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(12) United States Design Patent

Alliss

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(54) **LINE TRIMMER COMPONENT**

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(73) Assignee: **Torvent LLC**, Fairmont, NC (US)

(**) Term: **15 Years**

(21) Appl. No.: **29/809,096**

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Related U.S. Application Data

(63) Continuation of application No. 15/881,252, filed on Jan. 26, 2018, which is a continuation of application No. 15/376,474, filed on Dec. 12, 2016, now Pat. No. 9,924,631, which is a continuation-in-part of application No. 14/548,392, filed on Nov. 20, 2014, now Pat. No. 9,516,807.

(51) **LOC (13) Cl.** **08-03**

(52) **U.S. Cl.**
USPC **D8/8**

(58) **Field of Classification Search**
USPC D8/1, 7, 8, 9, 312, 383, 499; D15/1, 17
CPC A01D 34/01; A01D 34/412; A01D 34/416; A01D 34/015; A01D 34/4161; A01D 34/4165; A01D 34/4166; A01D 34/4167; A01D 34/84; A01G 3/062; B25F 5/02
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,429,675 A 10/1947 Eypper
4,086,700 A 5/1978 Inada
(Continued)

FOREIGN PATENT DOCUMENTS

CN 303787613 * 8/2016
EM 003034214-0002 * 4/2016
(Continued)

OTHER PUBLICATIONS

Defendants' First Supplemental Invalidity Contentions for U.S. Pat. Nos. 8,025,249, 9,516,807, 9,924,631, D598,254, D598,255, D814,893, and 11,337,368, *Torvent LLC* v. *Techtronic Industries Co., Ltd.; et al.*, 1:21-cv-00853-JPM, United States District Court for the District of Delaware, Jul. 29, 2022, 31 pages.
(Continued)

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(57) **CLAIM**

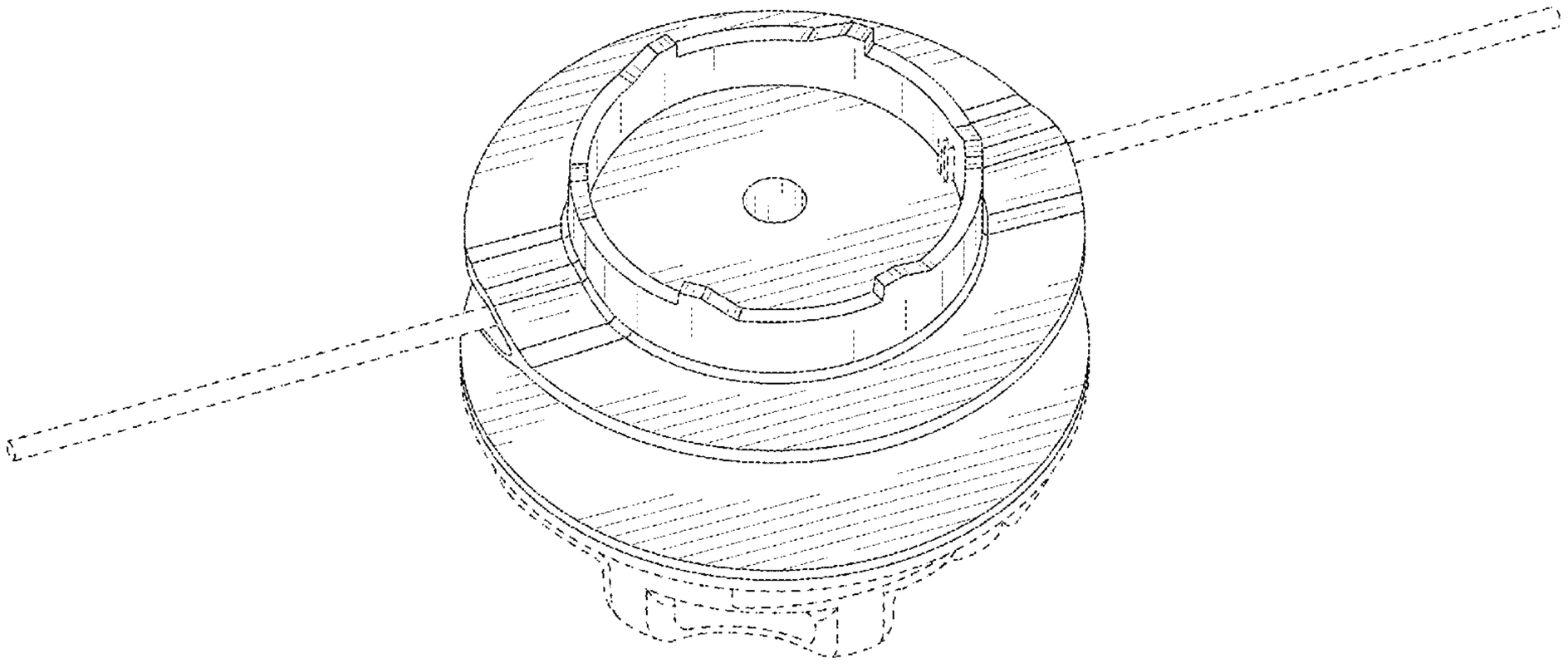
The ornamental design for a line trimmer component, as shown and described.

DESCRIPTION

FIG. **1** is an environmental exploded perspective view of a line trimmer component;
FIG. **2** is a bottom environmental perspective view of the line trimmer component;
FIG. **3** is a top environmental perspective view of the line trimmer component;
FIG. **4** is a front view of the line trimmer component;
FIG. **5** is a right-side view of the line trimmer component:
FIG. **6** is a bottom view of a line trimmer component; and,
FIG. **7** is a top view of a line trimmer component.

The line trimmer components rendered in broken lines, shown in FIGS. **1-3**, illustrates the environment of the claimed design and forms no part thereof. The remining broken lines in the drawings illustrate portions of the line trimmer component and form no part of the claimed design.

1 Claim, 5 Drawing Sheets



(56) **References Cited**

U.S. PATENT DOCUMENTS

4,097,991	A	7/1978	Proulx	
4,145,809	A	3/1979	Proulx	
4,203,212	A	5/1980	Proulx	
4,259,782	A	4/1981	Proulx	
4,566,189	A	1/1986	Muto	
4,633,588	A	1/1987	Pittinger, Jr.	
4,672,798	A	6/1987	Ota	
5,020,223	A	6/1991	Desent et al.	
5,060,384	A	10/1991	Everts	
5,109,607	A	5/1992	Everts	
5,461,787	A	10/1995	Araki et al.	
5,464,787	A	11/1995	Ryou	
5,657,542	A	8/1997	White, III et al.	
5,659,960	A	8/1997	Everts et al.	
5,671,536	A	9/1997	Everts et al.	
5,765,287	A	6/1998	Griffini et al.	
5,806,192	A	9/1998	Everts et al.	
5,881,464	A	3/1999	Collins et al.	
6,035,618	A	3/2000	Fogle	
6,145,523	A	11/2000	Lo	
6,148,523	A	11/2000	Everts et al.	
6,263,580	B1	7/2001	Stark et al.	
6,314,848	B2	11/2001	Morabit et al.	
6,347,455	B2	2/2002	Brant et al.	
D460,904	S *	7/2002	Riley	D8/8
6,457,242	B1	10/2002	Fogle	
6,457,542	B1	10/2002	Hosono et al.	
D465,975	S *	11/2002	Iacona	D8/8
6,581,292	B2	6/2003	Allis et al.	
6,594,907	B2	7/2003	Wilson et al.	
D482,941	S *	12/2003	Nystrom	D8/8
6,901,667	B2	6/2005	Proulx	
6,944,956	B1	9/2005	Fogle	
6,952,877	B2	10/2005	Pfaltzgraff	
7,017,272	B2	3/2006	Grace	
7,111,403	B2	9/2006	Moore	
D532,263	S	11/2006	Iacona	
7,275,324	B2	10/2007	Proulx	
7,412,768	B2	8/2008	Alliss	
D589,776	S *	4/2009	Camp	D8/312
7,513,046	B2	4/2009	Proulx	
7,536,792	B2	5/2009	Moore	
D598,255	S	8/2009	Alliss	
7,581,322	B2	9/2009	Proulx	
7,587,828	B2	9/2009	Legrand	
7,607,232	B2	10/2009	Pfaltzgraff	
7,640,668	B2	1/2010	Iacona	
7,797,839	B2	9/2010	Proulx	
7,882,642	B2	2/2011	Proulx	
7,979,991	B2	7/2011	Pfaltzgraff	
8,025,249	B2	9/2011	Alliss et al.	
8,266,805	B1	9/2012	Alliss	
8,307,558	B2	11/2012	Alliss	
D675,655	S *	2/2013	Leach	D15/144
8,567,073	B2	10/2013	Proulx	
8,745,879	B2	6/2014	Alliss	
8,863,395	B2	10/2014	Alliss	
8,910,387	B2	12/2014	Alliss	
D720,970	S *	1/2015	Hermann	D8/8
9,253,942	B2	2/2016	Alliss et al.	
D759,445	S *	6/2016	Tinius	D8/8
9,380,743	B2	7/2016	Alliss	
D763,640	S *	8/2016	Cigarini	D8/8
D769,086	S *	10/2016	Alliss	D8/8
D769,087	S *	10/2016	Alliss	D8/8
D769,088	S *	10/2016	Alliss	D8/8
D776,997	S *	1/2017	Tinius	D8/8
D785,420	S *	5/2017	Tinius	D8/8
D796,293	S *	9/2017	Alliss	D8/8
D803,137	S *	11/2017	Platto	D12/213
D804,919	S *	12/2017	Cigarini	D8/8
D813,000	S *	3/2018	Cigarini	D8/8
D813,641	S *	3/2018	Osanai	D8/310
D814,893	S *	4/2018	Alliss	D8/8
D814,894	S *	4/2018	Alliss	D8/8
D823,080	S *	7/2018	Cigarini	D8/8
D825,293	S *	8/2018	Alliss	D8/8
D831,449	S *	10/2018	Cigarini	D8/8
D833,838	S *	11/2018	Cigarini	D8/8
D854,895	S *	7/2019	Cigarini	D8/8
D867,833	S *	11/2019	Chen	D8/8
2002/0072556	A1	6/2002	Rajagopalan et al.	
2002/0073556	A1	6/2002	Fogle	
2003/0052218	A1 *	3/2003	Knizner	A01D 34/416 224/0.5
2004/0103543	A1	6/2004	Fogle	
2005/0241157	A1	11/2005	Fogle	
2005/0252009	A1	11/2005	Alliss	
2006/0254060	A1	11/2006	Alliss	
2006/0254061	A1	11/2006	Alliss	
2007/0130781	A1 *	6/2007	Iacona	A01D 34/4163 30/276
2008/0052917	A1 *	3/2008	Proulx	A01D 34/416 30/276
2008/0053052	A1	3/2008	Cigarini	
2008/0120847	A1 *	5/2008	Alliss	A01D 34/4165 30/276
2009/0100686	A1	4/2009	Sing et al.	
2009/0172955	A1 *	7/2009	Morris	A01D 34/4163 30/276
2009/0260237	A1	10/2009	Alliss	
2009/0282687	A1 *	11/2009	Arnetoli	A01D 34/4161 30/276
2011/0000091	A1	1/2011	Proulx	
2011/0119932	A1 *	5/2011	Pfaltzgraff	A01D 34/4166 30/347
2011/0214301	A1	9/2011	Proulx	
2011/0225832	A1 *	9/2011	Alliss	A01D 34/4163 30/347
2011/0239468	A1	10/2011	Conlon	
2011/0302791	A1 *	12/2011	Proulx	A01D 34/416 30/287
2011/0302793	A1	12/2011	Alliss et al.	
2012/0000079	A1	1/2012	Arnetoli	
2012/0066913	A1	3/2012	Alliss et al.	
2013/0133208	A1	5/2013	Skinner	
2014/0360026	A1 *	12/2014	Yamaoka	A01D 34/4162 30/276
2015/0150191	A1 *	6/2015	Alliss	A01D 34/4163 30/276
2015/0223395	A1 *	8/2015	Pellenc	A01D 34/4166 30/276
2015/0264861	A1 *	9/2015	Kullberg	A01D 34/4165 30/276
2015/0327436	A1	11/2015	Skinner et al.	
2015/0342116	A1 *	12/2015	Sprungman	A01D 34/4166 30/276
2017/0079204	A1 *	3/2017	Yamaoka	A01D 34/4165
2017/0094900	A1	4/2017	Arnetoli	
2017/0183194	A9 *	6/2017	Alliss	A01D 34/4166
2017/0238461	A1 *	8/2017	Cabrera	A01D 34/416
2017/0347523	A1 *	12/2017	Alliss	A01D 34/4161
2017/0354089	A1	12/2017	Kullberg	
2017/0354090	A1 *	12/2017	Palermo	A01D 34/4163
2018/0020614	A1 *	1/2018	Alliss	A01D 34/4163 30/276
2018/0020615	A1 *	1/2018	Alliss	A01D 34/4163 30/276
2018/0116106	A1 *	5/2018	Kullberg	A01D 34/4163
2018/0132417	A1	5/2018	Alliss	
2018/0242518	A1 *	8/2018	Zenkus	B29C 45/0025
2018/0242519	A1 *	8/2018	Zenkus	A01D 34/4165
2018/0242520	A1 *	8/2018	Zenkus	A01D 34/416
2018/0271010	A1 *	9/2018	Hallendorff	A01D 34/4162
2018/0271011	A1 *	9/2018	Zenkus	A01D 34/4165
2019/0075721	A1 *	3/2019	Cholst	A01D 34/4165
2019/0116728	A1 *	4/2019	Zenkus	B29C 45/0025
2019/0350131	A1 *	11/2019	Shin	A01D 34/4166
2020/0079614	A1 *	3/2020	Cigarini	A01D 34/4166
2020/0128728	A1 *	4/2020	Guo	A01D 34/4163
2020/0214202	A1 *	7/2020	Holman	A01D 34/736
2020/0281116	A1 *	9/2020	Guo	A01D 34/4168
2020/0296888	A1	9/2020	Arnetoli	

(56) **References Cited**

U.S. PATENT DOCUMENTS

2021/0037704	A1*	2/2021	Kullberg	A01D 34/4163
2021/0059115	A1*	3/2021	Rethaber	A01D 34/4161
2021/0076564	A1*	3/2021	Guo	A01D 34/416
2021/0137004	A1*	5/2021	Nie	A01D 34/416
2021/0144914	A1*	5/2021	Peng	A01D 34/90
2021/0170565	A1*	6/2021	Lauciello	H02K 9/06
2021/0185909	A1*	6/2021	Hoche	A01D 34/4163

FOREIGN PATENT DOCUMENTS

WO	2007032043	A1	3/2007
WO	2013138752	A1	9/2013
WO	2015077393	A1	5/2015
WO	2015144197	A1	10/2015

OTHER PUBLICATIONS

Defendants' Initial Invalidity Contentions for U.S. Pat. Nos. 8,025,249, 9,516,807, 9,924,631, D598,254, D598,255, and D814,893, *Torvent LLC* v. *Techtronic Industries Co., Ltd.; et al.*, 1:21-cv-00853-MN, United States District Court for the District of Delaware, Mar. 1, 2022, 24 pages.

GlobeMall—Proulx Mfg Jul. 2005 Press Release—Swift Load Head, 1 page.

GlobeMall—Proulx Mfg Jul. 2008 Press Release—UN70 Series "Swift Load—Never Split" Nylon heads for Brush Cutters and Trimmers, 3 pages.

https://web.archive.org/web/diff/20080925171407/20090123141520/www.yardgear.com, Jarden Applied Materials, 6111 Shakespeare Rd., Columbia, SC 29223 (2009).

Images of Shakespeare Easy-Wind Bump & Go trimmer head packaging, 10 pages.

Rotary catalog item for Cobra Max Trimmer Head, 2 pages.

Shindaiwa Illustrated Parts List, Part No. 81008 Effective Mar. 2005, Trimmer Heads (available athttps://web.archive.org/web/20050206135326/http://www.shindaiwa.com:80/products/catalog.html), 8 pages.

Shindaiwa Product Catalog effective Oct. 2003, Trimmer Head Guide (Item 80792 Jun. 2003) available at https://web.archive.org/web/20070104050743/http://www.shindaiwa.com/nam/en/_docs/trimmerheadguide.pdf, 37 pages.

YouTube video—Easy-Wind Bump & Go Installation Instructions for Most Straight Shaft Trimmers, available at youtube.com/watch/?v=U0K31n9WOil, Mar. 24, 2009, 1 page.

* cited by examiner

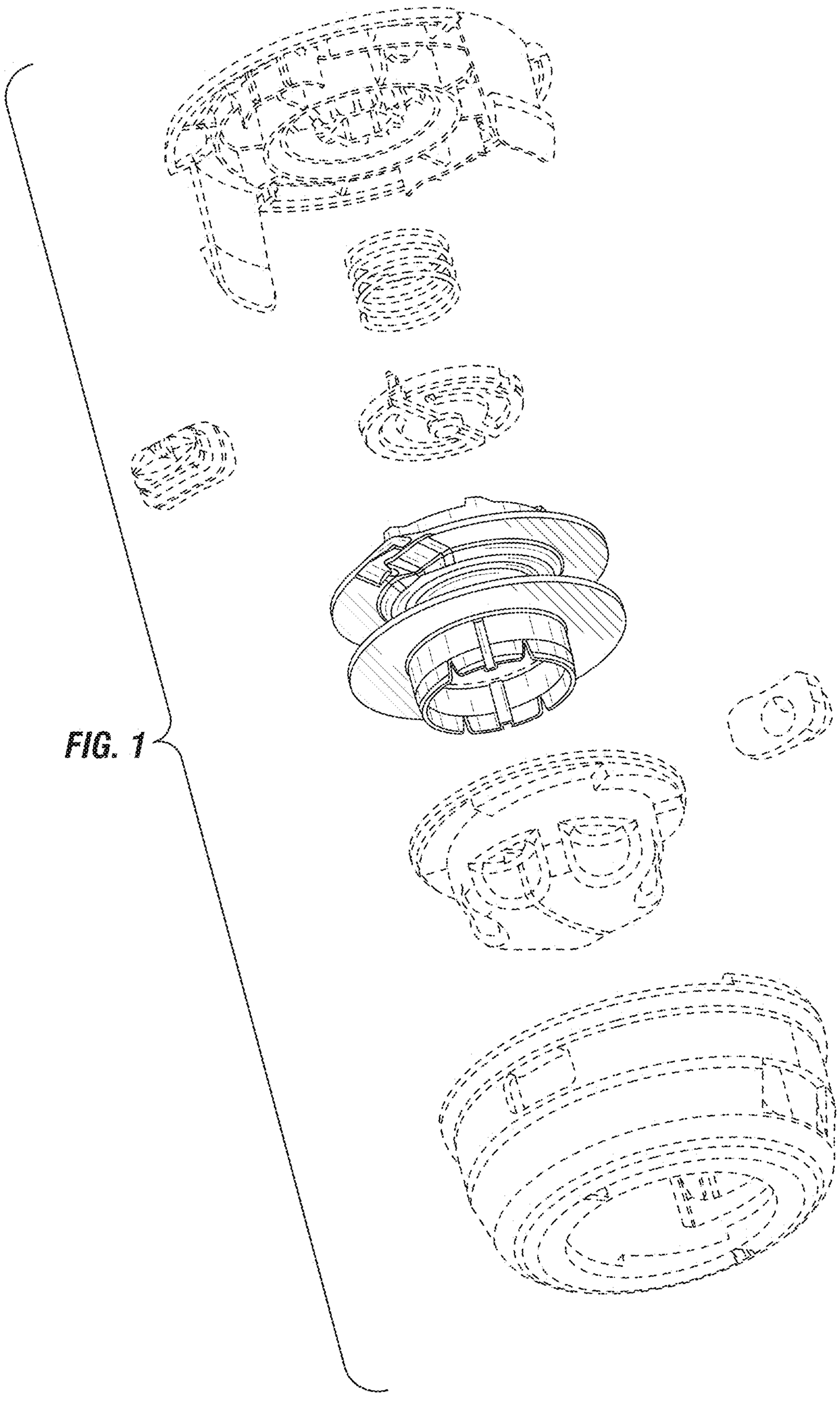


FIG. 1

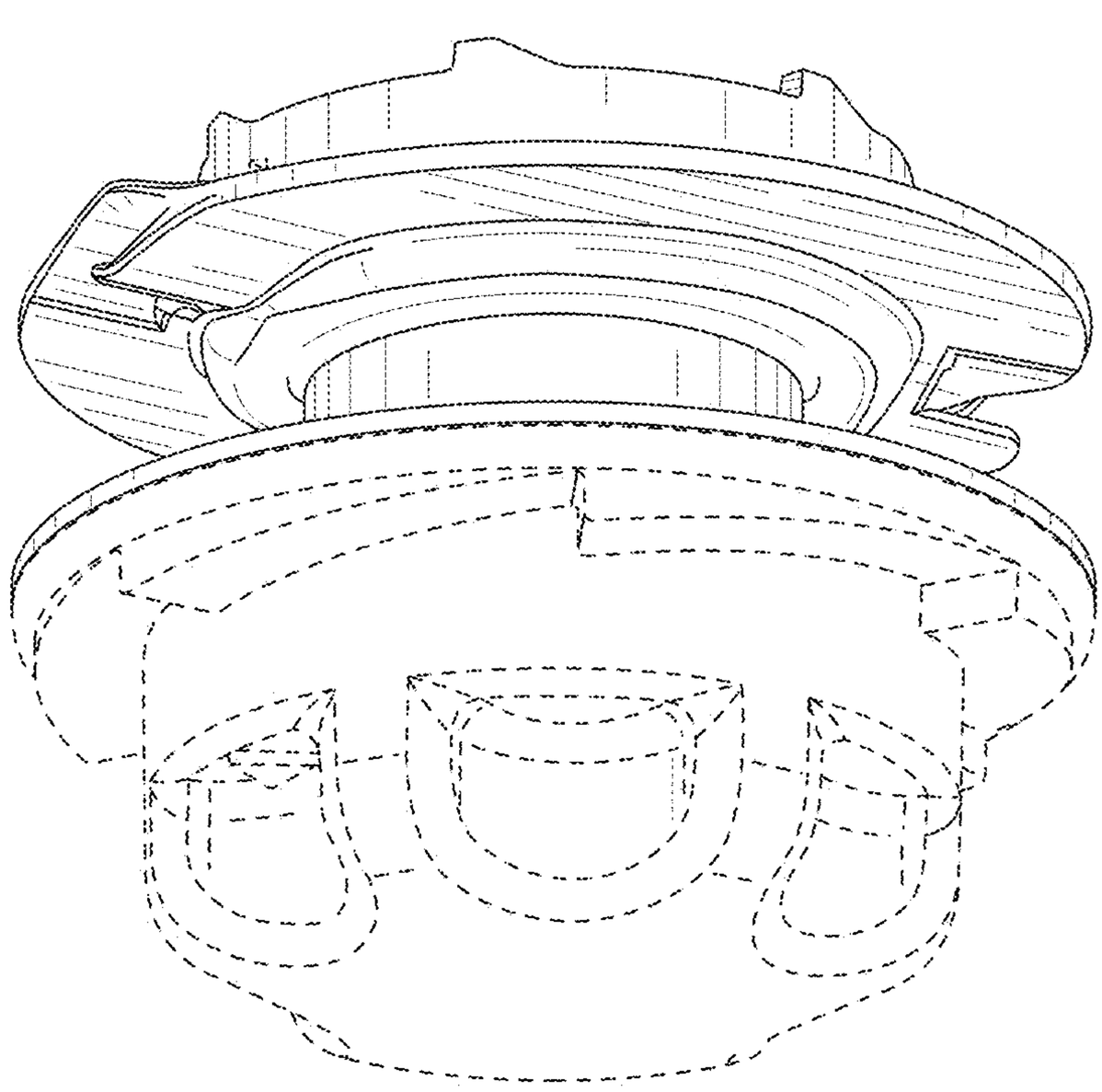


FIG. 2

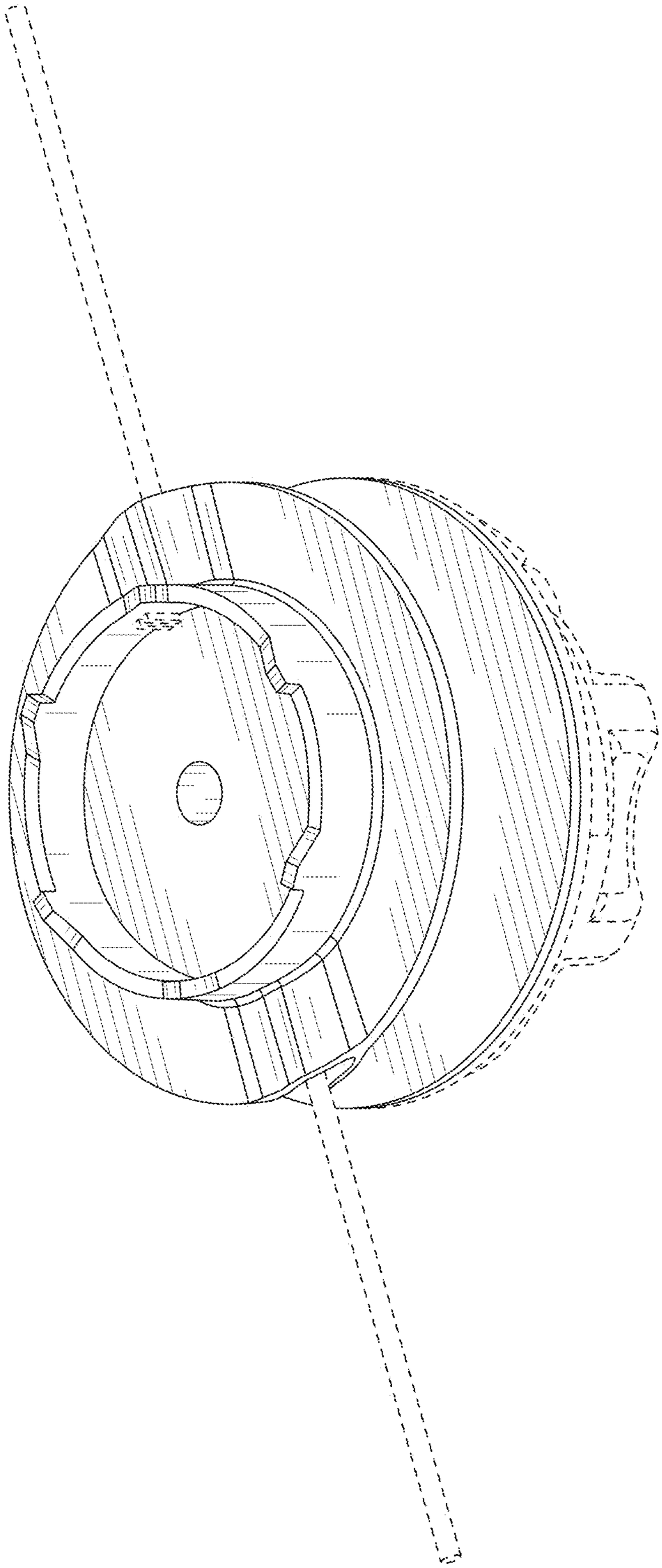
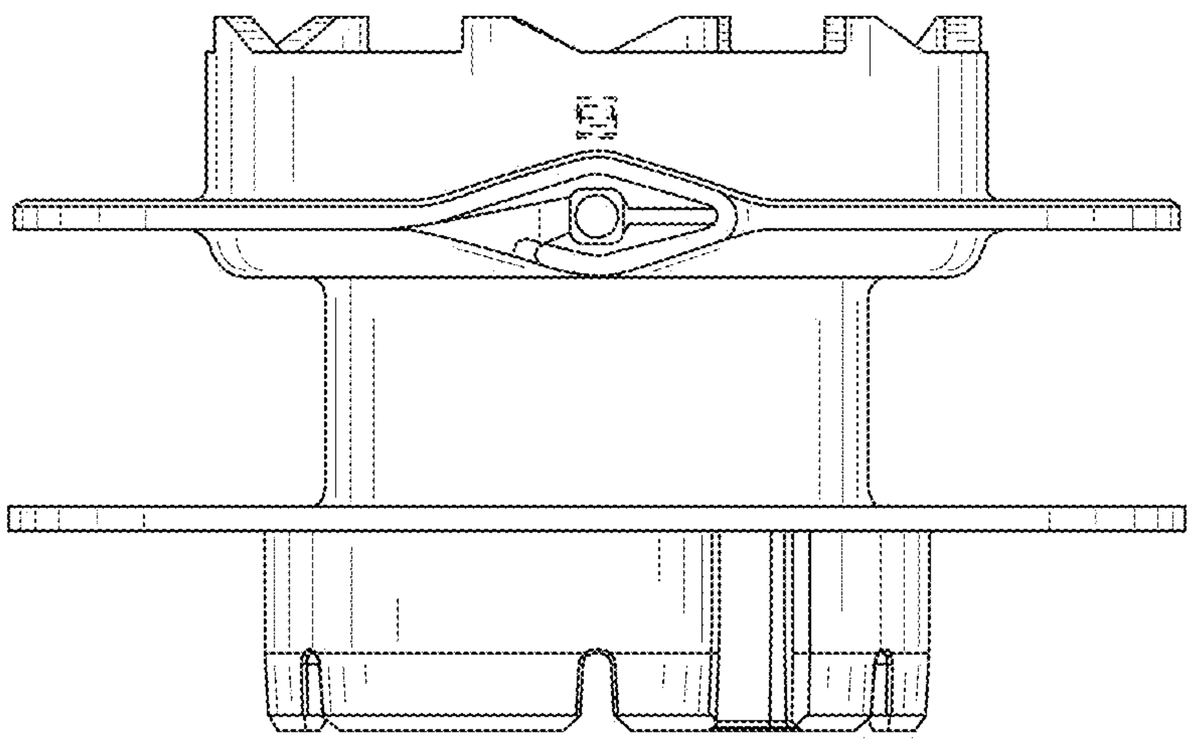


FIG. 3



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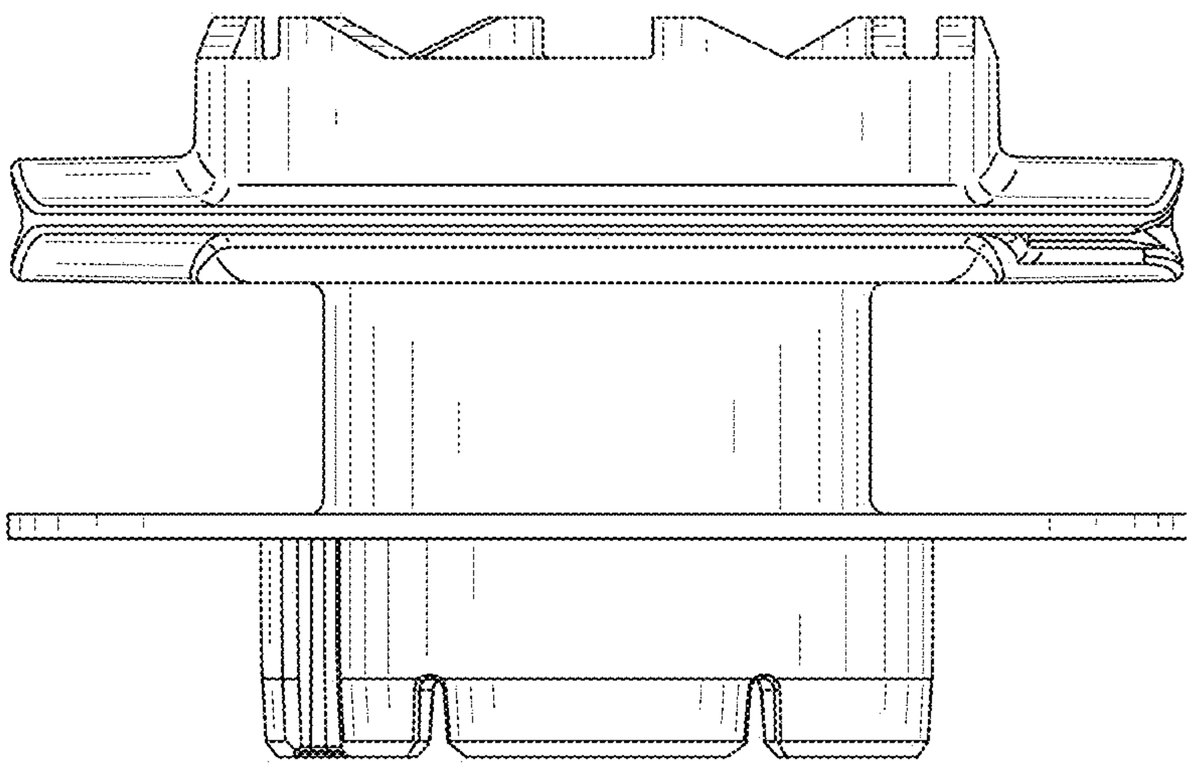

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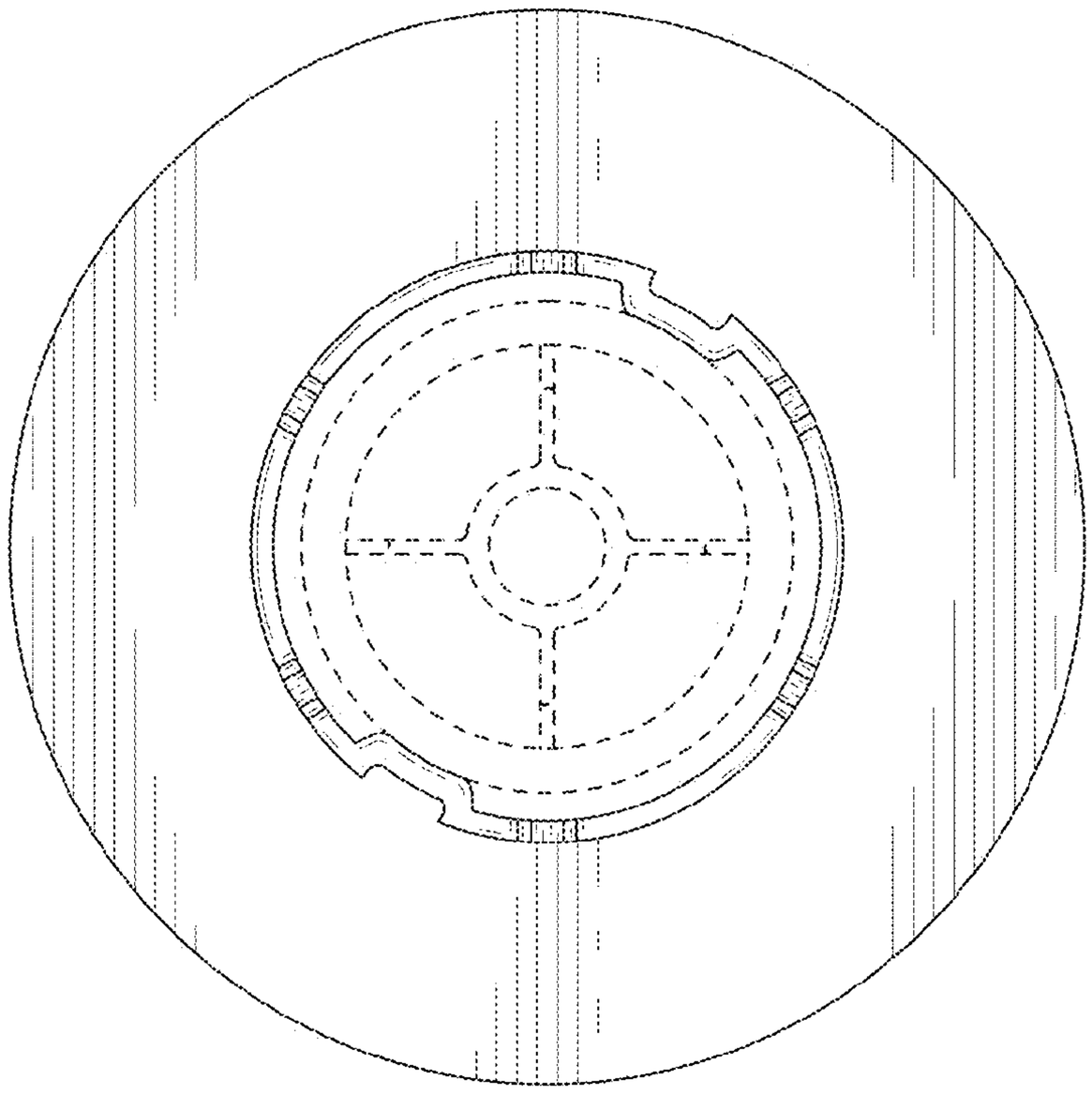

FIG. 6

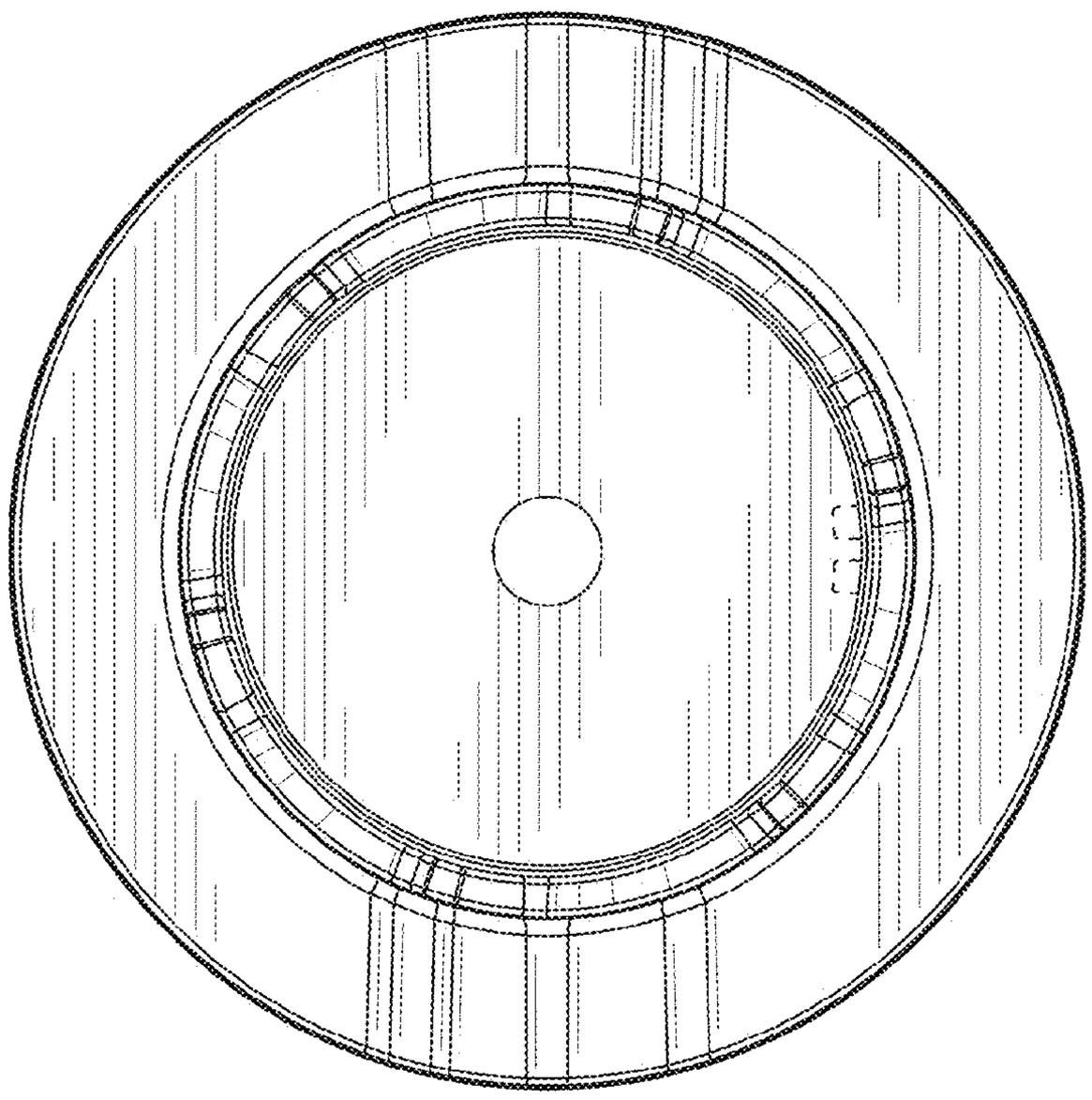

FIG. 7