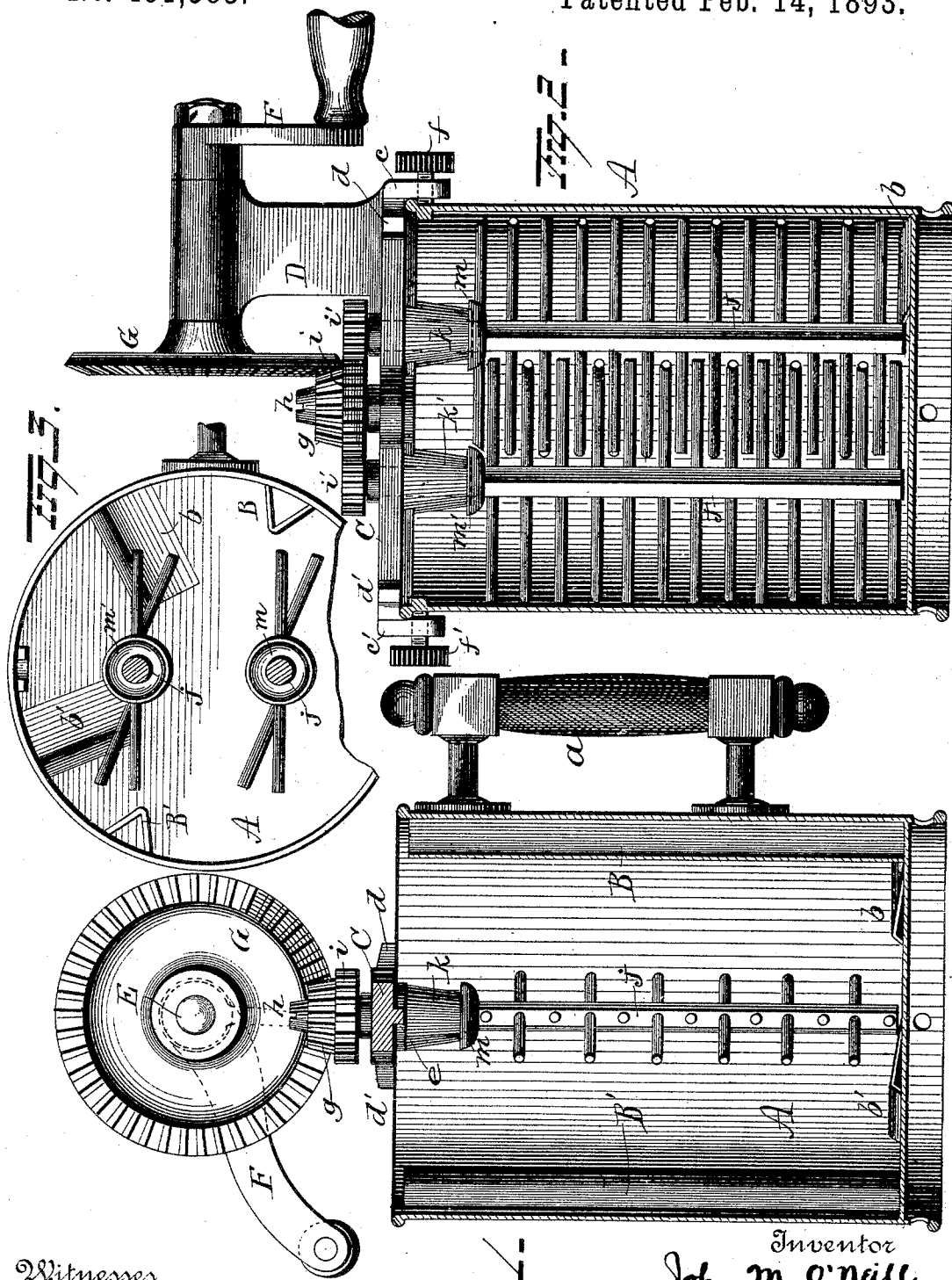


(No Model.)

J. M. O'NEILL.
EGG BEATER.

No. 491,583.

Patented Feb. 14, 1893.



Witnesses
E. M. Hughes
C. F. Downing

Inventor
John M. O'Neill
By *H. A. Seymour*
Attorney

UNITED STATES PATENT OFFICE.

JOHN M. O'NEILL, OF JANESVILLE, WISCONSIN, ASSIGNOR OF ONE-HALF TO
RUSSELL L. COLVIN, OF SAME PLACE.

EGG-BEATER.

SPECIFICATION forming part of Letters Patent No. 491,583, dated February 14, 1893.

Application filed December 16, 1891. Serial No. 415,282. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. O'NEILL, of Janesville, in the county of Rock and State of Wisconsin, have invented certain new and useful Improvements in Devices for Beating Eggs, Butter, &c.; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in a device for beating eggs, butter, cream &c., and for mixing dough, icings and other like mixtures, the object being to provide a portable device capable of being quickly and readily removed from a container for cleaning and designed to rapidly and effectually mix and agitate any material placed within the container.

With this end in view my invention consists in certain novel features of construction and combinations of parts as will be hereinafter more fully described and pointed out in the claim.

In the accompanying drawings, Figure 1 is a view in vertical section of my invention. Fig. 2 is a view in vertical section longitudinally through the driving shaft. And Fig. 3 is a plan view, with parts removed.

A represents a container preferably cylindrical in form and provided exteriorly with a handle *a* and interiorly with two ribs *B, B'* located preferably at points diametrically opposite each other, the bottom of said container being also provided with two projections *b, b'*.

C represents an oblong frame, the outer ends of which are provided with depending projections *c, c'* adapted to overlap the upper side edges of the container. The frame is also provided at its sides at each end with two laterally extending fingers *d, d'* adapted to rest on the top edges of said container, and form an enlarged stable bearing for the frame. The underside of frame C is provided with a rib *e*, which latter rests in U-shaped supports located on the inner face of the container at points diametrically opposite each other. The depending projections *c, c'* are provided with screw threads for the reception of thumb screws *f, f'*, and when it is desired to secure the frame C to the container the former is

placed in position with its rib resting in the U-shaped supports and the thumb screws *f, f'* screwed until their ends abut against the outer surface of the container. The container is preferably provided with a bead at its top and hence when the screws engage the sides of the container below the bead the parts are locked against separation. By providing the frame with a rib the pressure of the thumb screws against the container is borne solely by said rib and collapsing or bending of the container prevented.

The frame C is provided at or near one end with an upright standard D, which latter carries the shaft E, to the outer end of which is attached the handle F secured in any suitable manner. To the opposite or inner end of the shaft E is located a beveled pinion G, which meshes with a small beveled pinion *g* loosely mounted on stud *h* fixed to frame C. Integral with or rigidly secured to the small beveled pinion *g* is the spur wheel *i*, which latter meshes with spur wheels *i'* rigidly secured to the upper ends of parallel shafts *j*. Projecting downwardly from and integral with the under side of frame C are sleeves *k, k'* through which the shafts *j* pass. These sleeves form elongated bearings for the shafts *j* and hold the latter steadily while being rotated by the gearing above described.

The shafts *j* are provided at points below the sleeves *k, k'* with drip cups *m, m'* which latter project a slight distance above the lower edges of the sleeves for catching the drip from the bearings supporting the shafts.

The shafts *j* are provided at suitable distances apart with a series of horizontal blades or beaters and the two shafts are geared by one intermediate spur wheel it follows that they revolve in the same direction and the blades or beaters of each agitator caused to pass those of the other in opposite directions near the center of the container, the alternate blades or beaters are shown bent laterally so as to rest in vertical planes outside of the planes of the alternate blades or beaters, but if desired they can all be arranged in the same planes. As the sleeves *k, k'* prevent the shafts *j* from lateral displacement or wobbling, it is not necessary to provide means for securing or supporting the lower ends of

the shafts, hence the latter can rest on the bottom of the container, or terminate just above the bottom.

In operating the device the tendency of the 5 beaters or blades is to throw the material being operated upon toward the sides of the container leaving a space or vacuum near the center; by providing the container with the abutments or ribs B, B', at the sides and bot- 10 tom the material forced outwardly by the blades or beaters is thrown inwardly toward the center and consequently all the space utilized. Again by providing the underside of the frame with the longitudinal rib *e* the col- 15 lapsing of the container is prevented as the rib *e* forms a bearing for the container and receives the pressure of the thumb screws *f*, *f'* employed for locking the frame C in position. It is of course desirable to provide a 20 container constructed to receive the frame C with the beater mechanism thereon, but I can if desired construct the frame so that it can be supported on different sized containers.

Instead of providing the frame with a con- 25 tinuous rib *e* as shown, I can employ two lugs one near each end, and occupying positions corresponding to the ends of the ribs and performing the functions of the rib. Again instead of employing two thumb screws, the 30 projections *c* can be provided with a lip adapted to take under the bead on the container, and the projection *c'* provided with a screw.

Devices other than the screws referred to 35 for securing the frame to the container might be employed and hence I do not care to limit myself to one or two thumb screws.

It is evident that numerous slight changes 40 and alterations in the constructive details of my improvement might be resorted to without departing from the spirit and scope of

my invention, hence I would have it understood that I do not wish to confine myself to the exact form of construction shown and described, but consider myself at liberty to 45 make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

Having fully described my invention, what I claim as new and desire to secure by Letters 50 Patent is:—

An egg-beater consisting of a cup or receptacle having a handle on one side, hollow ver- 55 tical ribs diametrically located in the interior of the receptacle, projections *b*, *b'* in the bottom of the receptacle, an oblong frame provided with depending projections at its ends, 60 thumb screws operating in these projections for holding the frame on the cup or receptacle, said frame having sleeves projecting above and below it, shafts revolubly supported in 65 these sleeves, said shafts having beaters thereon and drip cups located just below the sleeves, gear wheels on the upper ends of the shafts, an interposed gear wheel meshing with the gear wheels on each shaft, a bevel 70 pinion connected with the interposed gear wheel, a standard having a horizontal shaft journaled therein, said horizontal shaft provided with a bevel gear wheel intermeshed with the other gear wheel, and a crank on the opposite end of the horizontal shaft, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOHN M. O'NEILL.

Witnesses:

JOHN CUNNINGHAM,
MAUDE L. YOUNG.