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(54) **Pillar-like faucet**

(57) A barrel faucet anchoring structure includes a barrel faucet body (20) formed at a uniform diameter. The faucet body (20) has a lower section holding an inner sleeve (22) which has a lower end fastened by an anchor member (23) by screwing to allow the faucet body to hold, in this order, a water receiving dock (24), a water channeling dock (25) and a water control valve (26). The inner sleeve (22) has an upper opening end with retaining notches (221) formed thereon to be wedged in by retaining lugs (241) formed on the water receiving dock (24). The water channeling dock (25) opposes a spout (21) coupled externally on the faucet body (20). By providing the separated inner sleeve (22) anchored by the anchor member (23) at the lower end of the faucet body (20) to hold the water receiving dock (24), water channeling dock (25) and water control valve (26), no additional fabrication processes are needed and no material waste occurs. Thus the cost and product weight can be reduced to make the barrel faucet more economic effective.

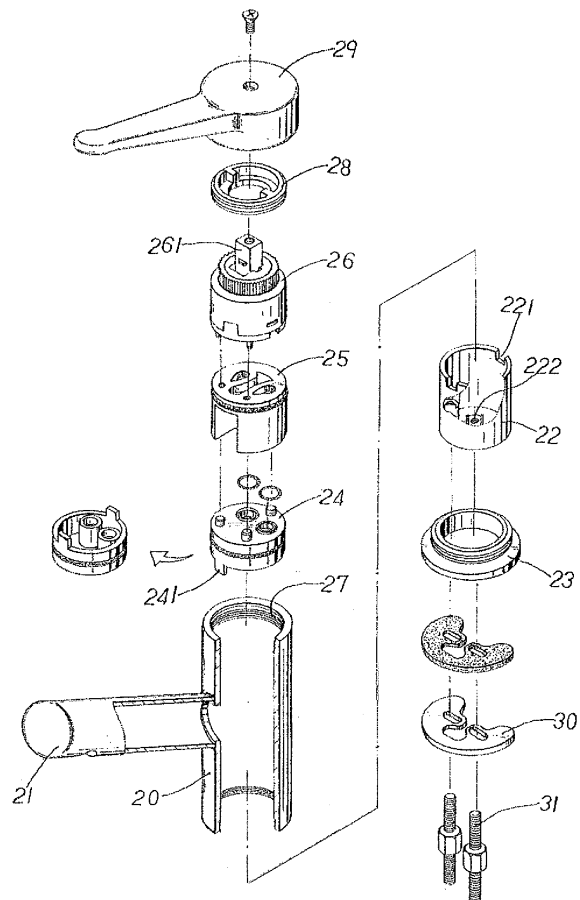


FIG. 2

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Description

[0001] The invention relates to a barrel faucet anchoring structure to enhance positioning firmness of internal elements, reduce material cost and product weight and facilitate fabrication.

[0002] A conventional barrel faucet as shown in FIG. 1 generally includes a hollow faucet body 10 with a middle section connecting to a spout A and an interior having a larger section 11 above the spout A and a smaller section 12 below the spout A to form a two-step passage. The smaller section 12 has an upper step rim 121 to support the bottom side of a water receiving dock 13 which receives cold and hot water. The water receiving dock 13 has a top side coupling with a water channeling dock 14 fastened to a lower end of a water control valve 15. The faucet body 10 has a lower end fastened to an anchor member 16. The smaller section 12 has an inner wall with a jutting fastening portion 122 formed whereon with an internal screw hole to be coupled with a bolt for installation on a countertop. The faucet body 10 further has an upper end with an internal screw thread 17 formed thereon to be fastened to a retaining ring 18 to anchor the water control valve 15. Finally a handle 16 is provided with the root portion thereof to be coupled with a control stem 151 of the water control valve 15. The faucet thus formed can receive the cold and hot water through the water receiving dock 13. The water passes through the water control valve 15 to be mixed and regulated, and discharged through the water channeling dock 14 and spout A.

[0003] In the faucet previously discussed the faucet body 10 has to be made of a barrel of a uniform diameter at a greater thickness to form the upper step rim 121 at the juncture of the smaller section 12 and the larger section 11 through fabrication processes. A lot of material wastes incurred in the fabrication processes. Moreover, the fabrication processes are costly. All this makes production cost higher. This becomes one of disadvantages.

[0004] In addition, forming the jutting fastening portion 122 on the inner wall of the smaller section 12 with the internal screw hole is a difficult fabrication process that also results in a higher cost. This is another disadvantage.

[0005] Furthermore, the inner wall of the smaller section 12 at the lower section of the faucet body 10 is thicker, especially taking into account of the fastening portion 122, hence the faucet body 10 becomes heavier. This makes installation more difficult. This is yet another disadvantage.

[0006] Finally, the upper step rim 121 of the smaller section 12 supports only the bottom side of the water receiving dock 13 without anchoring effect. The water receiving dock 13 easily turns radially. Hence installation quality is lower. This is also another disadvantage.

[0007] In view of the aforesaid disadvantages occurred to the conventional barrel faucet such as higher material and fabrication costs, heavier structure and more difficult

installation, and no anchoring structure to form a firm installation, there are still rooms for improvement.

[0008] The primary object of the invention is to provide a barrel faucet anchoring structure that has a faucet body housing elements therein that are confined and positioned by wedging retaining lugs in retaining notches to form a more secure coupling to achieve desired installation quality..

[0009] Another object of the invention to provide a barrel faucet anchoring structure that has a faucet body with a lower section holding a separable inner sleeve to reduce material waste and fabrication cost and improve economic effectiveness.

[0010] Yet another object of the invention is to provide a barrel faucet anchoring structure that is lighter to save material and reduce material cost.

[0011] In order to achieve the foregoing objects, the invention provides a barrel faucet which includes a barrel faucet body formed at a uniform diameter. The faucet body has a middle section with an outer wall coupling with a spout which communicates with the interior thereof and a lower section holding an inner sleeve which has retaining notches formed at an upper end and a lower end fastened to an anchor member by screwing. The upper end can hold a lower end of a water receiving dock. The retaining notches can be wedged in by jutting retaining lugs extended from the lower end of the water receiving dock. The water receiving dock has a top end coupling with a water channeling dock coupled with a lower end of a water control valve so that the water channeling dock and a water discharge section opposing each other. By wedging the retaining lugs of the water receiving dock in the retaining notches of the inner sleeve the elements in the faucet body can be coupled and anchored securely. The fastening portion of the inner sleeve is extended from the inner wall thereof and has an internal screw thread screwing with an upper end of a bolt of a forced coupling member. Thus the faucet body can be forcefully and firmly installed on a countertop.

[0012] The foregoing, as well as additional objects, features and advantages of the invention will be more readily apparent from the following detailed description, which proceeds with reference to the accompanying drawings.

Brief description of the drawings

[0013]

FIG. 1 is an exploded view of a conventional barrel faucet.

FIG. 2 is an exploded view of the invention.

FIG. 3 is a perspective view of the invention.

FIG. 4 is a sectional view of the invention.

Detailed description

[0014] Referring to FIG 2, the invention includes a hollow and barrel type faucet body 20 which has a middle section with an outer wall coupling with a spout 21, a lower section coupling with an inner sleeve 22, and a lower end fastened by an anchor member 23 by screwing. The inner sleeve 22 has an upper end to hold a water receiving dock 24 to be coupled with a water channeling dock 25 coupling with a lower end of a water control valve 26. The inner sleeve 22 has an upper opening with two retaining notches 221 formed thereon and a fastening portion 222 extended from an inner wall thereof with an internal screw thread formed thereon to be screwed with an upper end of a bolt 31 of a forced coupling member 30. The water receiving dock 24 has retaining lugs 241 extending from the bottom side thereof corresponding to the retaining notches 221.

[0015] For assembly, first, dispose the inner sleeve 22 at the lower section of the faucet body 20 and fastened through the anchor member 23 by screwing. Dispose the water receiving dock 24 in the faucet body 22 with the two retaining lugs 241 wedging in the two retaining notches 221 at the upper end of the inner sleeve 22. Dispose the water channeling dock 25 and water control valve 26 in the faucet body in this order with the water channeling dock 25 opposing the spout 21. Engage a retaining ring 28 with an internal screw thread 27 formed at the upper end of the faucet body. Couple a handle 29 to a control stem 261 of the water control valve 26. The faucet can be formed as shown in FIG. 3. Because the lower section of the faucet body 20 is coupled with the inner sleeve 22 to hold and anchor the elements set forth above, and the faucet body 20 and the inner sleeve 22 are fabricated separately, there is no need for additional fabrication processes and material waste that might otherwise occur in the fabrication processes can be avoided. As a result material and fabrication costs can be reduced. The faucet thus formed also is lighter, and installation is easier and quicker. Thus it is more economic effective.

[0016] Refer to FIG. 4 for installation of the invention. The faucet body 20 is placed over an installation aperture 41 formed on a countertop 40. Dispose a bolt 31 of the forced coupling member 30 upwards from under the installation aperture 41 to engage with the fastening portion 222 of the inner sleeve 22 to form a forced fastening. Couple the water receiving dock 24 with a cold and hot water tube 50. The cold and hot water can be controlled and mixed through the water control valve 26. As shown by the arrows in the drawing, the water is directed by the water channeling dock 25 to the spout 21 to be discharged. The inner sleeve 22, aside from holding the lower end of the water receiving dock 24 through the upper end thereof, the retaining notches 221 can be wedged by the retaining lugs 241 at the lower end of the water receiving dock 24 to prevent the elements held inside from loosening off. Thus assembly is more secured and installation quality improves.

[0017] The inner sleeve 22 may also be made from plastics to further reduce material cost and the weight of the product.

Claims

1. A barrel faucet anchoring structure comprising at least a hollow and barrel type faucet body (20) which has a middle section with an outer wall coupling with a spout (21) leading to the interior thereof, a lower end coupling with an anchor member (23), and holds in the interior, in this order, a water receiving dock (24), a water channeling dock (25) and a water control valve (26); the water channeling dock (25) opposing the spout (21) to direct water flow from the water receiving dock (24) through the water control valve (26) to be mixed and channeled to the spout (21) to be discharged, **characterized in:**

the faucet body (20) being a barrel of a uniform diameter and having a lower section holding an inner sleeve (22) which has an upper end formed with retaining notches (221) and a lower end anchored by the anchor member (23) by screwing, the upper end of the inner sleeve (20) holding a lower end of the water receiving dock (24), the retaining notches (221) being wedged in by retaining lugs (241) extended from a lower end of the water receiving dock (24) to form secured positioning of the elements held inside the faucet body.

2. The barrel faucet anchoring structure of claim 1, wherein the inner sleeve (22) has a fastening portion (222) extended from an inner wall thereof with an internal screw thread formed thereon to screw with an upper end of a bolt (31) of a forced coupling member (30) to forcefully install the barrel faucet on a countertop (40).
3. The barrel faucet anchoring structure of claim 1 or claim 2, wherein the inner sleeve (22) is made from plastics.

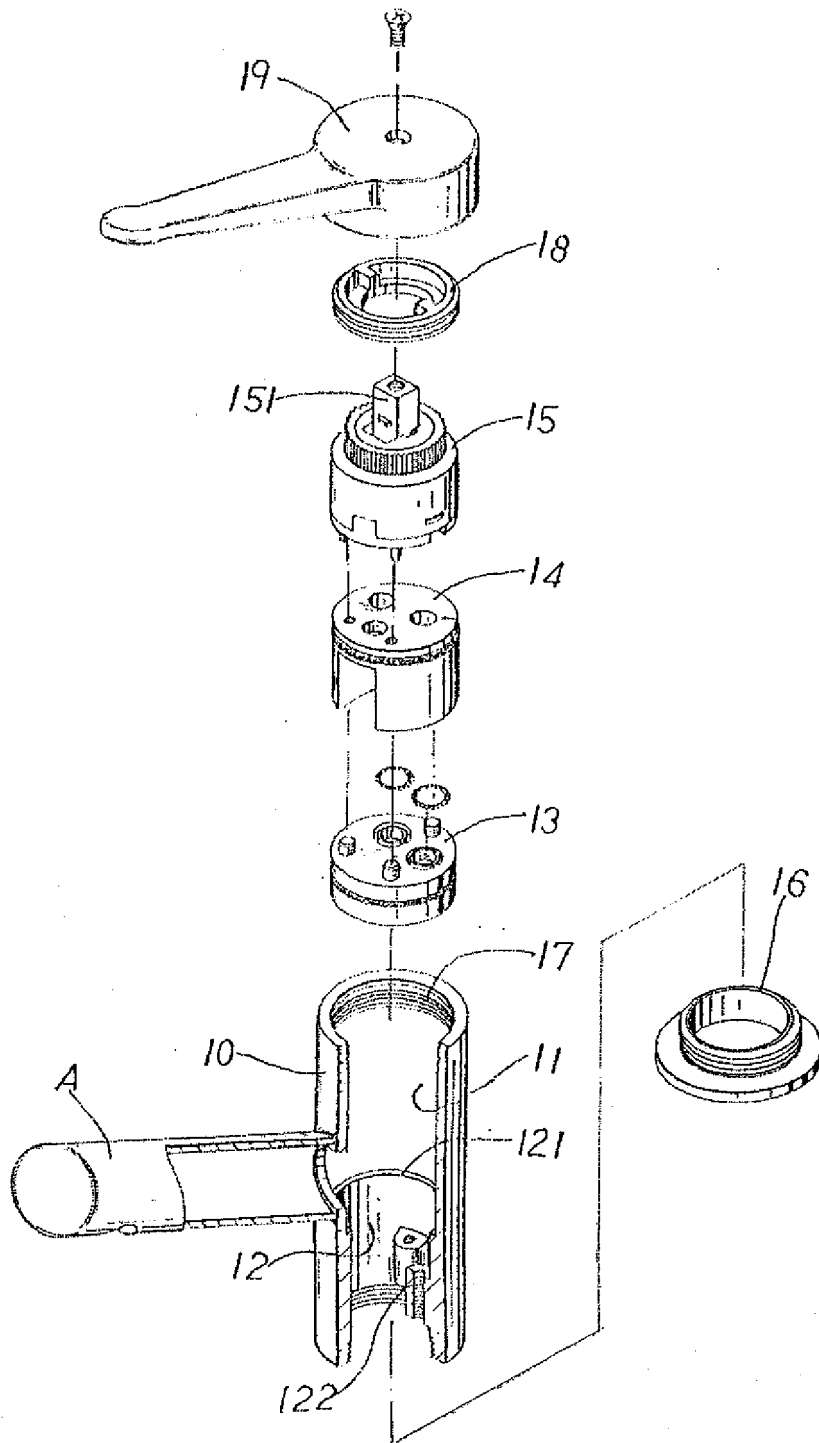


FIG.1

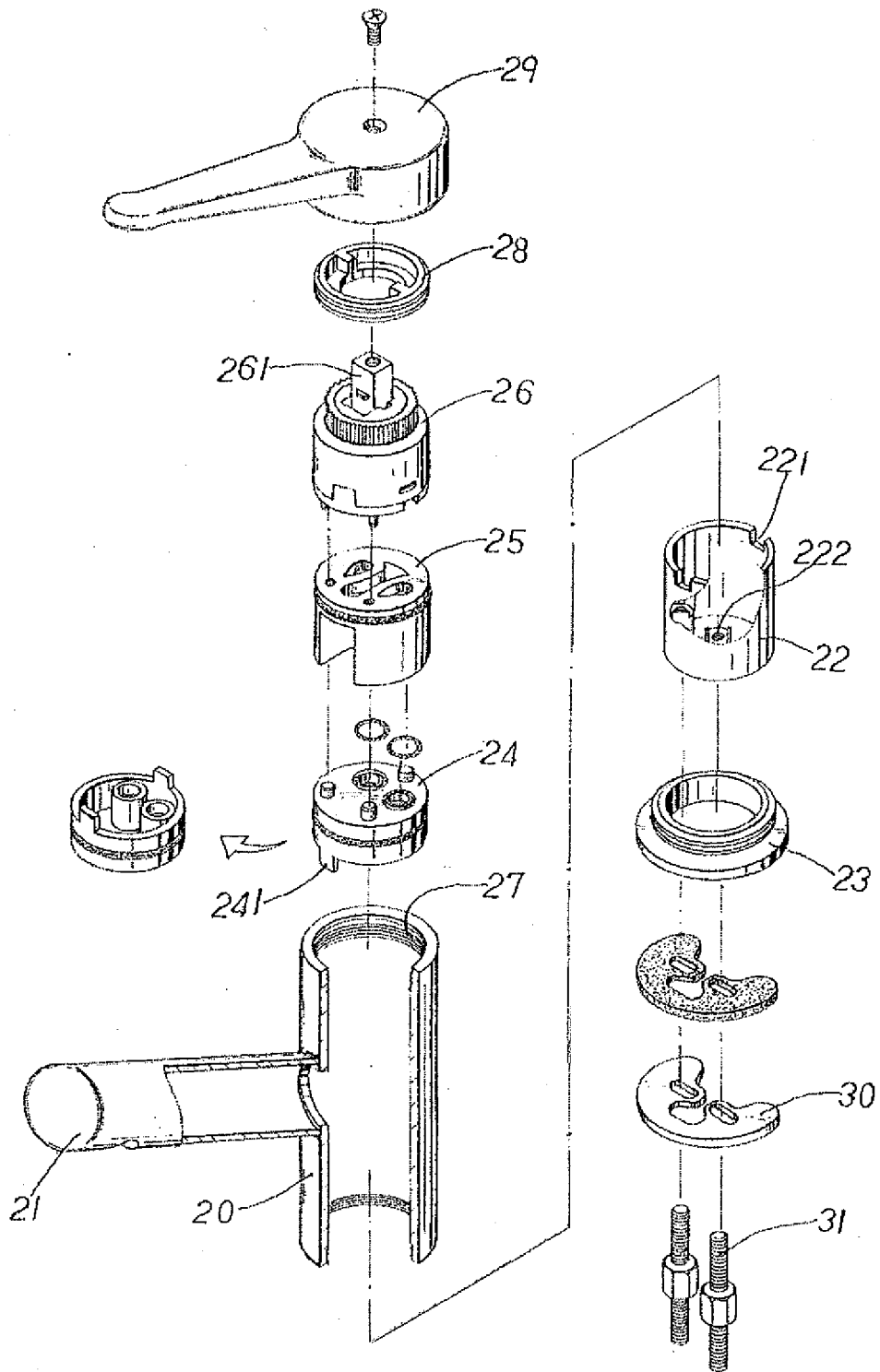


FIG.2

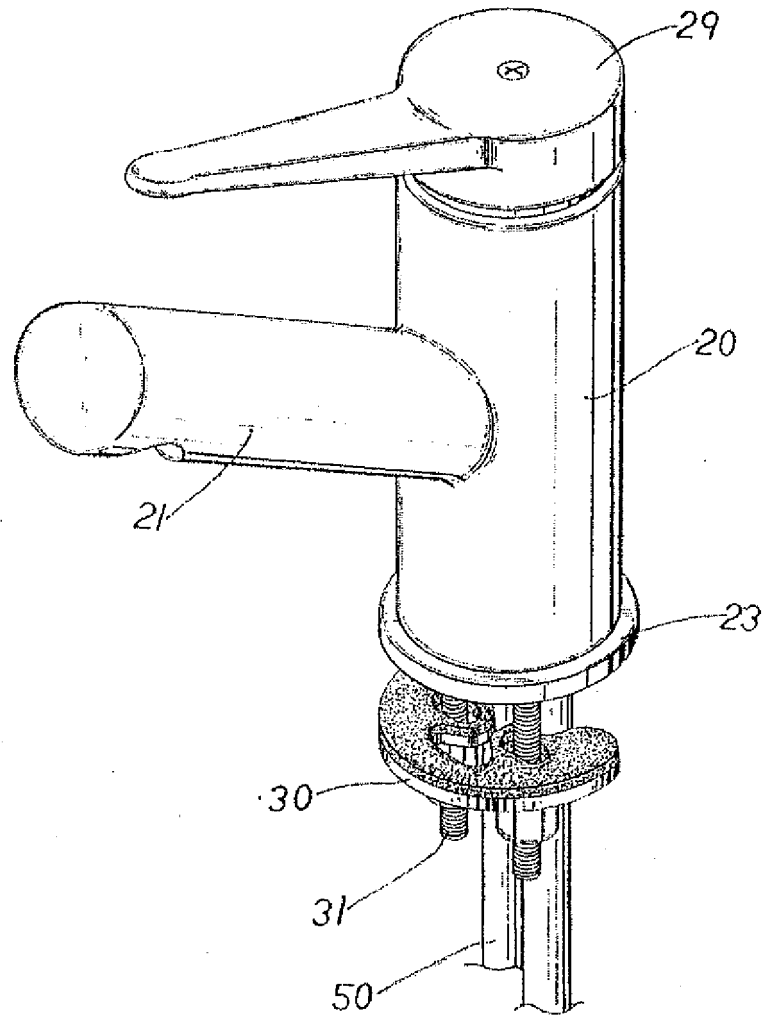


FIG.3



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 6 073 972 A (RIVERA SAMUEL T [US]) 13 June 2000 (2000-06-13) * the whole document *	1-3	INV. E03C1/04
A	DE 20 2004 018943 U1 (WANG HSIANG HUNG [TW]) 24 February 2005 (2005-02-24) * figures 3-5 *	1-3	
A	DE 20 2004 020872 U1 (COMET PUMPEN SYSTEMTECHNIK GMB [DE]) 16 March 2006 (2006-03-16) * the whole document *	1	
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The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			E03C
Place of search		Date of completion of the search	Examiner
Munich		16 September 2008	Geisenhofer, Michael
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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 08 15 5100

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

16-09-2008

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