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(12) **United States Design Patent** (10) **Patent No.:** **US D868,720 S**  
**Feit et al.** (45) **Date of Patent:** **\*\* Dec. 3, 2019**

(54) **ANTENNA**

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

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**Related U.S. Application Data**

(63) Continuation of application No. 29/580,049, filed on Oct. 5, 2016, now Pat. No. Des. 809,490, which is a continuation-in-part of application No. 14/308,422, filed on Jun. 18, 2014, now abandoned, and a continuation-in-part of application No. 29/430,632, filed on Aug. 28, 2012, now abandoned, which is a continuation-in-part of application No. 29/376,791, filed on Oct. 12, 2010, now Pat. No. Des. 666,178, said application No. 14/308,422 is a continuation-in-part of application No. 13/759,750, filed on Feb. 5, 2013, now Pat. No. 8,994,600, which is a continuation-in-part of application No. 12/606,636, filed on Oct. 27, 2009, now Pat. No. 8,368,607, which is a continuation-in-part of application No. 12/050,133, filed on Mar. 17, 2008,  
(Continued)

(51) **LOC (12) Cl.** ..... **14-01**

(52) **U.S. Cl.**  
USPC ..... **D14/135**

(58) **Field of Classification Search**  
USPC .... D14/230, 138, 135, 231-238, 238.1, 299,  
D14/358; D12/42, 43  
CPC ..... G01R 29/10; G01S 2013/0245; G01S  
2013/0254; G01S 2013/0263; G01S  
7/4026

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,060,098 A 11/1936 Norman  
2,220,008 A 10/1940 Woodward et al.  
(Continued)

FOREIGN PATENT DOCUMENTS

CN 201243084 Y 5/2009  
CN ZL2008200072832 5/2009  
(Continued)

OTHER PUBLICATIONS

Notice of Allowance for U.S. Appl. No. 29/580,049, filed Oct. 5, 2016 which claims priority to the same parent application as the instant application, Nov. 16, 2017, 17 pages.

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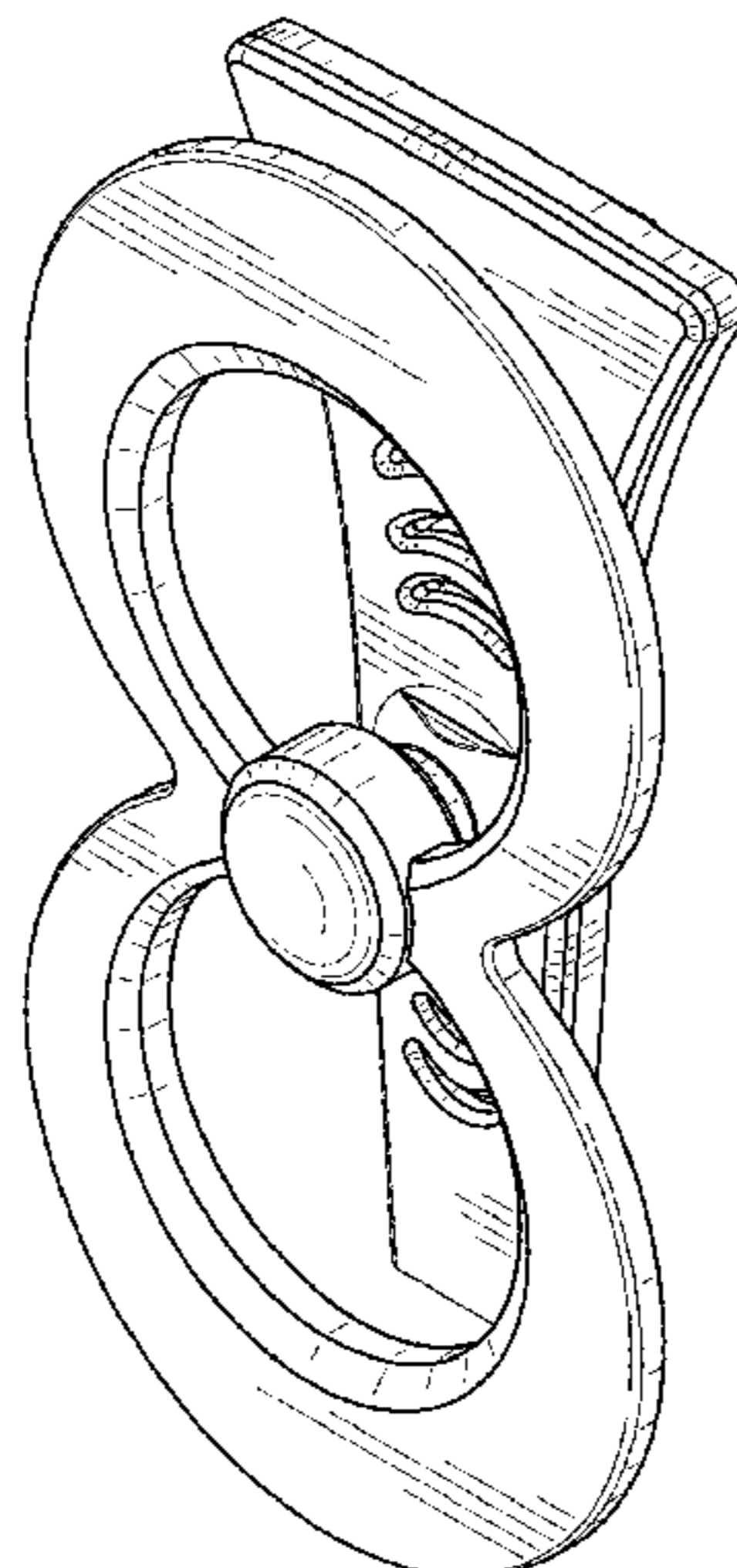
(57) **CLAIM**

The ornamental design for an antenna, as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view of an antenna, showing our new design;  
FIG. 2 is a back perspective view of the antenna shown in FIG. 1;  
FIG. 3 is a front view of the antenna shown in FIG. 1;  
FIG. 4 is a back view of the antenna shown in FIG. 1;  
FIG. 5 is a right side view of the antenna shown in FIG. 1;  
FIG. 6 is a left side view of the antenna shown in FIG. 1;  
FIG. 7 is a top view of the antenna shown in FIG. 1; and,  
FIG. 8 is a bottom view of the antenna shown in FIG. 1.

**1 Claim, 4 Drawing Sheets**



**Related U.S. Application Data**

now Pat. No. 7,609,222, which is a continuation-in-part of application No. 29/304,423, filed on Feb. 29, 2008, now Pat. No. Des. 598,433, said application No. 12/606,636 is a continuation-in-part of application No. 12/040,464, filed on Feb. 29, 2008, now Pat. No. 7,839,347, said application No. 12/606,636 is a continuation-in-part of application No. 29/305,294, filed on Mar. 17, 2008, now Pat. No. Des. 604,276, which is a continuation-in-part of application No. 12/040,464, filed on Feb. 29, 2008, now Pat. No. 7,839,347, and a continuation of application No. 12/050,133, filed on Mar. 17, 2008, now Pat. No. 7,609,222, said application No. 12/606,636 is a continuation-in-part of application No. PCT/US2008/061908, filed on Apr. 29, 2008, and a continuation-in-part of application No. 12/040,464, filed on Feb. 29, 2008, now Pat. No. 7,839,347, and a continuation-in-part of application No. 12/050,133, filed on Mar. 17, 2008, now Pat. No. 7,609,222.

(56)

**References Cited**

U.S. PATENT DOCUMENTS

2,437,251 A 3/1948 Frische et al.  
 2,480,155 A 8/1949 Masters  
 2,589,578 A 3/1952 Sabins  
 D170,203 S 8/1953 Leonard  
 D171,560 S 2/1954 Ritter  
 D177,200 S 3/1956 Valiulis  
 D179,111 S 11/1956 Ballan  
 2,821,710 A 1/1958 Hale  
 3,015,101 A 12/1961 Turner et al.  
 3,123,826 A 3/1964 Durham  
 3,161,975 A 12/1964 McMillan  
 3,239,838 A 3/1966 Kelleher  
 3,261,019 A 7/1966 Lundy  
 3,273,158 A 9/1966 Fouts et al.  
 D209,402 S 11/1967 Burlingame  
 D211,025 S 5/1968 Callaghan  
 3,434,145 A 3/1969 Wells  
 3,521,284 A 7/1970 Strom et al.  
 3,560,983 A 2/1971 Willie et al.  
 3,587,105 A 6/1971 Neilson  
 3,721,990 A 3/1973 Gibson et al.  
 3,739,388 A 6/1973 Callaghan  
 3,828,867 A 8/1974 Elwood  
 3,971,031 A 7/1976 Burke  
 4,183,027 A 1/1980 Ehrenspeck  
 4,184,163 A 1/1980 Woodward  
 4,418,427 A 11/1983 Muterspaugh  
 D308,521 S 6/1990 Lonczak  
 D310,671 S 9/1990 Weiss  
 4,987,424 A 1/1991 Tamura et al.  
 D318,673 S 7/1991 Terk  
 D327,690 S 7/1992 Ogawa et al.  
 D332,262 S 1/1993 Borchardt  
 5,280,645 A 1/1994 Nguyen et al.  
 D344,731 S 3/1994 Witzky  
 D345,982 S 4/1994 Lucey  
 5,313,218 A 5/1994 Busking  
 5,943,025 A 8/1999 Benham et al.  
 D414,495 S 9/1999 Heiligenstein et al.  
 D421,610 S 3/2000 Ghalebi  
 6,054,963 A 4/2000 Muterspaugh  
 6,239,764 B1 5/2001 Timofeev et al.  
 D449,593 S 10/2001 Schultz  
 6,590,541 B1 7/2003 Schultze  
 6,593,886 B2 7/2003 Schantz  
 D480,714 S 10/2003 Wang  
 6,680,708 B2 1/2004 Yamaki  
 D501,468 S 2/2005 Wang  
 6,885,352 B2 4/2005 Lee et al.

6,917,793 B2 7/2005 Wang  
 7,091,925 B1 8/2006 Wang  
 7,126,556 B1 10/2006 Wang  
 7,209,089 B2 4/2007 Schantz  
 D544,471 S 6/2007 Wang  
 7,239,290 B2 7/2007 Poilasne et al.  
 7,245,266 B1 7/2007 Szente et al.  
 D558,189 S 12/2007 Inoue  
 7,356,362 B2 4/2008 Tomiya et al.  
 7,436,973 B2 10/2008 Liao  
 D581,931 S 12/2008 Pine  
 D585,883 S 2/2009 Kaneko  
 D598,433 S 8/2009 Schneider et al.  
 D598,434 S 8/2009 Schneider et al.  
 D598,469 S 8/2009 Harris, Jr.  
 7,609,222 B2 10/2009 Schneider et al.  
 D604,276 S 11/2009 Schneider et al.  
 D611,460 S 3/2010 Chao  
 7,693,570 B2 4/2010 Green et al.  
 D624,531 S 9/2010 Fleck et al.  
 7,839,347 B2 11/2010 Schneider et al.  
 7,839,351 B2 11/2010 Schadler et al.  
 7,898,496 B2 3/2011 Olsen et al.  
 D638,031 S 5/2011 Lee et al.  
 7,936,311 B2 5/2011 Rowser et al.  
 7,990,335 B2 8/2011 Schneider et al.  
 D655,692 S 3/2012 Silverman et al.  
 8,144,069 B2 3/2012 Sadowski et al.  
 8,174,457 B1 5/2012 Lam  
 D664,564 S 7/2012 Gillett et al.  
 D666,178 S 8/2012 Schneider et al.  
 8,368,607 B2 2/2013 Schneider et al.  
 8,736,500 B1 5/2014 Lam  
 D721,737 S 1/2015 Ahn et al.  
 8,994,600 B2 3/2015 Schneider et al.  
 D809,490 S \* 2/2018 Feit ..... D14/230  
 D815,073 S \* 4/2018 Feit ..... D14/230  
 D824,884 S \* 8/2018 Ross, III ..... D14/230  
 D831,010 S \* 10/2018 Yang ..... D14/230  
 D837,769 S \* 1/2019 Yang ..... D14/230  
 D838,697 S \* 1/2019 Yang ..... D14/230  
 D849,722 S \* 5/2019 Yang ..... D14/230  
 D850,425 S \* 6/2019 Yang ..... D14/230  
 2002/0158798 A1 10/2002 Chiang et al.  
 2003/0071757 A1 4/2003 Yamaki  
 2004/0090379 A1 5/2004 Fourdeux et al.  
 2004/0090385 A1 5/2004 Green  
 2004/0113841 A1 6/2004 Louzir et al.  
 2004/0217912 A1 11/2004 Mohammadian  
 2005/0088342 A1 \* 4/2005 Parsche ..... H01Q 1/38  
 343/700 MS  
 2005/0162332 A1 7/2005 Schantz  
 2005/0259023 A1 11/2005 Wang  
 2005/0280582 A1 \* 12/2005 Powell ..... H01Q 1/36  
 343/700 MS  
 2006/0033665 A1 2/2006 Yang  
 2006/0055618 A1 3/2006 Poilasne et al.  
 2006/0077115 A1 4/2006 Oh et al.  
 2006/0103577 A1 5/2006 Lee  
 2006/0164304 A1 7/2006 Huang et al.  
 2007/0069955 A1 3/2007 McCorkle  
 2007/0200769 A1 8/2007 Nakano et al.  
 2008/0040464 A1 2/2008 Chia  
 2008/0094291 A1 4/2008 Bystrom et al.  
 2008/0211720 A1 9/2008 Hansen  
 2008/0258980 A1 10/2008 Chen et al.  
 2008/0291345 A1 11/2008 Schneider  
 2009/0058732 A1 3/2009 Nakano et al.  
 2009/0073067 A1 3/2009 Soler Castany et al.  
 2009/0146899 A1 6/2009 Schneider et al.  
 2010/0085269 A1 4/2010 Sadowski et al.

FOREIGN PATENT DOCUMENTS

CN ZL2008301199963 5/2009  
 CN 101453057 A 6/2009  
 CN ZL2008301199978 7/2009  
 CN ZL2008300091398 9/2009  
 CN 203707328 U 7/2014

(56)

**References Cited**

FOREIGN PATENT DOCUMENTS

EM	000946587		5/2008
EP	1555717	A1	7/2005
EP	1653560	A1	5/2006
EP	1753080	A1	2/2007
GB	2263360	A	7/1993
JP	D1213590		6/2004
TW	M249233	U	11/2004
TW	D112283		8/2006
TW	D119092		9/2007
TW	200926506	A	6/2009
TW	D129744		7/2009
TW	D129745		7/2009
TW	D129746		7/2009
WO	WO-2009073249	A1	6/2009

\* cited by examiner

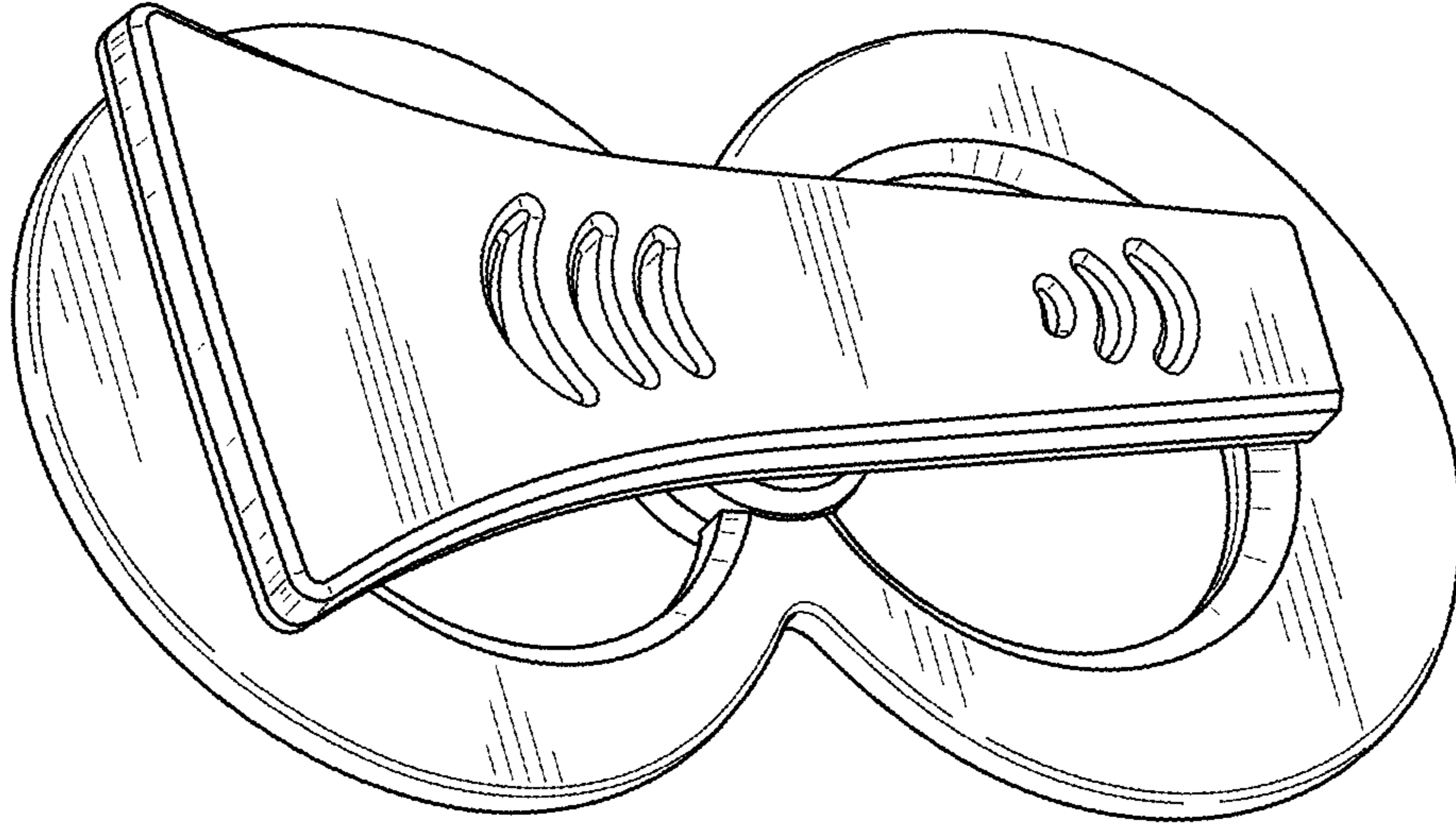


FIG. 2

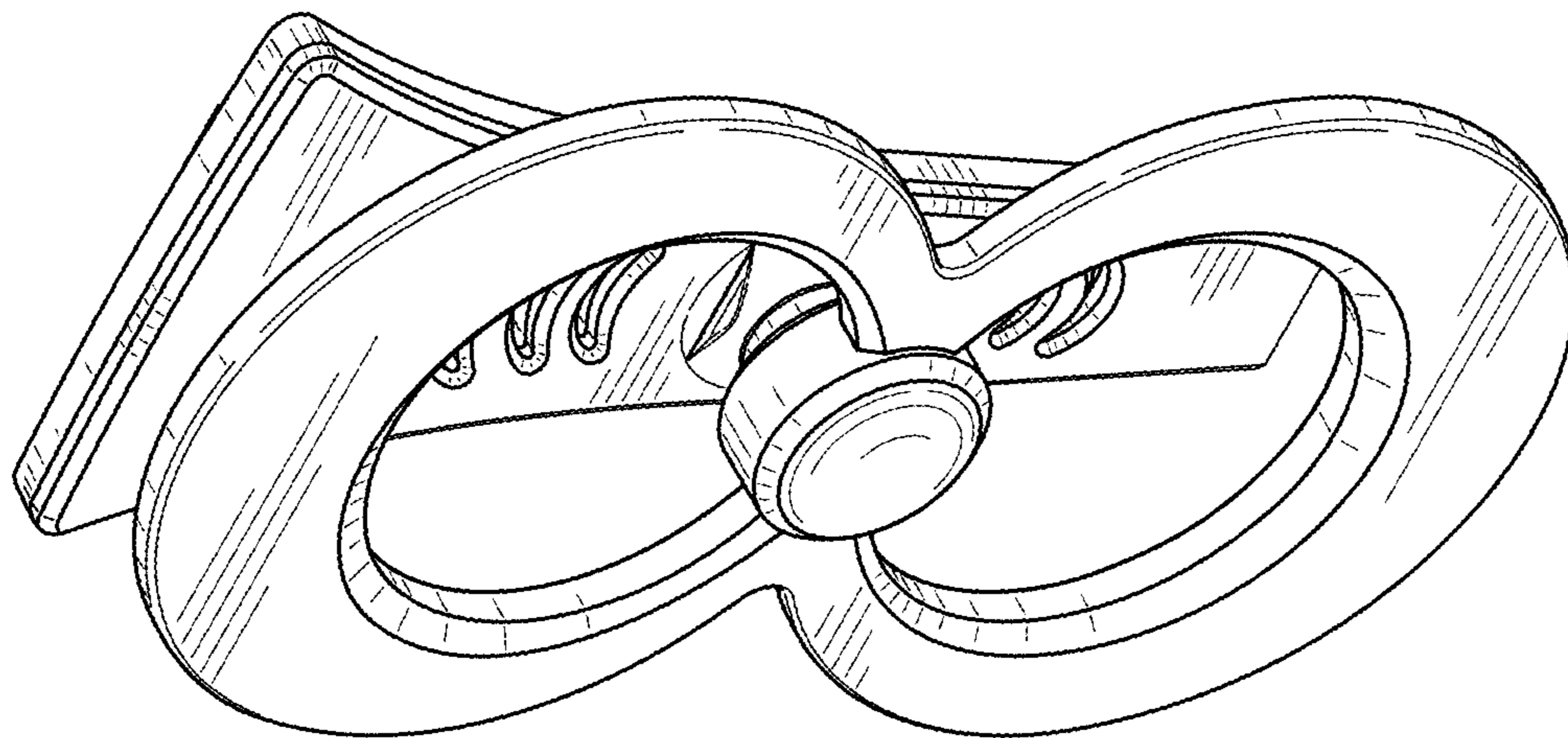


FIG. 1

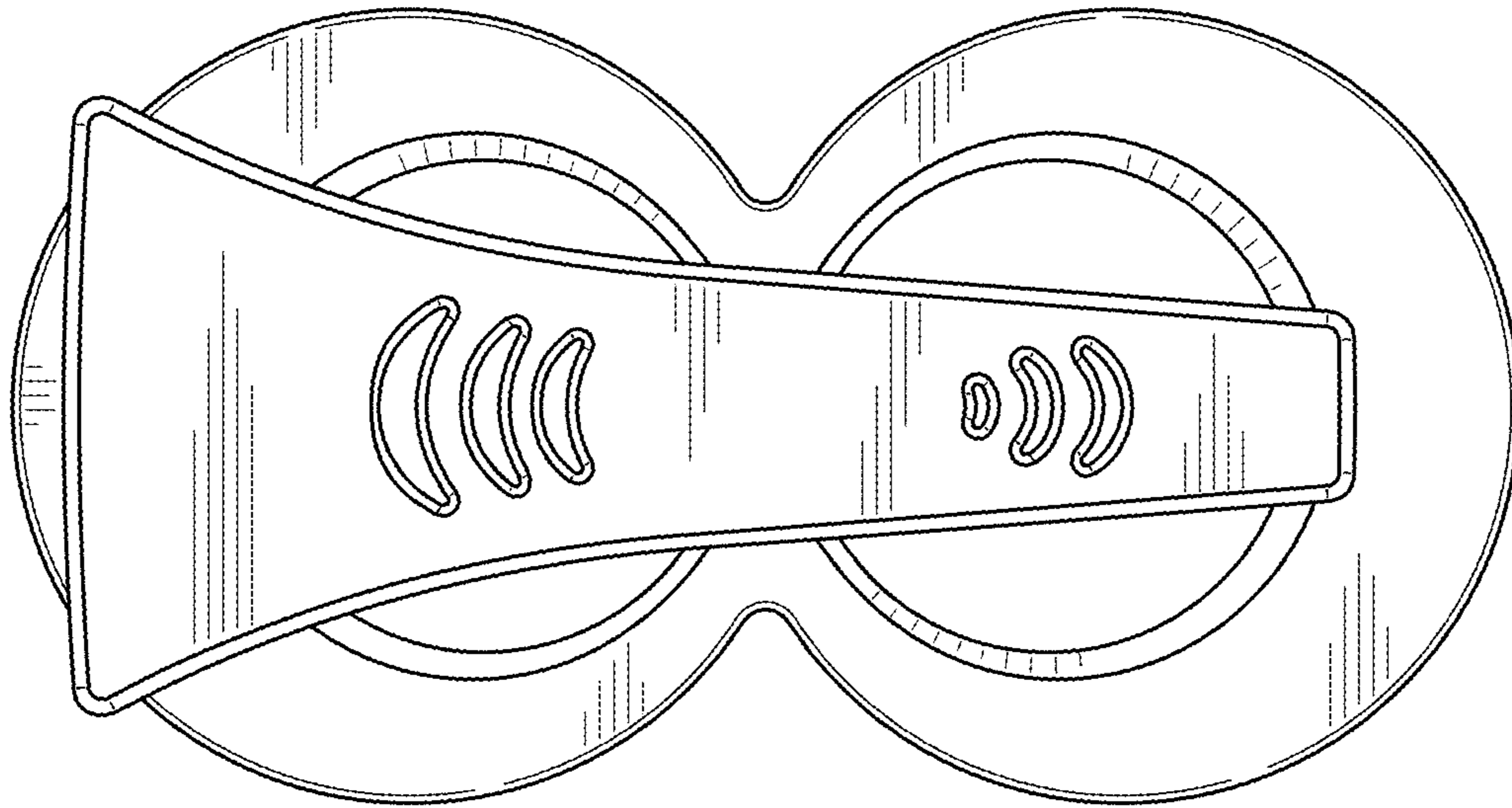


FIG. 4

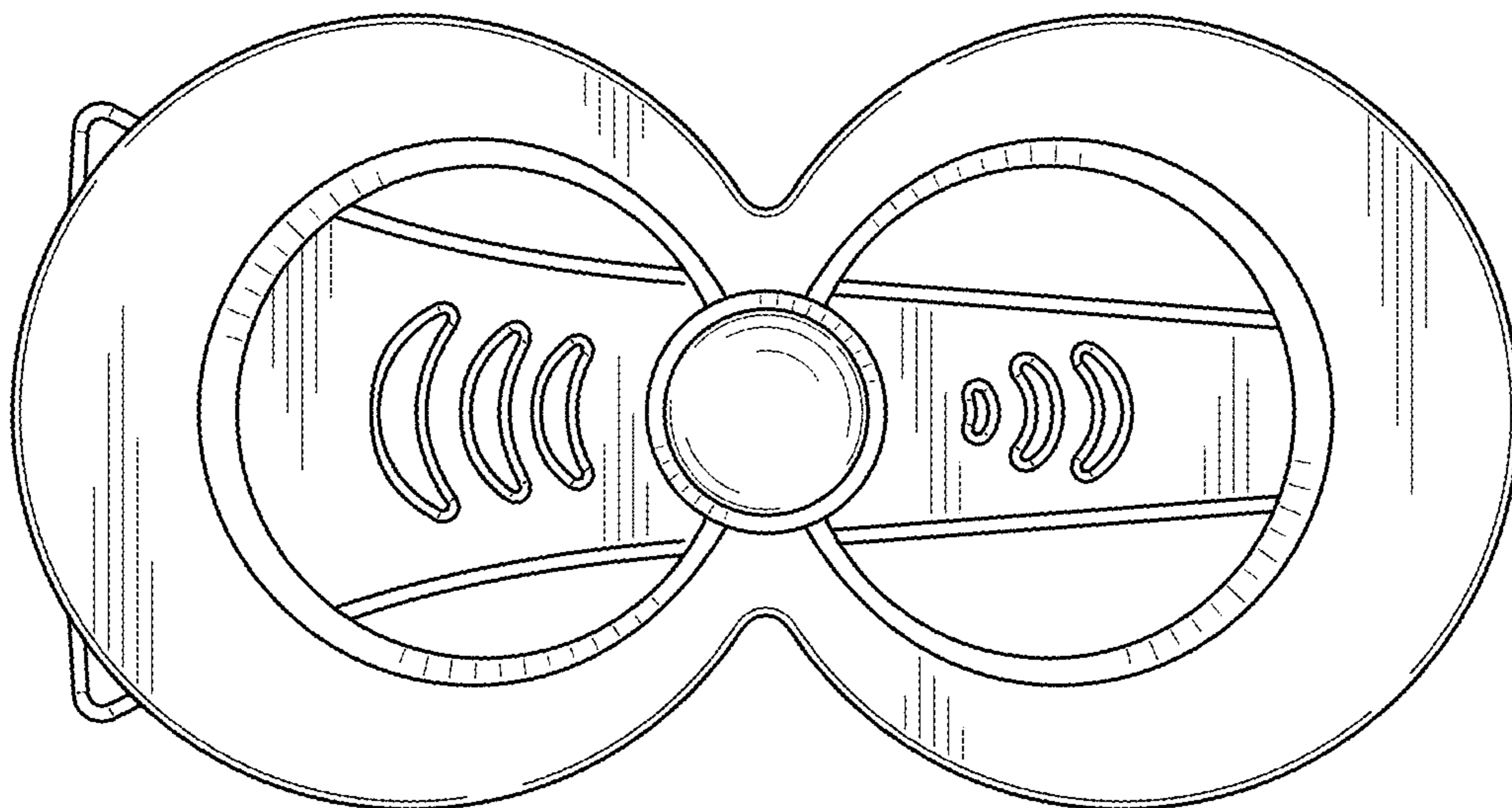


FIG. 3

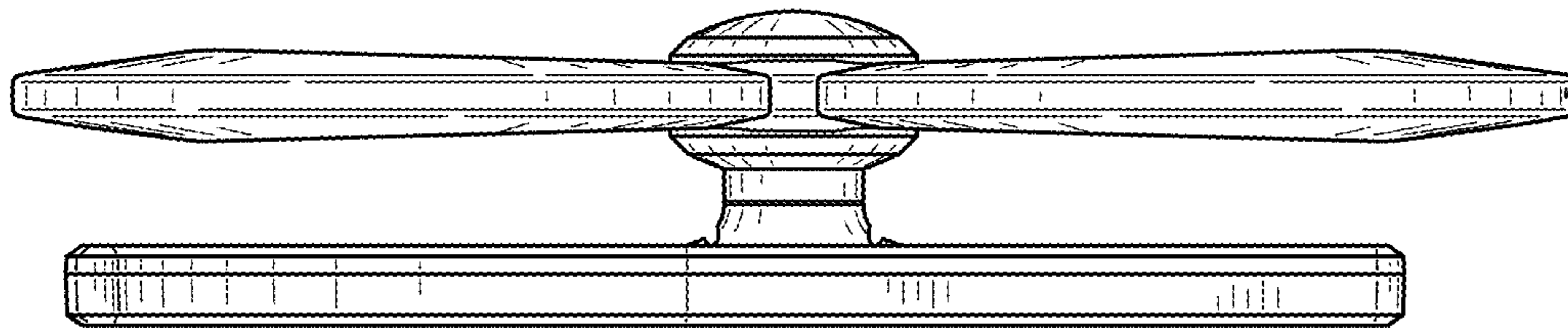


FIG. 6

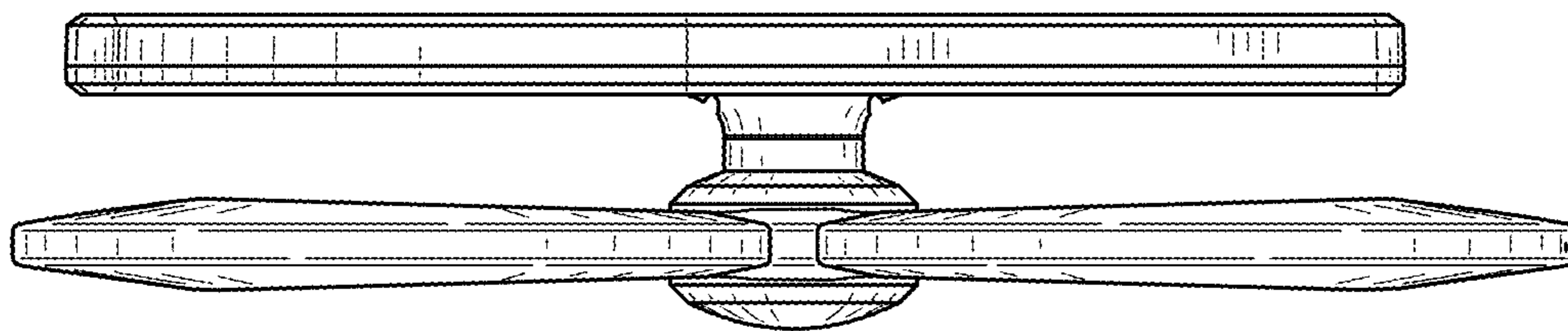


FIG. 5

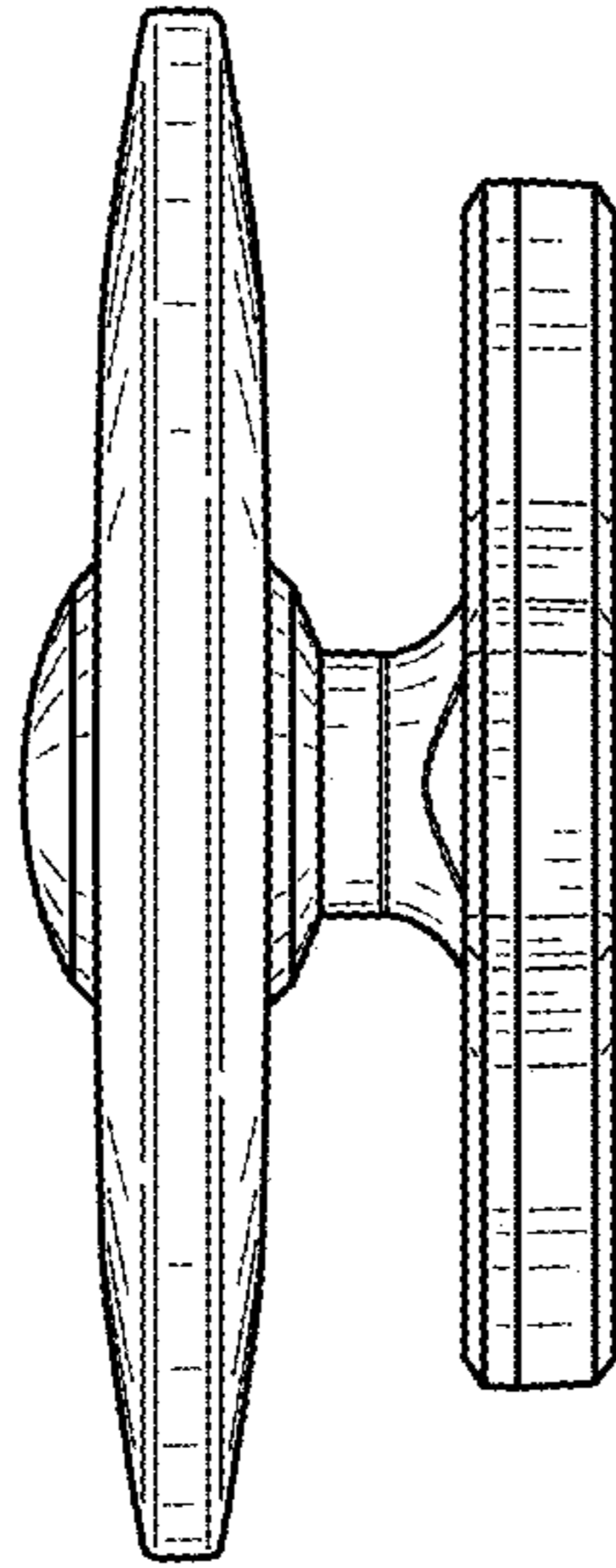


FIG. 8

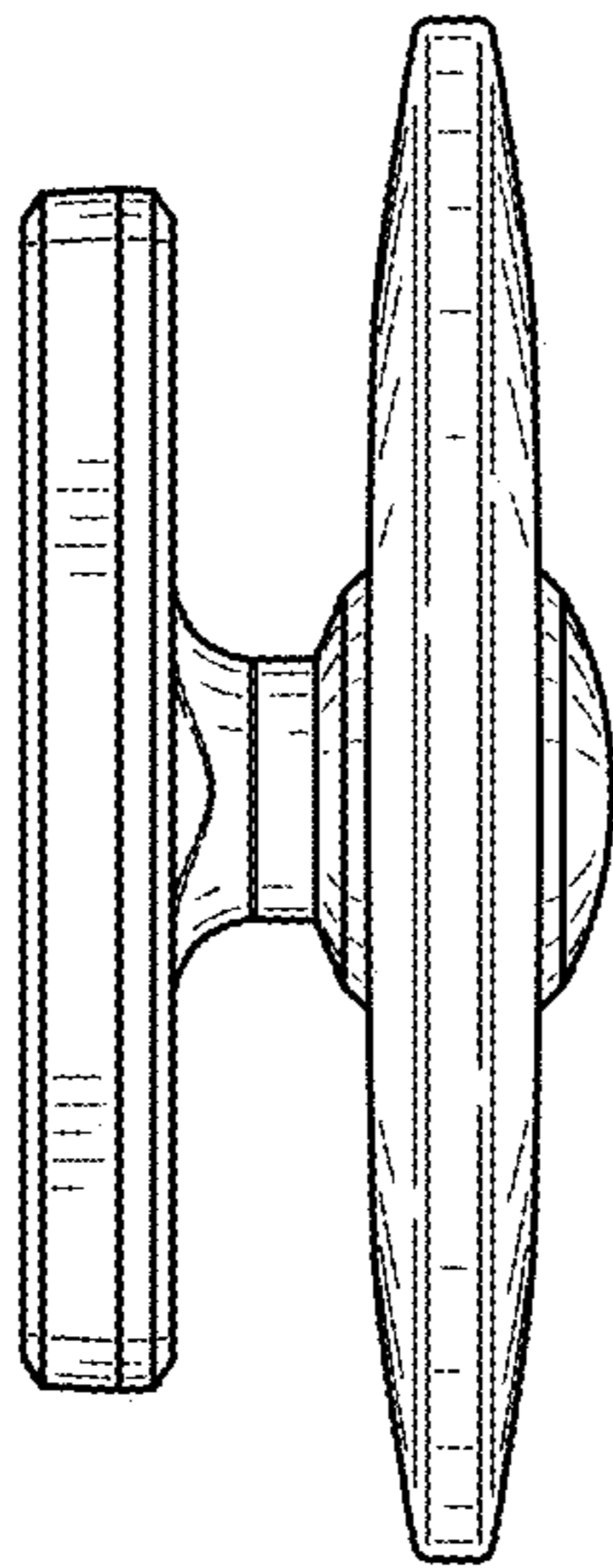


FIG. 7