

F. J. SEYMOUR.

EGG-BEATER.

No. 174,015.

Patented Feb. 22, 1876.

Fig. 1.

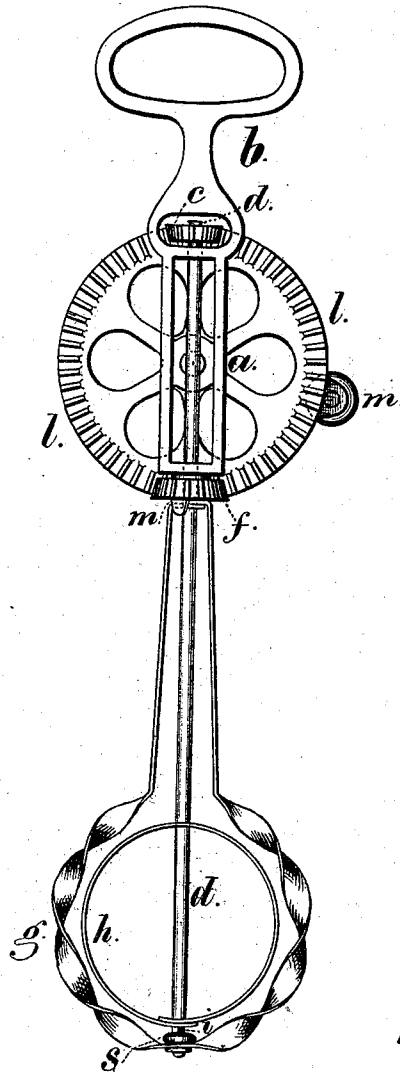


Fig. 2.

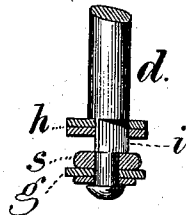


Fig. 3.



Witnesses

Chas. H. Smith
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Inventor

Frederick J. Seymour.
per L. W. Serrell atty.

UNITED STATES PATENT OFFICE.

FREDERICK J. SEYMOUR, OF WOLCOTTVILLE, CONNECTICUT, ASSIGNOR TO HIMSELF AND TURNER & SEYMOUR MANUFACTURING COMPANY, OF SAME PLACE.

IMPROVEMENT IN EGG-BEATERS.

Specification forming part of Letters Patent No. **174,015**, dated February 22, 1876; application filed June 7, 1875.

To all whom it may concern:

Be it known that I, FREDERICK J. SEYMOUR, of Wolcottville, in the State of Connecticut, have invented an Improvement in Egg-Beaters, of which the following is a specification:

Egg-beaters have been made with two floats or frames, one within the other, and revolved in opposite directions by pinions driven by a gear-wheel and crank-handle. These frames describe a regular path in the liquid mass, and hence do not act as efficiently in beating the eggs as they would if the movement was differential and produced a circulation. Besides this, the inner frame, revolving at the same speed as the outer frame, is not as efficient as the outer frame, because the inner frame describes a smaller circle in revolving. My invention is made for increasing the speed of the inner frame in proportion to that of the outer frame, and thereby equalizing the action of the beaters, and for effecting a circulation of the albuminous mass so that all portions will be equally exposed to the beating operations.

In the drawing, Figure 1 is an elevation of the beater complete. Fig. 2 is a section of the end connections of the shaft; and Fig. 3 is an end view of the shaft. The last two figures are in enlarged size.

The frame *a* and handle *b* are adapted to receive the pinion *c* in a mortise or bow near the junction of the frame and handle. The shaft *d* passes through holes in the frame, and is driven tightly into this pinion *c*, and upon the shaft, at the lower end of the frame *a*, is the second pinion, *f*, that is connected with the outer bow or ring *g*, and the shaft *d* is attached to the inner ring or bow *h*. The pinions *c* and *f* are rotated in opposite directions by the gear-wheel *l* and handle *m*, and the pinion *f* is larger than the pinion *c*, in order that the inner ring or bow may revolve faster than the outer bow *g*, and hence the relative actions will correspond, or nearly so, as aforesaid. The gear-wheel *l* is placed at a slight inclination to the frame *a*, so as to operate correctly upon the two pinions. The inner bow or ring *h* is made

of a strip of sheet metal bent into a circle, or nearly so. There is a hole in this strip, through which the shaft *d* passes, and there are triangular holes near the ends of the strip, so that said ends lap, and the prismatic portion *i* of the shaft *d* passes through such holes, so that the ring *h* will be turned by this shaft *d*. A washer, *s*, intervenes between the ring *h* and the bow *g*, and the end of the shaft *d* is round, and passes through a hole in the bow *g*, and is riveted in place. The strip of sheet metal forming the bow *g* continues to the pinion *f*, where the ends are lapped, and the shaft *d* passes through them. There is a projection, *m*, upon the pinion *f*, that serves to cause the pinion to rotate the outer bow *g*.

It will now be apparent that the bows or rings revolving in opposite directions, and the inner bow moving the most rapidly, the eggs contained in a bowl or vessel are thoroughly and uniformly beaten, and the beater is very cheap and durable. I, however, in some cases, as an additional means of stirring and beating the eggs, make one or both of the rings or bows of a twisted strip of metal, somewhat similar to an auger-twist, and sometimes termed spiral, in order that the strip may present to the eggs angular and inclined surfaces as the bow revolves, and in so doing produce a stirring and circulating operation in the viscid mass, and thereby insure a proper action upon all portions.

I claim as my invention—

The egg-beater made with two rings or bows, revolved one within the other, in combination with the actuating-wheel *l* and pinions *c* and *f*, positioned at opposite sides of the wheel *l*, said pinion *c* being smaller than the pinion *f*, in order that the inner bow may receive an accelerated motion, for the purposes set forth.

Signed by me this 3d day of June, A. D. 1875.

FREDERICK J. SEYMOUR.

Witnesses:

GEO. T. PINCKNEY,
CHAS. H. SMITH.