M. G. CRANE.

EGG BEATER.

No. 48,525. Patented July 4, 1865.

Fig 2.

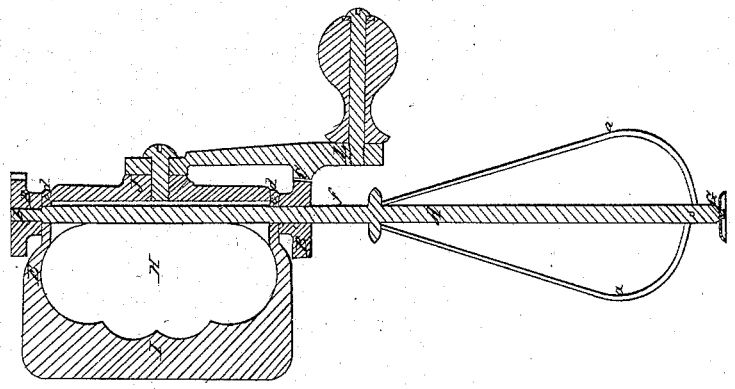


Fig 3.

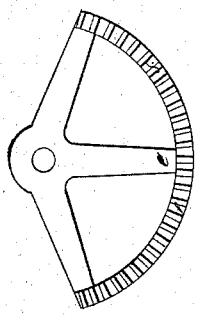
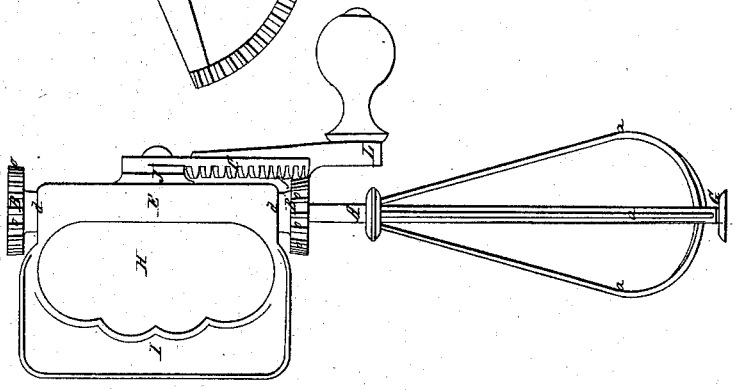


Fig 1.



Witnesses.
W. P. Hale Jr
G. H. Washburn

Inventor.
Moses G Crane.
by his attorney
R. H. Eddy.

UNITED STATES PATENT OFFICE.

MOSES G. CRANE, OF BOSTON, MASSACHUSETTS.

EGG-BEATER.

Specification forming part of Letters Patent No. **48,525**, dated July 4, 1865; antedated June 27, 1865.

To all whom it may concern:

Be it known that I, MOSES G. CRANE, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Egg-Beater; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a side elevation, and Fig. 2 a vertical section, of an egg-beater constructed in accordance with my invention. Fig. 3 is a side view of the sectoral gear, to be hereinafter described.

The nature of my invention consists in combining with the rotary shaft or spindle of the egg-beater certain mechanism—viz., two pinions and a sectoral gear—which, when put in operation, as hereinafter set forth, will cause the said beater to be rapidly rotated in opposite directions alternately, whereby not only will the albumen and yelks of the eggs be quickly reduced to a homogeneous mass, but the tendency of such mass to overflow while being assimilated or broken up and commingled will be most effectively prevented.

In the said drawings, A denotes a rod or spindle whose journals *b b* are supported in bearings *c c* made through the frame E, or through ears *d d* projecting therefrom. On the upper end of the said spindle a pinion, B, is affixed, the lower face of its hub resting on the upper surface of the said frame E. B′ is another pinion or cog-wheel having the same diameter and a like number of teeth or cogs as the said pinion B, such pinion B′ being firmly secured to the said spindle, and having the upper face of its hub resting against the lower face of the frame E, as shown in Figs. 1 and 2. The said frame E consists of a curved metallic plate having ears *d d* projecting from its opposite ends and at right angles thereto, as seen in Fig. 1. It also has a slot or hand-passage, H, made longitudinally through it, the outer curved portion, I, of such frame E being formed as a handle, by which the beater may be held in its proper position. Furthermore, on the opposite side of the frame E another ear, J, is formed. To this ear or projection the sectoral gear C is attached by a fulcrum or pin whose axis is arranged at right angles to that of the spindle A, but so as to stand in the same vertical plane. The said sectoral gear has a radius equal to one-half the distance between the outer faces of the pinions B and B′, so that when the said gear is put in revolution the teeth *f f*, &c., thereof shall engage alternately with the teeth *o o* of each of the pinions B B′ during each revolution of said gear. L is a crank or handle affixed to the gear C, and by which the said mechanism may be put in operation.

a a, &c., are a series of curved wires, which are soldered or otherwise properly connected to the lower half of the spindle A, in manner as shown in Figs. 1 and 2. This series of wires I term the "egg-beater," as they are the immediate agents employed in beating up the eggs.

For the purpose of supporting the egg-beater in a proper position within the vessel in which the eggs are to be beaten, I arrange on the lower end of the spindle A a pedestal or disk, G, which may be of a concavo-convex or other desired shape, such spindle being pivoted to such disk, and so as to be capable of being freely rotated therein.

From my peculiar combination and arrangement of the two pinions B B′ and the sectoral gear C the teeth of the said gear are caused, during one-half, or nearly one-half, of its revolution, to engage with the teeth of one of the said pinions, while during nearly its other half-revolution its teeth engage with the teeth of the other of the said pinions, and as the two pinions are attached to one shaft or spindle at points diametrically opposite to the path of revolution of said gear, the said spindle, and consequently the egg-beater, will be caused to revolve in opposite directions alternately during each revolution of the said gear.

A machine constructed in my improved manner is not only simple in construction and effective in operation, but not liable to get out of repair.

Having described the construction and operation of my invention, what I claim is as follows:

The combination of the rotary spindle A, the series of curved wires or arms *a a a*, &c., the pinions B and B′, and the sectoral gear C, the same being arranged so as to operate together, substantially as described.

MOSES G. CRANE.

Witnesses:
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