



(51) International Patent Classification:

A63C 19/00 (2006.01) A47D 13/06 (2006.01)
A01K 1/00 (2006.01) A63B 71/02 (2006.01)
A01M 23/20 (2006.01) A63C 19/04 (2006.01)

(21) International Application Number:

PCT/US2018/062408

(22) International Filing Date:

25 November 2018 (25.11.2018)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/591,138 27 November 2017 (27.11.2017) US

(72) Inventor; and

(71) Applicant: **FULTON, Jack Perone** [US/US]; 1117 Miles Standish Road, Virginia Beach, VA 23455 (US).

(74) Agent: **SHESTUL, Inna**; 3455 Kemper Rd, Arlington, VA 22206 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,

HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to the identity of the inventor (Rule 4.17(i))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

- with international search report (Art. 21(3))
- with amended claims and statement (Art. 19(1))

(54) Title: HEXAGON FIGHTING CAGE WITH BOXING FLOOR

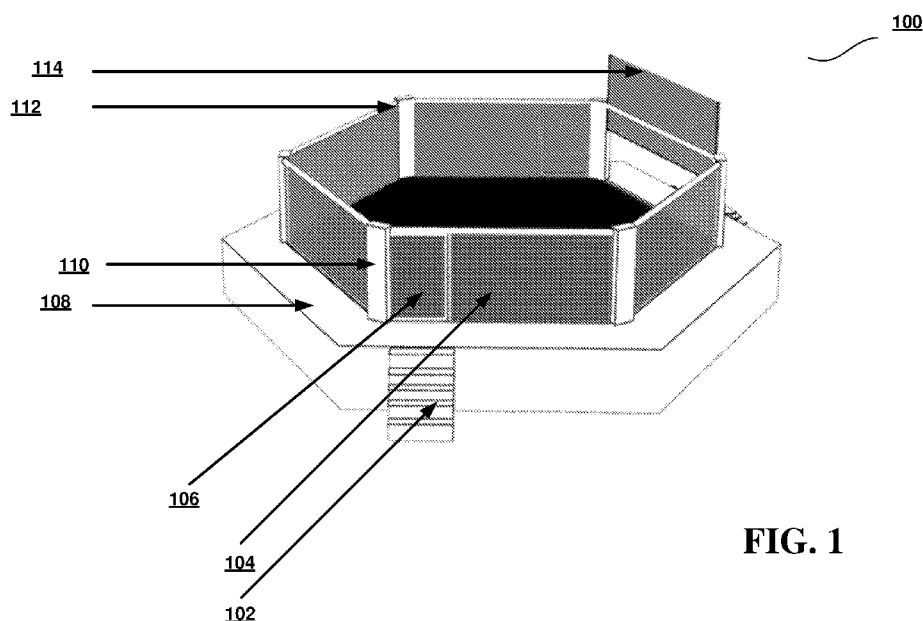


FIG. 1

(57) Abstract: An apparatus that provides an enclosure for a fighting competition. The apparatus includes a floor structure forming a base of the enclosure and a cage portion including a chain link fence coupled to the floor structure. The apparatus floor structure comprises 1.25" thick plywood floor system with one inch closed-cell foam covered with heavy duty canvass.



HEXAGON FIGHTING CAGE WITH BOXING FLOOR

CROSS-REFERENCE TO RELATED APPLICATION

[0001a] This Patent Application claims the benefit of and priority to Provisional Patent Application No. 62/591,138, filed on November 27, 2017, and entitled “Hexagon Fighting Cage with Boxing Floor”, which is hereby expressly incorporated herein.

TECHNICAL FIELD

[0001] Embodiments generally relate to sports equipment. More specifically, embodiments relate to training and fighting in boxing. In a preferred embodiment, the present invention is useful as applying boxing floor of boxing “ring” to the Mixed Martial arts (MMA) Hexagon Fighting Cage with an emergency panel lifting system providing security, emergency, regulatory, and other personnel additional access.

BACKGROUND

[0002] In order to deliver the ultimate boxing experience and maintain the highest athletic standards, International Championship Boxing LLC is re-inventing the boxing experience to meet the demands of a new generation. Beyond great boxing, younger fans want direct involvement, openness and transparency, true competition, community, 24/7 access and plenty of up close action.

[0003] With the decline of the popularity of boxing in the 18 to 34-year-old demographic, ICB foresaw the need to create a unique boxing platform to carry the sport in to the future. The International Championship Boxing League’s invention of Hexagon Fighting Cage with Boxing Floor will provide a dynamic experience for combat sport fans around the world.

BRIEF DESCRIPTION OF THE DRAWINGS

[0004] The various advantages of the embodiments will become apparent to one skilled in the art by reading the following specification and appended claims, and by referencing the following drawings, in which:

[0005] FIG. 1 is a front elevation of the hexagon fighting cage with boxing floor according to an embodiment;

[0006] FIG. 2 is a side elevation of the hexagon fighting cage with boxing floor according to an embodiment;

[0007] FIG. 3 is a top view of the hexagon fighting cage with boxing floor according to an embodiment;

[0008] FIG. 4 is a cutaway elevation of segment of the hexagon fighting cage with boxing floor according to an embodiment.

[0009] FIG. 5 is a side elevation of the hexagon fighting cage with boxing floor according to an embodiment;

[0010] FIG. 6 is a front elevation of the hexagon fighting cage with boxing floor according to an embodiment.

DESCRIPTION OF EMBODIMENTS

[0011] FIG.1 illustrates a front elevation of the hexagon fighting cage with boxing floor according to an embodiment. The Hexagon fighting cage **100**, also known as the Hexagon, or the Cage, may have walls of metal chain-link fence coated with vinyl. Although sizes will vary depending on venue limitations, standard heights will range from 6 to 8 feet. The cage **100** may sit atop a platform **108** form for competition versions and with no platform for training versions.

[0012] The structure may have six equal side panels **116** with foam padding around the top of the panel and between each of the 6 sections. It may have two entry-exit gates, for example, entry-exit gate **106** on opposite sides for combatants to enter and exit. The structure may also have a third emergency entrance gate **114** for emergency personnel.

[0013] The structure may also have six corner posts **112** with foam padding **110**. Fence posts **112** may be made of metal extending from the floor to 5 to 8 feet above the floor of the fenced area and will be padded.

[0014] The fencing used to enclose the fenced area may be made of a material that will prevent an unarmed combatant from falling out of the fenced area or breaking through the fenced area onto the floor of the building or onto the spectators, including, without limitation, chain link fence **104** coated with vinyl.

[0015] FIG. 2 illustrates a side elevation of the hexagon fighting cage **200** with boxing floor according to an embodiment. The platform **108** may have two sets of steps **102**, **204** for the use of the unarmed combatants and a third set of steps **202** for

emergency personnel that leads to an entry point where the entire panel **114** raises allowing quick access for emergency personnel.

[0016] FIG. 3 illustrates a top view of the hexagon fighting cage with boxing floor according to an embodiment. The floor **302** of the fenced area may be made of wood. The wood floor may be covered with padding suitable for example for boxing. The padding may be a closed-cell foam. The padding may be covered with a covering of canvas or duck material tightly stretched and laced to the platform of the fenced area.

[0017] FIG. 4 illustrates a cutaway elevation of segment of the hexagon fighting cage with boxing floor according to an embodiment. The boxing floor **402** of the fenced area may be 1.25" thick plywood floor system with one inch closed-cell foam covered with heavy duty canvass suitable for example for boxing.

[0018] FIG. 5 illustrates a side view of the hexagon fighting cage with boxing floor according to an embodiment. The side panel **114** may be the third emergency entrance panel. The side panel **114** may have rollers **504** on each side guided by rails **502** with a pulley or a spring allowing the panel to be raised or lowered.

[0019] FIG. 6 illustrates a front view of the hexagon fighting cage with boxing floor according to an embodiment. The emergency side panel **114** may have a handle **602** on the outside of the panel allowing the panel to be raised or lowered in a rapid manner.

[0020] Those skilled in the art will appreciate from the foregoing description that the broad techniques of the embodiments can be implemented in a variety of forms. Therefore, while the embodiments have been described in connection with particular examples thereof, the true scope of the embodiments should not be so limited since other modifications will become apparent to the skilled practitioner upon a study of the drawings, specification, and following claims.

CLAIMS

We claim:

1. An apparatus providing an enclosure for a fighting competition comprising:
 - a floor structure forming a base of the enclosure; and
 - a cage portion including a chain link fence coupled to the floor structure, wherein the floor structure comprising 1.25" thick plywood floor system with one inch closed-cell foam covered with heavy duty canvass.
2. The apparatus of claim 1, wherein the cage portion further including at least six corner posts.
3. The apparatus of claim 1, wherein the chain link fence of the cage portion includes an entry-exit gate.
4. The apparatus of claim 1, wherein the chain link fence of the cage portion includes an emergency entrance gate.
5. The apparatus of claim 1, wherein the cage portion of the enclosure further comprising:
 - a six-sided hexagon structure; and
 - six equal length of chain link fence.
6. The apparatus of claim 5, wherein each side of the six-sided hexagon structure of the cage portion comprising at least one panel.
7. The apparatus of claim 6, wherein a panel comprising:
 - at least one rail on a top and on each side of the panel; and
 - at least one roller on each side of the panel to raise and lower the panel with the guidance of the at least one rail.

8. The apparatus of claim, where the panel comprising a handle attached to an outside of the panel to raise and lower the panel.
9. An apparatus providing an enclosure for a fighting competition comprising:
 - a floor structure forming a base of the enclosure; and
 - a cage portion including a chain link fence coupled to the floor structure, wherein the floor structure comprising 1.25" thick plywood floor system with one inch closed-cell foam covered with heavy duty canvass,
 - wherein the cage portion of the enclosure further comprising:
 - a six-sided hexagon structure; and
 - six equal length of chain link fence.

AMENDED CLAIMS

received by the International Bureau on 03 April 2019 (03.04.2019)

Listing of Claims:

1. An apparatus providing an enclosure for a fighting competition comprising:
 - a floor structure forming a base of the enclosure; and
 - a cage portion including a chain link fence coupled to the floor structure, wherein the floor structure comprising 1.25" thick plywood floor system with one inch closed-cell foam covered with heavy duty canvas.
2. The apparatus of claim 1, wherein the cage portion further including at least six corner posts.
3. The apparatus of claim 1, wherein the chain link fence of the cage portion includes an entry-exit gate.
4. The apparatus of claim 1, wherein the chain link fence of the cage portion includes an emergency entrance gate,
 - wherein the emergency entrance gate moves from closed to open position to allow an access of an emergency personnel,
 - wherein the emergency entrance gate is in open position, the emergency entrance gate remains disposed substantially perpendicular to the floor structure.
5. The apparatus of claim 1, wherein the cage portion of the enclosure further comprising:

a six-sided hexagon structure; and six
equal length of chain link fence.

6. The apparatus of claim 5, wherein each side of the six-sided hexagon structure of the cage portion comprising at least one panel.

7. The apparatus of claim 6, wherein a panel comprising:
at least one rail on a top and on each side of the panel; and
at least one roller on each side of the panel to raise and lower the panel with the guidance of the at least one rail.

8. The apparatus of claim 7, where the panel comprising a handle attached to an outside of the panel to raise and lower the panel.

9. An apparatus providing an enclosure for a fighting competition comprising:
a floor structure forming a base of the enclosure; and
a cage portion including a chain link fence coupled to the floor structure, wherein the floor structure comprising 1.25" thick plywood floor system with one inch closed-cell foam covered with heavy duty canvas,
wherein the cage portion of the enclosure further comprising: a
six-sided hexagon structure; and
six equal length of chain link fence,
wherein the chain link fence of the cage portion includes an emergency entrance gate,

wherein the emergency entrance gate moves from closed to open position to allow to allow an access of an emergency personnel, and

wherein the emergency entrance gate is in open position, the emergency entrance gate remains disposed substantially perpendicular to the floor structure.

STATEMENT UNDER ARTICLE 19 (1)

It is respectfully submitted that the claims 1, 8 and 9 have been amended to overcome the objection under PCT 66. 2 (a)(v) in a manner suggested by the International Searching Authority. Claim 4 and 9 has been amended to better define scope of the claims. The amendments do no go beyond the disclosure and drawings.

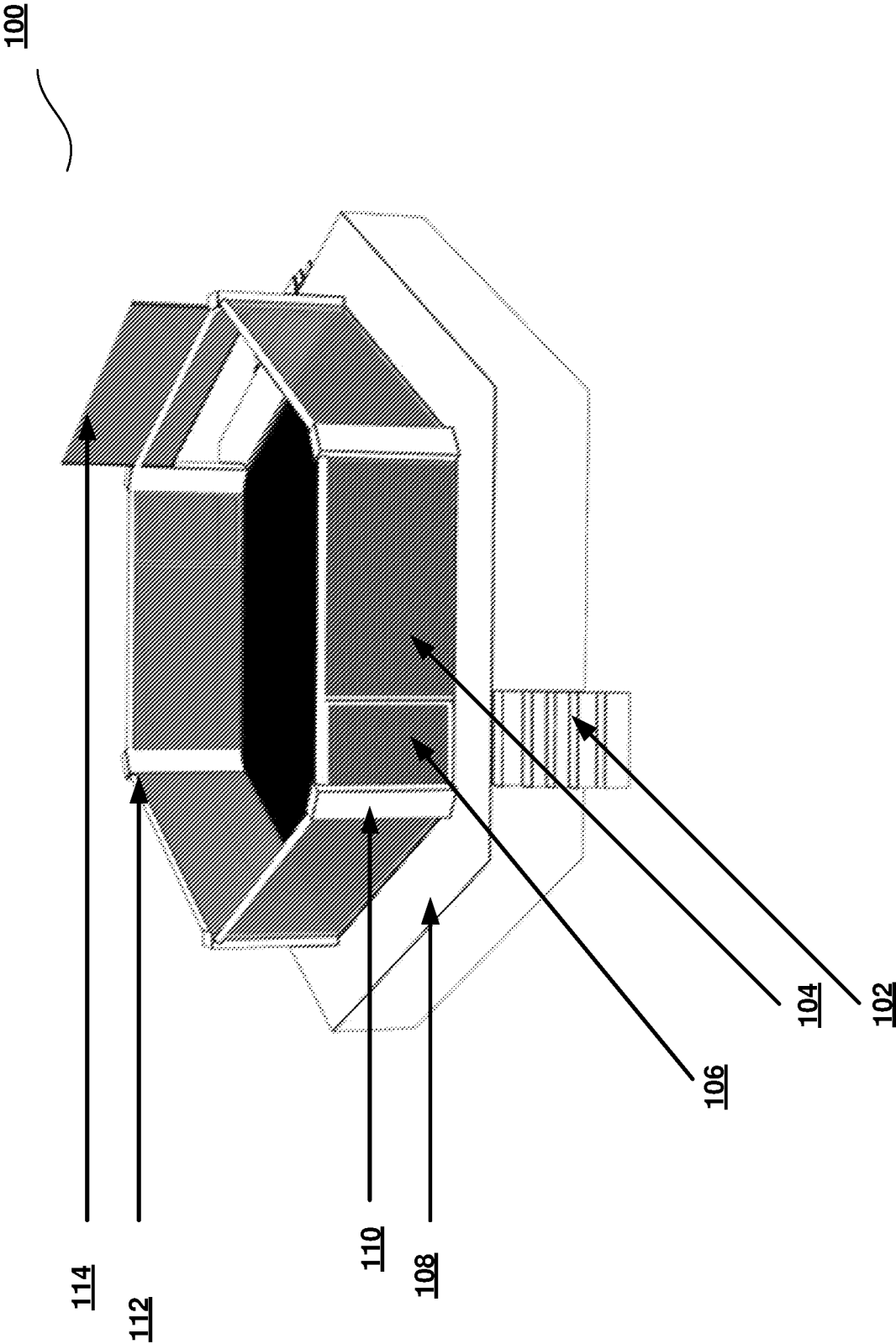


FIG. 1

200 ~

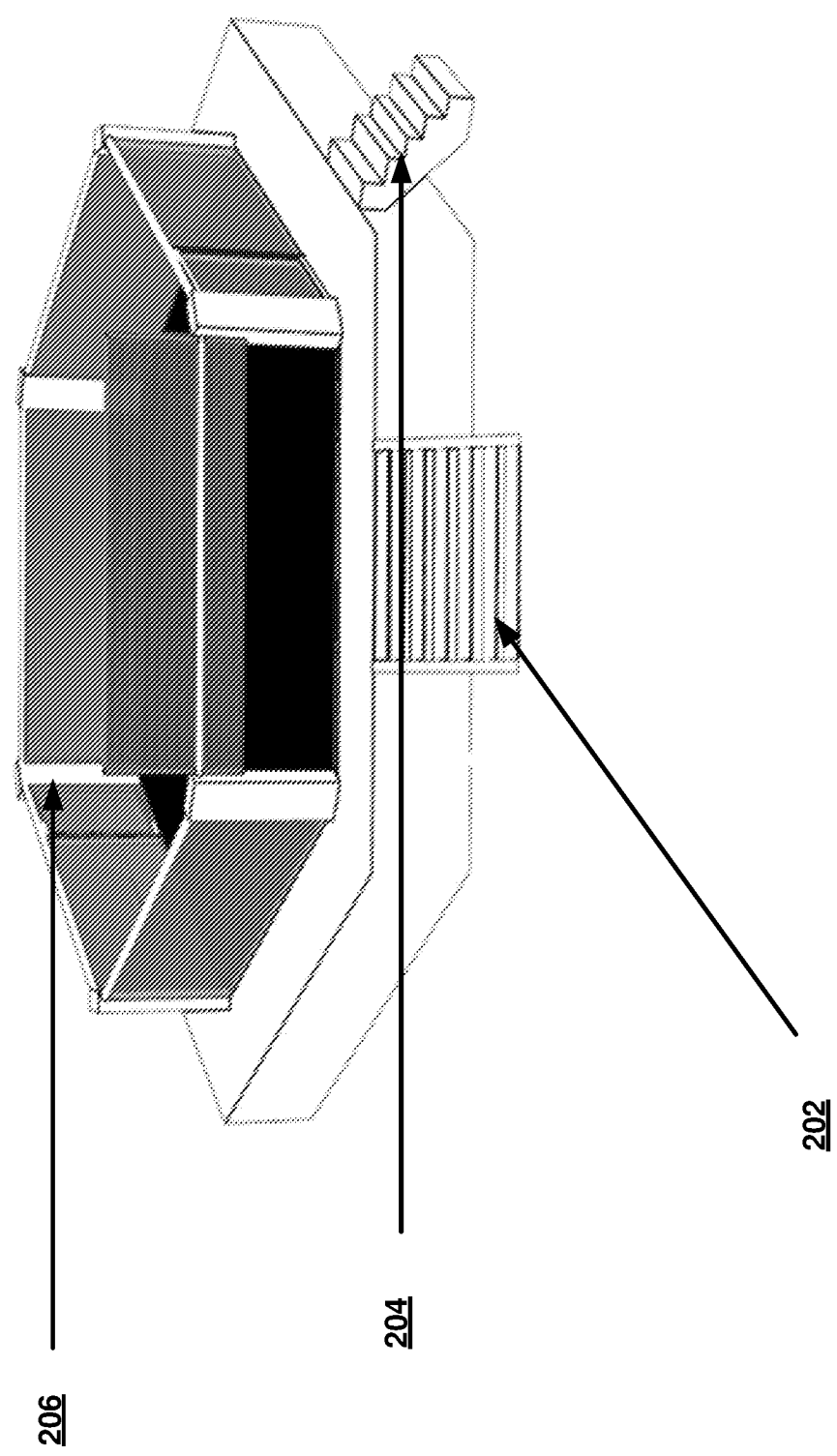


FIG. 2

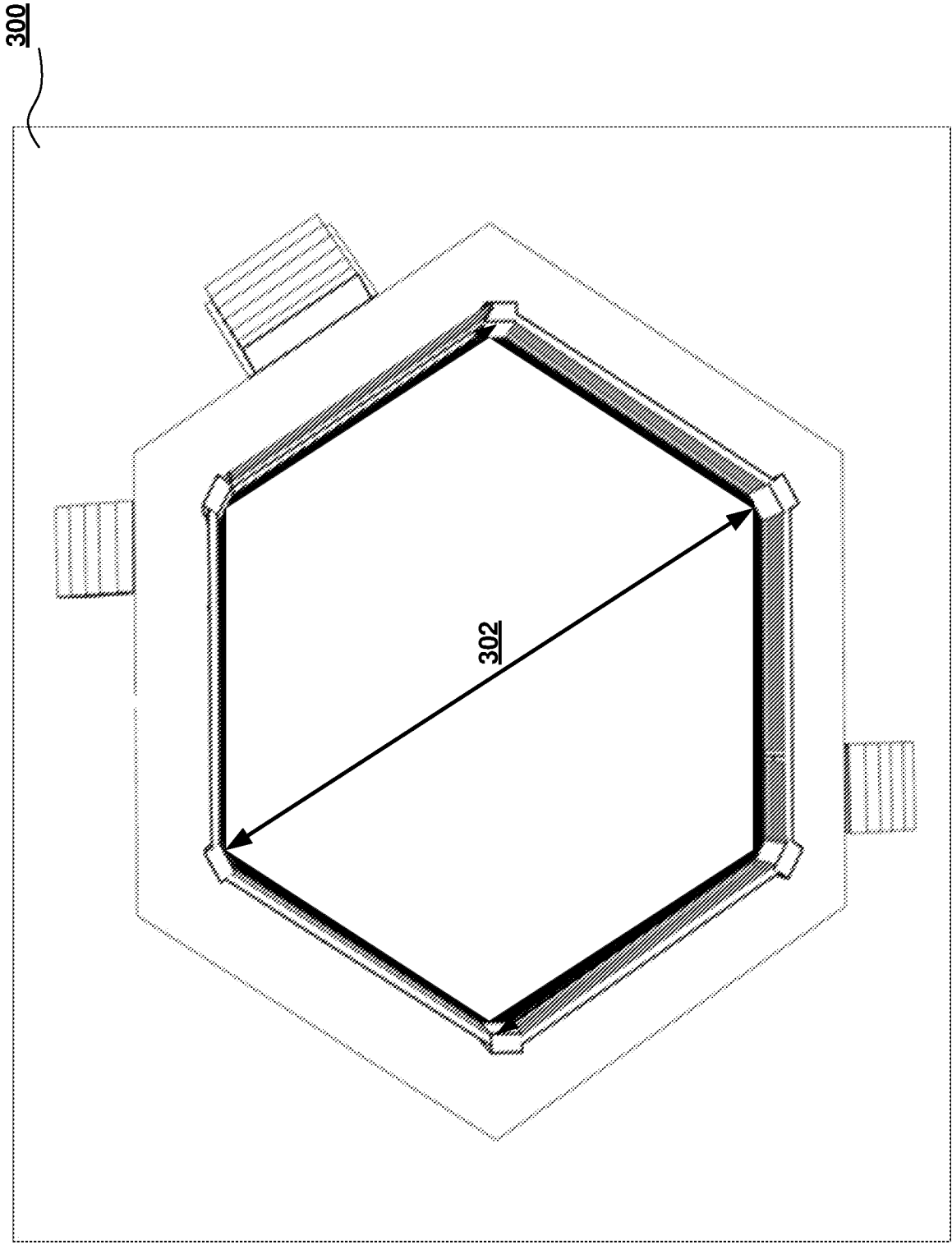


FIG. 3

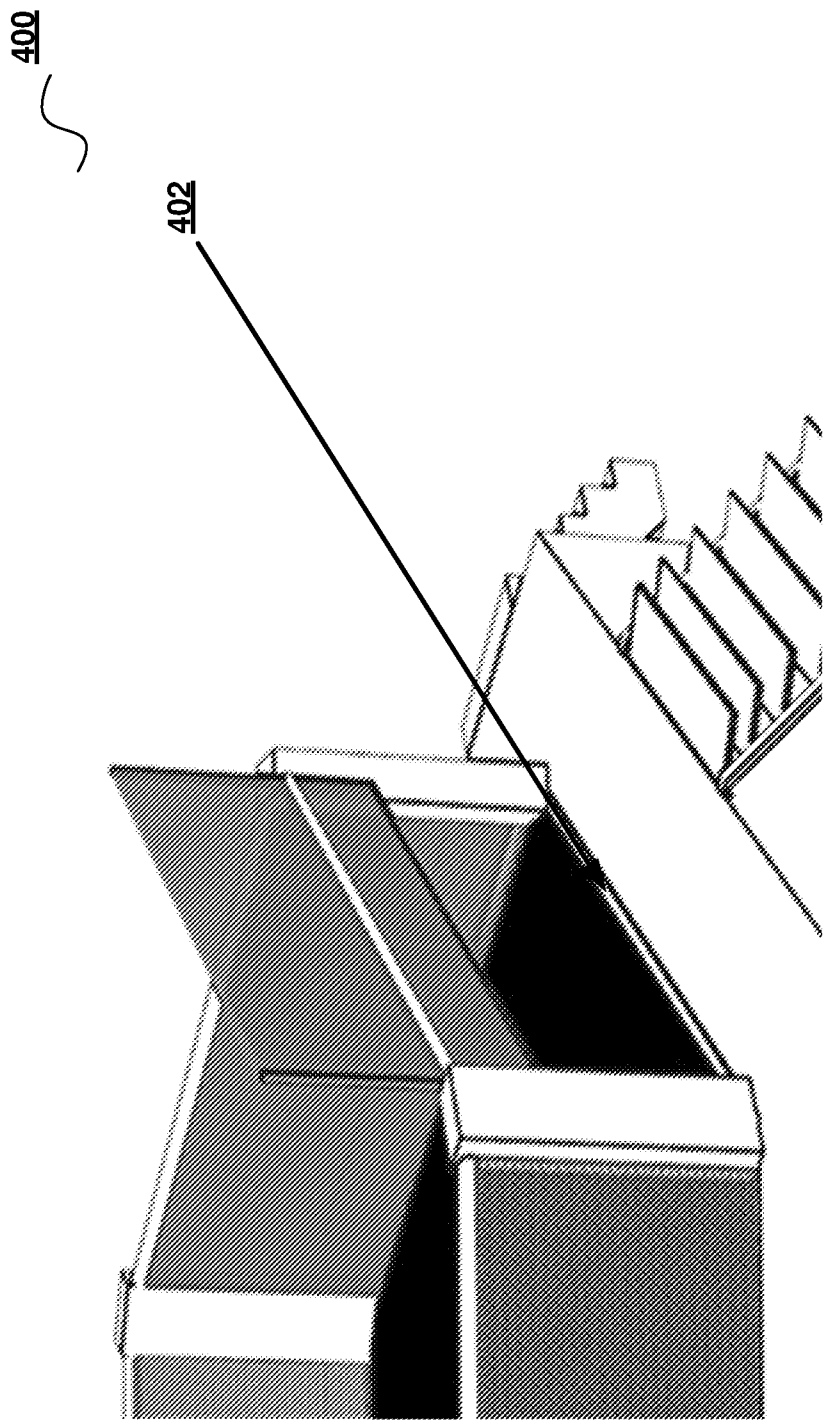


FIG. 4

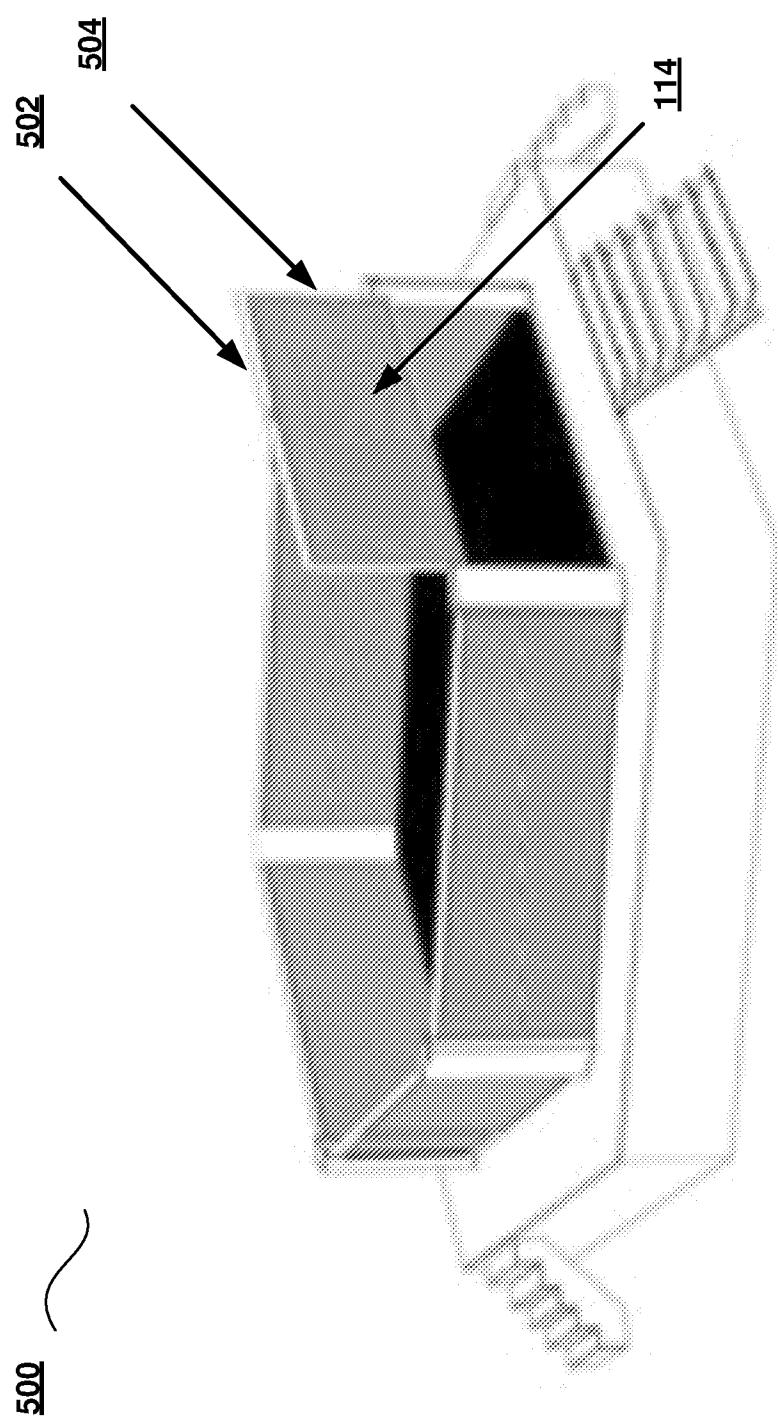


FIG. 5

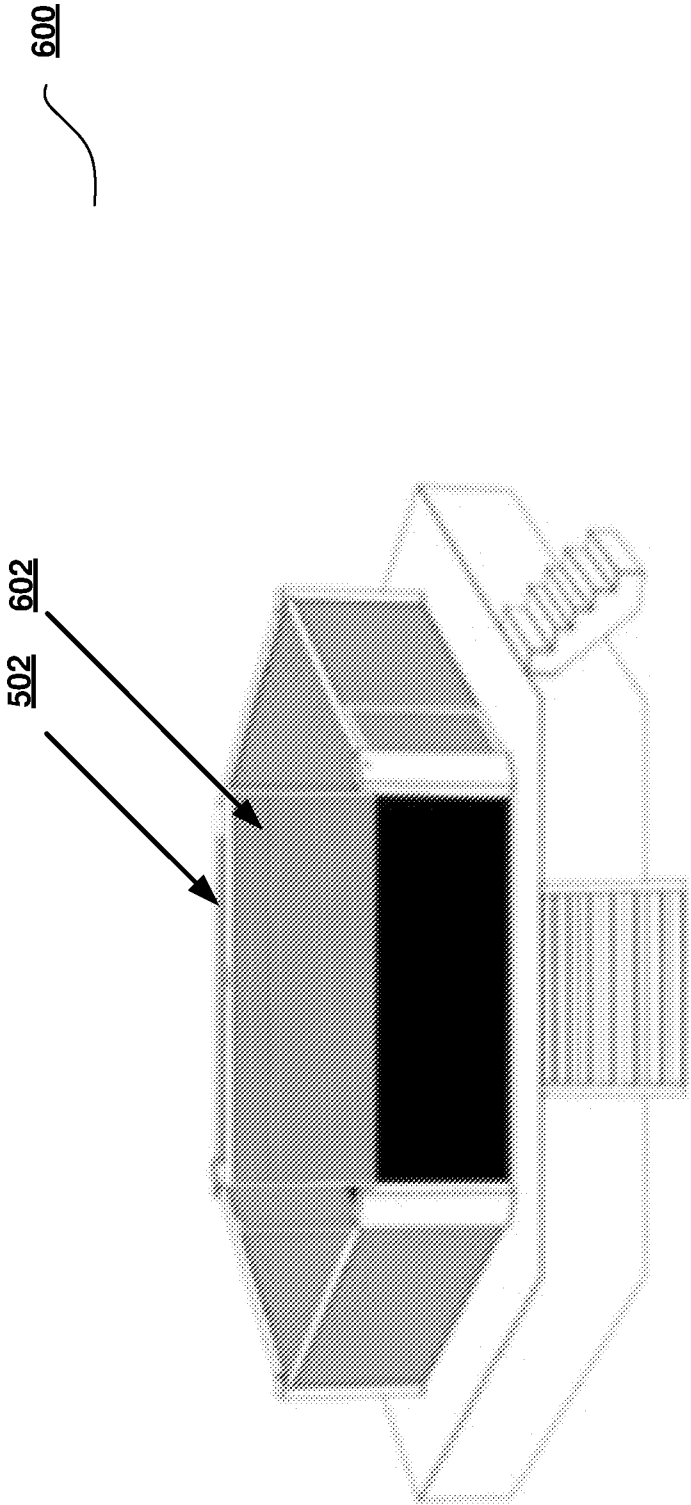


FIG. 6

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2018/062408

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A63C 19/00; A01K 1/00; A01M 23/20; A47D 13/06; A63B 71/02; A63C 19/04 (2018.01)

CPC - A63C 19/005; A01K 1/0017; A01M 23/20; A47D 13/06; A63B 71/022; A63C 19/04; A63C 19/12; E04H 17/163; E04H 17/165 (2019.01)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

See Search History document

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

USPC - 43/60; 43/62; 256/24; 256/25; 256/27; 256/73; 472/92; 472/93; 472/94 (keyword delimited)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

See Search History document

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2015/0231485 A1 (TON) 20 August 2015 (20.08.2015) entire document	1-9
Y	US 2011/0012310 A1 (ANDERTON et al) 20 January 2011 (20.01.2011) entire document	1-9
Y	WO 2016/183651 A1 (GURGEL et al) 24 November 2016 (24.11.2016) machine translation	5-9
Y	US 2012/0186530 A1 (CANTWELL et al) 26 July 2012 (26.07.2012) entire document	7, 8

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

09 January 2019

Date of mailing of the international search report

25 JAN 2019

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US, Commissioner for Patents
P.O. Box 1450, Alexandria, VA 22313-1450

Facsimile No. 571-273-8300

Authorized officer

Blaine R. Copenheaver

PCT Helpdesk: 571-272-4300
PCT OSP: 571-272-7774