



US00D881325S

(12) **United States Design Patent**  
**Burrow et al.**

(10) **Patent No.:** **US D881,325 S**  
(45) **Date of Patent:** **\*\* \*Apr. 14, 2020**

- (54) **AMMUNITION CARTRIDGE**
- (71) Applicant: **TRUE VELOCITY IP HOLDINGS, LLC**, Garland, TX (US)
- (72) Inventors: **Lonnie Burrow**, Carrollton, TX (US); **Christopher William Overton**, Richardson, TX (US)
- (73) Assignee: **TRUE VELOCITY IP HOLDINGS, LLC**, Garland, TX (US)
- (\*) Notice: This patent is subject to a terminal disclaimer.
- (\*\*) Term: **15 Years**
- (21) Appl. No.: **29/644,810**
- (22) Filed: **Apr. 20, 2018**
- (51) **LOC (12) Cl.** ..... **22-03**
- (52) **U.S. Cl.**  
USPC ..... **D22/116**
- (58) **Field of Classification Search**  
USPC ..... D22/115, 116; D11/143; D7/619.1  
CPC ..... F42B 5/26-38; F42B 33/00; F42B 8/14  
See application file for complete search history.

|             |         |          |
|-------------|---------|----------|
| 905,358 A   | 12/1908 | Peters   |
| 957,171 A   | 5/1910  | Loeb     |
| 963,911 A   | 7/1910  | Loeble   |
| 1,060,817 A | 5/1913  | Clyne    |
| 1,936,905 A | 11/1933 | Gaidos   |
| 1,940,657 A | 12/1933 | Woodford |
| 2,294,822 A | 9/1942  | Norman   |

(Continued)

**FOREIGN PATENT DOCUMENTS**

|    |            |        |
|----|------------|--------|
| CA | 2813634 A1 | 4/2012 |
| DE | 16742 C    | 1/1882 |

(Continued)

**OTHER PUBLICATIONS**

YouTube.com—TFB TV, Published on Jul. 23, 2015, [site visited on Mar. 27, 2019], Available on the Internet URL <https://www.youtube.com/watch?v=mCjNkxbHkEE>.\*

(Continued)

*Primary Examiner* — Karen S Acker  
*Assistant Examiner* — Steven B Reinholdt, Jr.  
(74) *Attorney, Agent, or Firm* — Chainey P. Singleton

(57) **CLAIM**

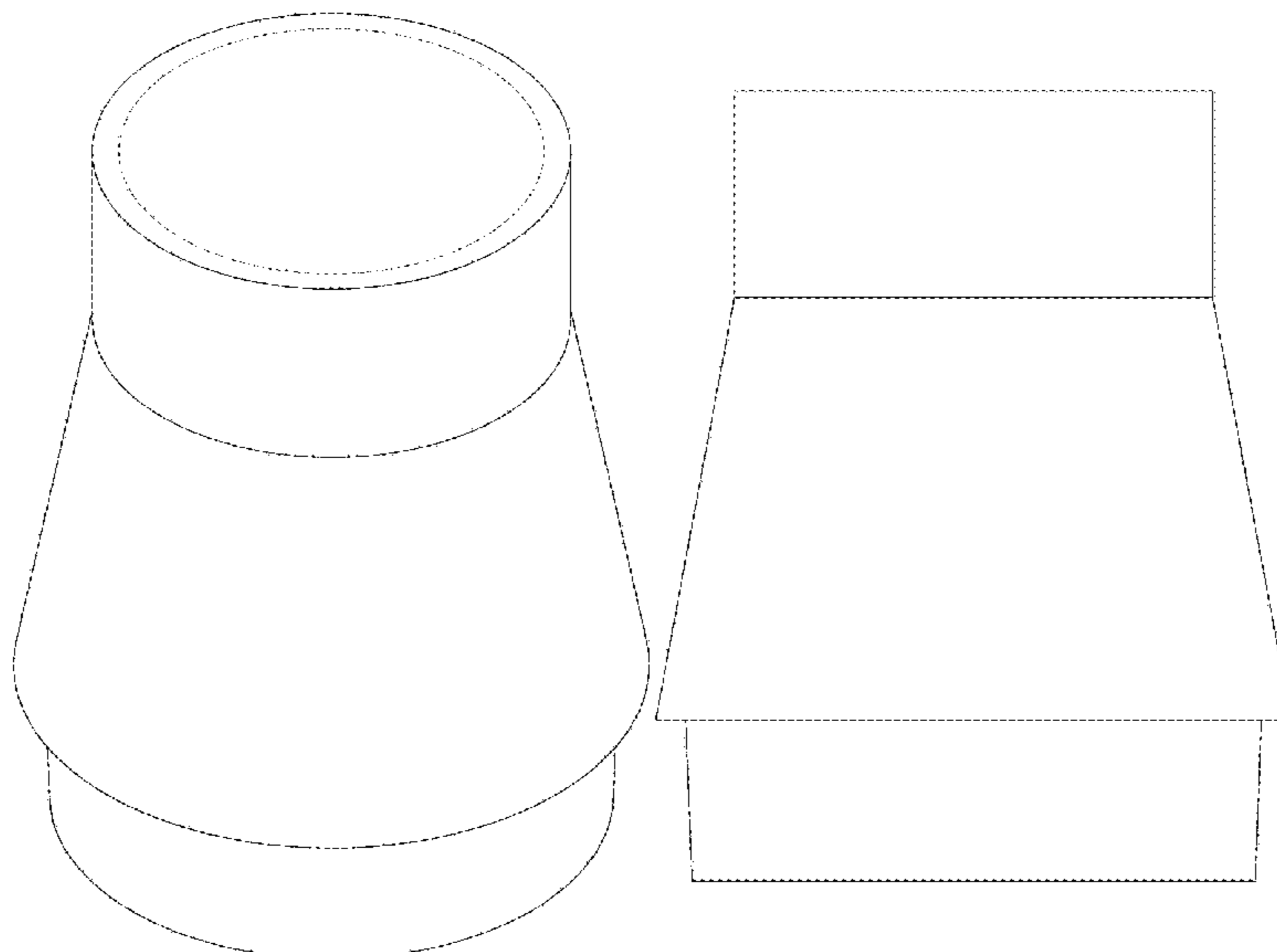
The ornamental design for an ammunition cartridge, as shown and described.

**DESCRIPTION**

FIG. 1 is an isometric view of an ammunition cartridge showing my new design.  
FIG. 2 is a top view of the ammunition cartridge of FIG. 1.  
FIG. 3 is a cross-sectional view taken along line 3-3 in FIG. 2 of the ammunition cartridge of FIG. 1; and,  
FIG. 4 is a side view of the ammunition cartridge of FIGS. 1.  
The broken lines depict portions of the ammunition cartridge that form no part of the claim.

**1 Claim, 4 Drawing Sheets**

- (56) **References Cited**
- U.S. PATENT DOCUMENTS
- |           |         |                 |
|-----------|---------|-----------------|
| 99,528 A  | 2/1870  | Boyd            |
| 113,634 A | 4/1871  | Crispin         |
| 130,679 A | 8/1872  | Whitmore        |
| 159,665 A | 2/1875  | Gauthey         |
| 169,807 A | 11/1875 | Hart            |
| 462,611 A | 11/1891 | Comte de Sparre |
| 498,856 A | 6/1893  | Overbaugh       |
| 640,856 A | 1/1900  | Bailey          |
| 662,137 A | 11/1900 | Tellerson       |
| 676,000 A | 6/1901  | Henneberg       |
| 865,979 A | 9/1907  | Bailey          |
| 869,046 A | 10/1907 | Bailey          |



(56)

References Cited

U.S. PATENT DOCUMENTS

|                |         |                        |                           |                |         |                         |                       |
|----------------|---------|------------------------|---------------------------|----------------|---------|-------------------------|-----------------------|
| 2,465,962 A    | 3/1949  | Allen et al.           |                           | D447,209 S *   | 8/2001  | Benini .....            | D22/116               |
| 2,654,319 A    | 10/1953 | Roske                  |                           | 6,272,993 B1   | 8/2001  | Cook et al.             |                       |
| 2,823,611 A    | 2/1958  | Thayer                 |                           | 6,357,357 B1   | 3/2002  | Glasser                 |                       |
| 2,862,446 A    | 12/1958 | Lars                   |                           | D455,052 S *   | 4/2002  | Gullickson .....        | D7/619.1              |
| 2,918,868 A    | 12/1959 | Lars                   |                           | D455,320 S *   | 4/2002  | Edelstein .....         | D7/619.1              |
| 3,099,958 A    | 8/1963  | Daubenspeck et al.     |                           | 6,375,971 B1   | 4/2002  | Hansen                  |                       |
| 3,104,498 A *  | 9/1963  | Miller .....           | A01G 9/021<br>215/12.2    | 6,382,449 B1 * | 5/2002  | Kazmierski .....        | B65D 3/14<br>220/4.03 |
| 3,128,029 A *  | 4/1964  | Price .....            | B65D 1/265<br>220/DIG. 14 | 6,450,099 B1   | 9/2002  | Desgland                |                       |
| 3,159,701 A    | 12/1964 | Herter                 |                           | 6,460,464 B1   | 10/2002 | Attarwala               |                       |
| 3,170,401 A    | 2/1965  | Johnson et al.         |                           | 6,523,476 B1   | 2/2003  | Riess et al.            |                       |
| 3,171,350 A    | 3/1965  | Metcalf et al.         |                           | D478,530 S *   | 8/2003  | Sachuk .....            | D11/143               |
| 3,242,789 A    | 3/1966  | Woodring               |                           | 6,708,621 B1   | 3/2004  | Forichon-Chaumet et al. |                       |
| 3,292,538 A    | 12/1966 | Hans et al.            |                           | 6,752,084 B1   | 6/2004  | Husseini et al.         |                       |
| 3,485,170 A    | 12/1969 | Scanlon                |                           | 6,840,149 B2   | 1/2005  | Beal                    |                       |
| 3,485,173 A    | 12/1969 | Morgan                 |                           | 7,032,492 B2   | 4/2006  | Meshirer                |                       |
| 3,609,904 A    | 10/1971 | Scanlon                |                           | D540,710 S *   | 4/2007  | Charrin .....           | D11/147               |
| 3,659,528 A    | 5/1972  | Santala                |                           | 7,204,191 B2   | 4/2007  | Wiley et al.            |                       |
| 3,688,699 A    | 9/1972  | Horn et al.            |                           | 7,213,519 B2   | 5/2007  | Wiley et al.            |                       |
| 3,690,256 A    | 9/1972  | Schnitzer              |                           | 7,231,519 B2   | 6/2007  | Joseph et al.           |                       |
| 3,745,924 A    | 7/1973  | Scanlon                |                           | 7,232,473 B2   | 6/2007  | Elliott                 |                       |
| 3,749,021 A    | 7/1973  | Burgess                |                           | 7,299,750 B2   | 11/2007 | Schikora et al.         |                       |
| 3,756,156 A    | 9/1973  | Schuster               |                           | 7,353,756 B2   | 4/2008  | Leasure                 |                       |
| 3,765,297 A    | 10/1973 | Skochko et al.         |                           | 7,392,746 B2   | 7/2008  | Hansen                  |                       |
| 3,768,413 A    | 10/1973 | Ramsay                 |                           | D583,927 S *   | 12/2008 | Benner .....            | D24/106               |
| 3,797,396 A    | 3/1974  | Reed                   |                           | 7,461,597 B2   | 12/2008 | Brunn                   |                       |
| 3,842,739 A    | 10/1974 | Scanlon et al.         |                           | 7,585,166 B2   | 9/2009  | Buja                    |                       |
| 3,866,536 A    | 2/1975  | Greenberg              |                           | 7,610,858 B2   | 11/2009 | Chung                   |                       |
| 3,874,294 A    | 4/1975  | Hale                   |                           | 7,750,091 B2   | 7/2010  | Maljkovic et al.        |                       |
| 3,955,506 A    | 5/1976  | Luther et al.          |                           | D626,619 S *   | 11/2010 | Gogol .....             | D22/116               |
| 3,977,326 A    | 8/1976  | Anderson et al.        |                           | D631,699 S *   | 2/2011  | Moreau .....            | D7/509                |
| 3,990,366 A    | 11/1976 | Scanlon                |                           | D633,166 S *   | 2/2011  | Richardson .....        | D22/116               |
| 4,020,763 A    | 5/1977  | Iruretagoyena          |                           | 7,930,977 B2   | 4/2011  | Klein                   |                       |
| 4,147,107 A    | 4/1979  | Ringdal                |                           | 8,007,370 B2   | 8/2011  | Hirsch et al.           |                       |
| 4,157,684 A    | 6/1979  | Clausser               |                           | 8,056,232 B2   | 11/2011 | Patel et al.            |                       |
| 4,173,186 A    | 11/1979 | Dunham                 |                           | 8,156,870 B2   | 4/2012  | South                   |                       |
| 4,187,271 A    | 2/1980  | Rolston et al.         |                           | 8,201,867 B2   | 6/2012  | Thomeczek               |                       |
| 4,228,724 A    | 10/1980 | Leich                  |                           | 8,206,522 B2   | 6/2012  | Sandstrom et al.        |                       |
| 4,276,830 A    | 7/1981  | Alice                  |                           | 8,240,252 B2   | 8/2012  | Maljkovic et al.        |                       |
| D263,581 S *   | 3/1982  | Kaye .....             | D13/103                   | D675,882 S *   | 2/2013  | Crockett .....          | D7/601                |
| 4,475,435 A    | 10/1984 | Mantel                 |                           | 8,408,137 B2   | 4/2013  | Battaglia               |                       |
| 4,598,445 A    | 7/1986  | O'Connor               |                           | D683,419 S *   | 5/2013  | Rebar .....             | D22/116               |
| 4,614,157 A    | 9/1986  | Grelle et al.          |                           | 8,443,729 B2   | 5/2013  | Mittelstaedt            |                       |
| 4,679,505 A    | 7/1987  | Reed                   |                           | 8,443,730 B2   | 5/2013  | Padgett                 |                       |
| 4,718,348 A    | 1/1988  | Ferrigno               |                           | 8,511,233 B2   | 8/2013  | Nilsson                 |                       |
| 4,719,859 A    | 1/1988  | Ballreich et al.       |                           | D689,975 S *   | 9/2013  | Carlson .....           | D22/116               |
| 4,726,296 A    | 2/1988  | Leshner et al.         |                           | 8,522,684 B2   | 9/2013  | Davies et al.           |                       |
| 4,763,576 A    | 8/1988  | Kass et al.            |                           | 8,540,828 B2   | 9/2013  | Busky et al.            |                       |
| 4,867,065 A    | 9/1989  | Kaltmann et al.        |                           | 8,561,543 B2   | 10/2013 | Burrow                  |                       |
| 5,033,386 A    | 7/1991  | Vatsvog                |                           | 8,573,126 B2   | 11/2013 | Klein et al.            |                       |
| 5,151,555 A    | 9/1992  | Vatsvog                |                           | 8,641,842 B2   | 2/2014  | Hafner et al.           |                       |
| 5,165,040 A    | 11/1992 | Andersson et al.       |                           | 8,689,696 B1   | 4/2014  | Seeman et al.           |                       |
| 5,237,930 A    | 8/1993  | Belanger et al.        |                           | 8,763,535 B2   | 7/2014  | Padgett                 |                       |
| 5,259,288 A    | 11/1993 | Vatsvog                |                           | 8,790,455 B2   | 7/2014  | Borissov et al.         |                       |
| D345,676 S *   | 4/1994  | Biffle .....           | D7/510                    | 8,807,008 B2   | 8/2014  | Padgett et al.          |                       |
| 5,433,148 A    | 7/1995  | Barratault et al.      |                           | 8,813,650 B2   | 8/2014  | Maljkovic et al.        |                       |
| D380,650 S *   | 7/1997  | Norris .....           | D7/619.1                  | D715,888 S     | 10/2014 | Padgett                 |                       |
| 5,679,920 A *  | 10/1997 | Hallis .....           | F42B 12/74<br>102/398     | 8,850,985 B2   | 10/2014 | Maljkovic et al.        |                       |
| 5,798,478 A    | 8/1998  | Beal                   |                           | 8,857,343 B2   | 10/2014 | Marx                    |                       |
| 5,950,063 A    | 9/1999  | Hens et al.            |                           | 8,869,702 B2   | 10/2014 | Padgett                 |                       |
| 5,969,288 A    | 10/1999 | Baud                   |                           | D717,909 S *   | 11/2014 | Thrift .....            | D22/116               |
| 6,004,682 A    | 12/1999 | Rackovan et al.        |                           | 8,875,633 B2   | 11/2014 | Padgett                 |                       |
| 6,048,379 A    | 4/2000  | Bray et al.            |                           | 8,893,621 B1   | 11/2014 | Escobar                 |                       |
| 6,070,532 A    | 6/2000  | Halverson              |                           | D723,418 S *   | 3/2015  | Thuma .....             | D11/143               |
| 6,108,974 A *  | 8/2000  | Herzog-Mesrobian ..... | A47G 7/08<br>47/72        | 8,978,559 B2   | 3/2015  | Davies et al.           |                       |
| D435,626 S *   | 12/2000 | Benini .....           | D22/100                   | 9,003,973 B1   | 4/2015  | Padgett                 |                       |
| D439,116 S *   | 3/2001  | White .....            | D7/619.1                  | 9,032,855 B1   | 5/2015  | Foren et al.            |                       |
| D442,833 S *   | 5/2001  | Shuman .....           | D7/608                    | 9,091,516 B2   | 7/2015  | Davies et al.           |                       |
| 6,257,149 B1 * | 7/2001  | Cesaroni .....         | F42B 12/745<br>102/515    | 9,103,641 B2   | 8/2015  | Nielson et al.          |                       |
|                |         |                        |                           | 9,157,709 B2   | 10/2015 | Nuetzman et al.         |                       |
|                |         |                        |                           | 9,170,080 B2   | 10/2015 | Poore et al.            |                       |
|                |         |                        |                           | 9,182,204 B2   | 11/2015 | Maljkovic et al.        |                       |
|                |         |                        |                           | 9,188,412 B2   | 11/2015 | Maljkovic et al.        |                       |
|                |         |                        |                           | 9,200,157 B2   | 12/2015 | El-Hibri et al.         |                       |
|                |         |                        |                           | 9,200,880 B1   | 12/2015 | Foren et al.            |                       |
|                |         |                        |                           | 9,212,876 B1   | 12/2015 | Kostka et al.           |                       |
|                |         |                        |                           | 9,212,879 B2   | 12/2015 | Whitworth               |                       |
|                |         |                        |                           | 9,213,175 B2   | 12/2015 | Arnold                  |                       |
|                |         |                        |                           | 9,254,503 B2   | 2/2016  | Ward                    |                       |

(56)

## References Cited

| U.S. PATENT DOCUMENTS |     |         |                            |              |      |         |                             |
|-----------------------|-----|---------|----------------------------|--------------|------|---------|-----------------------------|
| 9,255,775             | B1  | 2/2016  | Rubin                      | 10,048,049   | B2   | 8/2018  | Burrow                      |
| D752,397              | S * | 3/2016  | Seiders ..... D7/608       | 10,048,050   | B1   | 8/2018  | Burrow                      |
| D754,223              | S * | 4/2016  | Pederson ..... D15/90      | 10,048,052   | B2   | 8/2018  | Burrow                      |
| 9,329,004             | B2  | 5/2016  | Pace                       | 10,054,413   | B1   | 8/2018  | Burrow                      |
| 9,335,137             | B2  | 5/2016  | Maljkovic et al.           | D828,483     | S    | 9/2018  | Burrow                      |
| 9,337,278             | B1  | 5/2016  | Gu et al.                  | D832,037     | S *  | 10/2018 | Gallagher ..... D7/397      |
| 9,347,457             | B2  | 5/2016  | Ahrens et al.              | D834,447     | S *  | 11/2018 | van Smirren ..... A47G 7/07 |
| 9,366,512             | B2  | 6/2016  | Burczynski et al.          |              |      |         | D11/143                     |
| 9,377,278             | B2  | 6/2016  | Rubin                      | D839,676     | S *  | 2/2019  | Seiders ..... D7/523        |
| 9,389,052             | B2  | 7/2016  | Conroy et al.              | D839,677     | S *  | 2/2019  | Seiders ..... D7/523        |
| 9,395,165             | B2  | 7/2016  | Maljkovic et al.           | D843,788     | S *  | 3/2019  | Boroski ..... D7/608        |
| D764,624              | S   | 8/2016  | Masinelli                  | 10,234,249   | B2 * | 3/2019  | Burrow ..... F42B 5/307     |
| D765,214              | S   | 8/2016  | Padgett                    | 10,234,253   | B2 * | 3/2019  | Burrow ..... F42B 5/307     |
| 9,429,407             | B2  | 8/2016  | Burrow                     | 10,240,905   | B2 * | 3/2019  | Burrow ..... F42B 5/307     |
| 9,441,930             | B2  | 9/2016  | Burrow                     | 2005/0192835 | A1 * | 9/2005  | Kuo ..... G06Q 50/22        |
| 9,453,714             | B2  | 9/2016  | Bosarge et al.             |              |      |         | 705/2                       |
| D773,009              | S * | 11/2016 | Bowers ..... D22/116       | 2006/0283345 | A1 * | 12/2006 | Feldman ..... F42B 12/365   |
| 9,500,453             | B2  | 11/2016 | Schluckebier et al.        |              |      |         | 102/430                     |
| 9,506,735             | B1  | 11/2016 | Burrow                     | 2007/0056343 | A1   | 3/2007  | Cremonesi                   |
| D773,250              | S * | 12/2016 | Miller ..... D7/523        | 2007/0181029 | A1 * | 8/2007  | Mcaninch ..... F41B 11/00   |
| D774,824              | S * | 12/2016 | Gallagher ..... D7/313     |              |      |         | 102/430                     |
| 9,513,096             | B2  | 12/2016 | Burrow                     | 2007/0204511 | A1 * | 9/2007  | Lee ..... A47G 7/06         |
| 9,518,810             | B1  | 12/2016 | Burrow                     |              |      |         | 47/66.1                     |
| 9,523,563             | B1  | 12/2016 | Burrow                     | 2010/0234132 | A1   | 9/2010  | Hirsch et al.               |
| 9,528,799             | B2  | 12/2016 | Maljkovic                  | 2011/0036000 | A1 * | 2/2011  | Verdecia ..... A47G 7/06    |
| 9,546,849             | B2  | 1/2017  | Burrow                     |              |      |         | 47/41.1                     |
| 9,551,557             | B1  | 1/2017  | Burrow                     | 2011/0179965 | A1   | 7/2011  | Mason                       |
| D778,391              | S   | 2/2017  | Burrow                     | 2012/0111219 | A1 * | 5/2012  | Burrow ..... F42B 5/307     |
| D778,393              | S   | 2/2017  | Burrow                     |              |      |         | 102/467                     |
| D778,394              | S   | 2/2017  | Burrow                     | 2012/0180685 | A1 * | 7/2012  | O ..... F42B 8/14           |
| D778,395              | S   | 2/2017  | Burrow                     |              |      |         | 102/334                     |
| D779,021              | S   | 2/2017  | Burrow                     | 2012/0291655 | A1 * | 11/2012 | Jones ..... F42B 8/14       |
| D779,024              | S   | 2/2017  | Burrow                     |              |      |         | 102/502                     |
| D780,283              | S * | 2/2017  | Burrow ..... D22/116       | 2013/0186294 | A1 * | 7/2013  | Davies ..... F42B 5/307     |
| D780,533              | S * | 3/2017  | Seiders ..... D7/608       |              |      |         | 102/467                     |
| 9,587,918             | B1  | 3/2017  | Burrow                     | 2013/0291711 | A1   | 11/2013 | Mason                       |
| 9,599,443             | B2  | 3/2017  | Padgett et al.             | 2014/0260925 | A1   | 9/2014  | Beach et al.                |
| D784,137              | S * | 4/2017  | Cates ..... D9/500         | 2014/0261044 | A1 * | 9/2014  | Seecamp ..... F42B 12/36    |
| 9,625,241             | B2  | 4/2017  | Neugebauer                 |              |      |         | 102/464                     |
| 9,631,907             | B2  | 4/2017  | Burrow                     | 2014/0311332 | A1 * | 10/2014 | Carlson ..... F42B 5/045    |
| D786,025              | S * | 5/2017  | Seiders ..... D7/606       |              |      |         | 89/191.01                   |
| 9,644,930             | B1  | 5/2017  | Burrow                     | 2015/0226220 | A1   | 8/2015  | Bevington                   |
| 9,658,042             | B2  | 5/2017  | Emary                      | 2016/0003589 | A1   | 1/2016  | Burrow                      |
| D788,636              | S * | 6/2017  | Paternostre ..... D11/143  | 2016/0003590 | A1   | 1/2016  | Burrow                      |
| D790,392              | S * | 6/2017  | Paternostre ..... D11/143  | 2016/0003593 | A1   | 1/2016  | Burrow                      |
| 9,683,818             | B2  | 6/2017  | Lemke et al.               | 2016/0003594 | A1   | 1/2016  | Burrow                      |
| 9,709,368             | B2  | 7/2017  | Mahnke                     | 2016/0003595 | A1   | 1/2016  | Burrow                      |
| D793,172              | S * | 8/2017  | Medina ..... D7/624.2      | 2016/0003596 | A1   | 1/2016  | Burrow                      |
| D797,880              | S * | 9/2017  | Seecamp ..... D22/116      | 2016/0003597 | A1   | 1/2016  | Burrow                      |
| 9,759,554             | B2  | 9/2017  | Ng et al.                  | 2016/0003601 | A1   | 1/2016  | Burrow                      |
| D800,244              | S * | 10/2017 | Burczynski ..... D22/115   | 2016/0033241 | A1   | 2/2016  | Burrow                      |
| D800,245              | S * | 10/2017 | Burczynski ..... D22/115   | 2016/0102030 | A1   | 4/2016  | Coffey et al.               |
| D800,246              | S * | 10/2017 | Burczynski ..... D22/115   | 2016/0245626 | A1   | 8/2016  | Drieling et al.             |
| 9,784,667             | B2  | 10/2017 | Lukay et al.               | 2016/0265886 | A1 * | 9/2016  | Aldrich ..... F42B 5/30     |
| D801,753              | S * | 11/2017 | Piper ..... D7/624.2       | 2016/0349022 | A1 * | 12/2016 | Burrow ..... F42B 5/307     |
| D805,856              | S * | 12/2017 | Rivera ..... D7/624.2      | 2016/0349023 | A1   | 12/2016 | Burrow                      |
| 9,835,423             | B2  | 12/2017 | Burrow                     | 2016/0349028 | A1   | 12/2016 | Burrow                      |
| 9,835,427             | B2  | 12/2017 | Burrow                     | 2016/0356581 | A1 * | 12/2016 | Burrow ..... F42B 5/36      |
| 9,857,151             | B2  | 1/2018  | Dionne et al.              | 2016/0356588 | A1   | 12/2016 | Burrow                      |
| 9,869,536             | B2  | 1/2018  | Burrow                     | 2016/0377399 | A1   | 12/2016 | Burrow                      |
| 9,879,954             | B2  | 1/2018  | Hajjar                     | 2017/0080498 | A1   | 3/2017  | Burrow                      |
| 9,885,551             | B2  | 2/2018  | Burrow                     | 2017/0082409 | A1   | 3/2017  | Burrow                      |
| D813,975              | S * | 3/2018  | White ..... D22/116        | 2017/0082411 | A1   | 3/2017  | Burrow                      |
| 9,921,040             | B2  | 3/2018  | Rubin                      | 2017/0089673 | A1   | 3/2017  | Burrow                      |
| 9,927,219             | B2  | 3/2018  | Burrow                     | 2017/0089674 | A1 * | 3/2017  | Burrow ..... F42B 5/02      |
| 9,933,241             | B2  | 4/2018  | Burrow                     | 2017/0089675 | A1   | 3/2017  | Burrow                      |
| 9,939,236             | B2  | 4/2018  | Drobockyi et al.           | 2017/0089679 | A1 * | 3/2017  | Burrow ..... F42B 33/001    |
| 9,964,388             | B1  | 5/2018  | Burrow                     | 2017/0115105 | A1 * | 4/2017  | Burrow ..... F42B 33/001    |
| D821,536              | S * | 6/2018  | Christiansen ..... D22/116 | 2017/0153099 | A9   | 6/2017  | Burrow                      |
| 9,989,339             | B2  | 6/2018  | Riess                      | 2017/0205217 | A9   | 7/2017  | Burrow                      |
| D824,732              | S * | 8/2018  | Hsiao ..... D7/624.2       | 2017/0261299 | A1 * | 9/2017  | Burrow ..... F42C 19/083    |
| 10,041,770            | B2  | 8/2018  | Burrow                     | 2017/0299352 | A9   | 10/2017 | Burrow                      |
| 10,041,771            | B1  | 8/2018  | Burrow                     | 2018/0066925 | A1   | 3/2018  | Skowron et al.              |
| 10,041,776            | B1  | 8/2018  | Burrow                     | 2018/0106581 | A1 * | 4/2018  | Rogers ..... F42B 12/367    |
| 10,041,777            | B1  | 8/2018  | Burrow                     | 2018/0224252 | A1 * | 8/2018  | O'Rourke ..... F42B 12/40   |
|                       |     |         |                            | 2018/0224253 | A1   | 8/2018  | Burrow                      |
|                       |     |         |                            | 2018/0259310 | A1   | 9/2018  | Burrow                      |
|                       |     |         |                            | 2018/0306558 | A1   | 10/2018 | Padgett et al.              |

(56)

**References Cited**

U.S. PATENT DOCUMENTS

2019/0011232 A1 1/2019 Boss et al.  
 2019/0011233 A1 1/2019 Boss et al.  
 2019/0011234 A1\* 1/2019 Boss ..... F42B 33/00  
 2019/0011235 A1 1/2019 Boss et al.  
 2019/0011236 A1 1/2019 Burrow  
 2019/0011237 A1 1/2019 Burrow  
 2019/0011238 A1 1/2019 Burrow  
 2019/0011239 A1 1/2019 Burrow  
 2019/0011240 A1 1/2019 Burrow  
 2019/0011241 A1 1/2019 Burrow

FOREIGN PATENT DOCUMENTS

EP 2625486 A4 8/2017  
 FR 1412414 A 10/1965  
 GB 783023 A 9/1957  
 WO 0034732 6/2000  
 WO 2007014024 A2 2/2007  
 WO 2012047615 A1 4/2012  
 WO 2012097320 A1 7/2012  
 WO 2012097317 A3 11/2012  
 WO 2013070250 A1 5/2013

WO 2013096848 A1 6/2013  
 WO 2014062256 A2 4/2014  
 WO 2016003817 A1 1/2016

OTHER PUBLICATIONS

Luck Gunner.com, Review: Polymer Cased Rifle Ammunition from PCP Ammo, Published Jan. 6, 2014, [site visited Mar. 27, 2019], Available on the Internet URL <https://www.luckygunner.com/lounge/pcp-ammo-review/>.  
 International Ammunition Association, Inc. website, Published in Apr. 2017, PCP Ammo Variation in U.S. Military Polymer/Metal Cartridge Case R&D, [site visited Mar. 29, 2019], Available on the Internet URL <https://forum.cartridgecollectors.org/t/pcp-ammo-variation-in-u-s-military-polymer-metal-cartridge-case-r-d/24400>.  
 AccurateShooter.com Daily Bulletin “New PolyCase Ammunition and Injection-Molded Bullets” Jan. 11, 2015.  
 Korean Intellectual Property Office (ISA), International Search Report and Written Opinion for PCT/US2011/062781 dated Nov. 30, 2012, 16 pp.  
 Korean Intellectual Property Office (ISA), International Search Report and Written Opinion for PCT/US2015/038061 dated Sep. 21, 2015, 28 pages.

\* cited by examiner

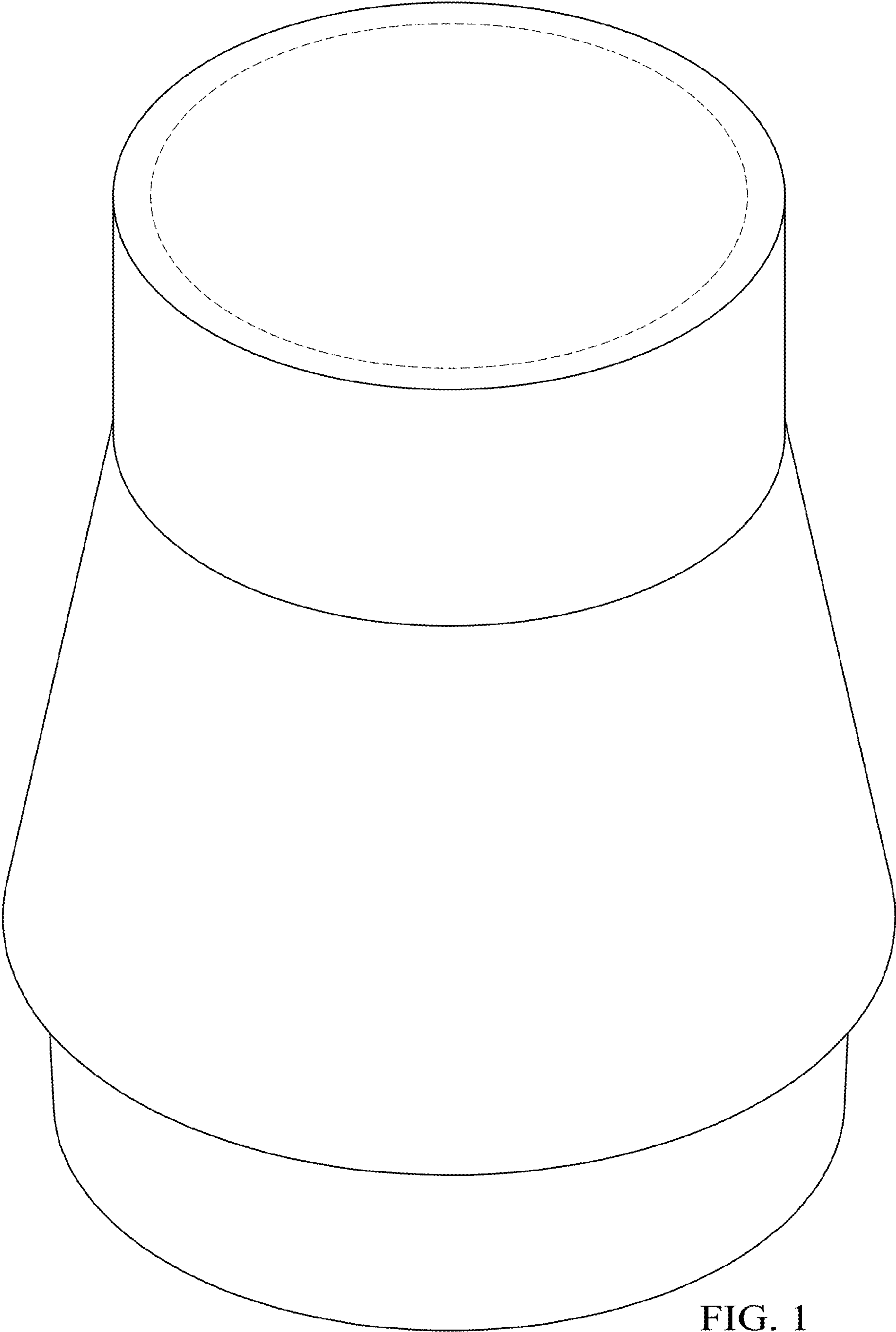


FIG. 1

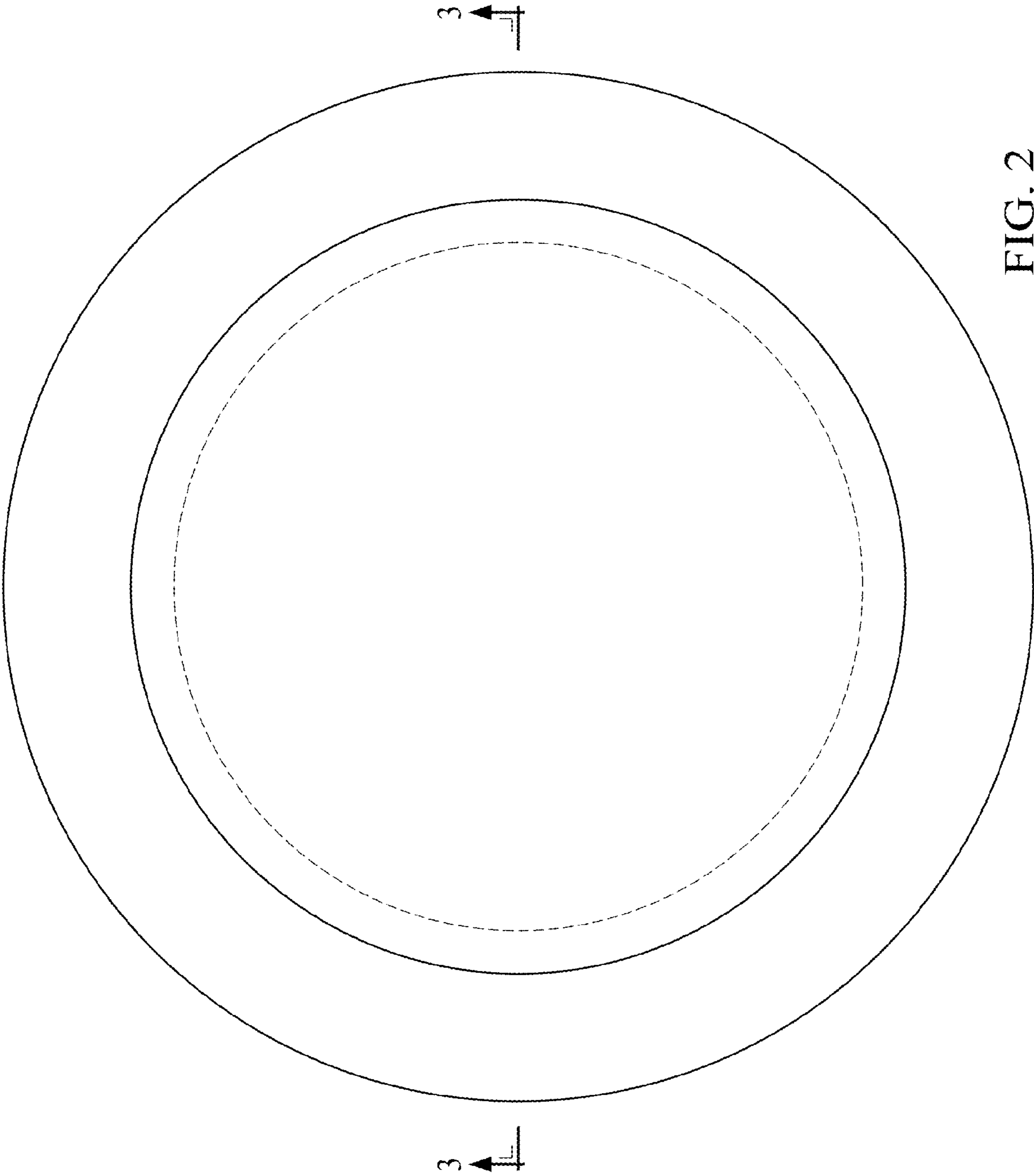


FIG. 2

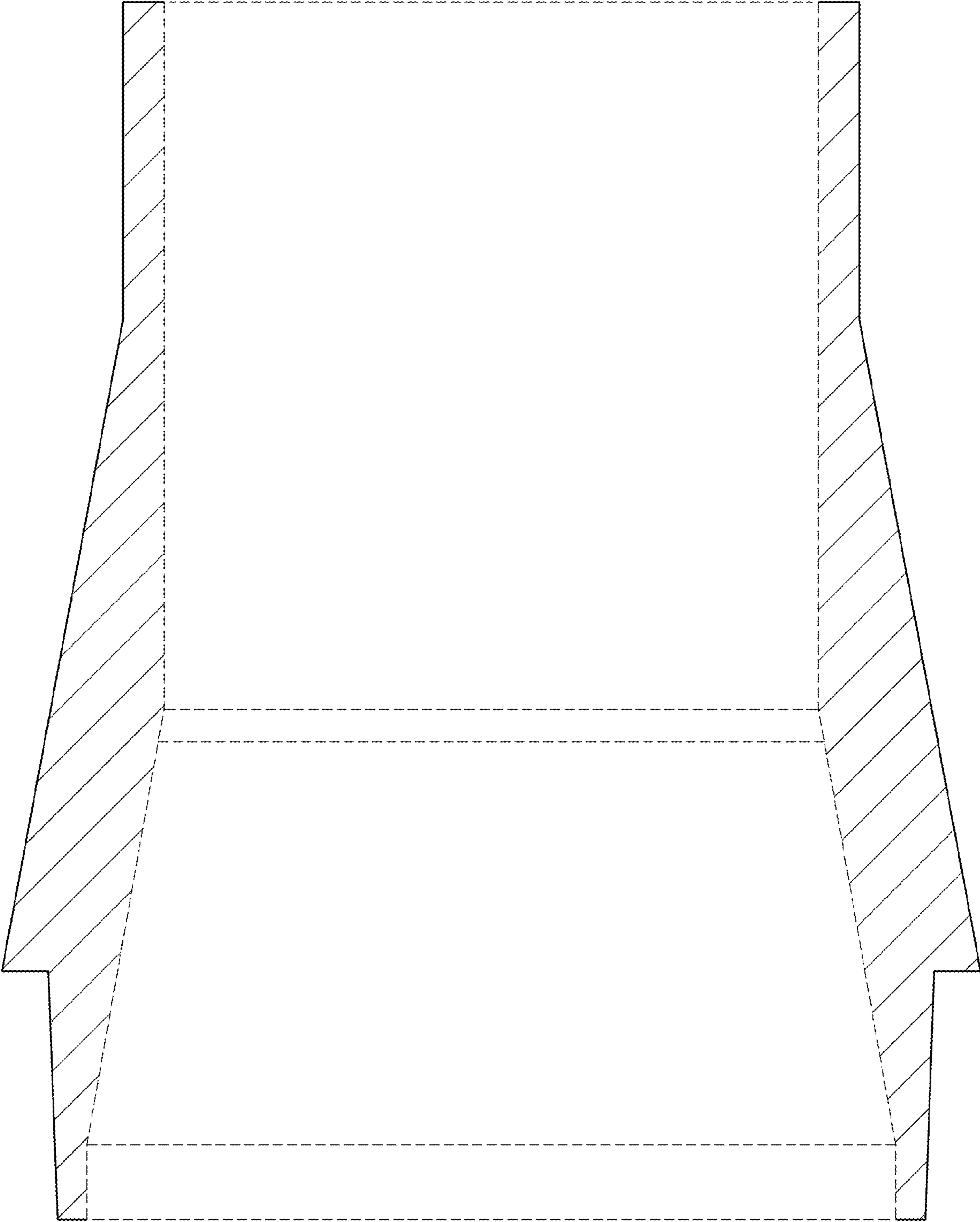


FIG. 3

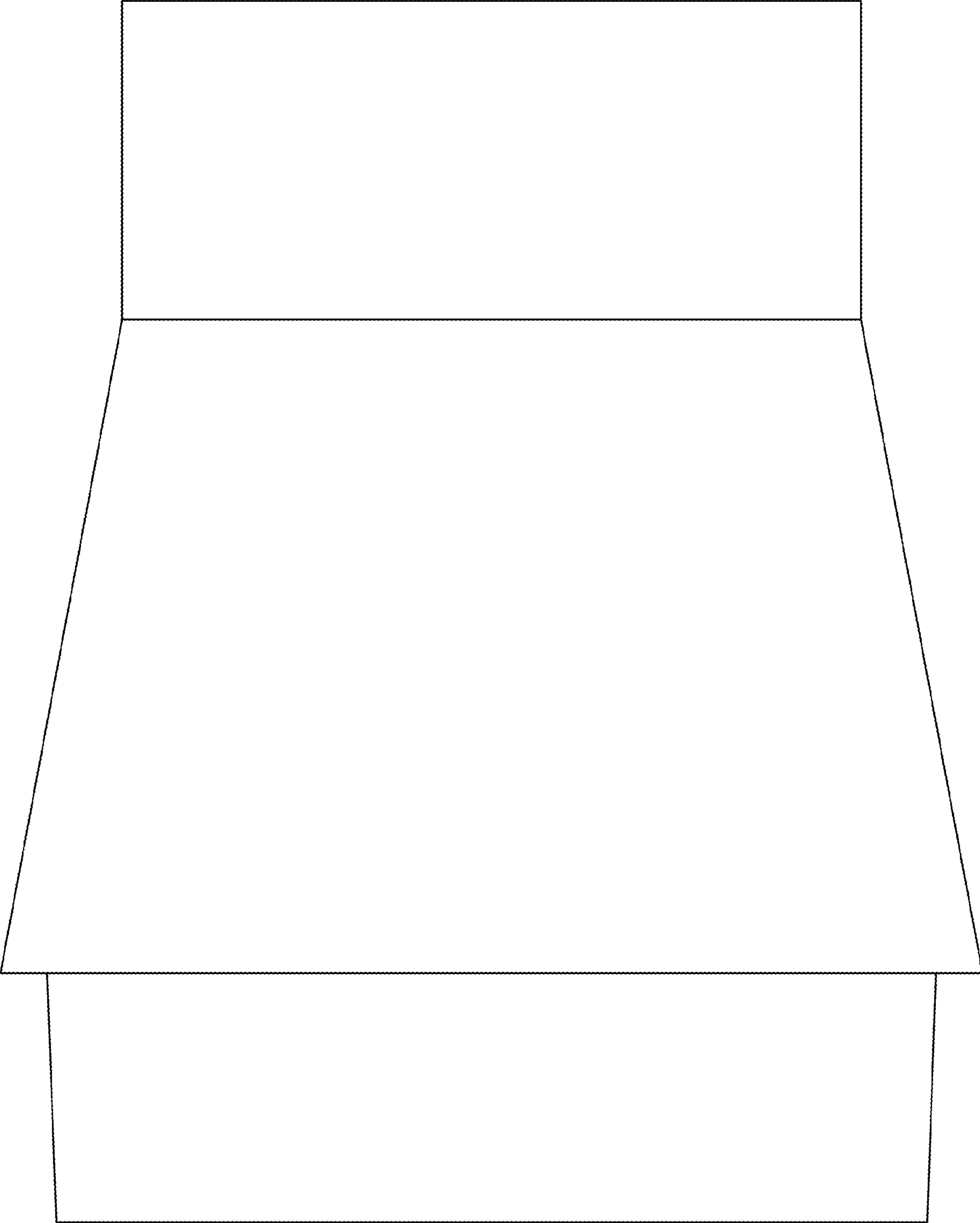


FIG. 4