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

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(54) **REAR CONNECTION INTER-FACE FOR A
REDUCING ELEMENT OF A MATERIAL
REDUCING MACHINE**

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(**) Term: **14 Years**

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(51) **LOC (10) Cl.** **15-09**

(52) **U.S. Cl.**
USPC **D15/123**

(58) **Field of Classification Search**
USPC D15/123, 125, 126, 131, 139; 241/73,
241/74, 189.1, 193-197, 294, 300
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

| | | | | |
|-----------|-----|---------|------------------|---------|
| 3,844,619 | A | 10/1974 | Haller | |
| D265,326 | S * | 7/1982 | Sugiyama | D21/331 |
| 4,667,713 | A | 5/1987 | Wright et al. | |
| 4,750,396 | A | 6/1988 | Gaddis et al. | |
| 4,958,775 | A | 9/1990 | Arasmith | |
| D321,377 | S * | 11/1991 | Ko | D21/324 |
| D329,470 | S * | 9/1992 | Kaneko | D21/331 |
| 5,183,089 | A | 2/1993 | Norlander et al. | |
| 5,285,974 | A | 2/1994 | Cesarini | |
| D347,450 | S * | 5/1994 | Nagata et al. | D21/331 |

| | | | | |
|-----------|-----|---------|----------------|---------|
| D357,286 | S * | 4/1995 | Feng | D14/401 |
| D362,450 | S * | 9/1995 | Bajadali | D15/123 |
| 5,484,111 | A | 1/1996 | Dorscht et al. | |
| D368,282 | S * | 3/1996 | Lin | D21/324 |
| D416,291 | S * | 11/1999 | Sugino | D21/329 |
| 6,045,072 | A | 4/2000 | Zehr | |
| D429,741 | S * | 8/2000 | Warren | D15/123 |
| 6,131,838 | A | 10/2000 | Balvanz et al. | |

(Continued)

FOREIGN PATENT DOCUMENTS

| | | | |
|----|-----------------|----|--------|
| EP | 1693110 | A1 | 8/2006 |
| JP | 7-19558 | | 5/1995 |
| KR | 10-2009-0077668 | | 7/2009 |

OTHER PUBLICATIONS

International Search Report and Written Opinion for International
Application No. PCT/US2013/063193 mailed Jan. 8, 2014.

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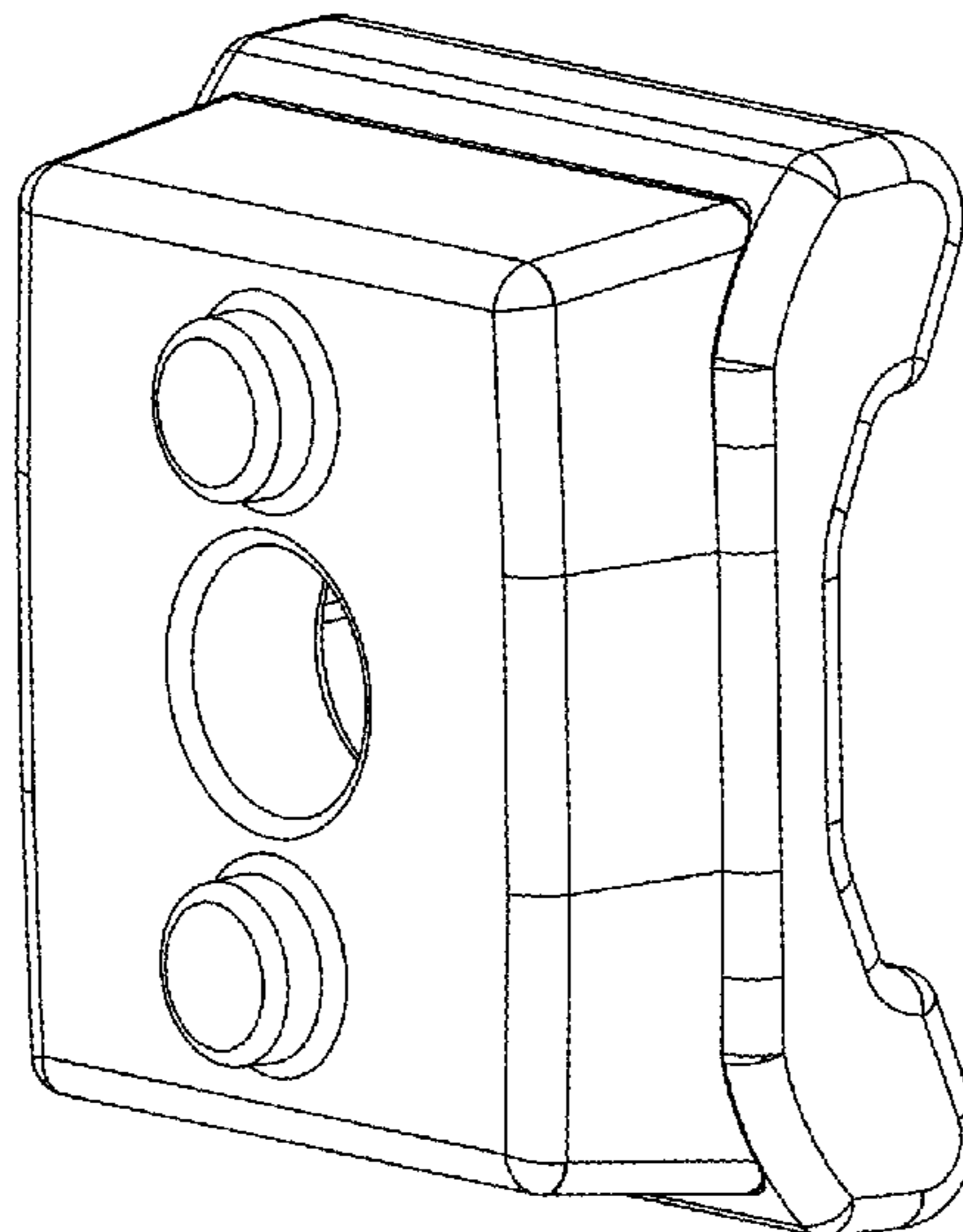
(57) **CLAIM**

The ornamental design for rear connection inter-face for a
reducing element of a material reducing machine, as shown
and described.

DESCRIPTION

FIG. 1 is a rear perspective view of a reducing element made
according to our new design;
FIG. 2 is a rear side view of the reducing element of FIG. 1;
FIG. 3 is a front side view of the reducing element of FIG. 1;
FIG. 4 is a left side view of the reducing element of FIG. 1;
FIG. 5 is a right side view of the reducing element of FIG. 1;
FIG. 6 is a bottom side view of the reducing element of FIG.
1; and,
FIG. 7 is a top side view of the reducing element of FIG. 1.

1 Claim, 4 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D437,002 S * 1/2001 Wudtke et al. D21/329
 6,364,227 B1 4/2002 Dorscht
 6,394,378 B1 5/2002 Ragnarsson
 D460,787 S * 7/2002 Nishikawa D21/329
 6,422,495 B1 * 7/2002 De Boef et al. 241/197
 6,464,157 B1 10/2002 Balvanz et al.
 6,520,440 B2 2/2003 Ragnarsson
 D484,918 S * 1/2004 Okada et al. D21/330
 6,840,471 B2 1/2005 Roozeboom et al.
 7,131,606 B2 11/2006 Rogers
 7,293,729 B2 11/2007 Ragnarsson
 D556,759 S * 12/2007 Kawanobe et al. D14/401
 D558,834 S * 1/2008 Au Yeung D21/329
 D559,254 S * 1/2008 Ashida et al. D14/400
 D568,882 S * 5/2008 Ashida et al. D14/400
 D568,884 S * 5/2008 Kawanobe et al. D14/401
 D570,349 S * 6/2008 Ashida et al. D14/400
 D574,400 S * 8/2008 Willibald D15/123

D576,624 S * 9/2008 Ashida et al. D14/400
 7,418,986 B2 9/2008 Watts
 7,448,567 B2 11/2008 Roozeboom et al.
 7,578,462 B2 8/2009 Edwards
 D620,939 S * 8/2010 Suetake et al. D14/401
 D637,632 S * 5/2011 Schmitz et al. D15/123
 D637,633 S * 5/2011 Young et al. D15/123
 7,967,044 B2 6/2011 Labbe et al.
 8,033,490 B1 10/2011 Young et al.
 8,061,396 B2 11/2011 MacLennan et al.
 8,066,213 B2 11/2011 Marquardsen
 8,113,453 B2 2/2012 Bardos
 D655,731 S * 3/2012 Cox et al. D15/139
 D705,281 S * 5/2014 Heinasenaho D15/139
 D706,322 S * 6/2014 Monttinen et al. D15/139
 D707,274 S * 6/2014 Meier D15/140
 2004/0028486 A1 * 2/2004 Englund 407/90
 2004/0118955 A1 6/2004 Beaulieu et al.
 2005/0001084 A1 1/2005 Pizzuto
 2007/0193428 A1 8/2007 MacLennan et al.
 2013/0037642 A1 * 2/2013 Doppstadt et al. 241/294

* cited by examiner

FIG. 1

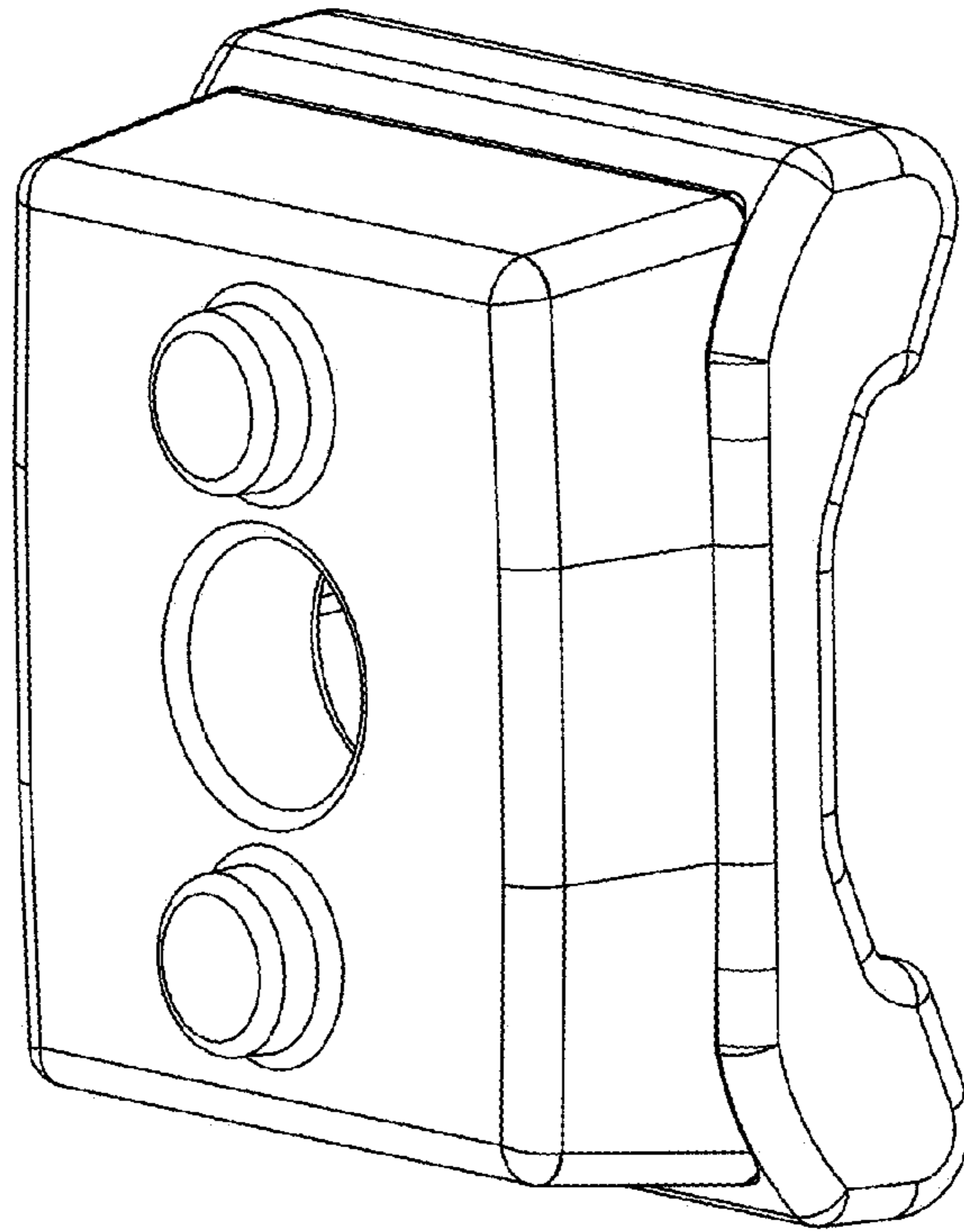


FIG. 2

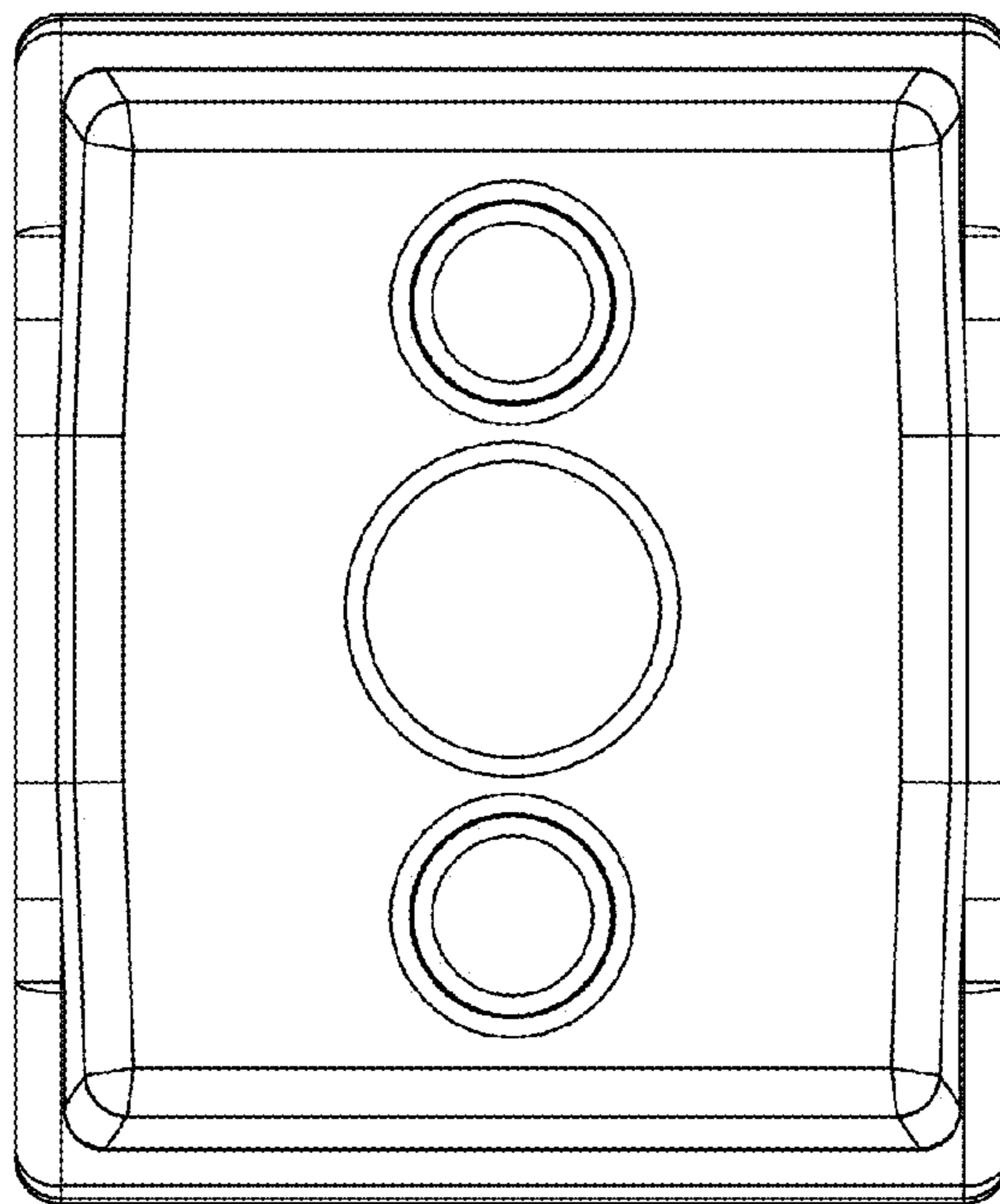


FIG. 4

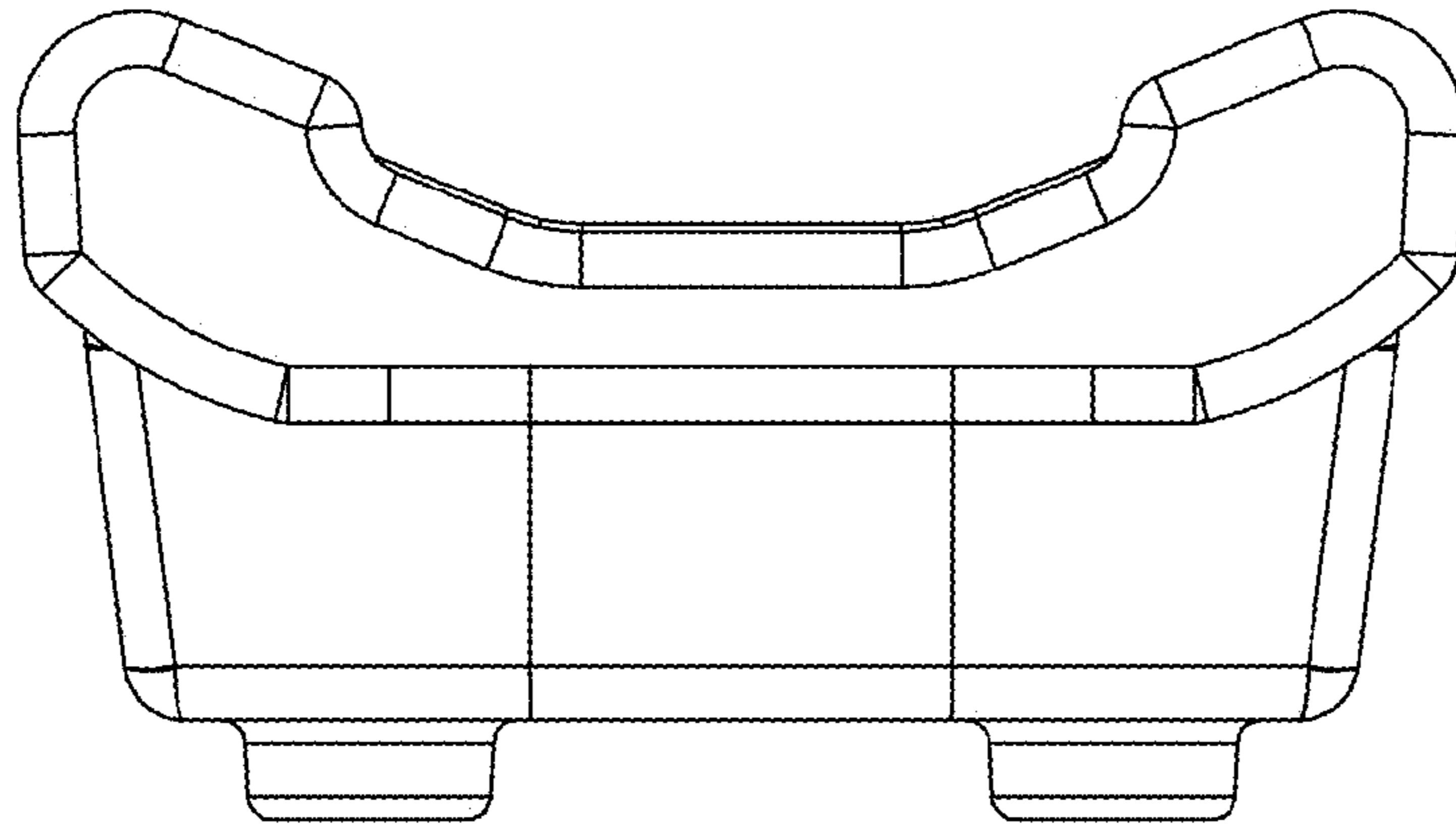


FIG. 3

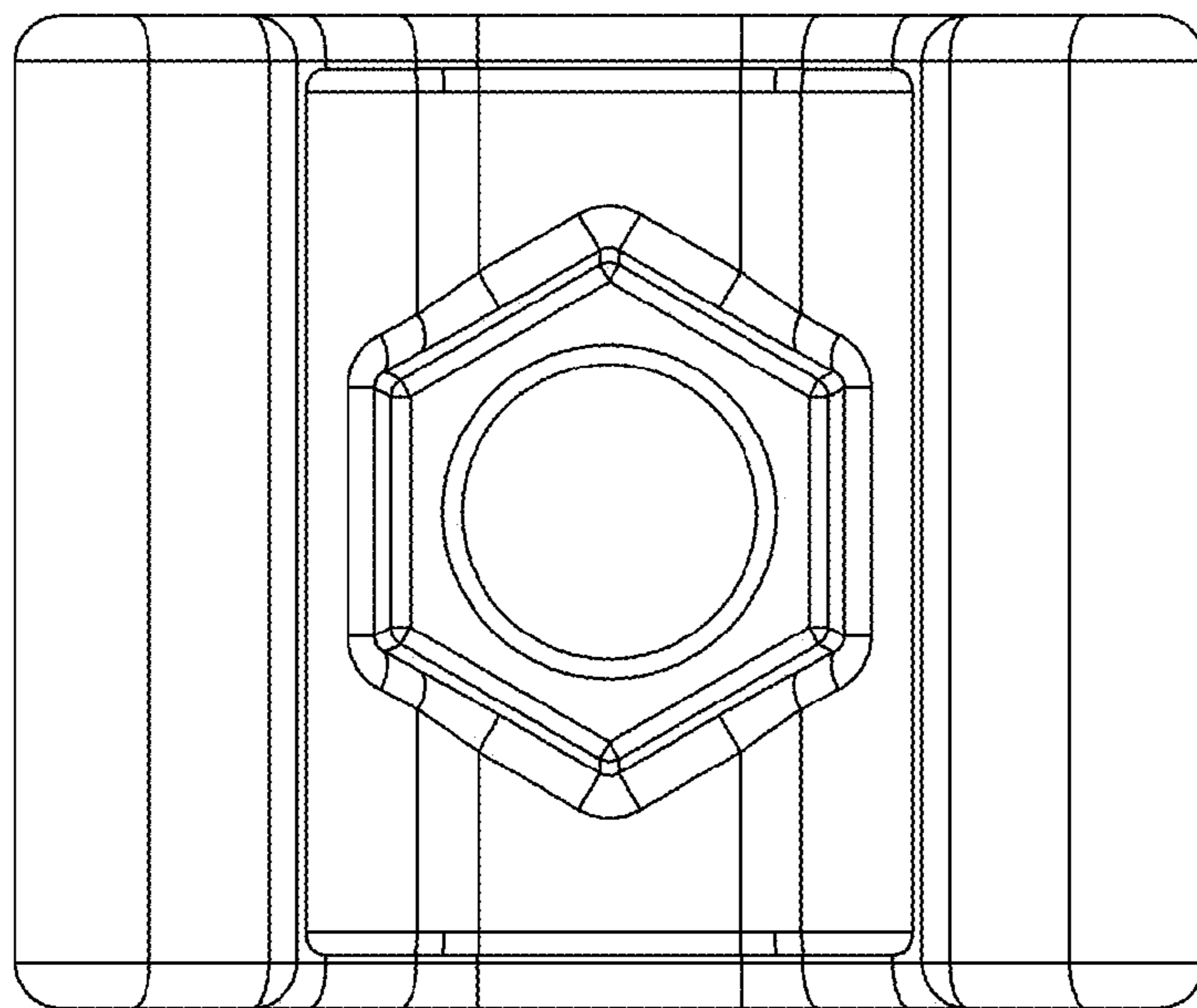


FIG. 6

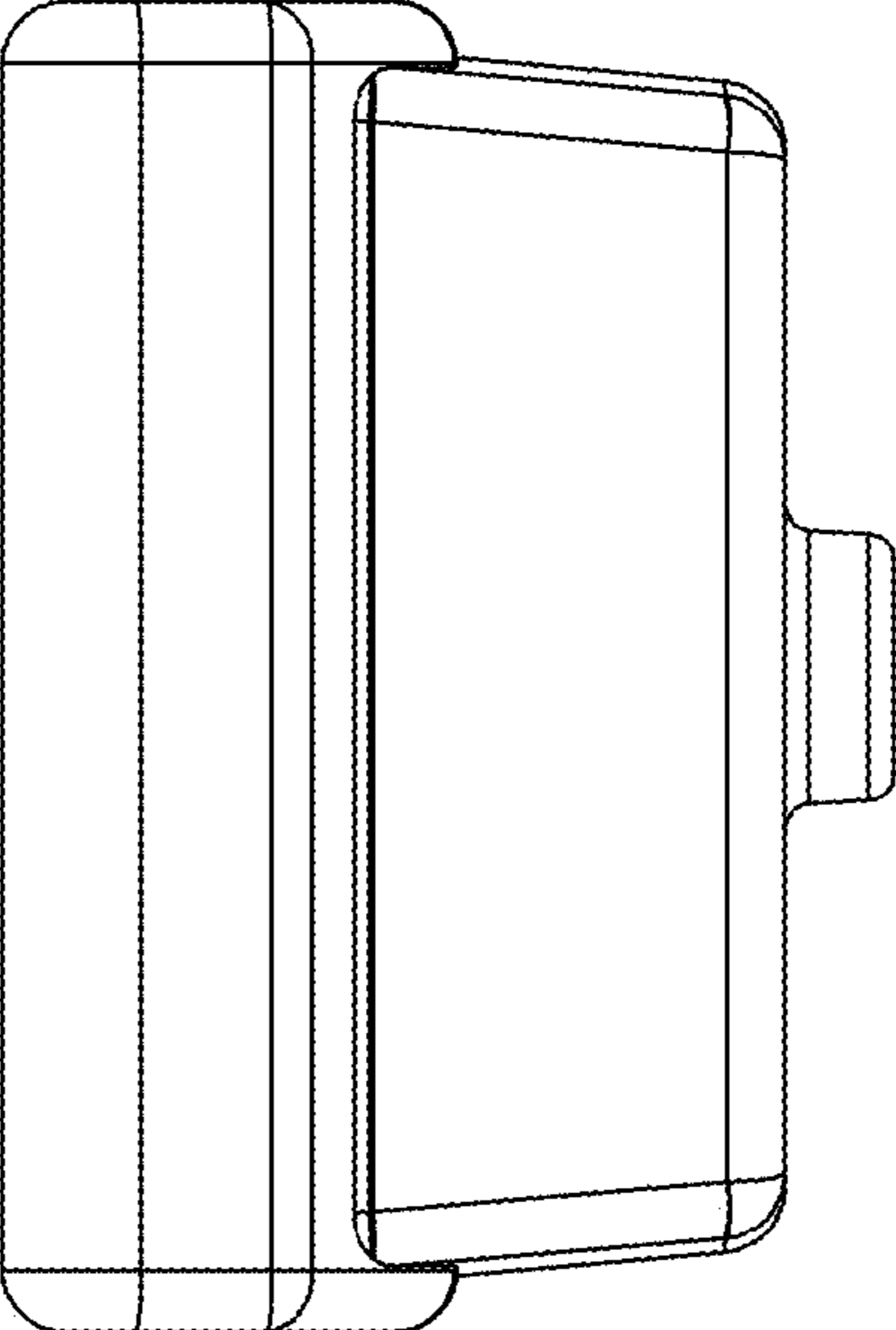


FIG. 5

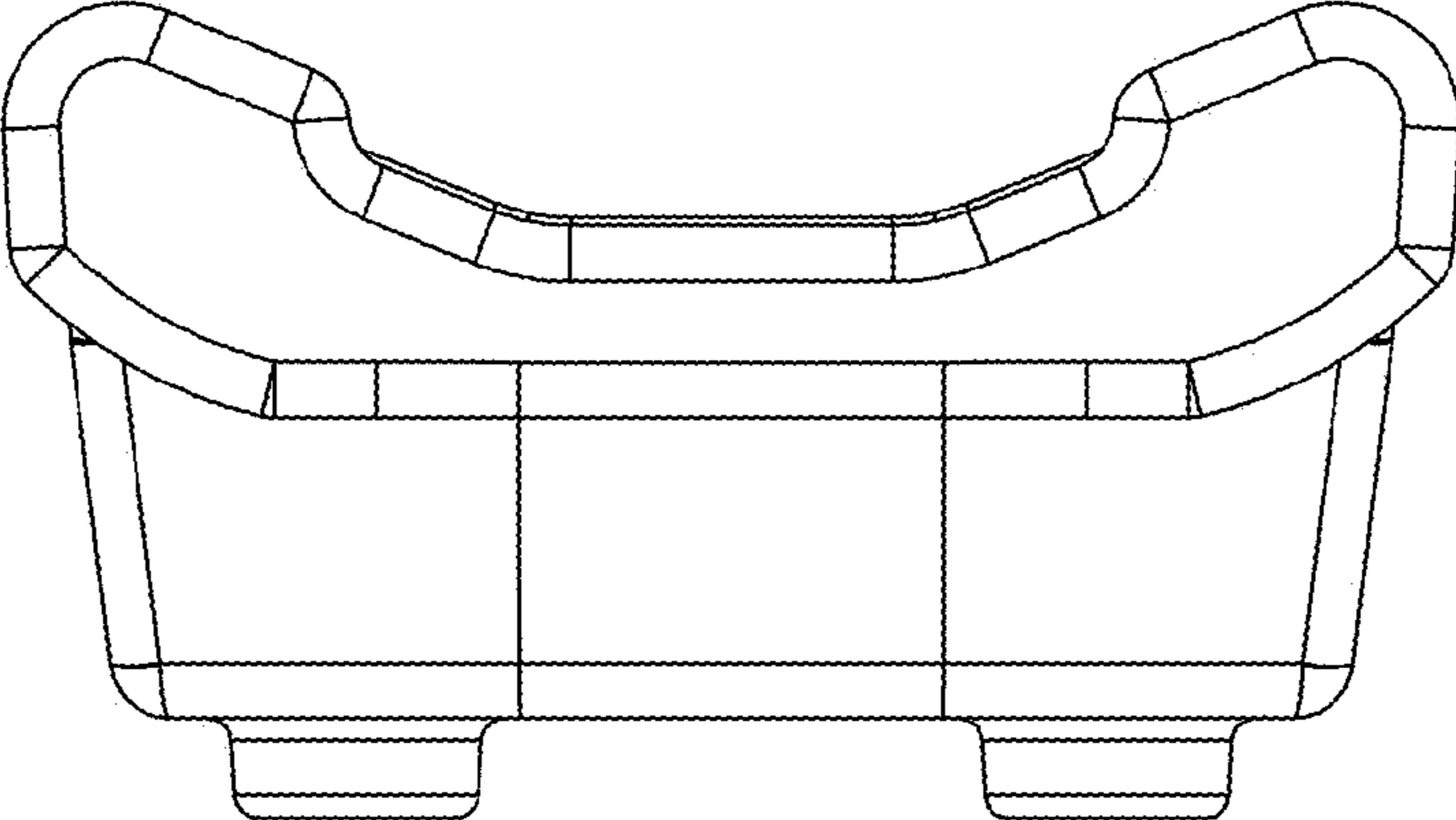


FIG. 7

