



US00D895772S

(12) **United States Design Patent** (10) **Patent No.:** **US D895,772 S**
Dixon et al. (45) **Date of Patent:** **** Sep. 8, 2020**

(54) **THERMAL TRACE VALVE BODY**
(71) Applicant: **Swagelok Company**, Solon, OH (US)
(72) Inventors: **Matthew R. Dixon**, Parma, OH (US);
Karim Mahraz, Willoughby, OH (US);
Bryan S. Reiger, Willowick, OH (US);
Robert Bianco, Columbia Station, OH
(US); **Jeremy Elek**, Chagrin Falls, OH
(US); **Andrew P. Marshall**, University
Heights, OH (US)

3,098,497 A 7/1963 Glasgow et al.
3,266,517 A 8/1966 Carr
3,636,972 A 1/1972 Scaramucci
3,770,005 A 11/1973 Bradenburg
3,901,269 A 8/1975 Henderson
3,973,585 A 8/1976 Henderson
5,368,063 A 11/1994 Kida et al.
6,116,267 A 9/2000 Suzuki et al.
6,427,717 B1 8/2002 Kimura

(Continued)

FOREIGN PATENT DOCUMENTS

(73) Assignee: **SWAGELOK COMPANY**, Solon, OH
(US)

CN 104677688 6/2015
CN 204479342 7/2015

(Continued)

(**) Term: **15 Years**

OTHER PUBLICATIONS

(21) Appl. No.: **29/730,767**

International Search Report and Written Opinion from PCT/US2018/
020572 dated Jun. 8, 2018.

(22) Filed: **Apr. 8, 2020**

Primary Examiner — Gino Colan

Related U.S. Application Data

(62) Division of application No. 29/662,228, filed on Sep.
4, 2018, now Pat. No. Des. 886,237.

(74) *Attorney, Agent, or Firm* — Calfee, Halter &
Griswold LLP

(51) **LOC (12) Cl.** **23-01**

(57) **CLAIM**

(52) **U.S. Cl.**
USPC **D23/233**

We claim the ornamental design for a thermal trace valve
body, as shown and described.

(58) **Field of Classification Search**
USPC D23/233, 235, 241, 247, 248, 249;
236/92 B, 91 D; 137/334, 457
CPC ... F16K 31/002; F16K 11/0716; F25B 41/062
See application file for complete search history.

DESCRIPTION

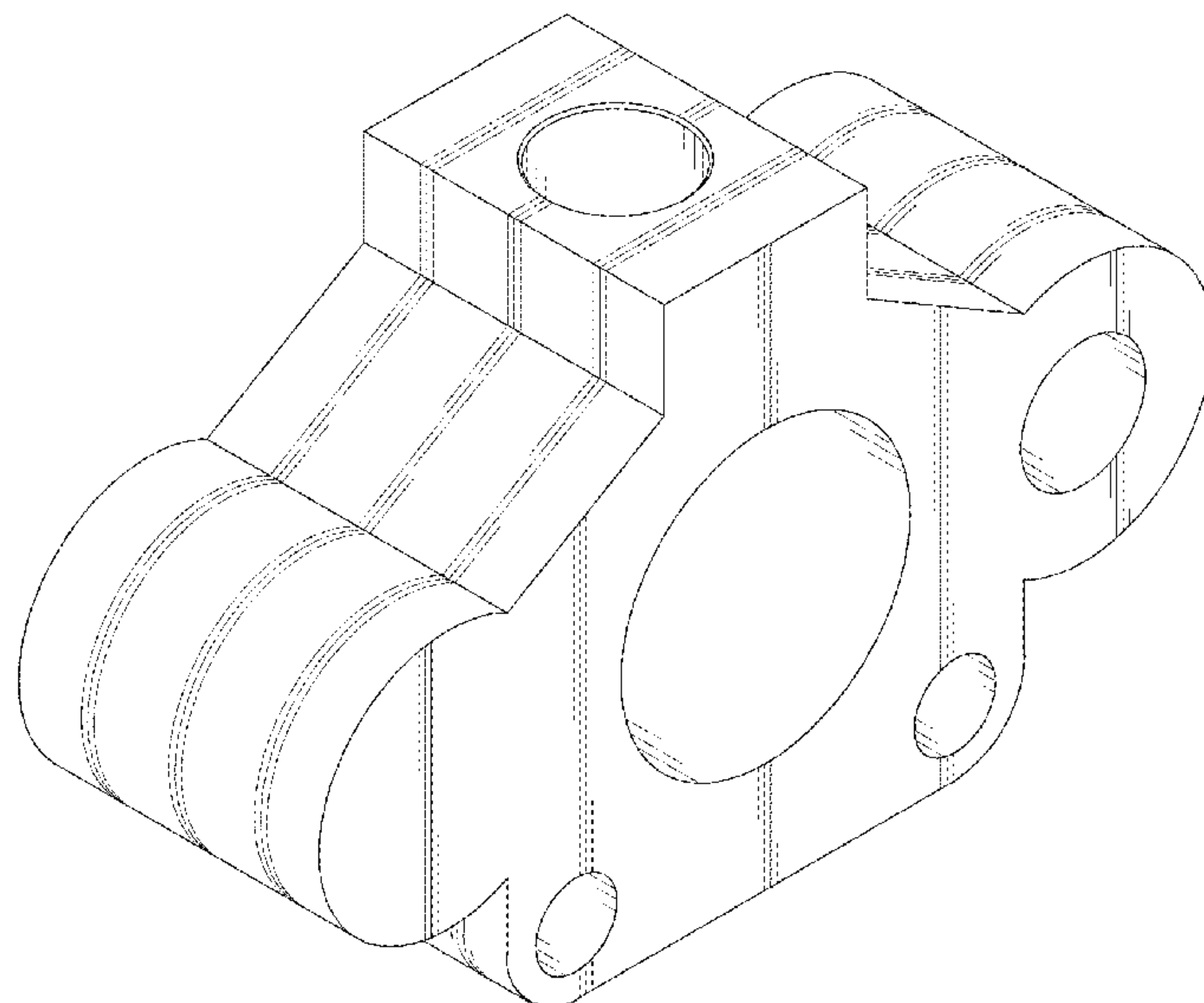
FIG. 1 is an upper front perspective view of a thermal trace
valve body showing our new design;
FIG. 2 is lower rear perspective view thereof;
FIG. 3 is a front elevational view thereof, the rear elevational
view being substantially identical thereto;
FIG. 4 is a right side elevational view thereof, the left side
elevational view being substantially identical thereto;
FIG. 5 is a top plan view thereof; and,
FIG. 6 is a bottom plan view thereof.

(56) **References Cited**

U.S. PATENT DOCUMENTS

X566592 8/1896 Long
X772007 10/1904 Theis
2,591,429 A 4/1952 Harrower
2,594,762 A 4/1952 Freund et al.
2,725,221 A 11/1955 Pontow
2,871,881 A 2/1959 Hewson

1 Claim, 4 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

7,527,068	B2	5/2009	Jansen	
7,874,310	B1	1/2011	Jansen	
D648,419	S	11/2011	Shimura	
D649,222	S	11/2011	Kobayashi	
D683,815	S *	6/2013	Kobayashi	D23/233
D683,816	S *	6/2013	Kobayashi	D23/233
8,607,812	B2	12/2013	Steele	
9,133,961	B2	9/2015	Farinone	
D782,009	S	3/2017	Watanabe	
D799,009	S *	10/2017	Satake	D23/233
D799,640	S *	10/2017	Satake	D23/233
D800,256	S	10/2017	Satake	
D827,092	S *	8/2018	Hayakawa	D23/233
D854,655	S *	7/2019	Satake	D23/233
D886,237	S *	6/2020	Dixon	D23/233
2002/0152988	A1	10/2002	Michels	
2011/0140023	A1	6/2011	Sauer et al.	
2012/0167862	A1	7/2012	Nishimori et al.	

2012/0192970	A1	8/2012	Kobayashi
2015/0361847	A1	12/2015	Fahrenkrug et al.
2016/0076816	A1	3/2016	Deegan
2016/0102798	A1	4/2016	Shin
2016/0303656	A1	10/2016	Lacy et al.
2016/0305712	A1	10/2016	Harris

FOREIGN PATENT DOCUMENTS

CN	204709869	10/2015
CN	105736717	7/2016
CN	205896210	1/2017
CN	205918994	2/2017
CN	206361241	7/2017
EP	911561	4/1999
JP	11-125344	5/1999
JP	2001033128	2/2001
KR	10-2014-0128769	11/2014
WO	2002/057670	7/2002
WO	2014/178452	11/2014

* cited by examiner

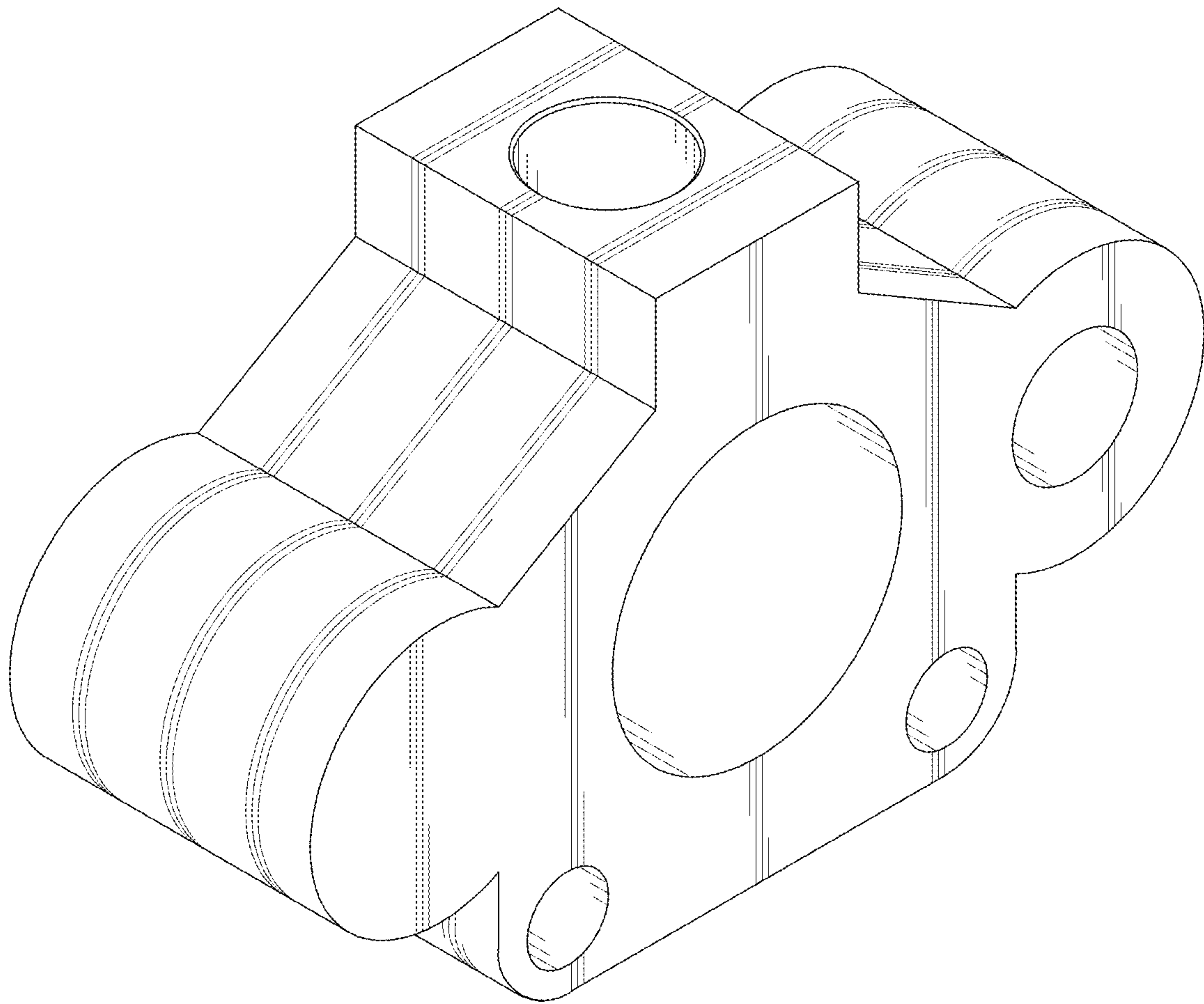


FIG. 1

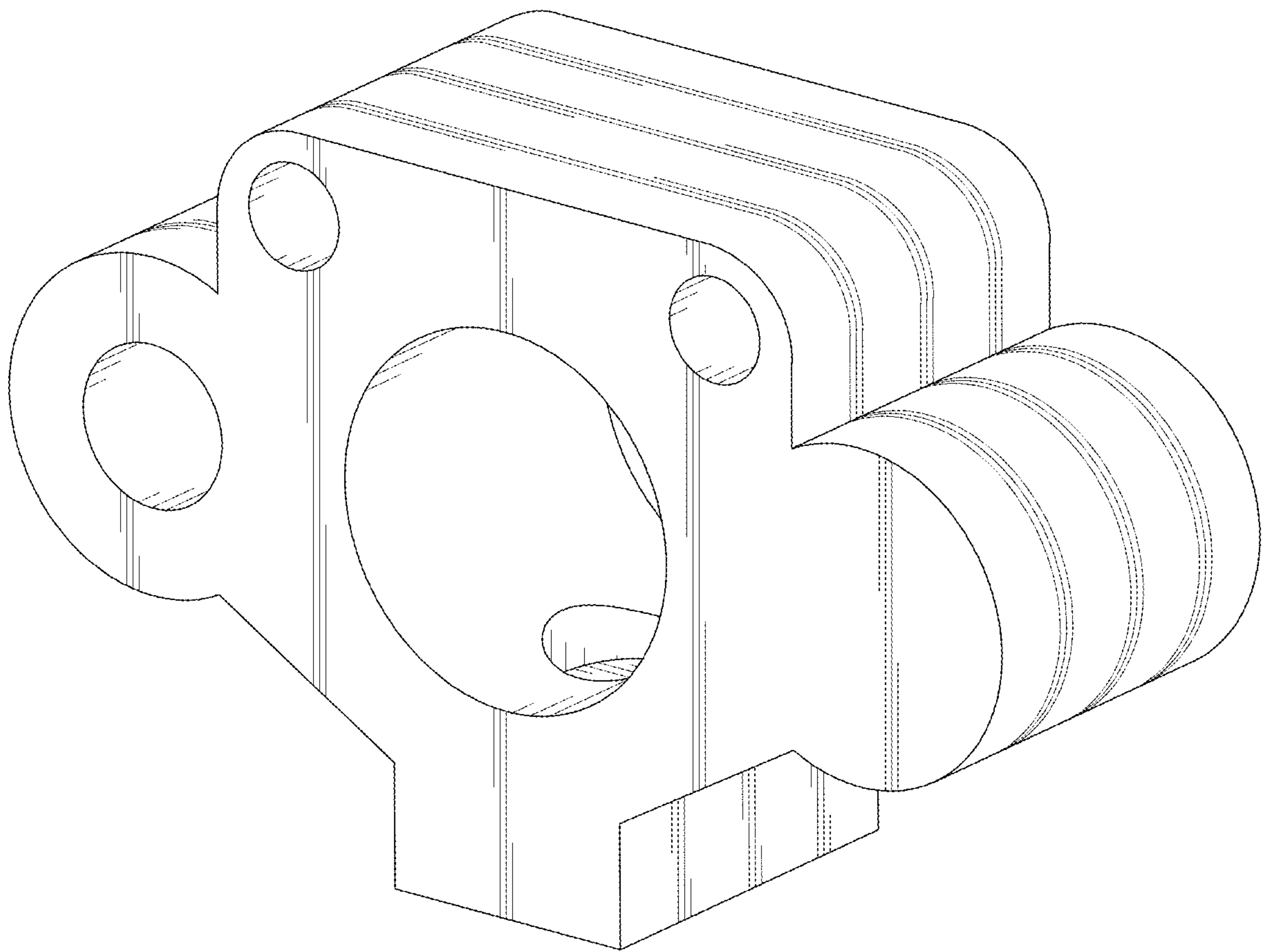


FIG. 2

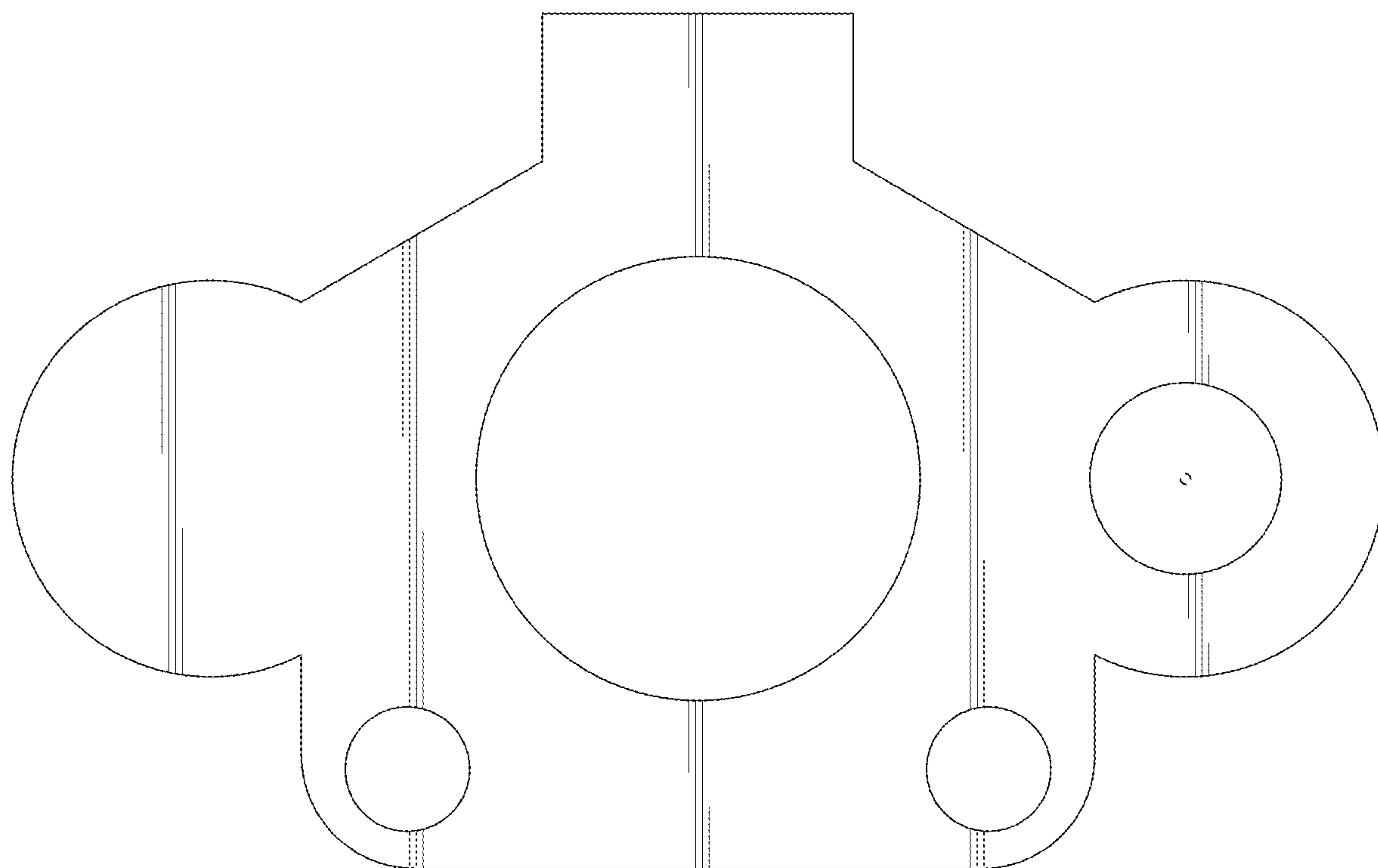


FIG. 3

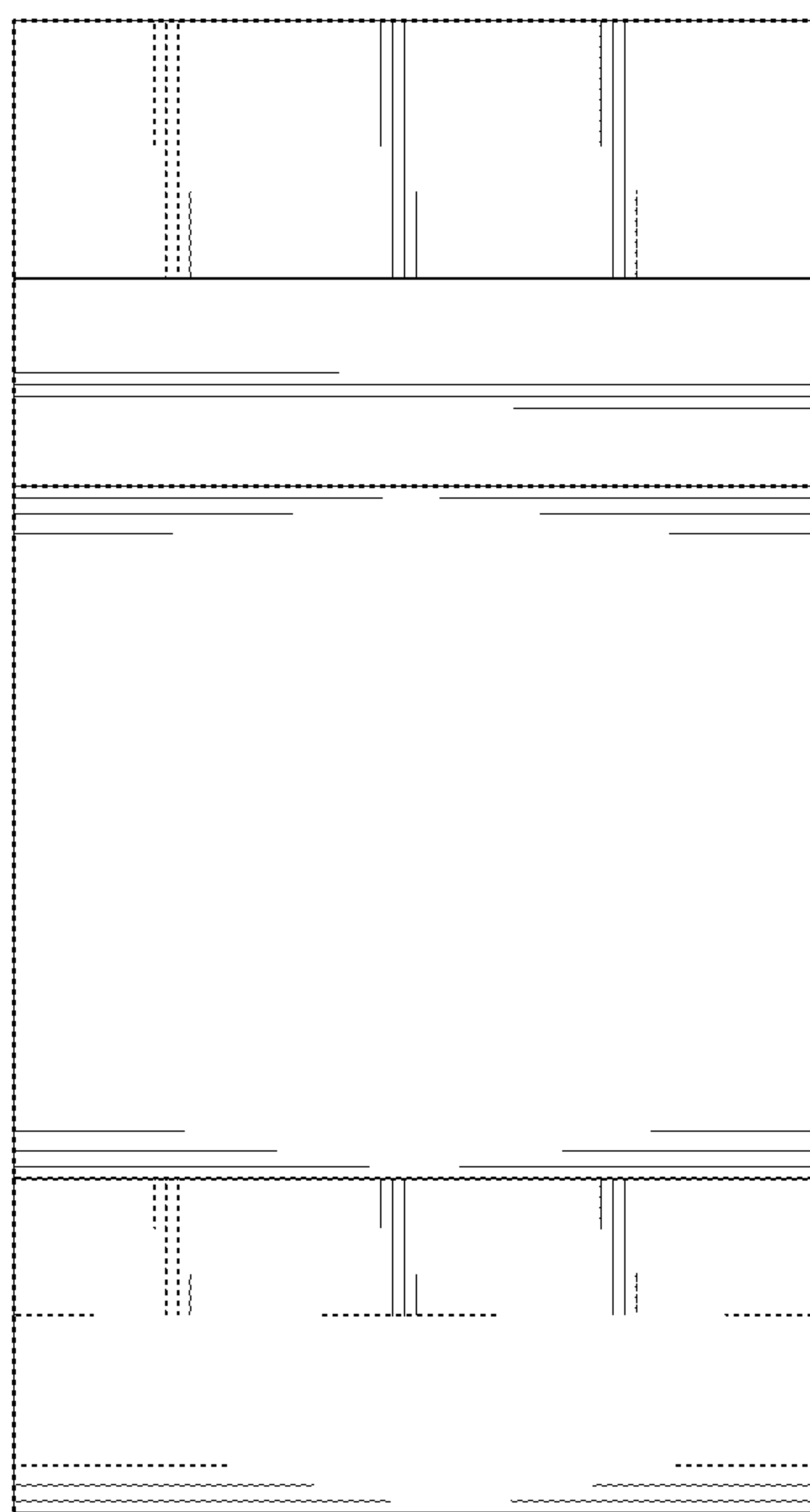


FIG. 4

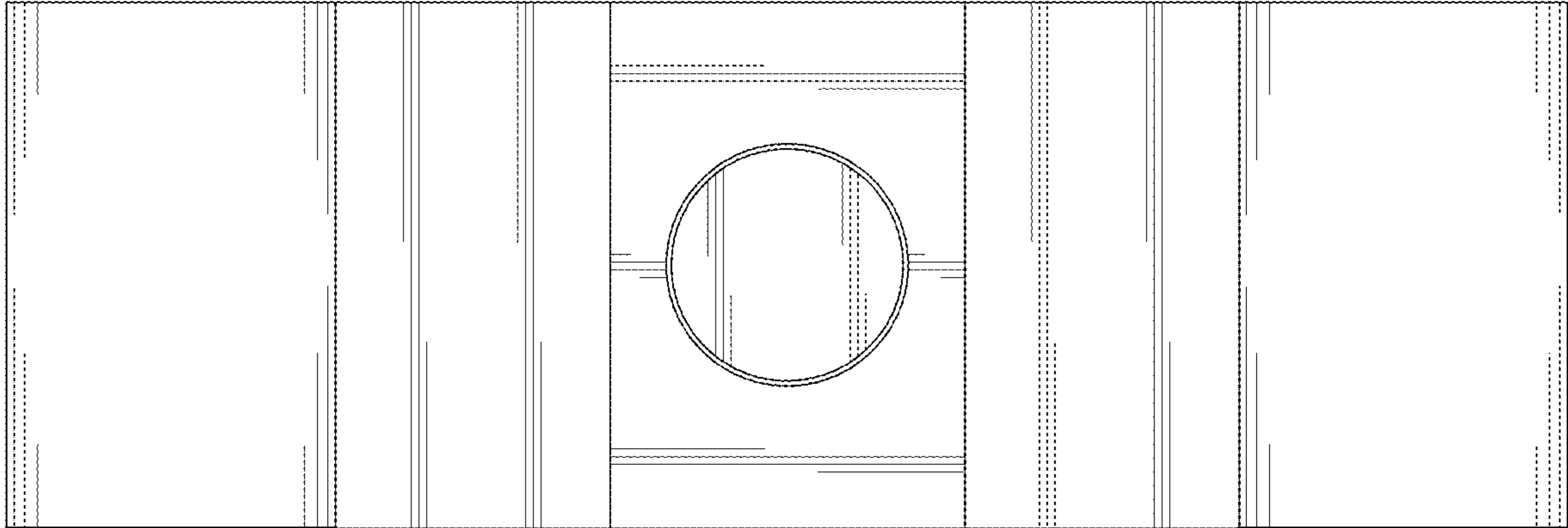


FIG. 5

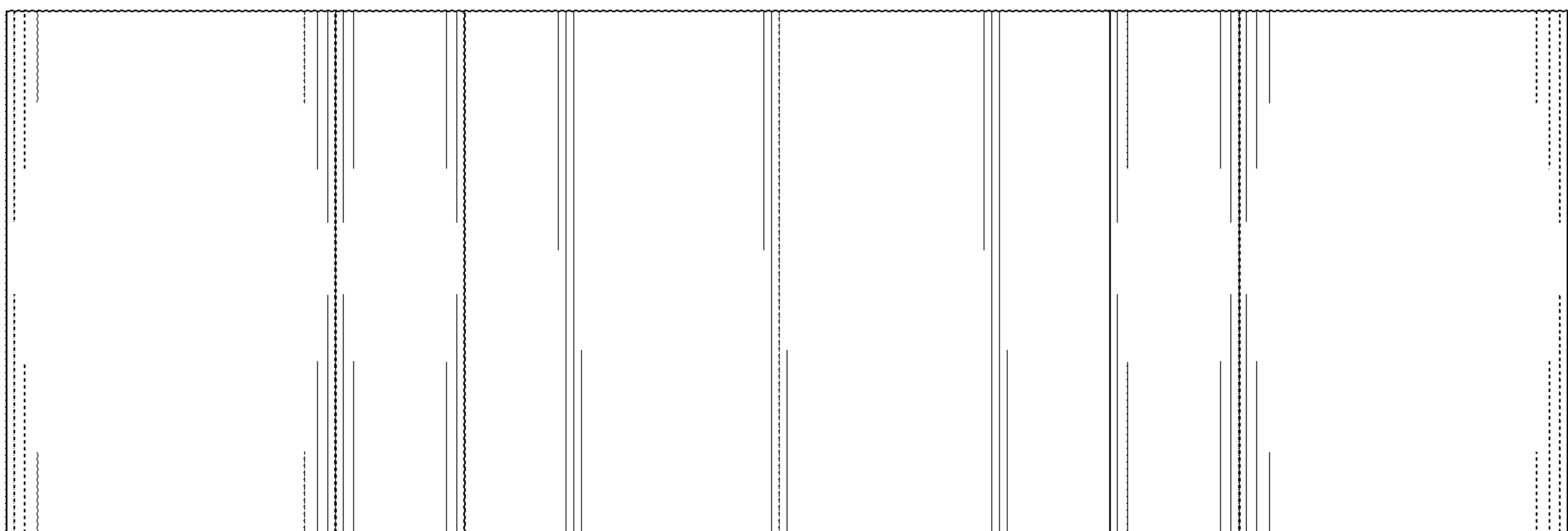


FIG. 6