



US00D909190S

(12) **United States Design Patent** (10) **Patent No.:** **US D909,190 S**  
**Koelling et al.** (45) **Date of Patent:** **\*\* Feb. 2, 2021**

- (54) **CHANNEL LOCK FASTENER**
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- (\*\*) Term: **15 Years**
- (21) Appl. No.: **29/734,146**
- (22) Filed: **May 8, 2020**

- (56) **References Cited**
- U.S. PATENT DOCUMENTS
- |             |         |                |
|-------------|---------|----------------|
| 979,853 A   | 12/1910 | Hartshorn      |
| 3,310,327 A | 3/1967  | Tremblay       |
| 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.    |
- (Continued)

FOREIGN PATENT DOCUMENTS

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

OTHER PUBLICATIONS

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

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(57) **CLAIM**  
The ornamental design for a channel lock fastener, as shown and described.

**DESCRIPTION**

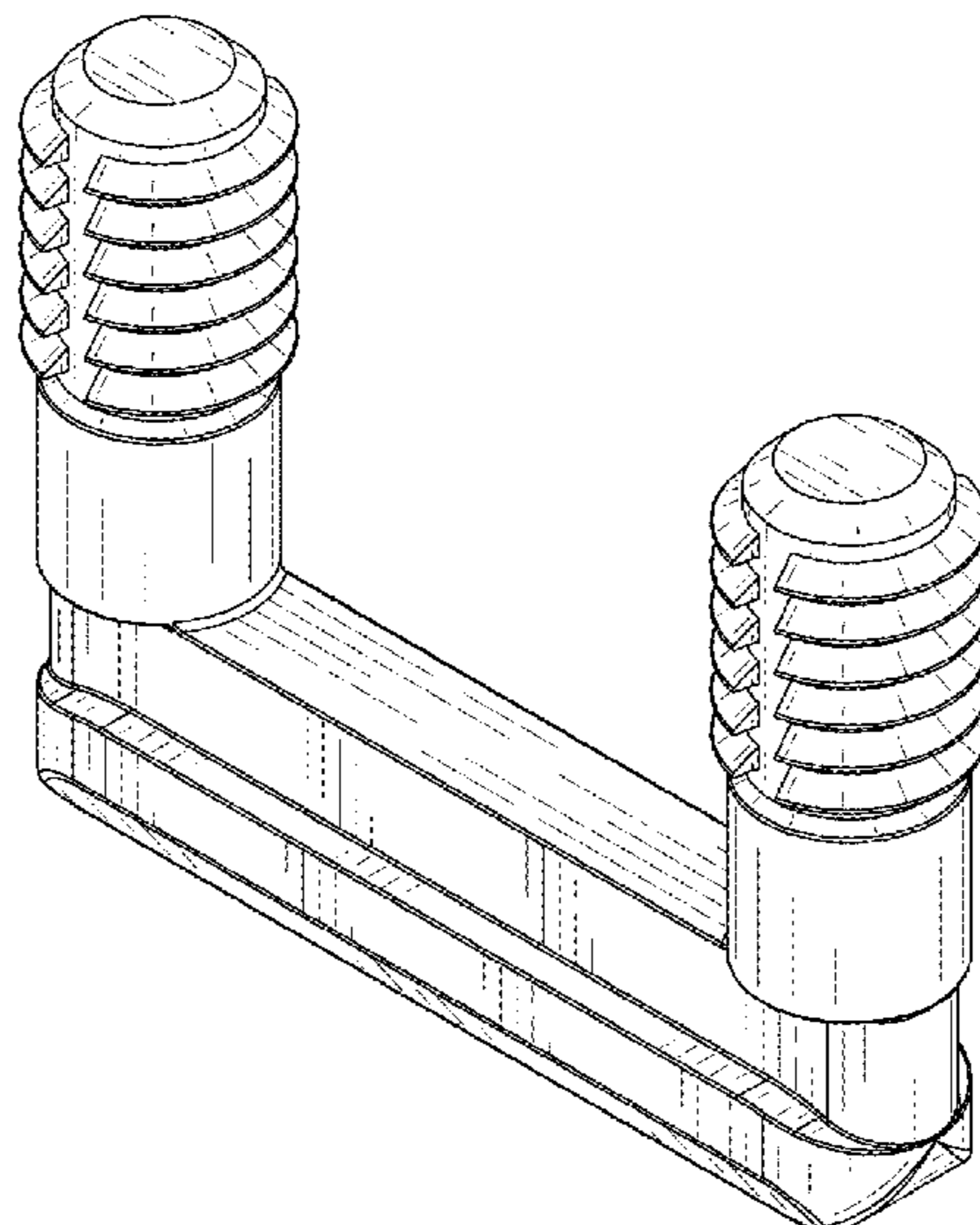
FIG. 1 is perspective view of a channel lock fastener embodying our new design;  
FIG. 2 is a front elevational view thereof, the rear elevational view being a mirror image thereof;  
FIG. 3 is a right side elevational view thereof, the left side elevational view being a mirror image thereof;  
FIG. 4 is a top plan view thereof; and,  
FIG. 5 is a bottom plan view thereof.

**1 Claim, 2 Drawing Sheets**

**Related U.S. Application Data**

- (60) Division of application No. 29/698,855, filed on Jul. 19, 2019, now Pat. No. Des. 885,171, which is a 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.
- (51) **LOC (13) Cl.** ..... **08-08**
- (52) **U.S. Cl.**  
USPC ..... **D8/382**; D8/387; D8/390
- (58) **Field of Classification Search**  
USPC ..... D8/349, 354, 372, 382, 385, 387, 388, D8/389, 390, 391; D6/328, 329, 703, D6/572, 622, 702, 705  
CPC ..... F16B 12/20; F16B 12/22; F16B 12/24; F16B 12/26; F16B 12/125; F16B 12/10; F16B 2012/103; F16B 2012/106; A47B 47/04; A47B 47/025; A47B 47/042; A47B 2230/0077; A47B 2230/0081; A47B 47/0025; A47B 96/06; A47F 5/10; A61B 17/064; A61B 17/068

See application file for complete search history.



(56)

References Cited

U.S. PATENT DOCUMENTS

4,332,205 A 6/1982 Corl  
 4,634,309 A \* 1/1987 Dewey ..... F16B 12/24  
 403/231  
 D294,676 S \* 3/1988 Egner ..... D8/382  
 4,922,678 A 5/1990 Scheiwiller  
 4,932,105 A 6/1990 Muller  
 4,942,709 A 7/1990 Waldron  
 D309,985 S \* 8/1990 Cox ..... D6/300  
 5,090,835 A 2/1992 Cox  
 5,380,119 A 1/1995 Hadden  
 D356,729 S \* 3/1995 Kassouni ..... D8/387  
 5,430,983 A 7/1995 Taipalensuu  
 D377,601 S 1/1997 Kozyrski  
 5,611,637 A \* 3/1997 Brustle ..... A47B 88/00  
 403/297  
 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.  
 8,549,796 B2 10/2013 Heather  
 8,608,407 B1 12/2013 Vaughn et al.  
 8,641,315 B2 2/2014 Liu et al.  
 8,821,594 B2 9/2014 Burgazli et al.  
 9,051,953 B2 6/2015 Imel et al.  
 D857,487 S \* 8/2019 Thompson ..... D8/390  
 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  
 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  
 2015/0219137 A1 \* 8/2015 Koelling ..... F16B 21/082  
 29/453  
 2015/0354612 A1 12/2015 Koch  
 2017/0023041 A1 \* 1/2017 Koelling ..... A47B 47/04  
 2017/0023043 A1 \* 1/2017 Koelling ..... F16B 12/22  
 2018/0220798 A1 \* 8/2018 Koelling ..... A47B 88/427  
 2019/0211859 A1 \* 7/2019 Liu ..... 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

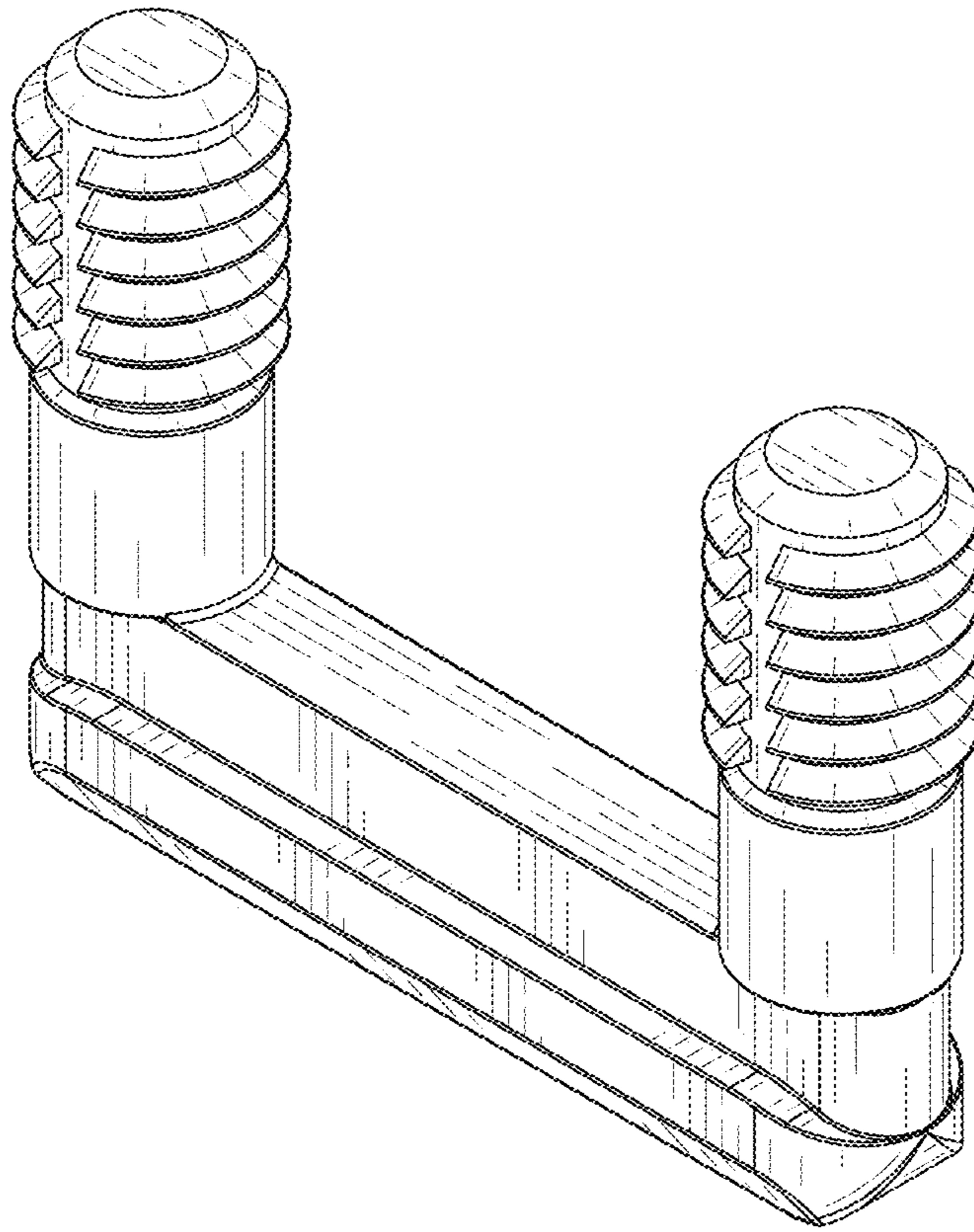


FIG. 1

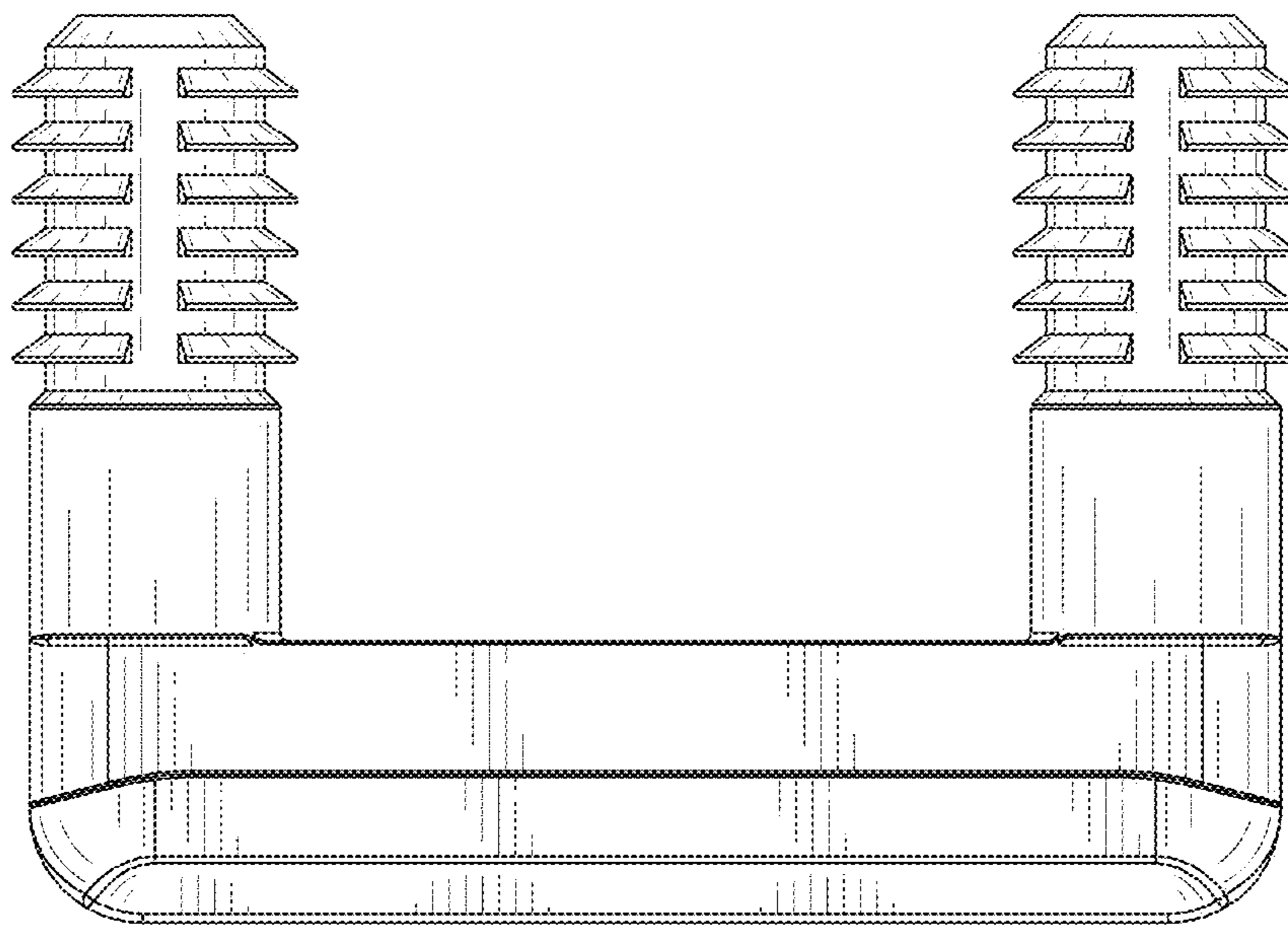
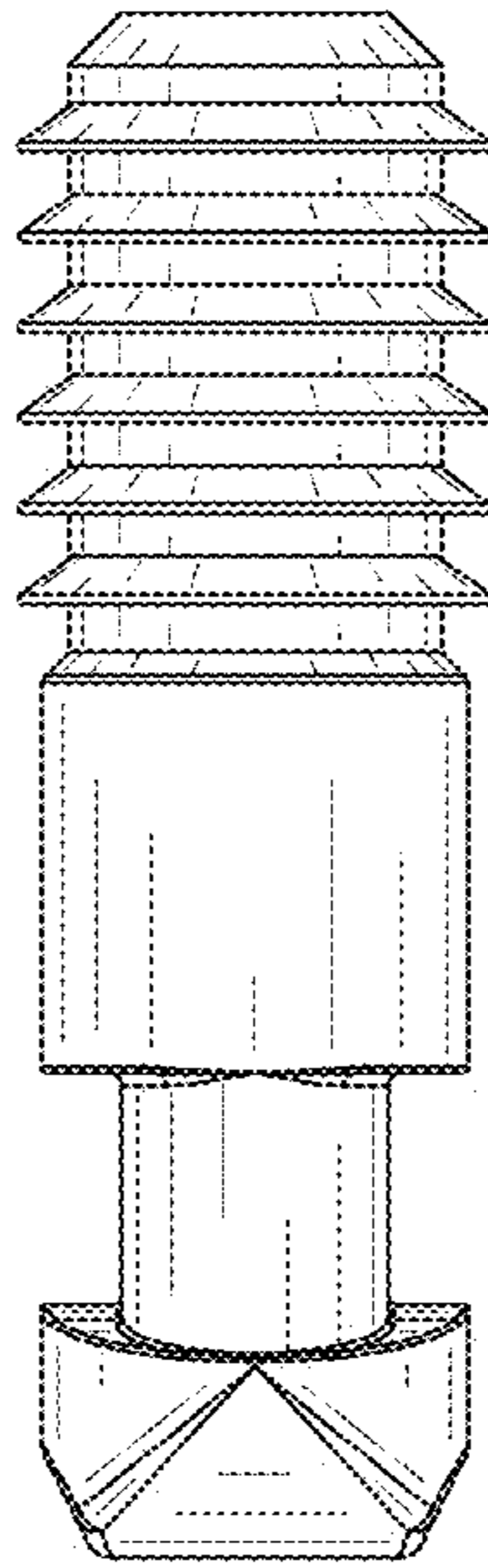
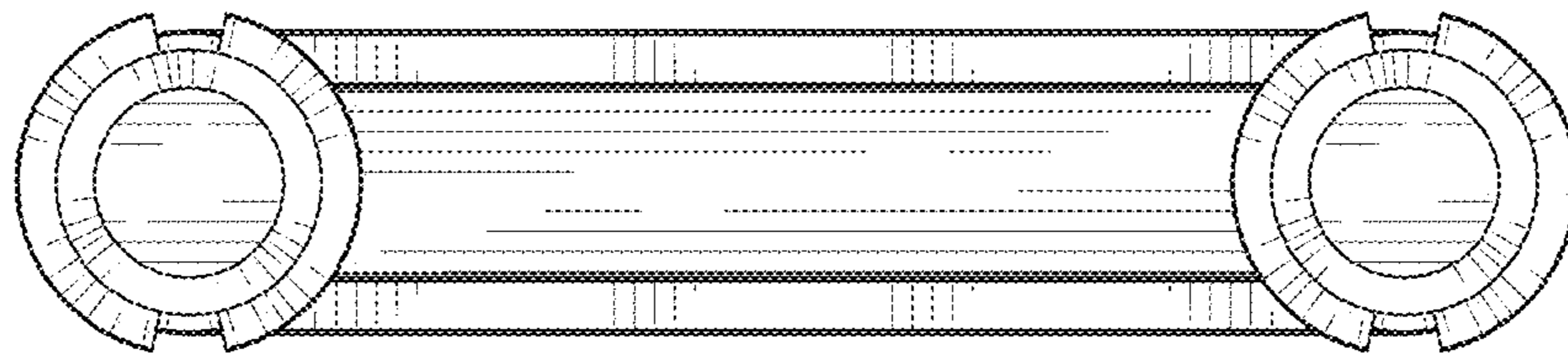


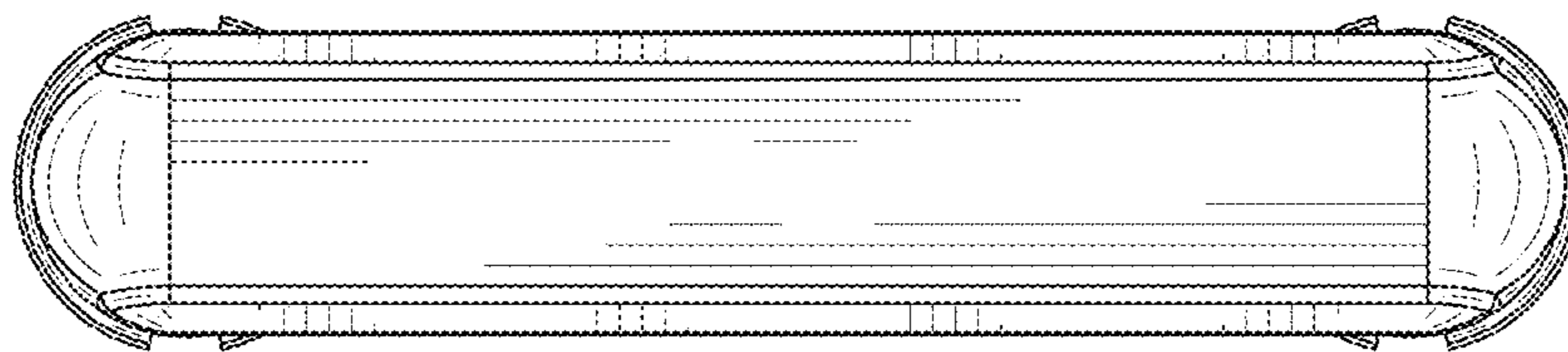
FIG. 2



**FIG. 3**



**FIG. 4**



**FIG. 5**