(No Model.)

C. D. WEEKS.

EGG BEATER.

No. 529,764. Patented Nov. 27, 1894.

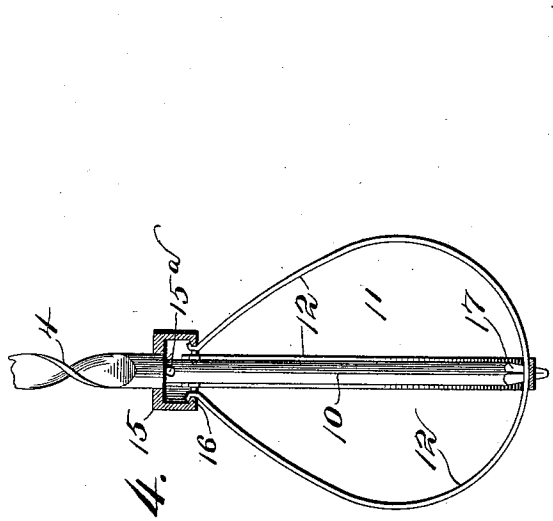

Fig. 4.

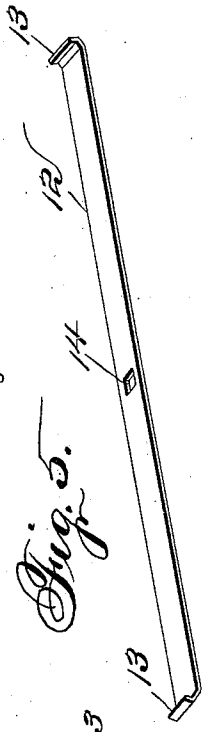

Fig. 5.

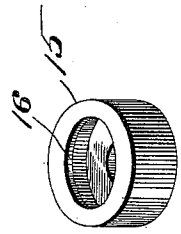

Fig. 6.

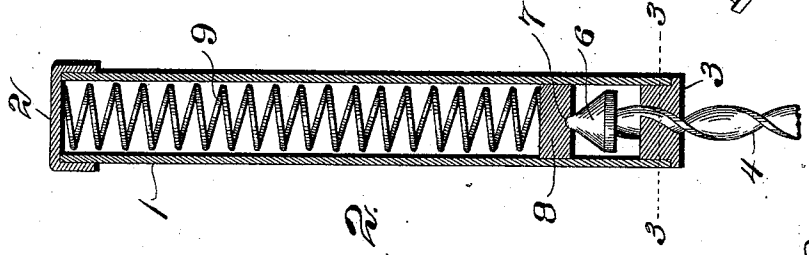

Fig. 2.

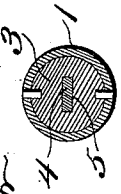

Fig. 3.

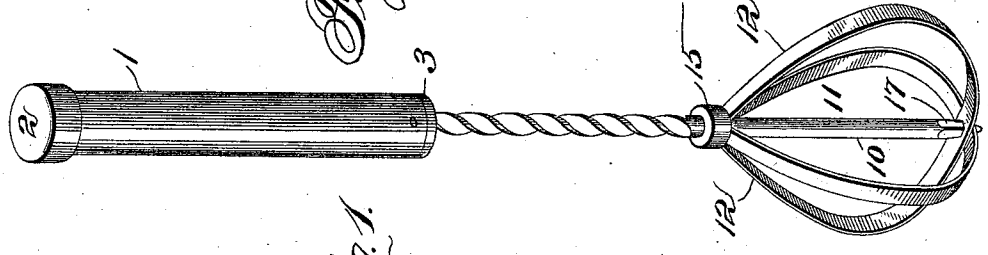

Fig. 1.

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UNITED STATES PATENT OFFICE.

CHARLES D. WEEKS, OF ST. LOUIS, MISSOURI.

EGG-BEATER.

SPECIFICATION forming part of Letters Patent No. 529,764, dated November 27, 1894.

Application filed January 2, 1894. Serial No. 495,295. (No model.)

To all whom it may concern:

Be it known that I, CHARLES D. WEEKS, of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Egg-Beaters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to an improved egg-beater, and consists in the novel construction, combination and arrangement of parts hereinafter described and designated in the claims, and illustrated in the accompanying drawings.

In the drawings: Figure 1 is a perspective view of the complete egg-beater, showing the same in position ready for use. Fig. 2 is a longitudinal central section of the handle and a portion of the Archimedean screw, showing the connection of said screw with the handle. Fig. 3 is a transverse section of the handle and the nut through which said screw passes, said section being taken on the line 3—3 of Fig. 2. Fig. 4 is a longitudinal section of that portion of the beater which agitates the eggs, more clearly illustrating how the agitator is removed from the screw for cleaning, &c. Fig. 5 is a perspective view of a strip of spring metal, which is made use of in forming the agitator. Fig. 6 is an enlarged perspective view of a movable catch which is brought into use for holding the agitator in connection with the screw.

Referring to the drawings: the numeral 1 indicates the handle of the egg-beater which is hollow and preferably cylindrical in cross-section, it being closed at its upper end by a cap 2 and at its lower end by a nut 3.

4 indicates the Archimedean screw, which passes through an opening 5 formed in the nut 3. Said opening is of such a size and shape as to conform with said screw but still allow the screw to pass loosely through it. Formed on or fixed to the upper end of the screw 4 (that end which extends into the handle) is a conical shaped enlarged portion 6. The upper end being the pointed one, it is engaged by a depression 7 formed in a block 8. Said block is round in plan view and the same size as the inner periphery of the handle, but fits loosely so it can slide in said handle.

9 indicates a coil-spring, which is located in the handle between the block 8 and the cap 2, said spring being about the length of the handle. The screw 4 is of the same length as the handle 1, and formed on or fixed to the lower end of the screw is a shaft 10 which carries the agitator or egg-beater 11. Said agitator is constructed of two strips 12 formed of spring metal, and upon each end of each of the pieces is formed a hook 13 and a square opening 14 is formed in the center of each of said pieces.

15 indicates a movable catch, which is located on the shaft 10 carried by the screw 4. The catch 15 is constructed of a suitable disk having an opening formed therein through which the shaft passes. Formed on the lower side of said disk is a downwardly projecting annular flange, and upon the lower edge of said flange is formed an inwardly extending annular projection 16. The movement of the catch 15 toward the free end of the shaft 10 is limited by a pin 15^a, which is connected to said shaft. The free end of the shaft 10 is provided with a pointed squared portion 17 so that the strips 12, which form the agitator, can be connected thereto. For detaching the agitator, the operator grasps the engaged ends of the strips 12 and presses them in against the shaft 10, which will disengage the hooks 13 from the annular projection 16 carried by the catch 15, which will readily allow said catch to be elevated, thus releasing the ends of said strips. When they are so released, they will readily slip off from the square end of the shaft, it being pointed for this purpose, and another object of having the lower end of the said shaft pointed is that when it is brought in contact with the bottom of a vessel in which the eggs are placed for beating, there will not be such friction caused by the point of the shaft coming in contact with the vessel as if it were blunt or larger. Another object of having the lower end of said shaft pointed is that it will more readily stay in place and not move around when the shaft is revolved. By removing the strips 12, which form the agitator, and the catch 15, each piece will be separate so that it can readily be washed after use. For replacing them the operator first slips the catch 15 on the shaft 10 and then crosses the centers of the strips 12 at a right angle, which brings the openings 14

in alignment and places the square end of the shaft 10 within said openings, and bends the ends of said strips up until they engage the shaft 10, which will allow the catch 15 to be dropped down from the ends, thus retaining them in the required position. (See Figs. 1 and 4 for illustration.)

Having described the operation of each part along with the mechanical construction, I will now proceed to describe the operation of the egg-beater as a whole. After the liquid portion of the eggs has been placed in a vessel, the operator places the agitator of the egg-beater in the vessel so the point of the shaft 10 will rest on the bottom of the vessel, and grasps the handle with one hand and pushes it down (it being up when in its normal position), and the nut 3 being integral with said handle, and said nut passing down over the screw 4, will cause the screw to revolve. When the handle has been pushed down to its limit, the spring 9 will push it back again. As the spring pushes it back, it will cause the screw to revolve in the direction opposite from that in which it moved when the handle was pushed down.

What I claim is—

1. In an egg beater, the combination of a shaft carrying an integral screw, a handle acting upon and rotating the said screw, a series of strips of metal engaged adjacent their centers by the free end of said shaft, said strips of metal constructed to be bent back so that their ends will be adjacent each other, and a catch 15 located on the shaft and having a downwardly projecting annular flange and an inwardly extending annular projection 16 formed on said flange, and a pin limiting the movement of the catch, thus providing means for retaining said ends in said position, substantially as set forth.

2. An egg beater, comprising a hollow handle 1 having a removable cap 2 on its upper end and a nut 3 on its lower end forming a screw-seat, an Archimedean screw 4 mounted in said nut 3 and having an apexed end portion 6, a block 8 mounted for reciprocation within the handle 1 and having a central depression 7, within which depression 7 the apexed upper end 6 of the Archimedean screw 4 is seated and adapted for rotation, an expansive spiral spring 9 fixed to said block 8 and to the cap 2 of the handle 1, a shaft 10 integrally formed with the lower end of the Archimedean screw 4 and extending downwardly therefrom, a catch 15 adjustably seated on the said shaft 10, and a plurality of beating strips 12 formed of looped strips of metal mounted at their centers on the lower end of said shaft 10 and having their ends confined by the said catch 15, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES D. WEEKS.

Witnesses:
M. P. SMITH,
JNO. C. HIGDON.