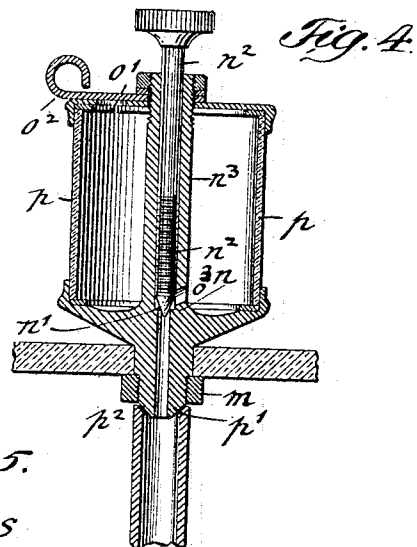
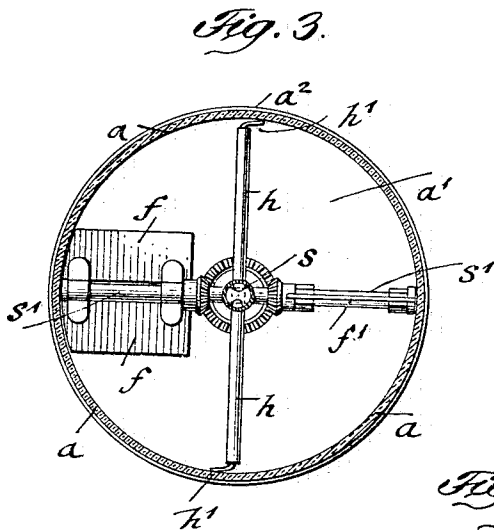
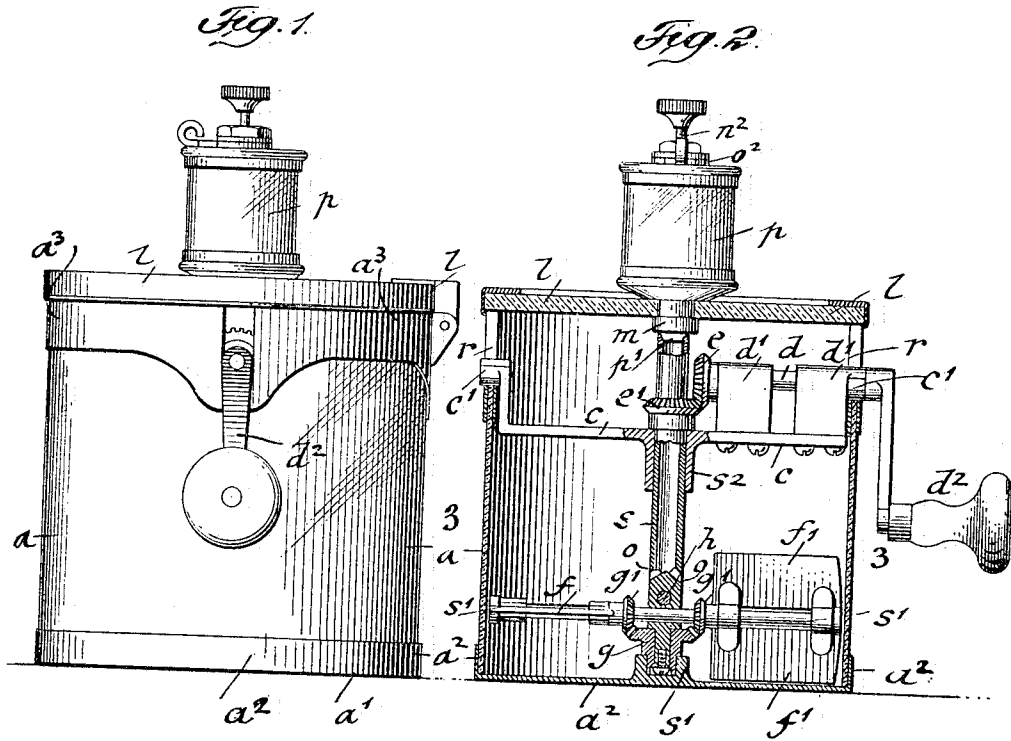


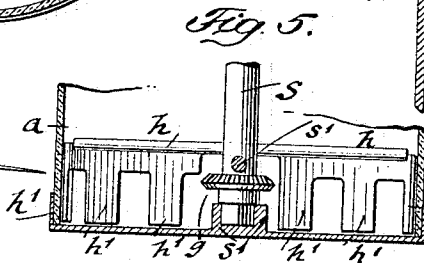
J. KRESS.
MIXING MACHINE FOR MAYONNAISE.
APPLICATION FILED SEPT. 27, 1912.

1,121,107.

Patented Dec. 15, 1914.



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JOHN KRESS, OF NEW ROCHELLE, NEW YORK.

MIXING-MACHINE FOR MAYONNAISE.

1,121,107.

Specification of Letters Patent.

Patented Dec. 15, 1914.

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To all whom it may concern:

Be it known that I, JOHN KRESS, a citizen of the United States of America, residing in New Rochelle, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Mixing-Machines for Mayonnaise, of which the following is a specification.

This invention relates to an improved machine for mixing mayonnaise, sauces and other culinary preparations.

Mayonnaise for salads was heretofore prepared by hand. In large restaurants and hotels this involves considerable hard work as large quantities of mayonnaise have to be prepared.

The object of this invention is to furnish for household as well as restaurant and hotel use an improved machine by which mayonnaise, sauces and similar preparations can be quickly and effectively mixed with comparatively little labor and effort, and in which all the parts can be readily detached and removed for being cleaned after use; and for this purpose the invention consists of a mixing-machine for mayonnaise which comprises a mixing-vessel having a hinged lid, a hollow upright center-shaft supported in said vessel and provided with radial rotating agitators and scrapers, means for imparting rotary motion to the shaft, agitators and scrapers, an oil-containing vessel supported on the lid and provided with a discharge-nozzle, communicating with the hollow shaft, a valve for opening or closing said discharge-nozzle for supplying the oil or other liquid to the shaft, and discharge-openings in lower portion of said hollow shaft; the invention consists further of certain details of construction which will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawing, Figure 1 represents a side-elevation of my improved mixing-machine for mayonnaise, Fig. 2 is a vertical central section through the same, Fig. 3 is a plan-view, partly in horizontal section, on line 3, 3, Fig. 2, Fig. 4 is a detail section through the oil-supplying vessel, showing the connection with the hollow shaft of the mixing devices, and Fig. 5 is a section through the lower part of the mixing vessel, showing the rotary scrapers in the same.

Similar letters of reference indicate cor-

responding parts throughout the several figures of the drawing.

Referring to the drawing, *a* represents a mixing-vessel of cylindrical shape, which is closed tightly at the lower end by a metallic bottom *a*¹ having a circumferential flange *a*². The cylindrical vessel *a* is reinforced at the upper end by an exterior band *a*³ of sheet-metal and provided with recesses *r* in the upper portion of the same vessel and band, located at diametrically-opposite points, for supporting the ends or gudgeons *c*¹ of the diametrical supporting-frame *c*. A driving-shaft *d* is supported in bearings *d*¹ attached to the supporting-frame *c*. The outer end of the driving-shaft *d* is provided with a crank-handle *d*² and its inner end with a bevel gear-wheel *e* which meshes with a bevel gear-wheel *e*¹ on the hollow vertical center-shaft *s* of the machine. The shaft *s* turns in a step-bearing *s*¹ on the bottom of the mixing-vessel *a* and in a neck-bearing *s*² on the diametrical frame *c*. The step-bearing *s*¹ for the shaft *s* consists of a bushing having a square socket into which fits the correspondingly-shaped hub of a bevel gear-wheel *g* in which the shouldered end of the shaft *s* is rotated. The bevel gear-wheel *g* is placed in mesh with two bevel-pinions *g*¹ on a diametrical shaft *s*³ which passes transversely through a hole in the lower solid portion of the upright hollow shaft *s*³, said shaft being provided with agitators or mixers *f*, *f*¹ that are placed at right angles or any other suitable angle to each other on the shaft *s*¹ so as to agitate the ingredients to be mixed. The agitators *f*, *f*¹ are attached in any suitable manner to the horizontal shaft *s*³. The agitators are rotated by the planetary bevel gearing *g*, *g*¹ around the upright shaft *s* when the same is rotated by the crank-shaft and bevel gear-wheels actuated thereby. Immediately above the shaft *s*³ are arranged two stationary radial arms *h* to which are applied scrapers *h*¹ that extend in downward direction so as to form contact with the bottom and side wall of the vessel, said scrapers moving along the bottom and inner surface of the wall of the mixing-vessel for scraping off the mixture placed in the mixing-vessel and throwing it inwardly into the path of the agitators for being thoroughly beaten up and mixed by the same.

Immediately above the radial scraper-

carrying arms are arranged two inclined holes o , which are located at diametrically-opposite sides of the shaft and above the lower solid portion of the same, said holes communicating with the interior hollow center-shaft and supplies the olive-oil or other liquid to be mixed with the ingredients in the mixing vessel. The oil or other liquid is supplied from an oil-receiver p which is attached to the hinged lid l of the mixing-vessel. The oil-receiver is provided with a filling-opening o^1 in its top-part and a sliding plate o^2 for closing the opening after the oil-receiver has been filled with oil. The oil-receiver p is provided at its lower part with a tubular nozzle p^1 , having a tapering end which is seated in the upper end p^2 of the upright tubular shaft s , while a collar m surrounding the nozzle forms a tight closure with the shaft. At the inside of the nozzle is arranged a valve-seat n , so that the nozzle can be closed by screwing down a valve n^1 , which is operated by a stem n^2 that passes through a stuffing-box in the top of the oil-receiver, the stem of the valve being located in a cylindrical sleeve n^3 which is integral with the bottom of the oil-receiver, and which is provided with an outlet-opening o^3 for the oil, near the bottom of the oil-receiver. As soon as the valve n^1 is raised, the oil flows through the opening o and nozzle n and hollow shaft s and through the outlet-openings o in the lower portion of the shaft, above the scraper-arms, into the mixing-receptacle, and is there mixed with the other ingredients for making mayonnaise, sauce or other semi-liquid or pasty mixture. As soon as the required amount of oil is supplied, the discharge nozzle is closed by screwing down the valve and the agitators and scrapers operated for producing the thorough intermingling of the ingredients.

The mixing-vessel, the lid and the body of the oil-receiver are preferably made of glass, porcelain or similar material. The upper end or rim of the mixing-vessel is reinforced by the sheet-metal band a^3 , to which the lid is hinged on which the oil-receiver is supported.

The improved mayonnaise-mixer is used as follows: The oil-receiver is first supplied with the required quantity of olive-oil, or other suitable liquid, that is to be mixed with the other ingredients which are placed into the mixing-vessel. The required quantity of oil is then delivered into the mixing-vessel and the valve of the oil-supply nozzle closed. The ingredients in the mixing-vessel are then agitated by the rotary agitators and scrapers, until the proper intermingling of the ingredients with the oil or other liquid is obtained; after a certain time another quantity of oil is supplied and the

valve again closed and the mixing operation repeated until the mayonnaise is in proper condition for use when it is removed and ready for use.

The mixer is made up in different sizes, the smaller size being for family use, the larger sizes for hotel and restaurant use. The lid is made of heavy plate-glass so as to close the mixing-vessel tightly by its own weight.

In place of mayonnaise, sauces and the like, the mixing-vessel can also be used for beating up eggs, making icing and for other semi-liquid mixtures, in which case the flavoring oils are placed in the oil-receiver and mixed with the sugar, eggs and other ingredients placed in the mixing-vessel. The mixing of the ingredients is accomplished rapidly by turning the crank and quickly rotating the agitators and scrapers, until the ingredients are thoroughly intermingled.

For removing the mayonnaise or other mixture, the lid is placed in open position and the driving-shafts with agitators and scrapers bodily lifted out of the vessel, so that the mixture can be removed from the same. The mixing-vessel as well as the agitators and scrapers can then be readily cleaned and replaced into position in the mixing-vessel, after which the lid is closed and the mixer stored away for repeated use.

I claim:

1. The combination of a mixing vessel for containing ingredients to be mixed, a rotary tubular shaft, a mixing device connected with said shaft, an oil container connected with said tubular shaft and provided with an outlet and with adjustable means for controlling said outlet, said tubular shaft being operative to receive oil from said container and discharge it in regulated quantities into said vessel in position for the action of said mixing device, and means for rotating said shaft.

2. The combination of a mixing vessel for containing ingredients to be mixed provided with a shaft bearing in its lower part and with open slots in its upper edge, a yoke suspended in said vessel from said slots and provided with a shaft bearing, a vertical hollow shaft journaled in said bearings and extending above said yoke, a mixing device connected with said shaft, an oil container connected with said tubular shaft and provided with a regulated feed, said tubular shaft being operative to receive oil from said container and discharge it in regulated quantities into said vessel in position for the action of said mixing device, and means for rotating said shaft.

3. A machine for mixing mayonnaise and the like comprising a mixing vessel provided with a step bearing in its bottom and slots at its top, a yoke suspended in said

vessel from said slots and provided with a central neck bearing, a vertical hollow shaft journaled in said bearings and provided with bevel gears at its upper and lower parts and with an intermediate outlet orifice, a radial shaft provided with a bevel pinion engaging the lower bevel gear and with an agitator, a driving shaft supported on said yoke and provided with a pinion engaging said upper gear and with a crank, and an oil vessel supported above said yoke and provided with a valved dropper adapted to discharge into said vertical hollow shaft.

4. The combination of a mixing vessel for containing ingredients to be mixed provided with a shaft bearing at its lower part and with open slots in its upper edge, a depressed yoke suspended in said vessel from said slots and provided with a vertical shaft bearing and with a horizontal shaft bear-

ing, a vertical hollow shaft journaled in said bearings, extending above said yoke and provided with a beveled pinion, a mixing device connected with said shaft, an oil container connected with said tubular shaft and provided with a regulated feed, said tubular shaft being operative to receive oil from said container and discharge it in regulated quantities into said vessel in position for the action of said mixing device, and an actuating crank shaft journaled in said horizontal bearing and provided with a pinion engaging the pinion of said shaft.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

JOHN KRESS.

Witnesses:

PAUL GOEPEL,
JOHN MURTAGH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."