



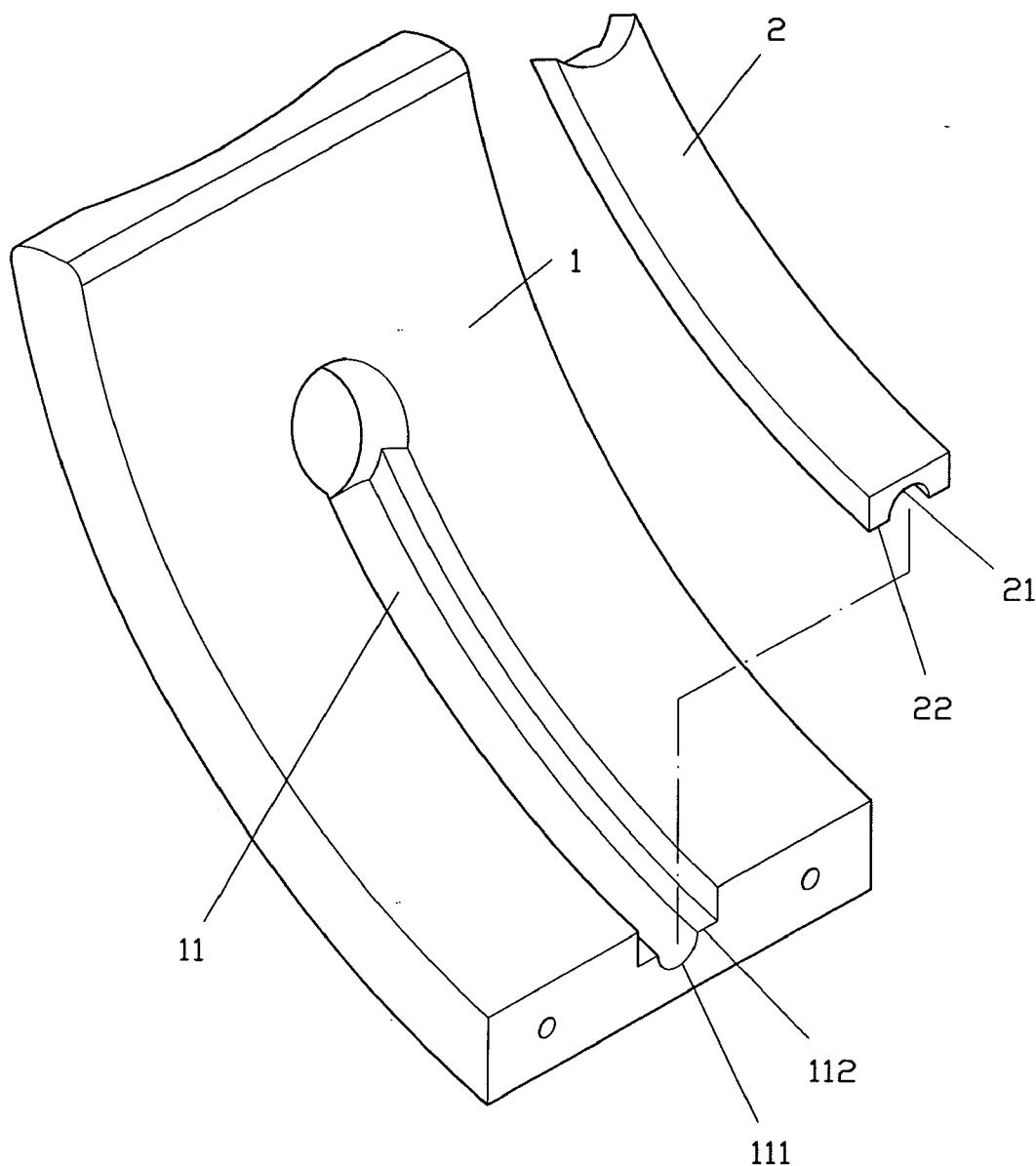
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(19) **United States**(12) **Patent Application Publication**
Wei(10) **Pub. No.: US 2006/0059686 A1**(43) **Pub. Date: Mar. 23, 2006**(54) **FAUCET CHANNEL STRUCTURE AND
MANUFACTURING METHOD****Publication Classification**(51) **Int. Cl.**
B21D 51/16 (2006.01)(52) **U.S. Cl.** **29/890.141; 137/801**(76) **Inventor: Chuan-An Wei, Yung Kang City (TW)**

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ROSENBERG, KLEIN & LEE**3458 ELLICOTT CENTER DRIVE-SUITE 101****ELLICOTT CITY, MD 21043 (US)**(57) **ABSTRACT**

A faucet channel structure and manufacturing method is applied to a faucet having a channel including a curved section, and comprises a faucet body and a channel lid. The faucet body includes an open channel having a polished surface. The channel lid includes a polished surface corresponding to the polished surface of the open channel of the faucet body.

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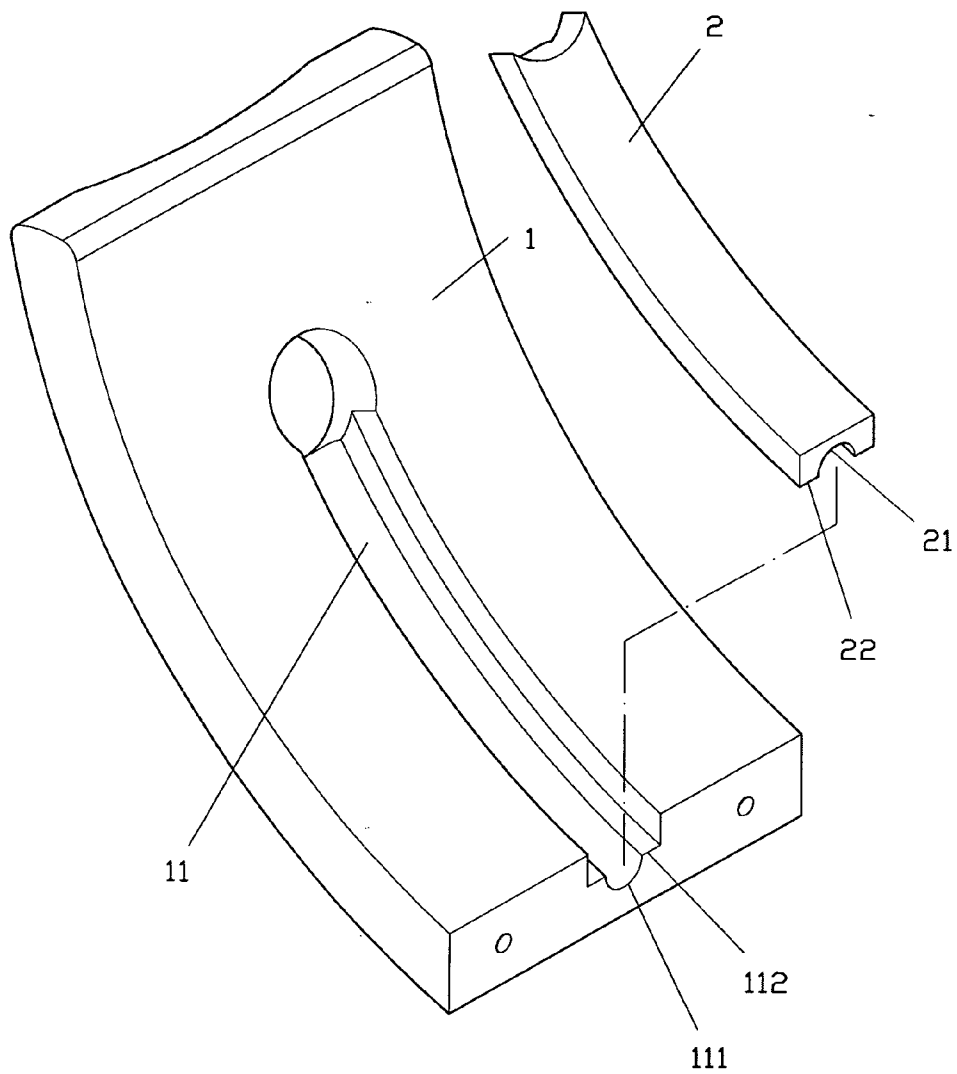


FIG. 1

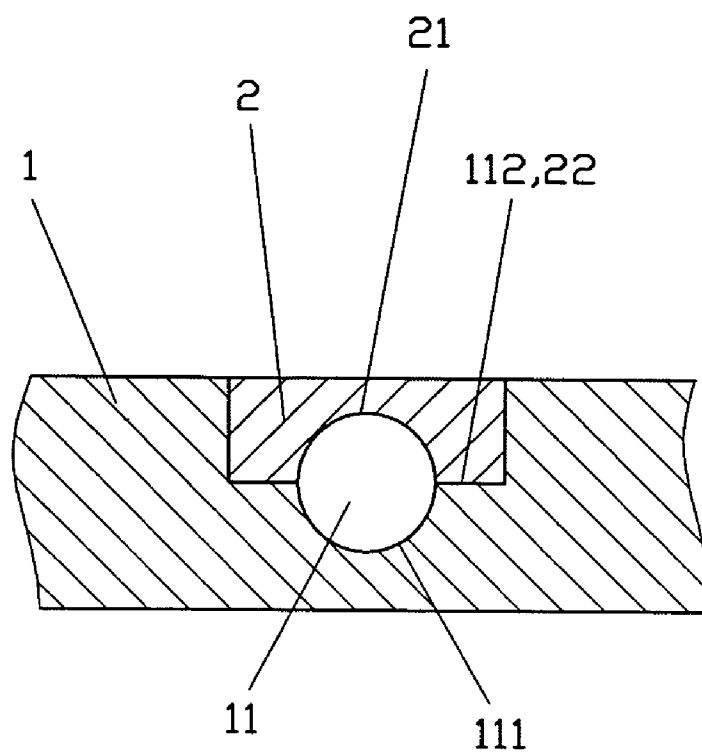


FIG. 2

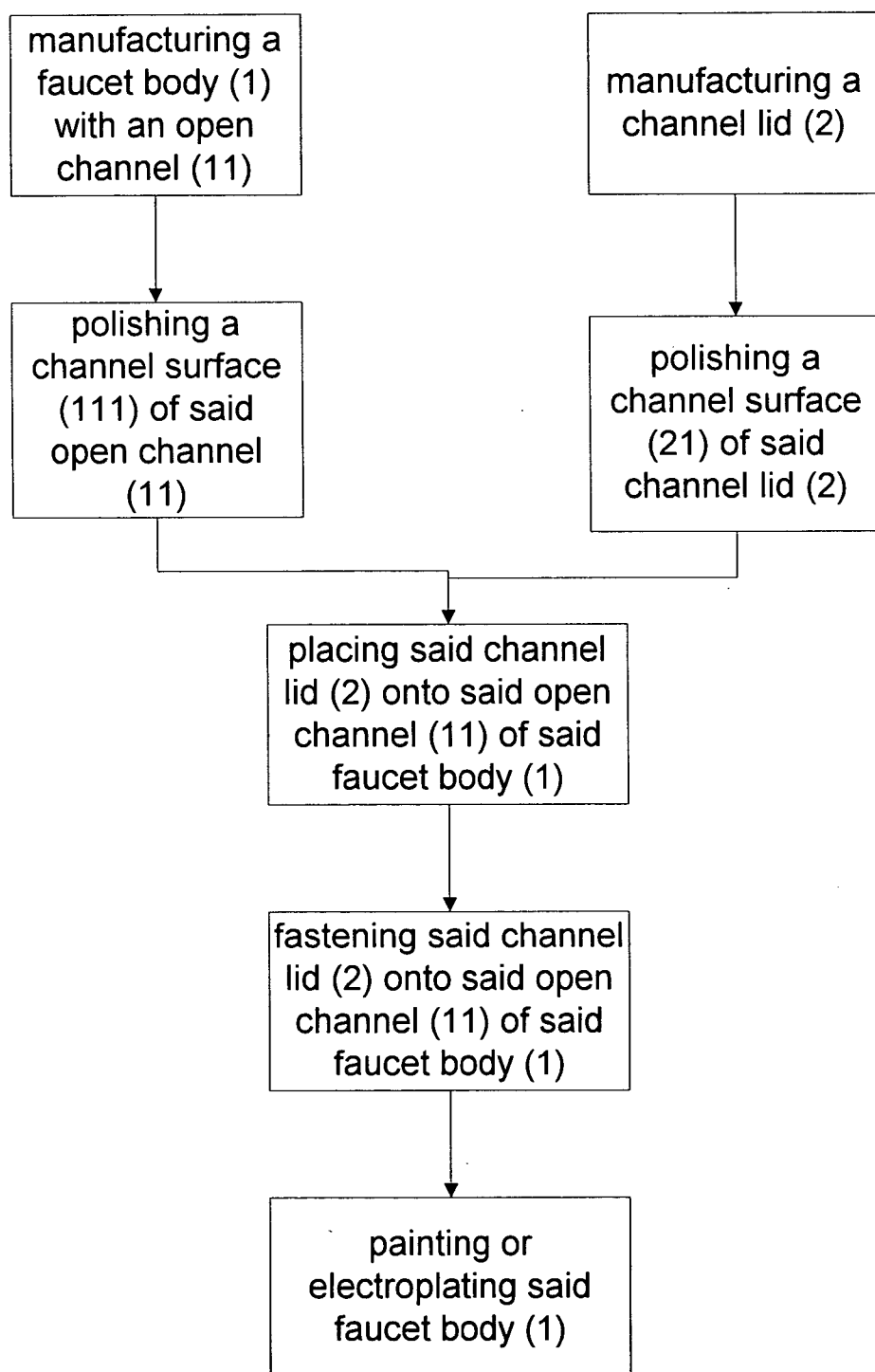


FIG. 3

FAUCET CHANNEL STRUCTURE AND MANUFACTURING METHOD

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] This invention relates to a faucet channel structure and manufacturing method. In particular, the faucet channel structure and manufacturing method is applied to a faucet having a channel including a curved section, and includes a faucet body having an open channel and a channel lid to cover the open channel. Both the open channel and the channel lid have polished surfaces.

[0003] 2. Description of the Prior Art

[0004] There are various faucets with a channel hidden in the faucet on the market. The channel is formed with two straight sections or multiple straight sections. A few faucets comprise a curved channel.

[0005] Due to the molding, the channel cannot be made with a smooth surface. Thus, the channel surface may be clogged with small particles. That causes sanitary concerns.

[0006] The channels of the faucets are polished by drilling holes on the faucets and then milled. Finally, the drilled holes on the faucets are blocked. This design requires more manpower and its channel can only be made in a straight section without the possibility of curving shape.

SUMMARY OF THE INVENTION

[0007] It is the primary advantage of the present invention to provide a faucet channel structure and manufacturing method, which provides a smooth surface in the channel.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] **FIG. 1** is an exploded view of a preferred embodiment of the present invention;

[0009] **FIG. 2** is a cross-sectional view of the preferred embodiment of the present invention; and

[0010] **FIG. 3** is a diagram of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0011] As shown in **FIGS. 1 and 2**, a preferred embodiment of the present invention comprises a faucet body **1** and a channel lid **2**. The faucet body **1** includes an open channel **11**. (In the accompanying drawings, the channel **11** has a curved section.) The open channel **11** comprises a channel surface **111** and a pair of steps **112** at respective sides thereof. The channel surface **111** is polished to form a smooth surface. The channel lid **2** also comprises a channel

surface **21** and a pair of steps **22** at respective sides thereof. The channel surface **21** is polished to form a smooth surface.

[0012] As shown in **FIG. 3**, the present invention is to manufacture the faucet body **1** and the channel lid **2**, separately. The channel surface **111** of the open channel **11** and the channel surface **21** of the channel lid **2** are polished to form a smooth surface, separately. The channel lid **2** is then placed on the top of the faucet body **1** with the steps **22** of the channel lid **2** engaging with the steps **112** of the open channel **11**. Finally, the channel lid **2** is fastened to the faucet body **1**. The faucet body **1** with the channel lid **2** is finally to be applied or electroplated on the surface.

[0013] The open channel **11** of the present invention according to the above embodiment is a curved section. However, the shape is not limited to one curved section. It can be comprised of multiple curved sections as well in practice. The channel lid **2** may be formed with more than one piece. The faucet body **1** can be made by either forging or casting, and CNC process. The channel lid **2** can be made by drawing. Further, the fastening method of the faucet body **1** and the channel lid **2** may be in various methods, such as welding mortis and tenons, plain or dovetail dados, etc.

I claim:

1. A faucet channel structure being applied to a faucet having a channel including a curved section and comprising a faucet body and a channel lid, said faucet body having an open channel with a polished channel surface, said channel lid comprising a polished surface to cover said open channel of said faucet body.

2. The faucet channel structure, as recited in claim 1, wherein said open channel of said faucet body comprises a pair of steps at respective sides, and said channel lid comprises a pair of steps at respective sides, said steps of said open channel engaging with said steps of said channel lid.

3. A faucet channel manufacturing method being applied to a faucet having a channel including a curved section and comprising:

a) manufacturing a faucet body with an open channel and a channel lid separately,

b) polishing a channel surface of said open channel and a channel surface of said channel lid separately,

c) engaging said channel lid with said open channel of said faucet body, and

d) fastening said channel lid to said faucet body.

4. The faucet channel manufacturing method, as recited in claim 3, wherein said faucet body with said channel lid is to be applied or electroplated on the surface.

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