

(No Model.)

J. J. KIMBALL.

CHURN.

No. 268,243.

Patented Nov. 28, 1882.

Fig. 1.

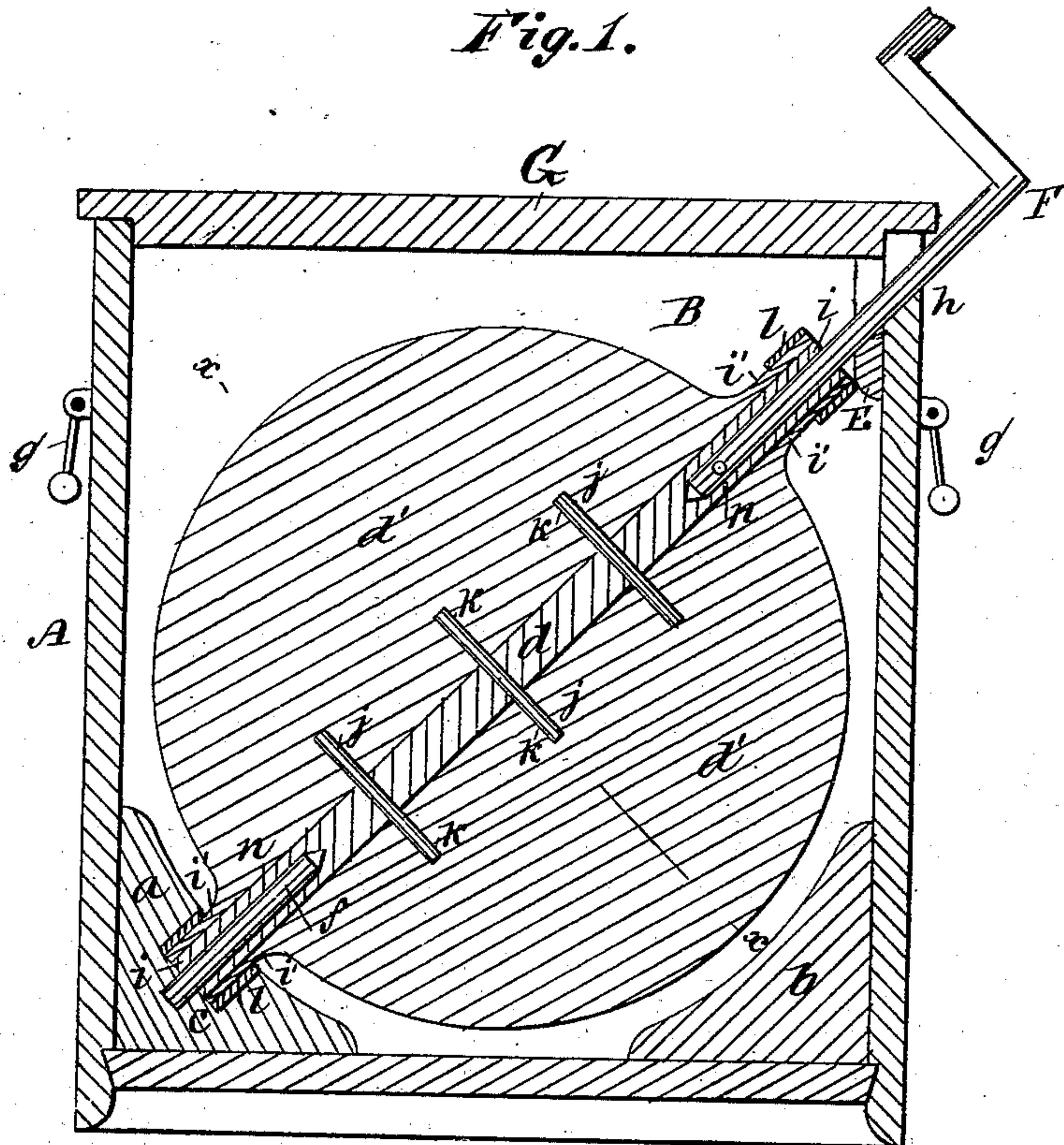


Fig. 2.

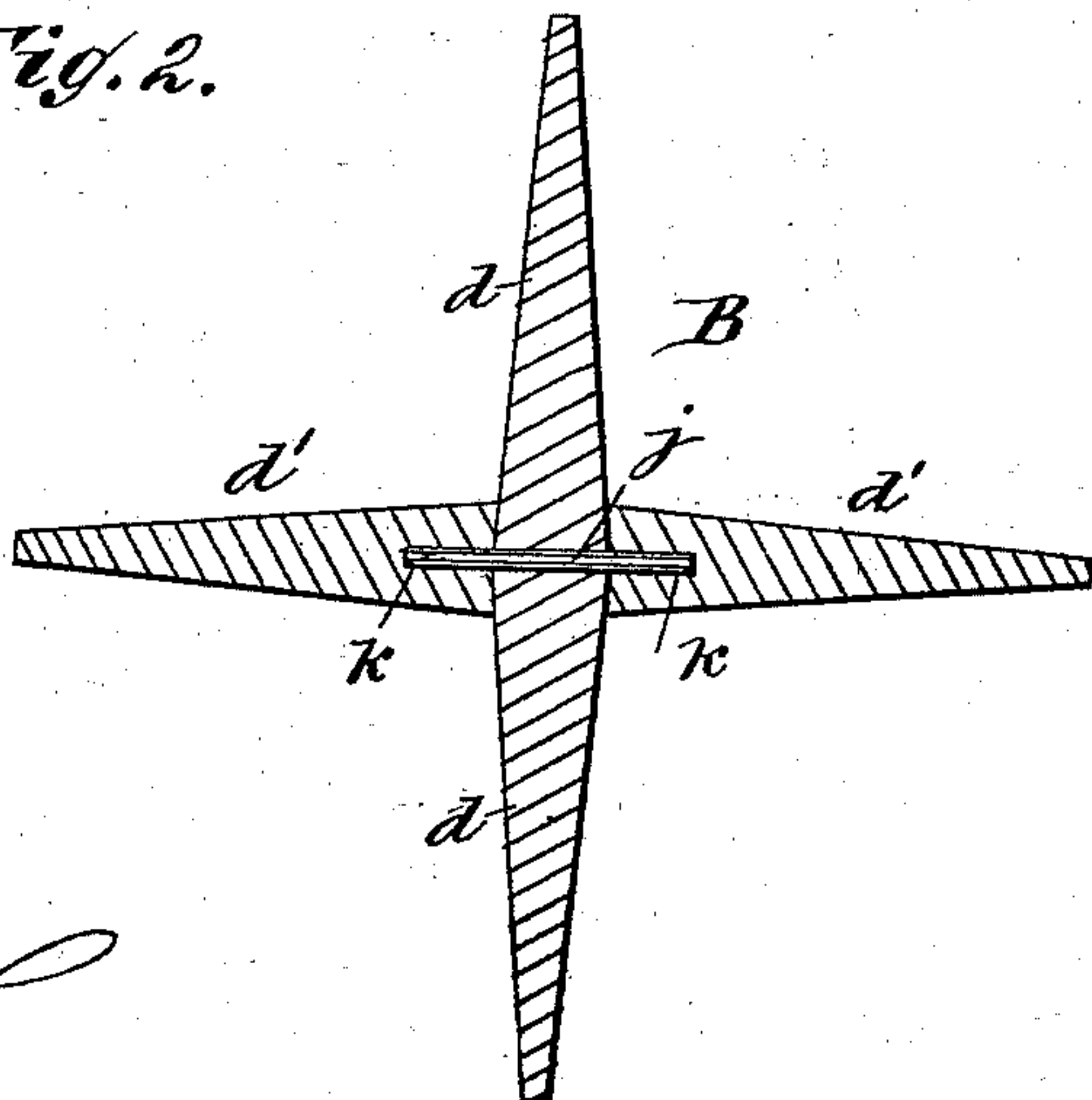
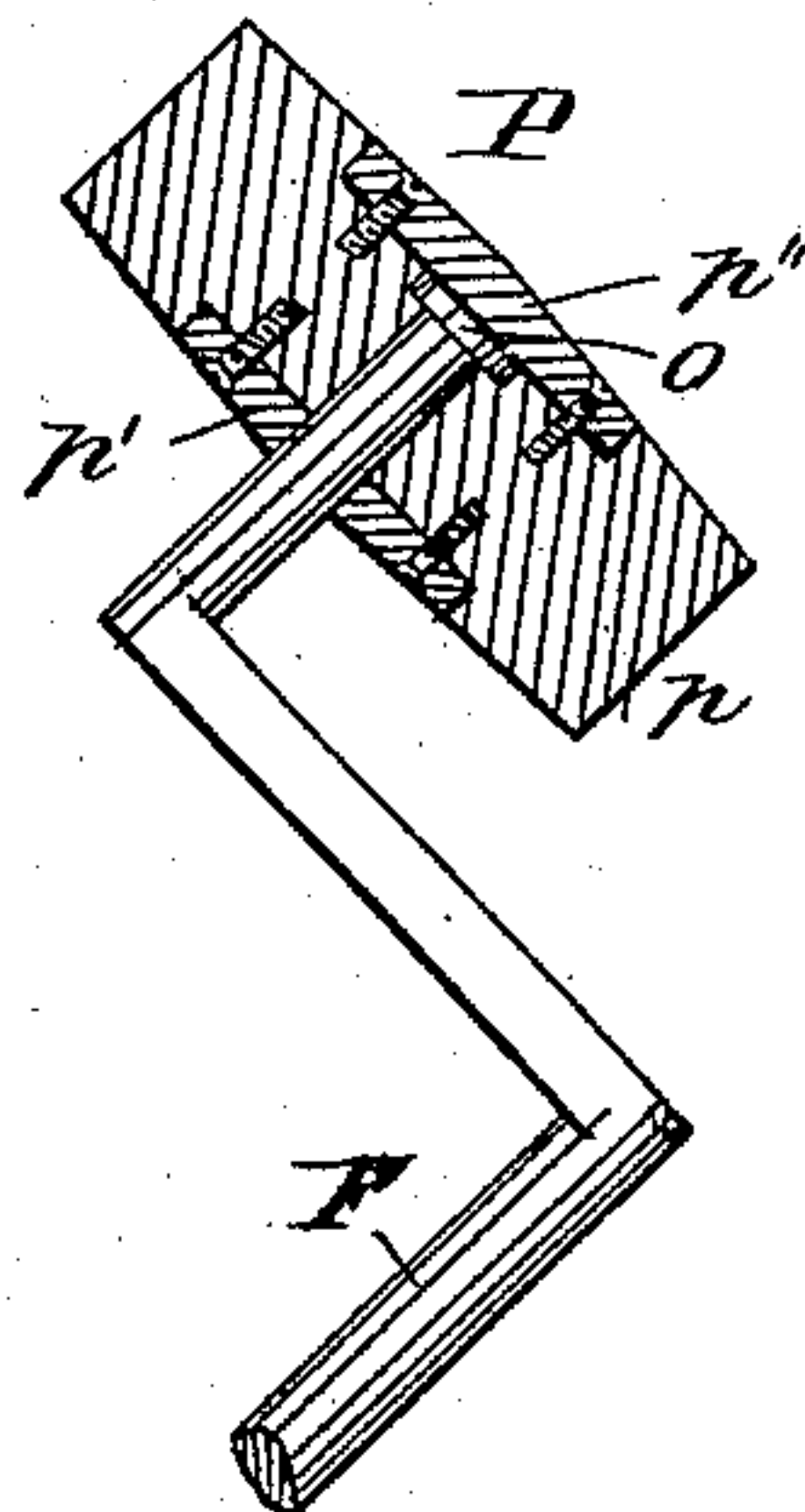


Fig. 3.



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JOHN J. KIMBALL, OF NAPERVILLE, ILLINOIS.

CHURN.

SPECIFICATION forming part of Letters Patent No. 268,243, dated November 28, 1882.

Application filed January 23, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. KIMBALL, of Naperville, in the county of DuPage and State of Illinois, have invented a new and Improved Churn, of which the following is a full, clear, and exact description.

The object of this invention is to provide an improved churn; and to this end it consists in a novel construction and arrangement of parts, as hereinafter fully described, and pointed out in the claims.

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 a central sectional elevation of my improved churn. Fig. 2 is a similar view of the churn-dasher, taken on the line *xx* of Fig. 1; and Fig. 3 is a detailed sectional plan view of the handle of the dasher.

A represents the churn-body, which may be of any form, but preferably round or octagonal, and B represents the dasher. In the bottom and at the corners of the churn-body are fixed the breakers *a b*, which are boards of suitable width and of triangular shape, secured in the corners by means of nails or screws. The outer edges of the breakers reach near the edges of the dasher-blades *d d'*, and the said outer edges of the breakers are slightly concaved to conform to the circular form of the edges of the blades, as clearly shown in Fig. 1. The breaker *a* is formed with the recess *c*, as shown in Fig. 1, which forms the step or journal for the gudgeon *f* and the lower end of the dasher. The upper end of the dasher is journaled in the diagonal passage *h* in the upper and opposite corner of the body from that in which the lower end is journaled, as clearly shown in the drawings.

The blade *d* of the dasher is a circular board formed with the diametrical extensions *i i*, and provided in its center, at different points, with the fixed dowel-pins *j j*. The blades *d' d'* are semicircular, formed with the projections *i' i'* at their straight edges, and provided in said edges with the holes *k k* for receiving the ends of the dowel-pins for securing the said blades upon opposite sides of the blade *d*, as clearly shown in Fig. 2. At the points where the extensions *i i* of the blade *d* are formed the blade

is bored to form the passages *n n* for the reception of the gudgeon *f* and the crank-rod F. Upon the gudgeon and crank-rod, and over and upon the extensions *i* and *i'* of the blades, are placed the ferrules *l l*, which serve to hold the blades *d'* upon the blade *d*, and to strengthen the dasher where the gudgeon and rod F enter, as will be clearly understood from the drawings.

At the point where the crank-rod F is journaled the upper corner of the churn-body is faced with the plate or bracket E for strengthening the body at that point and furnishing a better bearing for the said crank-rod.

G is the cover of the churn-body, which fits closely upon the body, and *g g* are handles upon the outside of the body for conveniently handling and moving the churn.

When the churn is filled with cream for churning the churn may, if necessary, be placed in a tub or suitable vessel containing water, (warm or cold, as circumstances require,) and the temperature of the cream regulated as desired. It will be seen that the journal *h* and the cover of the churn being upon and near the top of the churn, the body of the churn may be placed in water of a depth nearly equal to the height of the churn, so that the temperature of the whole mass of cream may be rapidly raised or lowered by the water.

When the dasher is revolved by power applied to the handle P of the crank-rod F the action of the blades is such that the cream will be raised from the bottom of the churn to the surface of the cream, and carried to the opposite side of the churn and forced again down to the bottom of the churn against the breakers in the lower corners, and thus causing thorough agitation of the whole body of cream in the churn, leaving no stagnant places in the cream, thus causing all the cream to be converted to butter, so that there will be no loss resulting from non-agitation or unequal agitation of the mass of cream, which is a great difficulty in churns of ordinary construction.

The handle I prefer to use upon the crank of the dasher is shown in Fig. 3, consisting of the handle-piece *p*, which is bored through the center for the passage of the crank, the perforated plate *p'*, which fits upon the crank and is fitted in a recess in the handle-piece *p*, and

the solid plate p'' , fitted in a recess in the piece p over the end of the crank, as shown. The handle-piece is also recessed to receive the ring o , placed upon the end of the crank for preventing the handle from slipping off from the crank, but permitting it to turn thereon when grasped by the hand for revolving the dasher. By this construction of the handle it will be seen that the hand of the user will be entirely protected from contact with the crank, and that the handle is in such position that it is adapted to be grasped by the hand that rests upon the top of the churn.

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

1. The dasher B, consisting of the circular blade d , provided with the extensions i and passages n , and the semicircular blades d' d'' , provided with the extensions i' , secured together by dowel-pins and by ferrules placed upon the said extensions of the blades, substantially as herein shown and described.

2. The circular blade d , formed with the extensions i , and the semicircular blades d' , formed with the extensions i' , in combination with the ferrules l l , the gudgeon f , and the crank-rod F, substantially as described.

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Witnesses:

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