

EXHIBIT 1007



(12) Utility model patent

(10) Authorized
announcement number

CN 203281567 U

(45) Authorized
announcement date

November 13, 2013

(21) Application number 201320221231.6

(22) Application date April 24, 2013

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(51) Int.Cl.

B08B 9/28 (2006.01)

B08B 9/36 (2006.01)

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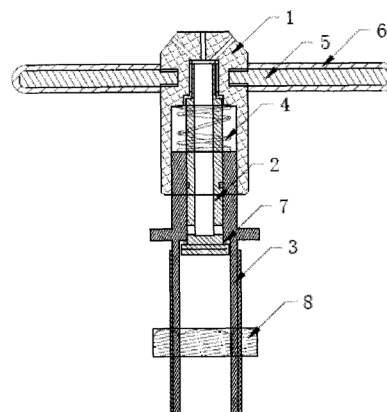
Drawings 3 pages

(54) Name of the utility model

Cup-washing machine

(57) Summary

The utility model discloses an energy-saving cup-washing machine, which mainly comprises: Nozzle, valve spool, body, spring, bracket, protective sleeve of the bracket, sealing ring, fastening nut. The utility model has the advantages of: energy saving, environmental protection, zero power consumption, ready to operate with one hand, efficient and fast, just put the container mouth down and gently press the bracket, the water will automatically spray out, when the container is removed, the water will automatically stop, which can be used for pre-cooling/pre-heating/flushing; suitable for bowls, wine glasses, teacups, milk jars, milk bottles, various containers, etc., do not hurt hands or containers; wide range of application, can be used at various-sized hotels, bars, KTV, teahouses, canteens, families, etc.; easy for installation, convenient to operate, small size, small space consumption, long service life, easy to carry, water saving and electricity saving, safe and reliable.



1. A cup-washing machine, which is characterized in that: it comprises nozzle, valve spool, body, spring, bracket, protective sleeve of the bracket, sealing ring, and fastening nut; The said bracket is fixed on the nozzle, and the said spring is located between the nozzle and the body; The nozzle, the spring and the body are connected together through the valve spool, and the valve spool passes through the inside of the spring; The protective sleeve of the bracket is installed on the bracket.

2. The said cup-washing machine as described in Claim 1, characterized in that: The said valve spool has a blind hole from the top to the bottom, the said blind hole is communicated with several water inlet holes on the side of the valve spool, and the said water inlet hole guides the water flow through the blind hole to the nozzle to spray out from the fine orifices at a high speed and high pressure.

3. The said cup-washing machine as described in Claim 1, characterized in that: The said nozzle is provided with at least one orifice through which water flows to form high speed and high pressure to pre-cool/pre-heat/flush various containers.

4. The said cup-washing machine as described in Claim 1, characterized in that: The said bracket comprises at least one column, the column of the said bracket can be installed directly on the nozzle, or can be installed on a ring and then the ring is installed on the nozzle.

5. The said cup-washing machine as described in Claim 1, characterized in that: The said protective sleeve of the bracket is installed on the bracket to protect the container from being broken/damaged; the said protective sleeve of the bracket can be individually installed on each column, or can be installed on the bracket or nozzle as a whole.

6. The said cup-washing machine as described in Claim 1, characterized in that: The said cup-washing machine can be installed on the pool, the sink, or the drip tray, the water tray, the wine tray or other boxes and buckets.

7. The said cup-washing machine as described in Claim 1, characterized in that: The said cup-washing machine can be equipped with a brush, a sterilization device, a drying device.

Cup-Washing Machine

Field of technology

[0001] The utility model relates to a device which can wash various containers with pre-cooling/pre-heating/flushing functions, in particular to an energy-saving simple cup-washing machine.

Background art

[0002] At present, the cup-washing machine on the market is mainly electric, expensive, large volume, power consumption, water consumption, time consumption, and complex operation, easy to damage, not easy to repair, which does not conform to the prevailing trend of simplicity, energy-saving and environmental protection in today's society.

Content of the utility model

[0003] In order to solve the above technical problems, the utility model aims to provide a cup-washing machine which has all the advantages of energy-saving, power-saving, simple installation, convenient to use, rapid and efficient, washing and immediate use, long service life, etc.

[0004] The technical scheme of the utility model:

[0005] The utility model provides an energy-saving and environmental protection cup-washing machine, which comprises: nozzle, valve spool, body, spring, bracket, protective sleeve of the bracket, sealing ring, fastening nut; the upper part of the said body is within the nozzle connected through the valve spool; the said spring is located between the inner part of the nozzle and the upper part of the body, and the valve spool passes through the inside of the spring; the said bracket is arranged on the side of the nozzle, and the protective sleeve of the bracket is arranged on the bracket; the cup-washing machine of the utility model adopts a washing mode in which water flows out at a high speed and a high pressure through small orifices, and is effective for flushing/pre-cooling/pre-heating of various containers, bowls, cups, milk jars, milk bottles, etc.; easy to install, it can be used just after connecting to the tap water (or other pressure source); easy to use, one hand operation is acceptable, just lightly press the bracket using the container mouth; small size, portable and convenient, energy-saving and power-saving, safe and reliable, long service life.

[0006] The aforementioned cup-washing machine does not consume electrical energy when working, or uses the pressure itself from tap water, or other liquids, gases and solids under pressure; when in use, lightly pressing the bracket using the mouth of the container to be washed will drive the spring compression to start working of the cup-washing machine, then the water/other liquids, gases, solids will automatically spray out from orifices on the nozzle at a high speed for pre-cooling/pre-heating/flushing; the spring will immediately reset once the container is removed, so that the cup-washing machine will automatically turn off and the water will automatically stop.

[0007] In the aforementioned cup-washing machine, the said valve spool has a blind hole from the top to the bottom, which is communicated with several water inlet holes on the side above the round table at the bottom of the valve spool, and the round table at the bottom of the valve spool limits the valve spool inside the body; water flow enters the blind hole through the water inlet holes on the side at the bottom of the valve spool and then is guided to the nozzle to spray out from the orifices at a high speed and a high pressure.

[0008] In the aforementioned cup-washing machine, the said nozzle has orifices, and water flows through these small orifices to form high speed and high pressure to effectively pre-cool/pre-heat/flush various containers; the shape, size, angle, position, quantity, etc. of the nozzle can be adjusted. The said bracket is composed of several columns, and the column of the said bracket can be directly installed on the nozzle, or can be installed on a ring and then the ring is installed on the nozzle; the quantity, length, shape, size, position, etc. of the said column can be adjusted.

[0009] The aforementioned cup-washing machine can be installed on the sink/tank, or installed in the drip tray/water tray/wine tray/other devices, such as installed in a small bucket/small box, then the portable function can be achieved; the said cup-washing machine can also be equipped with a brush, a sterilization device, a drying device, etc.;

[0010] The aforementioned cup-washing machine does not hurt hand, does not hurt the container to be washed, and well protects the user's skin and the tableware surface; fast and efficient, energy-saving and zero power consumption, saving water and electricity bills, moreover, no electrical and electronic components, safe and reliable, it can be operated by people of all ages.

[0011] The cup-washing machine designed by the utility model has many functions, and can wash various bowls, wine glasses, teacups, milk jars, milk bottles, and other containers; energy saving and environmental protection, zero power consumption, saving water and electricity bills; no damage to hand, no damage to container; simple installation, easy to use; lightweight and ingenious structure, low cost, suitable for mass production, not only suitable for ordinary families, but also for commercial use, such as hotels, bars, KTV, western restaurants, milk tea shops, self-service, cuisine, and so on.

Description with drawings

[0012] Figure 1 shows section view of the cup-washing machine

[0013] Figure 2 shows the first one of several different structures of the orifices and bracket of the cup-washing machine

[0014] Figure 3 shows the second one of several different structures of the orifices and bracket of the cup-washing machine

[0015] Figure 4 shows the third one of several different structures of the orifices and bracket of the cup-washing machine

[0016] Figure 5 shows one of the structures of the cup-washing machine equipped with a brush (combining the scrubbing function with the orifice-washing function)

[0017] Figure 6 shows one of the ways to use the cup-washing machine

[0018] In the figures, 1 is the nozzle, 2 is the valve spool, 3 is the body, 4 is the spring, 5 is the bracket, 6 is the protective sleeve of the bracket, 7 is the sealing ring, 8 is the fastening nut, 9 is the orifice, 10 is the brush column, 11 is the brush bristles, 12 is the sink/tank/drip tray/wine tray/other device, and 13 is the cup/milk jar/milk bottle/other container.

Specific implementation modalities

[0019] The specific implementation modalities of the utility model are further described in detail in combination with the attached drawings and embodiments. The following embodiments are applicable to the utility model, but are not intended to limit the scope of the utility model.

[0020] As shown in Figure 1, Figure 2, Figure 3, Figure 4, and Figure 5, the utility model provides a new type of cup-washing machine, which comprises a nozzle 1, a valve spool 2, a body 3, a spring 4, a bracket 5, a protective sleeve of the bracket 6, a sealing ring 7, and a fastening nut 8. The said nozzle 1 is connected with the body 3 through the valve spool 2, and the spring 4, over the valve spool 2, is located between the inside of nozzle 1 and the body 3; the bracket 5 is installed on the nozzle 1, and is fitted with protective sleeve of the bracket 6 to protect the container to be washed from damage; the sealing ring 7 is to seal each site. Where the bracket 5 has several structural forms, which can not only drive the movement of the valve spool, but also has the effect of spraying water with hollow structure and orifices. In the case of scrubbing, a brush column 10 can be installed on the nozzle 1 of the cup-washing machine, and bristles 11, on the brush column 10, can scrub the container. The cup-washing machine can be fixed on the sink 12 for use, or fixed on the tank, drip tray, wine tray, or other devices. When in use, just gently press down the bracket 5 with the container mouth of the container 13 to be washed, then the spring 4 is compressed, the valve spool 2 moves down, the water will enter the water inlet holes on the side at the bottom of the valve spool 2 from lower part of the body 3, and then enter the nozzle 1 through the blind hole in the middle of the valve spool 2, spraying high pressure and high speed water through the fine orifices 9 on the nozzle to achieve the purpose of pre-cooling/pre-heating/flushing the container; after flushing, remove the container, the spring 4 automatically resets (driving the valve spool 2 to move up, and the water inlet holes at the bottom of the valve spool 2 are sealed), and the water flow is automatically off. The cup-washing machine and the cup-washing machine of the utility model adopts the high pressure and high speed flushing method, which is energy-saving and environmental protection, power-saving and water-saving, can be operated with one hand, with wide application range, and is effective for cleaning various containers such as bowls, cups, milk jars, and milk bottles, with simple structure, convenient operation, no damage to hand, no damage to container, small volume and convenient movement, moreover, energy-saving and power-saving, safety and reliability, and long service life.

[0021] The above description is only the preferred implementation modalities of the utility model, and it should be pointed out that for ordinary technical personnel in the technical field, under the premise of not deviating from the technical principle of the utility model, a number of improvements and refinements can be made, and these improvements and refinements should also be regarded as the scope of protection for the utility model.

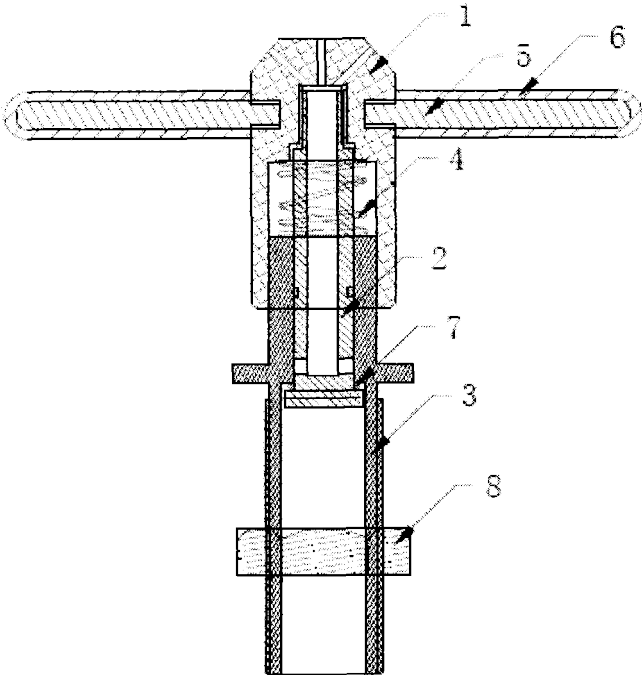


Figure 1

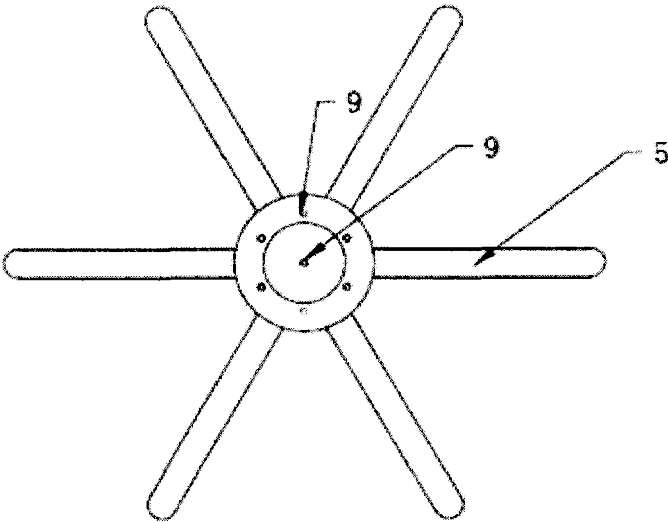


Figure 2

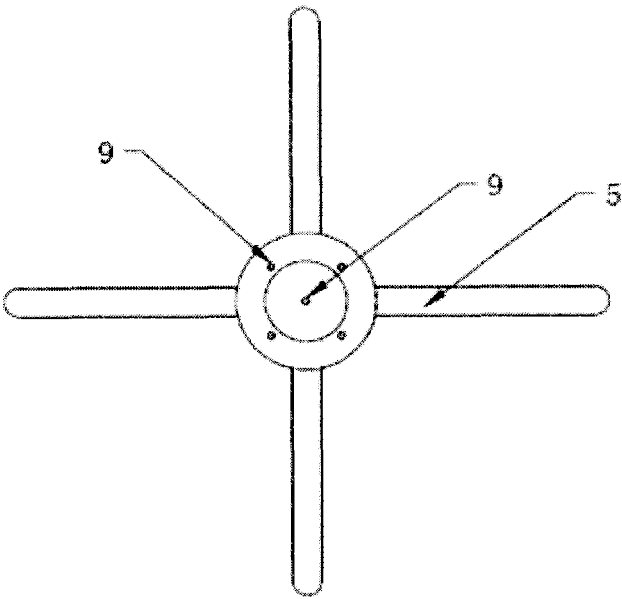


Figure 3

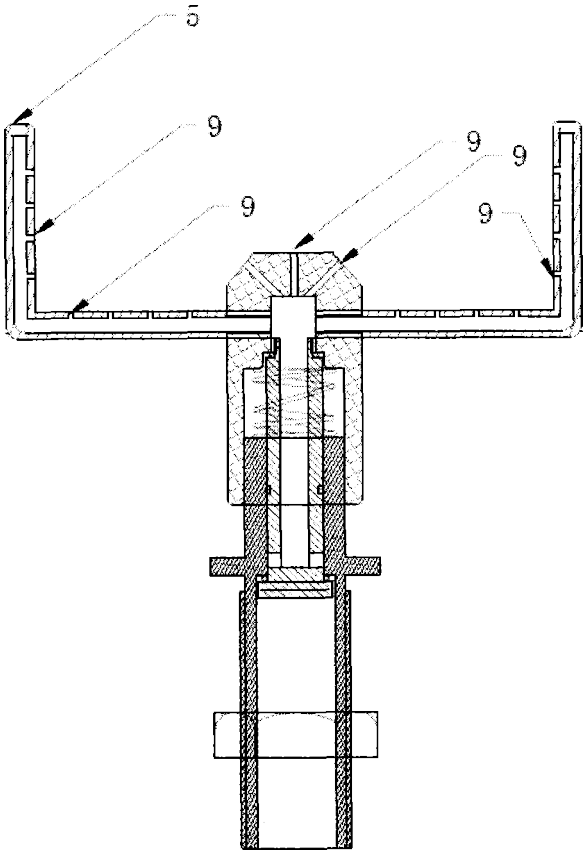


Figure 4

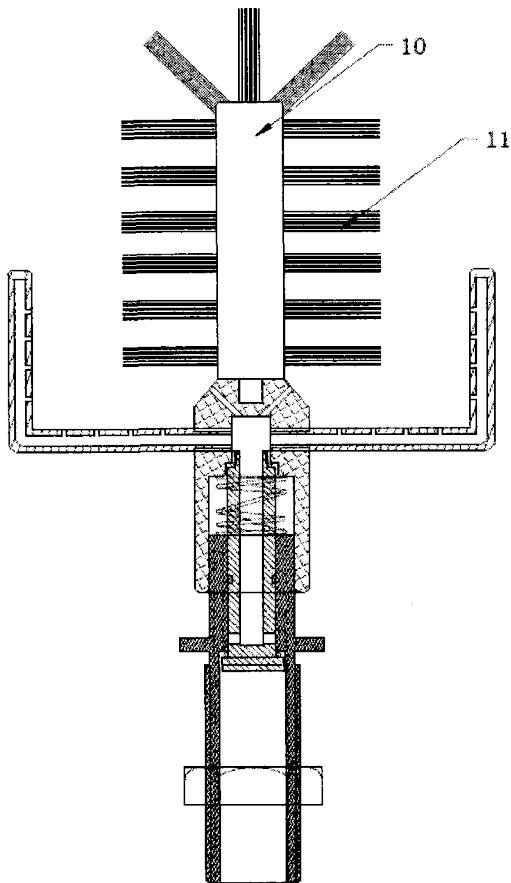


Figure 5

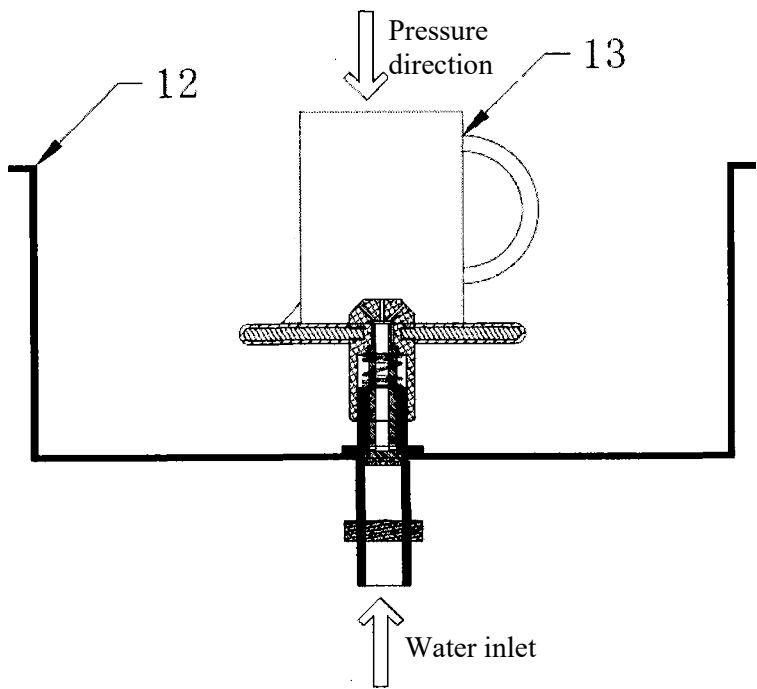


Figure 6



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- 附件1-CN203281567U-洗杯器

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(12) 实用新型专利

(10) 授权公告号 CN 203281567 U

(45) 授权公告日 2013. 11. 13

(21) 申请号 201320221231. 6

(22) 申请日 2013. 04. 24

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(51) Int. Cl.

B08B 9/28(2006. 01)

B08B 9/36(2006. 01)

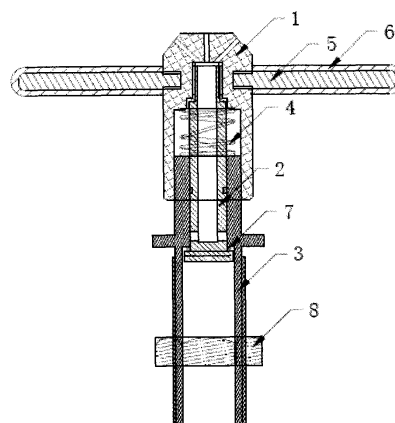
权利要求书1页 说明书2页 附图3页

(54) 实用新型名称

洗杯器

(57) 摘要

本实用新型公开了一种节能洗杯器,主要包括:喷头,阀芯,主体,弹簧,托架,托架保护套,密封圈,紧固螺母。本实用新型的优点:节能环保零电耗,单手即可操作,高效快捷,只需将容器口向下轻压托架,水流就会自动喷出,容器拿开水流就会自动停止,可用来预冷/预热/冲洗;适用于碗、酒杯、茶杯、奶缸、奶瓶、各种容器等,不伤手不伤容器;适用范围广,大小酒店酒吧 KTV 茶楼食堂家庭等均可使用;安装简单,操作方便,体积小,占地少,寿命长,携带方便,省电省水,安全可靠。



1. 一种洗杯器,其特征在于:包括喷头,阀芯,主体,弹簧,托架,托架保护套,密封圈,紧固螺母;所述托架固定在喷头上,所述弹簧位于喷头与主体之间;喷头、弹簧与主体通过阀芯连接在一起,阀芯从弹簧中间穿过;托架保护套安装在托架上。

2. 如权利要求1所述的洗杯器,其特征在于:所述阀芯从顶部有盲孔到底部,所述盲孔与阀芯侧面数个进水孔相通,所述进水孔通过盲孔将水流引导至喷头从细小喷孔高速高压喷出。

3. 如权利要求1所述的洗杯器,其特征在于:所述喷头上有至少一个喷孔,水流通过这些细小喷孔形成高速高压,以预冷/预热/冲洗各种容器。

4. 如权利要求1所述的洗杯器,其特征在于:所述托架包括至少一个立柱,所述托架的立柱可以直接安装在喷头上,也可以安装在一个环上再把该环安装在喷头上。

5. 如权利要求1所述的洗杯器,其特征在于:所述托架保护套安装在托架上,用来保护容器不被碰坏损伤;所述托架保护套可以单独安装在各个立柱上,也可整体安装在托架上或喷头上。

6. 如权利要求1所述的洗杯器,其特征在于:所述洗杯器可以安装在水池、水槽上,也可安装在滴水盘、接水盘、接酒盘或其它盒子、桶中。

7. 如权利要求1所述的洗杯器,其特征在于:所述洗杯器上可加装毛刷、杀菌装置、烘干装置。

洗杯器

技术领域

[0001] 本实用新型涉及一种预冷 / 预热 / 冲洗功能的可洗各种容器的装置,特别涉及节能型简便洗杯器。

背景技术

[0002] 目前市场上的洗杯机主要都是电动型,价格昂贵,体积大,耗电,耗水,耗时间,而且,操作复杂,容易损坏,不易维修,不符合当今社会简约、节能、环保的主流趋势。

实用新型内容

[0003] 为解决上述技术问题,本实用新型旨在提供一种集节能省电,安装简单,使用方便,快速高效,随洗随用,寿命长等优点于一身的洗杯器。

[0004] 本实用新型的技术方案:

[0005] 本实用新型提供了一种节能环保洗杯器,包括:喷头,阀芯,主体,弹簧,托架,托架保护套,密封圈,紧固螺母;所述主体上半部在喷头中,通过阀芯连接;所述弹簧位于喷头内部与主体上半部之间,且阀芯从弹簧中间穿过;所述托架安装在喷头侧面,托架保护套装在托架上;本实用新型洗杯器采用水流经小孔高速高压喷出的冲洗方式,对于各种容器、碗、杯、奶缸、奶瓶等的冲洗 / 预冷 / 预热都有效;安装简单,连接上自来水(或其他压力源)即可使用;使用方便,单手即可操作,将容器口轻压托架即可;体积小,方便携带移动,节能省电,安全可靠,寿命长。

[0006] 上述洗杯器,工作时不消耗电能,利用自来水、或其它带压力的液体、气体、固体的本身压力工作;使用时将待洗容器口轻压托架带动弹簧压缩从而启动洗杯器工作,水流 / 其他液体、气体、固体自动从喷头上小孔高速喷出进行预冷 / 预热 / 冲洗,容器一拿开弹簧立刻复位从而洗杯器自动关闭,水流自动停止。

[0007] 上述洗杯器,所述阀芯从顶部有盲孔到底部,与阀芯底部圆台上方侧面数个进水孔相通,阀芯底部圆台将阀芯限位在主体内部;水流通过所述阀芯底部侧面进水孔进入盲孔再引导至喷头从细小喷孔高速高压喷出。

[0008] 上述洗杯器,所述喷头上有喷孔,水流通过这些细小喷孔形成高速高压,以有效预冷 / 预热 / 冲洗各种容器;喷孔的形状、尺寸、角度、位置、数量等均可调整。所述托架为几个立柱,所述托架的立柱既可以直接安装在喷头上,也可以安装在一个环上再把该环安装在喷头上;所述立柱的数量、长度、形状、尺寸、位置等均可调整。

[0009] 上述洗杯器,可安装在水池 / 槽上,也可安装在滴水盘 / 接水盘 / 接酒盘 / 其它装置中,如安装在小桶 / 小盒中,即可实现便携功能;所述洗杯器上也可加装毛刷、杀菌装置、烘干装置等;

[0010] 上述洗杯器,不伤手,不伤待洗容器,较好的保护使用者的皮肤和餐具表面;快速高效,节能零电耗,节约水费电费,而且没有电子电气元件,安全可靠,老少皆可操作。

[0011] 本实用新型设计的洗杯器,功能多,可以洗各种碗、酒杯、茶杯、奶缸、奶瓶等容器;

节能环保零电耗,节约水电费;不伤手不伤容器;安装简单,使用方便;结构轻巧,成本不高,适合大量生产,既适合普通家庭,又适合商用,如酒店、酒吧、KTV、西餐厅、奶茶店、自助、料理等。

附图说明

[0012] 图 1 为洗杯器剖视图

[0013] 图 2 为洗杯器喷孔与杯架的几种不同结构之一

[0014] 图 3 为洗杯器喷孔与杯架的几种不同结构之二

[0015] 图 4 为洗杯器喷孔与杯架的几种不同结构之三

[0016] 图 5 为洗杯器加毛刷(将刷洗功能与喷洗功能结合)结构之一

[0017] 图 6 为洗杯器使用方式之一

[0018] 图中 1 为喷头,2 为阀芯,3 为主体,4 为弹簧,5 为托架,6 为托架保护套,7 为密封圈,8 为紧固螺母,9 为喷孔,10 为毛刷柱,11 为刷毛,12 为水池/水槽/滴水盘/接酒盘/其他装置,13 为杯子/奶缸/奶瓶/其它容器。

具体实施方式

[0019] 下面结合附图和实施例,对本实用新型的具体实施方式作进一步详细描述。以下实施例适用于本实用新型,但不用来限制本实用新型的范围。

[0020] 结合图 1,图 2,图 3,图 4,图 5 所示,本实用新型提供了一种新型洗杯器,包括喷头 1,阀芯 2,主体 3,弹簧 4,托架 5,托架保护套 6,密封圈 7,紧固螺母 8。所述喷头 1 通过阀芯 2 与主体 3 连接,弹簧 4 套在阀芯 2 上位于喷头 1 内部与主体 3 之间;托架 5 安装在喷头 1 上,并装有托架保护套 6 以保护待洗容器不会碰伤;密封圈 7 来密封各个位置。其中托架 5 有数种结构形式,既可有带动阀芯移动的作用,又可同时具有中空带喷孔可喷水的作用。在需要刷洗的情况下,可在洗杯器喷头 1 上加装毛刷柱 10,毛刷柱 10 上有刷毛 11,以刷洗容器。本洗杯器可固定在水池 12 上使用,也可固定在水槽、滴水盘、接酒盘、或其他装置上。使用时,只需将待洗容器 13 的容器口向下轻压托架 5,弹簧 4 随之压缩,阀芯 2 向下移动,水流会从主体 3 下部进入阀芯 2 底部侧面的进水孔,再通过阀芯 2 中间的盲孔进入喷头 1 中,经喷头上细小的喷孔 9 喷出高压高速的水流,以达到预冷/预热/冲洗容器的目的;冲洗后将容器移开,弹簧 4 自动复位(带动阀芯 2 上移,阀芯 2 底部进水孔密封),水流自动关闭。本洗杯器本实用新型洗杯器采用高压高速冲洗方式,节能环保,省电省水,单手即可操作,适用范围广,对于各种碗、杯、奶缸、奶瓶等容器的清洗都有效,结构简单,操作方便,不伤手不伤容器,体积小方便移动,而且节能省电,安全可靠,寿命长久。

[0021] 以上叙述只是本实用新型的优选实施方式,应当指出,对于本技术领域的普通技术人员来说,在不脱离本实用新型技术原理的前提下,还可以做出若干改进和润饰,这些改进和润饰也应视为本实用新型的保护范围。

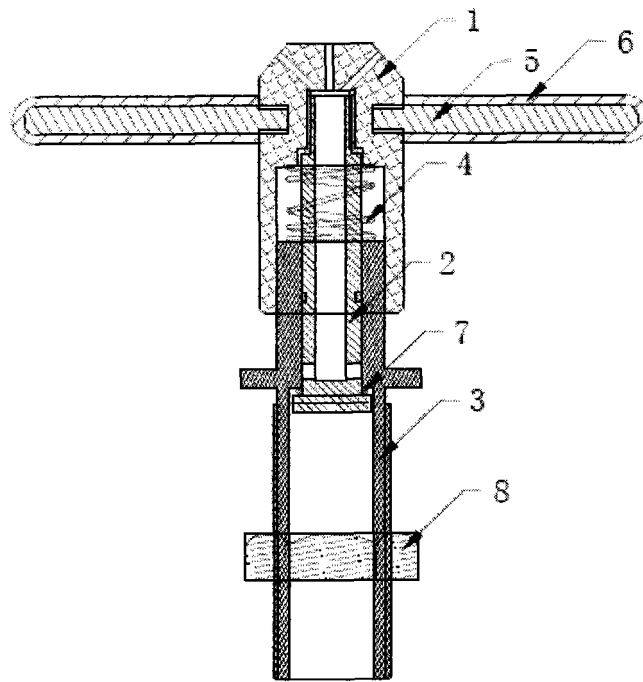


图 1

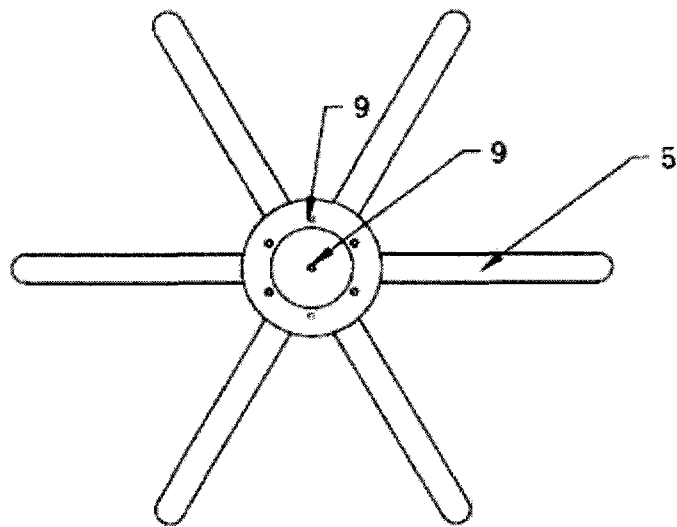


图 2

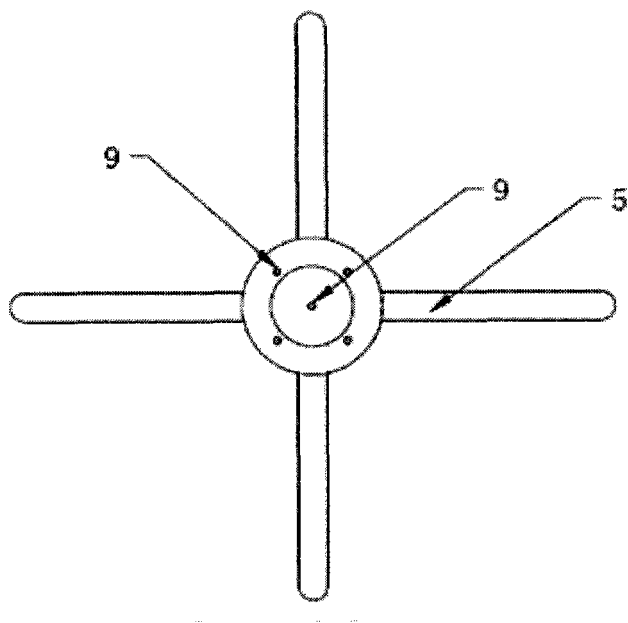


图 3

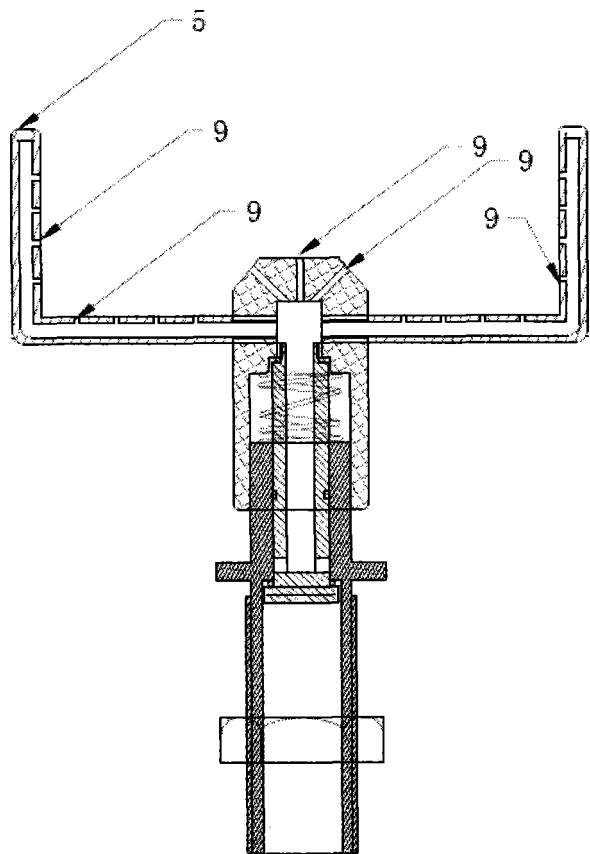


图 4

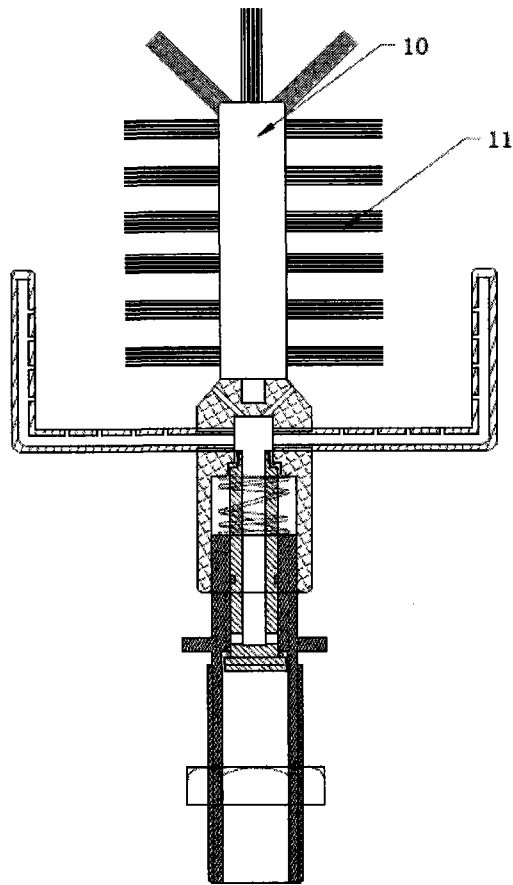


图 5

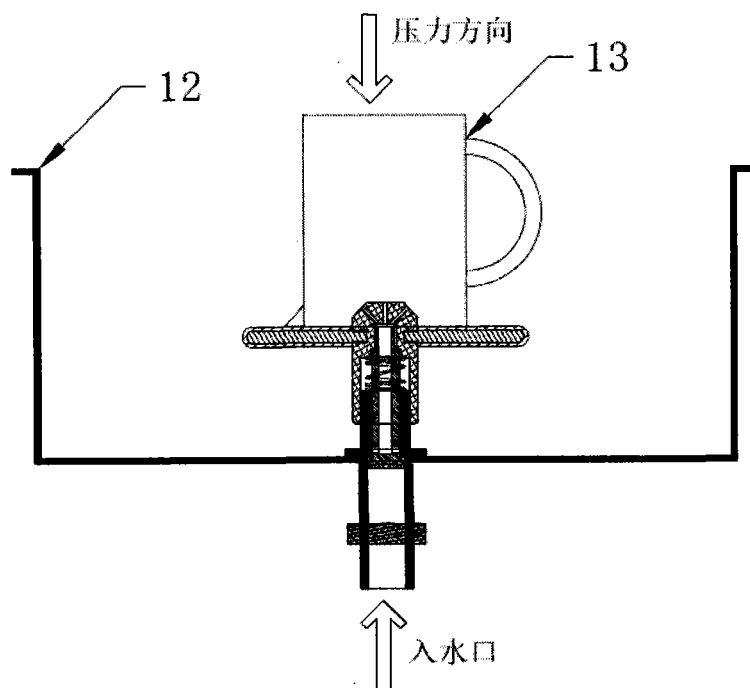


图 6