Dec. 28, 1954 B. J. ROSENTHAL 2,698,165

SANITARY COVER FOR STIRRERS OF MILKSHAKING MACHINES

Filed May 28, 1953

FIG. 1.

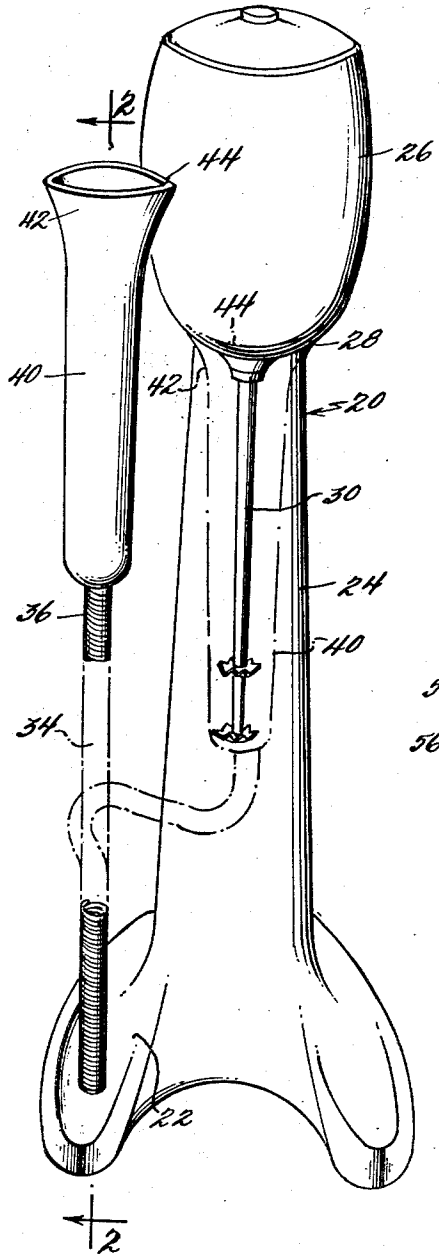


FIG. 2.

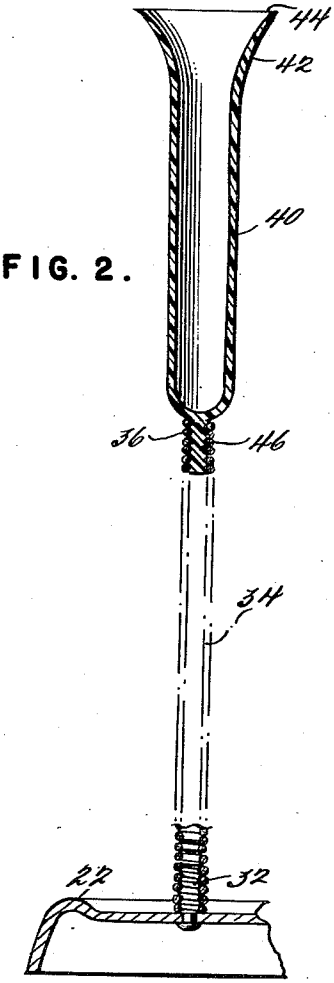


FIG. 4.

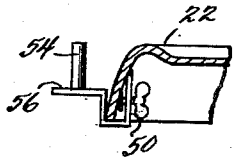
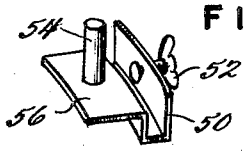


FIG. 3.



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United States Patent Office 2,698,165 Patented Dec. 28, 1954

2,698,165

SANITARY COVER FOR STIRRERS OF MILKSHAKING MACHINES

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Application May 28, 1953, Serial No. 358,036

5 Claims. (Cl. 259—122)

This invention relates to a sanitary cover for the stirrer of a milkshaking machine.

A milkshaking machine in a drugstore or soda fountain is in frequent use, especially in the warm summer months, and the stirrer on the machine is constantly covered with a film of milkshake ingredients. As the stirrer is not cleaned after each use, this film remains on it until the machine is next used, which may be anywhere from a few minutes to an hour or more. During this interval, the exposed stirrer becomes an attractive site for insects, such as flies, in the vicinity of the machine. At night, the stirrer is exposed to other insects such as roaches and ants, as well as rodents such as mice and rats, which feed upon the milkshake ingredients which have dried and encrusted on it, particularly at the blade portion of the stirrer. As insects are known to be germ carriers, there is constant danger that the stirrer will become contaminated.

Although some attempt has been made to enclose the stirrer when not in use, such as by telescopic covers, these covers have proved cumbersome, awkward, and comprise too many parts to be produced economically. Such covers also detract from the over-all modern design of the milkshaking machine.

It is the principal object of this invention to provide a sanitary cover for the stirrer of a milkshaking machine which is simple and sturdy in construction, comprises only a few parts, and which can easily and quickly be placed over the stirrer to completely enclose it.

It is another object to provide a sanitary cover for the stirrer of a milkshaking machine which may contain a cleaning or sterilizing solution for completely immersing the stirrer when it is enclosed.

In the attainment of these objectives, one feature of the invention resides in supporting the sanitary cover for the stirrer in place on a milkshaking machine by a sturdy, rust-proof flexible spring secured to the base of the machine, the spring holding the cup over the stirrer or conveniently in the immediate vicinity of the stirrer when the stirrer is in use.

Other objects, advantages and features of the invention will become apparent from the following specification taken in connection with the accompanying drawings wherein:

Fig. 1 is a front elevational view, partly diagrammatic, of a milkshaking machine embodying the invention in its preferred form;

Fig. 2 is a cross-sectional view of the invention taken along line 1—1 of Fig. 1;

Fig. 3 is a perspective view of a modified form of support which may be used to secure the invention to the base of the machine; and

Fig. 4 is a cross-sectional view of the base of the milkshaking machine with the support of Fig. 3 attached to it.

Fig. 1 illustrates a conventional milkshaking machine 20 comprising a base 22, a standard 24 and a motor housing 26, having a stirrer 30 depending from the bottom surface 28 of the housing. A stud 32 is secured to the base 22 of the machine and projects upwardly. Tightly fitting and surrounding the stud 32 is a flexible spring 34 extending upwardly and being secured at its upper end 36 to an elongated cup 40. A projection 46 depends downwardly from the cup 40 and securely engages the upper end 36 of the spring 34. The diameter and the length of the cup 40 are such that the cup can easily enclose the entire length of the stirrer 30. Flaring edges 42 at the rim 44 of the cup enable the rim 44 to engage the bottom

rounded surface 28 of the motor housing 26 whenever the cup encloses the stirrer 30. The flexible spring 34 provides sufficient upward force to the cup 40 to hold the rim 44 firmly against the surface 28 of the housing 26.

Projection 46, shown in Fig. 2, is threaded to provide a better attachment of the cup 40 to the spring 34, although a stud, similar to stud 32, can be used instead. The threaded projection 46 is preferred since the threads are forced in between the coils of the spring and decrease the possibility of the cup being pulled off the spring.

Another way of securing the spring 34 to the base 22 is to use a clamp 50 such as the one shown in Figs. 3 and 4 of the drawings. The clamp can be easily affixed to the base 22 by means of the wing bolt 52 and the spring 34 can be placed over the stud 54 projecting upwardly from the surface 56 of the clamp 50.

By using the clamp, or any modified forms of it, the sanitary cover can be quickly and easily installed on any milkshaking machine. The clamp 50 can also be plated with a rust-proof metal, such as cadmium.

It can be readily seen that with the sanitary cover of this invention attached to a milkshaking machine, the stirrer can be completely and effectively covered at all times when the machine is not being used. The spring 34 is so constructed that it tends to assume an upwardly extending position and thus insures that the cup will always be held in a vertical position. When the cup 40 encloses the stirrer 30, the rim 44 engages the surface 28 of the housing and prevents any germ-laden insects or rats from coming into contact with the stirrer. Any fluid, such as water or a chemical solution, can be placed into the cup to clean the stirrer for the next customer. Since the cup is held in a vertical position by the flexible spring, the cup will not turn over and spill the contents.

The invention as described comprises only a few inexpensive parts which are easily kept clean. In its preferred form, the elongated cup is made of plastic, and the spring and studs are coated or plated with a rust-proof composition or metal, cadmium being an example of such a metal.

By attaching the sanitary cover of this invention to the base of a milkshaking machine, the cover is always in the immediate vicinity of the stirrer, and can easily be placed over the stirrer, or just as easily removed.

Having fully described the invention, what is claimed is:

1. In a milkshaking machine, a sanitary cover for the stirrer comprising an elongated, flexible spring attached to the base of the milkshaking machine and extending upwardly toward the stirrer, and a one piece, elongated cup for enclosing the stirrer, said cup having its bottom surface secured to the end of said spring.

2. In a milkshaking machine, a sanitary cover for the stirrer comprising an elongated, flexible spring attached to the base of the milkshaking machine and extending upwardly toward the stirrer, a one piece, elongated cup for enclosing the stirrer, and a projection depending from the bottom surface of said cup, said projection being secured to one end of said spring, said spring being adapted to be bent upon itself.

3. A sanitary cover for the stirrer of a milkshaking machine comprising a one piece, elongated cup for enclosing the stirrer, outwardly flared edges at the rim of the cup, a projection depending from the bottom of the cup, an elongated, flexible spring having one end of said spring secured to said projection and means securing the other end of said spring to the base of the milkshaking machine, said spring being adapted to be bent upon itself.

4. In a milkshaking machine, a sanitary cover for the stirrer comprising means secured to the base of the milkshaking machine including a stud projecting upwardly, an elongated, flexible spring surrounding said stud and extending upwardly toward the stirrer, and a one piece, elongated cup of sufficient diameter and length to enclose the stirrer, said cup having its bottom surface secured to the end of said spring, said spring being adapted to be bent upon itself.

5. A sanitary cover for the stirrer of a milkshaking machine comprising a one piece, elongated cup having sufficient diameter and length to enclose the stirrer, outwardly flared edges at the rim of the cup, a projection depending from the bottom of said cup, an elongated, flexible spring having one end surrounding said projection, said

spring depending downwardly toward the base of the milkshaking machine, and clamping means, including a stud projecting upwardly, secured to the base of the milkshaking machine, said stud being surrounded by the other end of said spring, said spring being adapted to be bent upon itself.

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