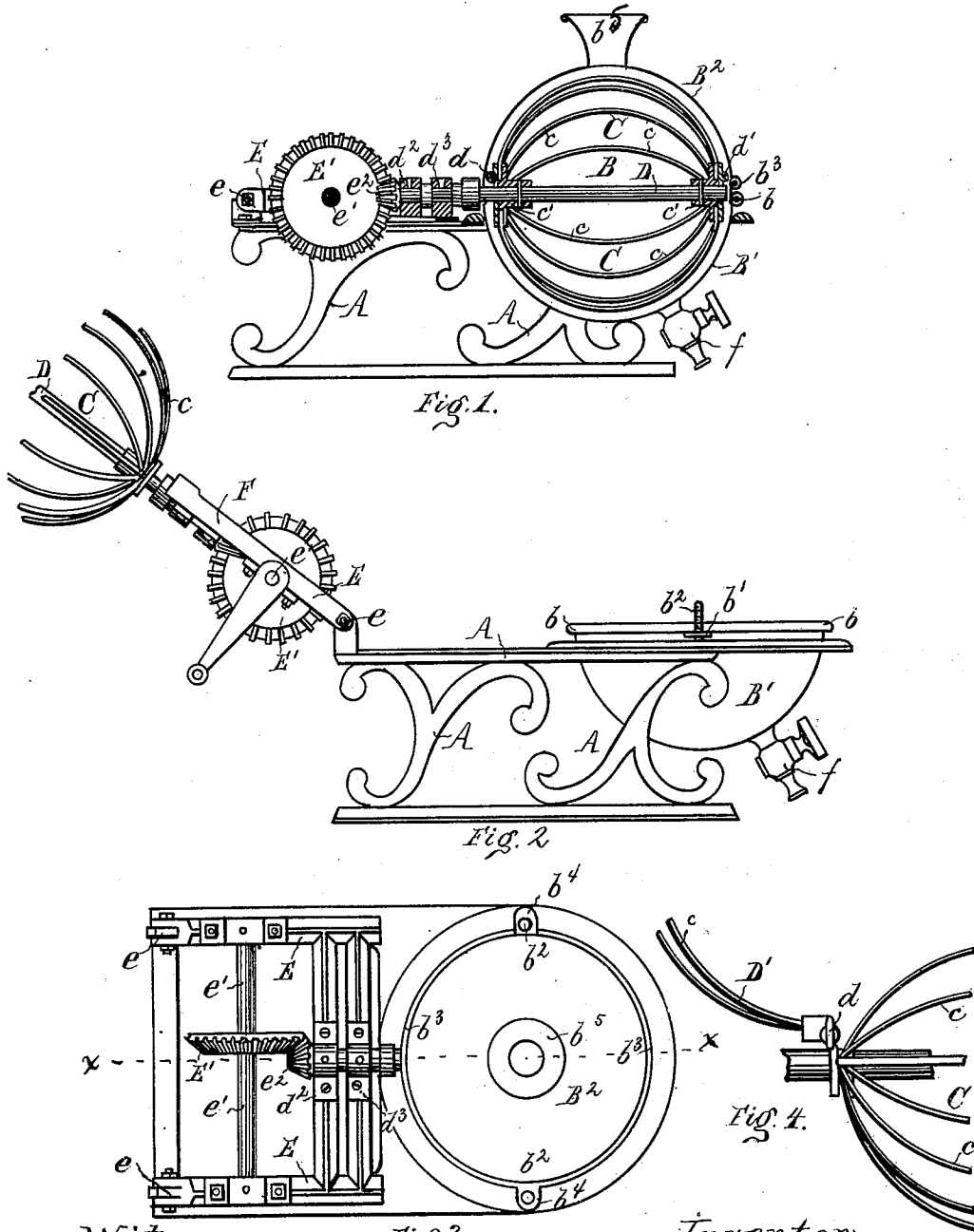


C. SEIBEL.
CHURNS.

No. 179,965.

Patented July 18, 1876.



Witnesses:
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UNITED STATES PATENT OFFICE.

CONRAD SEIBEL, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. **179,965**, dated July 18, 1876; application filed April 3, 1876.

To all whom it may concern :

Be it known that I, CONRAD SEIBEL, of St. Louis, Missouri, have invented an Improved Machine for Churning, Beating Liquids and Matter, of which the following is a specification :

The object of this invention is to produce a machine to churn, beat, agitate, stir, and otherwise act upon liquids or matter for making butter, cheese, egg-beating, and similar purposes.

This invention, though especially adapted for the use of confectioners, bakers, restaurateurs, brewers, &c., is also generally useful for household purposes. The nature thereof consists in the improved construction of its parts, and their combination to operate in the manner and for the purpose as will now more fully appear.

Of the drawings, Figure 1 is a sectional elevation on line *xx* of Fig. 3. Fig. 2 is a side elevation with cover removed, and showing the revolving beaters in raised position. Fig. 3 is a top plan. Fig. 4 is an enlarged detail section, showing how parts of the dashers are connected for the purpose of removing the contents out of the globe-chamber.

A represents a suitable frame, upon which the operating parts are mounted. The top of the frame A has a circular opening (indicated in Figs. 1 and 3) to form an annular seat for a globe-chamber, in which the processes of dashing, beating, and churning take place. This globe-chamber consists of two parts, viz: B¹ B². (See Figs. 1, 2, 3.) The lower half-globe, B¹, I form to have an annular projection at *b*, (see Figs. 1 and 2,) and, further, on opposite sides below said rim are projecting lugs or bearings *b*¹, through the openings in which the side screws *b*² (see Figs. 2, 3) pass. The half-globe B¹ is, therefore, by means of its side bearings *b*², supported in its seat in the frame A. (See Figs. 1, 2, 3.) The upper half-globe, B², I also provide at *b*³, Figs. 1, 3, with a similar rounded rim, leaving its lower edge to extend within the lower half-globe when the former is placed over the latter; also, said upper half-globe has similar side bearings *b*⁴ (see Fig. 3) to likewise engage the same screws on the frame. The upper half-globe can thus, like a cover, be placed top of the lower half to form the

needed closing-joint, and both said parts further fastened by a nut engaging each screw of the frame, so as to prevent any possibility of the globes disengaging themselves, and yet, with apparent ease, enabling the operator to remove B², as occasion requires. The introduction of the liquid or matter to be acted upon is, also, by means of the funnel *b*⁵, forming part of the cover B². (See Figs. 1, 3.) It is within the globe-chamber that the dashers or beaters operate. C represents said dashers, consisting, as shown in Figs. 1, 2, 4, of metal strips *c* bent to a circle, and having the ends properly secured in the opposite hubs *c*¹, the sleeve of which is rigidly secured to a central shaft, D, so that said circular ribboned dashers turn with said shaft.

My improvement in the dasher parts relates to the means whereby a section thereof can be uplifted and replaced to allow for the introduction, and more specially the removal, of the matter formed and contained within the globular dasher. For this purpose D' (see Fig. 4) is this section of the dasher alluded to, and the part of the hub said section engages I, by a suitable hinge-joint, hinge at *d* (see Fig. 4) to its remaining hub part. The opposite end of the same section of dashers has its hub part also divided; hence, forming part of the hub of the sections, projects a sleeve, *d*¹, (see Fig. 1,) which engages between two similar sleeves on the stationary hub part, and a pin is simply passed through these sleeves to secure said end of the dashers as well as its hub parts together.

The shaft D, carrying the beaters C on one end, has its opposite end made to turn in the journal-bearings *d*² *d*³ secured to the transverse bars of a hinged frame, E. The frame E (see Figs. 1, 2, 3) is therefore hinged at *e*, the object being that in lifting said frame it carries the central shaft and its attached beaters with it at same time, and thus the latter can be swung into or out of the globe-chamber. The limit of the movement of the hinged frame is shown by the position in Fig. 2. Further, the hinged frame carries the power parts, viz., the main driving-shaft *e*¹, Figs. 1, 2, 3, which turns transversely in proper journal-bearings secured to the frame on the shaft *e*¹. E' is the bevel-wheel, which meshes into the pinion *e*² on the

end of the arbor or central shaft, as shown in Figs. 1, 2, 3. The driving-shaft can be driven by hand, water, steam, or other well-known power.

The operation of the parts, as described and shown, is, therefore, as follows: The globe is filled with the stuff or liquid to be treated. The power being applied to the main shaft imparts by the gearing a most rapid revolution to the beaters C. If the matter churned be butter, the cover is removed, and the sections of the beater are uplifted, which enables such and similar matter formed within the globe to be removed. In beating eggs, &c., the matter formed is removed by uplifting the frame, as shown in Fig. 2.

My machine is, therefore, in construction adapted to supply a want more specially in establishments where a great amount of churning, beating, or agitating of particles is required to be done.

What I claim is—

1. The dashers D' C, the latter being hinged at d and fastened at d' , as and for the purpose set forth.

2. The dashers C D', central shaft D, its pinion e^2 , in combination with hinged frame E, carrying bevel-wheel E' and power-shaft, to operate in the manner and for the purpose set forth.

3. The combination of the globe-chamber, consisting of the halves B¹B², the central shaft D, carrying beaters C, pinion e^2 , the hinged frame E, its bevel-wheel E', driving-shaft e^1 , and frame A, all constructed to operate in the manner and for the purpose set forth.

In testimony of said invention I have hereunto set my hand.

CONRAD SEIBEL.

Witnesses:

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