



US00D867953S

(12) **United States Design Patent** (10) **Patent No.:** **US D867,953 S**
Hunt et al. (45) **Date of Patent:** **** Nov. 26, 2019**

(54) **WHEEL**

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

(21) Appl. No.: **29/661,815**

(22) Filed: **Aug. 30, 2018**

Related U.S. Application Data

(62) Division of application No. 29/592,452, filed on Jan.
30, 2017, now Pat. No. Des. 829,627.

(51) **LOC (12) Cl.** **12-16**

(52) **U.S. Cl.**
USPC **D12/204**

(58) **Field of Classification Search**
USPC D12/204–213; D21/533, 561, 563
CPC B60B 7/00; B60B 7/02; B60B 7/04; B60B
7/06; B60B 3/02; B60B 3/04; B60B 3/06;
B60B 3/10; B60B 1/00; B60B 1/08;
B60B 1/10; B60B 1/12

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,882,885 A	5/1975	McCain
4,335,899 A	6/1982	Hiscock
D309,254 S	7/1990	Guile
D318,219 S	7/1991	Guile
D318,791 S	8/1991	Guile
5,213,176 A	5/1993	Oroku et al.
6,547,340 B2	4/2003	Harris
6,857,707 B2	2/2005	Guile

7,980,335 B2	7/2011	Potter	
D818,015 S *	5/2018	Karol	D15/138
D824,971 S *	8/2018	Karol	D15/148
D825,631 S *	8/2018	Karol	D15/148
D829,627 S *	10/2018	Hunt	D12/204
2007/0096541 A1	5/2007	Guile	

(Continued)

FOREIGN PATENT DOCUMENTS

CN	206579402	1/2017
KR	201300622	11/2013

OTHER PUBLICATIONS

Vex Robotics Omni-wheel search-Vex Robotics (<https://www.vexrobotics.com>) <https://www.vexrobotics.com/catalogsearch/result/?q=holonomic> ©2002-2017. Vex Robotics is a subsidiary of Innovation First International, Inc.

Andymark Omni-Wheel Search-AndyMarc, Inc. (<http://www.andymark.com>) <http://www.andymark.com/Search-s/545.htm?Search=omniwheel&Submit=> ©2017 AndyMark, Inc.

(Continued)

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(57) **CLAIM**

The ornamental design for a wheel, as shown and described.

DESCRIPTION

FIG. 1 is a front, top, right side perspective view of a wheel, showing our new design;

FIG. 2 is a front, top, left side perspective view thereof;

FIG. 3 is a front side elevational view thereof;

FIG. 4 is a rear side elevational view thereof;

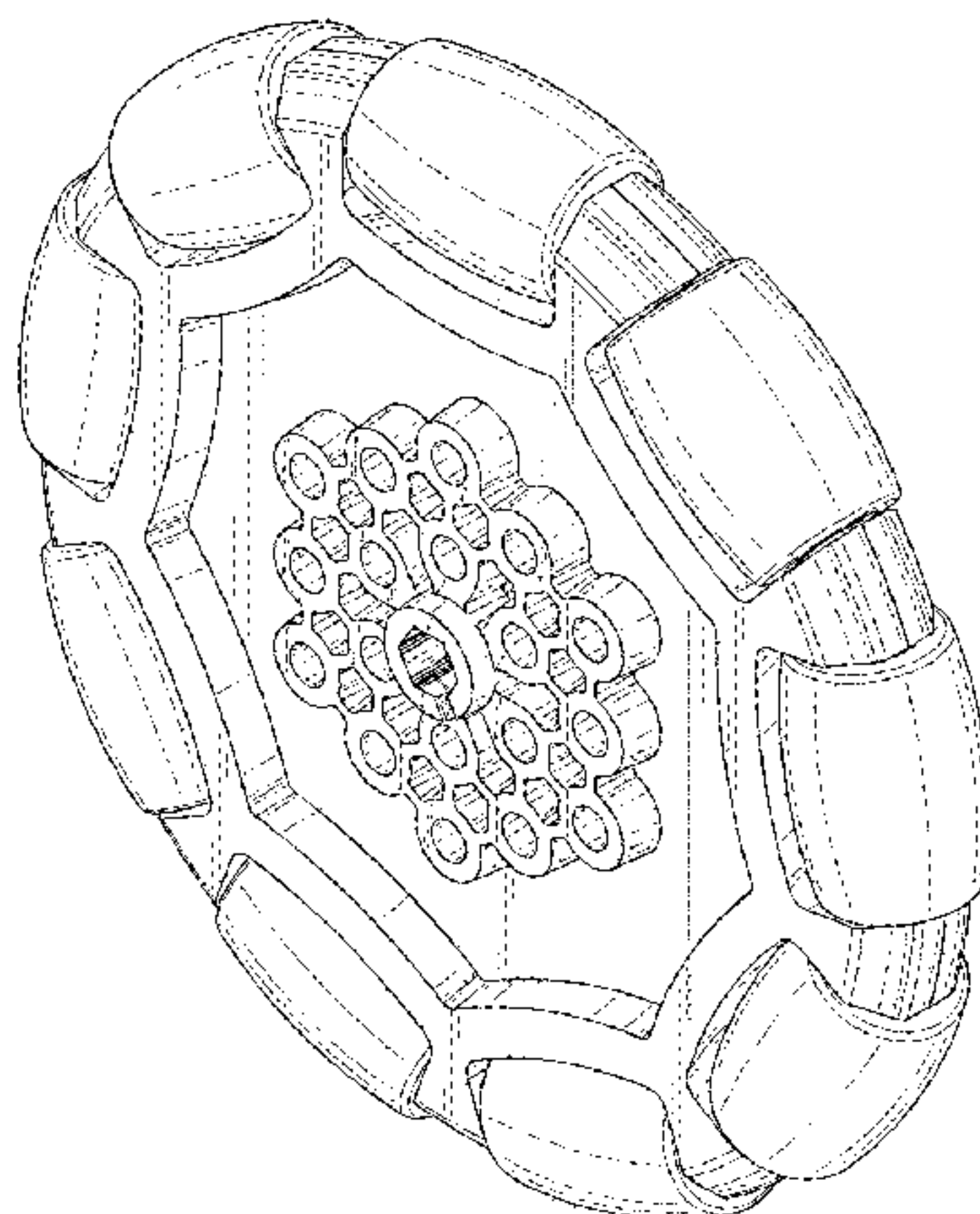
FIG. 5 is a left side elevational view thereof;

FIG. 6 is a right side elevational view thereof;

FIG. 7 is a top plan view thereof; and,

FIG. 8 is a bottom plan view thereof.

1 Claim, 6 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2008/0202837 A1 8/2008 Macedo Ribeiro et al.
2010/0140888 A1* 6/2010 McKinnon B62B 1/10
280/47.2
2012/0256471 A1* 10/2012 Scogna B60B 19/003
301/5.23
2013/0306925 A1* 11/2013 Cozza B66F 19/00
254/8 R
2015/0115694 A1 4/2015 Bando et al.
2015/0130260 A1* 5/2015 Bando B60B 19/003
301/5.23
2017/0210164 A1* 7/2017 Mjelde B60B 19/12
2017/0210437 A1* 7/2017 Black B60P 3/075
2017/0297366 A1* 10/2017 Parrott B60B 19/12

OTHER PUBLICATIONS

Tetrix Pitsco Omni-wheel Search — Tetrix Pitsco Inc. (<http://www.tetrixrobotics.com>) http://www.tetrixrobotics.com/Search/omni_wheel?st=0 ©2017 Pitsco, Inc.

C4 Modern Robotics Omni-wheel search — Modern Robotics Inc., (<http://www.modernroboticsinc.com>) <http://www.modernroboticsinc.com/search?as=true&cid=0&q=omni&Si d=True&Isc=true> ©2017 Modern Robotics Inc.

AndyMark.com, 4 DuraOmni Wheel, Jan. 2017, online product page, retrieved Apr. 27, 2018 from LURL:<http://www.andymark.com/product-p/am-3074.htm> (Year: 2017).

Thingiverse.com, Lego Mecanum Wheel, Nov. 2015, online product page, retrieved Apr. 27, 2018 from URL:<https://www.thingiverse.com/thing:1119245> (Year:2015).

U.S. Appl. No. 29/592,452, Reference No. B1-B2, C1-C6.

* cited by examiner

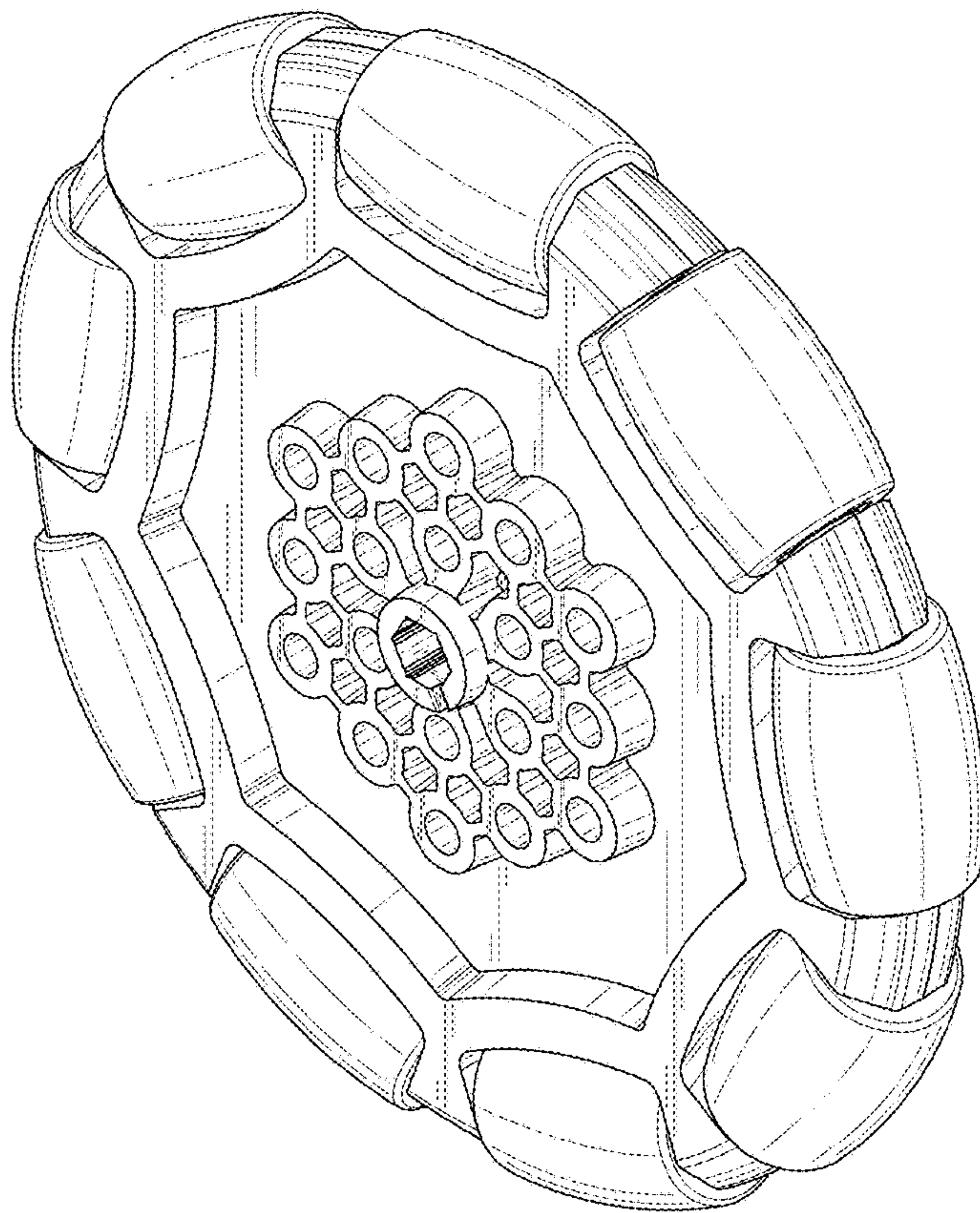


FIG. 1

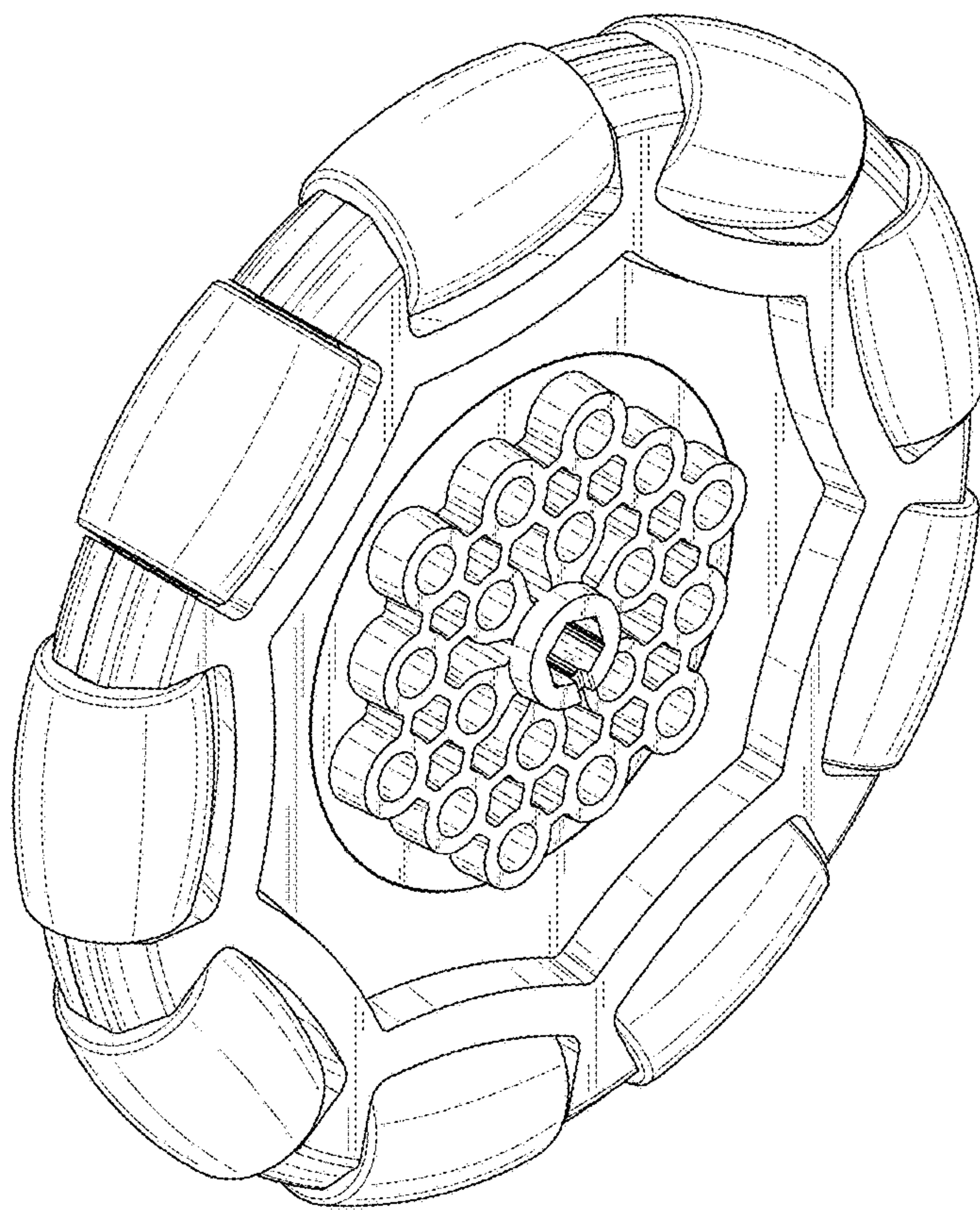


FIG. 2

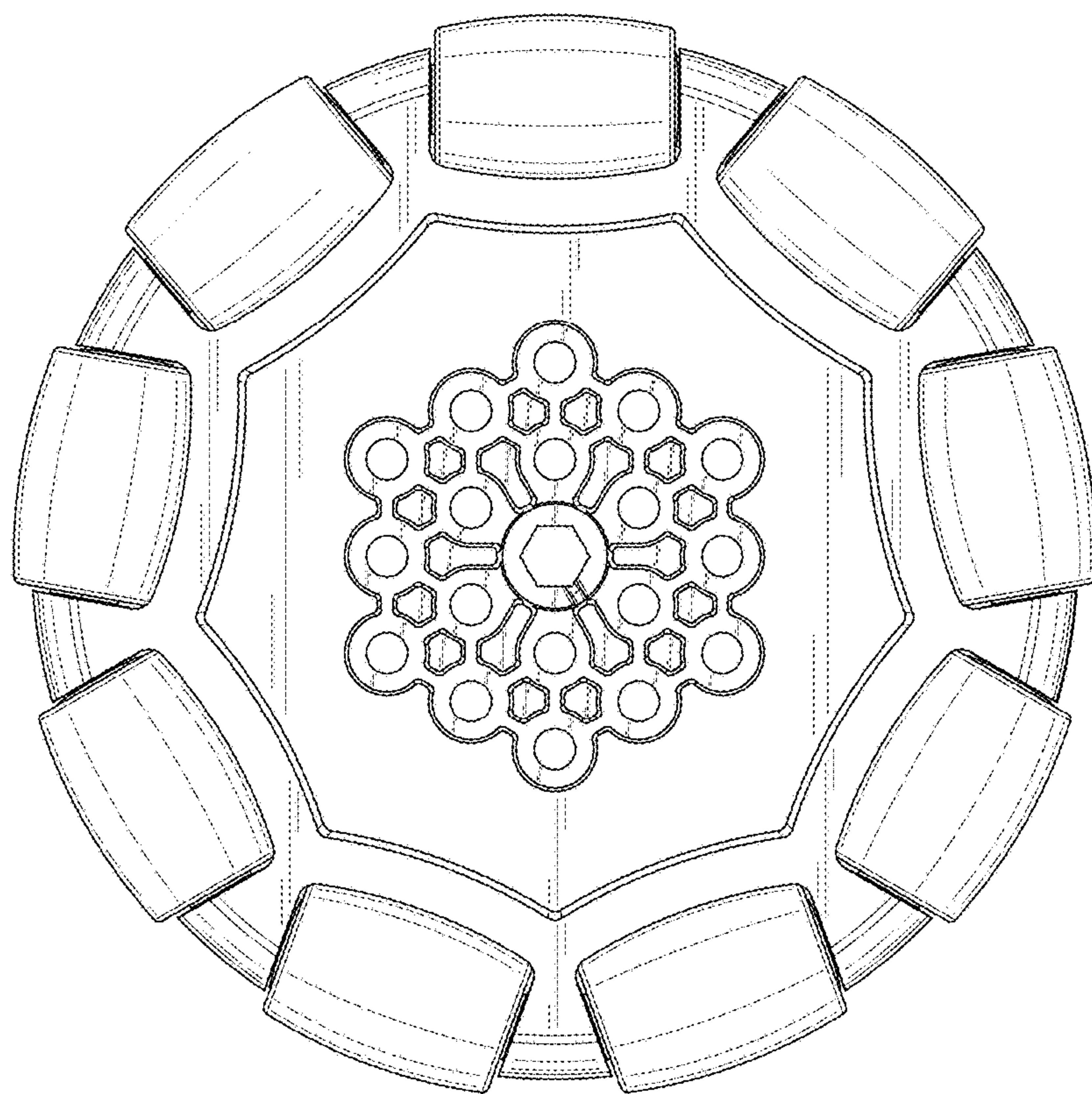


FIG. 3

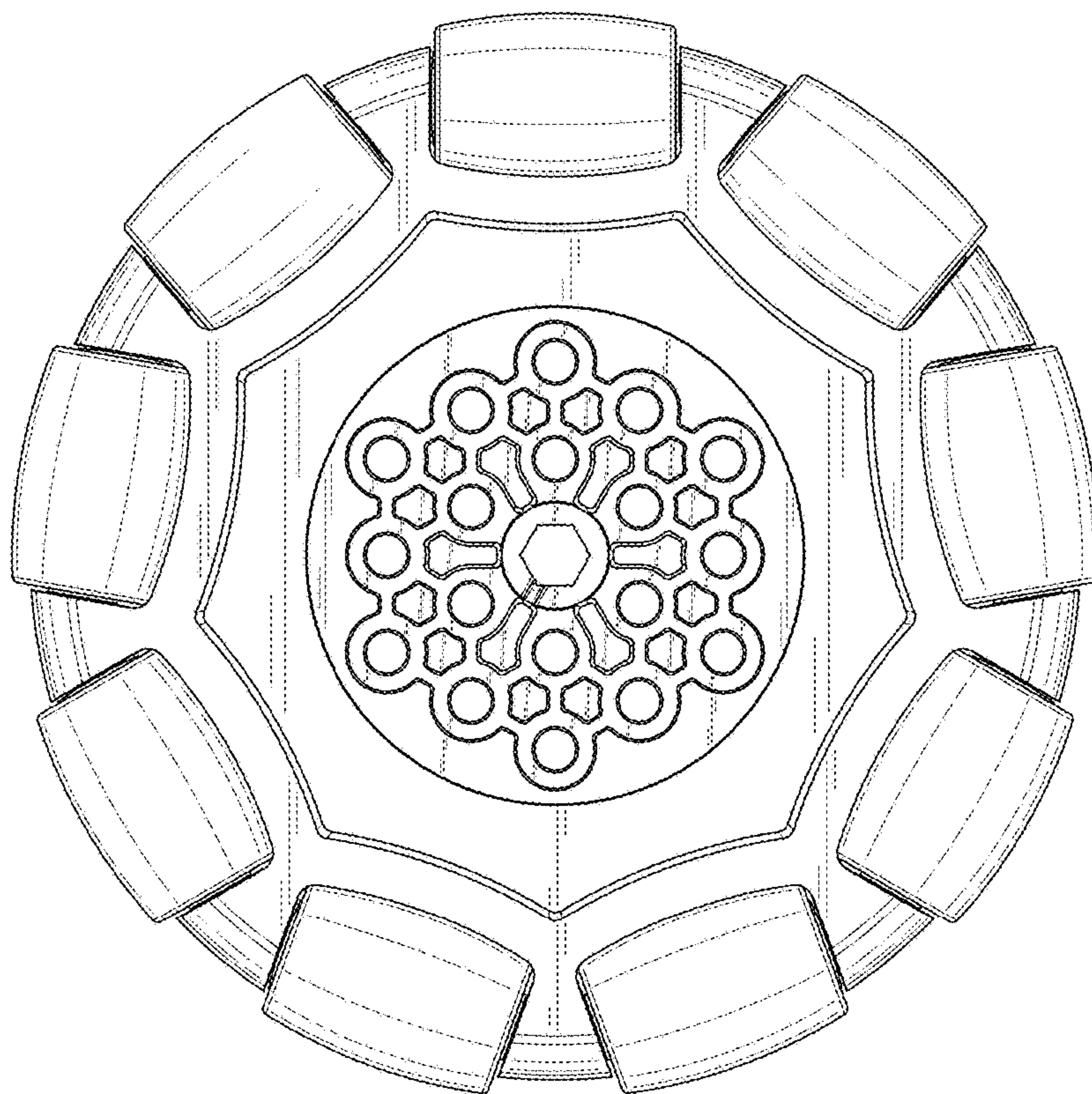


FIG. 4

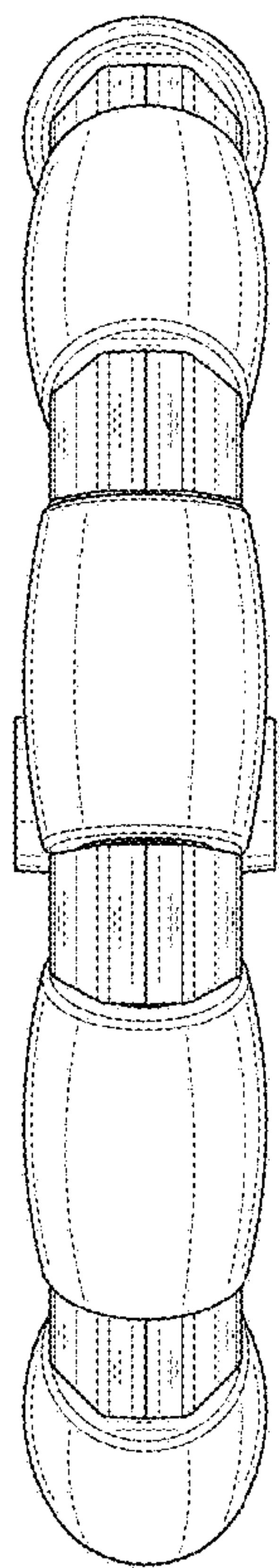


FIG. 5

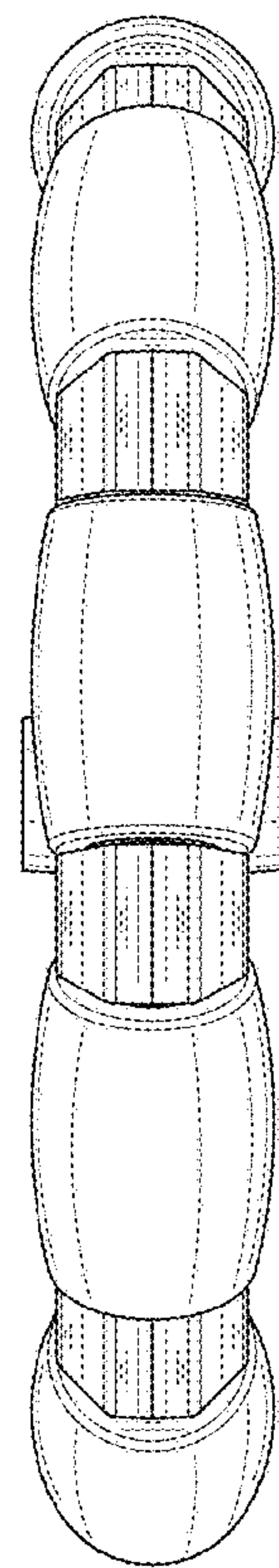


FIG. 6

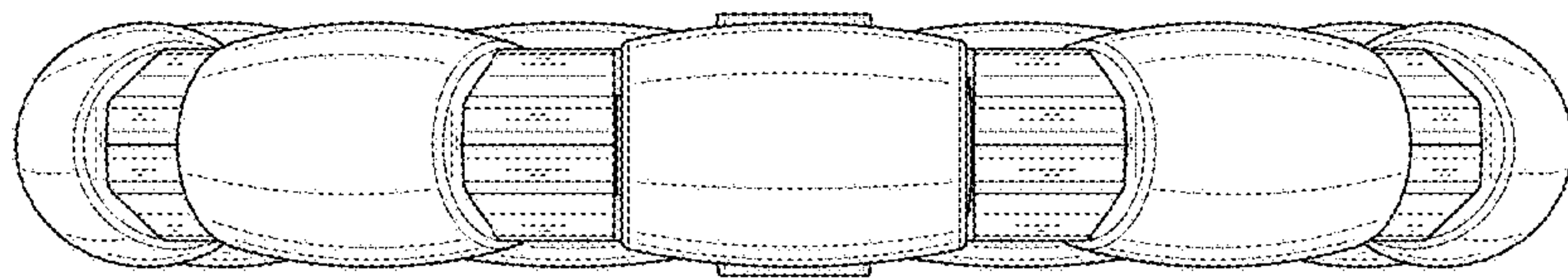


FIG. 7

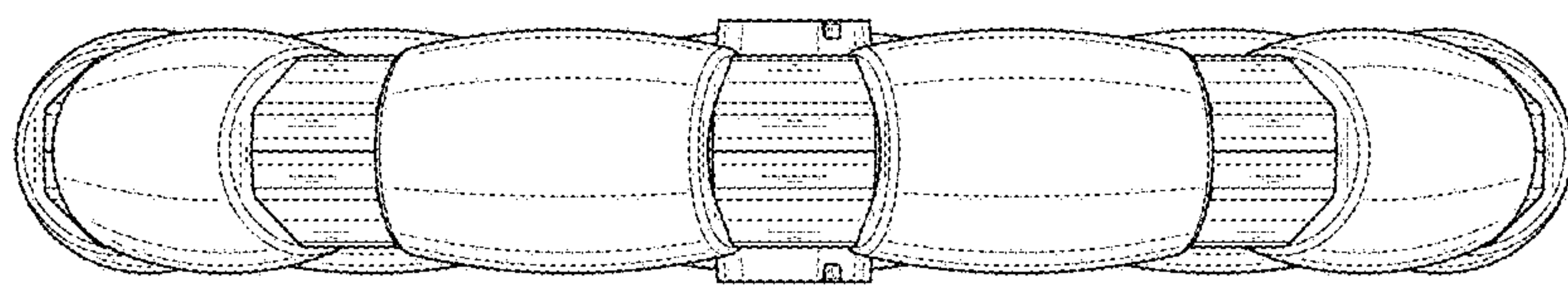


FIG. 8