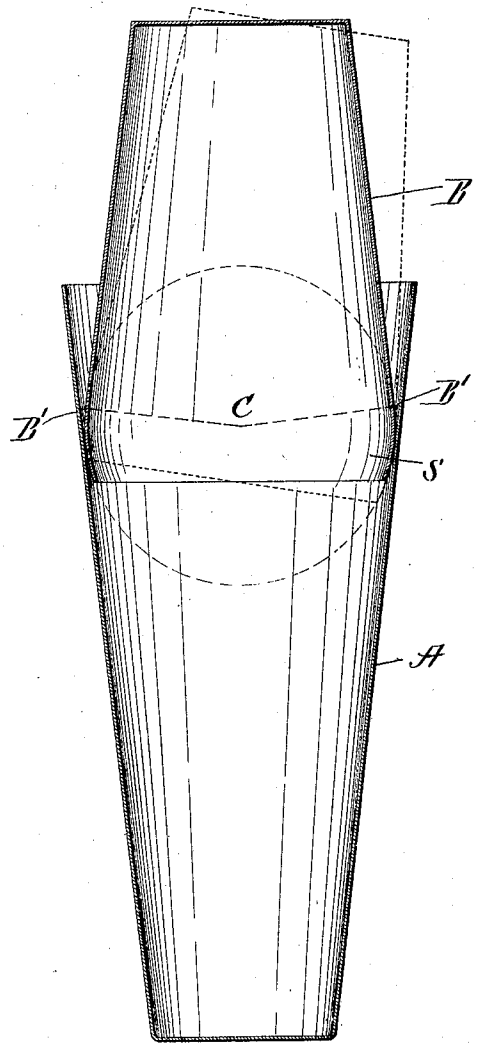
No. 832,640. PATENTED OCT. 9, 1906.

E. C. TRACEY.

DRINK MIXER OR SHAKER.

APPLICATION FILED JULY 30, 1906.



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ERNEST C. TRACEY, OF NEWTON, MASSACHUSETTS, ASSIGNOR TO AMERICAN SODA FOUNTAIN COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF NEW JERSEY.

DRINK MIXER OR SHAKER.

No. 832,640. Specification of Letters Patent. Patented Oct. 9, 1906.

Application filed July 30, 1906. Serial No. 328,322.

To all whom it may concern:

Be it known that I, ERNEST C. TRACEY, a citizen of the United States, and a resident of Newton, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Drink Mixers or Shakers, of which the following is a specification.

My invention relates to drink-mixing vessels or shakers, such as are used at soda-fountains and bars, and is peculiarly adapted to the mixing of beverages containing eggs or other thickened components which require to be "cut" in order to be thoroughly amalgamated with the thinner and more mobile liquids of which the drink is in part compounded. The mixing of such drinks as these has heretofore been accomplished by using a conical vessel, usually of metal, as German silver or silver-plated copper, the mouth of the said vessel being larger than the mouth of the glass tumbler used in coöperation therewith to effect the shaking. The tumbler is clapped into the mouth of the mixing vessel and the drink shaken up between these two receptacles. This mode while it has been almost universally practiced has its disadvantages. In the first place, the repeated forcible engagement of a tumbler of hard glass with a mixing vessel of metal causes the metal to be worn into ridges and, if it be plated, causes the plating to be cut off or worn down, and, moreover, the two conjoined vessels—namely, the mixing-cone and the glass tumbler—seldom make a perfectly tight joint, especially when the two are put together so that their respective axes are at an angle. The spilling and spattering of the liquid from the space inclosed by the two vessels is wasteful and disagreeable, especially as it spots and soils the clothing or aprons of the attendants who are dispensing drinks and soon renders these untidy and unsightly and, in the natural sequence of events, materially increases the laundry bills. My improvements presently to be described provide an escape from these difficulties and disadvantages.

In the drawing hereto annexed, which illustrates an embodiment of my invention, there are shown two coöperating mixing vessels, each being trunco-conical in shape, the vessel A having a wider mouth than the vessel B. Both these vessels are preferably composed of this spun metal. The vessel B is not a perfect truncated cone in shape, but at and near the mouth thereof its outer surface is spherical. In order to carry my invention into effect perfectly, the location and proportion of this spherical surface should be determined according to the following geometric rule: At points B′, both of which are located in the same circular section of the cone B, imagine perpendiculars which intersect at C, which is of course on th eaxis of the cone B. Then strike a circle shown in dotted lines in the figure about this center C tangent to the cone B at B′. Now if the mouth of the vessel B be spun in so that a plane section taken through the axis of the vessel B will coincide precisely with the circle struck through the center C all that portion S of the outer surface of the vessel B which lies between the points B′ and the mouth of the vessel will be spherical and when the vessel B is dropped into the vessel A a perfect joint will be made between the two just as would be made by dropping a perfect sphere having the radius C B′ into such a conical vessel as A. The ideal formation of the vessel B would thus be perfectly spherical over the surface marked S, but as the metal of which these two vessels A and B are constructed has elasticity and flexibility the result of tight joint irrespective of the angular position of the vessel B will be practically attained if the surface S approximates to a true sphere. The inturning of the lip stiffens the smaller vessel, so that it compels the more flexible true cone of the larger vessel to conform to the shape of the smaller in case the surface of the smaller is not a mathematically true sphere.

In addition to insuring a perfectly tight joint between the two vessels the formation of the spherical rim S of the vessel B performs quite an important function in the operation of the two vessels when they form a drink-mixing chamber. The inturning of the lip of the vessel B presents an edge inside of the vessel A which, when the contained liquids are shaken up and down, assists materially in cutting albuminous or other thick materials and enables the operator to compound a smooth and acceptable drink in a shorter time than is possible with the appliances heretofore employed.

What I claim, and desire to secure by Letters Patent, is as follows:

1. In a drink-mixer, the combination of two tapered vessels, whereof one has a mouth smaller than the other, the smaller-mouthed vessel curved inwardly at its lip to a substantially spherical form.

2. In a drink-mixer, the combination of two tapered vessels of flexible material, whereof one has a mouth smaller than the other, the smaller-mouthed vessel curved inwardly at its lip to a substantially spherical form.

3. In a drink-mixer, the combination of two conical vessels, whereof one has a mouth smaller than the other, the smaller-mouthed vessel curved inwardly at its lip to a substantially spherical form.

4. In a drink-mixer, the combination of two conical vessels of elastic material, whereof one has a mouth smaller than the other, the smaller-mouthed vessel curved inwardly at its lip to a substantially spherical form.

5. In a drink-mixer, the combination of two conical vessels, whereof one has a mouth smaller than the other, the smaller-mouthed vessel curved inwardly at its lip to a substantially spherical form, the spherical surface joining the conical portion tangentially.

6. In a drink-mixer, the combination of two conical vessels of elastic material, whereof one has a mouth smaller than the other, the smaller-mouthed vessel curved inwardly at its lip to a substantially spherical form, the spherical surface joining the conical portion tangentially.

Signed by me at Boston, Massachusetts, this 27th day of July, 1906.

ERNEST C. TRACEY.

Witnesses:

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JOSEPHINE H. RYAN.