(No Model.)

L. SNYDER.

CHURN.

No. 391,924. Patented Oct. 30, 1888.

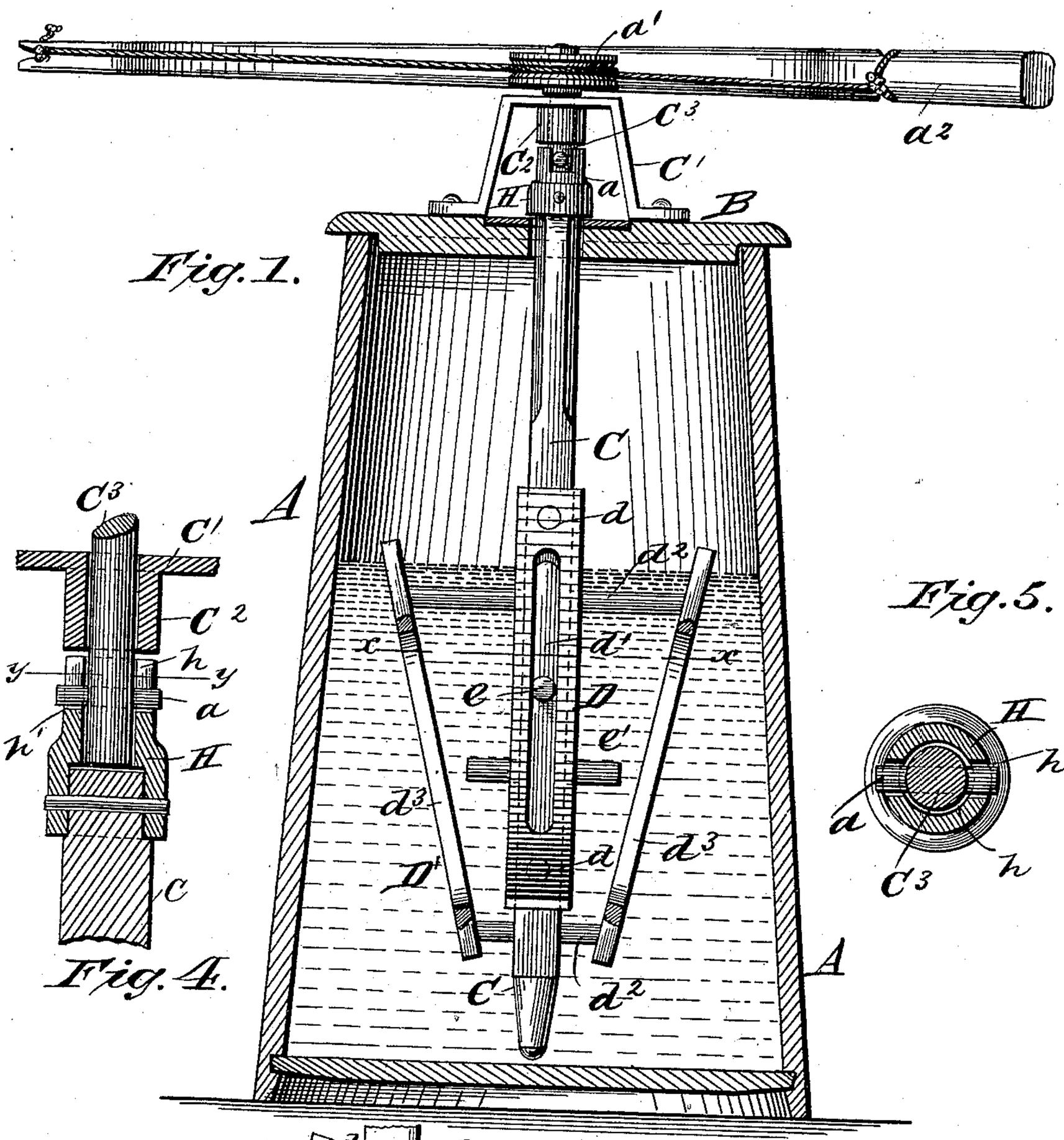

Fig. 1.

Fig. 4.

Fig. 5.

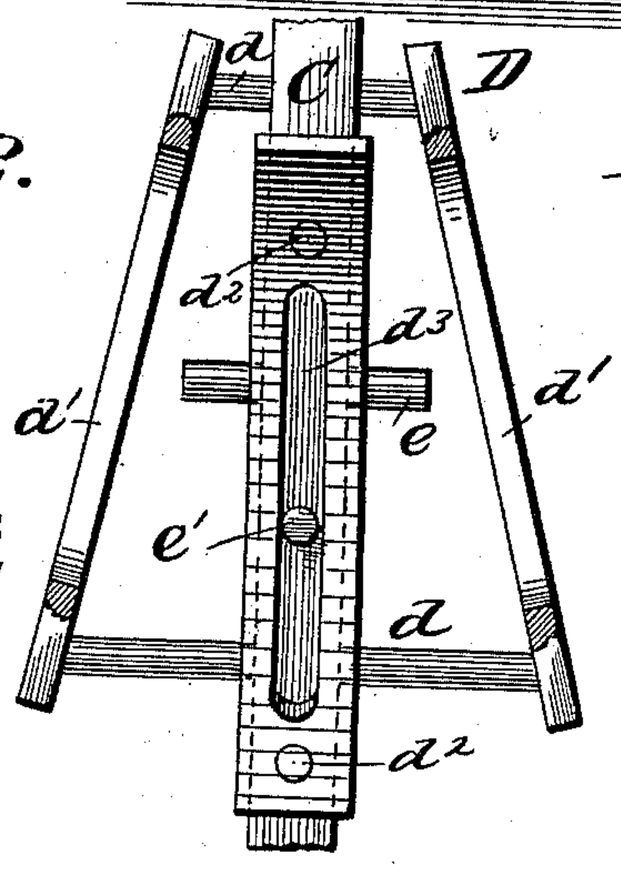

Fig. 2.

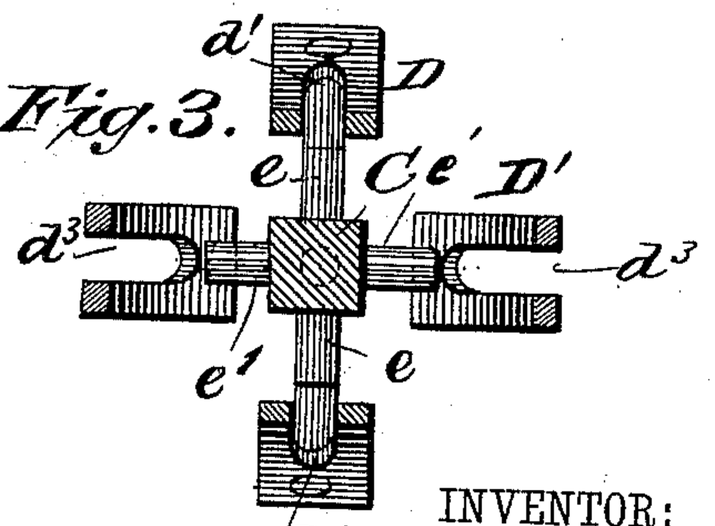

Fig. 3.

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UNITED STATES PATENT OFFICE.

LAMBERT SNYDER, OF MIDLAND PARK, NEW JERSEY.

CHURN.

SPECIFICATION forming part of Letters Patent No. 391,924, dated October 30, 1888.

Application filed February 7, 1888. Serial No. 263,268. (No model.)

To all whom it may concern:

Be it known that I, LAMBERT SNYDER, of Midland Park, in the county of Bergen and State of New Jersey, have invented new and useful Improvements in Churns, of which the following is a full, clear, and exact description.

My invention relates to an improvement in churns, and has for its object to provide a dash of simple and cheap construction, capable of easy manipulation, and which will be efficient and rapid in action.

The invention consists in the construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claim.

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

Figure 1 is a vertical section of the churn, illustrating the dash partially in elevation and partially in section. Fig. 2 is an elevation of the dash at a right angle to that illustrated in Fig. 1 and partially in section. Fig. 3 is a transverse section through the dash on line *x x* of Fig. 1. Fig. 4 is a partial longitudinal section through the dash and operative mechanism, and Fig. 5 is a transverse section on line *y y* of Fig. 4.

In carrying out the invention, A represents the body of the churn, and B the lid, provided with a central aperture, through which the stem C of the dash is adapted to project. Upon each side of the lid-aperture the legs of a substantially U-shaped bracket, C′, are secured, which bracket is centrally apertured and provided upon the under side with a collar, C^2, surrounding the said aperture. A spindle, C^3, is passed vertically downward through the aperture in the bracket, and provided near the lower end with a diametrical outwardly-projecting pin, *a*, and at the upper end with a grooved pulley, *a′*, which pulley and spindle are reciprocated, preferably, by a bow, a^2. I do not, however, confine myself to this mode of manipulating the spindle, as other suitable or approved means may be employed.

The dasher consists of a stem, C, through which the cross-bars *d* of a conical frame, D, are passed and secured, the apex of said frame constituting the upper end, and in the side pieces of the frame a longitudinal slot, *d′*, is cut. The cross-bars d^2 of a second conical frame, D′, are projected through the opposite side of the stem, the upper cross-bar, which is the longest, being below the short or upper cross-bar, *d*, of the frame D, whereby the apex of the frame D′ is brought below the base of the said frame D, the two frames being at right angles to each other. The side pieces, d^3, of the frame D′ are also longitudinally slotted. Intervening the base of each conical frame, rods *e* and *e′* are projected alternately in opposite directions through the stem, the rods *e* aligning the slots in one frame and the rods *e′* the slots in the other frame, to produce a thorough agitation of the liquid. Thus the dash consists of a stem, two conical slotted frames at right angles to each other, having their apices reversely located, and a series of oppositely-arranged rods intervening the bases of the frames. The upper end of the stem is provided with a ferrule, H, having a central bore, *h*, in the upper end and a diametrical slot, *h′*, traversing said bore, as shown in Figs. 4 and 5.

In operation the bore in the ferrule is made to receive the spindle C^3 and the slot the spindle-pin *a*. The dash is thereupon vibrated through the medium of the bow or equivalent device. As the dash rotates in opposite directions, the frames draw the fluid from the top and bottom toward the center of the dasher, where it is broken by the rods and cut in its passage through the slots in the frames. By this means fine flake-butter may be obtained in a very short space of time and with little labor.

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

The combination, with the dash-stem, of adversely-arranged slotted conical frames held in said stem at right angles to each other, oppositely-arranged horizontal rods projected through the stem in alignment with the slots of the frames between the base-bars thereof, and means, substantially as described, for manipulating said stem, as and for the purpose specified.

LAMBERT SNYDER.

Witnesses:
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