



US00D883778S

(12) **United States Design Patent** (10) **Patent No.:** **US D883,778 S**
Koelling et al. (45) **Date of Patent:** **** May 12, 2020**

(54) **CHANNEL LOCK FASTENER**
(71) Applicant: **Lockdowel, Inc.**, Fremont, CA (US)
(72) Inventors: **Fred Koelling**, Foster City, CA (US);
Bryan Koelling, Carmel Valley, CA (US); **Daniel Savage**, San Mateo, CA (US); **Hoang Dang**, San Jose, CA (US)
(73) Assignee: **Lockdowel, Inc.**, Fremont, CA (US)

3,674,068 A 7/1972 Lucci
3,752,553 A 8/1973 Bildahl et al.
3,894,377 A 7/1975 Welch
4,199,907 A 4/1980 Bains
4,258,464 A 3/1981 Ullman, Jr.
4,332,205 A 6/1982 Corl
4,922,678 A 5/1990 Scheiwiler
4,932,105 A 6/1990 Muller
4,942,709 A 7/1990 Waldron
(Continued)

(**) Term: **15 Years**
(21) Appl. No.: **29/698,854**
(22) Filed: **Jul. 19, 2019**

FOREIGN PATENT DOCUMENTS

CA 2280528 A1 4/2000
CN 103 216 505 A 7/2013
(Continued)

Related U.S. Application Data

(63) Continuation of application No. 16/216,901, filed on Dec. 11, 2018, which is a continuation of application No. 15/215,506, filed on Jul. 20, 2016, now Pat. No. 10,197,081.
(60) Provisional application No. 62/245,211, filed on Oct. 22, 2015, provisional application No. 62/194,800, filed on Jul. 20, 2015.
(51) **LOC (12) Cl.** **08-09**
(52) **U.S. Cl.**
USPC **D8/402; D6/300**
(58) **Field of Classification Search**
USPC D8/382, 393, 394, 402, 403, 384;
D6/300
CPC A47G 1/10; F16B 12/24; A47B 2230/0062
See application file for complete search history.

OTHER PUBLICATIONS

International Search Report, dated Nov. 28, 2016, for corresponding International Application No. PCT/US2016/043205.
(Continued)

Primary Examiner — Keli L Hill
Assistant Examiner — Harold E Blackwell, II
(74) *Attorney, Agent, or Firm* — Intellectual Property Law Group LLP

(56) **References Cited**

U.S. PATENT DOCUMENTS

979,853 A 12/1910 Hartshorn
3,310,327 A 3/1967 Tremblay
3,336,689 A * 8/1967 Miller A47G 1/06
40/782

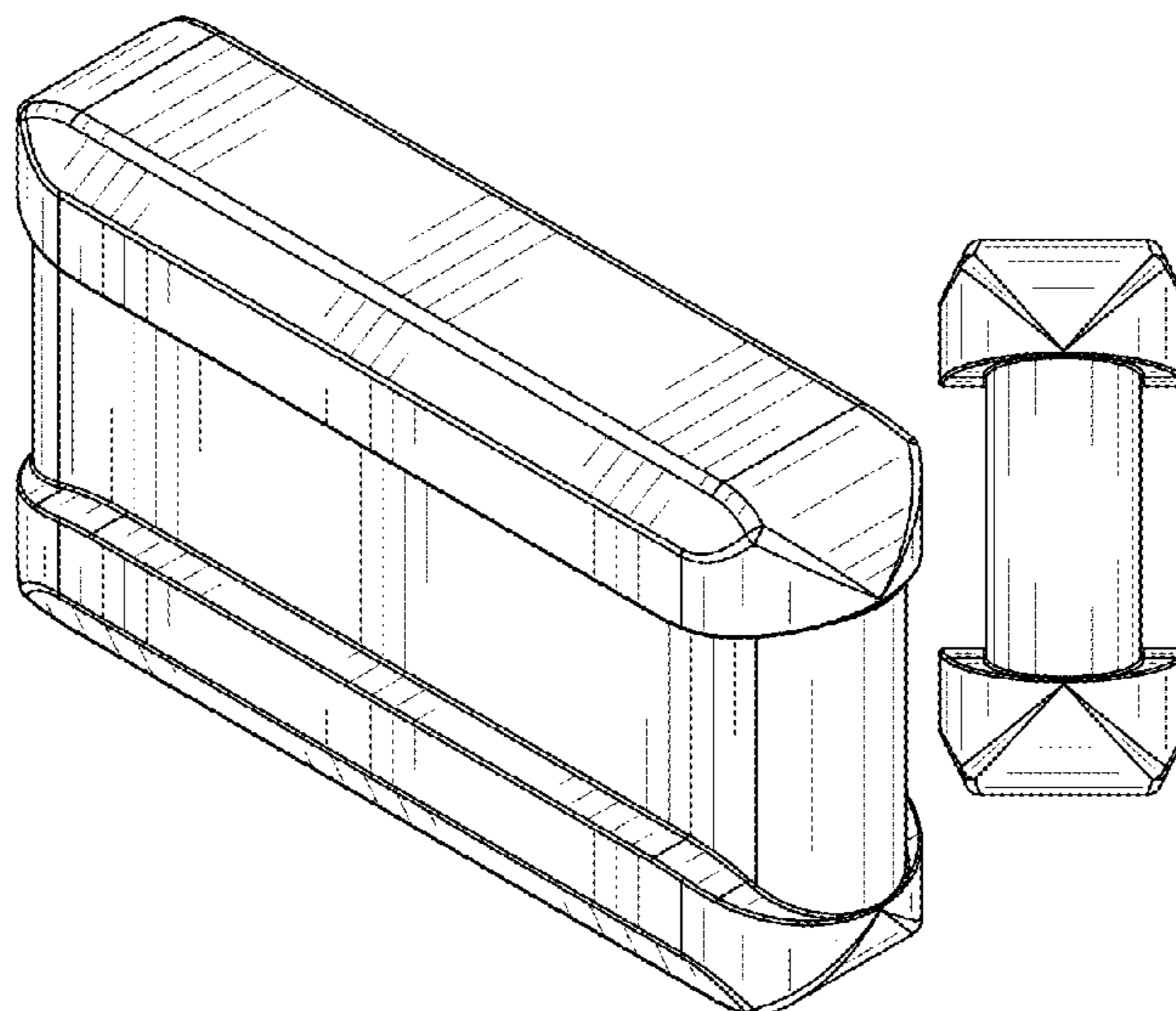
(57) **CLAIM**

The ornamental design for a channel lock fastener, as shown and described.

DESCRIPTION

FIG. 1 is perspective view of a channel lock fastener embodying our new design;
FIG. 2 is a front elevational view thereof, the rear elevational view being a mirror image thereof;
FIG. 3 is a top plan view thereof, the bottom plan view being a mirror image thereof; and,
FIG. 4 is a right side elevational view thereof, the left side elevational view being a mirror image thereof.

1 Claim, 2 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D309,985 S * 8/1990 Cox D6/300
 5,090,835 A 2/1992 Cox
 5,380,119 A 1/1995 Hadden
 5,430,983 A 7/1995 Taipalensuu
 D377,601 S 1/1997 Kozyrski
 5,636,934 A 6/1997 Nakanishi et al.
 D384,271 S * 9/1997 Kozyrski D6/300
 5,934,486 A 8/1999 Jarvis et al.
 6,186,698 B1 2/2001 Knapp
 6,761,008 B2 7/2004 Chen et al.
 7,225,751 B2 6/2007 Rueckert
 8,104,989 B2 1/2012 Liu et al.
 8,147,162 B1 * 4/2012 Burnett F16B 5/0052
 312/263
 8,549,796 B2 10/2013 Heather
 8,608,407 B1 12/2013 Vaughn et al.
 8,641,315 B2 * 2/2014 Liu A47B 95/00
 403/297
 8,821,594 B2 9/2014 Burgazli et al.
 9,051,953 B2 6/2015 Imel et al.
 9,810,253 B2 * 11/2017 Koelling F16B 12/24
 10,113,575 B2 * 10/2018 Baur F16B 12/20
 10,197,081 B2 * 2/2019 Koelling F16B 12/125
 D857,487 S * 8/2019 Thompson D8/390
 D859,134 S * 9/2019 Iacono D8/382
 2003/0026651 A1 2/2003 Ley
 2004/0067098 A1 4/2004 Sun
 2004/0223805 A1 11/2004 Benedetti et al.
 2005/0097851 A1 5/2005 Lubera et al.
 2006/0174579 A1 8/2006 Matson
 2008/0159806 A1 7/2008 Niswonger

2009/0151616 A1* 6/2009 Han B63B 35/38
 114/266
 2010/0003077 A1 1/2010 Kelley
 2010/0079045 A1 4/2010 Yeh
 2010/0254757 A1 10/2010 Saul
 2011/0085853 A1 4/2011 Liu
 2011/0255915 A1 10/2011 Chen et al.
 2012/0301217 A1 11/2012 Liu et al.
 2012/0321378 A1 12/2012 Velez, Jr.
 2013/0239509 A1 9/2013 Wang
 2013/0287484 A1 10/2013 Phillips
 2014/0150368 A1 6/2014 MacDonald
 2014/0294498 A1 10/2014 Logan
 2015/0147113 A1 5/2015 Crabtree
 2015/0354612 A1 12/2015 Koch
 2017/0023041 A1* 1/2017 Koelling F16B 12/24
 2017/0023043 A1* 1/2017 Koelling F16B 12/125

FOREIGN PATENT DOCUMENTS

DE 295 11 055 2/1996
 DE 10 2011 122 697 6/2013
 JP S05126547 U 10/1975
 WO WO 2015/158622 A1 10/2015
 WO WO 2016/133455 A1 8/2016

OTHER PUBLICATIONS

Written Opinion of the International Searching Authority, dated Nov. 28, 2016, for corresponding International Application No. PCT/US2016/043205.

* cited by examiner

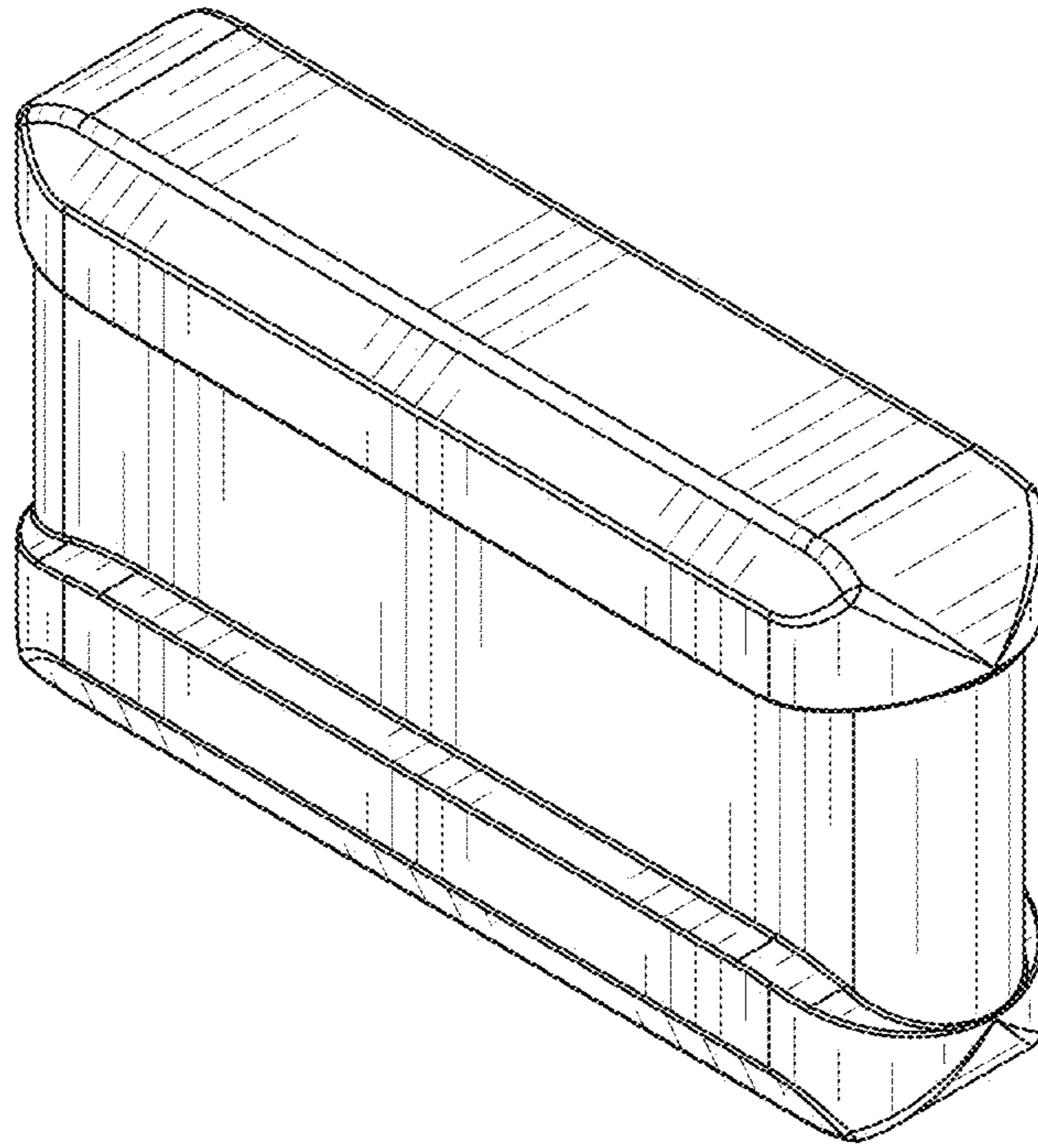


FIG. 1

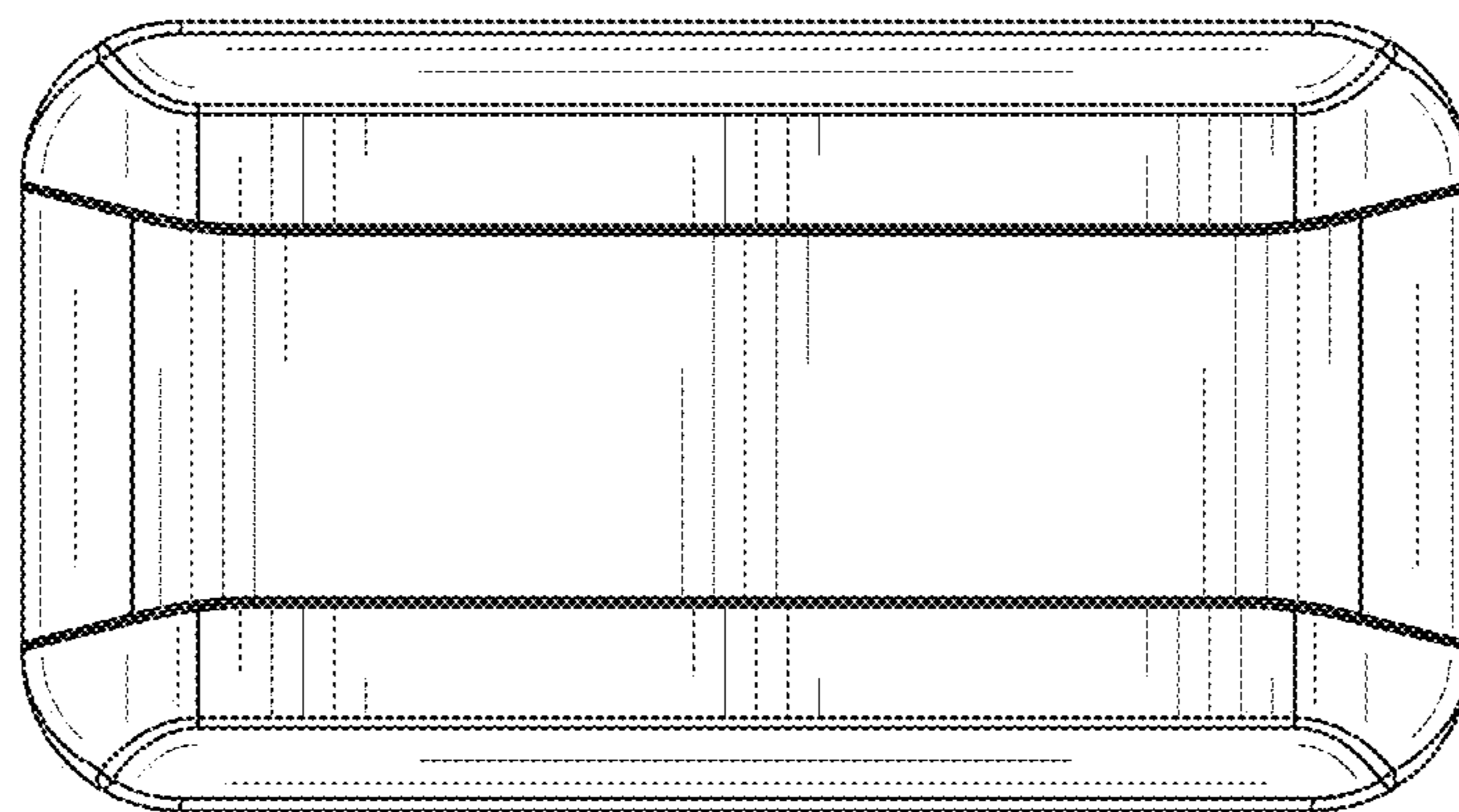


FIG. 2

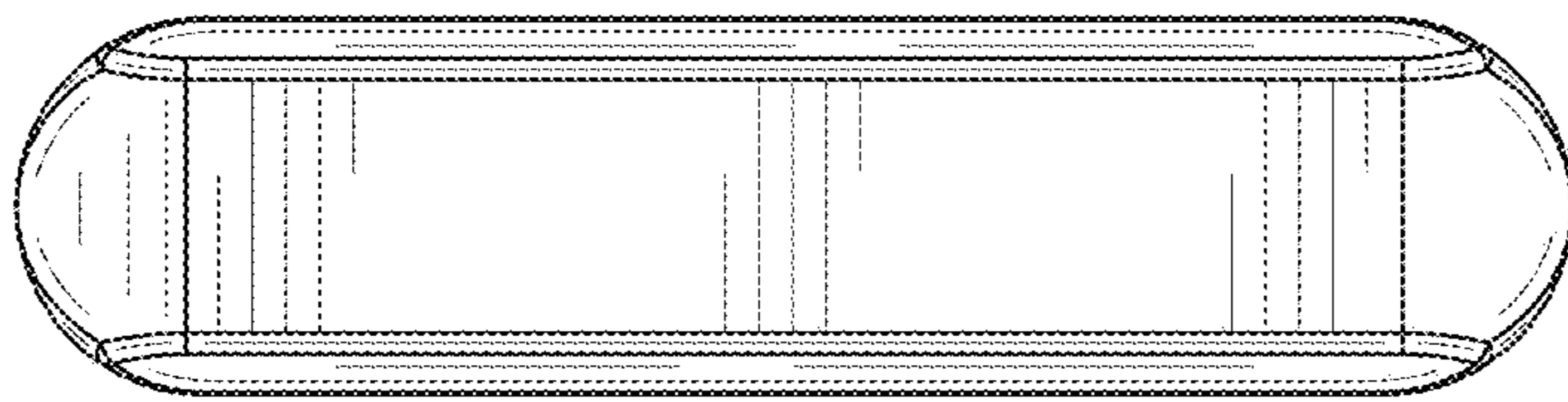


FIG. 3

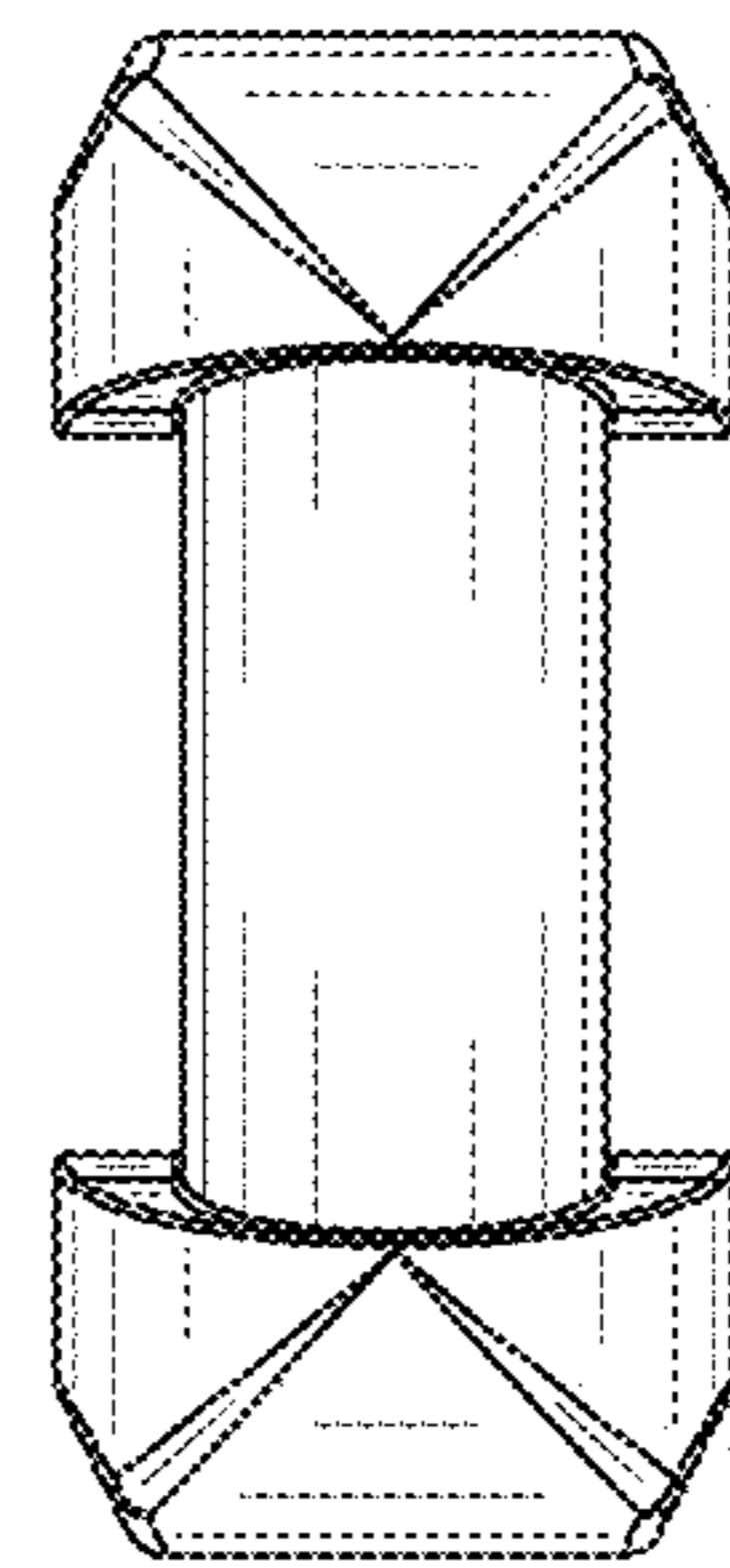


FIG. 4