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(12) **United States Design Patent**
Roberts et al.

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(54) **REFRIGERANT DISTRIBUTOR**

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(**) Term: **14 Years**

(21) Appl. No.: **29/491,565**

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(51) **LOC (10) Cl.** **23-01**

(52) **U.S. Cl.**
USPC **D23/266**

(58) **Field of Classification Search**
USPC D15/1-6; 285/305, 319, 125.1, 131.1,
285/124.1, 124.5, 321, 93; D23/259, 262,
D23/213, 214, 266, 233

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,082,403	A *	6/1937	Larkin	138/37
2,803,116	A	8/1957	Tilney	
4,284,243	A *	8/1981	Shaner	239/469
4,319,772	A *	3/1982	Weirich et al.	285/26
D353,443	S *	12/1994	Lopez	D23/259
7,174,726	B2 *	2/2007	Grau et al.	62/115
D643,932	S *	8/2011	Vogtner et al.	D24/201
8,210,574	B2	7/2012	Shimaoka et al.	
8,500,171	B2 *	8/2013	Tadlock et al.	285/125.1

2007/0266730	A1	11/2007	Son et al.	
2009/0000286	A1 *	1/2009	Aoki et al.	60/323
2010/0170584	A1 *	7/2010	Chung et al.	137/561 A
2010/0293980	A1 *	11/2010	Shimaoka et al.	62/259.1
2012/0210744	A1	8/2012	Nelson	

OTHER PUBLICATIONS

“Refrigerant Distributors”, BHM Corporation, [retrieved online May 12, 2014], <<http://www.bhmcorp.co.in/refrigerant-distributors.html>>.

“Liquid Distributor Type RD”, Danfoss, copyright 2013.
“Venturi-Flo Low Pressure Drop Distributors”, KeepFlo, Control Devices, LLC., at least as early as May 12, 2014.

“Brass Refrigerant Distributors”, Spinco Metal Products, Inc., [retrieved online May 12, 2014], <<http://spincometal.com/products/refrigerant-distributors/>>.

* cited by examiner

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(57) **CLAIM**

The ornamental design for a refrigerant distributor, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of a refrigerant distributor showing our new design.

FIG. 2 is another perspective view thereof.

FIG. 3 is a front view thereof.

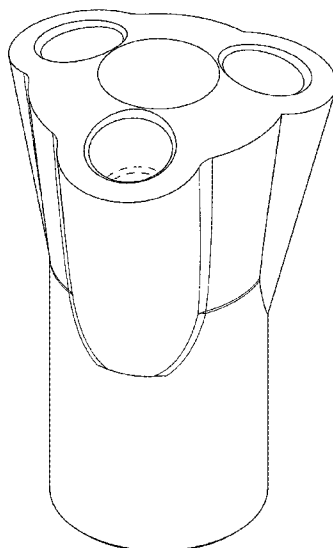
FIG. 4 is a rear view thereof.

FIG. 5 is a top view thereof; and,

FIG. 6 is a left side view thereof.

The broken lines shown herein are for illustrative purposes only and form no part of the claimed design.

1 Claim, 5 Drawing Sheets



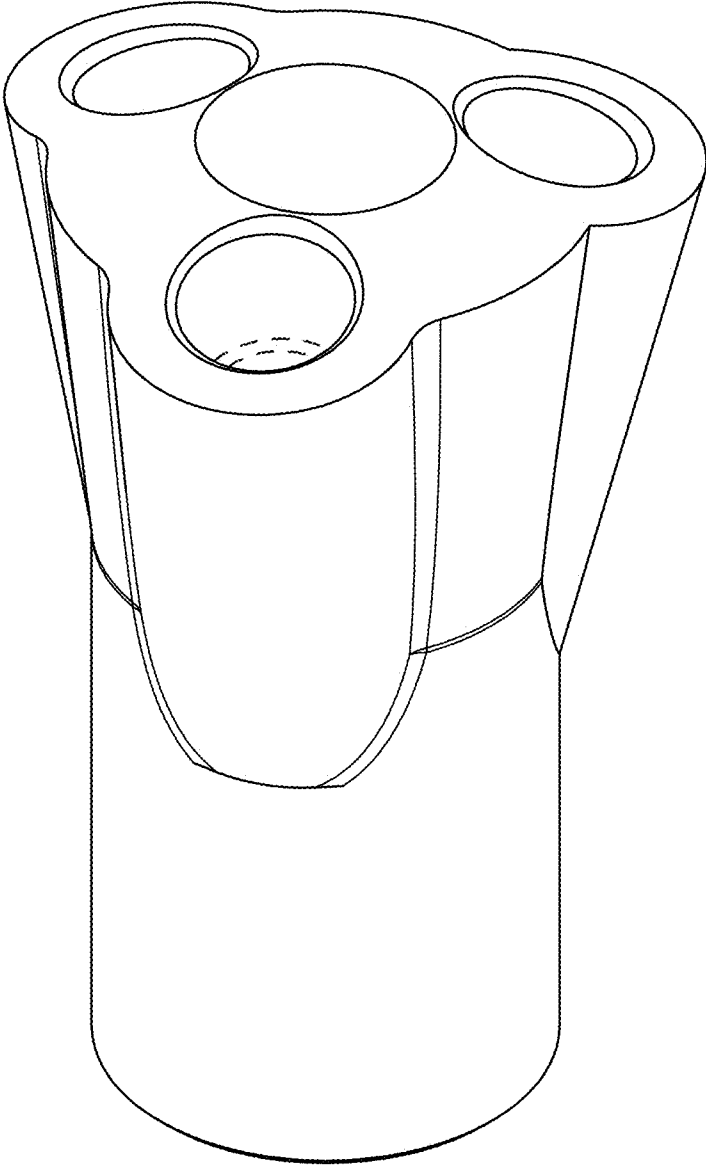


FIG. 1

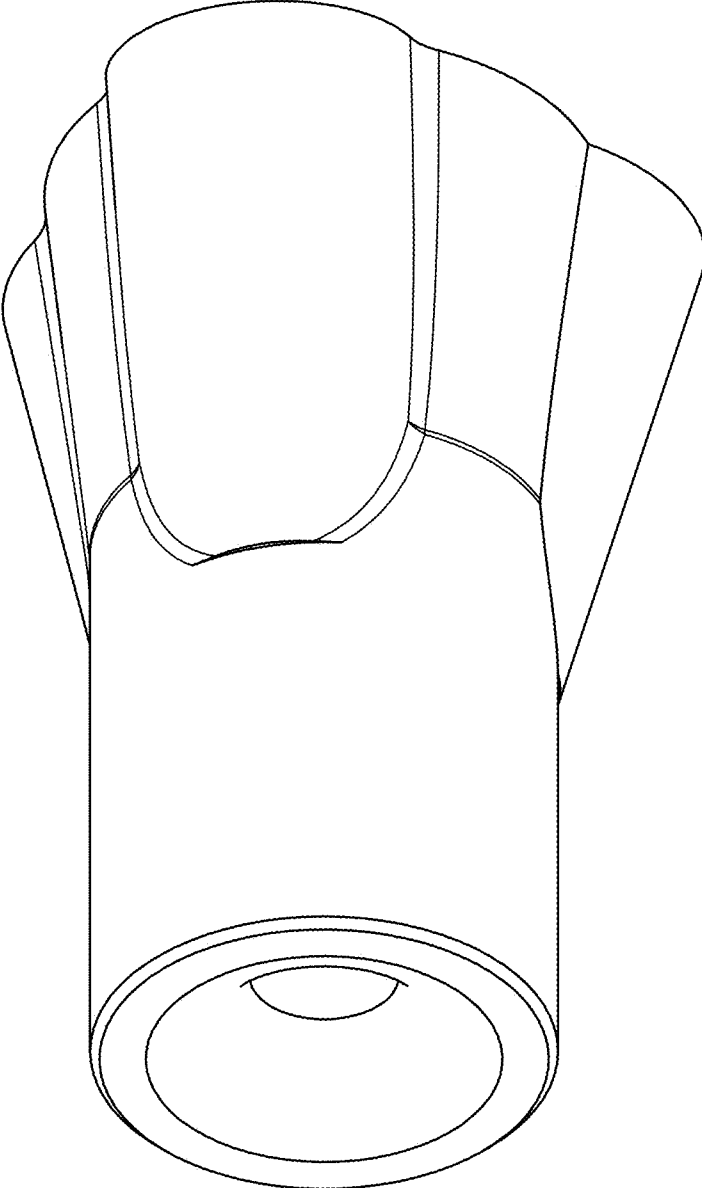


FIG. 2

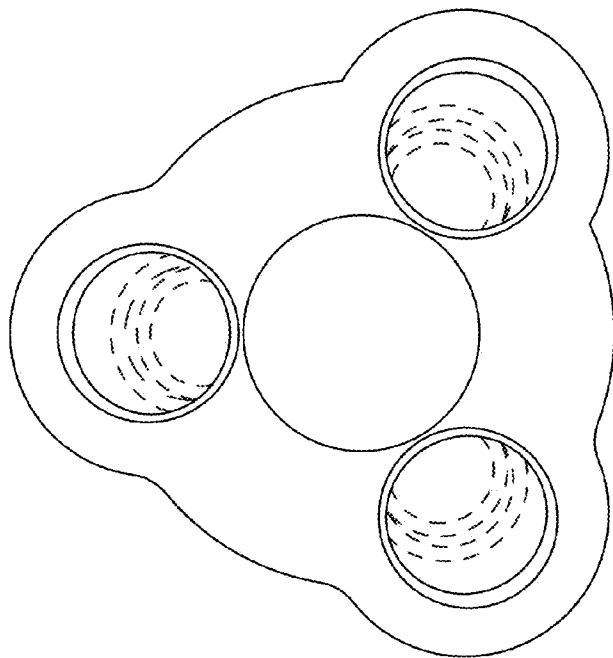


FIG. 3

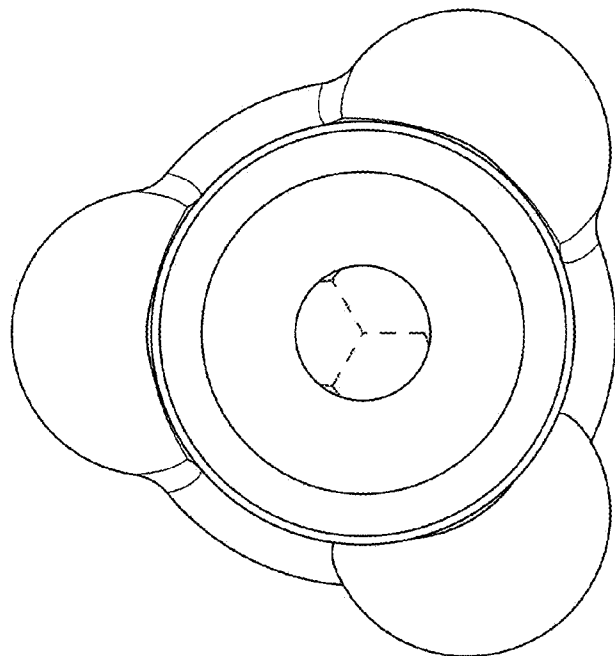


FIG. 4

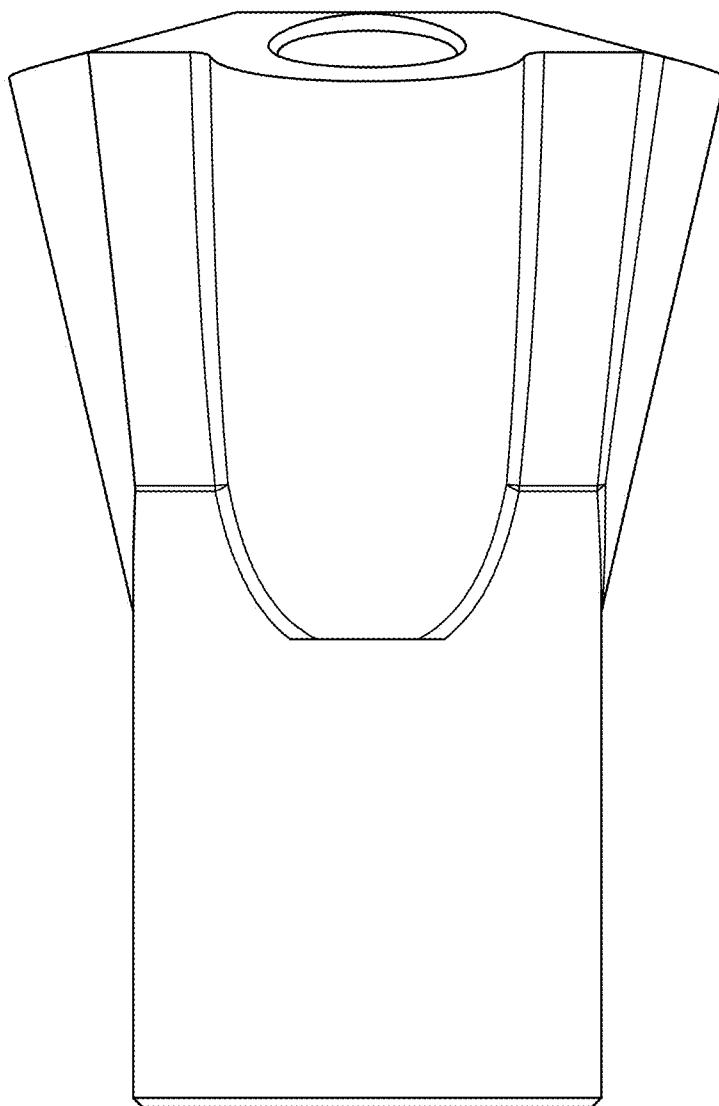


FIG. 5

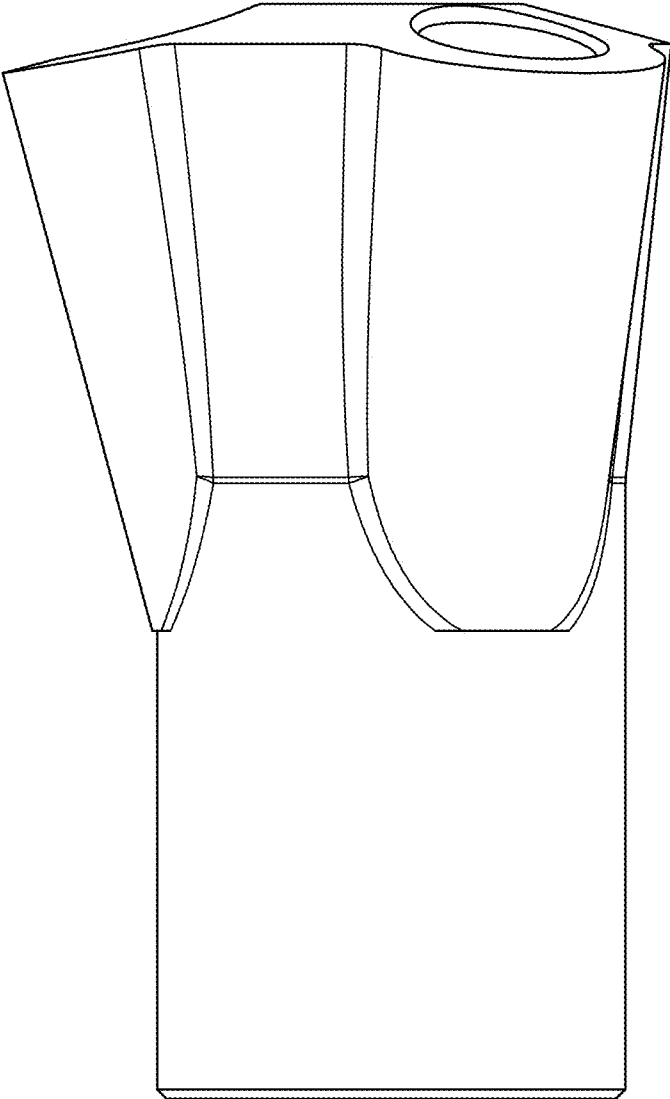


FIG. 6