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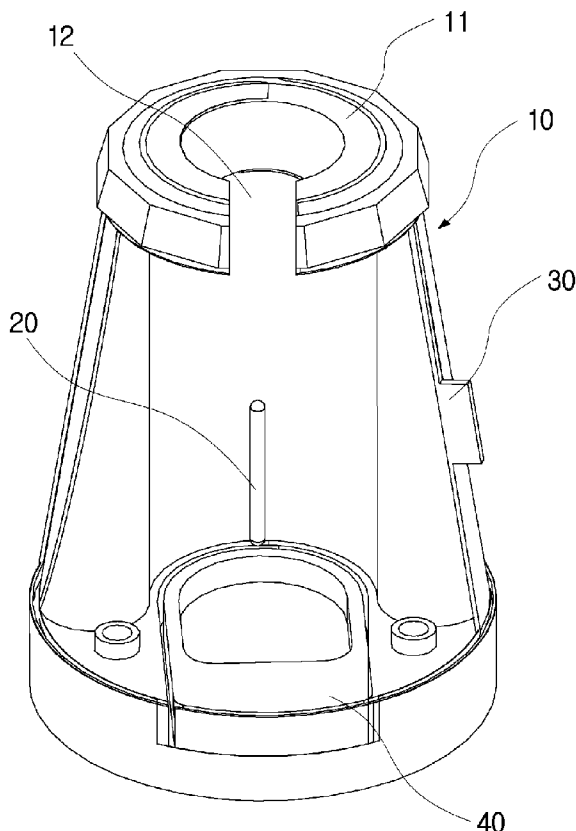
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(54) Title: THE PROP FOR HAND MIXER

(57) Abstract: The present invention relates to a prop for  
a hand mixer, which can eradicate the germs inhabiting  
the blade and blade protection portion of the hand mixer  
and always keep the cleanness of the hand mixer by the  
sterilization lamp mounted at the inside of the prop to operate  
when an open/close door is closed, and completely collect  
the water dropping from the hand mixer by the water bowl  
arranged at the bottom side of the prop.



## **Description**

### **THE PROP FOR HAND MIXER**

#### **Technical Field**

- [1] The present invention relates to a prop for a hand mixer, and more specifically, to a prop for a hand mixer for receiving and keeping the hand mixer therein while being not used. The prop for the hand mixer includes a sterilizing lamp therein, which operates to eradicate germs inhabiting its blade and blade protection portion and to keep its cleanness when the hand mixer is received and then a door of the prop is closed, and a water bowl on its base portion to collect the water dropping downward after its washing.

#### **Background Art**

- [2] Generally, a conventional prop for a hand mixer includes a fixing portion which is protruded from its upper part and has a cavity in the middle thereof. A part of the prop is cut off, so that the hand mixer can be received in the cavity through the part.
- [3] In recent years, various types of not only hand mixers but also props therefor have been developed, and an example of a hand mixer having unique features in its prop is disclosed in Korean Registered Utility Model Publication No. 343578, whose FIG. 1 illustrates the prop comprising a truncated cone shaped body 1 having receiving space therein and a fixing cavity 3 provided at the top of the body 1 and having an inclined surface, wherein the body 1 is cut off with a prescribed width to have two split portions 4 and 5, blade fixing portions 6 are depressed at both sides of the body 1 to have a constant depth, and a blade fixing groove 7 is provided in the center of the blade fixing portion 6.

#### **Disclosure of Invention**

##### **Technical Problem**

- [4] Most of props for hand mixer including that disclosed in the Korean Registered Utility Model Publication No. 343578 have the blade of the hand mixer fully exposed to air, so that they have a problem in that the blade and blade protection portion can not be kept clean.
- [5] Especially, the blade and blade protection portion are difficult to wash, so that germs such as E.coli and mold can proliferate when food remnants are decayed, which can cause damage to the human body.
- [6] Moreover, in a case where the hand mixer is received in its prop right after being washed without eliminating water remaining on the hand mixer, the water drops and gathers at the base of the prop, thus prompting the germ proliferation. And, unless the base portion is provided at the prop, the water can flow down directly to the floor of

kitchen, thus making the floor of kitchen dirty.

### **Technical Solution**

- [7] The present invention has been designed to overcome the above problems, and an aspect of the present invention can sterilize the germs inhabiting a blade and a blade protection portion of a hand mixer and always keep the cleanness of the hand mixer by a sterilization lamp mounted at the inside of the prop shaped as a truncated corn.
- [8] And another aspect of the present invention can completely collect the water dropping from the hand mixer by a water bowl arranged at the bottom side of the prop.

### **Advantageous Effects**

- [9] The present invention is characterized by a prop for a hand mixer, which can eradicate the germs inhabiting the blade and blade protection portion of the hand mixer and always keep the cleanness of the hand mixer by the sterilization lamp mounted at the inside of the prop to operate when an open/close door is closed, and completely collect the water dropping from the hand mixer by the water bowl arranged at the bottom side of the prop.

### **Brief Description of the Drawings**

- [10] FIG. 1 is a perspective view of a conventional prop for a hand mixer.
- [11] FIG. 2 is a perspective view of a prop for a hand mixer according to an exemplary embodiment of the present invention.
- [12] FIG. 3 is a perspective view of a prop for a hand mixer, with its water bowl drawn out, according to an exemplary embodiment of the present invention.
- [13] FIG. 4 is a perspective view of an open/close door of a prop for a hand mixer according to an exemplary embodiment of the present invention.
- [14] FIG. 5 is a partially exploded perspective view of a prop for a hand mixer according to an exemplary embodiment of the present invention.
- [15] FIG. 6 is a perspective view of a prop for a hand mixer during usage according to an exemplary embodiment of the present invention.

### **Best Mode for Carrying Out the Invention**

- [16] Hereinafter, exemplary embodiments of the present invention will be described with reference to accompanying drawings.
- [17] FIG. 2 is a perspective view of a prop for a hand mixer according to an exemplary embodiment of the present invention, FIG. 3 is a perspective view of a prop for a hand mixer, with its water bowl drawn out, according to an exemplary embodiment of the present invention, FIG. 4 is a perspective view of an open/close door of a prop for a hand mixer according to an exemplary embodiment of the present invention, FIG. 5 is a partially exploded perspective view of a prop for a hand mixer according to an exemplary embodiment of the present invention, and FIG. 6 is a perspective view of a

prop for a hand mixer during usage according to an exemplary embodiment of the present invention. Referring to FIGS. 2 to 6, a body 10, which is made of plastics, has a shape of a truncated cone, whose top side is narrower than the bottom side. A fixing jaw 11 is formed at the top side of the body 10, so that the hand mixer 60 can be received and fixed at the prop.

[18] A split portion 12 is provided at the front side of the fixing jaw 11 to have a prescribed width by cutting a part of the fixing jaw 11, so that the hand mixer 60 may be received in the fixing jaw 11 through the split portion 12.

[19] It is understood by those skilled in the art that although the body 10 has been described to have a shape of a truncated cone, the present invention is not limited thereto, but the body 10 may be shaped variously such as a cylindrical shape, a rectangular parallelepiped shape, etc. which are within the spirit of the present invention.

[20] On the other hand, a sterilization lamp 20 is mounted at the wall inside of the body 10. The sterilization lamp 20 may include any types of lamps that can perform the sterilizing functions, preferably such as a ultraviolet lamp which radiates ultraviolet rays to eradicate the germs.

[21] A switch 51 is arranged at the lower side of the body 10 to turn on and off the sterilization lamp 20 when the open/close door 30 to be detailed later is opened and closed, respectively.

[22] The open/close door 30 that is combined at the front side of the body 10 is opened when the hand mixer 60 is received in the body 10, and closed when the hand mixer 60 is received and sterilize the germs to prohibit the light from coming from the inside of the body 10 to the outside.

[23] A blockage plate 31 is provided at the upper and middle part of the door 30 to block the light leaking from the inside of the body 10 to the outside through the split portion 12 when the door 30 is closed after the hand mixer 60 is received.

[24] The open/close door 30 may be configured as a sliding door that opens and closes at the left and right directions. It is understood by those skilled in the art that although it has been described that the open/close door 30 is formed of a sliding door, it is not limited thereto but the open/close door 30 may be configured as a hinged door that opens and closes at the front and rear directions without escaping from the spirit of the present invention.

[25] A water bowl 40 that is provided at the bottom side of the body 10 has a depressed portion formed on its top side to collect the water dropping from the hand mixer 60. The water bowl 40 may be drawn out of the body 10 to empty the water collected therein when the prescribed amount of water is collected.

[26] Since the water dropping from the hand mixer 60 may be collected in the water

bowl 40, the inside of the prop and the floor of kitchen may always be kept clean.

[27] A power supply 50 that is arranged at the lower side of the body 10 serves to supply electric power to the sterilization lamp 20. The power supply 50 may be configured as a battery and a commercial power source based on the location and place to be used.

[28] The switch 51 that interacts with the open/close door 30 according to opening/closing of the door 30 is located adjacent to the power supply 50. As the door 30 is closed, the switch 51 is accordingly closed to turn on the lamp 20, and as the door 30 is opened, the switch 51 is accordingly opened to turn off the lamp 20.

[29] In terms of an assembling process of the prop, the body 10 is made of plastics to have a truncated corn. The sterilization lamp 20 is mounted at the inside of the body 10, and the power supply 50 and the switch 51 are arranged at the lower part of the body 10 to be wired to the sterilization lamp 20.

[30] Next, the water bowl 40 is combined at the bottom side, and the open/close door 30 is added at the front side, thereby to complete the assembly of the prop.

[31] In connection with the usage of the prop according to the exemplary embodiment of the present invention, firstly, the door 30 is open to receive the hand mixer 60 through the split portion 12. Next, the hand mixer 60 is fixed to the fixing jaw 11 and received in the body 10, and then the door 30 is closed. At this time, the switch 51, located at the bottom side of the body 10, closes to apply electric power from the power supply 50 to the lamp 20, thus turning on the lamp 20.

[32] When the door 30 is open to pull out the hand mixer 60 for usage, the switch 51 is open to cut off the application of electric power to the lamp 20, thus turning off the lamp 20.

### **Mode for the Invention**

[33] An exemplary embodiment of the present invention provides a prop for a hand mixer comprising: a body 10 shaped as a truncated corn, an upper part of the body 10 is narrower than a lower part of the body 10, the body 10 having a ring-shaped fixing jaw 11 and a split portion 12 formed at a front side of the fixing jaw 11; a sterilization lamp 20 provided at an inside of the body 10 to radiate ultraviolet rays; an open/close door 30 provided at a front surface of the body 10 to be opened and closed; a water bowl 40 detachably mounted at a bottom side of the body 10; a switch 51 provided at a lower side of the body 10 to turn on and off the sterilization lamp 20 when the open/close door 30 is closed and opened; and a power supply 50 provided at a lower side of the body 10 to supply electric power to the sterilization lamp 20.

### **Industrial Applicability**

[34] A prop for a hand mixer according to the present invention can sterilize the germs inhabiting the blade and blade protection portion of the hand mixer and always keep

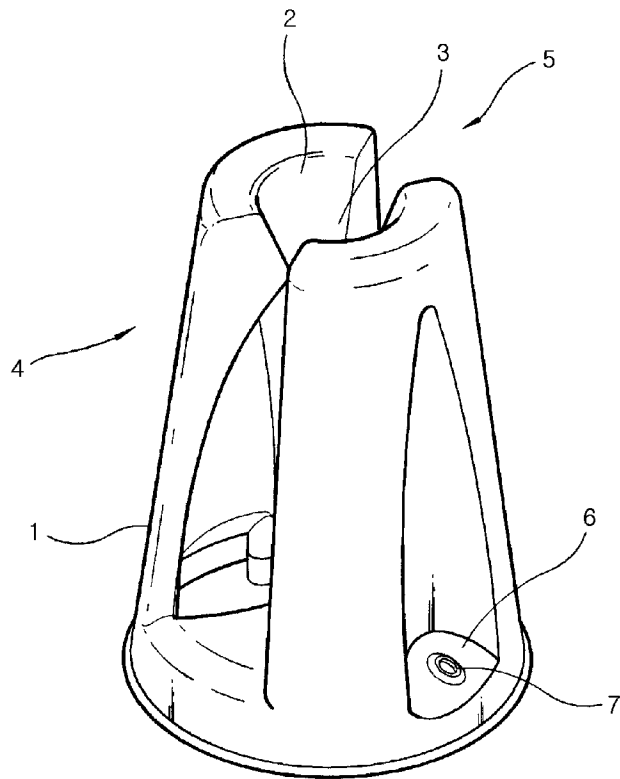
the cleanness of the hand mixer by the sterilization lamp mounted at the inside of the prop, and completely collect the water dropping from the hand mixer by the water bowl arranged at the bottom side of the prop. The prop for a hand mixer according to the present invention can receive and support any types of hand mixers that are commercially available.

[35]

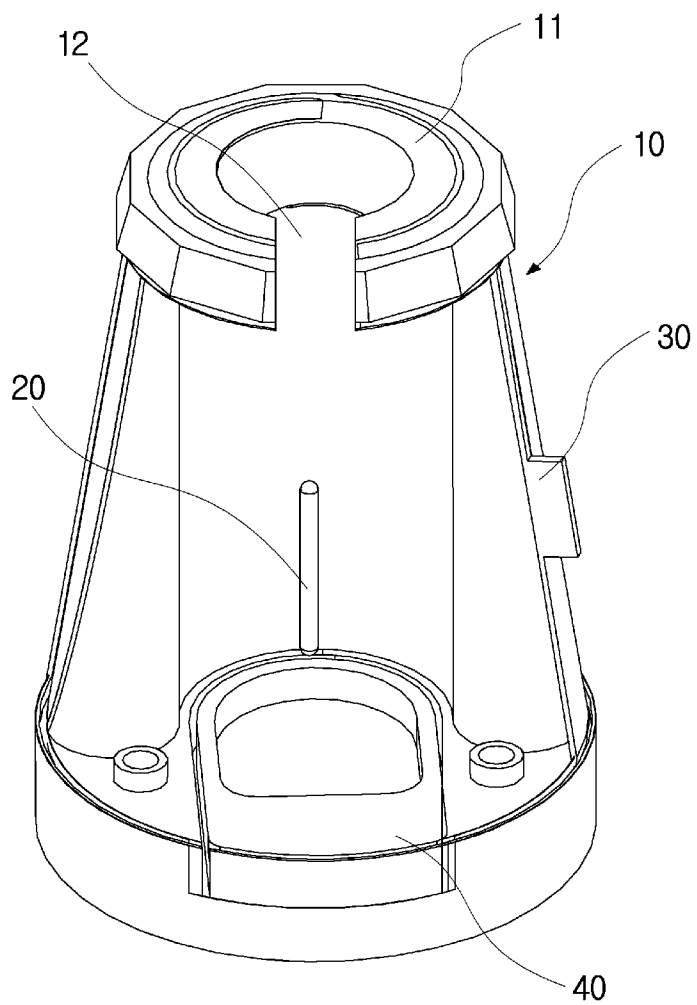
## Claims

- [1] A prop for a hand mixer comprising:  
a body 10 shaped as a truncated corn, an upper part of the body 10 is narrower than an lower part of the body 10, the body 10 having a ring-shaped fixing jaw 11 and a split portion 12 formed at a front side of the fixing jaw 11;  
a sterilization lamp 20 provided at an inside of the body 10 to radiate ultraviolet rays;  
an open/close door 30 provided at a front surface of the body 10 to be opened and closed;  
a water bowl 40 detachably mounted at a bottom side of the body 10;  
a switch 51 provided at a lower side of the body 10 to turn on and off the sterilization lamp 20 when the open/close door 30 is closed and opened; and  
a power supply 50 provided at a lower side of the body 10 to supply electric power to the sterilization lamp 20.
- [2] The prop for the hand mixer of claim 1, wherein  
the open/close door 30 is configured as a sliding door that is opened and closed in the left and right directions.
- [3] The prop for the hand mixer of claim 1, wherein  
the open/close door 30 is configured as a hinged door that is opened and closed in the front and rear directions.

[Fig. 1]

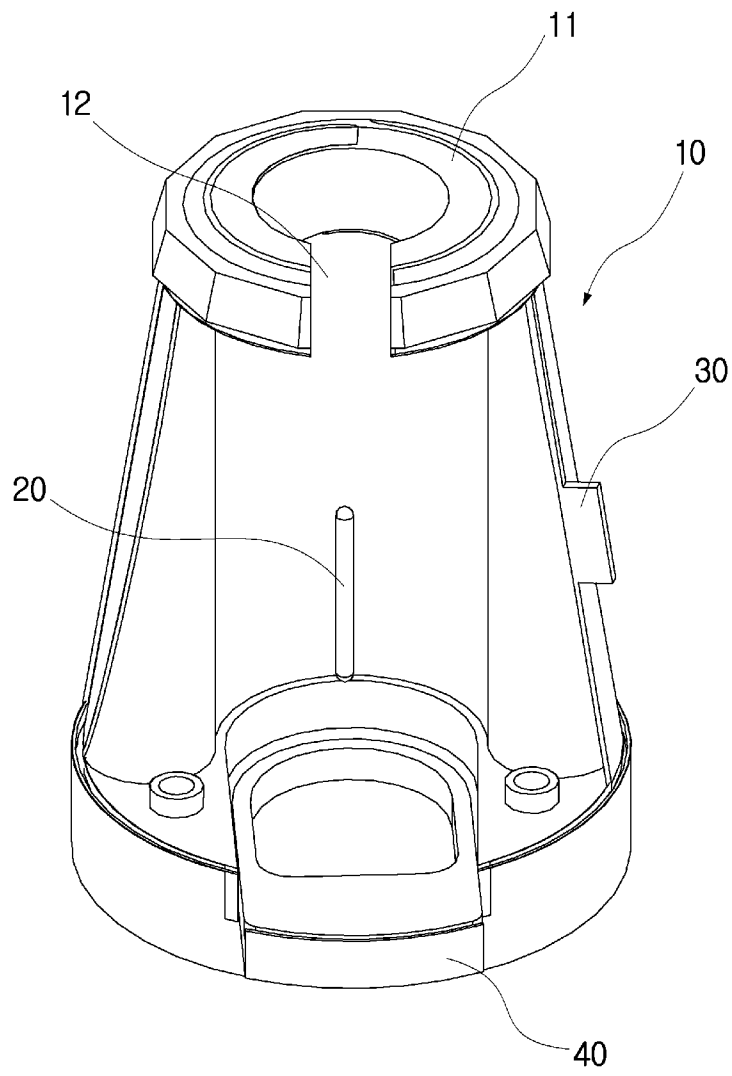


[Fig. 2]

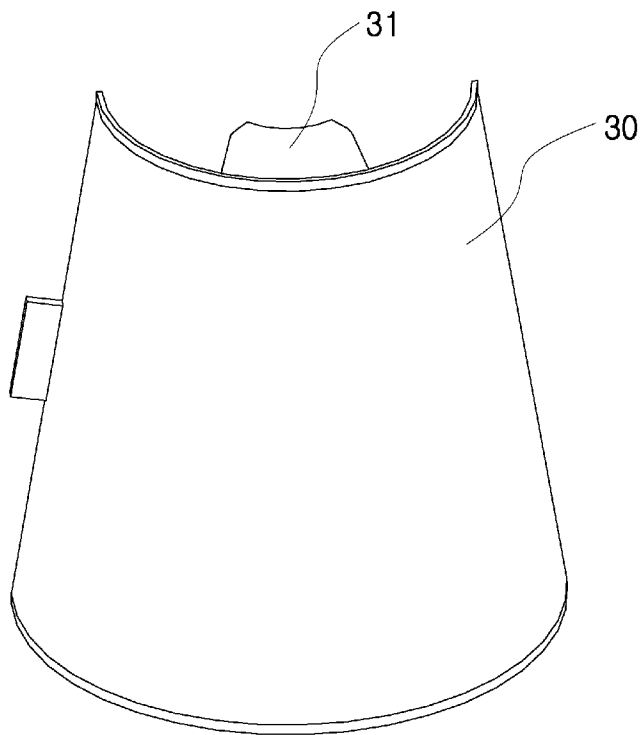




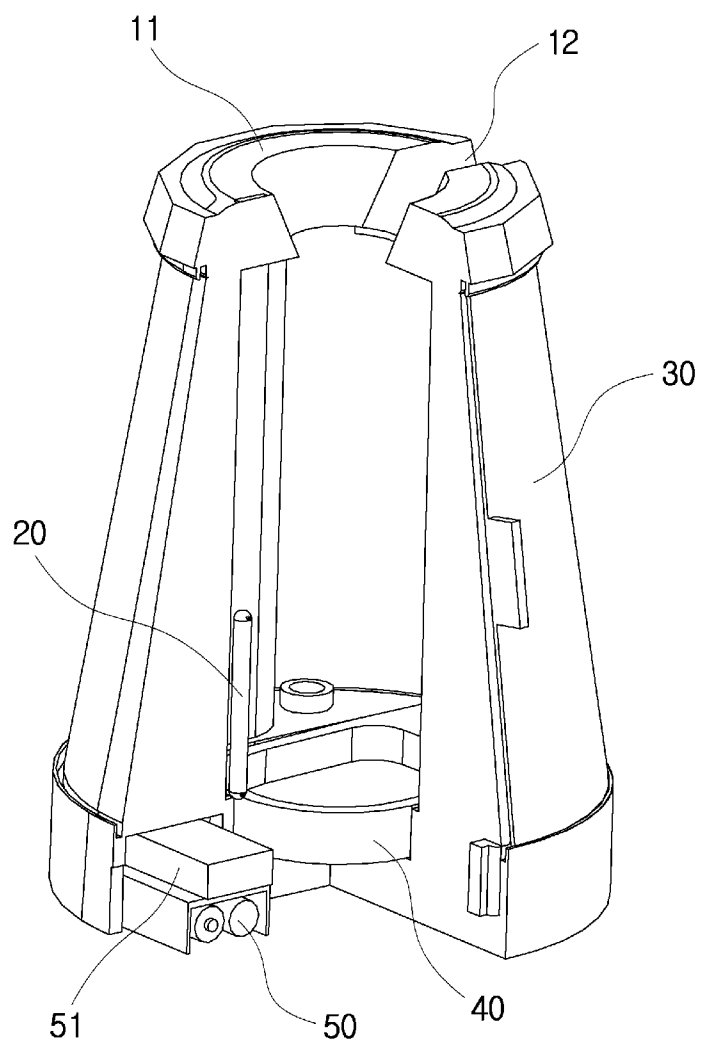
[Fig. 3]



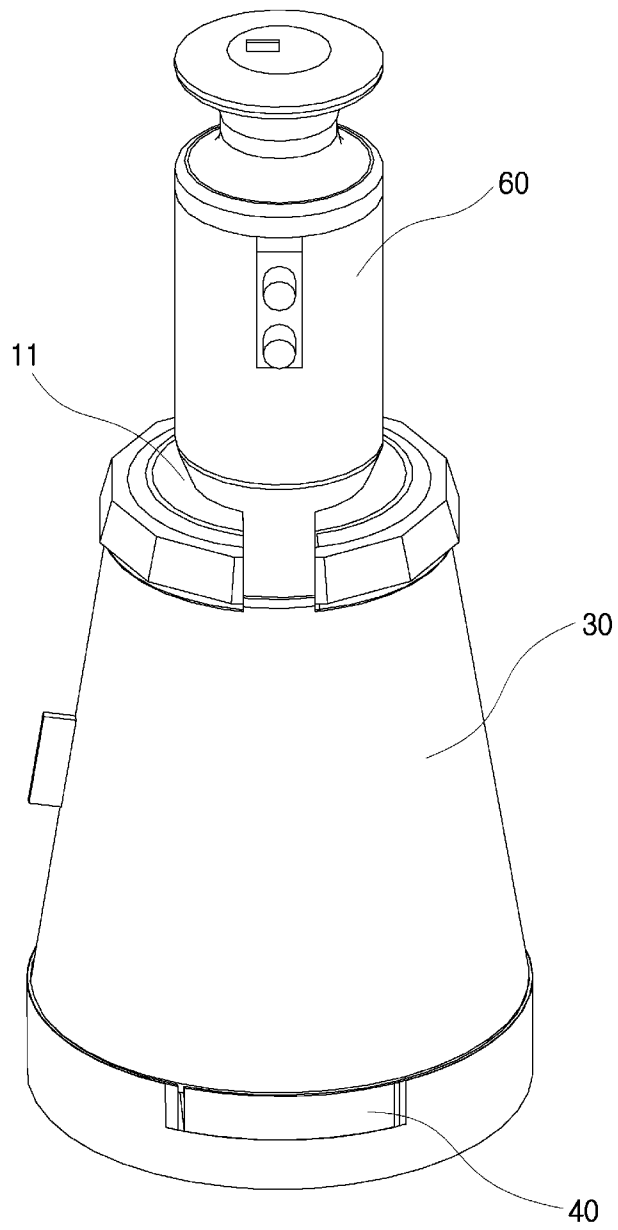
[Fig. 4]



[Fig. 5]



[Fig. 6]



## INTERNATIONAL SEARCH REPORT

International application No.  
**PCT/KR2007/005305****A. CLASSIFICATION OF SUBJECT MATTER****A47J 43/07(2006.01);**

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC8 47J 43/07, A47J 43/04

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean Patents and Applications for Inventions since 1975

Korean Utility Models and Applications for Utility Models since 1975

Japanese Utility Models and Applications for Utility Models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKIPASS, Delphion, USPTO, PAJ, IBM "hand blender, cutter, stirrer, stand, holder, light, door, sterilize, infrared, uv, ultraviolet, etc."

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KR 200306469 B1 (WOO NAM CO., LTD.) 08 March 2003 See page 2, lines 7-14 and Figure 1.	1 - 3
A	KR 200293756 B1 (HK CO., LTD.) 31 October 2002 See page 2, lines 12-14 and Figures 1-2.	1 - 3
A	KR 200399835 B1 (MOON, HEE-KYOUNG) 28 October 2005 See page 2, line 48 - page 3, line 7 and Figure 1.	1 - 3
A	KR 200343578 B1 (BOO WON GLOBAL CO., LTD.) 02 March 2004 See page 2, lines 24-38 and Figure 1.	1 - 3
A	JP 08140868 A (MATSUSHITA ELECTRIC IND CO., LTD.) 04 June 1996 See page 2, line 11 - page 3, line 18 and Figures 1, 4, 5 and 9.	1 - 3

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

\* Special categories of cited documents:

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"&amp;" document member of the same patent family

Date of the actual completion of the international search

22 JANUARY 2008 (22.01.2008)

Date of mailing of the international search report

**22 JANUARY 2008 (22.01.2008)**

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

**PCT/KR2007/005305**

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
KR200306469 B1	08.03.2003	NONE	
KR200293756 B1	31.10.2002	NONE	
KR200399835 B1	28.10.2005	NONE	
KR200343578 B1	02.03.2004	NONE	
JP08140868	04.06.1996	JP08140868 JP8140868A2	04.06.1996 04.06.1996