

E. HADLEY.
Egg-Beaters.

No. 138,647.

Patented May 6, 1873.

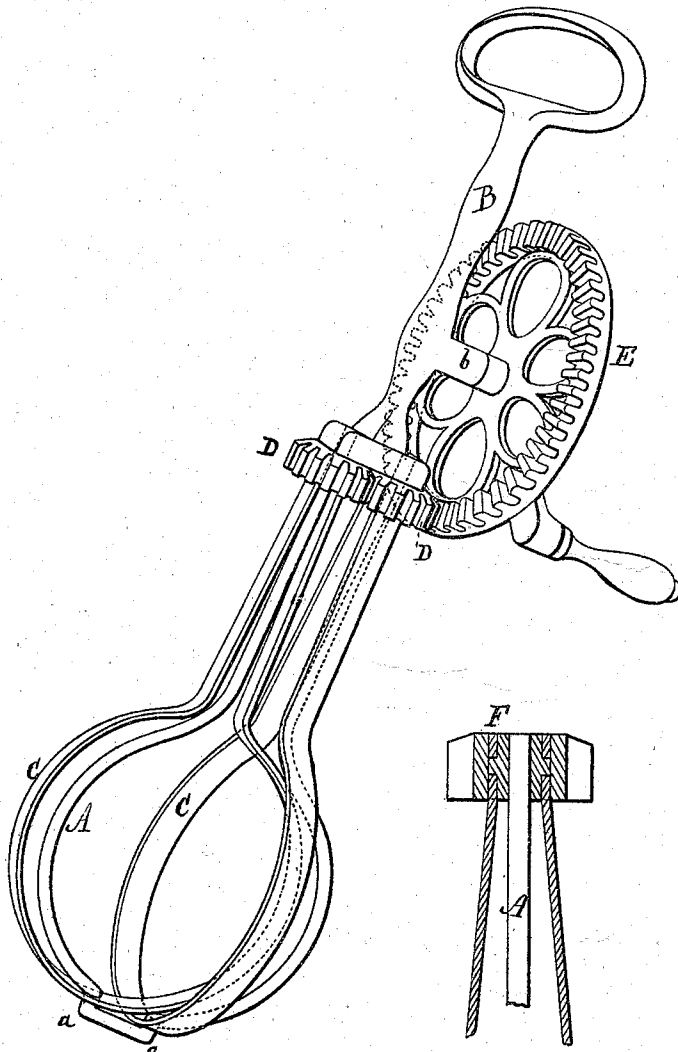


Fig. 1.

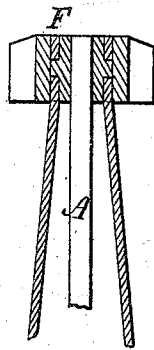


Fig. 2.

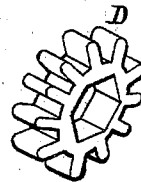


Fig. 3.

WITNESSES.

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ETHAN HADLEY, OF CHICOPEE FALLS, MASSACHUSETTS.

IMPROVEMENT IN EGG-BEATERS.

Specification forming part of Letters Patent No. **138,647**, dated May 6, 1873; application filed February 8, 1873.

To all whom it may concern:

Be it known that I, **ETHAN HADLEY**, of Chicopee Falls, in the county of Hampden and State of Massachusetts, have invented a new and valuable Improvement in Egg-Beaters; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a perspective view of my egg-beater. Figs. 2 and 3 are details of the same.

My invention relates to an improvement in what is known as the Dover egg-beater, consisting of a bent rod, with its ends attached to a handle, and two other rods of similar form revolving around it by means of a bevel-gear wheel and pinions; and my invention consists in the peculiar construction of the pinions, as hereinafter particularly described.

In the drawing, **A** represents a round metallic rod or wire, which is bent midway of its length so as to form two right angles, *a a*, from half an inch to an inch apart. The ends are then curved outward and inward until they form nearly a full circle from two to three inches in diameter, from the circumference of which, at points opposite the two right angles *a a*, they extend radially for a suitable distance, and have their ends secured in a handle, **B**. **C C** represent two flat bars or strips of metal, which are bent in the same form as the rod **A**, and have their upper ends attached to pinions **D D**. In the curved portion of each bar **C** is a hole, through which one end of the rod **A** is passed until the perforated portion rests immediately over the angle *a*. The upper portions of the rod **A** form the bearings for the pinions **D**, being passed through said

pinions before being attached to the handle **B**. The pinions are operated by a gear-wheel, **E**, having its bearings on an arm, *b*, projecting from the handle.

Heretofore the pinions **D D** have been made of soft metal, such as Babbitt metal, or some similar composition, and the bars **C C** attached to them by inserting the ends in the mold and pouring the metal around them.

It has been found, in practice, that the soft-metal pinions were not durable enough, but would soon become so much worn as to be comparatively useless. To remedy this defect I make the pinion of cast-iron or other suitable hard metal, with a polygonal opening through the center, as shown in Fig. 3, and I attach the ends of the bars **C** to a soft-metal plug, **F**, corresponding in size and form with the opening in the pinion, and having a central perforation for the rod **A** to pass through. This plug is constructed with spurs or lugs on its outer surface adapted to pass through corresponding openings in the bar **C**, and hold them in position as shown. Said plug is fitted to the pinion, and the parts are otherwise arranged as above described.

What I claim as new, and desire to see by Letters Patent, is—

As an improvement on the Dover Egg-Beater, the combination of the hard metal annular pinion **D**, the central soft-metal plug or core **F**, and the bars **C**, attached to the soft-metal core, constructed as shown and described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ETHAN HADLEY.

Witnesses:

GEO. D. ROBINSON,
WILLIAM G. PORTER.