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(54) **GAS BURNER**

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(52) **U.S. Cl.**
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CPC A47J 37/0786; A47J 37/108; A47J 36/34; F21K 9/23; F21S 10/04; F21S 10/046; F21V 17/02; F21V 17/06; F21V 17/10; F23D 14/06; F23D 14/065; F23D 14/26; F23D 14/58; F23D 14/586; F23D 14/60; F23D 14/74; F23R 3/14; F23R 3/28; F24B 1/181; F24B 1/189; F24B 1/193; F24B 1/195; F24B 15/002; F24C 3/006; F24C 3/008; F24C 3/085; F24C 7/004; F24C 15/005; F24C 15/101; F24C 15/107; G01F 11/18; G07F 11/18; G07F 13/02; G07F 17/00; G09F 19/00; H01K 7/06; H05B 37/02
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,141,176 A 6/1915 Copeman
1,380,656 A 6/1921 Lauth
(Continued)

FOREIGN PATENT DOCUMENTS

CA 2365023 A1 7/2002
CA 2734926 A1 10/2011
(Continued)

OTHER PUBLICATIONS

Hobs Cooktops, image post date 2015, site visited Jul. 23, 2018, (online), <https://www.stovekraft.com/gilma/product/index/cslug/hobs>.*
(Continued)

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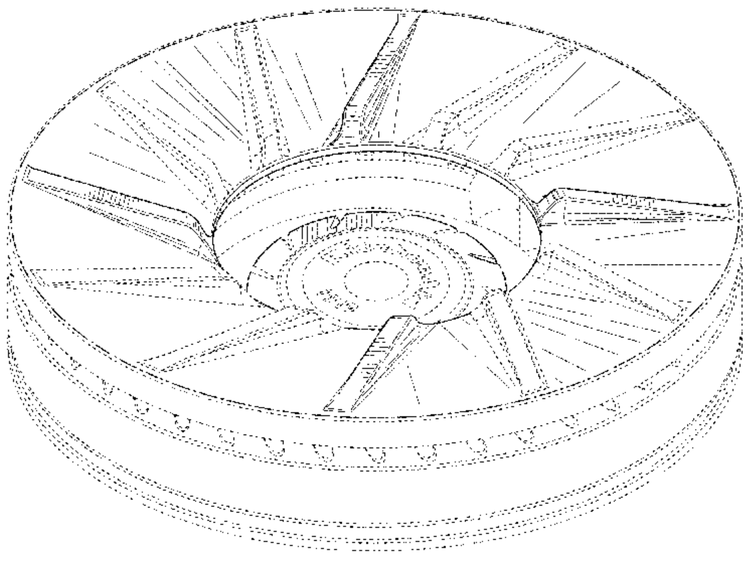
(57) **CLAIM**

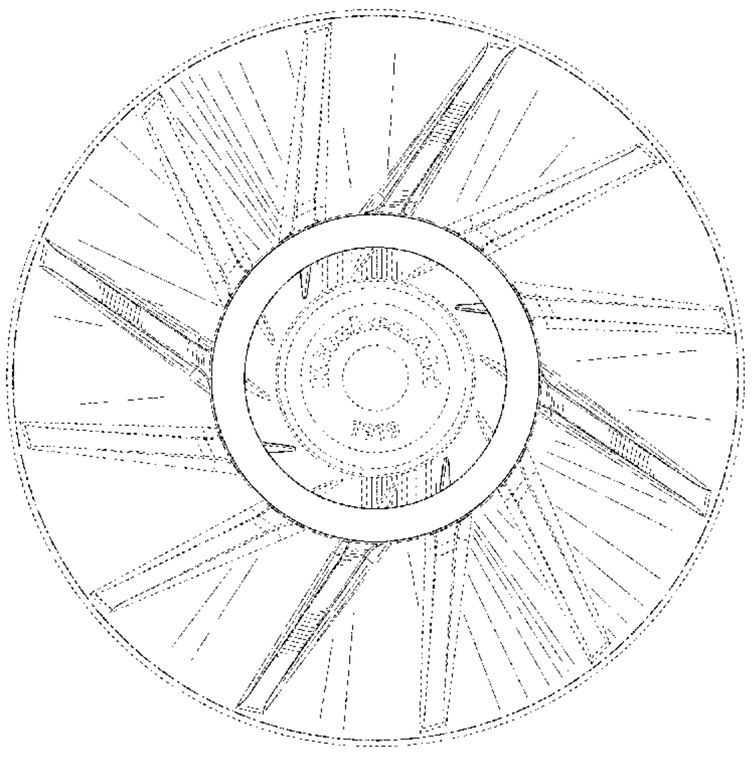
The ornamental design for a gas burner, as shown and described.

DESCRIPTION

FIG. **1** is a front perspective view of a gas burner according to our design;
FIG. **2** is a front elevational view thereof, back, left, and right views of the gas burner being identical thereto;
FIG. **3** is a top plan view thereof; and,
FIG. **4** is a bottom plan view thereof.
The broken line showings of various features are for the purpose of illustrating portions of the gas burner and form no part of the claimed design.
Dash-dot lines adjacent un-shaded areas represent bounds of the claimed design and form no part of the claimed design.

1 Claim, 4 Drawing Sheets





(56) **References Cited**

U.S. PATENT DOCUMENTS

1,405,624	A	2/1922	Patterson	5,899,681	A *	5/1999	Maughan F23D 14/26 431/286
1,598,996	A	9/1926	Wheelock	5,913,675	A	6/1999	Vago et al.
1,808,550	A	6/1931	Harpman	D414,377	S	9/1999	Huang
2,024,510	A	12/1935	Crisenberry	5,950,526	A *	9/1999	Hsu A23B 4/031 219/386
2,530,991	A	11/1950	Reeves	5,964,214	A *	10/1999	Ferlin F23D 14/06 119/305
2,536,613	A	1/1951	Schulze et al.	5,967,021	A	10/1999	Yung
2,699,912	A	1/1955	Cushman	6,016,096	A	1/2000	Barnes et al.
2,777,407	A	1/1957	Schindler	6,030,207	A	2/2000	Saleri
2,781,038	A	2/1957	Sherman	6,049,267	A	4/2000	Barnes et al.
2,791,366	A	5/1957	Geisler	6,050,176	A	4/2000	Schultheis et al.
2,815,018	A	12/1957	Collins	6,074,201	A *	6/2000	Muhle ..... F23D 14/065 126/39 H
2,828,608	A	4/1958	Cowlin et al.	6,078,243	A	6/2000	Barnes et al.
2,847,932	A	8/1958	More	6,089,219	A	7/2000	Kodera et al.
2,930,194	A	5/1960	Perkins	6,092,518	A	7/2000	Dane
2,934,957	A	5/1960	Reinhart et al.	6,111,229	A	8/2000	Schultheis
D191,085	S	8/1961	Kindl et al.	6,114,665	A	9/2000	Garcia et al.
3,017,924	A	1/1962	Jenson	6,133,816	A	10/2000	Barnes et al.
3,051,813	A	8/1962	Busch et al.	6,155,820	A	12/2000	Döbbeling
3,065,342	A	11/1962	Worden	6,188,045	B1	2/2001	Hansen et al.
3,089,407	A	5/1963	Kinkle	6,192,669	B1	2/2001	Keller et al.
3,259,120	A	7/1966	Keating	6,196,113	B1	3/2001	Yung
3,386,431	A	6/1968	Branson	6,253,759	B1	7/2001	Giebel et al.
3,463,138	A	8/1969	Lotter et al.	6,253,761	B1	7/2001	Shuler et al.
3,548,154	A	12/1970	Christiansson	6,320,169	B1	11/2001	Clothier
3,602,131	A	8/1971	Dadson	6,322,354	B1	11/2001	Carbone et al.
3,645,249	A	2/1972	Henderson et al.	6,362,458	B1	3/2002	Sargunam et al.
3,691,937	A	9/1972	Meek et al.	6,452,136	B1	9/2002	Berkcan et al.
3,777,985	A	12/1973	Hughes et al.	6,452,141	B1	9/2002	Shon
3,780,954	A	12/1973	Genbauffs	6,589,046	B2	7/2003	Harneit
3,857,254	A	12/1974	Lobel	6,614,006	B2	9/2003	Pastore et al.
3,877,865	A	4/1975	Duperow	6,619,280	B1	9/2003	Zhou et al.
3,899,655	A	8/1975	Skinner	6,655,954	B2	12/2003	Dane
D245,663	S	9/1977	Gordon	6,663,009	B1	12/2003	Bedetti et al.
4,104,952	A	8/1978	Brass	6,718,965	B2	4/2004	Rummel et al.
4,149,518	A	4/1979	Schmidt et al.	6,733,146	B1	5/2004	Vastano
4,363,956	A	12/1982	Scheidler et al.	6,806,444	B2	10/2004	Lemer
4,413,610	A	11/1983	Berlik	6,837,151	B2	1/2005	Chen
4,418,456	A	12/1983	Riehl	6,891,133	B2	5/2005	Shozo et al.
4,447,711	A	5/1984	Fischer	6,910,342	B2	6/2005	Bems et al.
4,466,789	A	8/1984	Riehl	6,930,287	B2	8/2005	Gerola et al.
4,518,346	A	5/1985	Pistien	6,953,915	B2	10/2005	Garris, III
4,587,946	A	5/1986	Doyon et al.	7,017,572	B2	3/2006	Cadima
4,646,963	A	3/1987	Delotto et al.	D524,105	S	7/2006	Poltronieri
4,654,508	A	3/1987	Logel et al.	7,083,123	B2	8/2006	Molla
4,689,961	A	9/1987	Stratton	7,220,945	B1	5/2007	Wang
4,812,624	A	3/1989	Kern	D544,753	S	6/2007	Tseng
4,818,824	A	4/1989	Dixit et al.	7,274,008	B2	9/2007	Arnal Valero et al.
4,846,671	A	7/1989	Kwiatek	7,281,715	B2	10/2007	Boswell
4,886,043	A	12/1989	Homer	7,291,009	B2	11/2007	Kamal et al.
4,891,936	A	1/1990	Shekleton et al.	7,315,247	B2	1/2008	Jung et al.
D309,398	S	7/1990	Lund	7,325,480	B2	2/2008	Grühbaum et al.
4,981,416	A	1/1991	Nevin et al.	D564,296	S	3/2008	Koch et al.
4,989,404	A	2/1991	Shekleton	7,348,520	B2	3/2008	Wang
5,021,762	A	6/1991	Hetrick	7,368,685	B2	5/2008	Nam et al.
5,136,277	A	8/1992	Civanelli et al.	7,411,160	B2	8/2008	Duncan et al.
5,171,951	A	12/1992	Chartrain et al.	7,414,203	B2	8/2008	Winkler
D332,385	S	1/1993	Adams	7,417,204	B2	8/2008	Nam et al.
5,215,074	A	6/1993	Wilson et al.	D581,214	S *	11/2008	Rosa D7/407
5,243,172	A	9/1993	Hazan et al.	D581,736	S	12/2008	Besseas
D340,383	S	10/1993	Addison et al.	7,468,496	B2	12/2008	Marchand
5,272,317	A	12/1993	Ryu	D592,445	S	5/2009	Sorenson et al.
D342,865	S	1/1994	Addison et al.	7,527,495	B2	5/2009	Yam et al.
5,316,423	A	5/1994	Kin	D598,959	S	8/2009	Kiddoo
5,397,234	A	3/1995	Kwiatek	7,589,299	B2	9/2009	Fisher et al.
5,448,036	A	9/1995	Husslein et al.	D604,098	S	11/2009	Hamlin
D364,993	S	12/1995	Andrea	7,614,877	B2	11/2009	McCrorey et al.
5,491,423	A	2/1996	Turetta	7,628,609	B2	12/2009	Pryor et al.
D369,517	S	5/1996	Ferlin	7,640,930	B2	1/2010	Little et al.
5,571,434	A	11/1996	Cavener et al.	7,696,454	B2	4/2010	Nam et al.
D378,578	S	3/1997	Eberhardt	7,708,008	B2	5/2010	Elkasevic et al.
5,618,458	A	4/1997	Thomas	7,721,727	B2	5/2010	Kobayashi
5,649,822	A	7/1997	Gertler et al.	7,731,493	B2	6/2010	Starnini et al.
5,785,047	A	7/1998	Bird et al.	7,762,250	B2	7/2010	Elkasevic et al.
5,842,849	A	12/1998	Huang	7,781,702	B2	8/2010	Nam et al.
				7,823,502	B2	11/2010	Hecker et al.

(56) **References Cited**

U.S. PATENT DOCUMENTS

7,829,825	B2	11/2010	Kühne	
7,841,333	B2	11/2010	Kobayashi	
7,964,823	B2	6/2011	Armstrong et al.	
D642,257	S *	7/2011	Mann	D23/418
D642,675	S *	8/2011	Scribano	D23/415
8,006,687	B2	8/2011	Watkins et al.	
8,015,821	B2	9/2011	Spytek	
8,037,689	B2	10/2011	Oskin et al.	
8,057,223	B2	11/2011	Pryor et al.	
8,141,549	B2	3/2012	Armstrong et al.	
8,217,314	B2	7/2012	Kim et al.	
8,220,450	B2	7/2012	Luo et al.	
8,222,578	B2	7/2012	Beier	
D665,491	S	8/2012	Goel et al.	
8,272,321	B1	9/2012	Kalsi et al.	
8,288,690	B2	10/2012	Boubeddi et al.	
8,302,593	B2	11/2012	Cadima	
8,304,695	B2	11/2012	Bonuso et al.	
8,342,165	B2	1/2013	Watkins	
8,344,292	B2	1/2013	Franca et al.	
8,393,317	B2	3/2013	Sorenson et al.	
8,398,303	B2	3/2013	Kuhn	
8,430,310	B1	4/2013	Ho et al.	
8,464,703	B2	6/2013	Ryu et al.	
D685,225	S	7/2013	Santoyo et al.	
D687,675	S	8/2013	Filho et al.	
8,526,935	B2	9/2013	Besore et al.	
8,535,052	B2 *	9/2013	Cadima	F23D 14/06 126/214 R
D693,175	S	11/2013	Saubert	
8,584,663	B2	11/2013	Kim et al.	
8,596,259	B2	12/2013	Padgett et al.	
8,616,193	B2	12/2013	Padgett	
8,660,297	B2	2/2014	Yoon et al.	
8,687,842	B2	4/2014	Yoon et al.	
8,689,782	B2	4/2014	Padgett	
8,707,945	B2	4/2014	Hassiberger et al.	
8,747,108	B2	6/2014	Lona Santoyo et al.	
8,800,543	B2	8/2014	Simms et al.	
D718,061	S	11/2014	Wu	
8,887,710	B2	11/2014	Rossi et al.	
8,930,160	B2	1/2015	Wall et al.	
8,932,049	B2	1/2015	Ryu et al.	
8,950,389	B2	2/2015	Horstkoetter et al.	
8,978,637	B2	3/2015	Ryu et al.	
D727,489	S	4/2015	Rohskopf et al.	
9,021,942	B2	5/2015	Lee et al.	
9,074,765	B2	7/2015	Armanni	
D735,525	S	8/2015	Nguyen	
9,113,503	B2	8/2015	Amal Valero et al.	
9,132,302	B2	9/2015	Luongo et al.	
D743,203	S	11/2015	Filho et al.	
9,175,858	B2	11/2015	Tisselli et al.	
D745,321	S *	12/2015	Koch	D7/407
D750,314	S	2/2016	Hobson et al.	
9,307,888	B2	4/2016	Baldwin et al.	
D758,107	S	6/2016	Hamilton	
D766,036	S	9/2016	Koch et al.	
D766,696	S	9/2016	Kemker	
D774,350	S *	12/2016	Mandil	D7/354
D775,311	S *	12/2016	Cooper	D23/209
9,513,015	B2	12/2016	Estrella et al.	
9,521,708	B2	12/2016	Adelmann et al.	
9,557,063	B2	1/2017	Cadima	
9,572,475	B2	2/2017	Gephart et al.	
D787,041	S *	5/2017	Lah	D23/415
9,644,847	B2	5/2017	Bhogal et al.	
D788,896	S *	6/2017	Shin	D23/351
D789,513	S *	6/2017	Nilssen	D23/415
9,696,042	B2	7/2017	Hassiberger et al.	
9,927,129	B2	3/2018	Bhogal et al.	
D817,697	S *	5/2018	Zhao	D7/359
D817,706	S *	5/2018	Kim	D7/407
D817,708	S *	5/2018	Kim	D7/407
D817,840	S *	5/2018	Chung	D12/209
2002/0065039	A1	5/2002	Benezech et al.	
2004/0007566	A1	1/2004	Staebler et al.	
2004/0031782	A1	2/2004	Westfield	
2004/0195399	A1	10/2004	Molla	
2004/0224273	A1	11/2004	Inomata	
2004/0224274	A1	11/2004	Tomiura	
2005/0029245	A1	2/2005	Gerola et al.	
2005/0112520	A1	5/2005	Todoli et al.	
2005/0199232	A1	9/2005	Gama et al.	
2005/0268794	A1	12/2005	Nesterov	
2006/0057518	A1 *	3/2006	Aldrich	F23C 3/002 431/116
2006/0156550	A1 *	7/2006	Beugels	B26B 19/00 30/45
2007/0124972	A1	6/2007	Ratcliffe	
2007/0181410	A1	8/2007	Baier	
2007/0281267	A1	12/2007	Li	
2008/0029081	A1	2/2008	Gagas	
2008/0050687	A1	2/2008	Wu	
2008/0173632	A1	7/2008	Jang et al.	
2008/0210685	A1	9/2008	Beier	
2009/0095168	A1 *	4/2009	Shu	A47J 37/067 99/425
2009/0173730	A1	7/2009	Baier et al.	
2009/0272117	A1 *	11/2009	Wilbraham	F23C 7/004 60/748
2009/0320485	A1 *	12/2009	Wilbraham	F23R 3/14 60/748
2009/0320823	A1	12/2009	Padgett	
2010/0035197	A1	2/2010	Cadima	
2010/0114339	A1	5/2010	Kaiser et al.	
2010/0126496	A1	5/2010	Luo et al.	
2010/0192939	A1	8/2010	Parks	
2011/0113784	A1 *	5/2011	Headland	F02C 7/22 60/737
2011/0138815	A1 *	6/2011	Headland	F23C 7/004 60/772
2011/0142998	A1	6/2011	Johncock et al.	
2011/0163086	A1	7/2011	Aldana Arjol et al.	
2011/0168801	A1 *	7/2011	Hubbard	F23R 3/14 239/11
2011/0248021	A1	10/2011	Gutierrez et al.	
2012/0017595	A1	1/2012	Liu	
2012/0024835	A1	2/2012	Artal Lahoz et al.	
2012/0036855	A1	2/2012	Hull	
2012/0067334	A1	3/2012	Kim et al.	
2012/0076351	A1	3/2012	Yoon et al.	
2012/0099761	A1	4/2012	Yoon et al.	
2012/0160228	A1	6/2012	Kim et al.	
2012/0171343	A1	7/2012	Cadima et al.	
2012/0261405	A1	10/2012	Kurose et al.	
2013/0043239	A1	2/2013	Anton Falcon et al.	
2013/0047975	A1 *	2/2013	Dobert	F23D 14/145 126/39 J
2013/0252188	A1	9/2013	Chen	
2013/0255663	A1	10/2013	Cadima et al.	
2013/0260618	A1	10/2013	Bally et al.	
2013/0337389	A1 *	12/2013	Kasprzyk	F23D 14/46 431/154
2014/0048055	A1	2/2014	Ruther	
2014/0071019	A1	3/2014	Lim	
2014/0090636	A1	4/2014	Bettinzoli	
2014/0097172	A1	4/2014	Kang et al.	
2014/0116416	A1	5/2014	Saubert	
2014/0137751	A1	5/2014	Bellm	
2014/0139381	A1	5/2014	Sippel	
2014/0225462	A1 *	8/2014	Yamada	H02K 1/2713 310/44
2014/0318527	A1	10/2014	Silva et al.	
2014/0345591	A1 *	11/2014	Silva	F24C 3/082 126/215
2014/0352549	A1	12/2014	Upston et al.	
2015/0089952	A1 *	4/2015	Sadasivuni	F23R 3/14 60/776
2015/0136760	A1	5/2015	Lima et al.	
2015/0153041	A1	6/2015	Neumeier	
2015/0241069	A1	8/2015	Brant et al.	
2015/0330640	A1	11/2015	Stork Genannt Wersborg	

(56) **References Cited**

U.S. PATENT DOCUMENTS

2015/0345800	A1	12/2015	Cabrera Botello	
2015/0359045	A1	12/2015	Neukamm et al.	
2016/0029439	A1	1/2016	Kurose et al.	
2016/0061490	A1	3/2016	Cho et al.	
2016/0091210	A1	3/2016	Ceccoli	
2016/0116160	A1	4/2016	Takeuchi	
2016/0153666	A1	6/2016	Tcaciuc	
2016/0174768	A1	6/2016	Deverse	
2016/0178209	A1	6/2016	Park et al.	
2016/0178212	A1	6/2016	Park et al.	
2016/0187002	A1	6/2016	Ryu et al.	
2016/0201902	A1	7/2016	Cadima	
2016/0209044	A1	7/2016	Cadima	
2016/0209045	A1	7/2016	Millius	
2016/0295644	A1	10/2016	Khokle et al.	
2016/0296067	A1	10/2016	Laws	
2017/0003033	A1	1/2017	Lona Santoyo et al.	
2017/0051919	A1*	2/2017	Dolmansley	F23R 3/14
2017/0067651	A1	3/2017	Khokle et al.	
2017/0074522	A1	3/2017	Cheng	
2017/0082296	A1	3/2017	Jeong et al.	
2017/0082299	A1	3/2017	Rowley et al.	
2017/0108228	A1	4/2017	Park et al.	
2017/0115008	A1	4/2017	Erbe et al.	
2017/0261213	A1	4/2017	Park et al.	
2017/0223774	A1	8/2017	Cheng et al.	
2017/0292706	A1*	10/2017	Inoue	F23R 3/14
2017/0370575	A1*	12/2017	Rasi	F24C 3/085
2017/0370594	A1*	12/2017	Balderas	F23D 14/045
2018/0058702	A1	3/2018	Jang et al.	

FOREIGN PATENT DOCUMENTS

CN	201680430	U	12/2010
DE	2845869	A1	4/1980
DE	3014908	A1	10/1981
DE	3446621	A1	6/1986
DE	3717728	A1	12/1988
DE	3150450	C2	8/1989
DE	3839657	A1	5/1990
DE	4103664	C1	1/1992
DE	4445594	A1	6/1996
DE	10218294	A1	11/2003
DE	60004581	T2	6/2004
DE	19912452	B4	10/2007
DE	102006034391	A1	1/2008
DE	102007021297	A1	11/2008
DE	102008027220	A1	12/2009
DE	102009002276	A1	10/2010
DE	102013218714	A1	4/2014
EP	0122966	A2	10/1984
EP	0429120	A2	5/1991
EP	0620698	A1	10/1994
EP	0690659	A2	1/1996
EP	1030114	A1	8/2000
EP	1217306	A2	6/2002
EP	1344986	A1	9/2003
EP	1586822	A1	10/2005
EP	1099905	B1	2/2006
EP	2063181	A2	5/2009
EP	2063444	A1	5/2009
EP	2116775	A1	11/2009
EP	2116829	A1	11/2009
EP	2278227	A2	1/2011
EP	2299181	A1	3/2011
EP	2375170	A1	10/2011
EP	2144012	B1	9/2012
EP	2657615	A1	10/2013
EP	2816291	A1	12/2014
EP	2835580	A2	2/2015
EP	3006832	A1	4/2016
EP	2848867	B1	9/2017
FR	2787556	A1	6/2000
FR	2789753	A1	8/2000
FR	3003338	A1	9/2014
JP	2001141244	A	5/2001
JP	2005009693	A	1/2005
JP	2007147131	A	6/2007
JP	2010038475	A	2/2010
JP	2011257021	A	12/2011
WO	1991013526	A1	9/1991
WO	9850736	A1	11/1998
WO	2006072388	A1	7/2006
WO	2006136363	A1	12/2006
WO	2012077050	A2	6/2012
WO	2013098330	A2	7/2013
WO	2013182410	A1	12/2013
WO	2014194176	A1	12/2014
WO	2015086420	A1	6/2015

OTHER PUBLICATIONS

Aga—Heartland Kitchen Wood Cook Stoves, image post date Apr. 29, 2012, site visited Jul. 23, 2018, (online), <https://knox.villagesoup.com/p/aga-heartland-kitchen-wood-cook-stoves/816729>.*

Built-In Gas Cooktop, image post date Feb. 18, 2015, in U.S. Appl. No. 29/539,768 in Restriction Requirement dated Oct. 27, 2016, 10 pages, <http://www.bestbuy.com/site/kitchenaid-36-built-in-gas-cooktop-stainless-steel/8636634.p?skuId=8636634>.

True-Heat burner, image post date Jan. 30, 2015, in U.S. Appl. No. 29/539,768 in Restriction Requirement dated Oct. 27, 2016, 2 pages, <http://ovens.reviewed.com/news/kitchenaid-has-a-new-flame>.

Metal Cover Gas Hob, image post date 2012, in U.S. Appl. No. 29/539,768 in Restriction Requirement dated Oct. 27, 2016, 13 pages, <http://inse.gmc.globalmarket.com/products/details/metal-cover-gas-hob-8516959.html>.

Penny Stove, image post date 2004, in U.S. Appl. No. 29/539,768 in Restriction Requirement dated Oct. 27, 2016, 30 pages, <http://www.jureystudio.com/pennystove/stoveinstruction.html>.

* cited by examiner

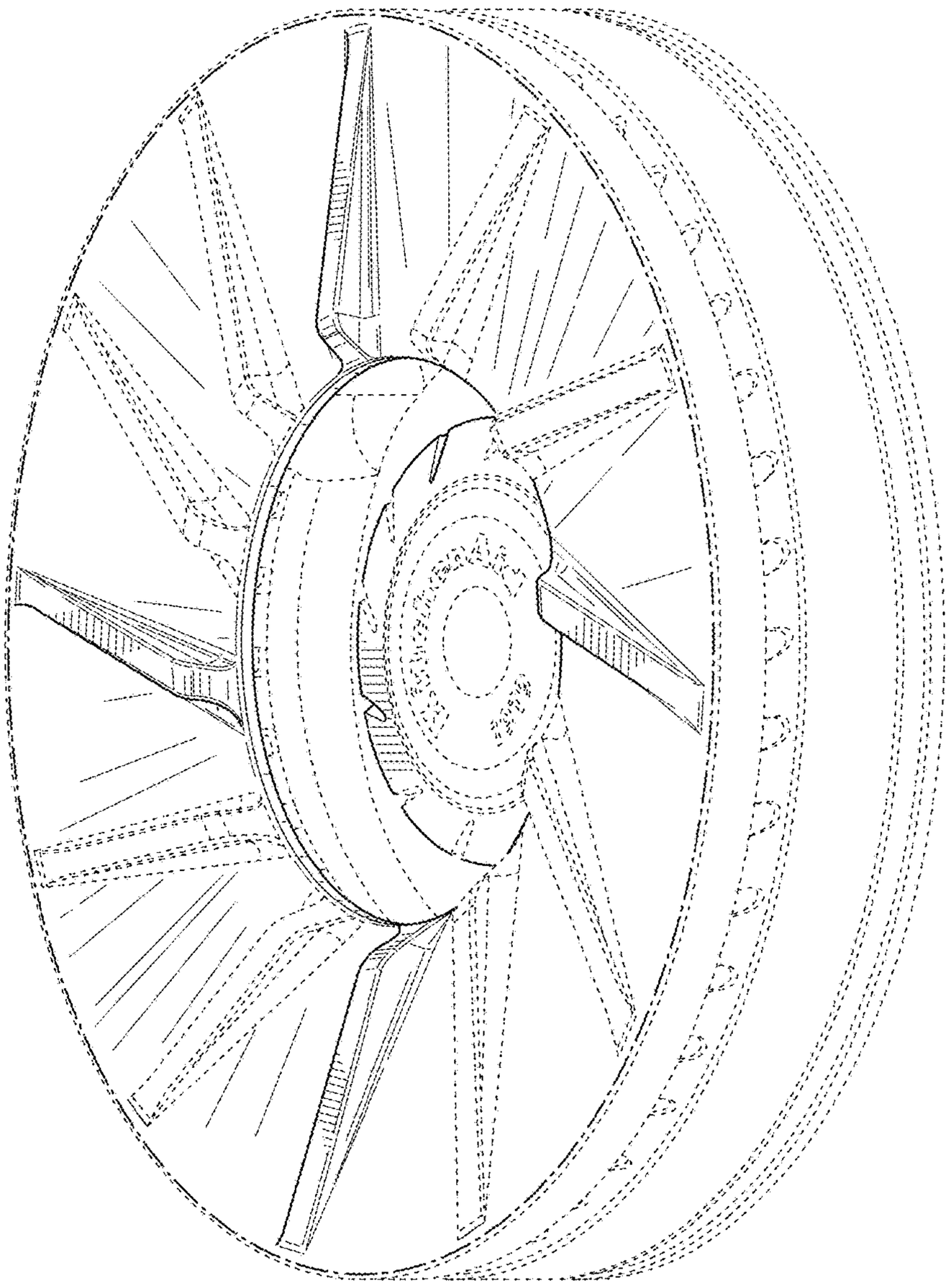


FIG. 1

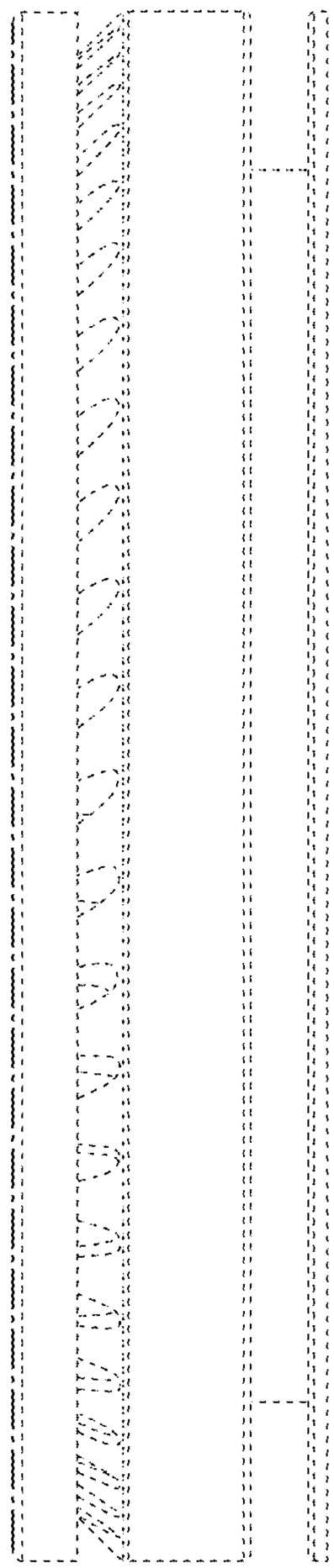


FIG. 2

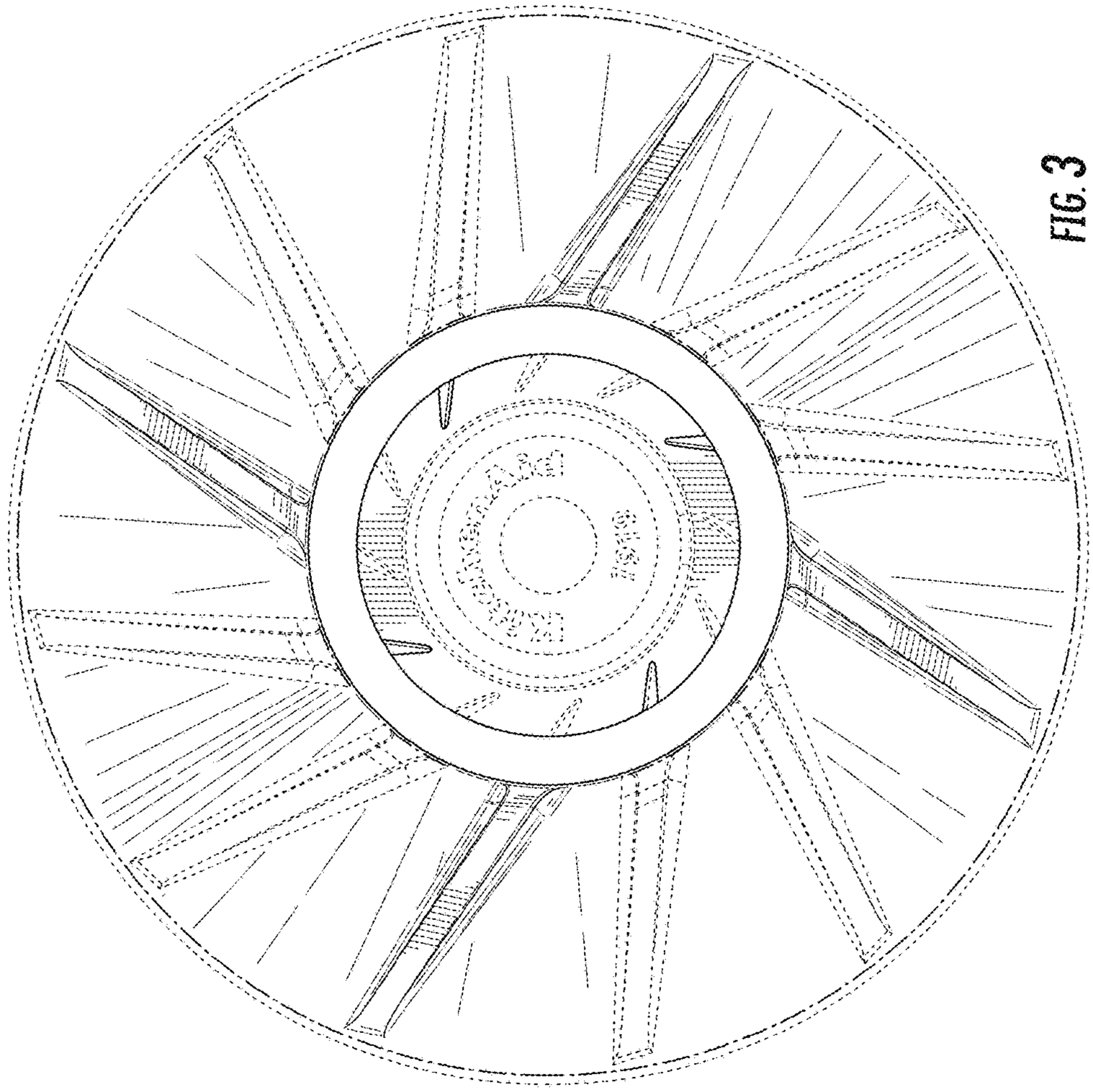


FIG. 3

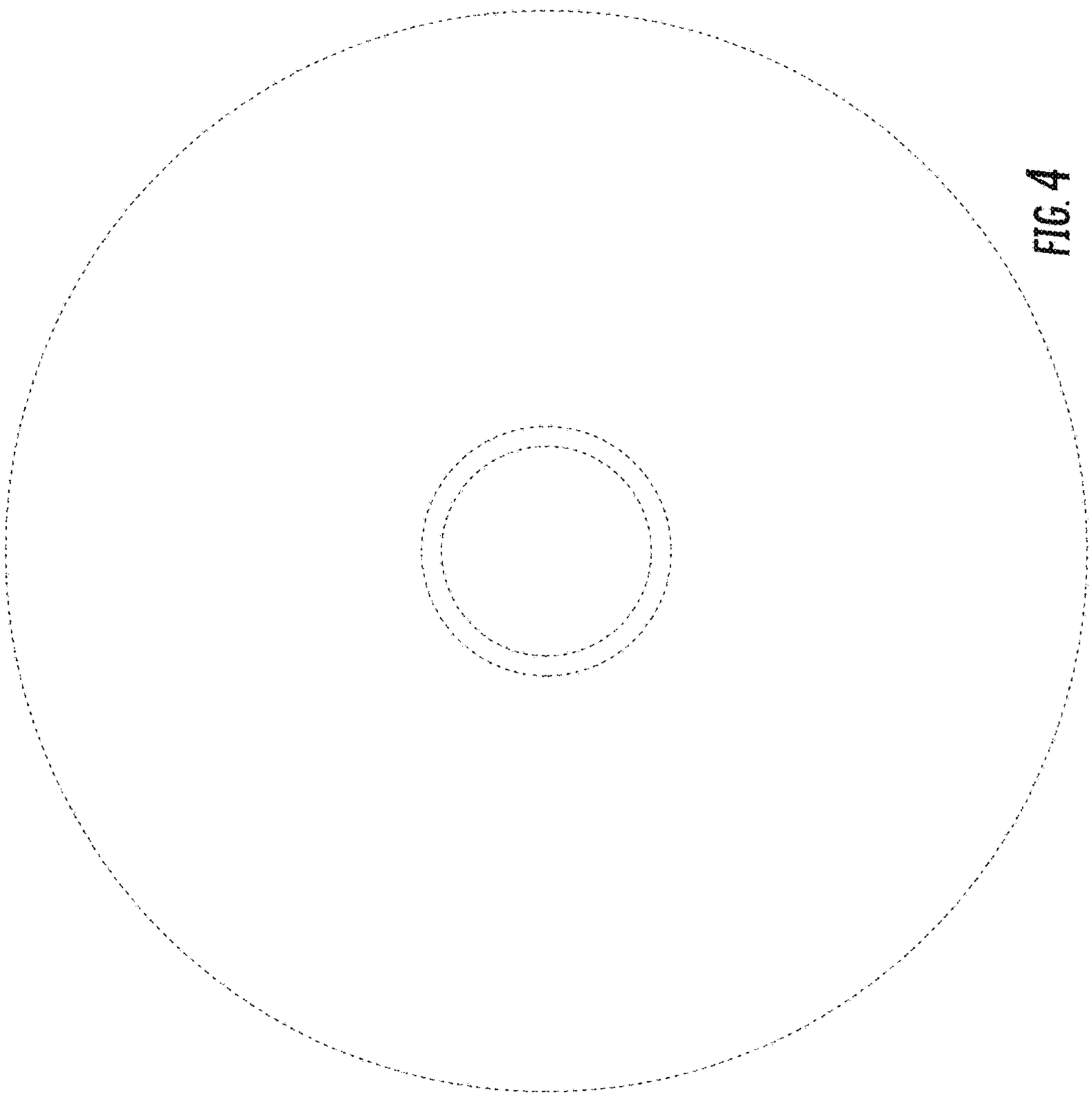


FIG. 4