July 13, 1926.

1,592,788

P. SUPERVIELLE

SANITARY DRINK MIXER

Filed Jan. 15, 1926

2 Sheets-Sheet 1

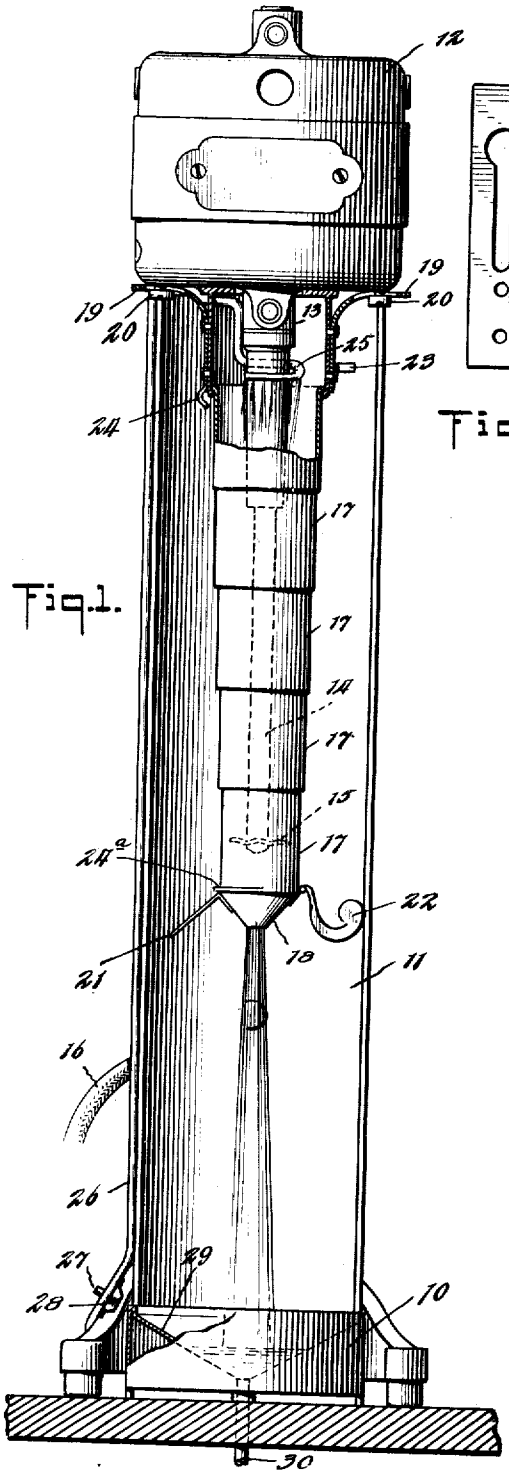


Fig. 1.

Fig. 6.

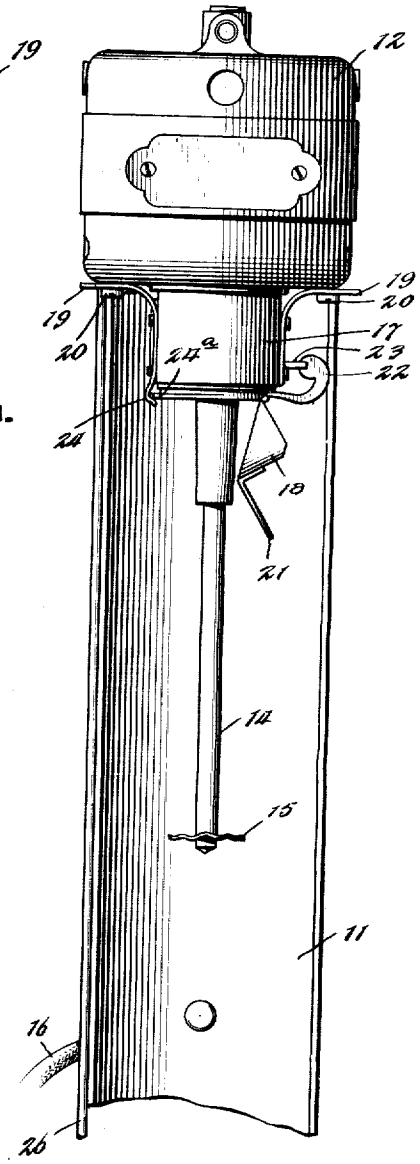


Fig. 2.

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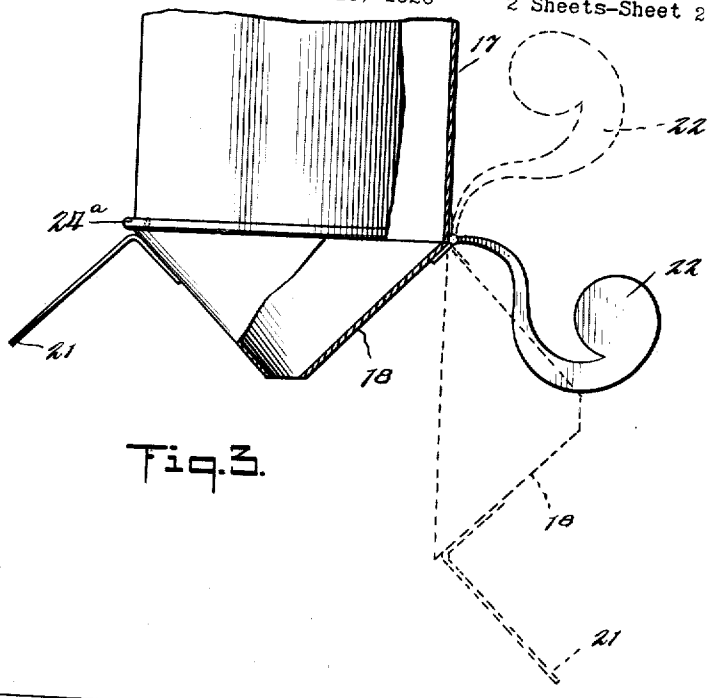


Fig. 3.

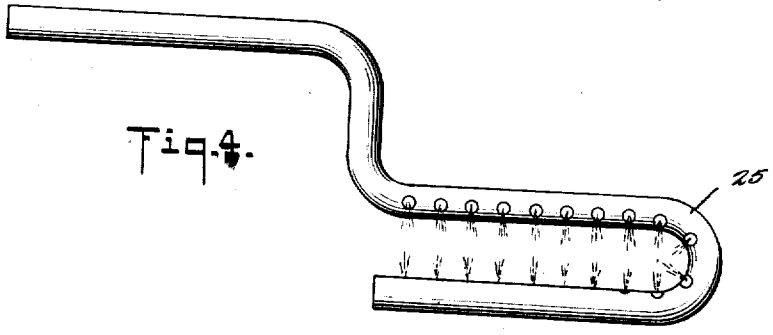


Fig. 4.

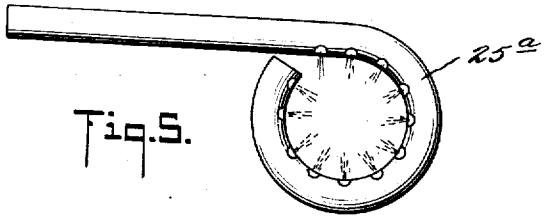


Fig. 5.

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Patented July 13, 1926. 1,592,788

UNITED STATES PATENT OFFICE.

PABLO SUPERVIELLE, OF HABANA, CUBA.

SANITARY DRINK MIXER.

Application filed January 15, 1926. Serial No. 81,496.

An object of the invention is to produce a mixer whose agitator can be completely inclosed in order to protect it from bacteria, flies, and dirt. A further object of the invention is to provide quick and convenient means for washing the agitator.

A preferred form of the invention is illustrated in the accompanying drawings in which

Figure 1 is a front elevation of a drink mixer, partly broken away, constructed in accordance with the invention, with the agitator covered and being washed;

Fig. 2 is a similar elevation with the mixer ready for use;

Fig. 3 is an enlarged side elevation showing the cap part of the cover;

Fig. 4 is a perspective view of the end of the spray tube;

Fig. 5 is an alternative shape of spray tube; and

Fig. 6 is a detail of one of the straps which support the cover.

All establishments selling soft drinks employ drink mixers in which a vertical agitator rod is rotated by a small motor whose axis is parallel to that of the agitator. After the mixer has been used, the agitator is covered with a film of the liquid which has just been mixed, and in addition has large drops adhering to its lower part. This is objectionable in that the liquid attracts flies and furthermore, the liquid from one drink remaining upon the agitator normally becomes mixed with the next. No practical means has heretofore been known for cleaning the agitator and protecting it from dirt and flies when not in use.

The novel construction which will now be described keeps the agitator completely covered when not in use and can also be availed of effectively to wash the agitator in a sanitary manner. This mechanism is simple and can be operated with ease and rapidity. It is not necessary for the operator to touch the agitator or wet his hands in any manner.

In the preferred form illustrated, a base 10 carries a support 11, at the top of which a vertically immovable motor 12 is carried. Associated with the motor is the usual shaft 13, to which is attached an agitator 14 having a tip 15 at its end. A cable 16 connects the motor with a source of current.

The mechanism includes a collapsible cover for the agitator and spray means for washing the latter. The cover consists of telescopic sections 17, and a funnel shaped cap 18, with a hole in its apex, and is suspended from the motor 12 by straps 19. These straps are constructed of resilient metal and are riveted to the uppermost of the telescopic sections as shown in Figs. 1 and 2 of the drawings. The straps have slots with enlarged heads as shown in Fig. 6. To attach the cover, the enlarged heads of the slots in the straps are passed over the heads of bolts 20 in the motor, and the casing pressed tightly up against the motor, thus bending and forcing the straps outward. The bolts 20 are then tightened, clamping the straps tight and fastening the cover to the motor. Similarly, the cover may be easily detached and removed from association with the motor and agitator.

When extended, the telescopic sections 17 and the cap 18 are designed to cover the agitator completely. The cap is hinged to the section of the cover furthest from the motor, and is designed to close the end of the cover below the tip 15 of the agitator automatically when the telescopic sections are extended. This automatic closure is obtained by means of a handle 21 and a weighted lever 22 on the cap, the weighted lever being fastened to the cap 18 near the hinge point and tending to hold the same shut. The handle 21 is fastened to the cap at its free side and extends outwardly from the rim of the cap in a substantially straight line at a downwardly extending angle when the cap is in closed position. When the telescopic sections of the cover are collapsed and nested together exposing the agitator, this weighted lever 22 engages a spring clamp 23, mounted on the side of the uppermost or stationary section, and the cap is thus held clear of the agitator. At the same time the cover is held in the collapsed or nested position by means of a catch 24 which can conveniently be formed from the lower end of one of the straps 19. This catch 24 is adapted to engage a flange 24^a on the lowermost telescopic section.

In order to wash the agitator a spray is introduced at the top of and sprayed upon said agitator. For this purpose a tube 25 is attached to a source of water supply and brought within the casing, as shown in Fig. 1. In its simplest form this tube is bent in the form of a U, as shown in Fig. 4. It may be desired, however, to bend it in the

form of a circle as shown in Fig. 5. In either case the tube is perforated on the inside of the curve as shown so as to throw the spray against the agitator. Water is carried to the bent tube by a pipe, 26. A button 27 held in disengaged position by a spring 28 is conveniently provided, for instance on the base of the apparatus, as shown in Figs. 1 and 2. Upon being pressed this button opens the water valve, permitting water to flow through the tube and to descend about the agitator for the purpose described. The valve (not shown) may be of any convenient form such as a simple transverse plunger with a hole in it. The collapsible cover prevents any splashing of the water, and the hole in the cap permits its escape. This hole may be of sufficient size to permit the immediate escape of all water entering the cover, or where preferred it may be made smaller, i. e. not large enough to permit passage of liquid as fast as introduced by the spray. In the latter case, water will back up tending to fill the cover and immerse the tip. If desired, the motor may then be turned on, making the agitator whirl around in the water and wash itself. A drain basin 29 collects the waste water falling from the cap, and is drained from the bottom by a waste pipe 30.

The operation of the mixer is as follows:

A drink having been mixed and the container having been removed from below the agitator, the handle 21 is pulled downwardly, thus disengaging the flange 24ª from the spring catch 24, and at the same time releasing the weighted lever 22 from the spring clamp 23. The cover sections fall into extended position by gravity and the cap assumes a closed position because of the moment of the weight 22 about its hinge.

As shown in Fig. 2 the handle 21 lies at such an angle when the cover is collapsed that as soon as the weighted lever 22 is released from the clamp 23, and the cover starts to extend, the handle 21 will guide the cap 18 around the agitator tip 15 into such a position that the weighted lever can close the cap.

The agitator is now completely surrounded by the cover and cap and the button 27 can be pressed, opening the water valve and causing the water to descend in a spray upon the agitator. As described above, the water escapes through a hole in the cap 18, and is caught in the drain basin 29 whence it escapes through the waste pipe 30.

When the apparatus is not in use the agitator may be protected by the extended cover, which need only be removed preparatory to use. The spray, of course, is used only when it is desired to wash the agitator.

The present invention provides a convenient, quickly operated, and effective means for keeping the agitator of a drink mixer in sanitary condition, and for preventing the inter-mixing of diversified beverages. The sanitary aspects of this apparatus become exceedingly important in localities where flies and insects abound.

Modifications of the apparatus described which do not depart from the scope of my invention will readily occur to those skilled in the art.

What I claim is:—

1. In a sanitary drink mixer, a vertically immovable motor and a vertical agitator operated thereby, in combination with a collapsible, detachable cover adapted to cover the sides and bottom of said agitator comprising a series of telescopic sections, the largest section being attached to the motor, and means for holding the cover against the motor with its sections collapsed.

2. In a sanitary drink mixer, a vertically immovable motor, a vertical agitator operated thereby, collapsible sections forming a cover adapted to surround said agitator, and means for detachably connecting the largest of said sections to the motor, in combination with a cap hinged to the smallest of said sections, and a weighted lever attached to said cap adapted to close it beneath said smallest section.

3. In a sanitary drink mixer, a vertically immovable motor, a vertical agitator operated thereby, collapsible sections forming a cover adapted to surround said agitator, and means for detachably connecting the largest of said sections to the motor, in combination with a cap hinged to the smallest of said sections, a weighted lever attached to said cap adapted to close it over said smallest section, and a spring clamp associated with the largest of said sections adapted to engage with said weighted lever and hold the sections in collapsed position.

4. In a sanitary drink mixer, a vertically immovable motor, a vertical agitator operated by said motor, collapsible sections forming a cover for said agitator associated with said motor, and a cap hinged to the lowermost of said sections, in combination with a handle on said cover opposite the hinge adapted to guide the cover around the agitator as the cover is permitted to fall into extended position.

5. In a sanitary drink mixer, a motor and a vertical agitator operated by said motor, in combination with a collapsible cover attached to said motor, and means for projecting a spray upon said agitator within said cover.

6. A sanitary cover and washer for drink mixer, having a motor and a vertical agitator operated by said motor in combination with a collapsible cover attached below said motor, said cover comprising telescopic sections adapted to cover the sides of said

agitator, and a cap adapted to cover the bottom thereof, said cap having a hole in the bottom thereof, and means within the cover for projecting a spray upon said agitator, substantially as described.

7. A sanitary cover and washer for drink mixer, having a motor and a vertical agitator operated by said motor in combination with a collapsible cover attached below said motor, said cover comprising telescopic sections adapted to cover the sides of said agitator, and a cap adapted to cover the bottom thereof said cap having a hole in the bottom thereof, and means within the cover for projecting a spray upon said agitator, said hole not being large enough to permit passage of liquid as fast as introduced by said spray.

In testimony whereof I have signed my name to this specification.

PABLO SUPERVIELLE.

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In testimony whereof I have signed my name to this specification.

PABLO SUPERVIELLE.

Certificate of Correction.

It is hereby certified that in Letters Patent No. 1,592,788, granted July 13, 1926, upon the application of Pablo Supervielle, of Habana, Cuba, for an improvement in "Sanitary Drink Mixers," an error appears requiring correction as follows: Page 1, insert the following as the first paragraph of the printed specification:

This invention relates to sanitary drink mixers of the type in which a vertical agitator is rotated by a small motor, and more particularly to means for washing the agitator.;

and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 10th day of August, A. D. 1926.

[SEAL.]

M. J. MOORE,
Acting Commissioner of Patents.

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