T. Marsh,

Egg Beater.

No. 107,515. Patented Sep. 20. 1870.

Fig. 1.

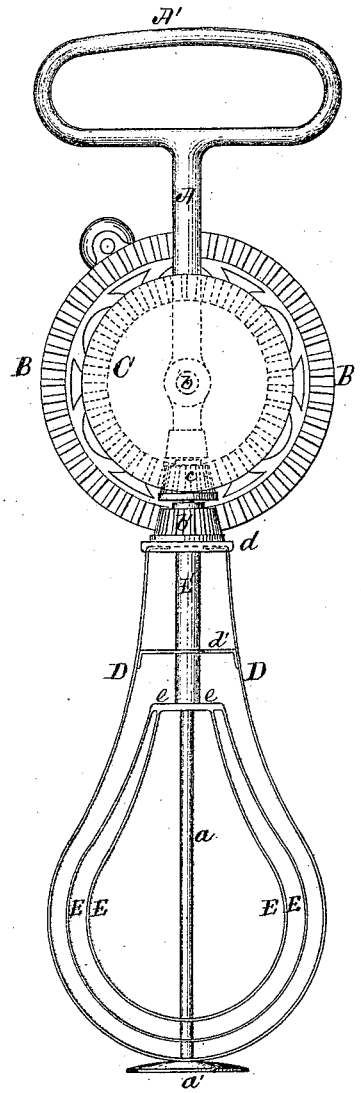
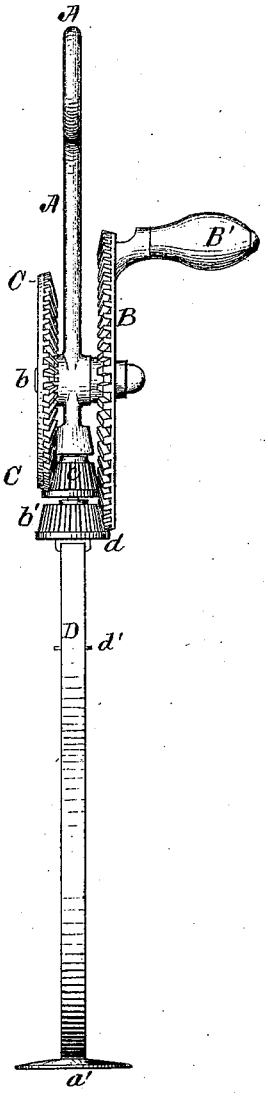


Fig. 2.



Witnesses:
John F. Fennell.
Wm. S. Grimes

Inventors:
Thomas Marsh.
By Newton Crawford,
his attorney.

United States Patent Office.

THOMAS MARSH, OF PAWTUCKET, RHODE ISLAND, ASSIGNOR OF ONE-HALF HIS RIGHT TO JAMES CALLAGHAN, OF SAME PLACE.

Letters Patent No. 107,515, *dated September* 20, 1870.

IMPROVEMENT IN EGG-BEATERS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, THOMAS MARSH, of Pawtucket, in the county of Providence, in the State of Rhode Island, have invented a new and useful Improvement in Egg-Beaters, of which the following is a specification.

My invention consists in the construction and arrangement of the devices that constitute the operating parts of the egg-beater.

Figure 1 is a vertical side view of the egg-beater, and

Figure 2 is a transverse view of the same.

A is the metal frame that supports the several parts that compose the beater, and at the upper end of which, for convenience of holding, is the loop-handle A′.

B is the main driving gear-wheel, having its gear-teeth toward the frame A, and is made fast on one end of revolving shaft *b*, that turns in a suitable bearing in frame A, and gears into and turns wheel *b′*.

At the other end of shaft *b*, and revolving therewith, is gear-wheel C, which has its gear-teeth toward frame A, and gears into and turns small wheel *c*.

There is a center rod or bar, *a*, extending downward from frame A, terminating in a foot or stand, *a′*, and upon which the device rests when in use.

Wheel *b′* has a yoke or cross-head, *d*, made fast to the under side of said wheel *b′*, and to this yoke *d* the upper ends of the outer beaters D D are made fast.

Beater D D is bent in bow-form, as shown in fig. 1, from sheet metal that will not corrode, and the upper ends made fast to the yoke *d* on gear-wheel *b′*, and so as to be revolved with the gear-wheel *b′*.

In the center of the bow or half-circle form, at the bottom part of the beater D, is a hole, through which the rod *a* goes, and keeps the beater in place when in operation.

Wheel *b′* is not fast to rod *a*, but revolves freely around it, while rod *a* does not revolve, as it is made fast to the bottom part of frame A.

Wheel *c* gears into and is revolved by wheel C, and, like wheel *b′*, revolves around rod *a*, but in the opposite direction to wheel *b′*.

To the under side of wheel *c* is attached a short cylindrical shaft, E′, that embraces and revolves freely around rod *a*; and to the lower end of this shaft E′ is attached firmly a yoke or cross-head, *e*, to which the upper ends of the inner double revolving beaters E E are firmly attached, and revolve with the cylindrical shaft E′ and wheel *c*.

The double inner beaters E E in form correspond with that of beater D, and revolve within the circle of beater D, but in a contrary direction, and are secured in their position at their bottom curvatures by the rod *a*, which goes through their bottom parts the same as it does through beater D.

To more perfectly support beater D, and hold it in position and shape while in use, and near to its upper end, is a cross-brace, *d′*, made fast to each limb of beater D, and has an aperture in its center, through which passes cylindrical shaft E′. This aperture is large enough to allow shaft E′ to freely revolve therein, and brace *d′* can as freely revolve around cylindrical shaft E′.

When all the parts are constructed and arranged as above described, by taking hold of crank-handle B′, and revolving wheel B, shaft *b* is also revolved, and with it gear-wheel *b′* and beater D; and, at the same time, wheel C, turning with wheel B, and gearing into small wheel *c*, turns the double beaters E E in a contrary direction to that given to beater D.

By this construction and arrangement of the gear-wheels with the beaters, the outer beater revolves in one direction, while the inner double beaters revolve in an opposite direction, enabling them, in their revolutions in opposite ways, to take hold of and beat the substance of the egg in the most perfect and satisfactory manner.

The device is cheap, efficient, and will do more work with the same power applied, and in less time, than any egg-beater within my knowledge.

Having thus described my invention,

What I claim, and desire to secure by Letters Patent, is—

The combination of the gear-wheels B, C, *b′*, and *c*, with the beater D and inside double beaters E E, when constructed and arranged to operate in the manner and for the purpose described.

THOMAS MARSH.

Witnesses:

WM. R. SAYLES,

FRANK LEONARD.