

Oct. 8, 1929.

J. ROGGINGER

1,730,784

MEASURING AND AGITATING MEANS FOR CONTAINERS

Filed July 7, 1925

2 Sheets-Sheet 1

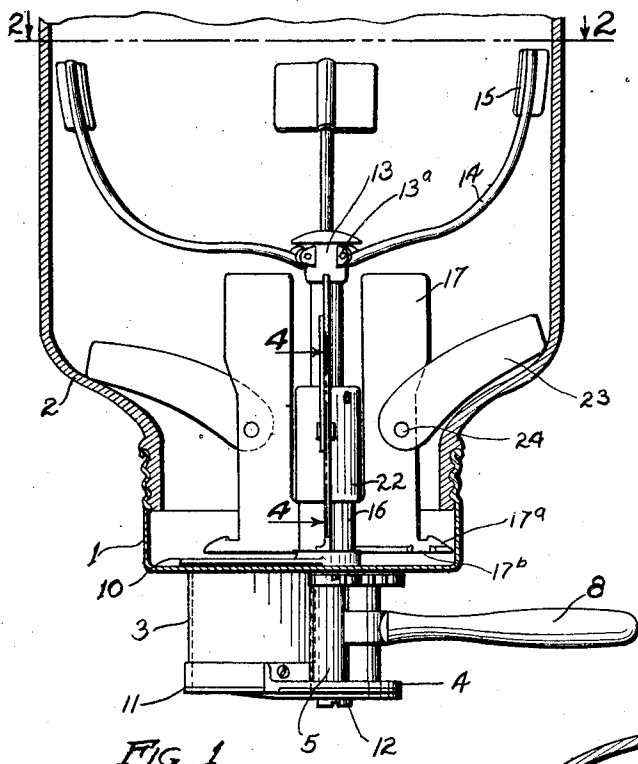


FIG 1

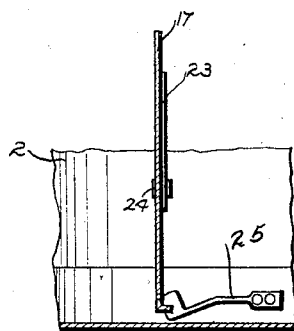


FIG 3

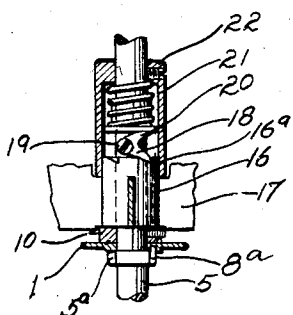


FIG 4

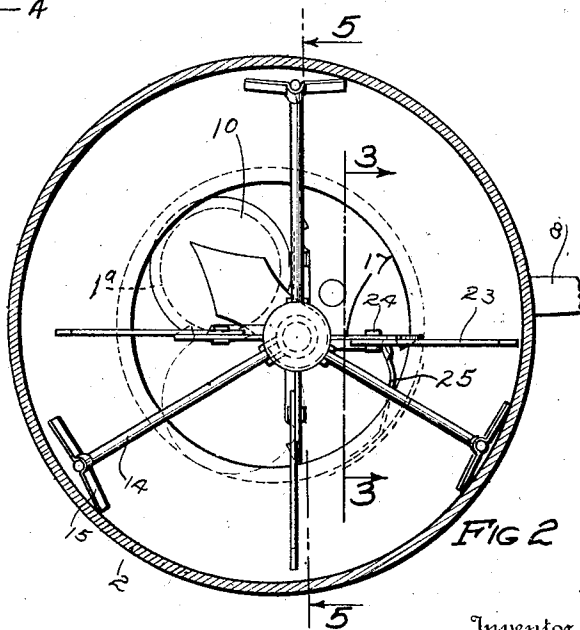


FIG 2

Inventor

JOHN ROGGINGER

By *A. B. Bowman*

Attorney

Oct. 8, 1929.

J. ROGGINGER

1,730,784

MEASURING AND AGITATING MEANS FOR CONTAINERS

Filed July 7, 1925

2 Sheets-Sheet 2

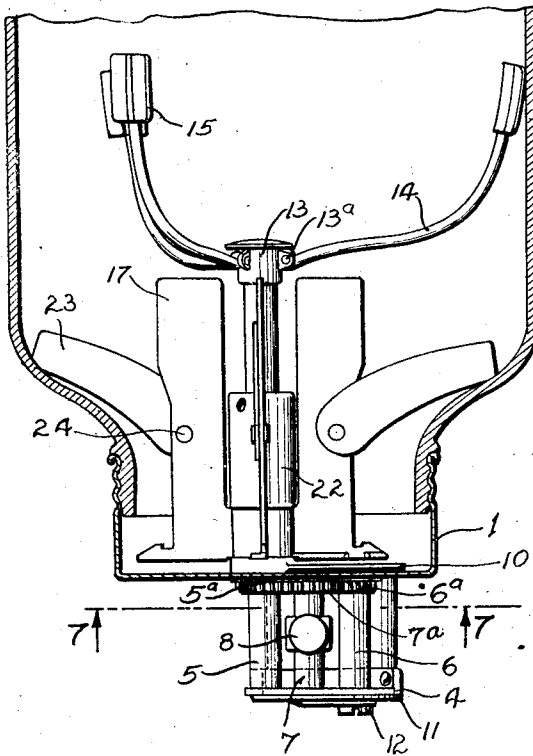


FIG 5

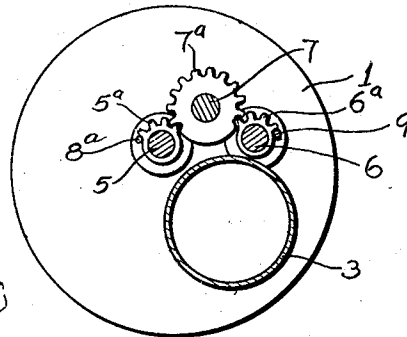


FIG 7

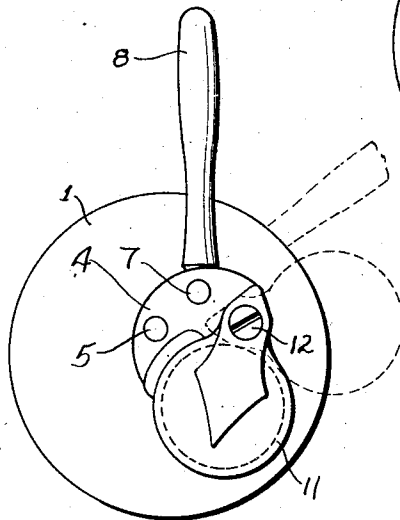


FIG 6

Inventor

JOHN ROGGINGER

By *A. B. Bowman*

Attorney

UNITED STATES PATENT OFFICE

JOHN ROGGINGER, OF SAN DIEGO, CALIFORNIA, ASSIGNOR TO NORCO MFG. CO., OF
NORCO, CALIFORNIA, A CORPORATION OF CALIFORNIA

MEASURING AND AGITATING MEANS FOR CONTAINERS

Application filed July 7, 1925. Serial No. 41,935.

My invention relates to an agitating and measuring means for containers, such as are adapted to contain malted milk or other products not adapted to flow freely, and the objects of my invention are: First, to provide a means of this class whereby the contents of a container may be thoroughly agitated to facilitate the dispensing of the same through the discharge opening thereof; second, to provide an agitating means in connection with a measuring means for containers whereby the measuring means may be more readily and completely filled; third, to provide a cover adapted to be secured over the open ends of containers adapted to be supported in inverted positions, the cover being provided with a shiftable gate, and an agitating means in connection therewith adapted to extend into said container and actuated by the means for shifting said gate; fourth, to provide a cover for containers adapted to be supported in inverted positions, the cover being provided with a manually shiftable gate, and means in connection therewith and extending upwardly into said container for agitating its contents at the lower portion thereof with the shifting of said gate; fifth, to provide novelly constructed agitating means for agitating the contents of containers when desiring to extract a portion of the contents therefrom; sixth, to provide novel means for actuating an agitating means of this class; seventh, to provide novel means for alternately shifting to their open positions a pair of cover members for a measuring member for containers; eighth, to provide a dispensing cover for containers having a readily collapsible agitating means whereby said cover may be readily positioned and secured over the open end of said container without interference from said agitating means, the agitating means being adapted to operate in the lower portion of said container and scrape the lower portions of the side walls thereof; ninth, to provide as a whole a novelly constructed and arranged agitating and measuring means for containers, and tenth, to provide a means of this class which is simple and economical of construction proportionate to its functions,

and which will not readily deteriorate or get out of order.

With these and other objects in view, as will appear hereinafter, my invention consists of certain novel features of construction, combination and arrangement of parts and portions, as will be hereinafter described in detail and particularly set forth in the appended claims, reference being had to the accompanying drawings and to the characters of reference thereon, which form a part of this application, in which:

Figure 1 is a side elevational view of my agitating and measuring means, showing the cover portion thereof for securing the means to a container in section and the container, to which it is secured, fragmentarily and in section to facilitate the illustration; Fig. 2 is a plan view thereof, taken at 2—2 of Fig. 1, also showing the container in section; Fig. 3 is a fragmentary sectional elevational view thereof, taken through 3—3 of Fig. 2; Fig. 4 is another fragmentary sectional elevational view thereof, taken through 4—4 of Fig. 1, showing certain parts and portions in elevation to facilitate the illustration; Fig. 5 is a view similar to that of Fig. 1, but taken at a right angle thereto; Fig. 6 is a bottom view thereof, showing by dotted lines the cover member or gate at the lower end of the measuring chamber member and the handle for actuating the same fragmentarily in their open positions, and Fig. 7 is a sectional view thereof, taken through 7—7 of Fig. 5.

Like characters of reference refer to similar parts and portions throughout the several views of the drawings.

Referring to the drawings, 1 is a cover which is adapted to be screwably secured to the neck or open end of a conventional container or glass jar 2 such as used for vending malted milk and the like. The container 2, when fitted with my agitating and measuring means, is supported in an inverted position, as shown. Secured to and extending downwardly from the head end of the cover 1 is a cylindrical measuring chamber member 3, which is open at its lower end and communicates at its upper end through an opening 1^a in the head end of the cover 1 with the

interior of the container 2. At one side of and flush with the lower end of the measuring chamber member 3 is secured a bracket 4, as shown best in Figs. 1 and 6. Rotatably mounted in said bracket 4 and in the head end of the cover 1, and extending between the same, is a plurality of studs or spindles 5, 6 and 7. The intermediately positioned stud or spindle 7 is provided intermediate its ends with an outwardly extending handle member 8. Near the upper end of the spindle 7, at the outer side of the cover 1, is provided a gear 7^a which is adapted to mesh with gear portions 5^a and 6^a on the spindles 5 and 6 at the under side of the cover 1, as shown best in Figs. 1, 5 and 6. The gear 7^a is also a partial gear and is so positioned relatively to the partial gears 5^a and 6^a as to rotate only one of the same at a time, the portion of the gear 7^a not provided with teeth passing the teeth of the other gear or partial gear not adapted to be rotated, as shown in Fig. 7. In the head end of the cover 1 are also provided pins 8^a and 9, which are adapted to stop or limit the rotation of the spindles 5 and 6, respectively, in one direction, the smooth portion of the partial gear 7^a being adapted to limit the rotation of said spindles in the opposite direction when one or the other of the spindles 5 and 6 is rotated.

To the spindle 5, which extends a considerable distance upwardly into the cover 1 and container 2, is secured the cover member or plate 10, as shown in Fig. 4, this cover member or plate 10 being adapted to normally cover the opening 1^a in the cover 1 communicating with the measuring chamber member 3. To the lower end of the stud or spindle 6 extending through the bracket 4 is secured, by means of a screw 12, another cover member or plate 11, which is adapted to normally cover the lower open end of the measuring chamber member 3.

At the upper end of the spindle 5 is provided a head member 13 which is provided with pairs of outwardly extending lugs 13^a on which are pivotally mounted the lower ends of wire members or arms 14, which are curved upwardly when positioned in the container 2 and are provided at their upper ends with agitating members or plates 15, which are adapted to engage and scrape the inner wall of the container 2, as shown best in Fig. 2.

Revolubly mounted on the spindle 5, just above the inner side of the head portion of the cover 1, and bearing on the hub portion of the cover plate 10, is a hub member 16 to which are secured agitating members 17 which extend radially therefrom and thence upwardly around the spindle 5. The upper end of the hub member 16 is provided with a plurality of notches 16^a which are adapted to be engaged by a pawl 18 pivotally mounted on the spindle 5, by means of a screw 19. Above the pawl 18, around the spindle 5, is posi-

tioned a sleeve 20 which is adapted to engage the pawl and force the same downwardly in engagement with the notched portions of the hub member 16. Around the upper portion of the hub member 16 and extending upwardly therefrom is a casing 22, which is secured to the spindle 5. Between the inner end of the casing and the sleeve 20 is positioned a compression spring 21, for normally retaining the pawl in the notched portions of the hub member, as stated.

Intermediate the upper and lower ends of the agitating members 17 are pivotally mounted, by means of rivets 24, agitating arms 23, which are normally adapted to extend outwardly therefrom and rest on the inner side of the shoulder forming the neck or open end of the container 2. Said agitating members or arms 23 are adapted to remove the malted milk or other product from this portion of the container at intervals and thus prevent the product in the container from packing and ultimately preventing the discharge of any of the contents of the container.

Within the cover 1 is mounted a resilient pawl 25, which is adapted to be raised and shifted outwardly by cam portions at the outer ends of the lower portions of the agitating members or vanes 17, as shown in Figs. 1, 2, 3 and 5. The portions 17^a at the outer ends of the members 17 extend normally under the portion of the pawl 25 near its supported end and as the members 17 are rotated in a counter-clockwise direction, said pawl is raised and again permitted to drop downwardly into the notch 17^b at the sides and near the ends of the members 17, holding the pawl in a certain position. The engagement of the agitating members 17 against the end of the pawl 25 prevents the rotation of the agitating members in a clockwise direction, but permits the same to be rotated with the spindle 5, and the pawl 18, as well as the cover plate 10, to be shifted in a counter-clockwise direction with the opposite shifting of the handle member.

Though I have shown and described a particular construction, combination and arrangement of parts and portions, I do not wish to be limited to this particular construction, combination and arrangement, but desire to include in the scope of my invention the construction, combination and arrangement substantially as set forth in the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a means of the class described, the combination with a container having a contracted neck and a discharge portion in said contracted neck, of a cover member shiftably mounted over the discharge portion of said container, means connected with the cover member and extending into said container,

agitating members pivotally mounted on said means, radiating in several directions therefrom and extending toward the contracted neck of the container, adapted to be shifted with said means and adapted to agitate the contents of said container near the lower contracted neck portion thereof, and means for operating said cover member and said means.

2. In a means of the class described, the combination with a container having a discharge portion, of a cover member adapted to be shiftably mounted at the discharge portion of said container, means connected with said cover member and adapted to extend upwardly into said container, handle means for actuating said cover member and the means extending upwardly therefrom, and agitating members pivotally mounted at the upper end of the means and radiating therefrom and adapted to be folded against said means for inserting the same into the container and adapted to extend into the container and toward the wall thereof when in unfolded relation for agitating the contents thereof.

3. In a means of the class described, the combination with a container having a discharge portion, of a cover member adapted to be shiftably mounted at the discharge portion of said container, means connected with said cover member and adapted to extend upwardly into said container, handle means for actuating said cover member and the means extending upwardly therefrom, agitating members pivotally mounted at the upper end of the means and radiating in several directions therefrom and foldable against said means, and adapted to extend into said container and extend toward and in engagement with the sides of said container when in unfolded relation for agitating the contents thereof when shifting said cover member.

4. In a means of the class described, the combination with a container having a discharge portion, of a cover member adapted to be shiftably mounted at the discharge portion of said container, means connected with said cover member and adapted to extend upwardly into said container, handle means for actuating said cover member and the means extending upwardly therefrom, agitating members pivotally mounted at the upper end of the means adapted to extend into the container for agitating the contents thereof when actuating said cover member, and other agitating members in connection with the means adapted to extend upwardly into said container adapted to rotate in one direction only and only when shifting said cover member to an open position, and pawl means in connection with said last mentioned agitating members for holding the same stationary

when shifting said cover member to a closed position.

5. In a means of the class described, the combination with a container having a discharge portion, of a cover member adapted to be shiftably mounted at the discharge portion of said container, means connected with said cover member and adapted to extend into said container, handle means for actuating said cover member and the means extending upwardly therefrom, agitating members pivotally mounted at the upper end of the means adapted to extend into said container and extend toward and in engagement with the sides of said container for agitating the contents thereof when shifting said cover member and adapted to be oscillated by the movement of said means when shifting said cover member, other agitating members mounted on the means adapted to extend into said container contiguous to said cover member and means in connection with the second mentioned agitating members to prevent rotation thereof in one direction and adapted to permit shifting thereof in the opposite direction when said cover member is shifted to its open position.

6. In a means of the class described, the combination with a container having a contracted neck and a discharge portion in said contracted neck, of a cover member shiftably mounted over the discharge portion of said container, means connected with said cover member and extending into said container, handle means for actuating said cover member and the means extending upwardly therefrom, agitating members pivotally mounted at the upper end of the means extending into said container and extending toward and in engagement with the sides of said container for agitating the contents thereof when shifting said cover member, other agitating members mounted on the means extending into said container contiguous to said cover member, means in connection with the second mentioned agitating members to prevent rotation thereof in one direction and adapted to permit shifting thereof in the opposite direction when said cover member is shifted to its open position, and other agitating members pivotally mounted on said last mentioned agitating members adapted to be shifted therewith and adapted to agitate the contents of said container near the lower contracted portion thereof.

7. In a measuring and agitating means, the combination with a container, of a measuring chamber member positioned at the lower end thereof and provided with openings at its ends, a pair of cover members shiftably mounted over the openings of said chamber member, said cover members being independent and shiftable independently of each other, means for shifting said cover

members, means extending upwardly from one of said cover members and shiftable therewith, and agitating members pivotally connected with the means extending upwardly from one of said cover members for agitating the contents of said container when shifting said last mentioned cover member.

8. In a means of the class described, the combination with a container having a contracted neck and a discharge portion in said contracted neck, of a cover member shiftable mounted over the discharge portion of said container, agitating members extending into said container from said cover member and mounted concentrically with the pivotal axis of said cover member, ratchet means in connection with said agitating members and said cover member whereby said agitating members are rotated in one direction only and only when said cover member is shifted to its open position, and agitating members pivotally mounted on said first mentioned members and extending toward the contracted neck of the container, adapted to be shifted with said means and adapted to agitate the contents of said container near the lower contracted neck thereof.

9. In a measuring and agitating means, a measuring member having a measuring compartment having a filling and a discharge opening, a cover plate pivotally mounted over the filling opening of said measuring compartment, means for shifting said cover plate, agitating means mounted on the same axis with said cover plate and positioned above said measuring compartment, and ratchet means operatively connecting said cover plate with said agitating means for rotating the latter only when said cover plate is shifted to its open position.

10. In a means of the class described, a cover for a container, a shiftable gate for said cover, and a collapsible, multiple-arm agitating means supported above and extending from the inner side of said cover into the container.

11. In a measuring and agitating means, a measuring member having a measuring compartment having a filling and a discharge opening, a cover plate pivotally mounted over the filling opening of said measuring compartment, means for shifting said cover plate, agitating means mounted on the same axis with said cover plate and positioned above said measuring compartment, ratchet means operatively connecting said cover plate with said agitating means for rotating the latter only when said cover plate is shifted to its open position, and agitating members pivotally mounted on said agitating means.

12. In a means of the class described, the combination with a container having a discharge opening at one side of its center, of a cover plate pivotally mounted over said

opening with its pivotal axis at the opposite side of the center of the container from said opening, an agitating member support mounted on the same pivotal axis with said cover plate, ratchet means operatively connecting said support with said cover plate for shifting the former when the latter is shifted to its open position, and agitating members operatively connected to said ratchet means and extending toward the walls of said container.

13. In a means of the class described, the combination with a container, of a measuring compartment positioned in the lower end thereof and provided with a filling and discharge opening at its upper and lower ends, respectively, three studs mounted on and at the lower side of said container at one side of the measuring compartment and parallel with each other and with the axis of said compartment, a handle extending from one of said studs, a segmental gear also mounted on said latter stud, segmental gears mounted on each of the second and third studs and adapted to be engaged by the segmental gear on said first mentioned stud, a cover member mounted over the filling opening of said measuring compartment and operatively connected with one of said last mentioned studs, and another cover member mounted over the discharge opening in the lower end of said measuring compartment and operatively connected with the other of said last mentioned studs.

14. In a means of the class described, the combination with a container, of a measuring compartment positioned in the lower end thereof and provided with a filling and discharge opening at its upper and lower ends, respectively, three studs mounted on and at the lower side of said container at one side of the measuring compartment and parallel with each other and with the axis of said compartment, a handle extending from one of said studs, a segmental gear also mounted on said latter stud, segmental gears mounted on each of the second and third studs and adapted to be engaged by the segmental gear on said first mentioned stud, a cover member mounted over the filling opening of said measuring compartment and operatively connected with one of said last mentioned studs, and another cover member mounted over the discharge opening in the lower end of said measuring compartment and operatively connected with the other of said last mentioned studs, the segmental gear on said first mentioned stud being in mesh with only one of the segmental gears on the last mentioned studs whereby only one of said cover members is actuated at one time.

15. In a means of the class described, the combination with a container, of a rotatable member mounted therein, and a plurality of agitating arms pivotally mounted at one end

to the upper end of said rotatable member,
the free ends of said agitating arms being
adapted to fall by the force of gravity
against the inner side walls of said container
and adapted to be moved thereagainst by
the rotation of said rotatable member.

In testimony whereof, I have hereunto set
my hand at San Diego, California, this 22d
day of June, 1925.

JOHN ROGGINGER.