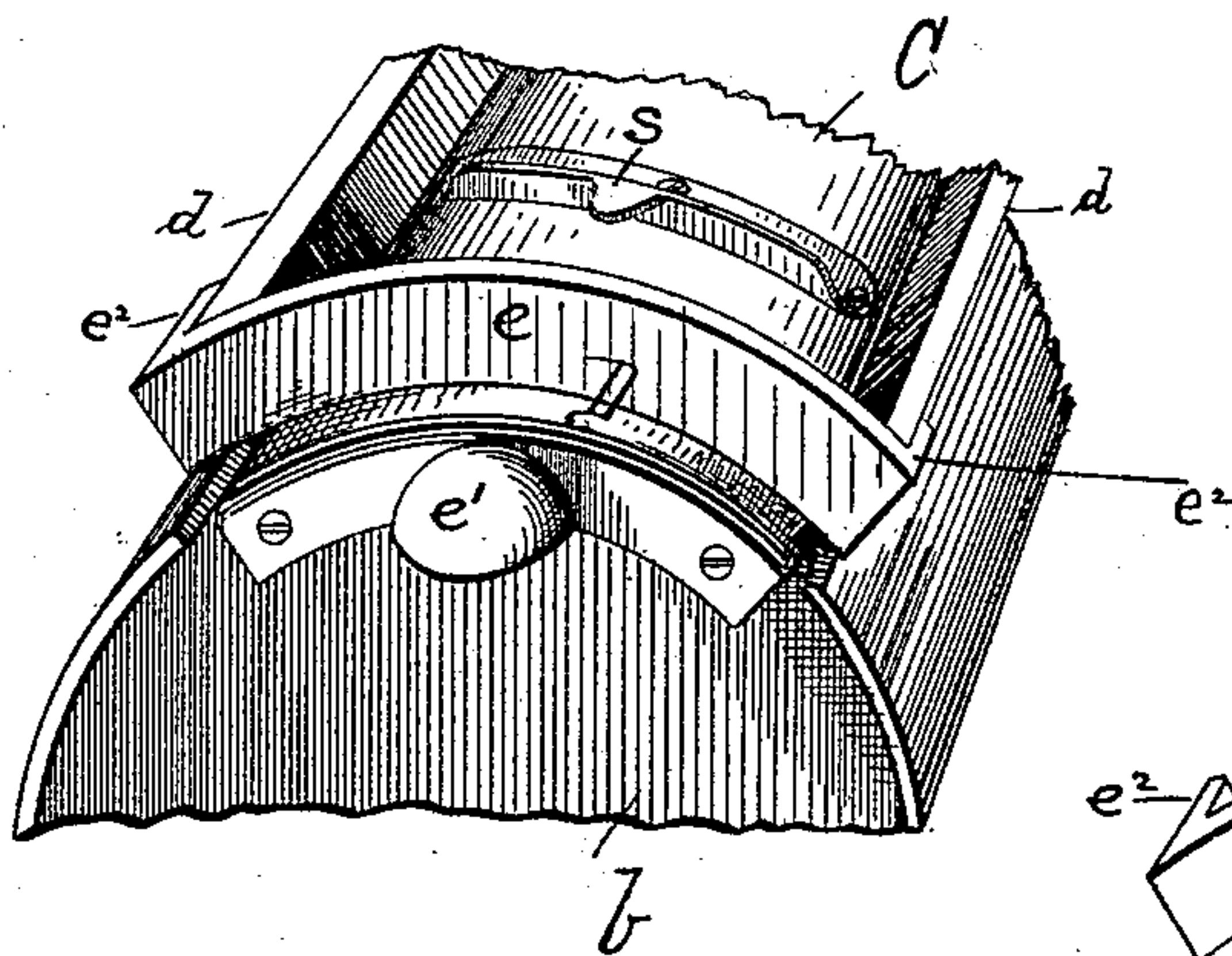
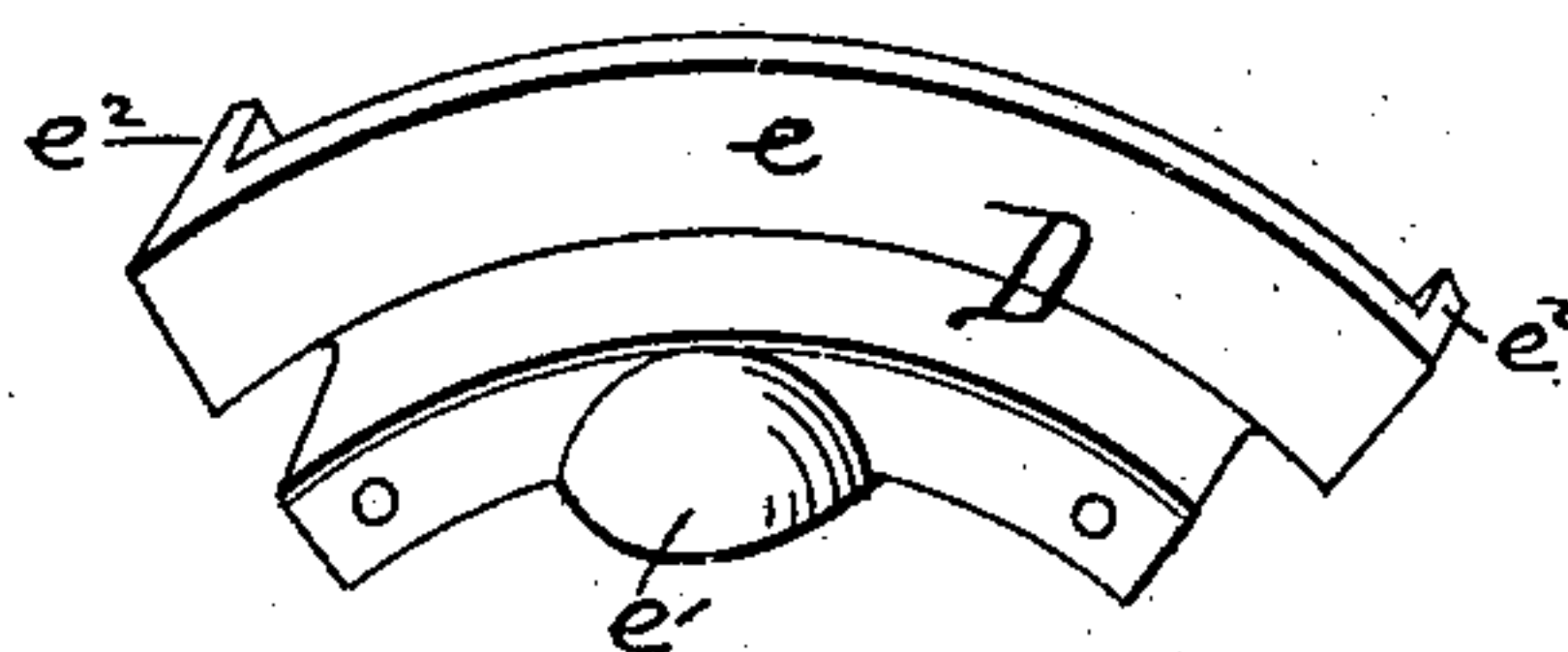


Fig. 7.



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# UNITED STATES PATENT OFFICE.

JAMES H. TAYLOR, OF WESTFIELD, MASSACHUSETTS.

## CHURN.

SPECIFICATION forming part of Letters Patent No. 345,087, dated July 6, 1886.

Application filed April 11, 1885. Serial No. 161,982. (Model.) Patented in Canada July 13, 1885, No. 22,059.

*To all whom it may concern:*

Be it known that I, JAMES H. TAYLOR, of Westfield, in the county of Hampden and State of Massachusetts, have invented a new and Improved Churn, (for which I have received of Canada Letters Patent No. 22,059, dated July 13, 1885,) of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is an end elevation of my invention. Fig. 2 is a sectional elevation on line  $x x$  of Fig. 1. Fig. 3 is a transverse sectional elevation on line  $y y$  of Fig. 2. Fig. 4 is a sectional view of the churn-dasher removed from the churn. Fig. 5 is a detail view showing the band-tightening bolt and levers, part of the churn-body being shown and in perspective. Fig. 6 shows a fragment of the churn-body with the handle-pieces applied. Fig. 7 is a detail perspective view hereinafter referred to.

The invention will first be described in the drawings, and then pointed out in the claims.

A represents the body of the churn, supported upon the legs B. The body A is made cylindrical in form, and is composed of the staves  $a$  and circular heads  $b b$ . The staves  $a$  are grooved near their ends, as shown at  $c c$ , to receive the edges of the heads  $b$ , and the grooves  $c$  are made to receive the full thickness of the heads, as shown clearly in Fig. 2, which saves the expense and labor of beveling the heads at the edges, as is the usual practice. At the upper side of the body A is formed an opening, which is closed by the lid or cover C. At the sides of the said opening are formed the flanges  $d$ , that prevent any cream that may work out at the sides of the cover from running down the outside of the churn. At the ends of the churn, in line with the cover C, are secured the curved castings D D. These are formed with the upwardly-projecting flanges  $e$ , that form curbs at the ends of the cover C, to prevent any cream that may escape at the ends of the cover from running down the heads  $b b$ . These castings D are also formed with the handle-pieces  $e'$ , by which the churn may be conveniently lifted and moved about, and said castings are also formed with the small

end lips or flanges  $e^2 e^2$ , that stand at right angles to the flanges  $e$  and embrace the wooden flanges  $d$ , to which they are secured by screws  $e^3$ , as shown in Fig. 3, so that these flanges brace the flanges  $d$  and prevent them from spreading.

Around the body A, near its ends, are placed the truss bands or hoops E E', the upper ends of which are made fast to the churn-body by the screws or nails  $f f$ . The lower ends of the bands E E' are formed or provided with downwardly-projecting lugs  $g g'$ , through which bolts  $h$  pass.

Pivoted to each of the lugs  $g'$  is a lever,  $i$ , and pivoted to each lever  $i$  is a link,  $i'$ , through which latter the bolt  $h$  passes, so that when the lever  $i$  is swung to the position shown in Figs. 1, 3, and 5, the adjacent ends of the bands E E' will be drawn together, thus tightening the bands upon the body of the churn. By swinging the levers  $i$  down the bands E E' will be loosened upon the churn-body.

The bolts  $h$  have nuts  $h'$  screwed upon them for adjusting the pressure of the bands E E' to the churn, so that the levers  $i$  and links  $i'$  will act to draw the joints of the churn-body tight in case of shrinkage.

F represents the dasher, held in place in the churn by the square shank  $j$  entering socket  $j'$ , and screw-centering point  $k$  entering socket  $k'$ .

Upon the screw  $k$  is placed the jamb-nut  $k^2$ , that serves to lock the point  $k$  when it is turned to properly enter the socket  $k'$ .

The shank  $j$  is adapted to be revolved for revolving the dasher F either by a crank applied directly to the shank or applied to the large gear-wheel H, journaled on gudgeon H', and meshing with the small gear-wheel I, secured to the shank.

The dasher F is composed of the end pieces,  $l l$ , which are beveled at their edges, the side pieces,  $l' l'$ , that are also beveled at their edges, and the cross-pieces  $l^2 l^2$ , that are elliptical in cross-section, are set diagonally to the bars  $l' l'$ , as shown in Fig. 4, the bars  $l^2$  being arranged at an opposite angle to the bars  $l'$ , so as to cause counter-currents of the cream in churning. The bars  $l l'$  are beveled at their edges and extend quite close to the walls of the churn, to prevent lumps of thick cream or butter from adhering thereto, and the beveled parts cause the cream



to be forced toward the open center of the dasher.

Upon the lid or cover C are secured the handles *s s*, by which the cover may be conveniently lifted from and placed upon the churn, and in the cover or lid is fitted the peep-glass *t*, through which the cream in the churn may be inspected without removing the lid, and in the cover or lid are made two vent-holes, *v v'*, through which the blades of the dasher draw air into the churn. The lid is curved to correspond with the circle described by the churn-body, and the curved handles *S* strengthen said lid and prevent it from getting out of shape. The inner edges of the lid are rabbeted, as shown at *c'*, to assist in holding the cover in proper position, and to form a tight joint when resting on the heads *b*, as shown in Fig. 2.

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

1. The combination, with a circular churn-body having the flanges *d* at the sides of its

opening, of the castings *D*, formed with vertical flanges *e* at the ends of the cover-opening, downward-projecting handle-pieces *e'*, secured to the ends of the churn, and the flanges *e''*, at right angles to the flanges *e* and resting against the flanges *d* at the outer sides of their ends, substantially as set forth.

2. In a churn, the casting *D*, having formed integral therewith the vertical curb-flange *e*, end flanges, *e''*, at the ends of and at right angles to the flanges *e*, and the downward-projecting handle-pieces or flanges *e'*, substantially as and for the purpose set forth.

3. The body *A* of the churn, provided with the half bands or hoops *E E'*, formed with lips or projections *g g'*, in combination with bolts *h*, levers *i*, and pivoted links *i'*, arranged to operate for trussing up the body of the churn, substantially as described.

JAMES H. TAYLOR.

Witnesses:

H. H. BRIGHAM,  
M. B. WHITNEY.