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11/4094
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,262,542 A * 4/1981 Freund, Jr. G01F 1/58
73/861.12
D301,177 S * 5/1989 Von Bischoffshausen D32/31
5,462,311 A 10/1995 Cipolla
5,836,620 A 11/1998 Wang et al.
D417,534 S * 12/1999 Holston D32/31
D431,752 S * 10/2000 Brandel 241/46.013
6,148,474 A 11/2000 Ohara et al.
D455,604 S * 4/2002 Brandel D7/375
6,370,730 B1 * 4/2002 Young A47L 9/242
15/327.1
6,648,252 B2 * 11/2003 Strutz E03C 1/2665
241/101.2
D491,326 S * 6/2004 Schroter D32/31
D506,046 S 6/2005 Schroeter
D521,695 S 5/2006 Jacobs et al.
D534,760 S * 1/2007 Patterson D7/375
D534,761 S * 1/2007 Patterson D7/375
7,168,128 B2 6/2007 Evans
7,832,050 B2 11/2010 Pullins et al.
D659,923 S 5/2012 Dyson
8,943,646 B2 2/2015 Wills et al.
D729,926 S * 5/2015 Tomasiak D23/388
9,339,161 B2 5/2016 McLuckie et al.
D785,264 S 4/2017 Webster
D806,963 S 1/2018 Nam et al.
D895,916 S 9/2020 Exley
D1,041,111 S 9/2024 Leoni et al.
D1,045,301 S * 10/2024 Williams D32/31
2004/0045127 A1 3/2004 Albert et al.
2005/0044660 A1 3/2005 Kim
2006/0026791 A1 2/2006 Fischer et al.
2007/0130724 A1 6/2007 Schiemann
2007/0180651 A1 8/2007 Muhlenkamp

2011/0214686 A1 9/2011 Chavana, Jr. et al.
2013/0175794 A1 7/2013 Cordes et al.
2015/0265822 A1 * 9/2015 Ignon A61B 17/32
604/22
2017/0127898 A1 5/2017 Lambert et al.
2017/0127899 A1 5/2017 Lambert et al.
2019/0223671 A1 * 7/2019 Tomasiak A47L 9/02
2024/0306872 A1 9/2024 Hemker et al.

FOREIGN PATENT DOCUMENTS

GB 2037920 A 7/1980
GB 2234795 A * 2/1991 A47L 9/242
JP H11151185 A 6/1999
JP 2003052593 A * 2/2003
TW 355355 U1 * 4/1999
TW 320375 U * 10/2007
WO 9935409 A1 7/1999

OTHER PUBLICATIONS

Wand, posted Mar. 6, 2023 [online], [retrieved Jan. 15, 2025].
Retrieved from internet, <https://www.amazon.com/Merchandise-Mecca-Replacement-Panasonic-MSCMCCG917/dp/B0BXXMH8PJD> (Year: 2023).
VideoPUP 1¼" Extension Wands Vacuum Cleaner Accessories, 32mm Vacuum Hose Chrome Wand Pipe Extent To 31inch (Hose); <https://Sears.com/videopup-jp3sz6ft-eagles-1-4inch-extension-wands-vacuum/p-A069253742>; 2 pgs.
Huiaway 1¼ inch 32mm Chrome Telescopic Hose Metal Vacuum Wands Hose Vacuum 1.25inch Extension Wand Extends to 31.9 inch long for Most Brand Vacuums; https://amazon.com/Huiaway-Telescopic-1-25inch-Extensin-31-65inch/dp/B079NWF39Z/ref=sr_1-5?keywords=telescoping%2Bvacuum%2Bwand&qid=1664457718&qu=eyJxc2MiOiI0LjE3liwicXNhIjoiMy40MilsInFzcCl6IjMuMDkifQ%3D%3D&sr=8-5&th=1; pp. 8.
2½ in. Locking Extension Wand Accessory for Ridgid Wet/Dry Shop Vacuums; <https://www.homedepot.com/p/RIDGID-2-1-2-in-Locking-Extension-Wand-Accessory-for-RIDGID-Wet-Dry-Shop-Vacuums-LA2508/304753709>.

* cited by examiner

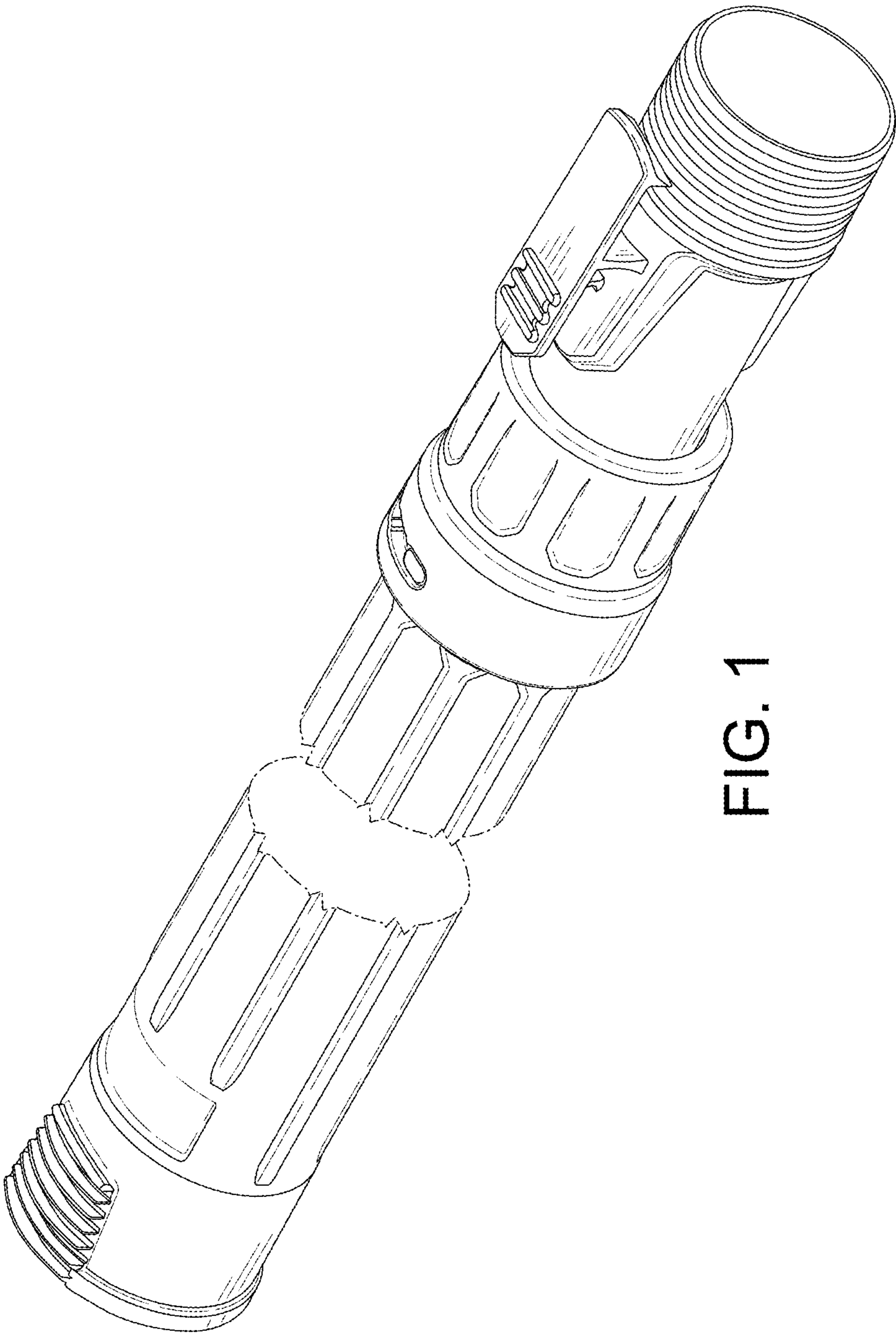


FIG. 1

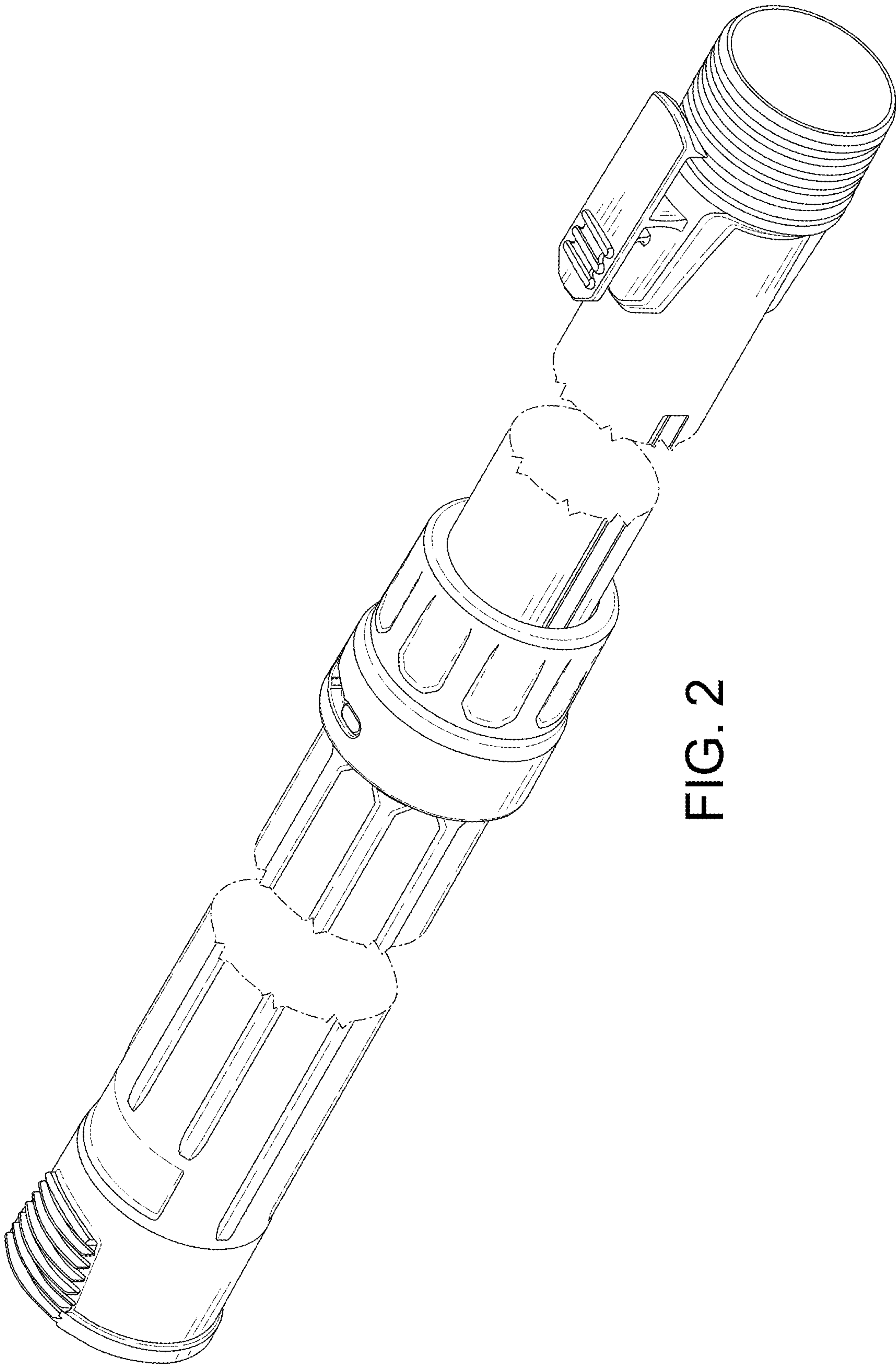


FIG. 2

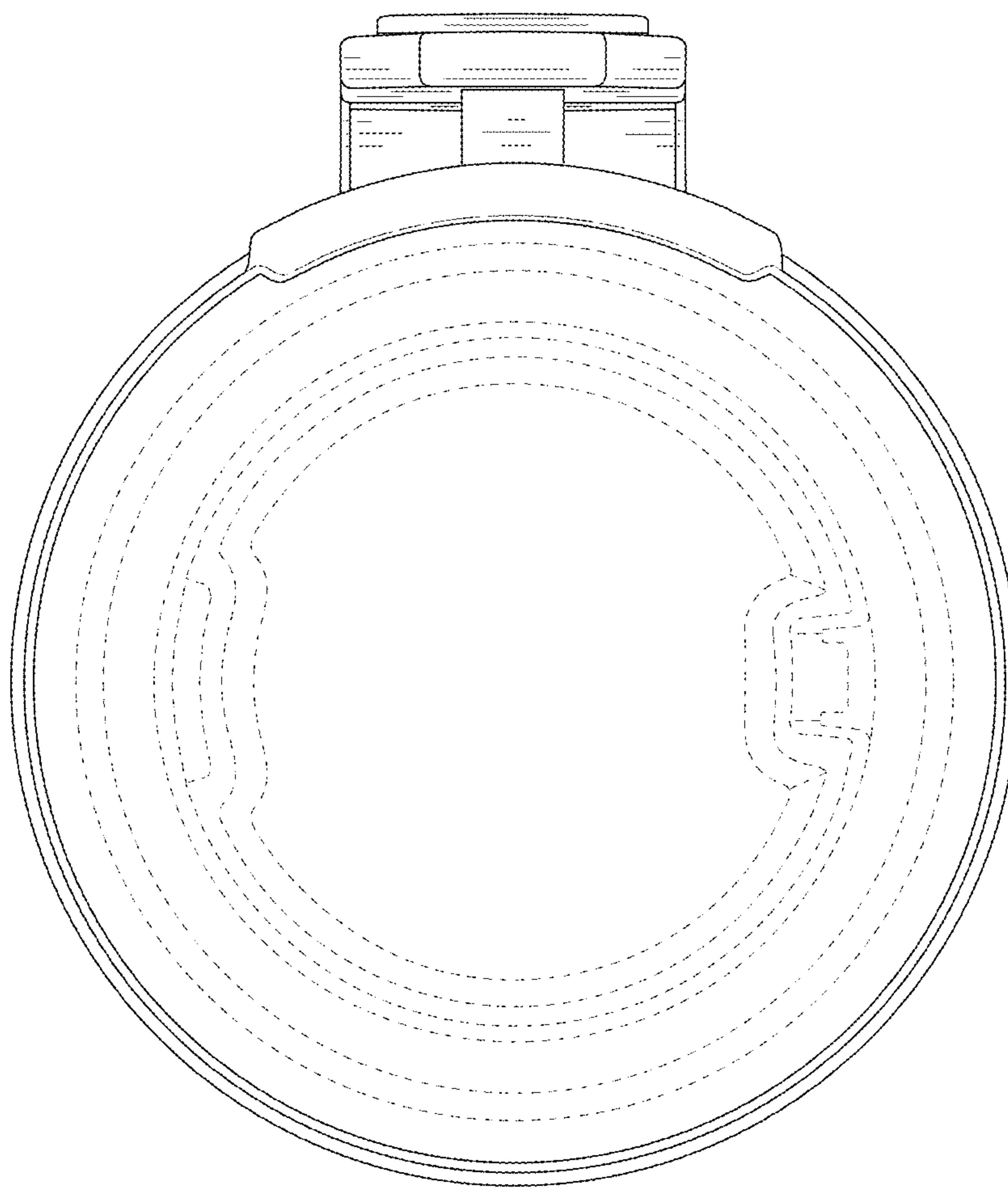


FIG. 3

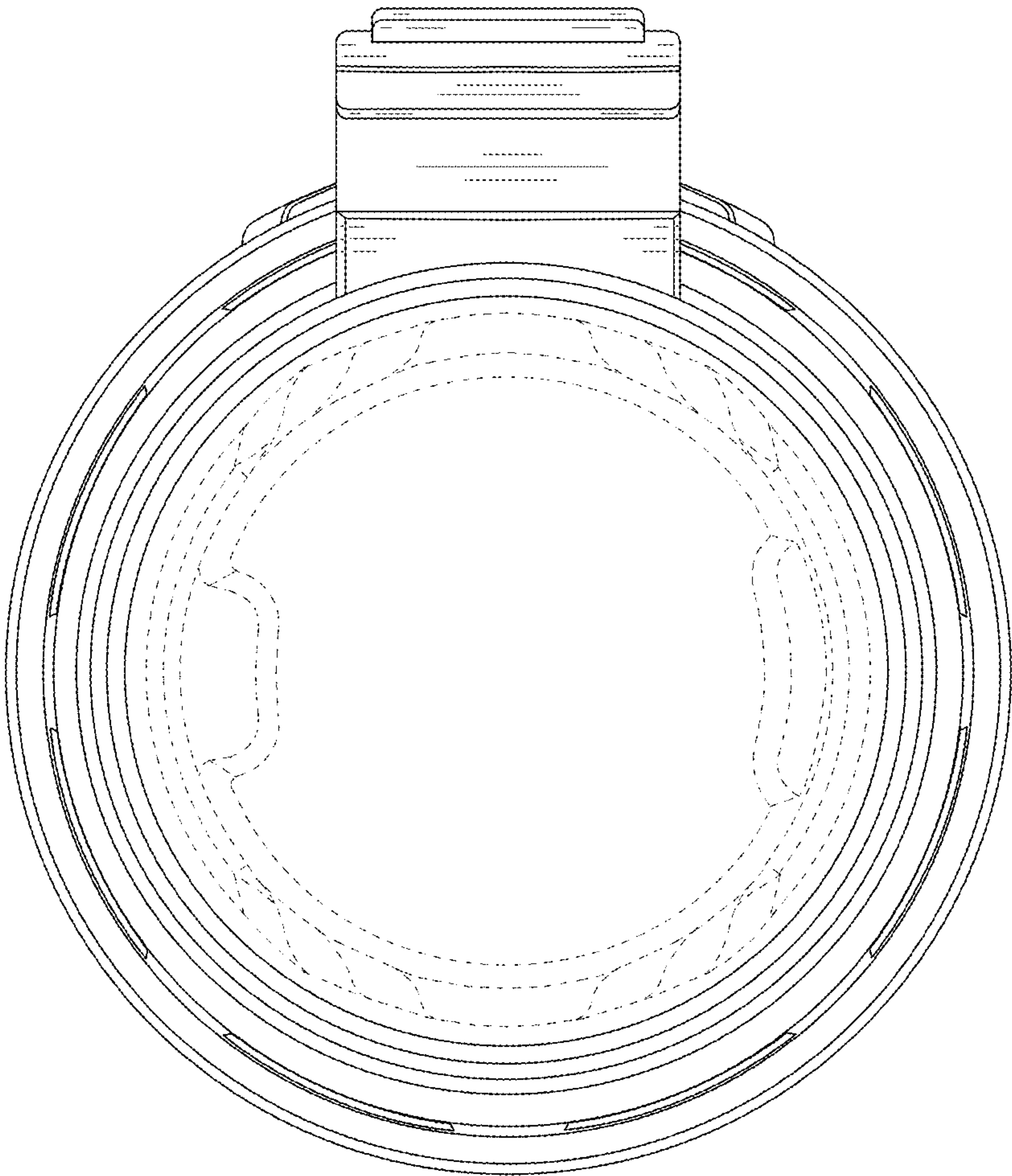


FIG. 4

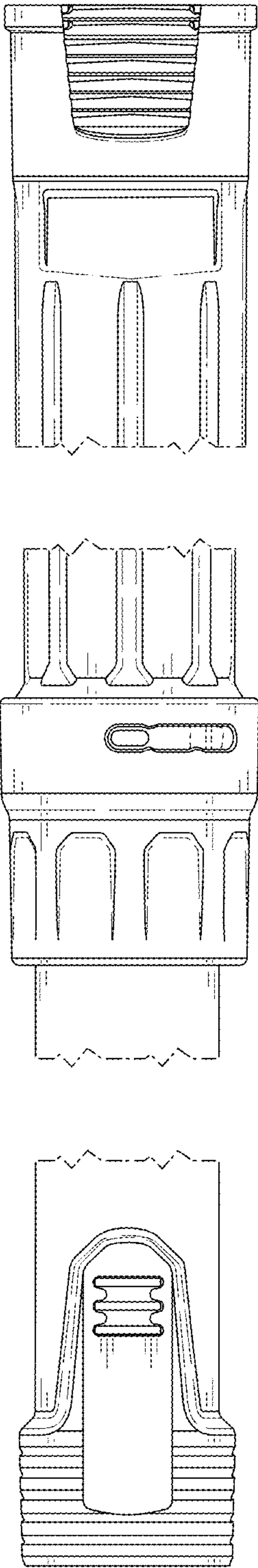


FIG. 5

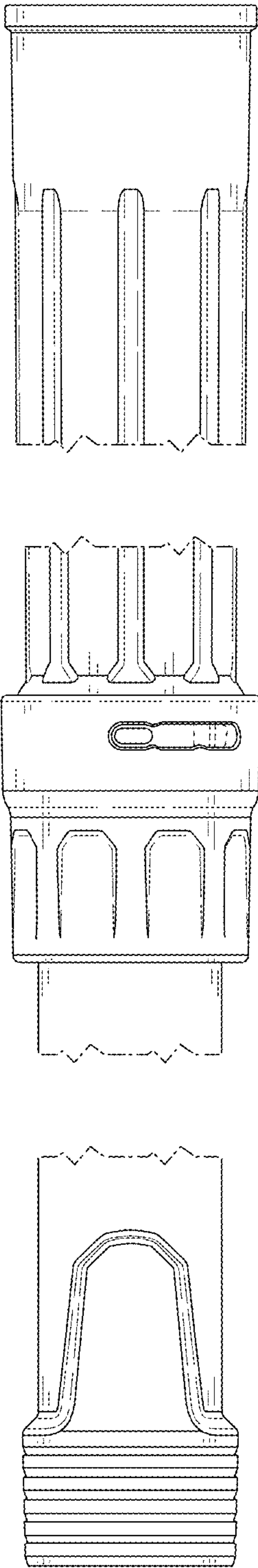


FIG. 6

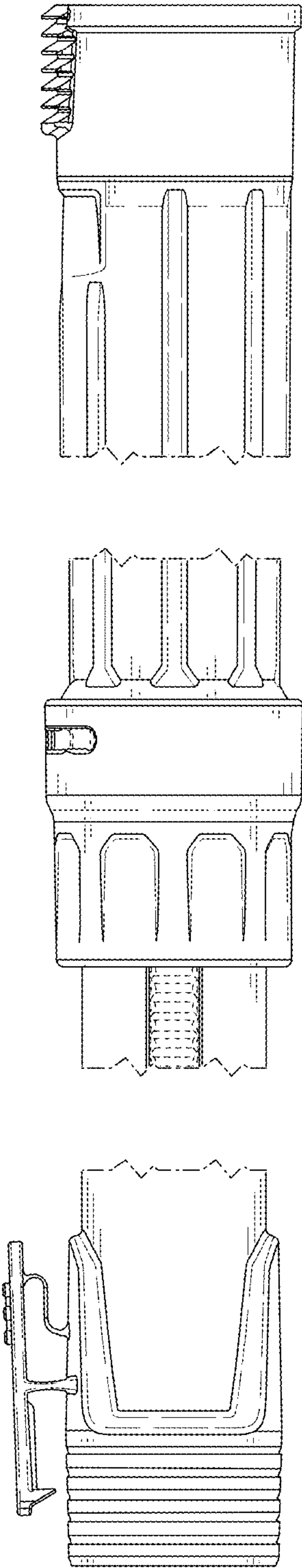


FIG. 7

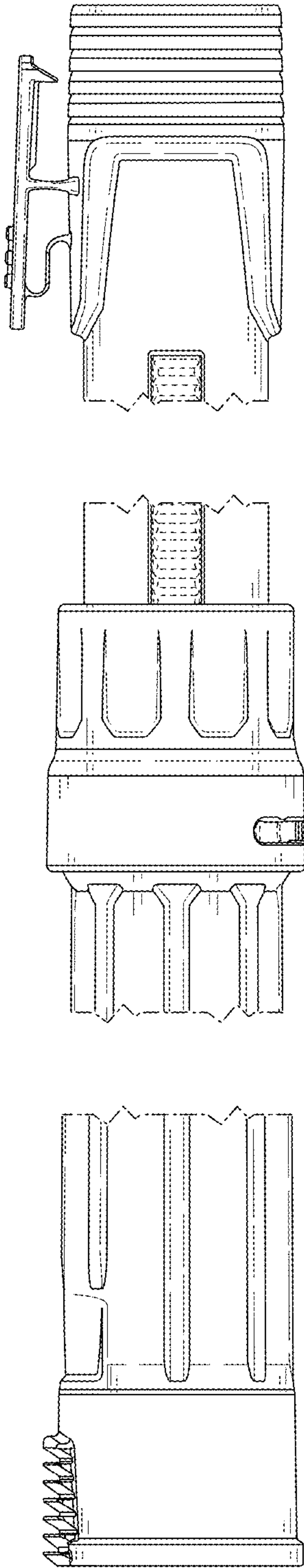


FIG. 8