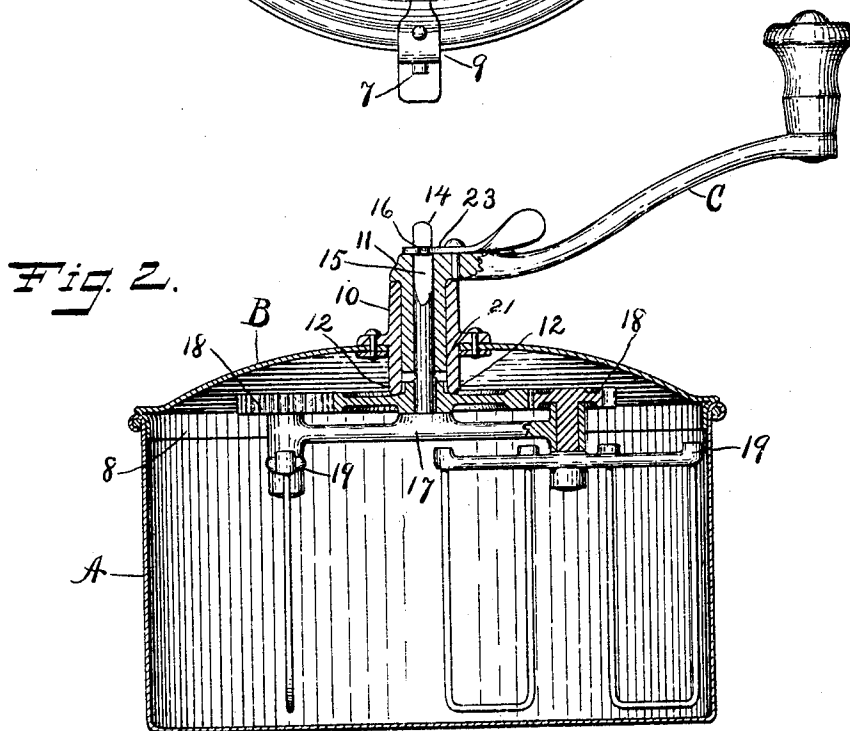
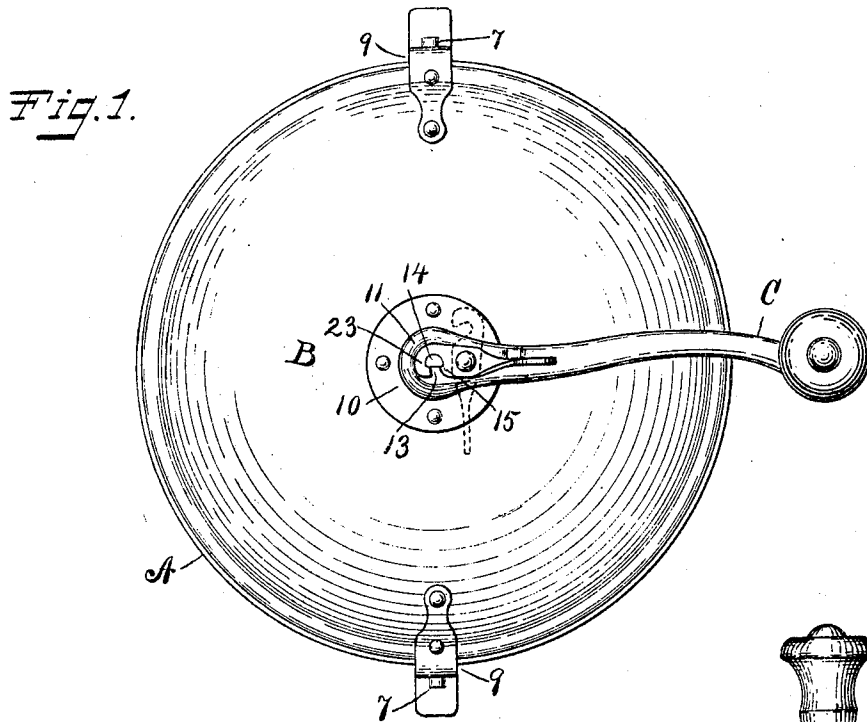


A. A. WARNER.
CAKE MIXER.
APPLICATION FILED JAN. 23, 1905.

2 SHEETS—SHEET 1.



Witnesses.

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P. J. Egan

Inventor.

Alonzo A. Warner
By James Shepard Atty.

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2 SHEETS—SHEET 2.

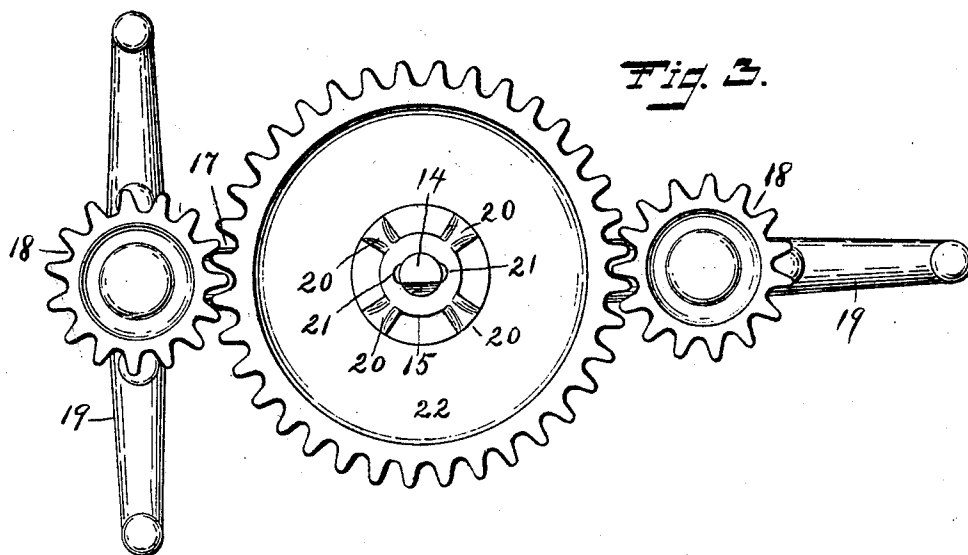


Fig. 3.

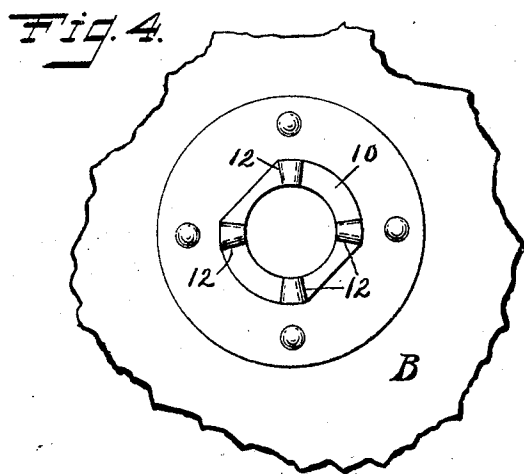


Fig. 4.

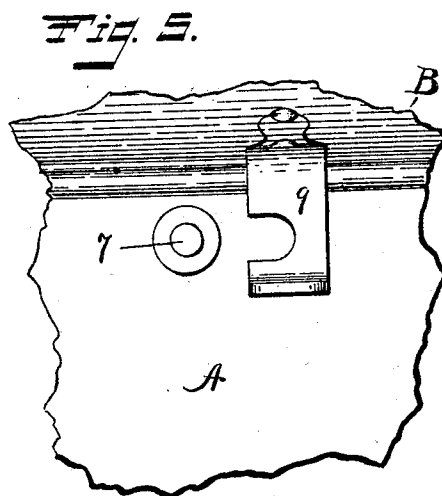


Fig. 5.

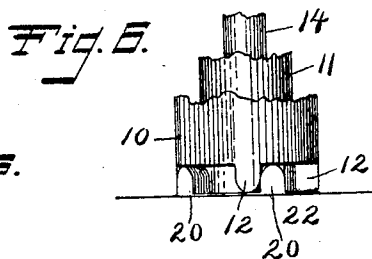


Fig. 6.

Witnesses.

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UNITED STATES PATENT OFFICE.

ALONZO ABNER WARNER, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO
LANDERS, FRARY AND CLARK, OF NEW BRITAIN, CONNECTICUT, A
CORPORATION.

CAKE-MIXER.

SPECIFICATION forming part of Letters Patent No. 795,082, dated July 18, 1905.

Application filed January 23, 1905. Serial No. 242,271.

To all whom it may concern:

Be it known that I, ALONZO ABNER WARNER, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Cake-Mixers, of which the following is a specification.

The invention relates to improvements in machines for mixing and beating ingredients for cake and the like, which machines I call "cake-mixers;" and the objects of the improvement are simplicity and cheapness of construction and convenience and efficiency in use, particularly with reference to detachably mounting all the moving parts on the cover of the machine.

In the accompanying drawings, Figure 1 is a plan view of the machine. Fig. 2 is a sectional elevation of the same, the plane of section extending horizontally through the center of Fig. 1. Fig. 3 is an enlarged plan view of the operating parts less the crank. Fig. 4 is a reverse plan view of the central portion of the cover. Fig. 5 is a side elevation of a portion of the vessel and cover, illustrating the fastening devices. Fig. 6 is a broken side elevation of the clutch mechanism of the cover and stationary gear-wheel.

A designates the vessel, which in the main is of an ordinary construction. It is provided with two stud-like keepers 7, that project radially from opposite sides.

The cover B in the main may be of any ordinary form with an inner flange 8 to fit the interior of the vessel at the top, pail-cover fashion. The said cover is also provided with two downwardly-projecting and open-sided fasteners or catches 9, whereby when the cover is seated in place on the top of the vessel with the fasteners 9 adjacent to the keepers 7, as shown in Fig. 5, the fasteners and keepers will be brought into engagement by rotating the cover on the vessel in the right-hand direction until its rotation is stopped by the engagement of the said fasteners and keepers. The center of the cover is provided with a tubular boss 10, rigidly fixed in place, and which boss constitutes a bearing for the tubular hub 11 of the crank

C. The cover and its tubular boss together constitute a shaft-bearing top piece, detachably mounted on the top of the vessel to support the rotating parts in their working position. The lower end of the tubular boss has formed on it four downwardly-projecting clutch-shoulders 12, that constitute one member of the clutch mechanism hereinafter described.

The beaters, beater-arms, and gearing are in the main substantially the same as in United States Patent No. 553,027, of January 14, 1896, and the present invention is in the nature of an improvement upon the mixer of the said patent.

The opening through the tubular crank-hub is mainly round, but is flattened a little at one side at the upper end to give the said hub a driving portion 13, Fig. 1. The beater-shaft 14 is mainly round and is slabbed off on one side to form a driving-face 15 for engagement with the corresponding driving portion 13 in the opening of the crank-hub. The upper projecting end of the shaft 14 is formed with a narrow neck or groove 16. A notched latch 23 is pivoted on the crank C, with its notched portion in position for engaging the neck or groove 16 for holding the beater-shaft against moving endwise, this construction being shown in Figs. 1 and 2. The position of this latch for releasing the beater-shaft is shown by broken lines in Fig. 1. The lower end of the beater-shaft has a cross-arm 17 rigid with said beater-shaft, and a beater-pinion 18 and beater 19 are mounted to rotate in each end of this cross-arm 17. Mounted on the beater-shaft 14, adjacent to the cross-arm 17 and between the two pinions 18, is the stationary gear-wheel 22, having clutch-shoulders 20 projecting upwardly from its hub to form the said hub into a companion clutch member for engaging the clutch member on the tubular hub and cover before described. A slight shoulder or equivalent device 21, Figs. 2 and 3, is employed to prevent the said gear-wheel 22 from working out of place on the beater-shaft when the gearing is detached from the cover. By this construction all of the parts shown in Fig. 3 constitute a single

mechanism that may be separated from the rest of the machine for cleaning or other purpose and still remain intact and without any danger of the gearing slipping out of gear, so as to change the relative position of the two 5 beaters. By inserting the crank-hub into the central bearing of the cover and then inserting the beater-shaft into the said crank-hub as far as it will go the clutch mechanism will be 10 brought into engagement, as shown in Fig. 6. This engagement of the clutch mechanism will stop the endwise movement of the beater-shaft in position to bring its groove or neck opposite the latch on the crank, so that swing- 15 ing the said latch into the position shown in Figs. 1 and 2 will lock the beater-shaft against endwise displacement and the clutch mechanism will lock the cover and gear-wheel together, so that the said gear cannot rotate in 20 either direction so long as the cover is fixed. The operation of the beater when its mechanism is in place is the same as in the afore-said patent.

I claim as my invention—

25 1. The herein-described cake-mixer, comprising a vessel and a shaft-bearing top piece, with a beater-shaft detachably mounted in the said top piece to rotate therein, rotary beat- 30 ers and gearing detachable with the said shaft, downwardly-projecting clutch-shoulders at

the under side of the said top piece, and upwardly-projecting clutch-shoulders at the upper side of the central member of the said gearing for engaging therewith and for locking 35 the said central member of the gearing against rotation in either direction by moving the beater-shaft and attached gearing longitudinally into place.

2. The herein-described cake-mixer, comprising a vessel and a shaft-bearing top piece 40 having a tubular boss permanently secured thereon, with a beater-shaft mounted to rotate within the said boss, the said shaft being adapted to have its upper end pass upwardly through the said boss from below and to be 45 withdrawn therefrom, rotary beaters and gearing permanently mounted on the lower end of the said shaft, downwardly-projecting clutch-shoulders permanently mounted on the under side of the said top piece, and upwardly- 50 projecting clutch-shoulders at the upper side of the central member of the said gearing, the said clutch-shoulders being arranged for engagement by the act of moving the shaft up through the tubular boss from the under side 55 of the said top piece.

ALONZO ABNER WARNER.

Witnesses:

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LEROY H. PAGE.