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(12) **United States Design Patent** (10) **Patent No.:** **US D970,321 S**
Alliss (45) **Date of Patent:** **** Nov. 22, 2022**

(54) **LINE TRIMMER COMPONENT**

FOREIGN PATENT DOCUMENTS

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CN 303787613 * 8/2016
EM 003034214-0002 * 4/2016

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(Continued)

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OTHER PUBLICATIONS

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

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(Continued)

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Related U.S. Application Data

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

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

(58) **Field of Classification Search**
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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.

(57) **CLAIM**
The ornamental design for a line trimmer component, as shown and described.

DESCRIPTION

(56) **References Cited**

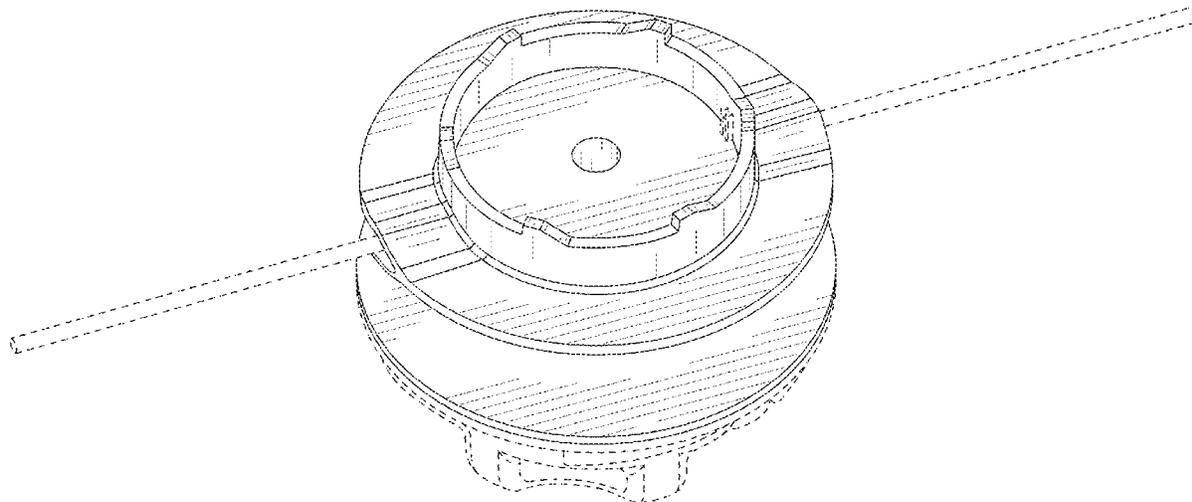
U.S. PATENT DOCUMENTS

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

(Continued)

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

(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 Invalidation 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 at <https://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](https://www.youtube.com/watch?v=U0K31n9WOil), Mar. 24, 2009, 1 page.

* cited by examiner

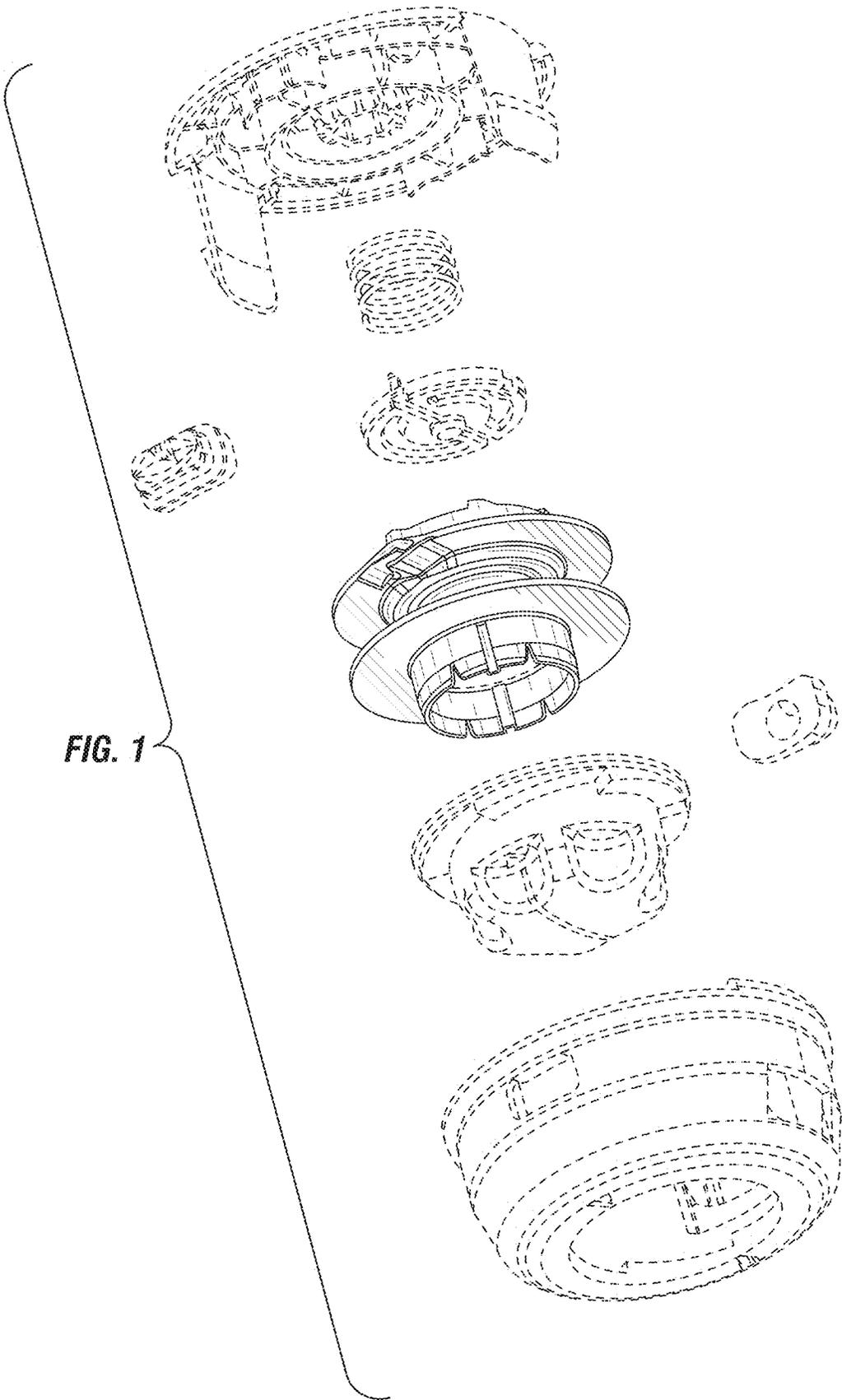


FIG. 1

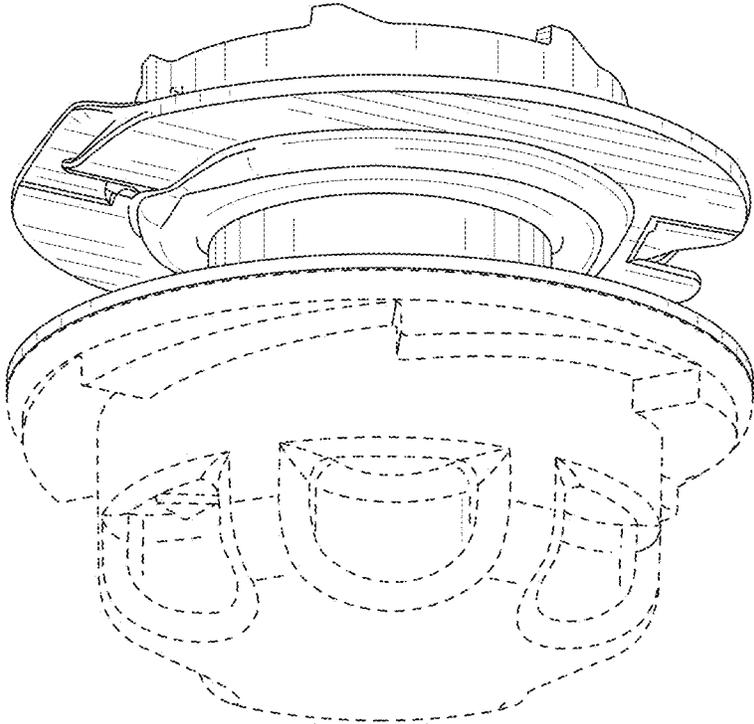


FIG. 2

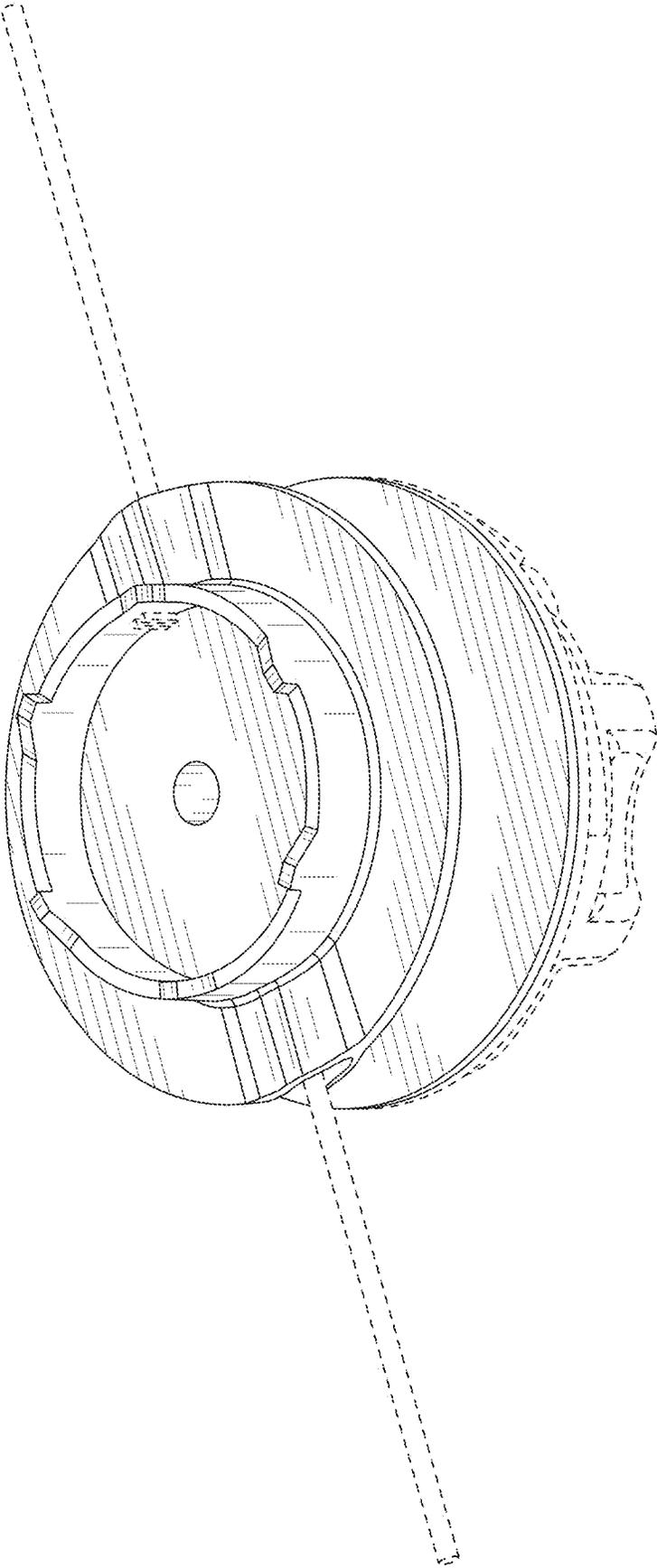


FIG. 3

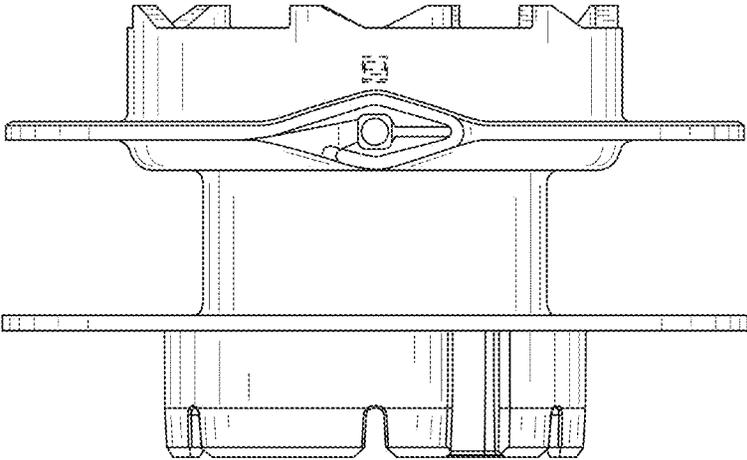


FIG. 4

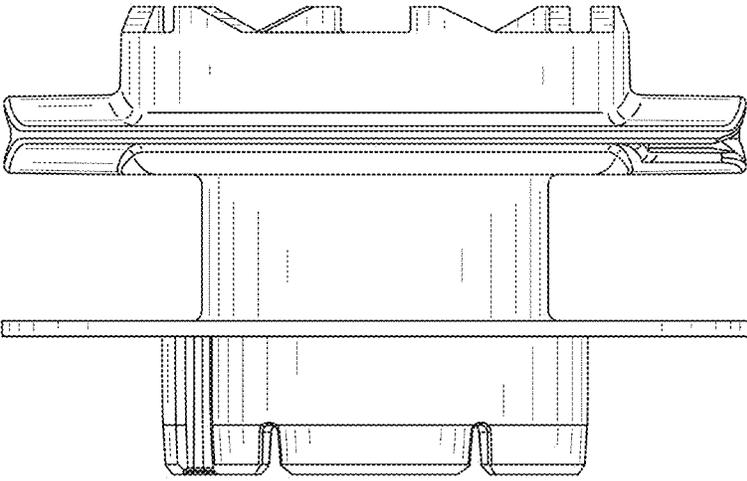


FIG. 5

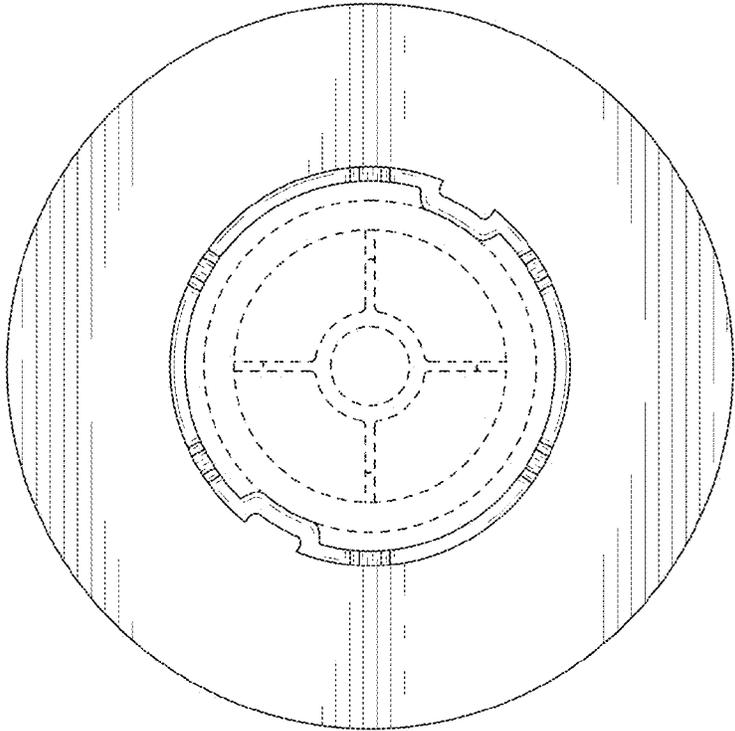


FIG. 6

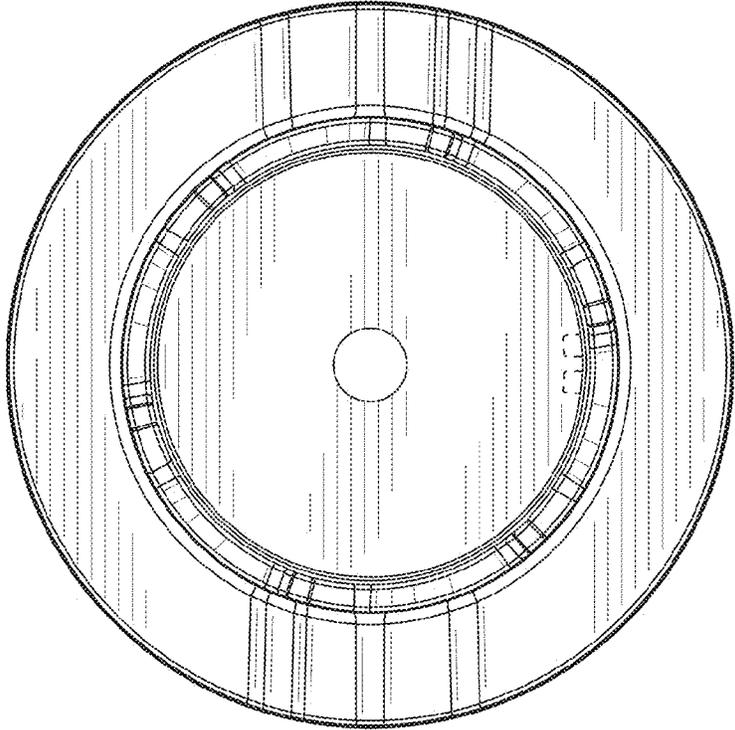


FIG. 7