No. 856,469. PATENTED JUNE 11, 1907.

F. W. KAPHEIM.

MIXING APPARATUS.

APPLICATION FILED DEC. 28, 1906.

Fig. 1.

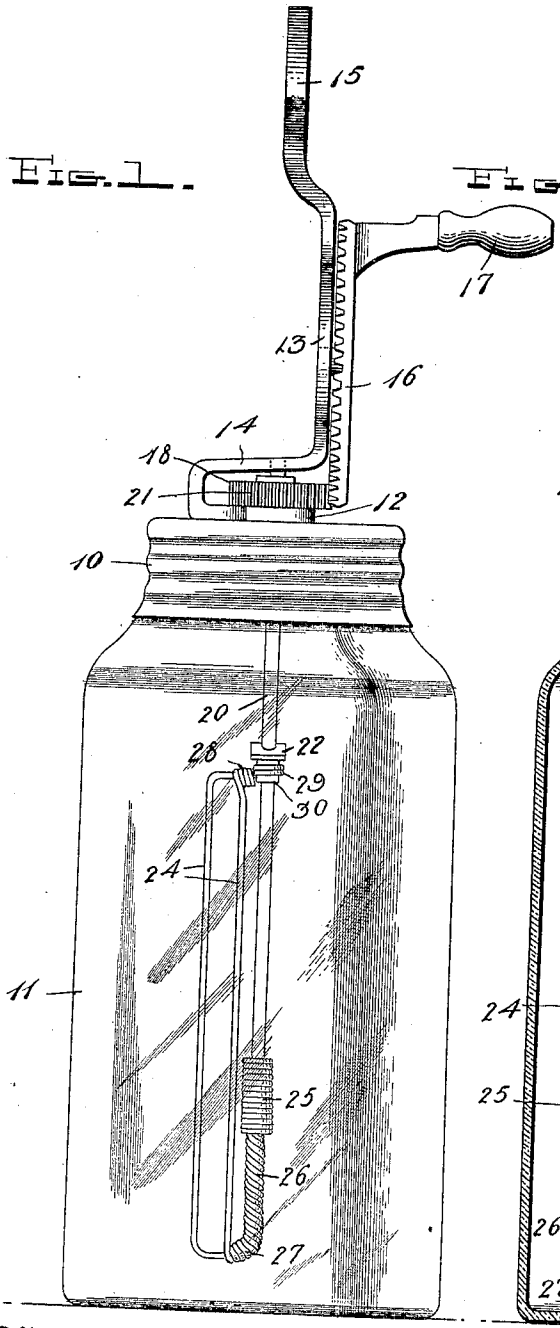
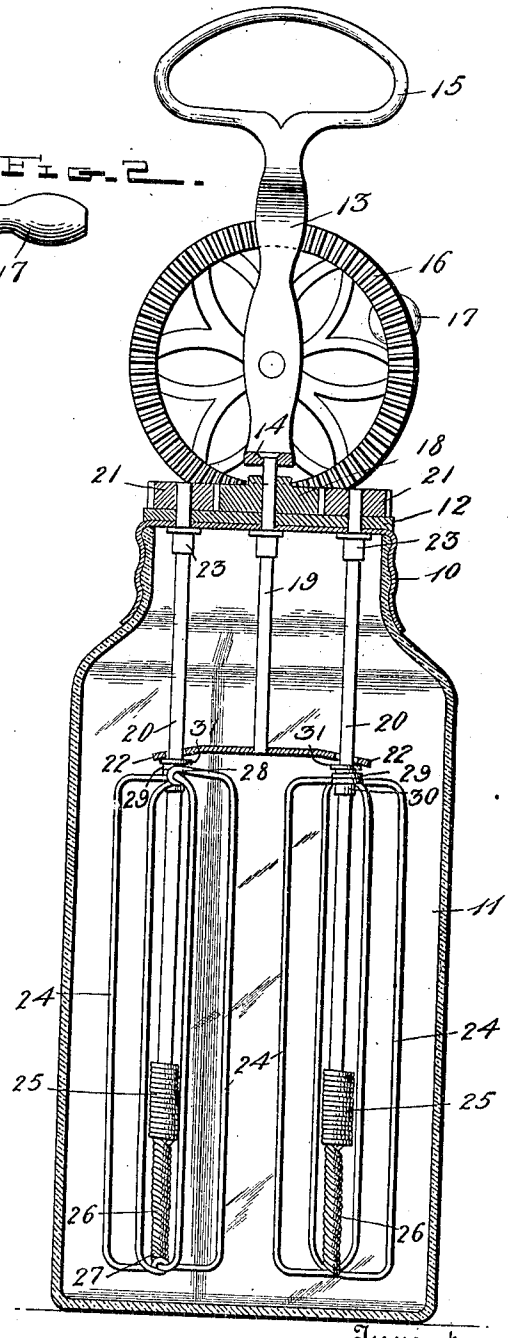


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

FREDERICK W. KAPHEIM, OF MILWAUKEE, WISCONSIN.

MIXING APPARATUS.

No. 856,469. Specification of Letters Patent. Patented June 11, 1907.

Application filed December 28, 1906. Serial No. 349,823.

To all whom it may concern:

Be it known that I, FREDERICK W. KAPHEIM, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Mixing Apparatus, of which the following is a specification.

This invention is a mixing apparatus, and more particularly one for beating eggs, cream, etc.

The invention comprises a mixing mechanism which is mounted on a screw-cap so that an ordinary fruit jar having a screw-threaded neck can be used as a receptacle for the eggs, cream, etc.

In the accompanying drawing:—Figure 1 is an elevation of the invention showing the application thereof. Fig. 2 is a central vertical section.

Referring specifically to the drawing, 10 denotes a screw-cap adapted to serve as a closure for an ordinary fruit jar 11 having a screw-threaded neck to receive the cap. To the top of the cap is fastened a support for the mixing mechanism. The support comprises a base 12, and a standard 13 rising therefrom and having a portion 14 overhanging the base. The top of the standard is formed with a handle 15. On the standard is mounted a driving-gear 16 having an operating handle 17. The gear 16 meshes with a pinion 18 which is loose on a vertical shaft 19 fixed in the base 12 and the part 14, and extending through the cap 10 and below the same. The beater shafts 20 extend through the base and cap, and are each provided with pinions 21, which mesh with the pinion 18. At the lower end of the shaft 19 are laterally extending arms 22 provided with vertical openings through which the shafts 20 extend and which serve to support said shafts. Below the cap 10 the shafts 20 are fitted with thimbles or collars 23, which, by their engagement with the bottom of the cap, prevent the shafts from slipping up and thereby throwing their pinions out of gear.

The beaters comprise a plurality of arms 24 secured to the shafts 20 and extending parallel thereto, and spaced therefrom. These arms are made of wires which are twisted or coiled around the lower end of the shaft 20 as at 25. Below the shaft the wires are coiled closely together to form a rigid stem 26 which extends downwardly from the shaft in alinement therewith for a distance, and is then bent forwardly as at 27. The wires which make up the stem are then separated and bent so as to extend upwardly and parallel to the shaft 20 to form the arms 24. At the upper ends of the arms the wires are bent inwardly toward the shaft and twisted as at 28, and also formed with loops 29 which pass around a sleeve 30 secured to the shaft 20 below the arms 22. The sleeve has a collar 31 for spacing the beater from the arms 22. Each shaft 20 is fitted with a beater as herein described.

In use, the material to be mixed or beaten is placed in the jar 11, and the cap applied which makes the apparatus ready for operation as the mixing mechanism is carried by the cap.

The apparatus is simple in construction and operation, and can be readily applied to any ordinary fruit jar of the size for which it is intended. No specially constructed receptacle is, therefore, required. It can be made in different sizes corresponding to the standard sizes of fruit jars.

I claim:—

A mixing apparatus comprising a cap, a shaft mounted in the cap, and extending below the same, a loose pinion on the shaft, a driving gear meshing with said pinion, laterally extending arms at the lower end of the shaft, and having openings, beater shafts mounted in the cap, and extending through said openings, and pinions on the beater shafts meshing with the aforesaid pinion.

In testimony whereof I affix my signature, in presence of two witnesses.

FREDERICK W. KAPHEIM.

Witnesses:

CHAS. KLEIBER,

WILLIAM ZACH.