

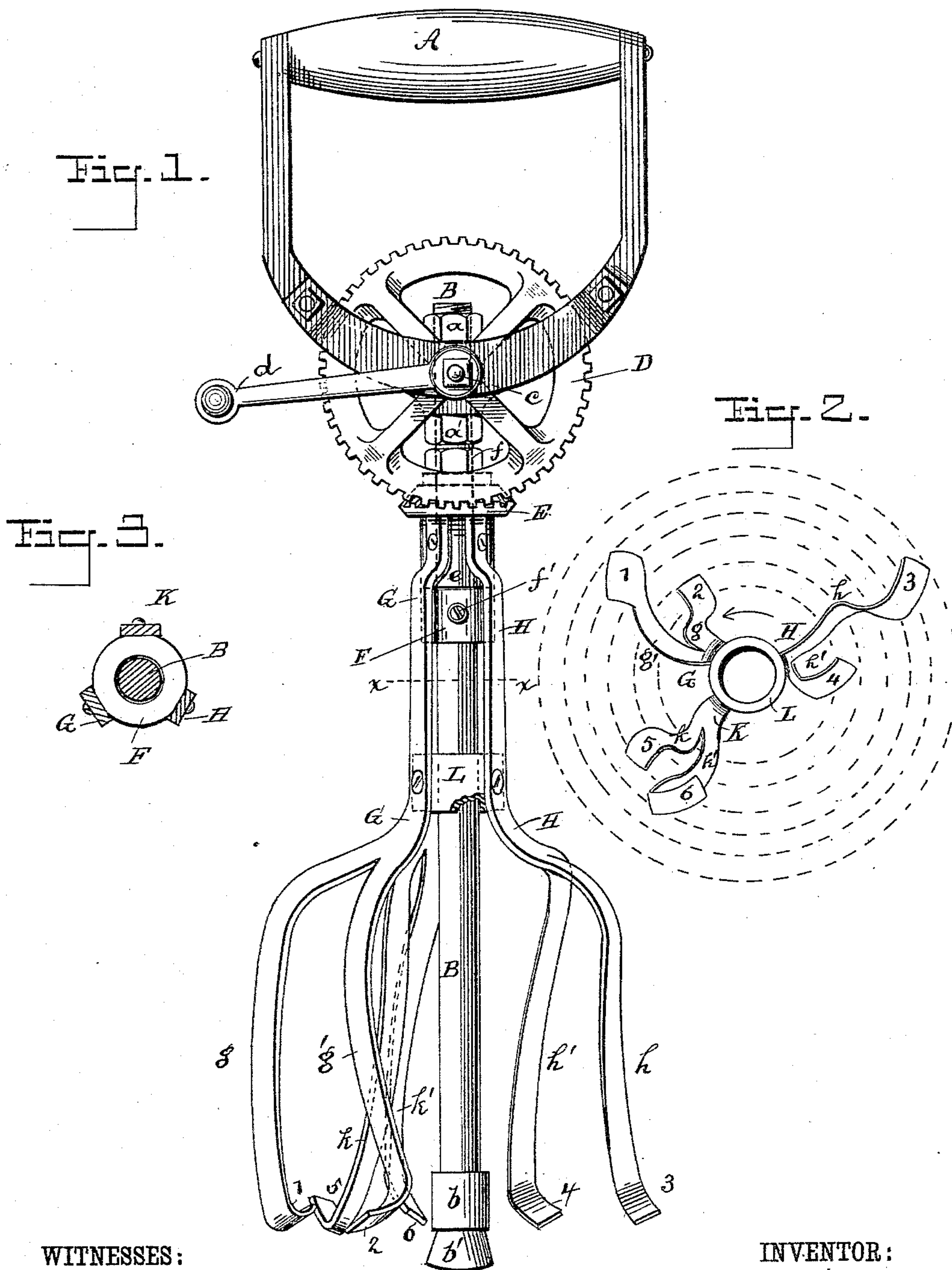
(No Model.)

M. D. PLATNER.

CAKE MIXER.

No. 359,887.

Patented Mar. 22, 1887.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

MARSHAL D. PLATNER, OF VIRGINIA CITY, MONTANA TERRITORY.

## CAKE-MIXER.

SPECIFICATION forming part of Letters Patent No. 359,887, dated March 22, 1887.

Application filed August 28, 1886. Serial No. 212,057. (No model.)

*To all whom it may concern:*

Be it known that I, MARSHAL D. PLATNER, of Virginia City, in the county of Madison and Territory of Montana, have invented a new and Improved Cake-Mixer, of which the following is a full, clear, and exact description.

My invention relates to cake-mixers, and has for its object to improve the construction of mixers as used with cake or other batter and thick liquids, wherein through the use of mixers and beaters projected to revolve around a central rod at various angles thereto and different distances therefrom, the beaters working at the bottom and the mixers through the entire mass, a greater agitation is produced and a more thorough mixture accomplished.

It consists in the construction and combination of the various parts, as will be hereinafter fully set forth, and pointed out in the claims. Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is an elevation of my mixer; Fig. 2, a bottom view thereof, and Fig. 3 a central transverse section through line *x x* of Fig. 1.

A designates a handle provided with a rod, B, entered centrally through the lower portion thereof, and secured thereto by means of nuts *a a'*, adapted to extend vertically downward from said handle. A socket, *b*, is secured to the end of the rod B, adapted to hold a cork, *b'*, the purpose of which will be hereinafter set forth.

A short horizontal shaft, C, held in any suitable manner to turn in a metal plate (not shown) attached to one side of the handle A, about the center of its curved lower end, is provided with a toothed wheel, D, keyed thereon, and a crank-arm, *d*, whereby said shaft and toothed wheel are revolved. The toothed wheel D thus attached and rotated is adapted to mesh with a horizontal bevel-gear, E, secured upon the metal ring *e* by means of lock-nut *f*, the said ring *e*, with its accompanying gear and nut, being held to turn upon the rod B, by a collar, F, immediately beneath the ring *e*, supporting the same, and clamped rigidly to the said rod B through the medium of a suitable set-screw, *f'*. Three arms, G, H, and K,

are fastened to the said ring *e* at equidistance thereon, which, curving slightly therefrom, are extended preferably parallel with the rod B, to be secured to another lower ring, L, encircling the said rod B, above the center thereof. From the latter point of attachment the arms G, H, and K terminate in more or less outwardly-curved forked ends, constituting mixers *g g'*, *h h'*, and *k k'*, which, extending at various angles downward around the rod B, and at different distances therefrom, are provided with varied inclined beaters 1, 2, 3, 4, 5, and 6, as illustrated in Fig. 2 of the drawings.

The forked end or mixer *g'* of the arm G and the mixer *k'* of the arm K have their edges turned outwardly to throw the batter when revolved toward the center, and their beaters 6 and 1 are turned in at slightly different angles.

The forked ends or mixers *g* of the arm G and the mixers *k* of the arm K are constructed with comparatively straight edges, their beaters 2 and 5 being turned inwardly to impart, in process of revolution, a whip like stroke to the batter.

The forked ends or mixers *h h'* of the arm H are formed with their edges turned in, which has a tendency to throw the batter out, while their beaters 3 and 4 have an inward inclination to stir and agitate the batter at the bottom the reverse of the mixers *h h'* above them when rotated.

The beaters all have their edges inclined, downward the more readily to lift the batter from the bottom of the receptacle.

By reference to Fig. 2 it will be seen that the beaters cover a large radius thoroughly. The agitation of the liquid or batter to be mixed is varied and great, owing to the different inclination and angles of the several mixers and beaters, whereby the liquid or batter is whipped, thrown, and beaten in every direction throughout the entire mass.

The cork *b* at the bottom of the rod B is proposed to rest upon the bottom of a glass, china, or other easily destructible vessel employed as a receptacle for the batter.

Motion is communicated to the arms G, H, and K by the crank *d* through the medium of the gearing arranged as aforesaid.



While this beater is especially adapted for use in mixing cake or other thick batter, it is equally applicable for use with eggs, paper-hangers' paste, ice-cream, and may in small families be used as a substitute for a churn.

Having thus fully described my invention, I claim as new, and desire to secure by Letters Patent—

1. The combination, with a cake or liquid mixer having a handle, A, and central rod, B, of the arms G H K, revolved substantially as described, provided with the forked ends *g g'*, *h h'*, and *k k'*, projecting downward around said rod at different angles thereto and distances therefrom, having integral therewith downwardly-inclined beaters 1, 2, 3, 4, 5, and 6, extending in opposite directions at right angles to said forked ends, substantially as shown and described, and for the purpose herein set forth.

2. The combination, with the handle A, having attached thereto a shaft, C, toothed wheel D, crank *d*, and a rod, B, extending downwardly therefrom, said rod provided with a sleeve, F, secured thereto by a set-screw, *f*, and a cork, *b'*, inserted in its lower end, of the arms G H K, attached to a ring, *e*, carrying a bevel-gear, E, and a second lower ring, L, the said arms having integral therewith forked ends *g g'*, *h h'*, and *k k'*, and beaters 1, 2, 3, 4, 5, and 6, all arranged and operated substantially as shown and described, and for the purposes herein set forth.

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Witnesses:

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