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(12) **United States Design Patent**
Bowron

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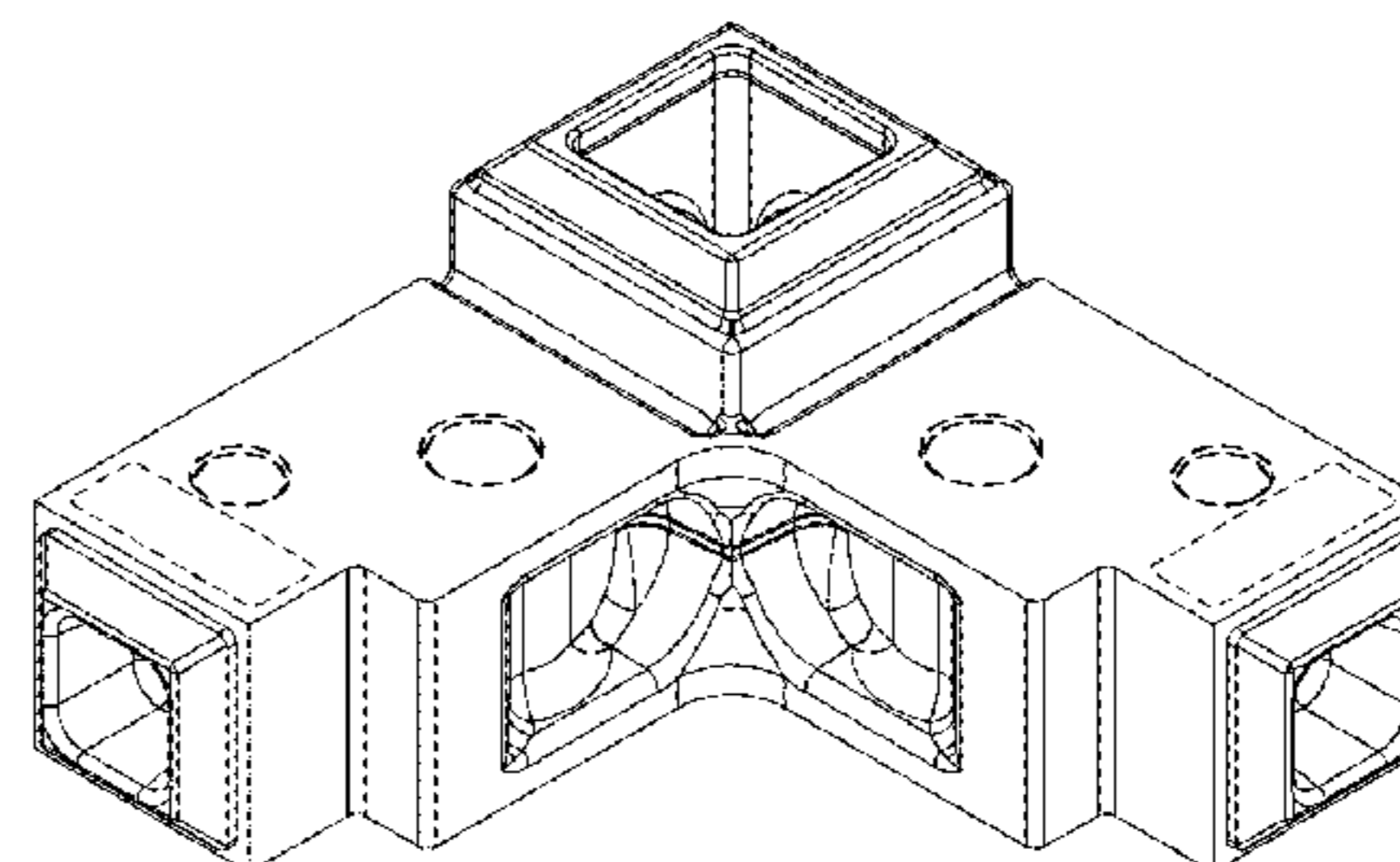
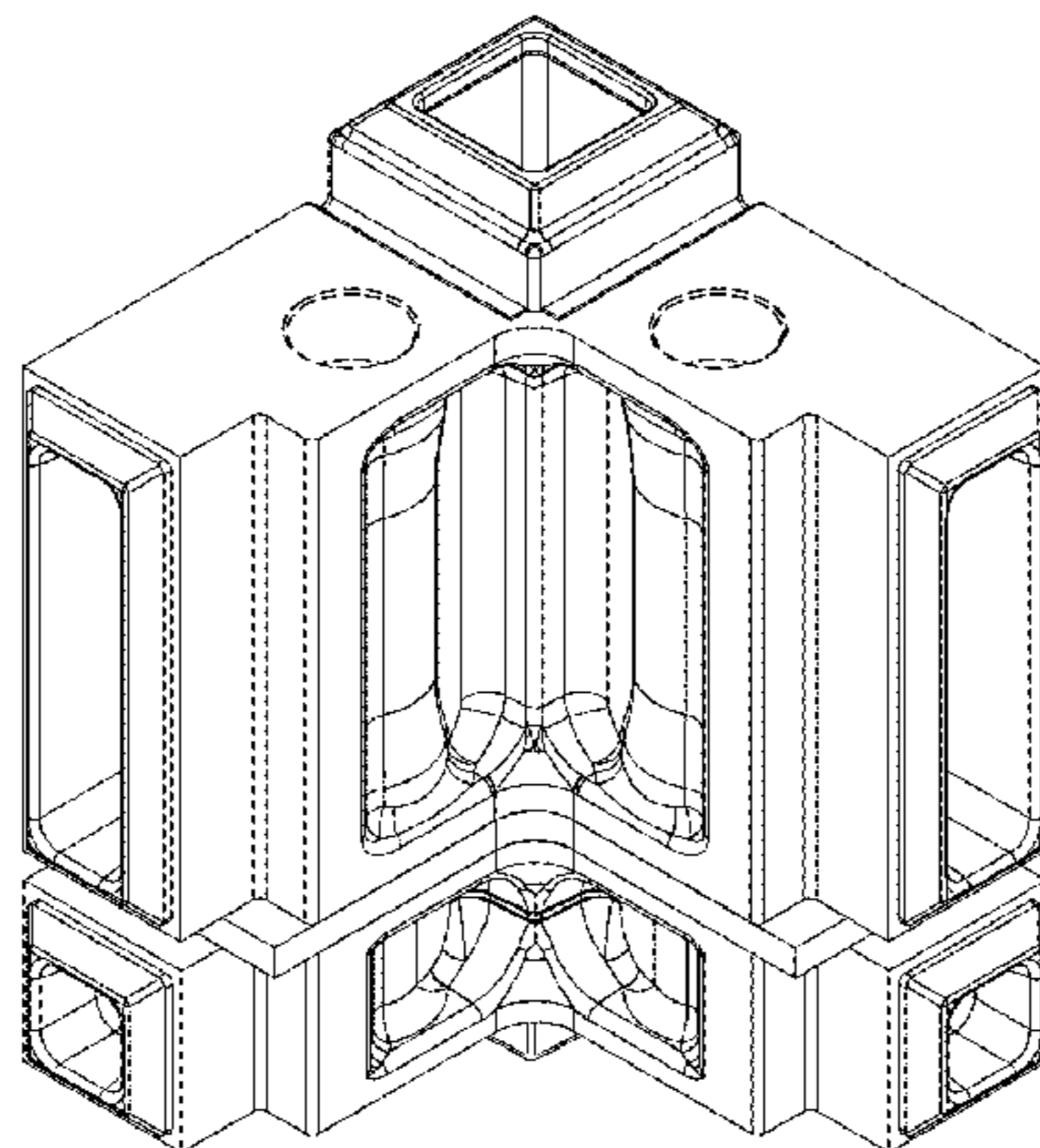
- (54) **CONNECTOR ASSEMBLY**
- (71) Applicant: **Vectorbloc Corp.**, Toronto (CA)
- (72) Inventor: **Julian Bowron**, Toronto (CA)
- (73) Assignee: **Vector Bloc, Corp.**, Toronto (CA)
- (**) Term: **15 Years**
- (21) Appl. No.: **29/568,900**
- (22) Filed: **Jun. 22, 2016**
- (30) **Foreign Application Priority Data**
Mar. 18, 2016 (CA) 167636
- (51) **LOC (12) Cl.** **08-05**
- (52) **U.S. Cl.**
USPC **D8/354**
- (58) **Field of Classification Search**
USPC D8/48, 71, 315-322, 354-355, 378-381,
D8/400-499; D12/420, 223;
D25/119-125, 199
CPC F16L 1/00; F16L 9/00; F16L 13/00; B25H
3/04; A61B 1/00; A61B 17/00; A61B
2217/00; A61B 2218/00; H02G 1/00;
H02G 2200/00; A47F 1/00; H02J 1/00
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

- 946,423 A 1/1910 Connaty
- 2,037,736 A 4/1936 Payne et al.
- 3,205,611 A * 9/1965 Onanian A63H 33/042
285/397
- 3,416,270 A * 12/1968 McHugh F16M 1/00
248/687
- 3,824,750 A 6/1974 Antoniou
- 3,973,855 A 8/1976 Florence
- 4,003,144 A * 1/1977 Maddestra A63F 9/0098
434/403
- D248,447 S * 7/1978 Hornung D8/354
- D258,194 S * 2/1981 Stanley D25/126
- 4,758,111 A 7/1988 Vitta

- 5,127,759 A 7/1992 Orbom
- 5,259,685 A 11/1993 Wolf
- D357,544 S * 4/1995 Spransy D25/119
- 5,414,918 A 5/1995 Pearson
- 5,440,844 A 8/1995 Zinser, Jr.
- 5,516,225 A 5/1996 Kvols
- 5,590,974 A 1/1997 Yang
- 5,605,410 A 2/1997 Pantev
- 5,727,358 A 3/1998 Hayashi et al.
- 5,816,011 A 10/1998 Kuramoto
- 5,820,289 A 10/1998 Kern et al.
- 5,904,437 A 5/1999 Allen
- 5,921,049 A 7/1999 Sugiyama
- 6,062,761 A 5/2000 Allen
- 6,092,849 A 7/2000 Zambelli et al.
- 6,247,869 B1 6/2001 Lichvar
- 6,332,657 B1 12/2001 Fischer
- 6,390,719 B1 5/2002 Chan
- 6,974,276 B2 12/2005 Kirchner et al.
- 7,503,623 B2 3/2009 Favaretto
- D622,865 S * 8/2010 Bajrami D25/35
- 7,882,388 B2 2/2011 Bramante
- 7,883,288 B2 2/2011 Jorna
- 7,941,985 B2 5/2011 Simmons
- 8,176,703 B2 * 5/2012 Tremacchi E04H 1/1238
403/171
- 9,121,433 B1 9/2015 Bacon
- D756,202 S * 5/2016 Leduc D8/354
- 9,334,642 B1 5/2016 Tanaka et al.
- 9,458,619 B2 * 10/2016 Bowron
- 10,036,156 B1 7/2018 Macdonald et al.
- 2002/0007614 A1 1/2002 Katayama et al.
- 2006/0112657 A1 6/2006 Abbot-Wilcox
- 2009/0307994 A1 * 12/2009 Cathcart E04B 1/3483
52/79.9
- 2011/0219708 A1 9/2011 Ohnishi et al.
- 2011/0286121 A1 11/2011 Werner et al.
- 2011/0308063 A1 12/2011 Feeleus
- 2013/0045042 A1 2/2013 Ohlson
- 2013/0306808 A1 11/2013 Huang
- 2014/0286695 A1 9/2014 Jocham et al.
- 2014/0294500 A1 10/2014 Schaff et al.
- 2015/0184369 A1 7/2015 Carless
- 2016/0002909 A1 * 1/2016 Bowron E04B 1/3483
52/125.2
- 2017/0002559 A1 1/2017 Bowron et al.
- 2018/0216336 A1 8/2018 Macdonald et al.
- 2019/0044753 A1 2/2019 Neeld
- 2019/0078321 A1 3/2019 Bowron



FOREIGN PATENT DOCUMENTS

CA	2744074	A1	12/2011
CN	231689	Y	6/2000
CN	101575876	A	11/2009
CN	101680227	A	3/2010
CN	202559534	U	11/2012
CN	203834666	U	9/2014
DE	249 688	A1	9/1987
DE	195 17 785	A1	11/1996
DE	697 04 916	T2	11/2001
EP	0761 895	A1	3/1997
EP	0761895	A1	3/1997
EP	2759648	A1	7/2014
GB	2300432	A	11/1996
GB	2554967	A	4/2018
JP	H03233042	A	10/1991
JP	H07180221	A	7/1995
JP	H07180228	A	7/1995
JP	3014203	U	8/1995
JP	H07243239	A	9/1995
JP	H09194179	A	7/1997
JP	2004270438	A	9/2004
JP	2005139623	A	6/2005
JP	2006063787	A	3/2006
JP	2009024419	A	2/2009
JP	2013167131	A	8/2013
JP	2013245501	A	12/2013
KR	100923637	B1	10/2009
KR	20110053101	A	5/2011
TW	294752	B	1/1997
WO	03069083	A1	8/2003
WO	2004035952	A1	4/2004
WO	2006/096997	A1	9/2006
WO	2006096997	A1	9/2006
WO	2006122372	A1	11/2006
WO	2007144913	A1	12/2007
WO	2010035816	A1	4/2010
WO	2012083391	A1	6/2012
WO	2012/129601	A1	10/2012
WO	2012129601	A1	10/2012
WO	2014127472	A1	8/2014
WO	2015164975	A1	11/2015
WO	2017027965	A1	2/2017

OTHER PUBLICATIONS

Written Opinion issued by the Intellectual Property Office of Singapore for International Application No. PCT/CA2014/050110 dated May 2, 2016, 5 pages.

PCT International Search Report for International Application No. PCT/CA2014/050110 dated May 5, 2014, 4 pages.

Written Opinion issued by the Canadian Intellectual Property Office for International Application No. PCT/CA2016/050954 dated Oct. 14, 2016, 8 pages.

International Search Report for International Application No. PCT/CA2016/050954 dated Oct. 14, 2016, 5 pages.

Chinese Office Action dated Jun. 19, 2018.

Office Action issued against corresponding Japanese Patent Application No. JP2015-558313 dated Mar. 6, 2018.

Extended European Search Report issued against corresponding International Application PCT/CA2015050369 dated Nov. 20, 2017. Information on Search Strategy.

Extended European Search Report issued against International Application No. PCT/CA2016050954 dated Feb. 14, 2019.

Extended European Search Report issued against International Application No. PCT/CA2014050110 dated Jan. 20, 2017.

Office Action issued against corresponding Japanese Application 2017-508717 dated Feb. 26, 2019.

First Office Action and Search Report for corresponding Chinese Patent Application No. 201680027827.9 dated Apr. 15, 2019.

Written Opinion of the International Searching Authority for PCT/CA2016050434 dated Jun. 23, 2016.

Written Opinion of the International Searching Authority for PCT/CA2015050369 dated Jul. 14, 2015.

Office Action issued against corresponding Chinese Application No. 201480022662.7 dated Jul. 18, 2017.

* cited by examiner

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Assistant Examiner — Kristin E Reed
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(57) **CLAIM**

The ornamental design for a connector assembly, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of a connector assembly showing my new design;
FIG. 2 is a front view of the connector assembly of FIG. 1;
FIG. 3 is a right side view of the connector assembly of FIG. 1;
FIG. 4 is a back side view of the connector assembly of FIG. 1;
FIG. 5 is a left side view of the connector assembly of FIG. 1;
FIG. 6 is a top view of the connector assembly of FIG. 1;
FIG. 7 is a bottom view of the connector assembly of FIG. 1;
FIG. 8 is a perspective view of the top corner connector portion of the connector assembly of FIG. 1, the top corner connector portion being shown separately to show aspects of the design that are not visible when the top corner connector portion is combined with other portions of the design;
FIG. 9 is a top view of the top corner connector portion of FIG. 8;
FIG. 10 is a bottom view of the top corner connector portion of FIG. 8;
FIG. 11 is a right side view of the top corner connector portion of FIG. 8;
FIG. 12 is a left side view of the top corner connector portion of FIG. 8;
FIG. 13 is a front view of the top corner connector portion of FIG. 8;
FIG. 14 is back side view of the top corner connector portion of FIG. 8;
FIG. 15 is a perspective view of the bottom corner connector portion of the connector assembly of FIG. 1, the bottom corner connector portion being shown separately to show aspects of the design that are not visible when the bottom corner connector portion is combined with other portions of the design;
FIG. 16 is a bottom view of the bottom corner connector portion of FIG. 15;
FIG. 17 is a top view of the bottom corner connector portion of FIG. 15;
FIG. 18 is a left side view of the bottom corner connector portion of FIG. 15;
FIG. 19 is a back side view of the bottom corner connector portion of FIG. 15;
FIG. 20 is a right side view of the bottom corner connector portion of FIG. 15;
FIG. 21 is a front view of the bottom corner connector portion of FIG. 15;
FIG. 22 is a perspective view of the gusset plate corner connector portion of the connector assembly of FIG. 1, the

gusset plate corner connector portion being shown separately to show aspects of the design that are not visible when the gusset plate corner connector portion is combined with other portions of the design;

FIG. 23 is a top view of the gusset plate of FIG. 22;

FIG. 24 is a bottom view of the gusset plate of FIG. 22;

FIG. 25 is a left side view of the gusset plate of FIG. 22;

FIG. 26 is a front view of the gusset plate of FIG. 22; and,

FIG. 27 is a right side view of the gusset plate of FIG. 22.

The broken lines in the drawings are for the purpose of illustrating portions of the connector assembly that form no part of the claimed design.

1 Claim, 10 Drawing Sheets

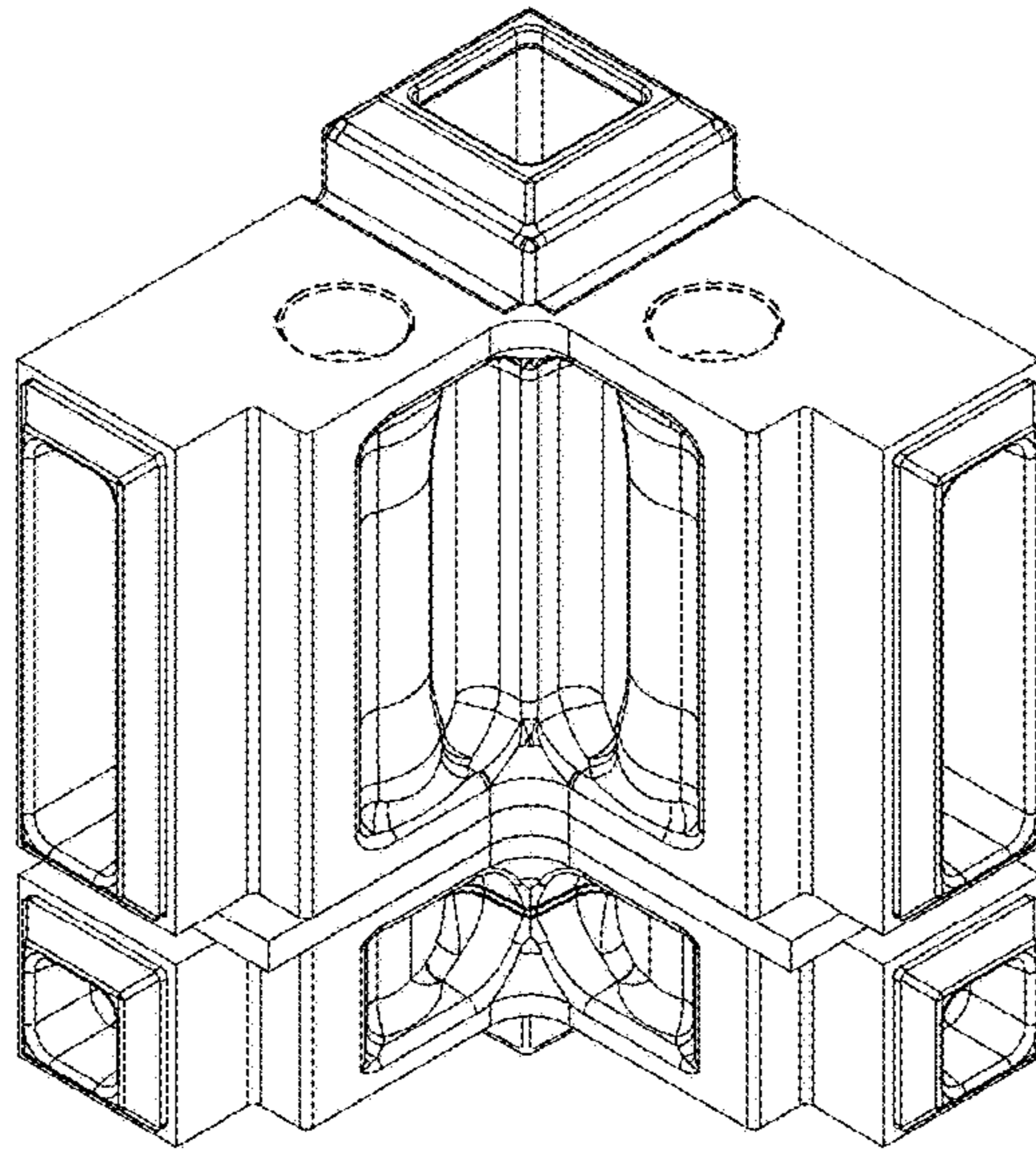


FIG. 1

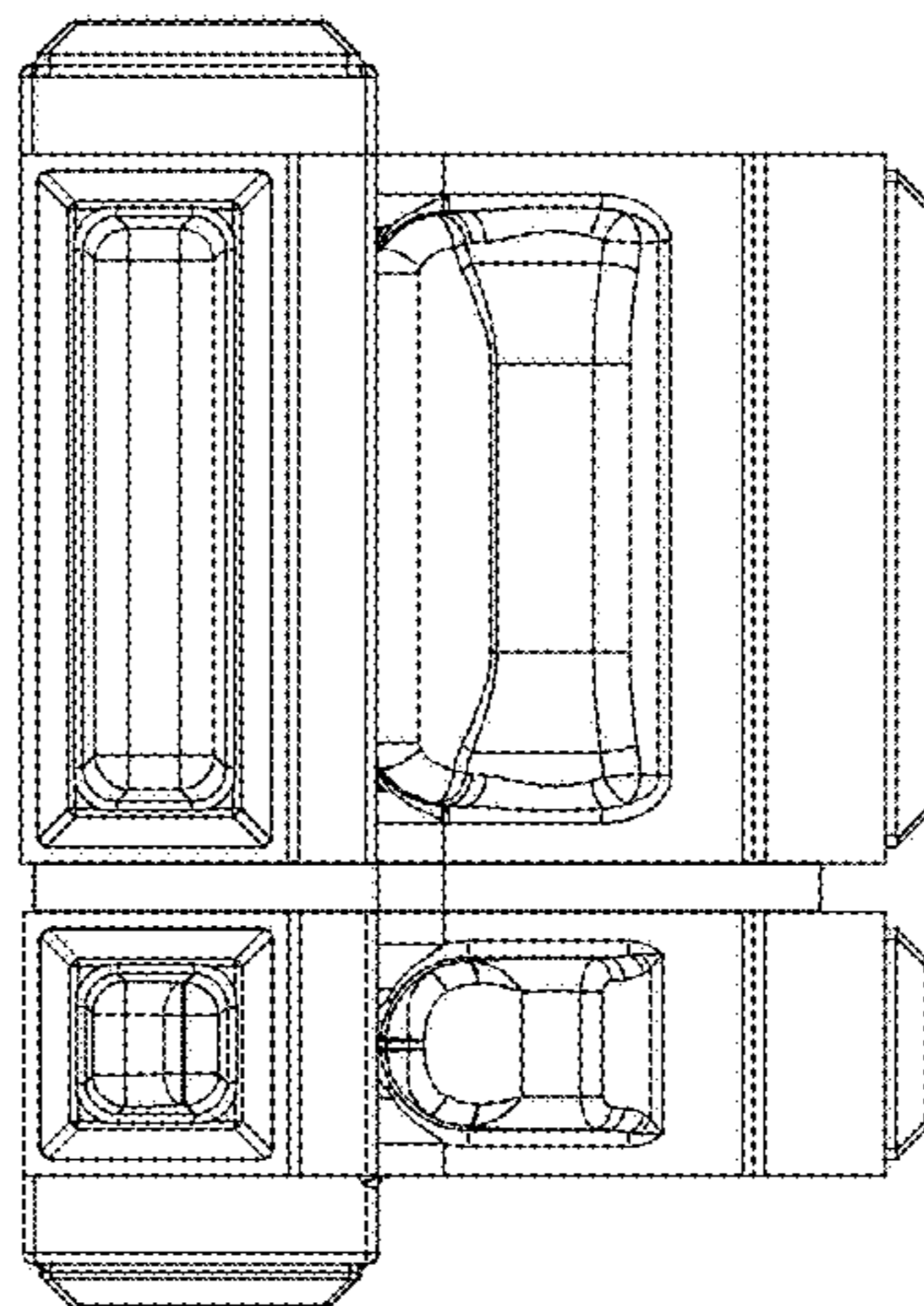


FIG. 2

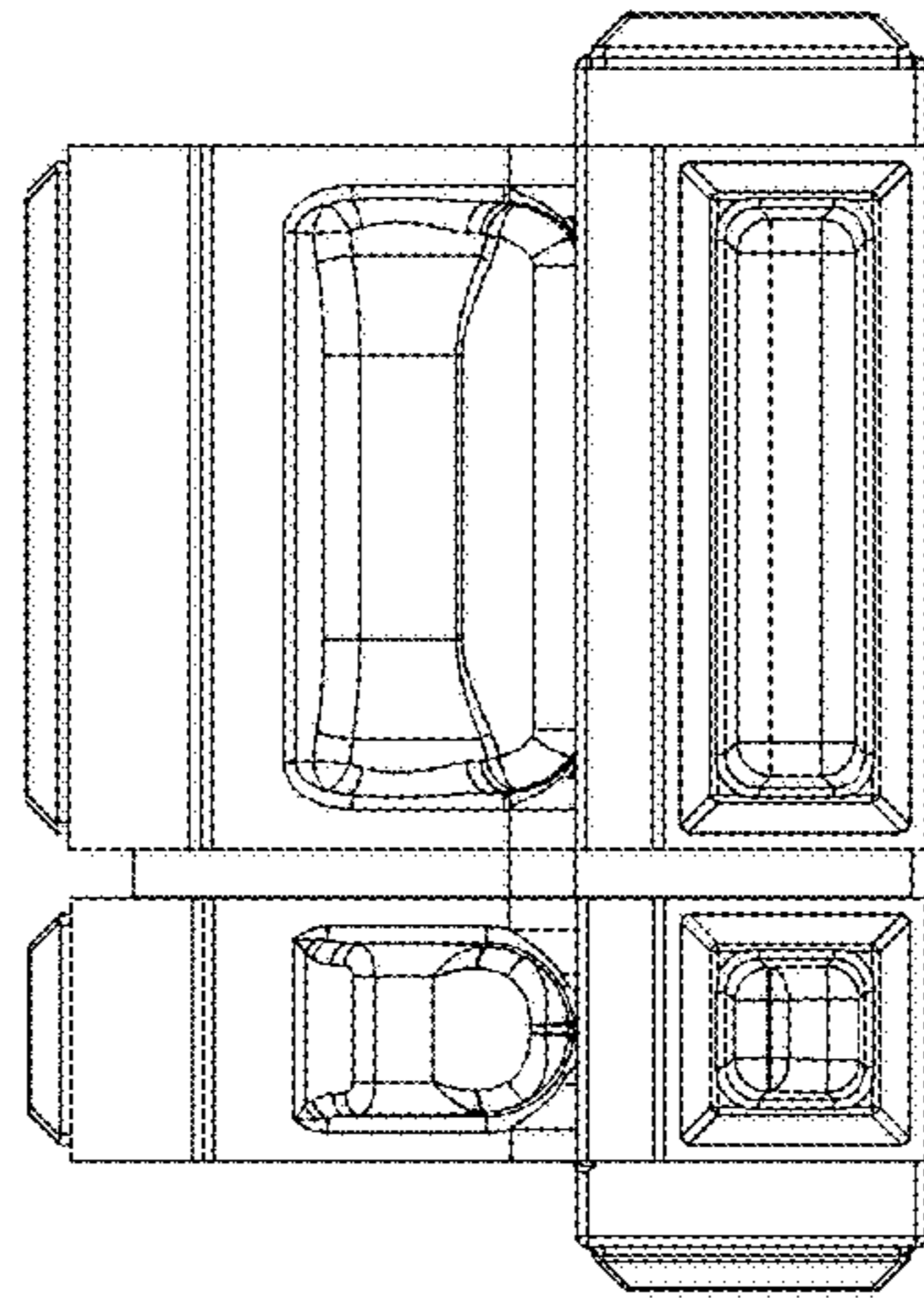


FIG. 3

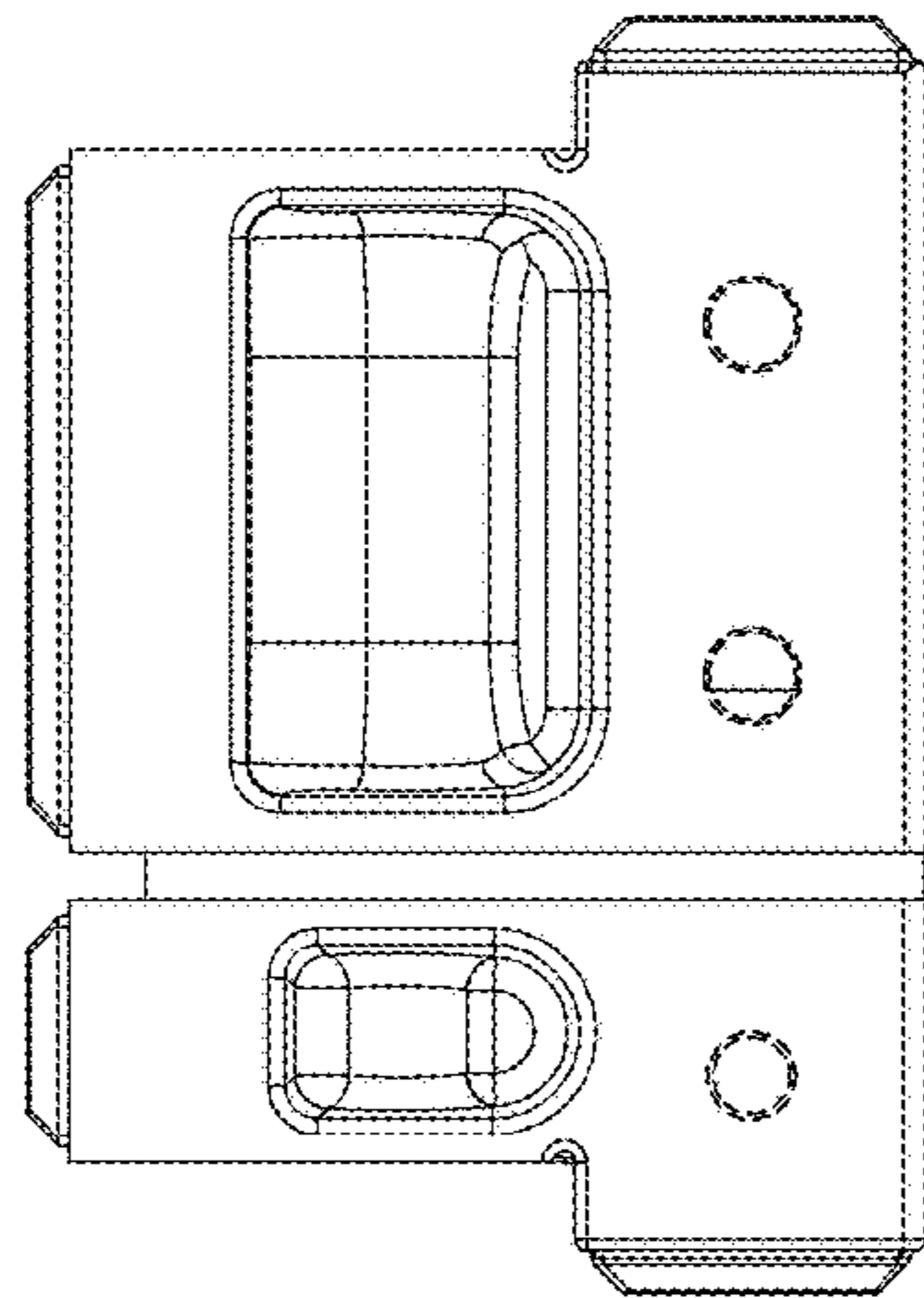


FIG. 4

FIG. 5

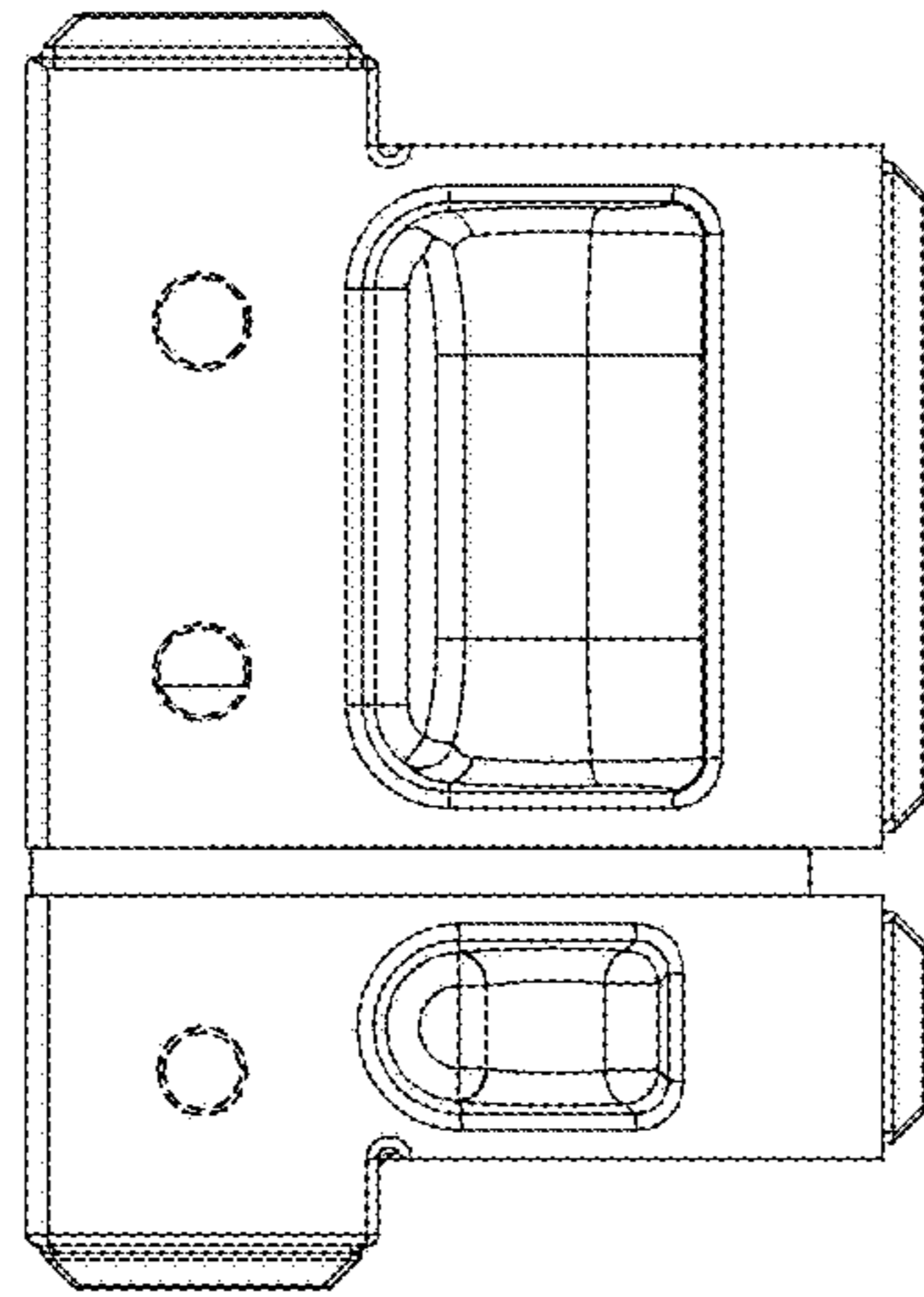


FIG. 6

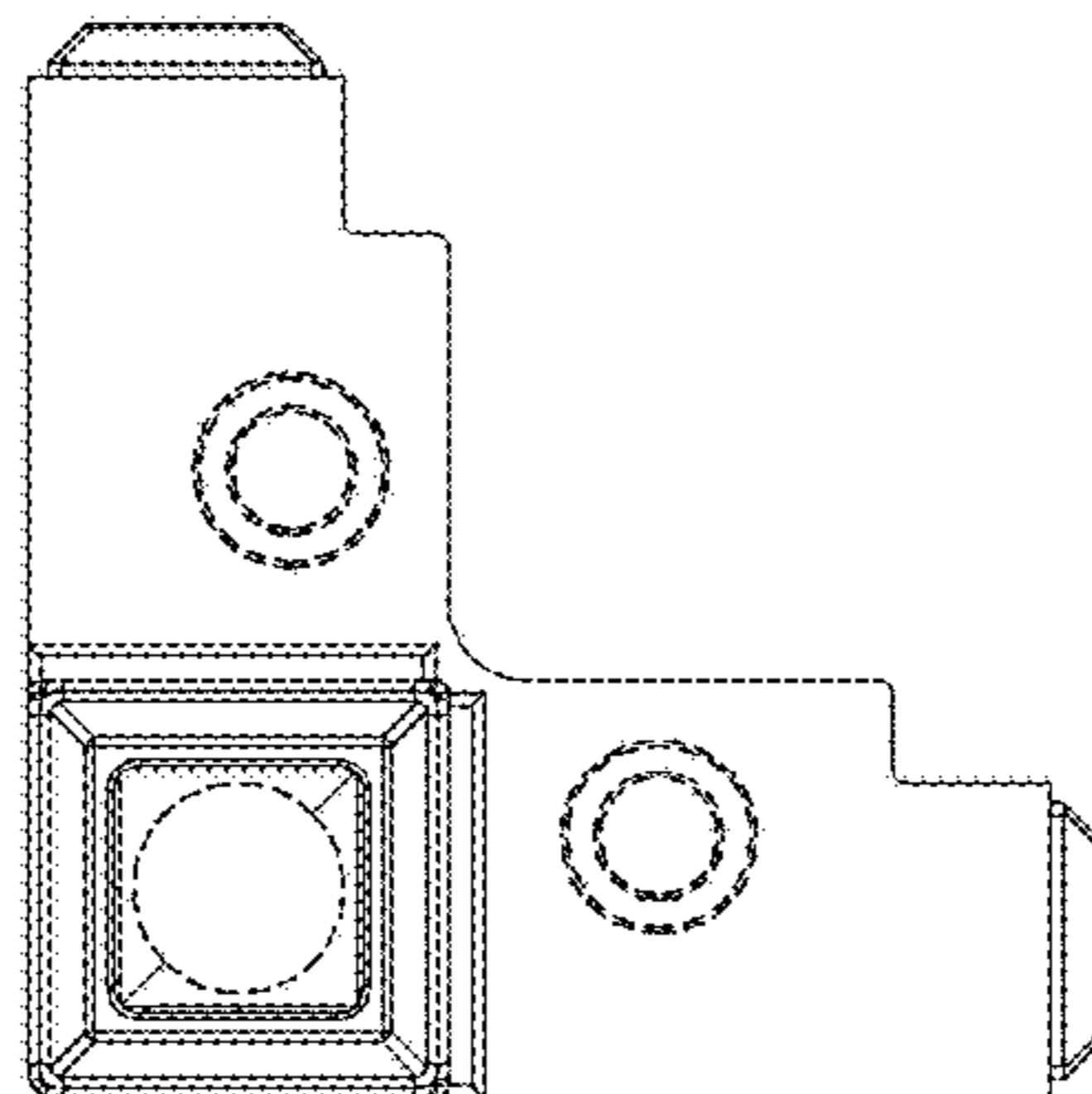
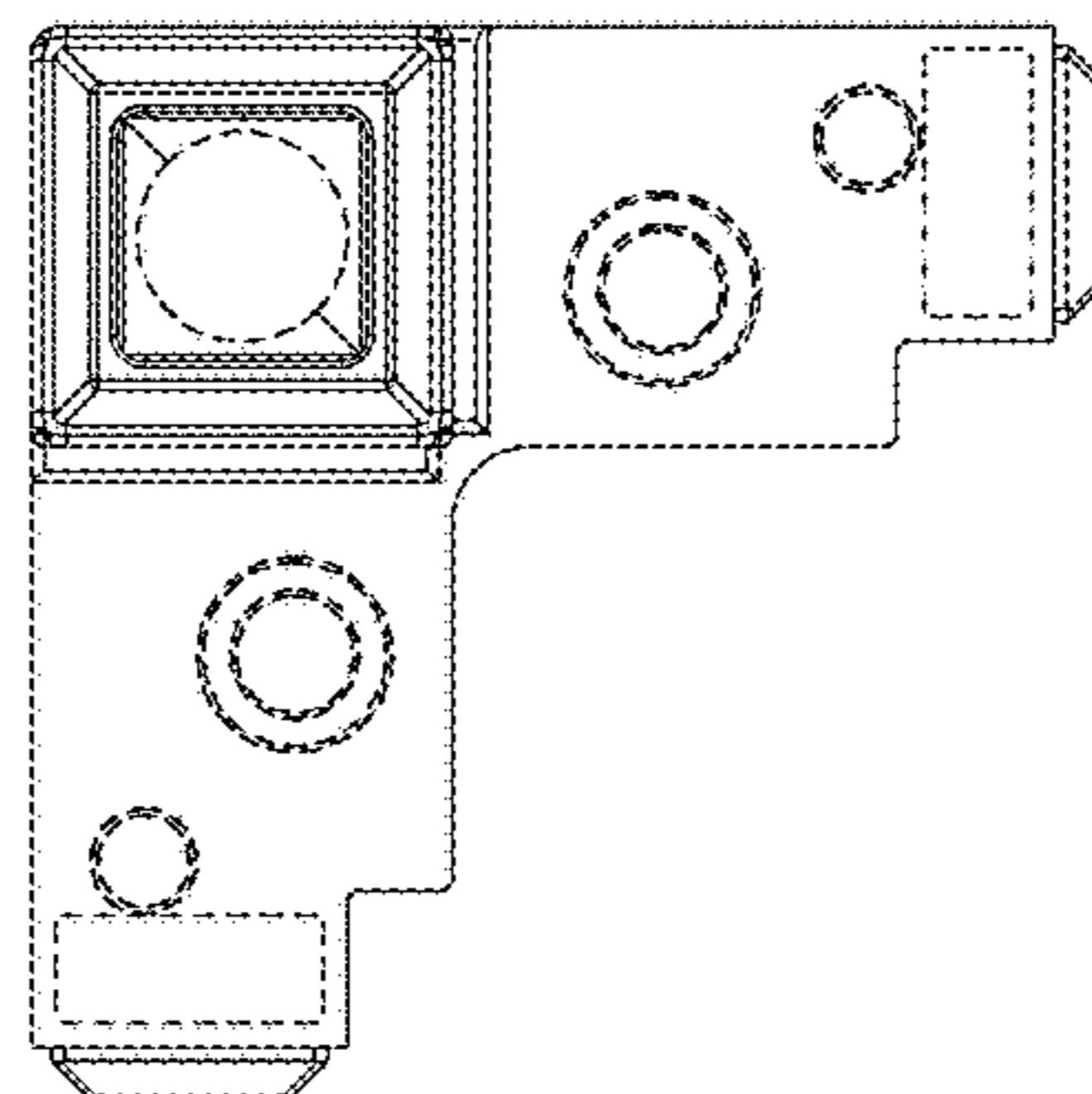


FIG. 7



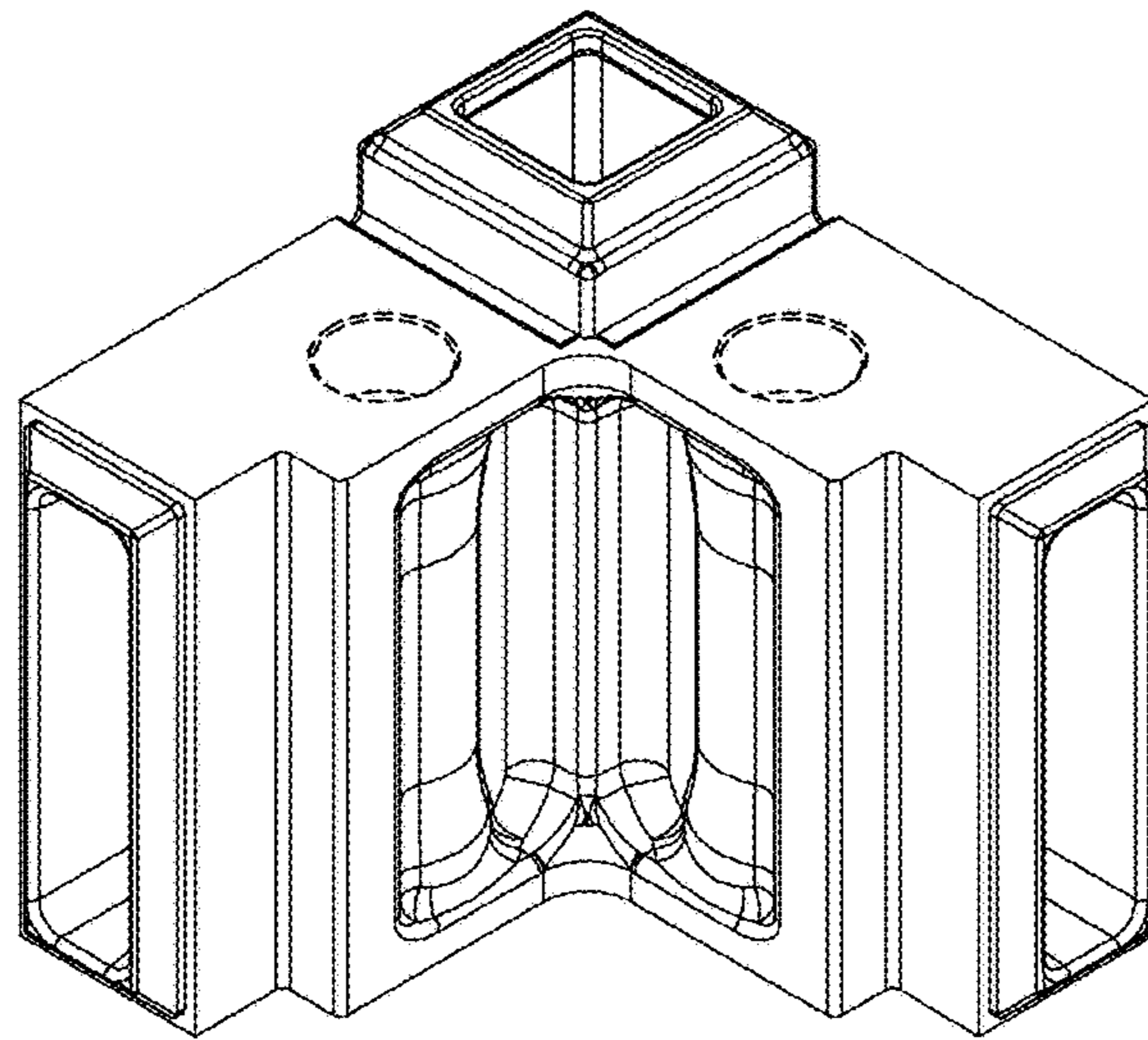


FIG. 8

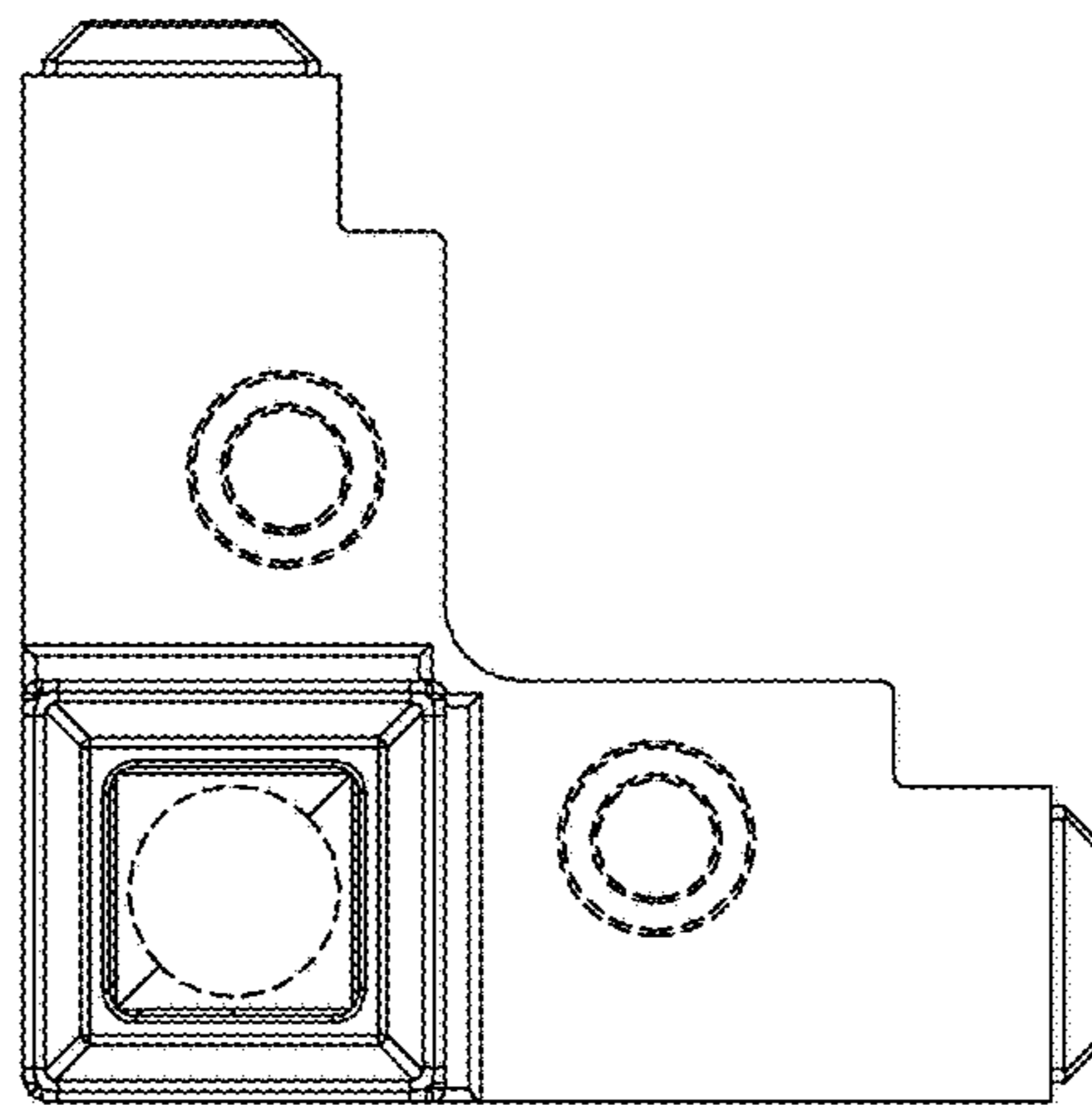


FIG. 9

FIG. 10

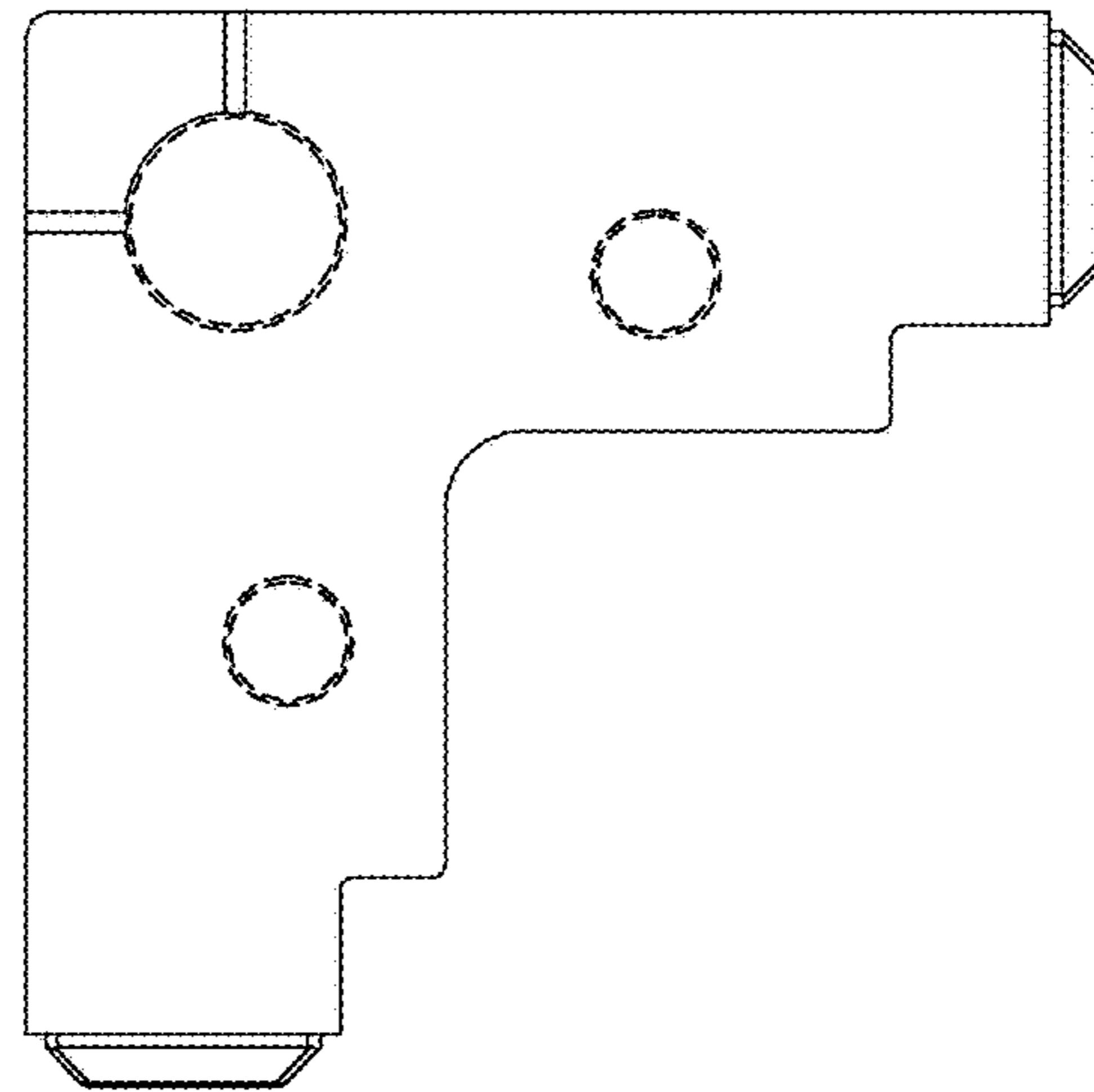


FIG. 11

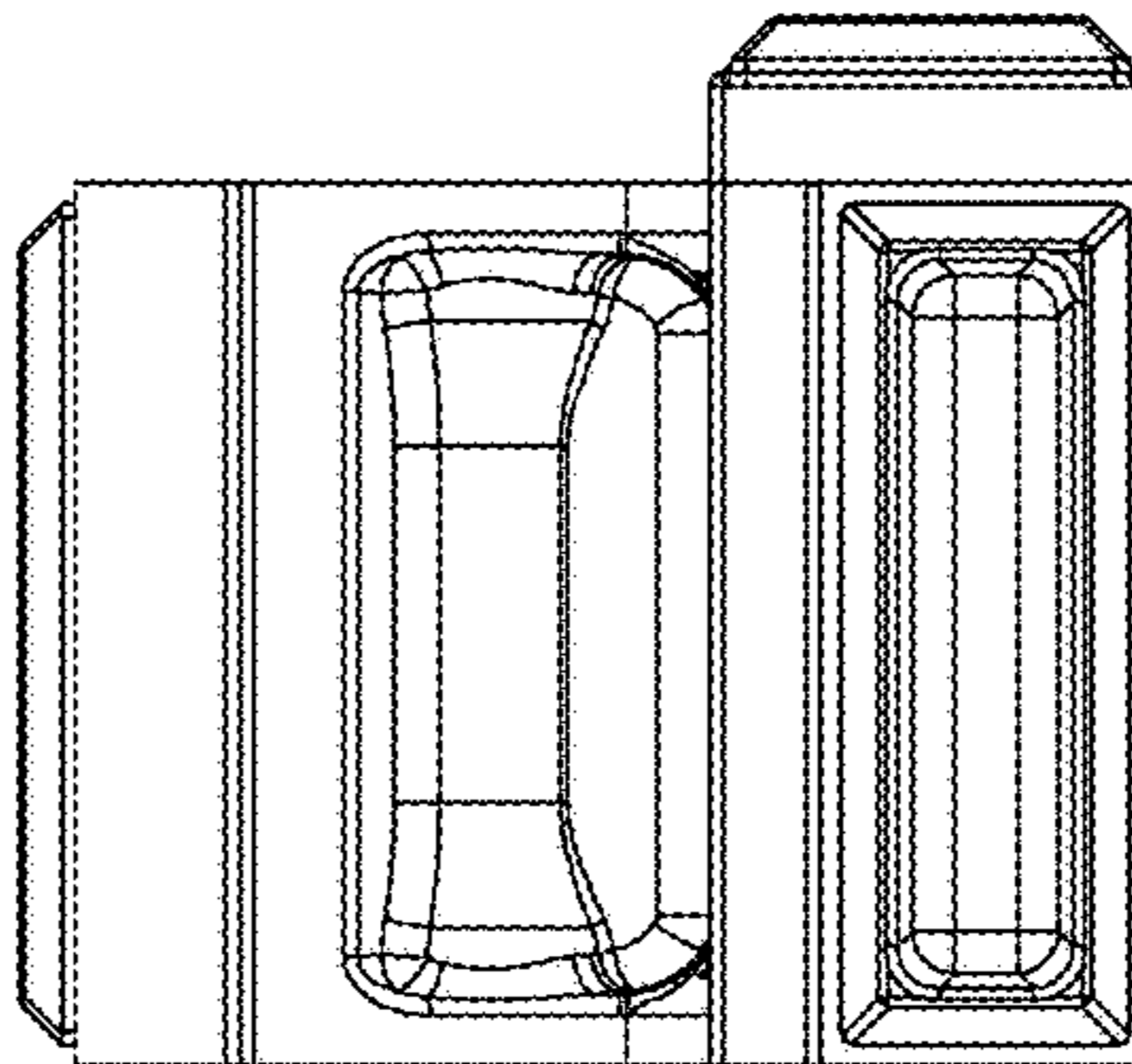
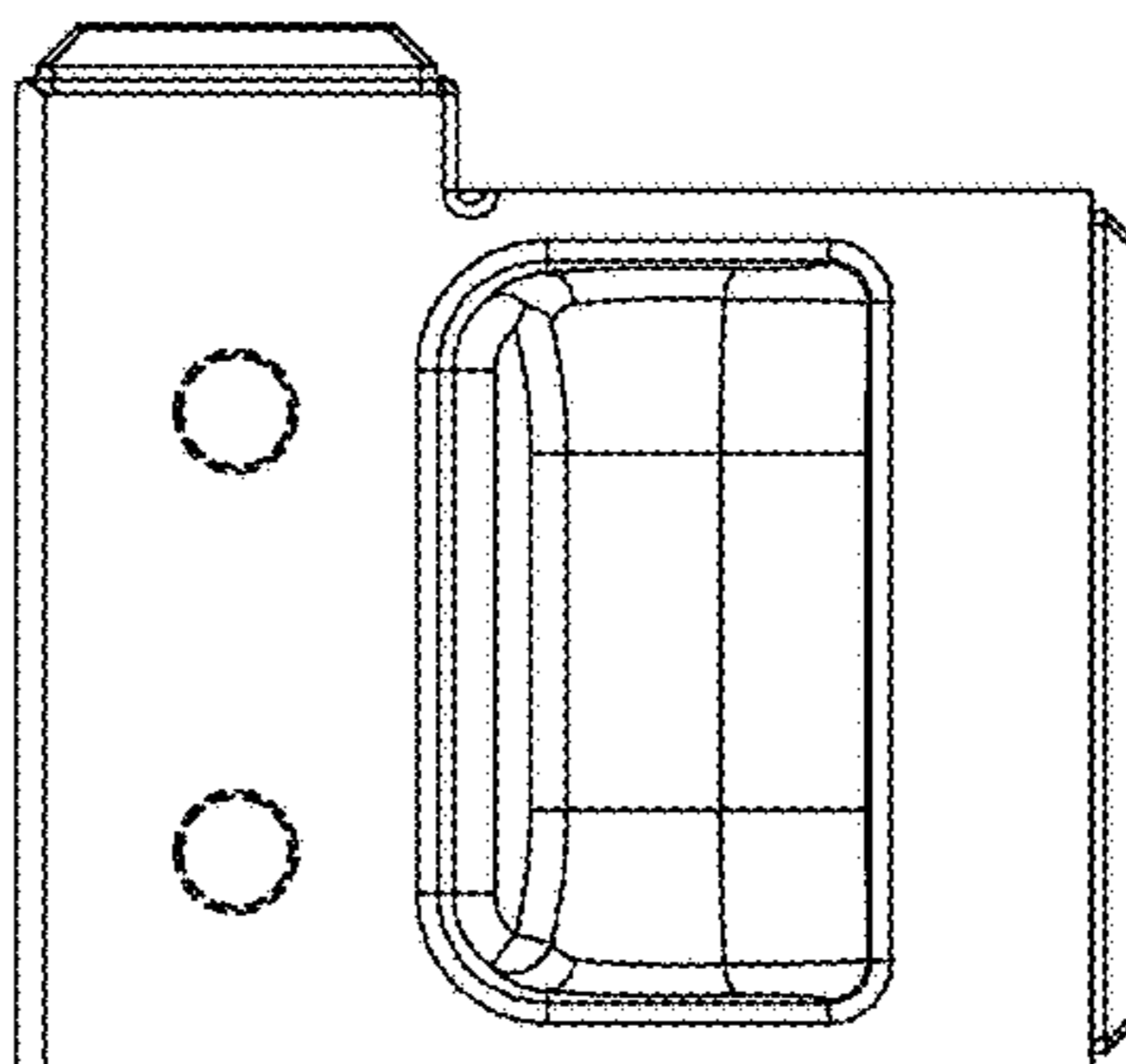


FIG. 12



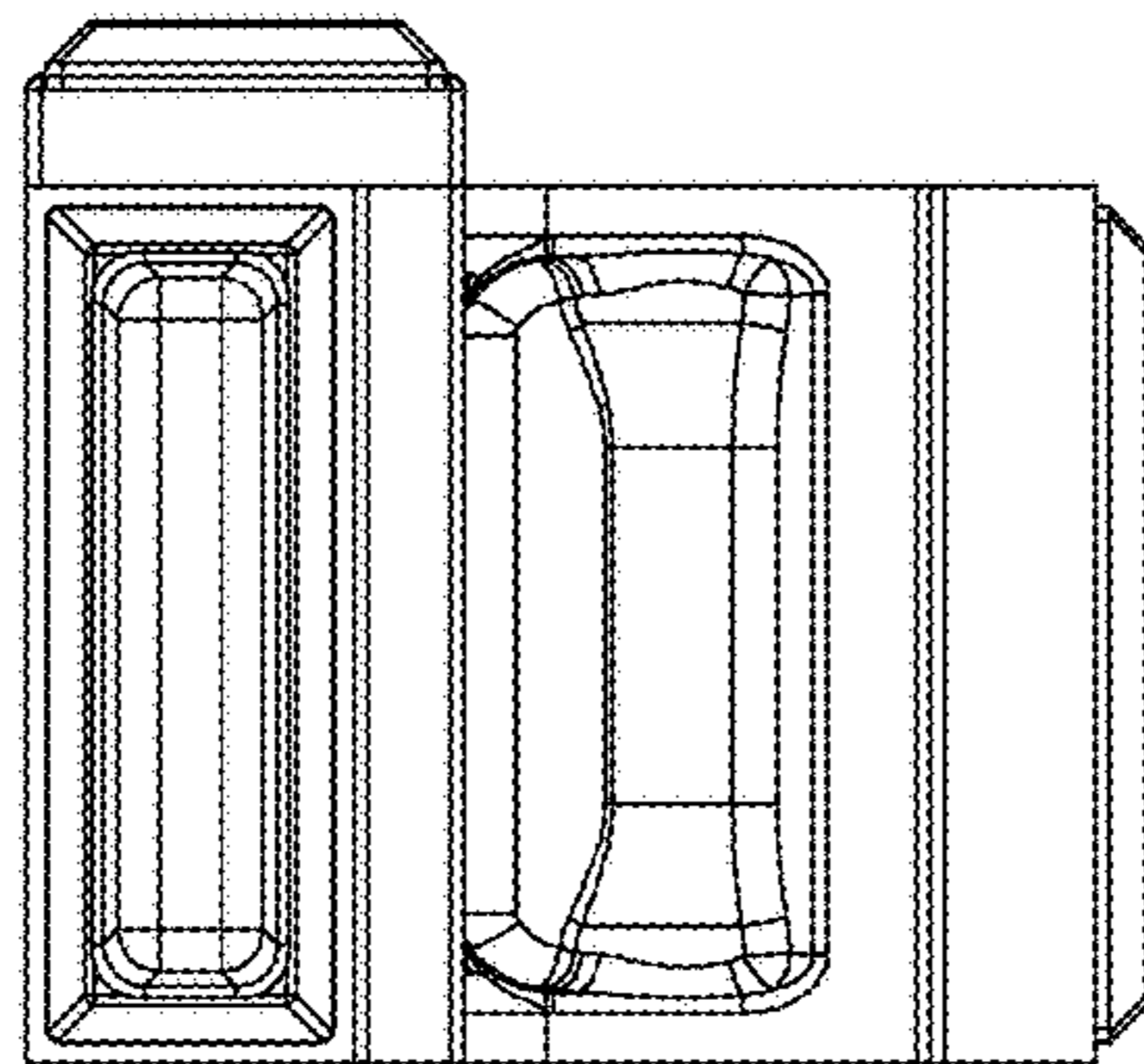


FIG. 13

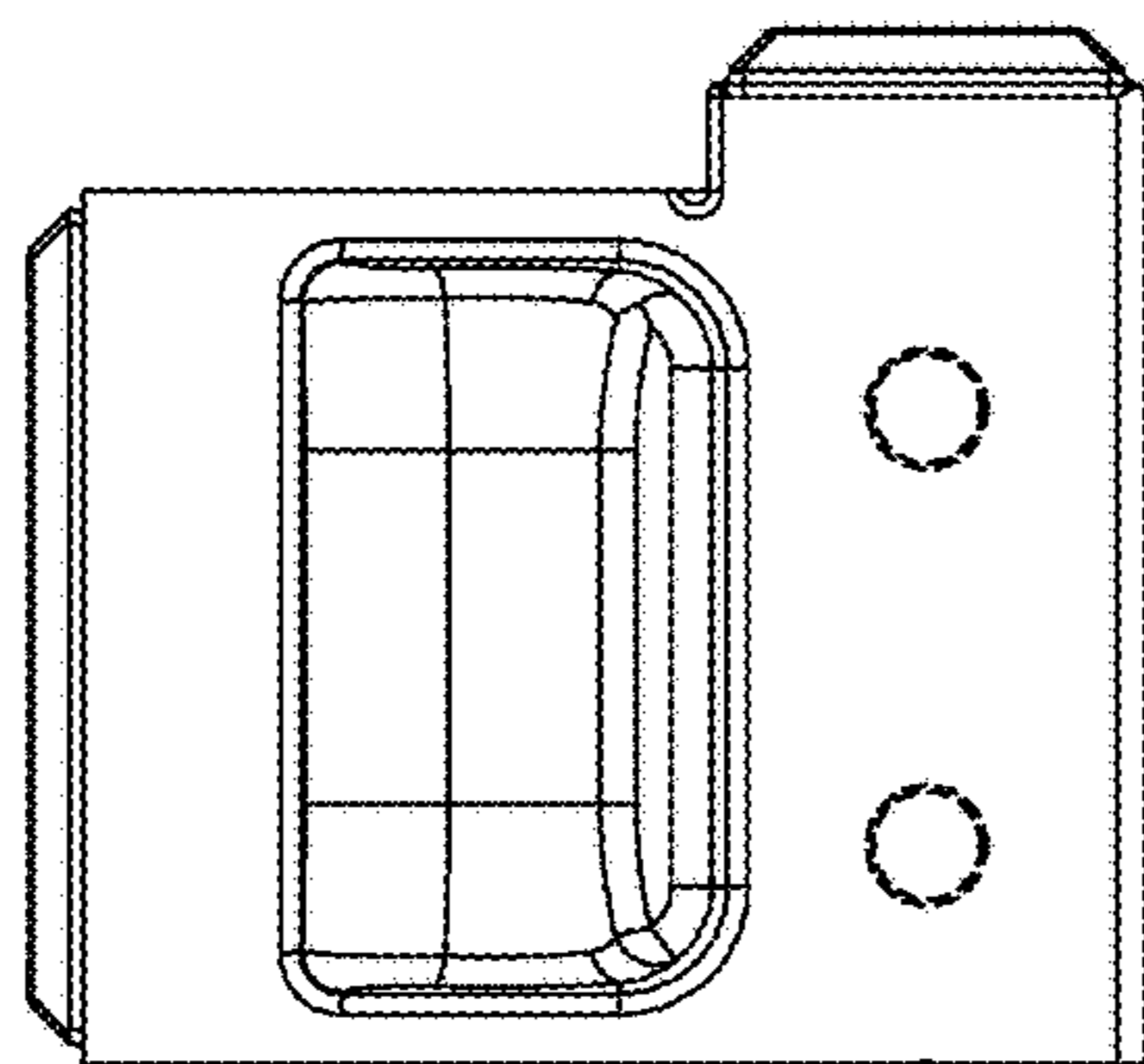


FIG. 14

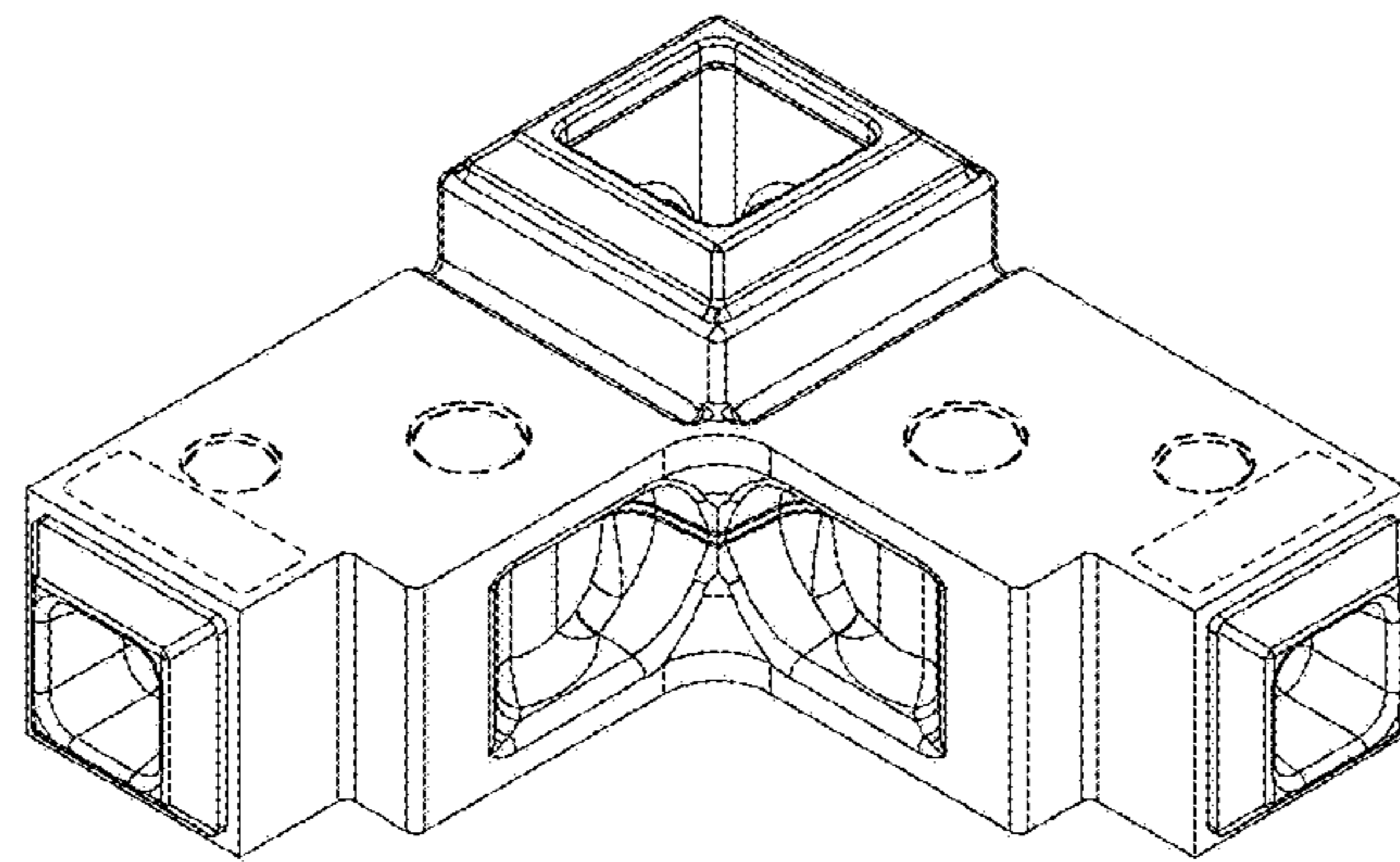


FIG. 15

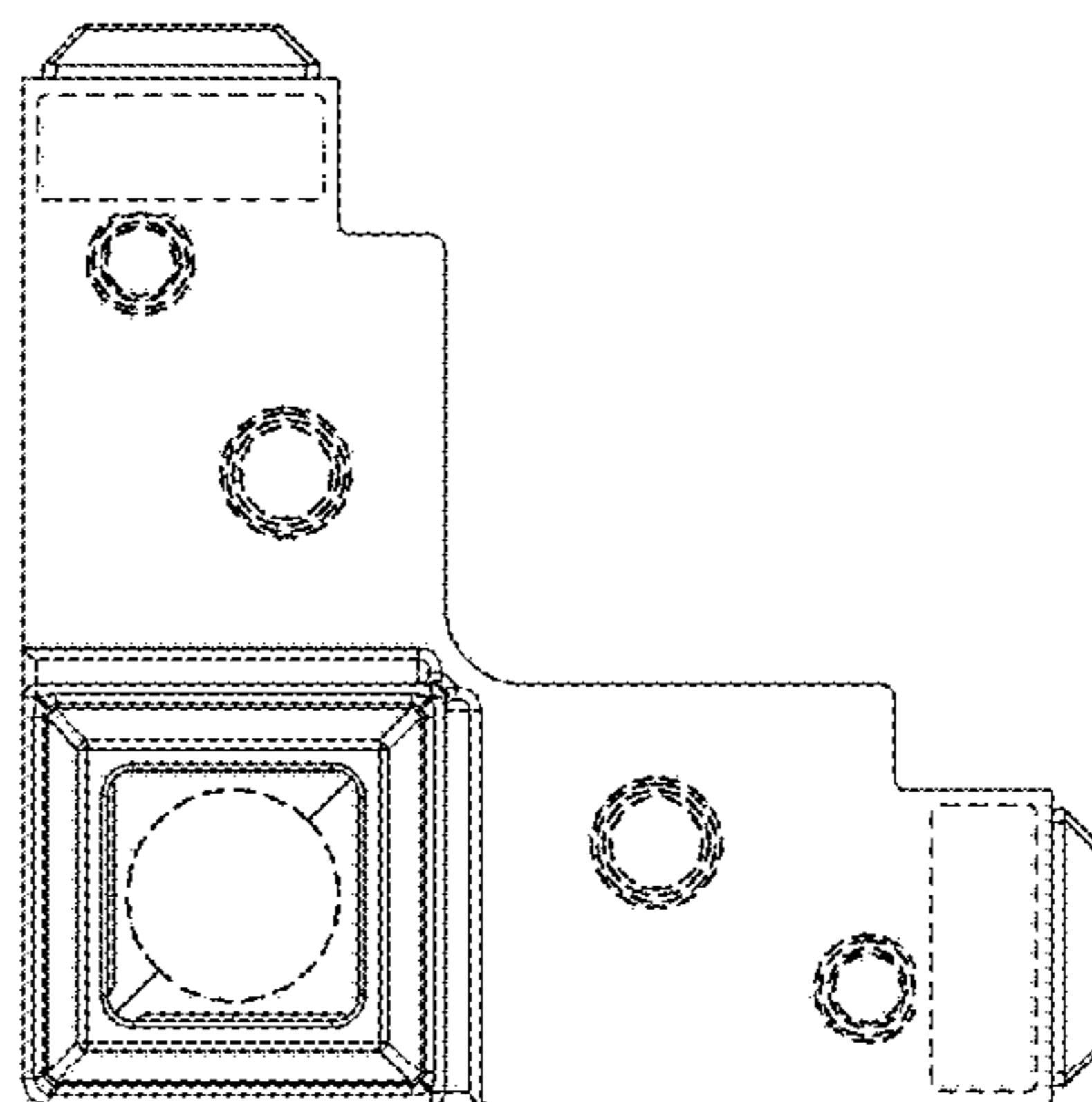


FIG. 16

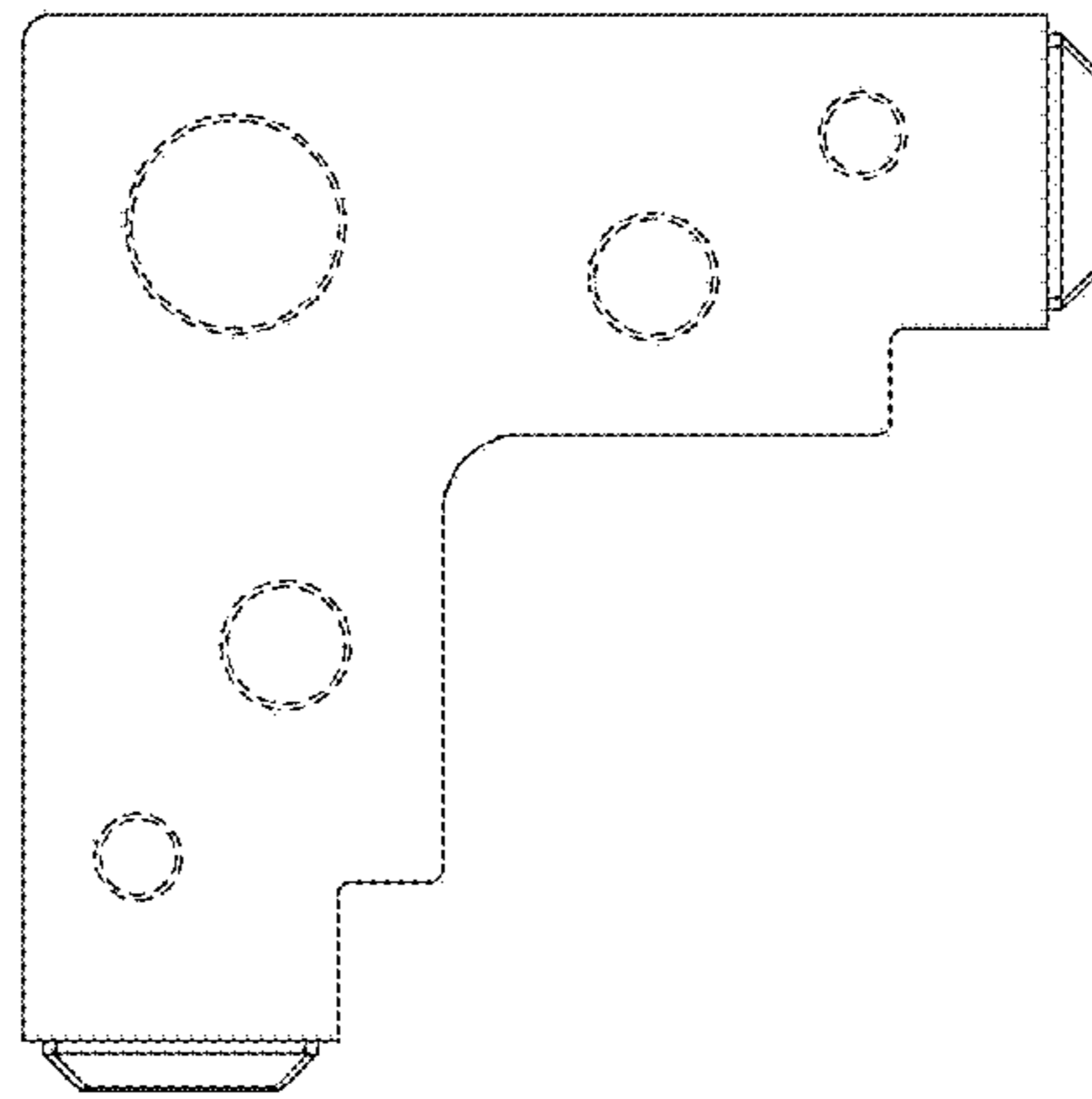


FIG. 17

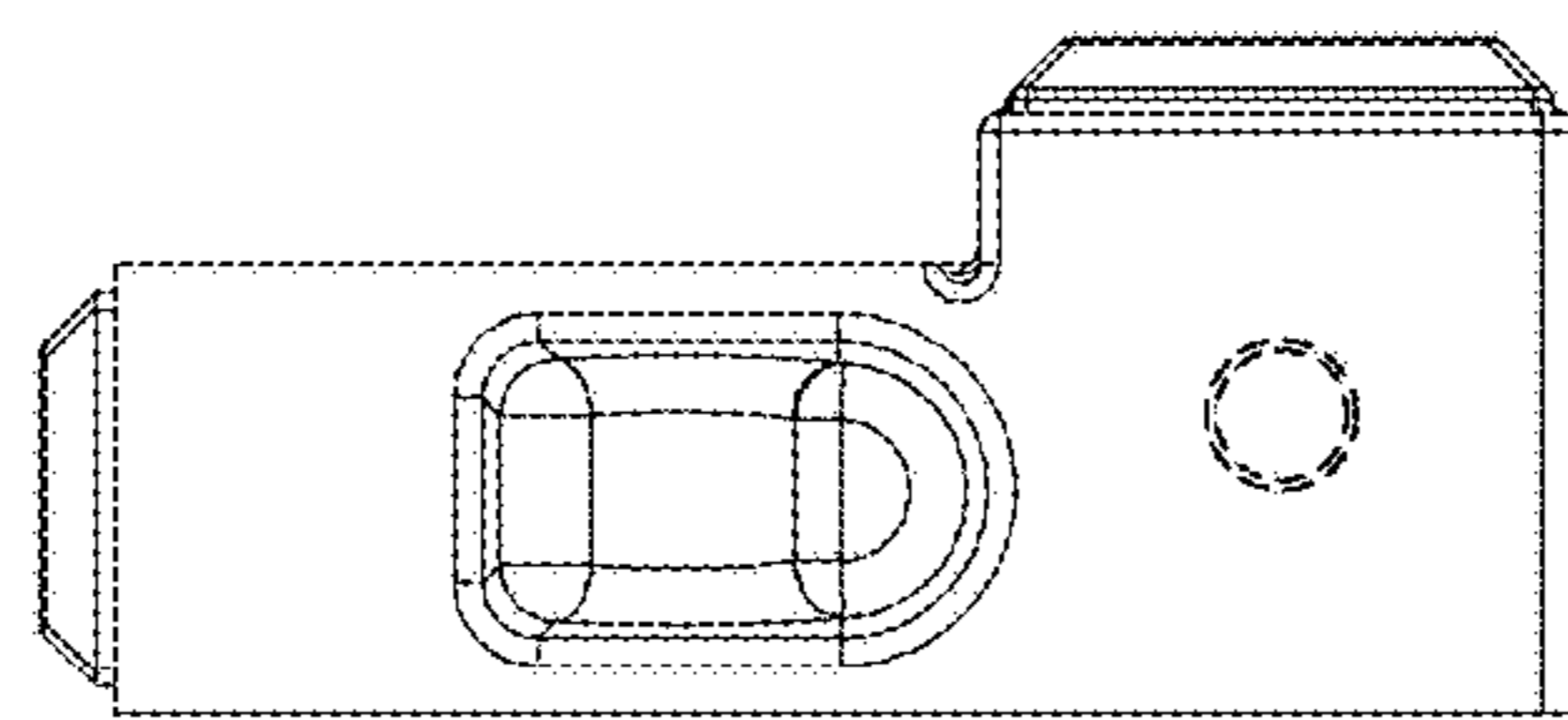


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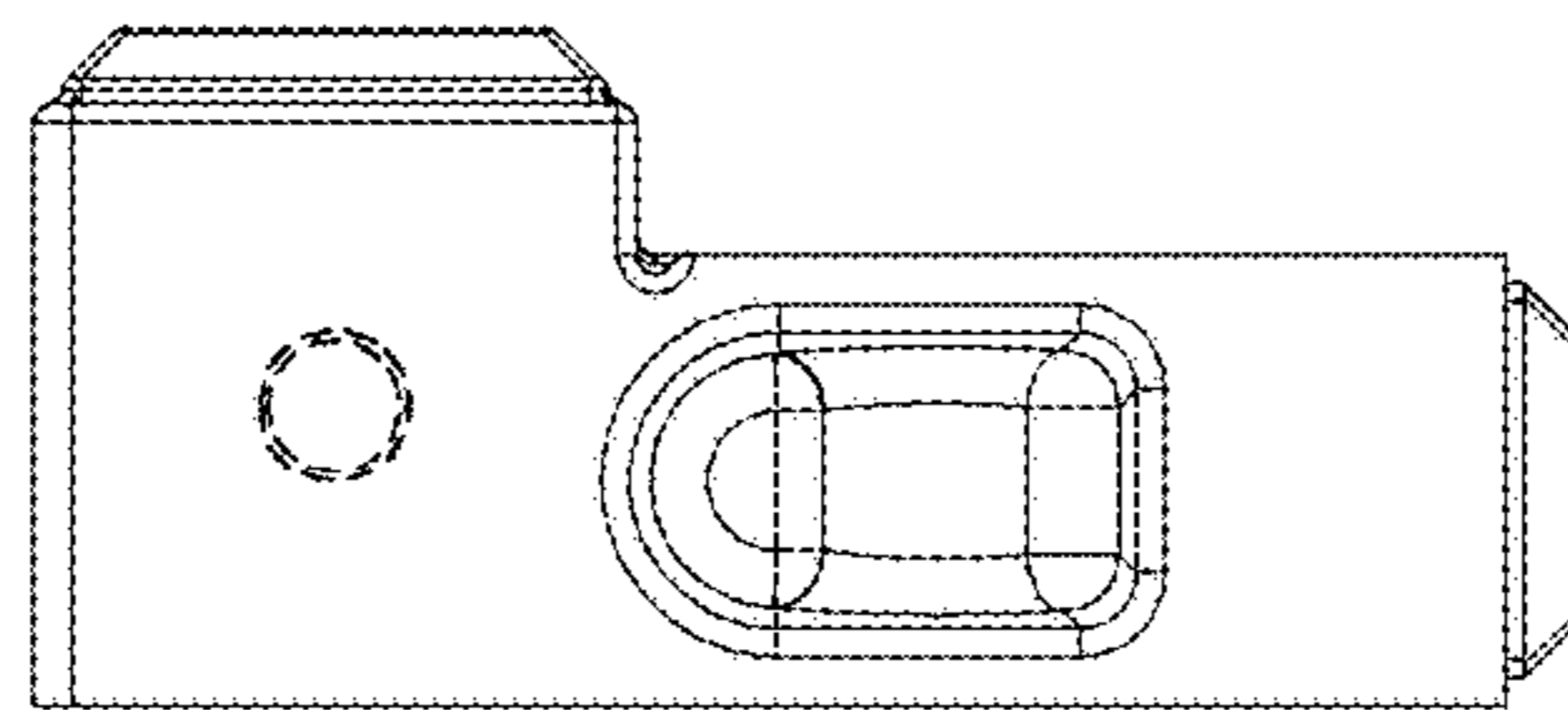


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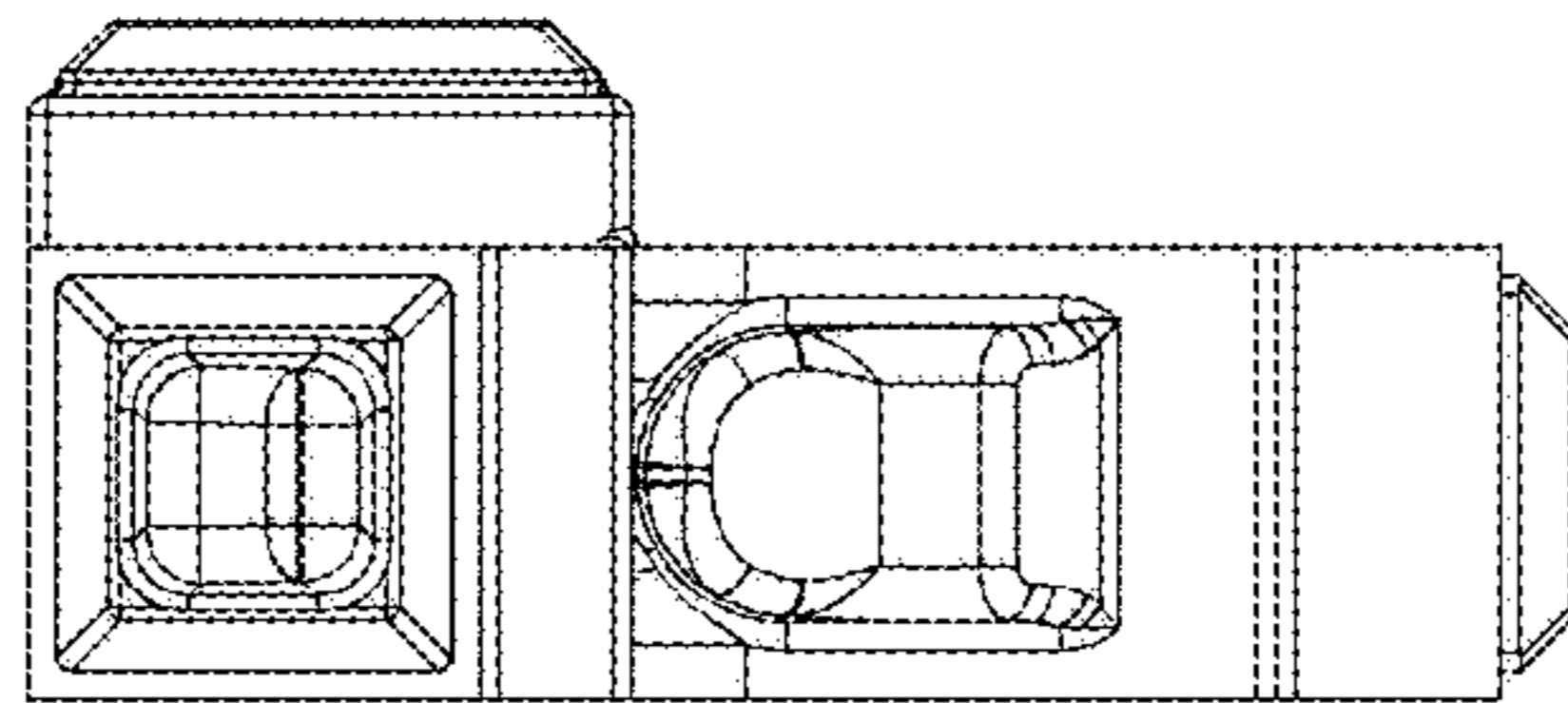


FIG. 20

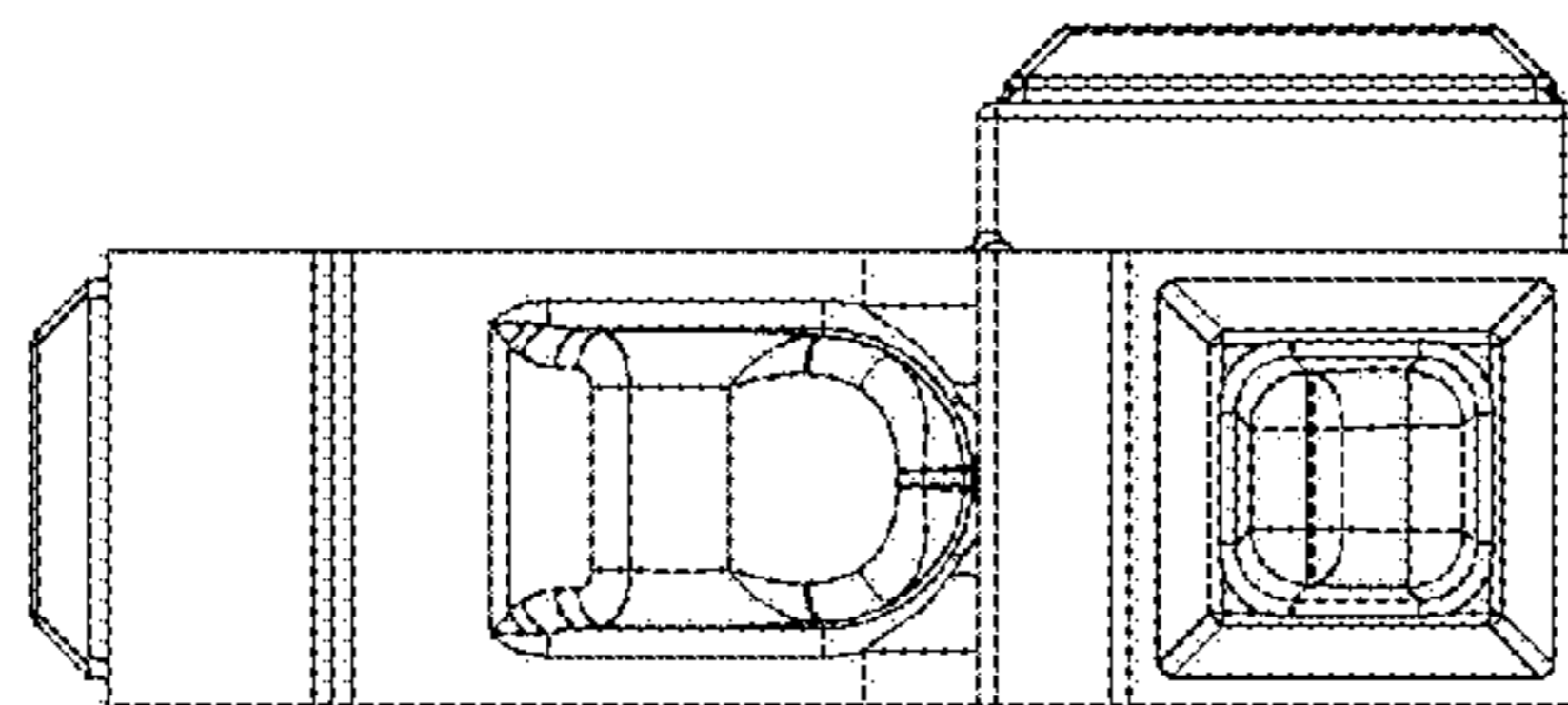


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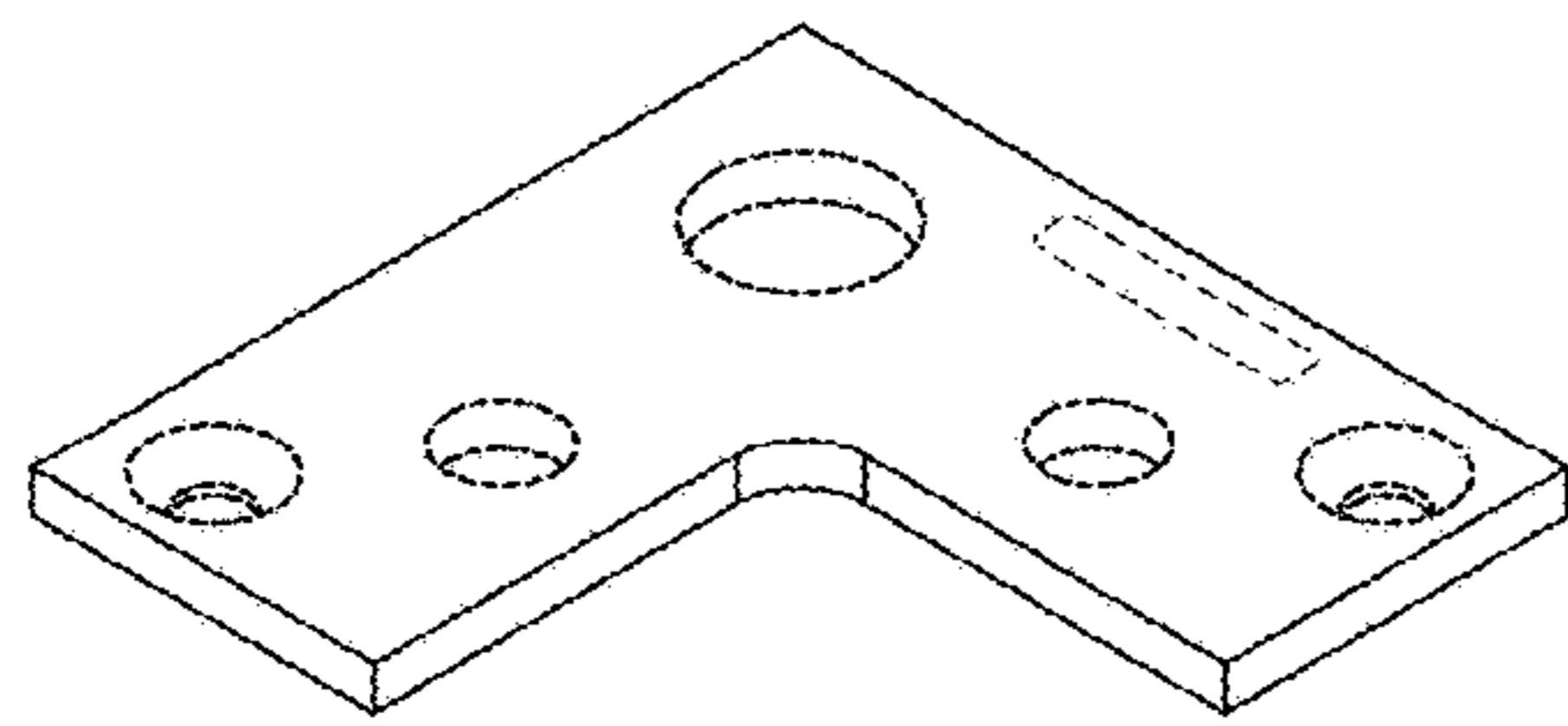


FIG. 22

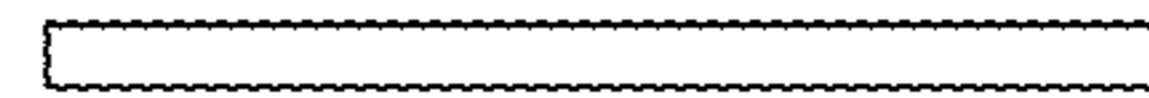


FIG. 25

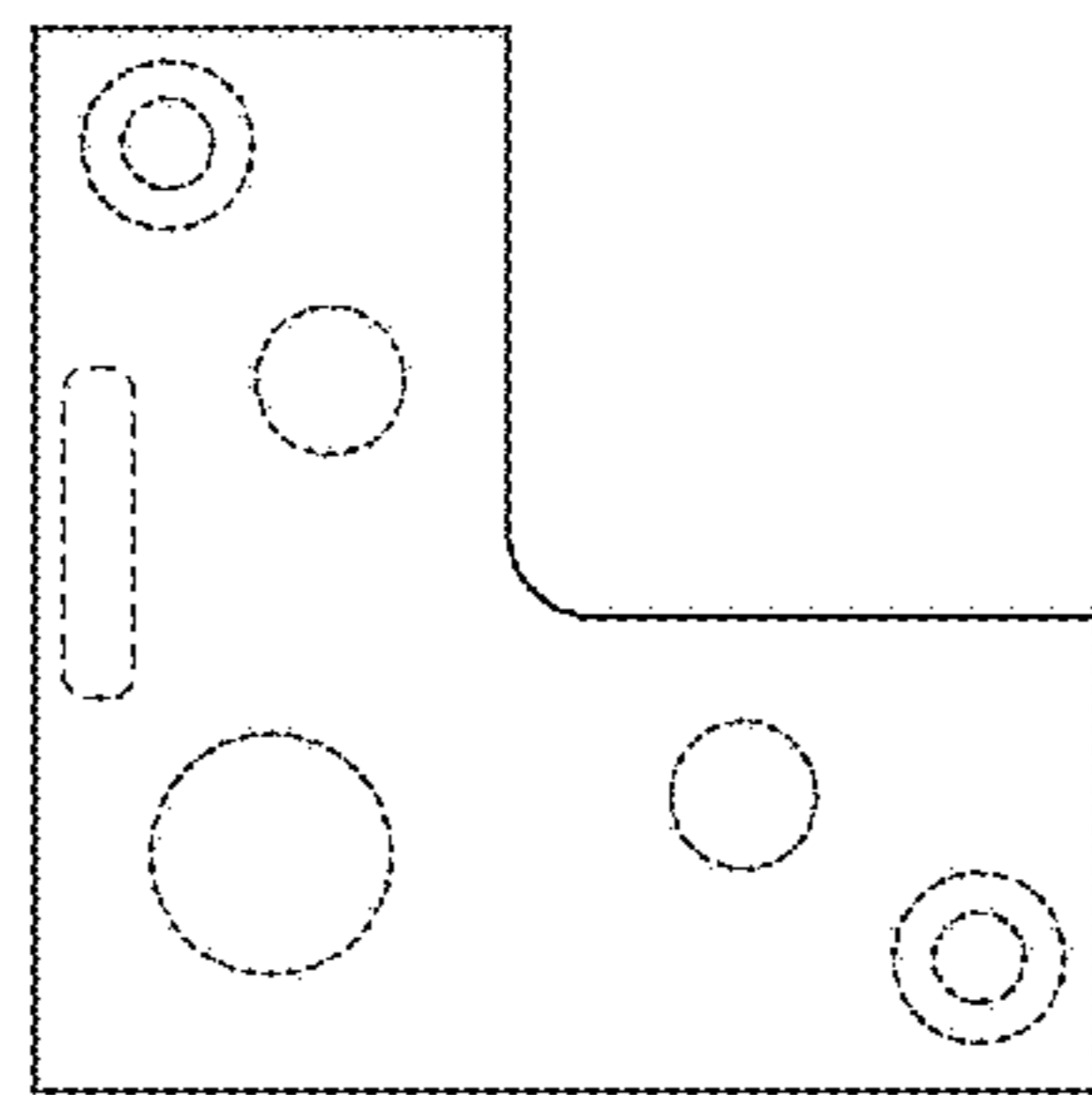


FIG. 23

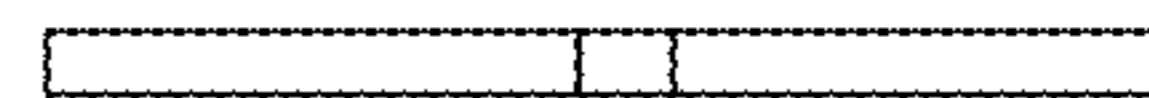


FIG. 26

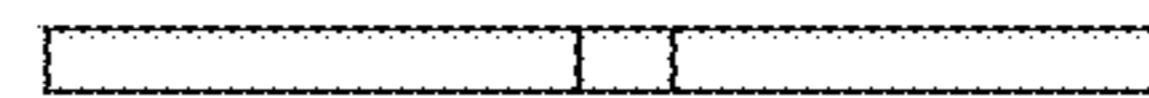


FIG. 27

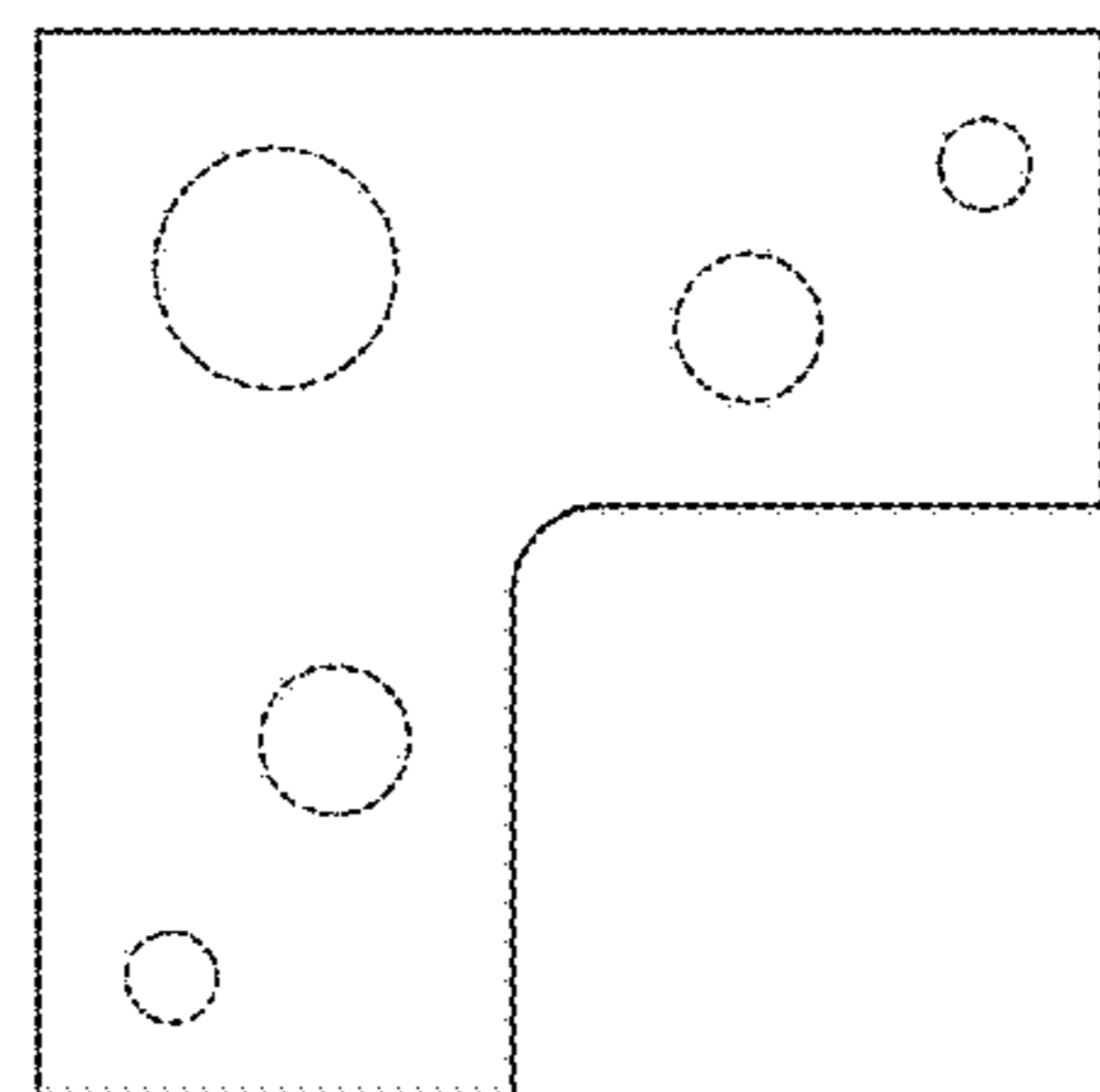


FIG. 24