



US00D754835S

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

(10) **Patent No.:** **US D754,835 S**
(45) **Date of Patent:** **** Apr. 26, 2016**

- (54) **CENTRIFUGAL FAN**
- (71) Applicant: **Panasonic Corporation**, Kadoma-shi, Osaka (JP)
- (72) Inventors: **Akimasa Uehara**, Aichi (JP); **Satoshi Ousaka**, Aichi (JP)
- (73) Assignee: **Panasonic Intellectual Property Management Co., Ltd.**, Osaka (JP)
- (**) Term: **14 Years**
- (21) Appl. No.: **29/502,922**
- (22) Filed: **Sep. 22, 2014**
- (30) **Foreign Application Priority Data**
 - Sep. 5, 2014 (JP) 2014-019663
- (51) **LOC (10) Cl.** **23-04**
- (52) **U.S. Cl.**
USPC **D23/371**; D23/383
- (58) **Field of Classification Search**
 - USPC D23/370–379, 381–385, 388, 212, 213, D23/223, 325, 229, 380, 324, 330, 332, 335, D23/353–369, 499; 416/5; 392/364, 365; 415/204, 205
 - CPC F24F 2221/14; F24F 2221/34; F24F 7/00; F24F 7/06; F24F 7/065; F24F 7/08; F24F 7/10; F24F 2007/001; F24F 2007/002; F24F 1/0022

See application file for complete search history.

D392,730	S	*	3/1998	Kozora	.....	D23/355
D440,295	S	*	4/2001	Honma	.....	D23/365
D443,054	S	*	5/2001	Spaggiari	.....	D23/370
D450,378	S	*	11/2001	Minakuchi	.....	D23/370
6,435,964	B1	*	8/2002	Chang	.....	F24F 7/06 454/349
D484,966	S	*	1/2004	Yamamoto	.....	D23/383
D663,828	S	*	7/2012	Portillo	.....	D23/371
D674,474	S	*	1/2013	Rentschler	.....	D23/364
D675,723	S	*	2/2013	Garcia	.....	D23/393
D703,302	S	*	4/2014	Ruck	.....	D23/370
8,814,513	B2	*	8/2014	Yang	.....	F24F 7/065 415/213.1
9,097,265	B1	*	8/2015	Tom	.....	F04D 29/626
9,103,104	B1	*	8/2015	Tom	.....	E03D 9/052
9,194,603	B2	*	11/2015	Yuan	.....	F24H 3/0417
2007/0074725	A1	*	4/2007	Taya	.....	F24F 7/06 128/204.21
2009/0241587	A1	*	10/2009	Wang	.....	F04D 29/162 62/426
2010/0197216	A1	*	8/2010	Liang	.....	F04D 25/12 454/256
2013/0143479	A1	*	6/2013	Weng	.....	F04D 29/422 454/233
2013/0143481	A1	*	6/2013	Kagawa	.....	F04D 25/12 454/354
2013/0203336	A1	*	8/2013	Karst	.....	F24F 7/06 454/249
2013/0266443	A1	*	10/2013	Yang	.....	F24F 7/065 416/5
2013/0315731	A1	*	11/2013	Yang	.....	F04D 25/088 416/5
2014/0169771	A1	*	6/2014	Yuan	.....	F04D 25/14 392/365
2014/0248041	A1	*	9/2014	Yuan	.....	F04D 29/4226 392/364
2015/0086348	A1	*	3/2015	Uehara	.....	F04D 29/4206 415/204
2015/0316070	A1	*	11/2015	Hayashi	.....	F04D 29/661 415/204

* cited by examiner

(56) **References Cited**

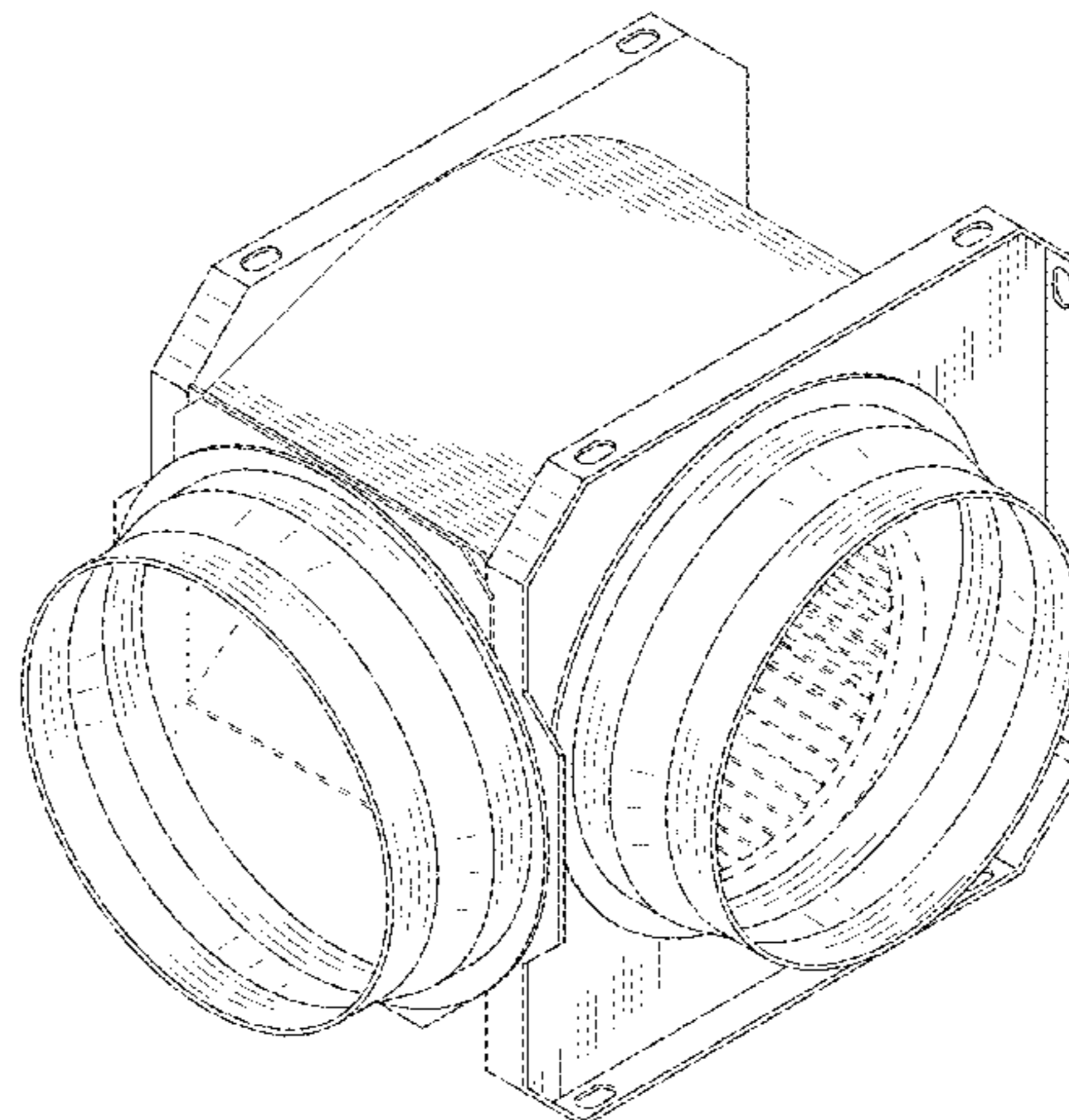
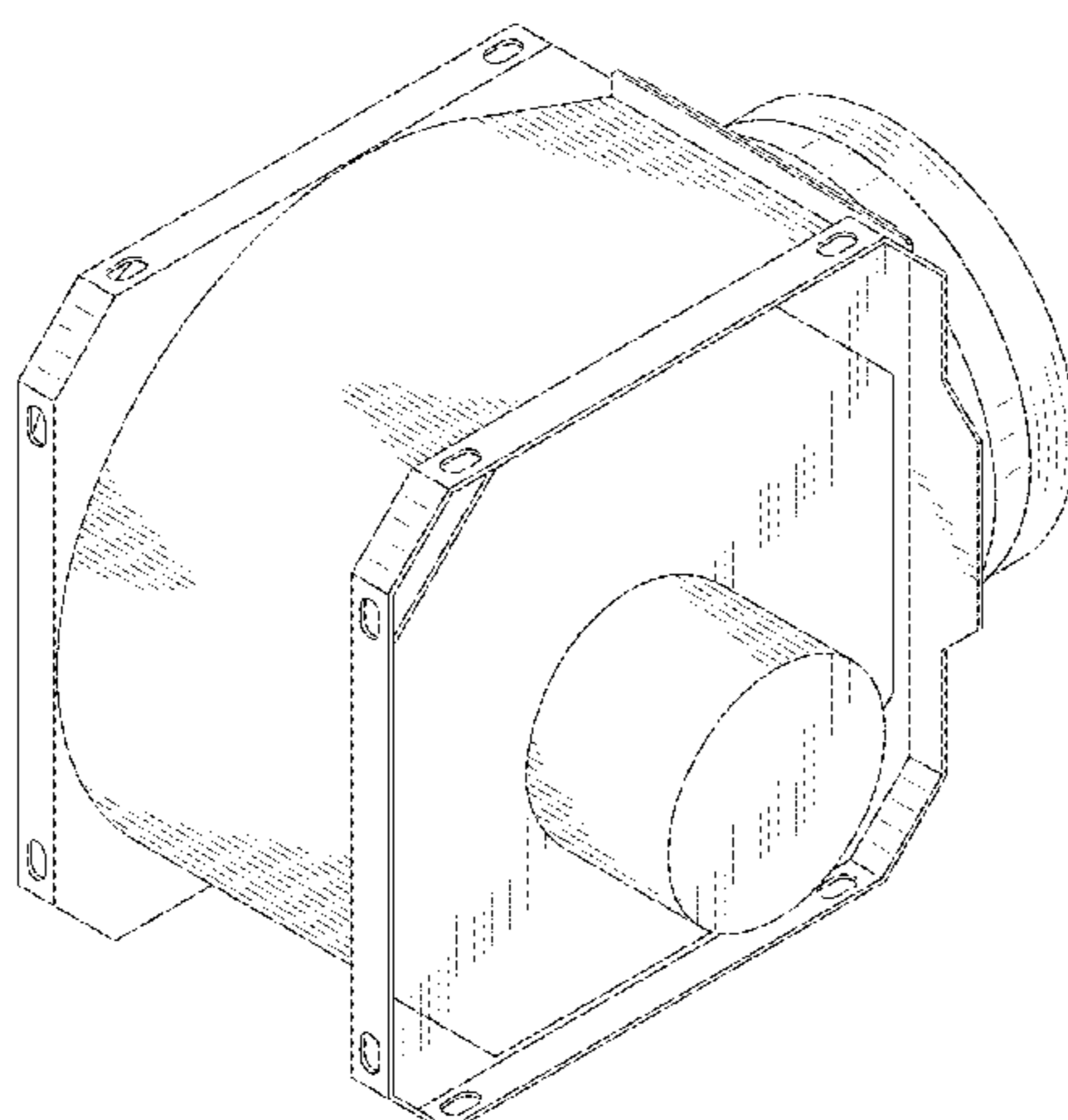
U.S. PATENT DOCUMENTS

D174,005	S	*	2/1955	Shomphe	.....	D13/112
2,850,228	A	*	9/1958	Rowley	.....	F04D 25/084 126/25 B
D234,203	S	*	1/1975	Wrobel	.....	D23/383
4,867,640	A	*	9/1989	Penlesky	.....	F04D 29/626 415/204
D342,782	S	*	12/1993	Anderson	.....	D23/393
D387,859	S	*	12/1997	Ukai	.....	D23/370

OTHER PUBLICATIONS

Ducted Centrifugal Exhaust Fans . lifcow.com (online)9 pgs. Published Jun. 2, 2015 [retrieved on Nov. 24, 2015]. Retrieved from Internet: <<http://fans.lifcow.com/ducted-centrifugal-exhaust-fans/>>.*

Primary Examiner — Susan Bennett Hattan
Assistant Examiner — Marie Fast Horse
(74) *Attorney, Agent, or Firm* — Mots Law, PLLC



(57)

CLAIM

The ornamental design for a centrifugal fan, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of a centrifugal fan;
FIG. 2 is a front view thereof;
FIG. 3 is a rear view thereof;

FIG. 4 is a left side view thereof;
FIG. 5 is a right side view thereof;
FIG. 6 is a top view thereof;
FIG. 7 is a bottom view thereof; and,
FIG. 8 is a rear perspective view thereof.
The broken lines in the drawing disclosure depict interior parts of the centrifugal fan that form no part of the claimed design.

1 Claim, 8 Drawing Sheets

Fig. 1

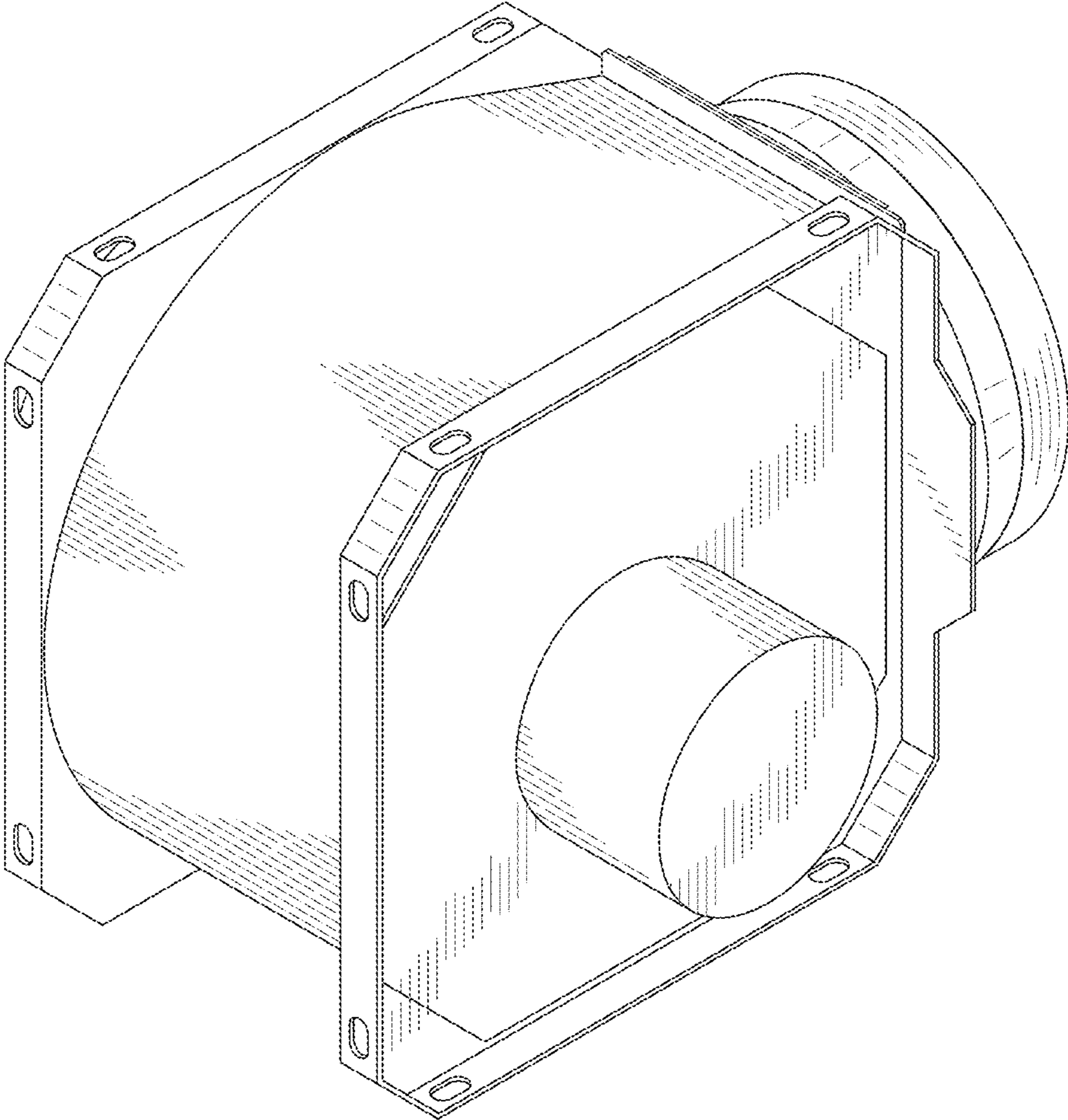


Fig.2

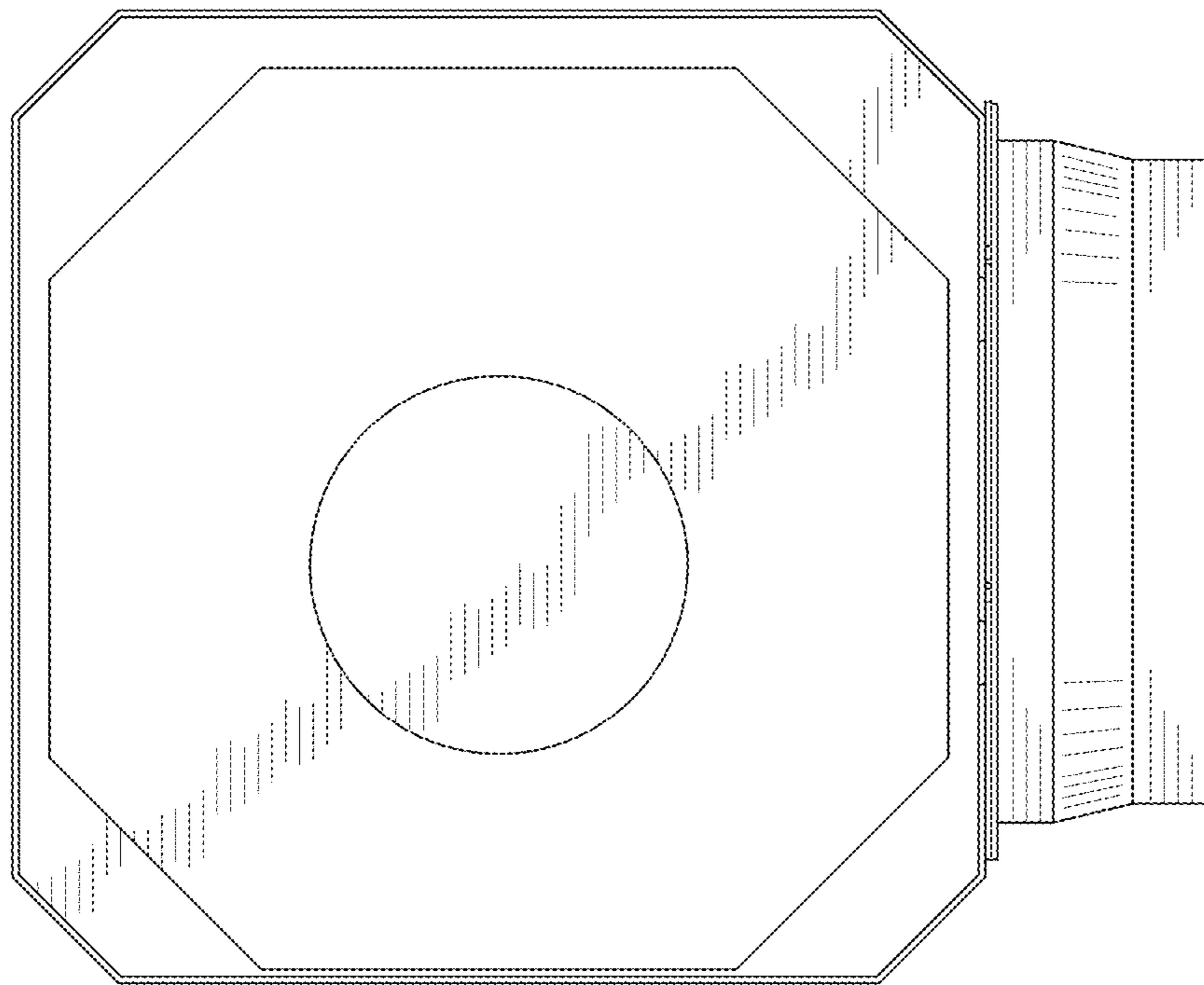


Fig.3

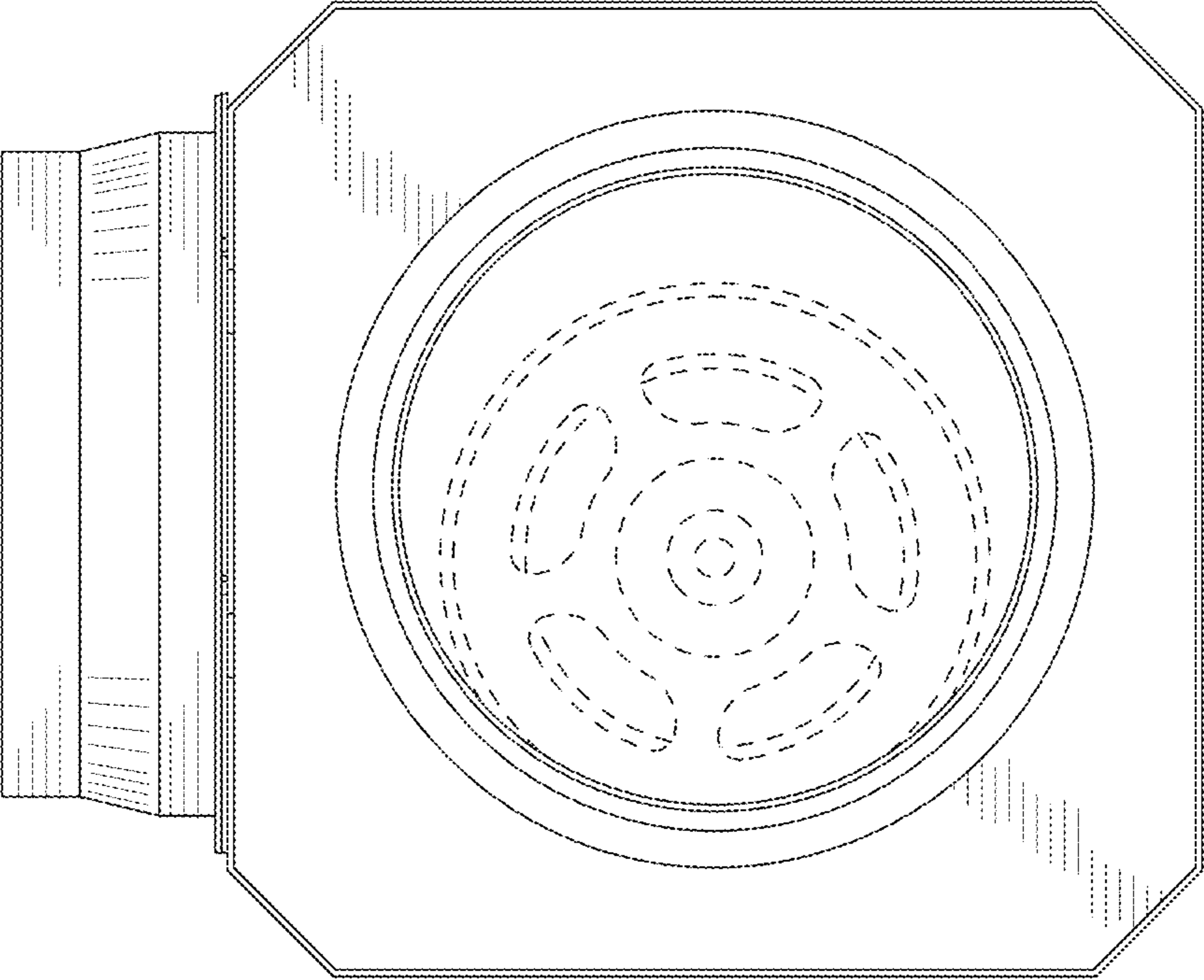


Fig.4

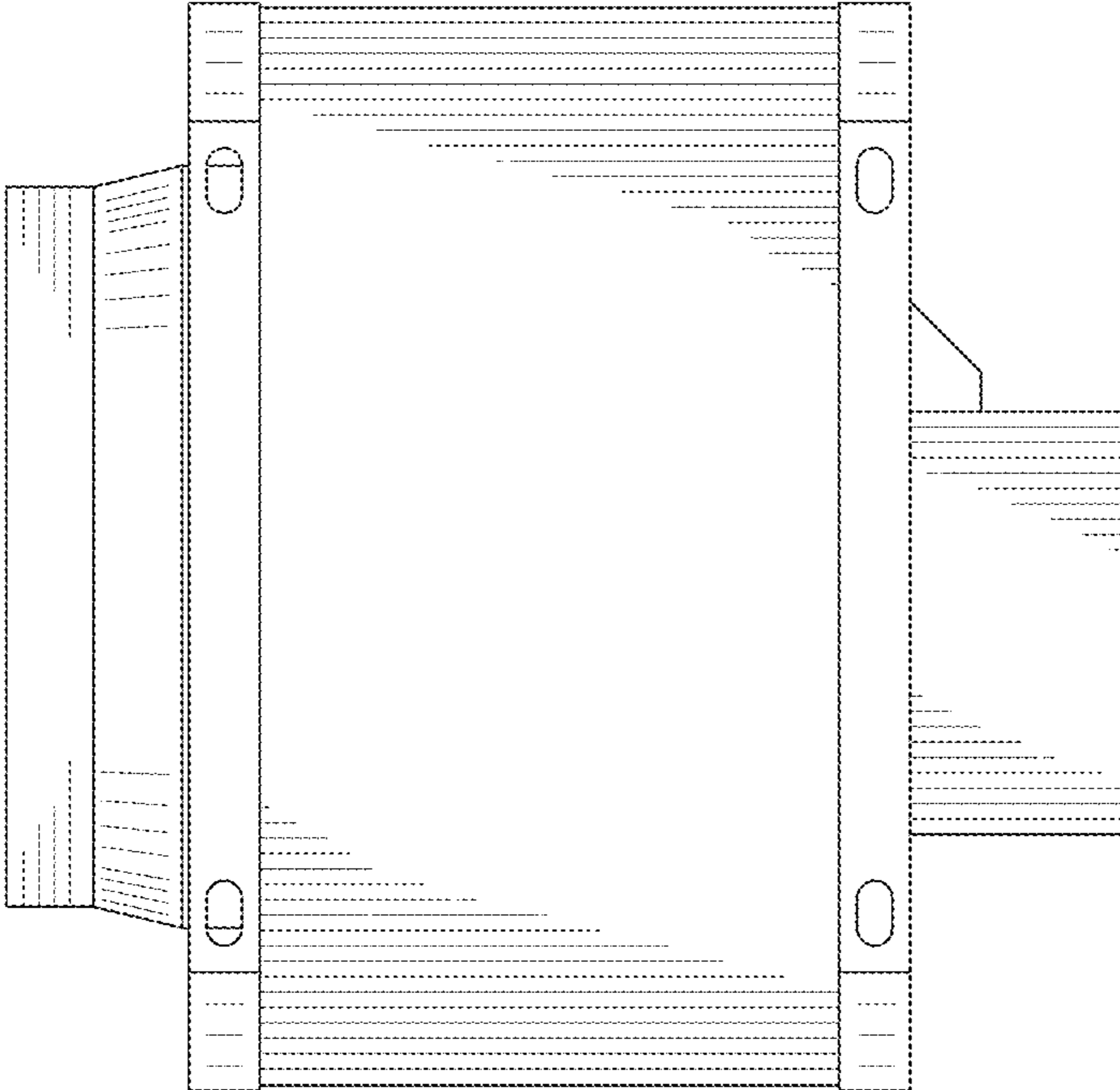


Fig.5

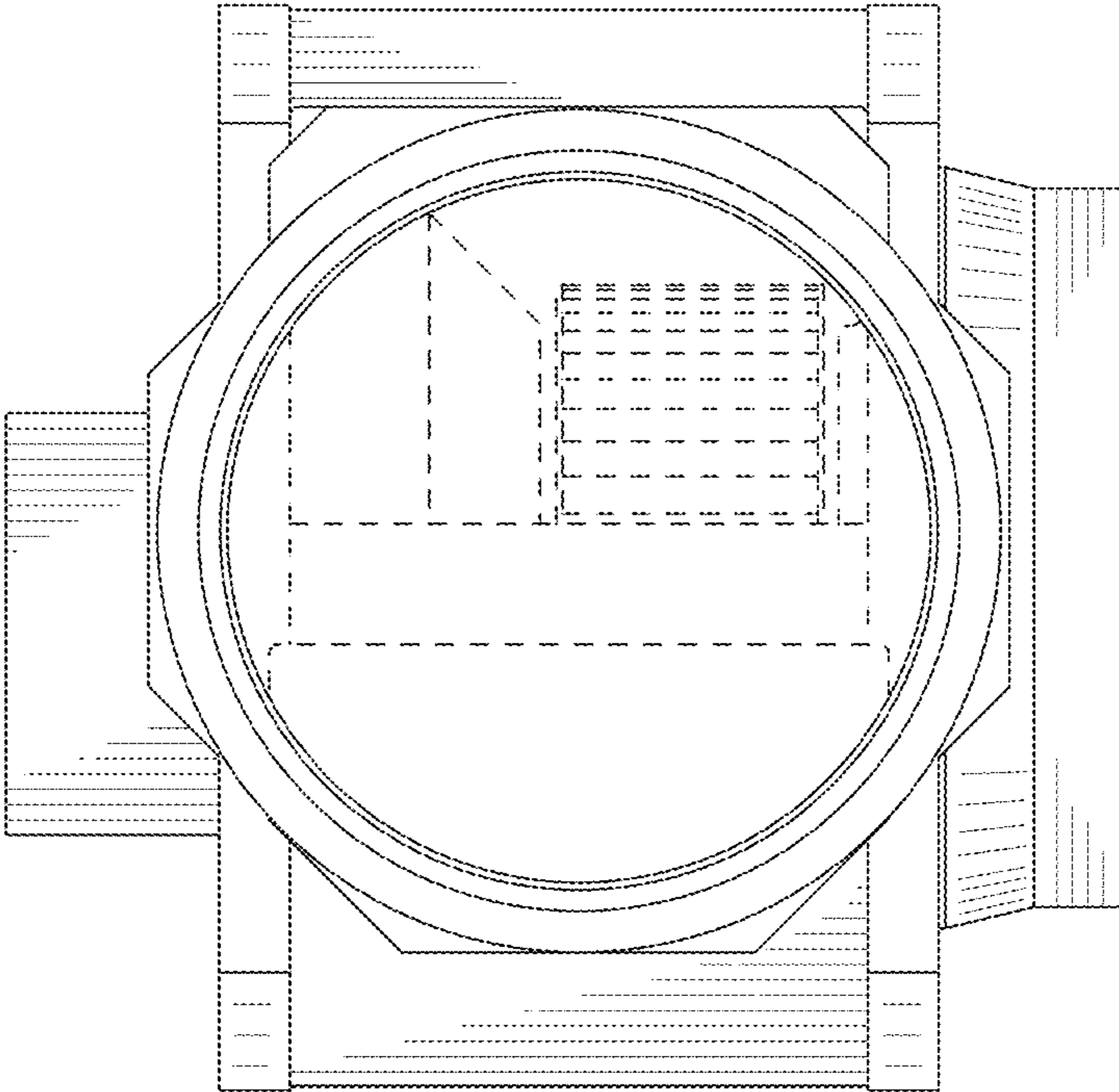


Fig.6

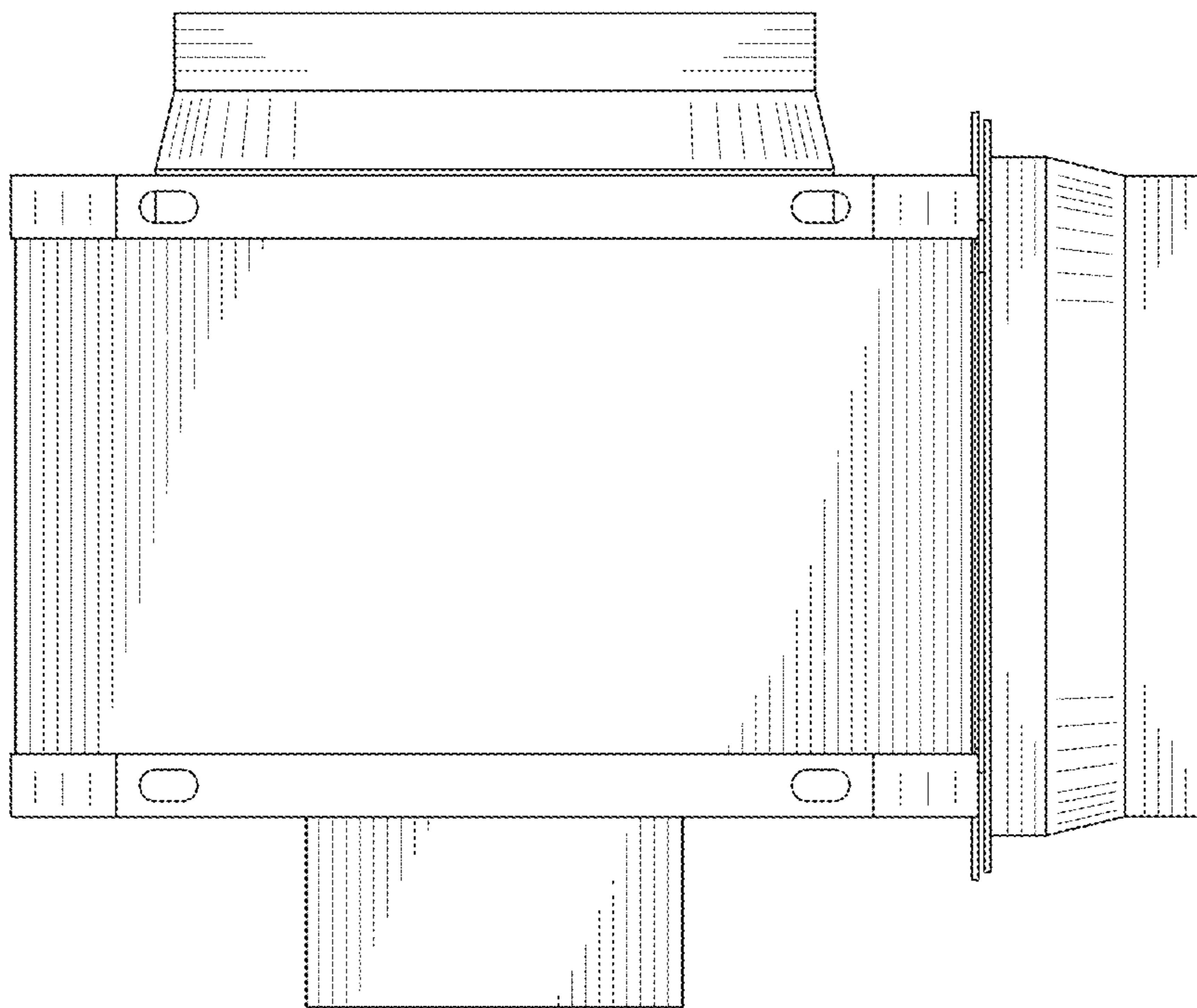


Fig.7

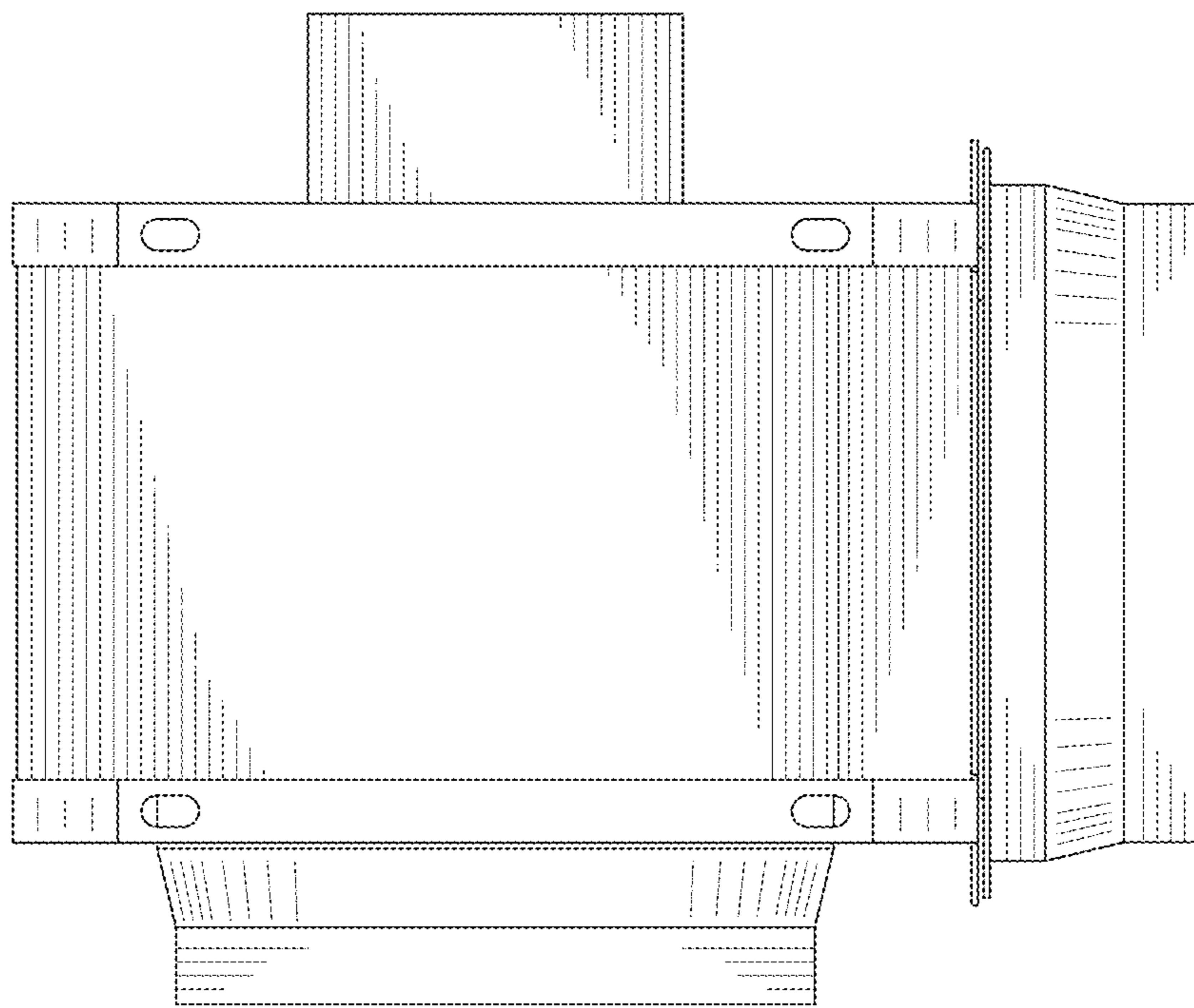


Fig.8

