

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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CircusTrix Holdings, LLC; CircusTrix, LLC; Hangar15 Florida, LLC; 2Infinity Florida, LLC; Flying Panda Florida, LLC; Flying Panda PSL LLC, Rockin' Jump, LLC; Sky Zone, LLC; Sky Zone Franchise Group, LLC; RPSZ Construction, LLC; Seven Stars on the Hudson Corp.; Family Christian Sports, LLC; Marjac Ventures, LLC; Marjac Ventures Tampa, LLC; Y & J Global Enterprises of Florida, LLC; SZSC, LLC; Ottway II LLC; SZSarasota LLC; Innovative Heights Florida, LLC; and No Call East, LLC,  
Petitioners

v.

Cherokee Gray Eagle IP, LLC,  
Patent Owner.

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Case No.: IPR2019-00263  
U.S. Patent No. 8,764,575

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**Petition for *Inter Partes* Review of U.S. Patent No. 8,764,575**

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Patent Trial and Appeal Board  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

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## EXHIBIT LIST

Exhibit	Description
1001	U.S. Patent No. 8,764,575 (“the ’575 patent”)
1002	File History of U.S. Patent Application No. 14/827,775 (issued as the ’575 patent) (“File History”)
1003	U.S. Provisional Patent Application No. 61/356,108
1004	Certified translation of CN101259316A (“Guo”)
1005	U.S. Patent Application Pub. No. 2007/0010374 A1 (“Widich”)
1006	U.S. Patent No. 6,053,845 (“Publicover”)
1007	U.S. Patent Application Pub. No. 2005/0032609 A1 (“Nissen”)
1008	U.S. Patent No. 3,233,895 (“Grelle”)
1009	U.S. Patent No. 5,624,122 (“Winkelhorn”)
1010	CN101259316A (original in Chinese)
1011	File History of U.S. Patent Application No. 14/151,975
1012	File History of U.S. Patent Application No. 13/164,356
1013	Declaration of Dr. Kimberly Cameron

## **I. INTRODUCTION**

Petitioners request *inter partes* review and cancellation of claims 1-19 of U.S. Patent No. 8,764,575 (the “’575 patent”) under Title 35 United States Code §§ 311-319 and Title 37 Code of Federal Regulations § 42.100 *et seq.* The challenged claims of the ’575 patent are unpatentable under (pre-AIA) 35 U.S.C. §§ 102 and/or 103.<sup>1</sup>

## **II. 37 C.F.R. § 42.8(B): MANDATORY NOTICES**

### **A. 37 C.F.R. § 42.8(b)(1): Real Party in Interest**

The Real Parties in Interest are the Petitioners: CircusTrix Holdings, LLC; CircusTrix, LLC; Hangar15 Florida, LLC; 2Infinity Florida, LLC; Flying Panda Florida, LLC; Flying Panda PSL LLC, Rockin’ Jump, LLC; Sky Zone, LLC; Sky Zone Franchise Group, LLC; RPSZ Construction, LLC; Seven Stars on the Hudson Corp.; Family Christian Sports, LLC; Marjac Ventures, LLC; Marjac Ventures Tampa, LLC; Y & J Global Enterprises of Florida, LLC; SZSC, LLC; Ottway II LLC; SZSarasota LLC; Innovative Heights Florida, LLC; and No Call East, LLC.

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<sup>1</sup> Unless otherwise noted, all U.S. Code references are to pre-AIA sections because the ’575 patent claims priority to an application having an effective filing date before March 16, 2013.

**B. 37 C.F.R. § 42.8(b)(2): Related Matters**

The '575 patent is the subject of three pending patent infringement actions brought by the Patent Owner and purported licensee of the '575 patent that may affect or be affected by a decision in this IPR proceeding: U.S. District Court for the Middle District of Florida Case Nos. 18-cv-00355 and 18-cv-00356 and Southern District of Florida Case No. 18-cv-60502.

**C. 37 C.F.R. § 42.8(b)(3) and (4): Notice of Counsel and Service**

Petitioners provide the following designation of counsel:

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### **III. PAYMENT OF FEES (§ 42.15(A))**

Petitioners authorize the Office to charge the filing fee and any other necessary fee to Deposit Account 50-0417.

### **IV. REQUIREMENTS FOR *INTER PARTES* REVIEW**

As set forth below, this IPR petition meets and complies with all requirements under 37 C.F.R. § 42.104 for *inter partes* review.

#### **A. 37 C.F.R. § 42.104(a): Grounds for Standing**

Pursuant to 37 C.F.R. § 42.104(a), Petitioners certify that the '575 patent is available for *inter partes* review and Petitioners are not barred or estopped from requesting *inter partes* review challenging the claims of the '575 patent on the grounds identified herein.

#### **B. 37 C.F.R. § 42.104(b): Identification of Challenge**

Pursuant to 37 C.F.R. § 42.104(b), Petitioners request that the Patent Trial and Appeal Board ("PTAB" or "Board") invalidate the challenged claims of the '575 patent for the reasons identified below.

##### **1. 37 C.F.R. § 42.104(b)(1): Challenged Claims**

Petitioners challenge claims 1-19 of the '575 patent.

## **2. 37 C.F.R. § 42.104(b)(2): Prior Art and Statutory Grounds**

Without conceding the effective U.S. filing date of the '575 patent, all of the references used below qualify as prior art under § 102(b) as of the earliest filed provisional application for the '575 patent, U.S. Provisional Patent Application No. 61/356,108 filed on June 18, 2010, at least because each reference was published and publically available or has a U.S. patent application filing date at least one year prior to June 18, 2010. The prior art references relied upon are described in Section V.F below. The following table identifies the specific statutory grounds under 35 U.S.C. § 102 and/or 103(a) on which the claims are challenged:

Ground		Claims	Basis	Reference(s)
1	a	1-7, 9, and 18	§ 102	Guo (Ex. 1004)
	b	1-7, 9, and 18	§ 103	Guo
2		8, 10, 19	§ 103	Guo and Publicover (Ex. 1006)
3		11-15	§ 103	Guo, Publicover, and Grelle (Ex. 1008)
4		16-17	§ 103	Guo and Nissen (Ex. 1007)
5	a	1-10, 19	§ 102	Widich (Ex. 1005)
	b	1-10, 19	§ 103	Widich
6		11-15	§ 103	Widich and Grelle
7		16-17	§ 103	Widich and Nissen

## **3. 37 C.F.R. §42.104(b)(3): Claim Construction**

The '575 patent will not expire before a final written decision will be issued

in this proceeding, so each claim “shall be construed using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b).” 37 CFR 42.100(b) (as amended, effective Nov. 13, 2018). 83 Fed. Reg. 51340. Petitioners believe that no claim term requires explicit construction in order to find the challenged claims are unpatentable, and the Petition applies the ordinary and customary meaning of the claim terms as understood by one of ordinary skill in the art in view of the patent and its prosecution history.<sup>2</sup>

#### **4. 37 C.F.R. §42.104(b)(4): How the Claims are Unpatentable**

Sections VI.A-VI.G below explain how claims 1-19 of the '575 patent are unpatentable, including an identification of where each element of each challenged claim is found in or rendered obvious by the prior art.

#### **5. Supporting Evidence**

Supporting evidence relied upon includes the declaration of Dr. Kimberly Cameron and the other documents and prior art in the Exhibit List filed herewith.

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<sup>2</sup> By applying the prior art to the claims, Petitioners do not admit that the claims satisfy other requirements of patentability that cannot be challenged in this proceeding, including, for example indefiniteness under 35 U.S.C. § 112.



## **V. BACKGROUND**

### **A. Field of the Invention**

The '575 patent describes the “Field of the Invention” as follows: “The present invention relates to trampolines, and more particularly, to arenas formed from a plurality of trampolines.” Ex. 1001, 1:14-18. As such, a POSITA would have had knowledge of trampoline prior art, and in particular, the prior art described in Sections V.D and V.F below.

### **B. Person(s) of Ordinary Skill in the Art**

The person(s) of ordinary skill in the art (“POSITA(s)”), at the time the '575 patent was effectively filed, would have had a four-year technical degree (*e.g.*, B.S. engineering) with several years of practical experience in using, provisioning, designing or creating, or supervising the design or creation, of mechanical support systems, such as those used for trampolines. Additional education could substitute for the practical experience, and extended practical experience could substitute for the technical degree. A POSITA also would have been familiar with prior art trampoline structures. Ex. 1013, ¶ 21.

### **C. The Alleged Invention of the '575 Patent**

The '575 patent purports to provide “an improved trampoline arena” (Ex. 1001, at 1:31-32) and that “the present invention relates to trampolines, and more particularly, to arenas formed from a plurality of trampolines.” Ex. 1001, at 1:15-

17. The purported improvement is the use of a supporting frame structure to create a horizontal trampoline deck surrounded by outwardly sloping trampoline walls. *E.g.*, Ex. 1001, 1:32-42. The purported benefit of the “present invention” is to provide an improved trampoline arena that can be freestanding, in which stresses from the use of the trampolines are evenly distributed throughout the frame work assembly, even in corners thereof. Moreover, the padding assembly closely conforms to the framework assembly, offering excellent protection while minimizing the likelihood of tripping.” *Id.* at 4:8-15. Predating the ’575 patent, an extensive body of prior art exists that describes trampoline arenas, frame structures for constructing them, and the need for safety and padding at dangerous locations. As explained in more detail below, the claimed structure and purported benefits were well known and/or would have been simple and obvious variations that follow their expected function with predictable results.

#### **D. File History of the ’575 Patent**

The ’575 patent issued from U.S. Patent Application No. 14/182,775 (the ’775 Application) (Ex. 1002). The ’775 Application is a continuation of application No. 14/151,975 (the “parent application”) (Ex. 1011) which is a continuation of application No. 13/164,356 (the “grandparent application”) (Ex. 1012).

## **1. Grandparent Application (Ex. 1012)**

The grandparent application was initially filed with claims directed to a trampoline arena and were similar in scope to the claims that eventually issued in the '575 patent. During prosecution of those claims in the grandparent application, the claims were rejected as anticipated or obvious over U.S. Patent No. 5,624,122 (“Winkelhorn”) and other prior art, but the Examiner indicated without comment that certain dependent claims directed to additional features contained allowable subject matter related to “upward extending pyramids” within the horizontal trampoline deck. Ex. 1012, at 1061-1066.

The applicant did not dispute the Examiner’s application of Winkelhorn to the claim elements and did not argue against the Examiner’s obviousness rationales. Instead, the applicant simply incorporated the allowed subject matter from the dependent claims directed to the pyramid structures. Ex. 1012, at 1048-1059.

## **2. Parent Application (Ex. 1011)**

The applicant filed the parent application in January 2014 with claims similar in scope to the originally-filed claims in the grandparent application. Notably, the claims contained no limitations to the pyramid structures that had been the reason for the previously-allowed claims in the grandparent application. *Compare* Ex. 1012, at 48, *with* Ex. 1011, at 77.

### **3. Application Leading to the '575 Patent (Ex. 1002)**

Two months after the parent application was filed—and before examination started on the parent application—the applicant filed the '775 Application with exactly the same claims it filed in the parent application, again without the limitations related to pyramid structures.

Despite the fact that these pyramid structures appear to be what enabled the grandparent application to be allowed over Winkelhorn, the pyramid structures were never added to the claims that eventually issued in the '575 patent. In a first office action on April 10, 2014, the Examiner allowed original claims 1-18 without explanation and found that claim 20 contained patentable subject matter. Ex. 1002 at 0052, 0054. The Examiner rejected independent claim 19 as obvious over Winkelhorn in view of U.S. Patent No. 6,607,468 (Nichols). Ex. 1002 at 0053, 0054. The Examiner stated that “Winkelhorn discloses a trampoline system comprising a plurality of rigid side frames (18) defining a wall, a plurality of voids (space between the frames) being defined between the side frames, the side frames interconnected at their upper ends by a plurality of upper frame members (12a, 12b, 14a, 14b); a plurality of trampolines (24) connected to the side frames along periphery thereof and extending across the voids; a padding assembly (29) including a plurality of pads at least partially overlying the side frames and the peripheries of the trampolines.” *Id.* at 0053. The Examiner used Nichols to show

that using a bracket was an obvious way of joining frame members in order to enhance the rigidity of the connection between side frames and the upper frames.

*Id.* at 0053, 0054.

In an amendment dated April 24, 2014, the applicant did not argue against the disclosures in the prior art or against the obviousness of using brackets for enhancing the rigidity of connections. Instead, the applicant simply incorporated the subject matter of claim 20 into independent claim 19 and canceled claim 20.

*Id.* at 0035-0049. In response, the Examiner issued a notice of allowance. *Id.* at 0024-0029.

**E. The Grounds Presented in this Petition Do Not Invoke § 325(d)**

The Board should not decline this Petition under 35 U.S.C. § 325(d) because this Petition is not based on “the same or substantially the same prior art or arguments previously [] presented to the Office.” 35 U.S.C. § 325(d). First, the ’575 patent has never been challenged in any post grant proceeding. Second, the Petition relies on Guo and Widich as primary references, and neither reference was uncovered during prosecution of the ’575 patent or related applications. Had the Patent Office been aware of Guo and Widich, the claims would not have issued.

Third, even if Guo and Widich were considered “substantially the same” as the references uncovered during prosecution, the Examiner should not have issued the claims over those references, including Winkelhorn. The Examiner allowed

the claims without explanation, even though the Examiner also found that Winkelhorn broadly disclosed the elements of original claim 19. *See* Section V.D.3 above. Thus, the arguments in the instant Petition do not revisit any arguments that were previously overcome.

Finally, § 325(d) does not apply because the additional facts and evidence included in the instant Petition, including the expert declaration of Dr. Cameron and multiple prior art references that were not uncovered during prosecution, warrant reconsideration of the prior art. *See Juniper Networks, Inc. v. Mobile Telecomms. Techs., LLC*, IPR2017-00642, Paper 24 (July 27, 2017). Accordingly, the Board should reach the merits of this Petition.

## **F. Prior Art and POSITA Knowledge**

### **1. Guo**

In this Petition, “Guo” refers to Exhibit 1004, a certified English translation of Chinese Patent Publication CN101259316A (Exhibit 1010). Guo is prior art under 35 U.S.C. 102(b) to every claim of the ’575 patent at least because Guo is a patent publication with a publication date of September 10, 2008. Guo was not uncovered during prosecution of the application that issued as the ’575 patent. Guo discloses a framed trampoline arena with outwardly sloping sidewalls and a horizontal deck:

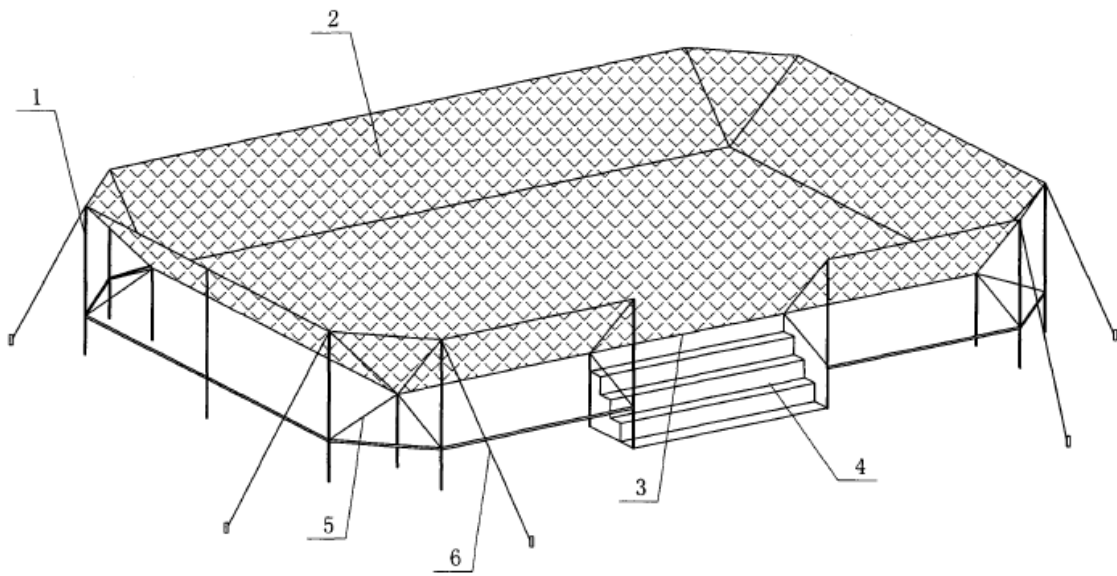
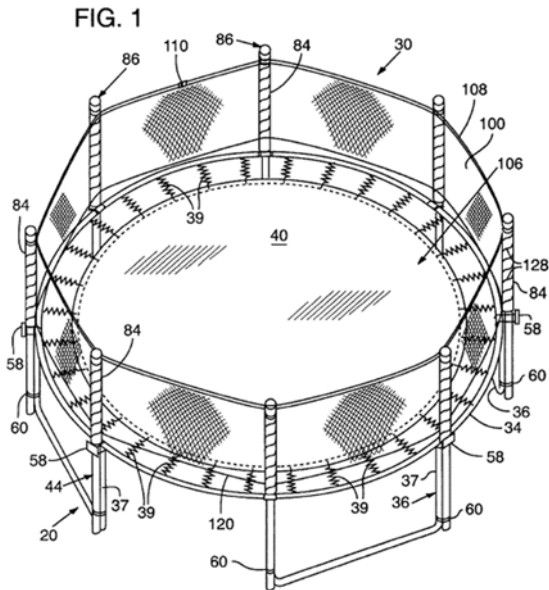


图1

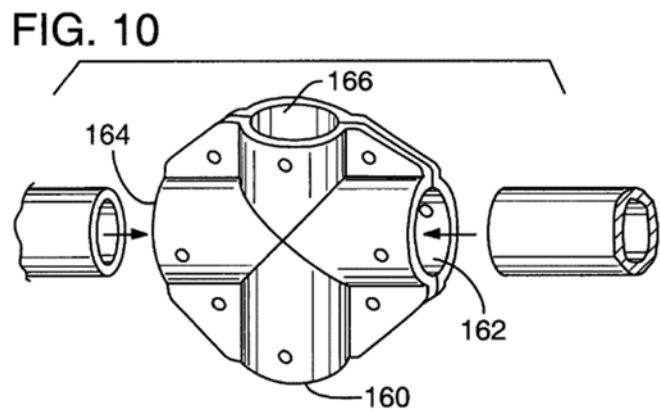
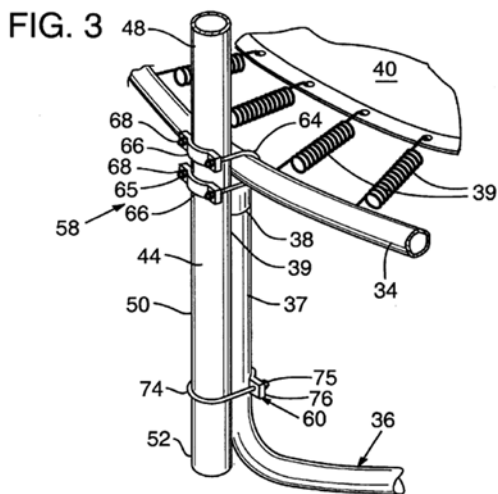
Ex. 1004 (Guo), Fig. 1.

## 2. Publicover

In this Petition, “Publicover” refers to Exhibit 1006, U.S. Patent No. 6,053,845. Publicover is prior art under 35 U.S.C. 102(b) to every claim of the ’575 patent at least because Publicover is an issued patent with a filing date of June 19, 1998. Publicover discloses a generally horizontal trampoline deck surrounded by vertical sidewalls, as shown below in Figure 1:



Ex. 1006, Fig. 1. Publicover also discloses various well-known alternatives for constructing a stable, safe trampoline from frame members connected by brackets:



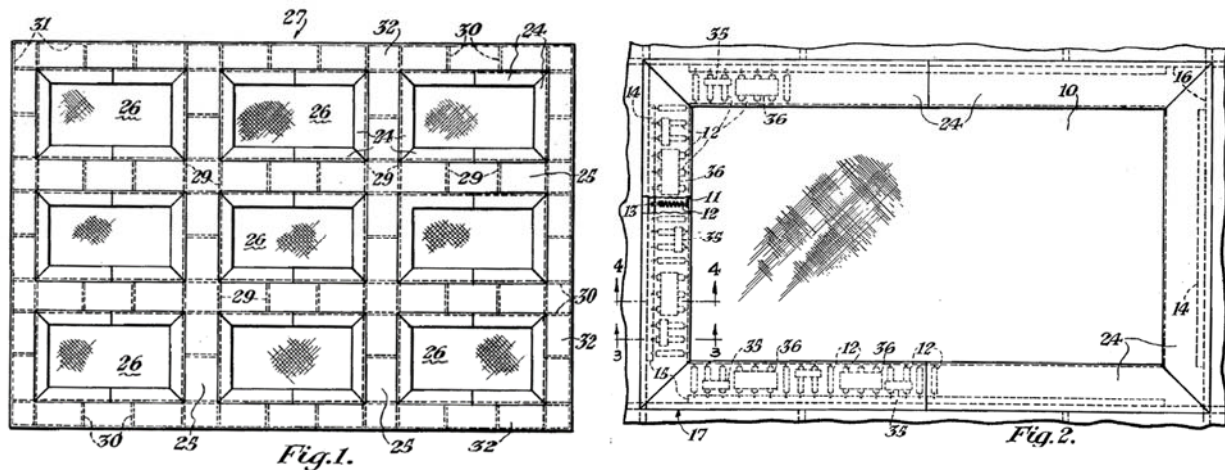
Ex. 1006, Figs. 3 and 10.

### 3. Grelle

In this Petition, “Grelle” refers to Exhibit 1008, U.S. Patent No. 3,233,895.



Grelle is prior art under 35 U.S.C. 102(b) to every claim of the '575 patent at least because Grelle is an issued patent with a filing date of October 13, 1961. Grelle discloses a generally horizontal trampoline deck that is formed by an intersecting grid of rigid frame members covered in padding with trampolines inside each “box frame”:



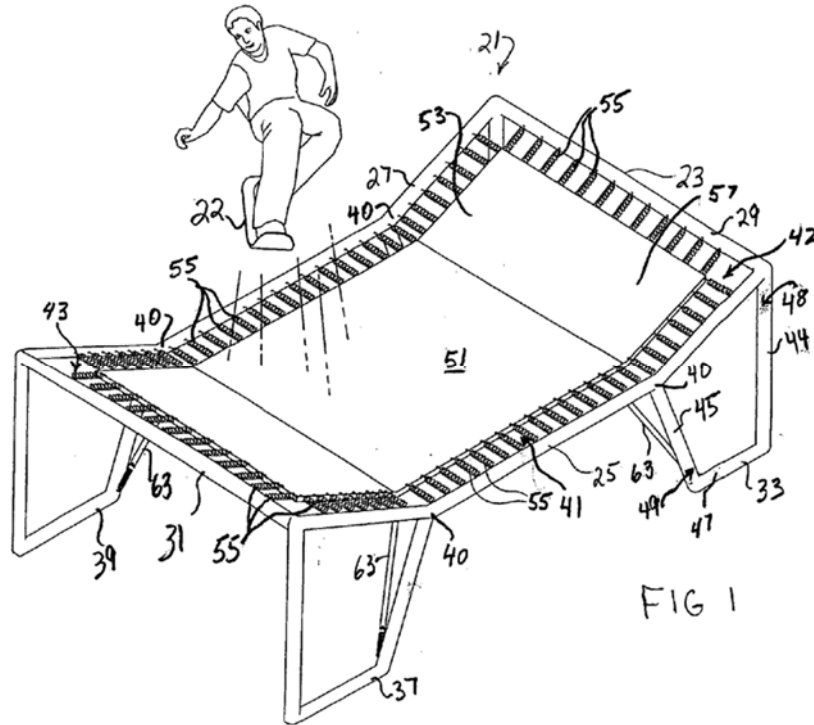
Ex. 1008, Figs. 1-2.

#### 4. Widich

In this Petition, “Widich” refers to Exhibit 1005, U.S. Patent Application Publication No. US2007/0010374 A1. Widich is prior art under 35 U.S.C. 102(b) to every claim of the '575 patent at least because Widich is a patent publication with a publication date of January 11, 2007. Widich was not uncovered during prosecution of the application that issued as the '575 patent.

Widich discloses a trampoline arena and “relates to trampoline sports . . . and related equipment.” Ex. 1005, ¶ [0001]. Widich discloses a framed horizontal

trampoline deck with framed side trampoline surfaces that extend at angles that are offset from horizontal. Ex. 1005, ¶¶ [0003]-[0004].



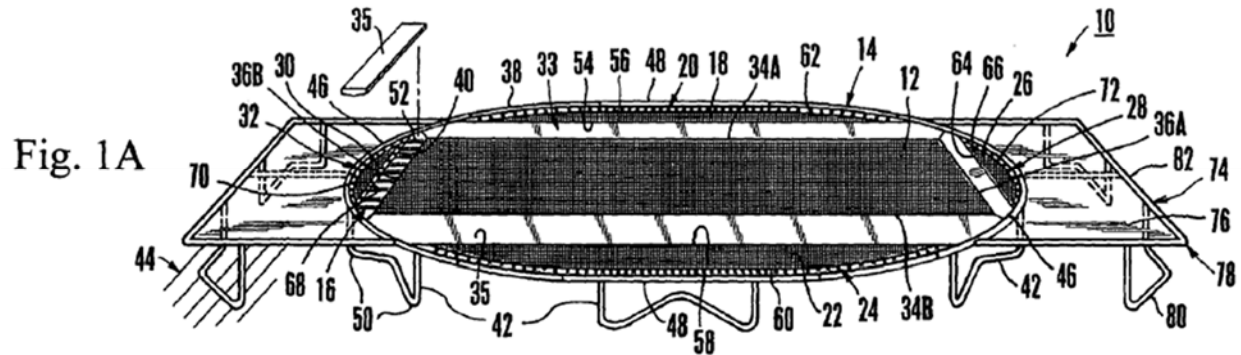
Ex. 1005, Fig. 1.

## 5. Nissen

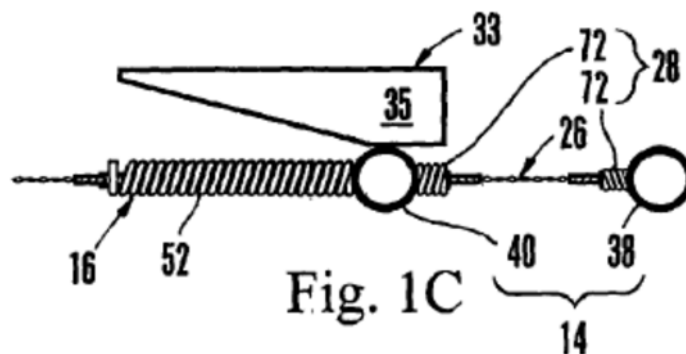
In this Petition, “Nissen” refers to Exhibit 1007, U.S. Patent Application Publication No. US2005/0032609 A1. Nissen is prior art under 35 U.S.C. 102(b) to every claim of the ’575 patent at least because Nissen is a patent publication with a publication date of February 10, 2005. Nissen was not uncovered during prosecution of the application that issued as the ’575 patent.

Nissen disclosed a trampoline arena that used wedge-shaped padding (35) at the outer edges of the trampoline deck to cover the joints between the trampoline

and the frame, where the trampoline connects to the frame. *E.g.*, Ex. 1007 (Nissen), ¶¶ [0041], [0045]-[0046].



Ex. 1007 (Nissen), Fig. 1A.



Ex. 1007 (Nissen), Fig. 1C.

## 6. POSITA Knowledge

As is clear from the above references, a POSITA at the time of the invention would have been familiar with trampoline arenas, their frames, using padding, and methods of constructing trampolines of various shapes and sizes. Ex. 1013, ¶¶ 31-33. It would have been well-known to a POSITA, for example, to use upright and angled support elements (*e.g.*, truss members, steel cables, and tension rods) to

support prior art trampoline arenas. *Id.* ¶¶ 34-37. To a POSITA, using a frame of support elements was well-known to provide a stable, rigid, and safe framework to support the loads associated with trampolines. *Id.* Indeed, Widich recognizes this well-known fact and explains that his trampoline frame is “preferably made from welded steel or aluminum alloy tubes of sufficient thickness and diameter to accommodate significant loads.” Ex. 1005, ¶ [0034].

A POSITA would have also understood the basic application of brackets to framed structures because brackets are well-known structural elements, used as fasteners to connect multiple members of trampoline frames. Ex. 1013, ¶¶ 38-40. In mechanical engineering, a bracket is any intermediate component (*e.g.*, mechanical fasteners) for fixing one component to another. *Id.* ¶ 38. Brackets have been routinely used in trampoline frame construction. *Id.* For example, Publicover and Grelle disclose numerous types of brackets for connecting together and supporting frame members. Ex. 1006, 3:23-25, 3:62-68, 11:65-12:21, Figs. 3 and 10; Ex. 1008, Figs 6-9. A POSITA would have understood that using brackets to connect separate frame members is simpler and more cost effective than using a single, pre-formed structure because it is easier to divide long, linear beams into separate frame members that are bracketed together; this results in lower finishing and moving costs. Ex. 1013, ¶ 40.

In addition, for structural frames, the bottoms of frame members are

routinely designed to interface with the floor to provide a stable base for jumping.

*Id.* ¶ 41. To provide fixed stability for preventing the structure from moving with respect to the ground/floor, a POSITA would have understood that frame elements that interface with the floor would have been mountable to the floor using ropes, rivets, brackets, bolts, welds, or stakes, etc. Both Grelle and Widich disclose frame members that are designed to interact with the floor in the form of “stabilizing feet” (Ex. 1005, ¶ [0044], Fig. 8) and ground-engaging braces (Ex. 1008, 4:11-5:22, Figs. 6-9). Ex. 1013, ¶¶ 42-43.

Finally, a POSITA familiar with trampolines would have known to use padding to cover dangerous elements that a user may encounter while jumping on the trampoline. Ex. 1013, ¶ 44. A POSITA would have known that rigid frame elements, transitions between horizontal and vertical, and spring/tensioner elements that attach the trampoline to the frame would have posed safety risks to the user, and padding would have been a well-known design choice for protecting the user from such hazards. *Id.* Indeed, numerous prior art references teach the benefits of using padding to cover hazardous trampoline elements. *See, e.g.*, Ex. 1008, Figs. 1-4, 10 and 1:20-36, 3:1-41, 3:74-4:10, 5:23-32; Ex. 1004, 7:[0025]; Ex. 1006, Figs. 1, 4, 5 and 4:52-65; Ex. 1005 (Widich) ¶ [0037].

## **VI. THE CHALLENGED CLAIMS ARE UNPATENTABLE**

### **A. Ground 1: Guo anticipates or renders obvious claims 1-7, 9, and 18**

Guo anticipates all of the features of claims 1-7, 9, and 18. To the extent Patent Owner argues that Guo fails to explicitly or inherently disclose certain features, those features would have been obvious to a POSITA, as shown below.

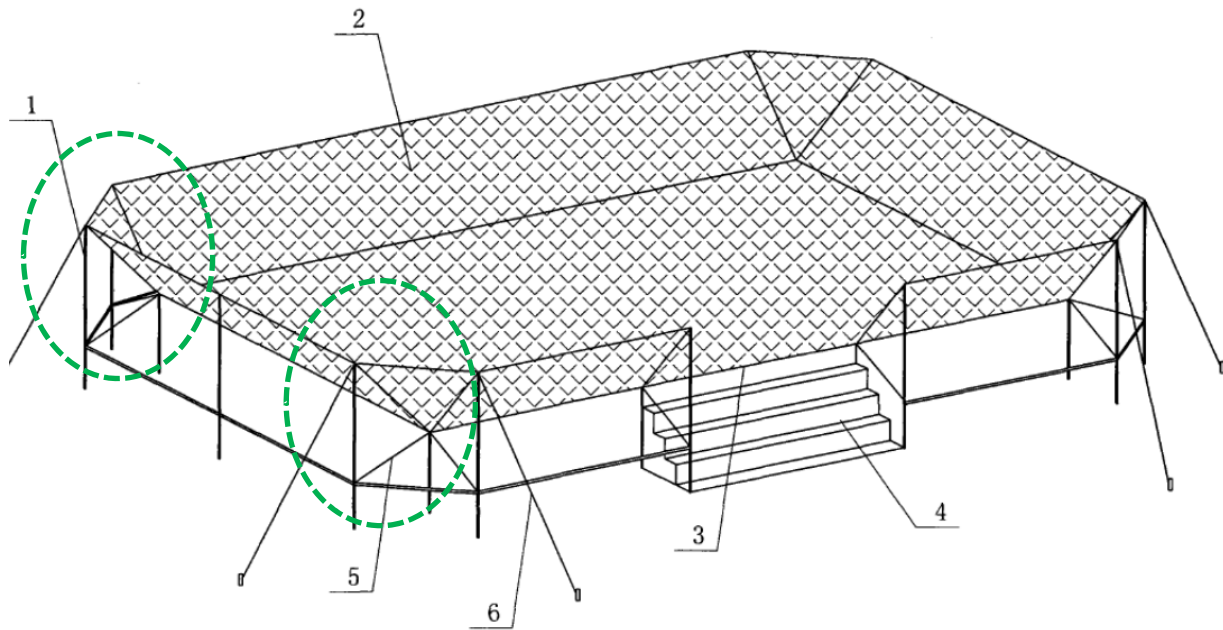
#### **1. Claim 1**

##### **a. A trampoline arena comprising:**

Although the preamble is not limiting, Guo discloses a trampoline arena. Guo discloses a “stereoscopic” (*i.e.*, a multi-dimensional) trampoline that is used as a large-scale sports and fitness amusement arena. Ex. 1004 at Abstract, 6:[0015] (“The present invention relates to . . . a stereoscopic safe trampoline whose side walls are installed with trampoline net.”); Ex. 1013, ¶ 66. Therefore, Guo discloses the “trampoline arena” of claim 1.

##### **b. a plurality of side frames defining an outwardly sloping outer wall, each of the plurality of side frames including:**

Guo discloses this claim limitation. Guo discloses a trampoline frame 1, formed from a plurality of framed sidewalls that extend at an angle from the horizontal plane (two side frames circled in green, below).

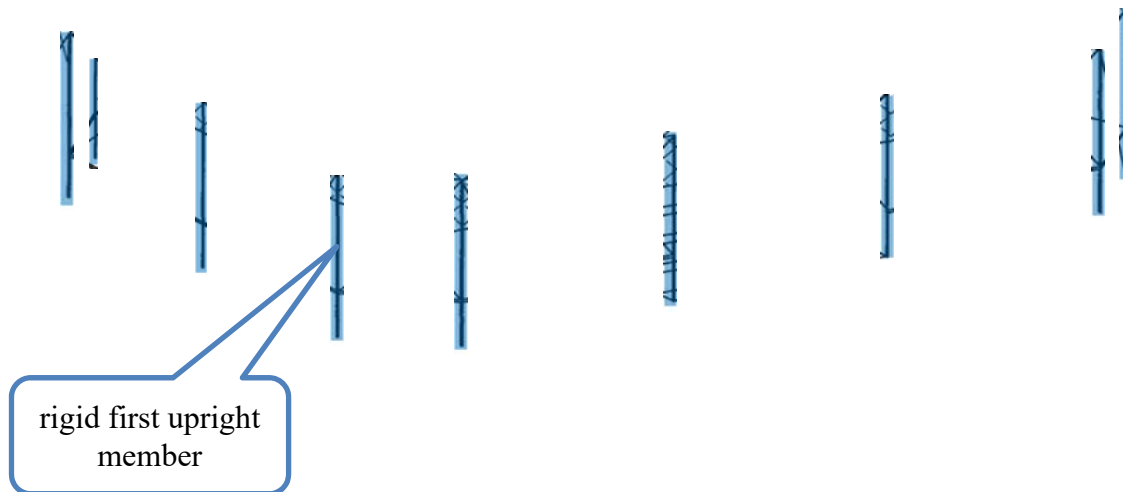


Ex. 1004, Fig. 1 (annotated); Ex. 1013, ¶¶ 67-68.

Guo explains that the sidewalls are ideally at an obtuse angle from horizontal and are therefore outwardly sloping. Ex. 1004, 6:[0021] (the wall angle is “greater than or equal to  $90^\circ$  and smaller than  $180^\circ$ ”); *see also id.* 7:[0032]-8:[0034] and Figs. 1-3.

- i. **a rigid first upright member having a top first upright member portion and a bottom first upright member portion mountable to a floor**

Guo discloses the side frame includes a rigid first upright member (taller, vertical posts highlighted in blue, below) having a “top” portion closer to the top of trampoline frame and a “bottom” portion closer to the floor:



Ex. 1004, Fig. 1 (annotated); *see also id.* at Fig. 3; Ex. 1013, ¶ 69.

The vertical posts in Guo are rigid because Guo describes it as part of a “frame” that is used to support the trampoline net that is stretched inside the frame members. Ex. 1004, 5:[0004], 6:[0021]. In addition, a POSITA would have recognized that Guo’s frame, including the vertical posts, must be able to resist a compressive load, and therefore, are necessarily rigid. Ex. 1013 ¶¶ 70-72. Guo teaches that trampoline material is tied to the frame by net fixation ropes, and if the frame were not rigid, the trampoline material would not be taut, it could not provide the resilient “bounce” expected in a trampoline, and the frame structure would lose its shape. *Id.* Moreover, if the frame were not rigid, the upright members would not be able to maintain the horizontal trampoline netting above the



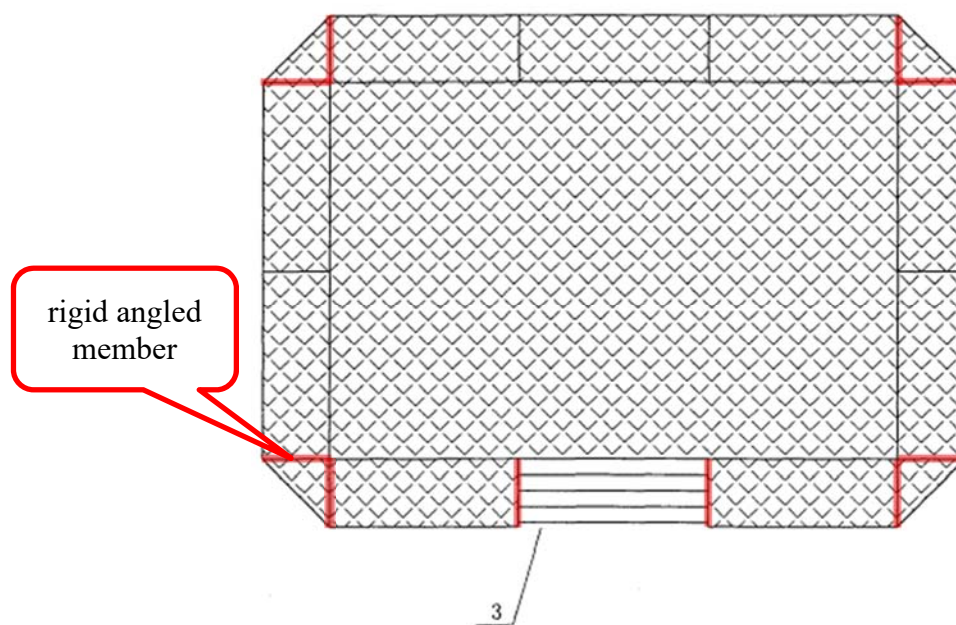
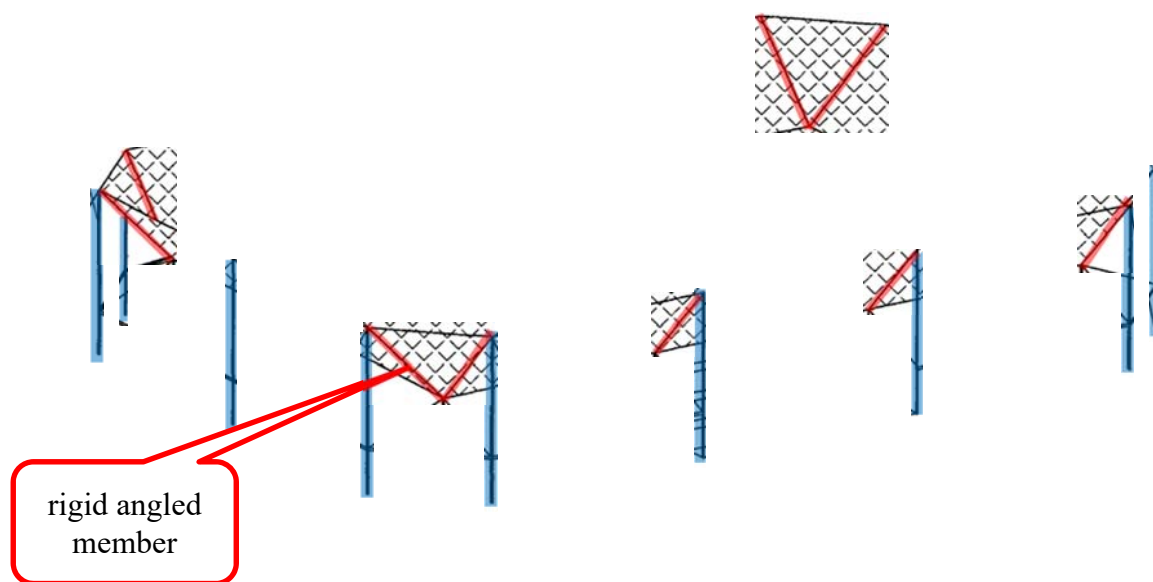
ground or maintain the obtuse angle of the sidewall with respect to the horizontal plane. *Id.*

Guo also discloses the vertical posts are mountable to the floor at their base because the bottom of the vertical posts serves as an interface to the floor. Ex. 1013, ¶ 73.

To the extent Patent Owner argues that “mountable to the floor” requires the vertical members to have a particular structure at their base, this would be an improper claim construction because no particular structure is recited in the claims. Regardless, using any known structure for making the bottom of Guo’s vertical posts “mountable to a floor” would have been obvious, especially in view of Guo’s teaching that attaching the vertical members to the floor improves the safety of the trampoline. Ex. 1004, 7:[0023]. A POSITA would have known that any number of structures, including ropes, rivets, stakes, or flanges that engage with the floor, would have been suitable ways to make the bottoms of the vertical posts mountable to the floor for added stability and safety. Ex. 1013, ¶¶ 74-75. In addition, using any type of floor-mounting structure would have been an obvious application of known structures (*e.g.*, floor-engaging flanges) according to their known function (*e.g.*, engagement with the floor) with a predictable result (*e.g.*, improving the stability of the structure with respect to the floor and therefore its safety). *Id.*

- ii. **a rigid angled member connected at an upper angled member portion to the top first upright member portion and extending at a downward angle therefrom to a lower angled member portion, a plurality of voids being defined between the plurality of angled members**

Guo discloses a side frame that includes a rigid angled member (highlighted in red, below). Ex. 1004, Fig. 1; Ex. 1013, ¶ 76. The top of Guo's angled member is connected to the top of the vertical member (where the red highlighted portion of the frame meets the blue highlighted portion of the frame) and extends downward at an angle from the top of the vertical member to the horizontal portion. This forms an obtuse angle with respect to the floor of the trampoline. *E.g.*, Ex. 1004, Abstract and 5:[0004] ("the angle included between the side wall of the stereoscopic trampoline net and the bottom of the stereoscopic trampoline net is greater than or equal to 90° and smaller than 180°."); *see also id.* 7:[0032]-8:[0034], Figs. 1-3.

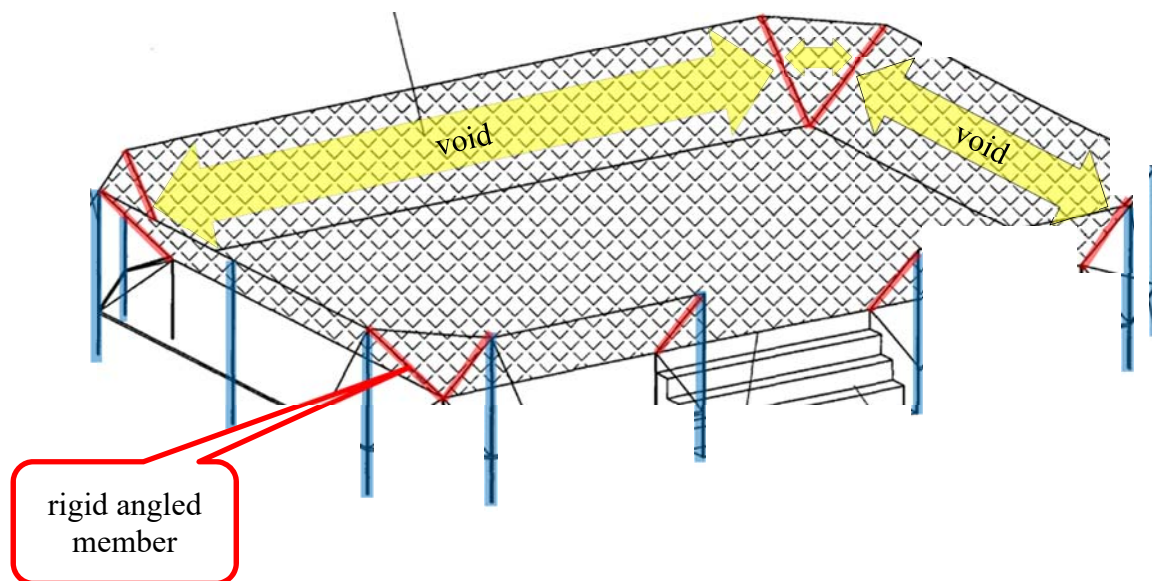


Ex. 1004, Figs. 1, 2 (annotated); Ex. 1013, ¶ 76.

As explained above, Guo's frame is rigid, so the angled members are also rigid. *See* Section VI.A.1.b.i above. As with the vertical members of Guo's frame,

if the angled members of Guo's frame were not rigid, they could not maintain the obtuse angle and shape of the side wall and would collapse with a compressive load. *Id.*; Ex. 1013, ¶¶ 74-76.

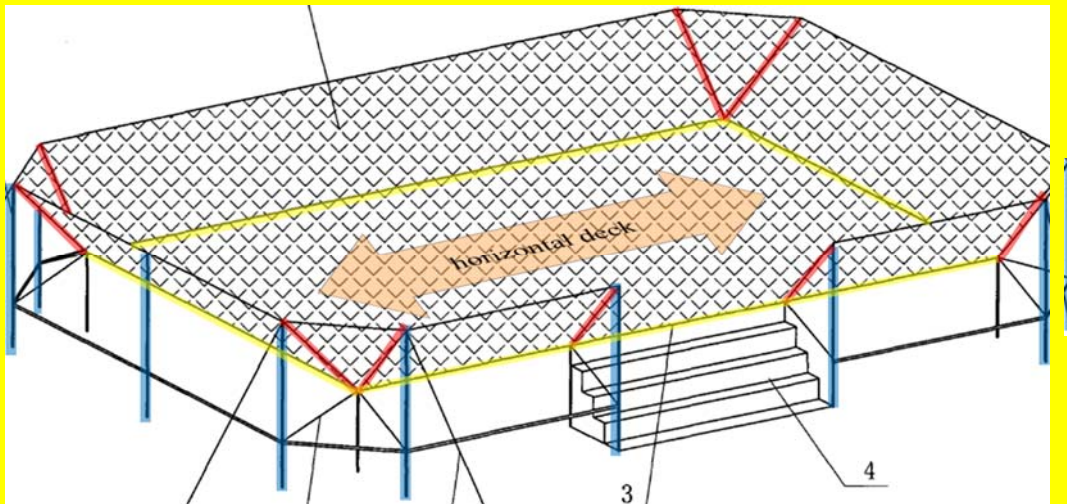
Guo's frame also forms a plurality of voids between the angled members. As shown in Figure 1, the angled frame members are spaced apart to form voids (*i.e.*, areas where there are no frame members, shown by yellow arrows below) in which trampoline material is installed. *E.g.*, Ex. 1004, 4:[0001] (“[The] stereoscopic trampoline net [is] installed inside a stereoscopic trampoline frame.”).



Ex. 1004, Fig. 1 (annotated); Ex. 1013, ¶ 76.

- c. a horizontally-extending deck connected to the lower<sup>3</sup> angled member portions of the plurality of side frames

Guo discloses this claim element. Guo explains that “the bottom of the stereoscopic trampoline [is] rectangular,” *i.e.*, a horizontal “deck” extending from the lower ends of the angled members. The horizontal deck is most clearly seen in Guo Figure 1, annotated by the wide orange arrow and outlined by its rectangular frame highlighted in yellow below:



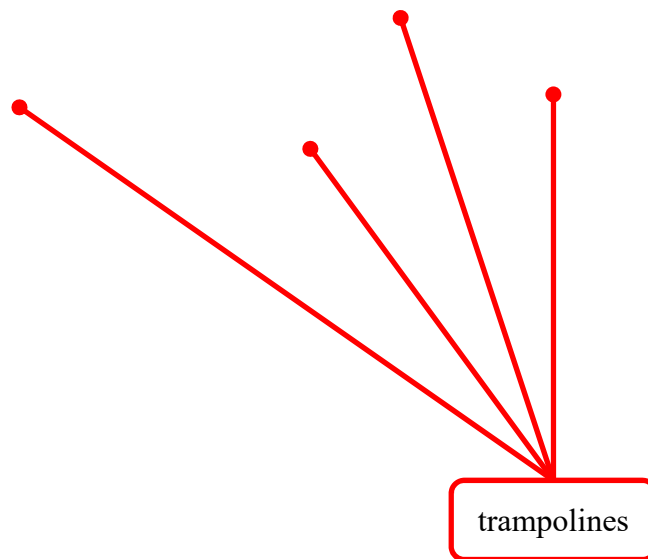
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<sup>3</sup> The certificate of correction for the '575 patent replaces “second” with “lower.”

Ex. 1004, Fig. 1 (annotated); *see also id.* at Figs. 2-3 and 5:[0008], 6:[0021]; Ex. 1013, ¶¶ 77-78.

**d. a plurality of trampolines connected to the angled members along peripheries thereof and extending across the plurality of voids**

Guo discloses this claim element. Guo discloses that trampoline netting is connected inside the frame to cover the voids in the frame. Ex. 1004, Abstract (“The stereoscopic safe trampoline comprises a stereoscopic trampoline frame and a stereoscopic trampoline net installed inside the stereoscopic trampoline frame”). Guo explains that trampoline fixation ropes are used to fix the trampoline netting to the frame at the peripheries of the angled members. *Id.* 5:[0005] (“The stereoscopic trampoline net is connected and fixed to the stereoscopic trampoline frame by means of net fixation ropes disposed at the various corners therebeneath.”). As shown in Guo Figures 1-3, the trampoline material connects to and extends across the full perimeter of the frame, including at and along the angled members, to fill each of the voids with trampoline material, shown by the hatched pattern:



Ex. 1004, Fig. 1 (annotated); *see also id.* at Abstract, 6:[0015]; Ex. 1013, ¶ 79.

In addition, Guo also discloses that the trampoline netting is formed from a plurality of trampolines that are pieced together to form the arena. Guo discloses that “[t]he trampoline net is made from a plurality of trampoline nets pieced together, to achieve the goal of the trampoline net having a bigger usable area.”

Ex. 1004, 7:[0025].

- e. **a padding assembly including a plurality of pads at least partially overlying the angled members and the peripheries of the trampolines**

Guo discloses this claim element. Guo discloses that padding is used to cover the joints where the plurality of trampoline nets are joined together. Ex. 1004, 7:[0025] (“The trampoline net is made from a plurality of trampoline nets

pieced together . . . with protective padding installed on each joint between adjacent trampoline nets, and the protective padding is made of cotton material.”); Thus, the Guo discloses that the padding overlays the peripheries of each trampoline, and is therefore “at least partially overlying the angled members and the peripheries of the trampolines.” Ex. 1013, ¶ 80.

In addition, Guo discloses that the padding overlays the angled members. This is because Guo’s trampoline material extends across the full perimeter of the frame, including at and along the angled members, to fill each of the voids. Ex. 1004, Abstract, 6:[0015]; Ex. 1013, ¶ 80. Given that the net is made from a plurality of trampoline nets pieced together (Ex. 1004, 7:[0025]), it is inevitable that when protective padding is installed on each joint between adjacent trampoline nets, at least a portion of the angled members is also covered (*id.*; Ex. 1013, ¶ 80).

To the extent Patent Owner argues that Guo does not explicitly or inherently disclose “a plurality of pads at least partially overlying the angled members,” it would have been obvious to a POSITA to cover the angled frame members with protective padding to make the trampoline area safer and have a larger, more usable area. Ex. 1013, ¶ 81. As Guo teaches, padding provides a protective layer. Ex. 1004, 7:[0025]. In addition, Guo explains that one of the goals of his design is to create a “trampoline net having a bigger usable area.” In view of Guo’s teaching of the desirability of adding “protection” and to have a “bigger useable

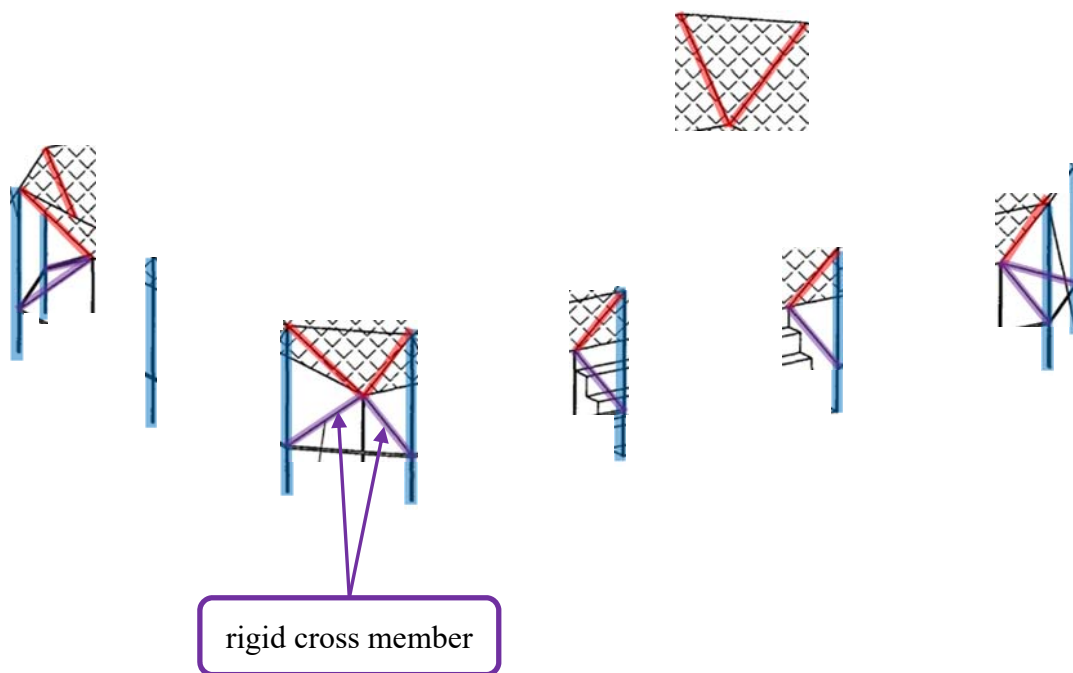


area,” a POSITA would have been motivated to use protective padding to cover the frame structure in order to provide protection at the rigid frame and allow for a larger useable area for jump. Ex. 1013, ¶ 81. As a POSITA would have recognized, the rigid frame members would be dangerous to impact while jumping on the trampolines, so the safe jumping area would be limited to areas away from the frame members. *Id.* It would have been obvious, then, to use protective padding over the frame members in order to improve safety near the frame members so that users could jump closer to the frame members and utilize a larger area of the trampoline for jumping. *Id.* ¶¶ 81-85.

## 2. Claim 2

- a. **The trampoline arena of claim 1, wherein each of the plurality of side frames further includes a rigid cross member extending between the first rigid upright member to the lower angled member portion.**

As explained above, Guo anticipates or renders obvious claim 1. *See* Section VI.A.1 above. Guo also discloses or renders obvious the additional features of this claim. Guo discloses a plurality of rigid cross members where net fixation ropes 5 (highlighted in purple) extend between the vertical post (highlighted in blue) and the bottom of the angled frame member (highlighted in red):



Ex. 1004, Fig. 1 (annotated); Ex. 1013, ¶ 86.

Although rope is not generally considered a rigid object because it is flexible and does not maintain its own shape, when rope is placed under tension, it is necessarily a rigid object. Ex. 1013, ¶ 86. As Guo explains, rope 5 is placed under tension and used as a tensioner between the trampoline net and the frame. Guo, 6:[0022] ( “The length of the net fixation ropes 5 can be adjusted to tighten the connection between the stereoscopic trampoline net and the stereoscopic trampoline frame.”). In order to serve its function of holding the trampoline net taut across the frame, rope 5 must be rigid. Ex. 1013, ¶ 86.

To the extent Patent Owner argues that tensioned ropes are not “rigid” members because the claim requires a *permanently* rigid member (*i.e.*, one that

maintains its own shape and rigidity when not under tension), this would be a narrower understanding of “rigid” than is required by plain language of claims because the claims do not recite a “permanently” rigid member. Nevertheless, even if such an interpretation were adopted, using a member that maintains its rigidity when not under tension would have been obvious to a POSITA. Ex. 1013, ¶ 87. It would have been an obvious design choice to replace Guo’s ropes with a permanently rigid member, such as a metal beam, truss, or tension rod. *See* Section V.F.6 above. A POSITA would have been motivated to use a rigid frame member in place of a tensioned rope to further increase the rigidity of the frame in order to enhance the stability and safety of Guo’s arena. Ex. 1013, ¶¶ 88-89. In addition, it would have been a simple substitution of one known device (tensioned rope) with another known device (rigid frame member) according to its known function (provide tension) to provide a predictable result (increased stability). *Id.* ¶ 90.

A POSITA would have been motivated to use a permanently rigid cross member because it would provide the predictable result of increased support, stability, and consistency over tensioned rope. *Id.* This is because when the trampoline arena is in use, the cross members may experience compressive loads, though small, from a person jumping onto a side wall, for example. *Id.* Given that permanently rigid frame members (such as metal frames, trusses, or tension rods)

were known to be more stable against compressive loads, a POSITA would have been motivated to use a permanently rigid frame member (truss member) instead of a tensioned rope to improve stability of the cross bars, and, therefore, the overall safety of the trampoline. *See id.* ¶¶ 34-37, 88-89; *see also* Section V.F.6 above.

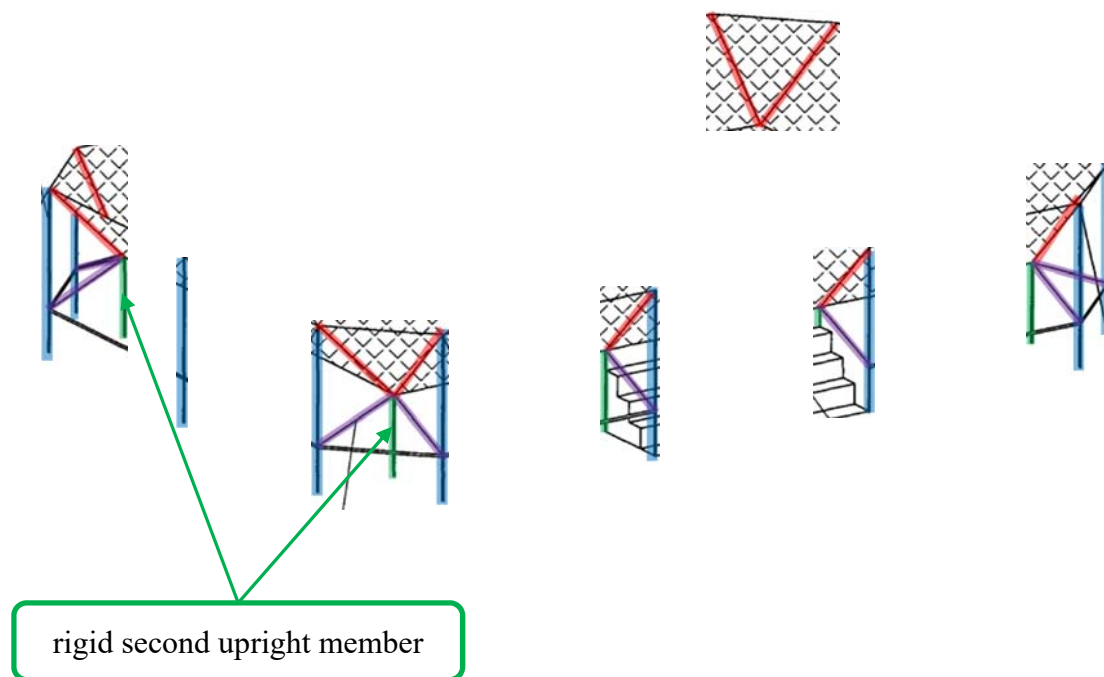
Therefore, under any interpretation of “rigid,” Guo discloses or renders obvious the additional features of claim 2.

### 3. Claim 3

- a. **The trampoline arena of claim 2, where each of the plurality of side frames further includes a rigid second upright member having a top second upright member portion connected to the lower angled member portion and a bottom second upright member portion mountable to a floor.**

As explained above, Guo anticipates or renders obvious claim 2. *See* Section VI.A.2 above. Guo also discloses the additional features of claim 3.

Guo discloses a rigid second upright member (*i.e.*, the shorter, vertical posts, highlighted in green, below) having a top portion connected to the lower portion of the angled member (highlighted in red, below):



Ex. 1004, Fig. 1 (annotated).

This shorter, vertical post is part of the side frame structure that maintains the desired height of the horizontal trampoline deck above the floor, and each is connected to the lower end of the angled members. Ex. 1004, Fig. 1; Ex. 1013, ¶ 92.

Guo's shorter, vertical posts are also rigid. As discussed above, a POSITA would have understood Guo's frame to be rigid, including the shorter, vertical post. If it were not rigid, Guo's trampoline deck would not sit above the floor and the frame would collapse with compressive loads. *See* Section VI.A.1.b.i above; *see also* Ex. 1013, ¶¶ 70-72, 92-93.

Further, Guo's shorter, vertical posts are mountable to a floor at their base

(i.e., the bottom of green highlight, shown above) because the bottom of the vertical post serves as an interface to the floor. Ex. 1013, ¶ 94.

To the extent Patent Owner argues that “mountable to the floor” requires a particular structure for the bottom of the vertical members to be “mountable,” any such structure would have been obvious for the same reasons discussed with respect to the “first upright member” of claim 1. *See* Section VI.A.1.b.i above; Ex. 1013, ¶ 95; Ex. 1013, ¶¶ 73-75.

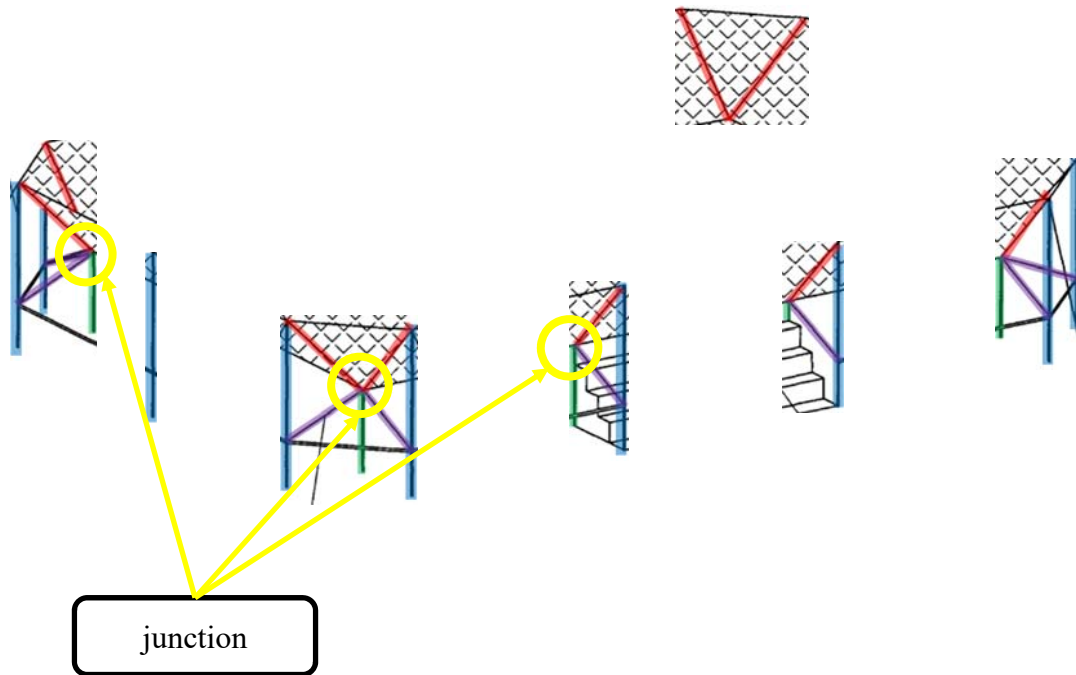
Therefore, Guo discloses or renders obvious the additional features of this claim.

#### 4. Claim 4

- a. **The trampoline arena of claim 3, wherein the rigid cross member includes a first cross member end connected between the top and bottom first upright member portions and a second cross member end connected at a junction of the lower angled member portion and the top second upright member portion.**

As explained above, Guo anticipates or renders obvious claim 3. *See* Section VI.A.3 above. For those same reasons, Guo also discloses or renders obvious the additional features of this claim, which requires that the cross member connect at the junction of the angled member and the second upright member. Guo discloses this limitation because the net fixation ropes 5 (highlighted in purple) are connected at the junction (circled in yellow) where the bottom of the angled member (highlighted in red) connects to the second upright member (highlighted in

green):

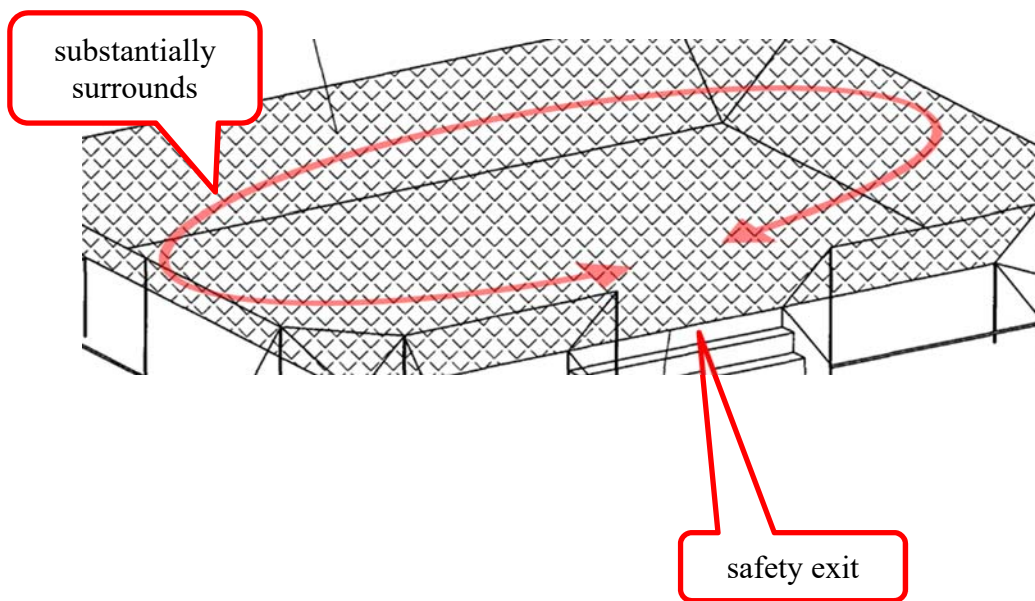


Ex. 1004, Fig. 1 (annotated); Ex. 1013, ¶ 96.

## 5. Claim 5

- a. **The arena of claim 1, wherein the outer wall substantially surrounds the deck.**

As explained above, Guo anticipates or renders obvious claim 1. *See* Section VI.A.1 above. Guo also discloses or renders obvious the additional features of claim 5. As shown in Figure 1, the angled wall of Guo’s trampoline arena surrounds the horizontal deck, except at “safety exit 3” where a detachable trampoline net can be installed. Ex. 1004, 5:[0013], 6:[0021], 8:[0036]:



Ex. 1004, Fig. 1 (annotated); Ex. 1013, ¶ 97.

## 6. Claim 6

- a. **The arena of claim 1, wherein at least one of the plurality of voids is not covered such that an access opening for the trampoline arena is formed.**

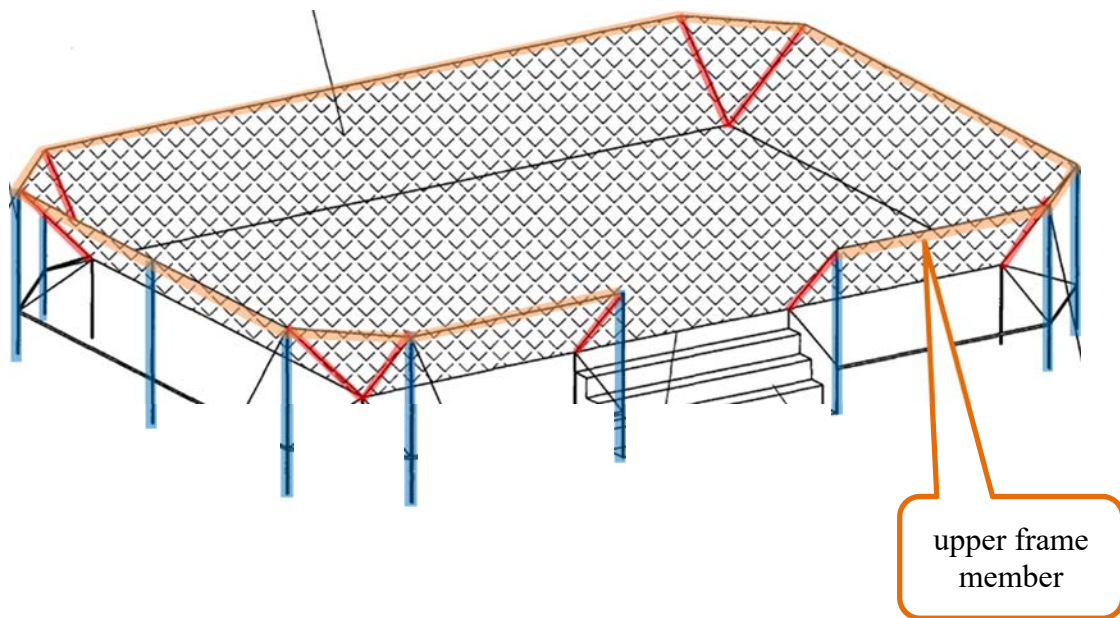
As explained above, Guo anticipates or renders obvious claim 1. *See* Section VI.A.1 above. Guo also discloses or renders obvious the additional features of claim 6 for the same reasons explained under claim 5. *See* Section VI.A.5 above. Guo discloses that a “detachable trampoline net 7” can be removed from a portion of the frame at the safety exit in order to allow access into and out of the arena. Ex. 1004, 8:[0036]; Ex. 1013, ¶ 98.



## 7. Claim 7

- a. The arena of claim 1, further comprising: at least one upper frame member interconnecting the plurality of side frames.

As explained above, Guo anticipates or renders obvious claim 1. *See* Section VI.A.1 above. Guo also discloses an upper frame interconnecting the plurality of side frames because Guo discloses a top frame (highlighted in orange) that connects the plurality of side frames where the vertical posts (highlighted in blue) intersect with the angled members (highlighted in red):



Ex. 1004, Fig. 1 (annotated); Ex. 1013, ¶ 99.

## 8. Claim 9

- a. **The arena of claim 7, wherein the at least one upper frame member includes a plurality of upper frame members.**

As explained above, Guo anticipates or renders obvious claim 7. *See* Section VI.A.7 above. Although Guo does not explicitly disclose whether the upper frame is a single piece or constructed from a plurality of frame segments, it would have been obvious in view of Guo to construct the upper frame from multiple segments because a POSITA would have found it obvious to construct the upper frame out of any number of frame members. Ex. 1013, ¶ 101. A POSITA would have been motivated by Guo's teaching to avoid structures that "require larger space during transportation." Ex. 1004, 4:[0002]. A POSITA would have known that using a plurality of joined-together frame members would provide for an easier way to disassemble and transport the arena, whereas the single piece would consume a larger storage space. Ex. 1013, ¶ 101. In addition, a POSITA would have been motivated to construct the upper frame from multiple members in order to provide flexibility in modifying the size of the arena to fit to the available space when transported; if constructed from a single piece, the arena would be limited to a fixed size for the arena. *Id.* ¶ 102. Finally, it would have been obvious to try multiple frame members because there are only two ways of constructing a frame, both of which were well-known: either (1) formed from a single piece of

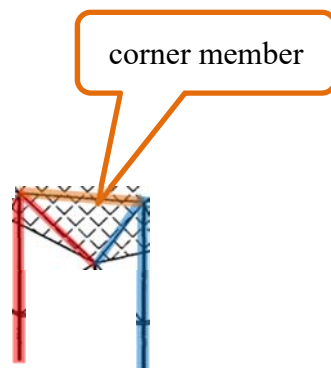
material or (2) formed from a plurality of frame members joined together. *Id.*

¶ 103.

**9. Claim 18**

- a. The arena of claim 1, wherein corners of the outer wall include a pair of generally perpendicular side frames connected by generally horizontal upper and lower corner members, such that trampoline covered voids are formed at the corners of the outer wall located at angles from adjacent sides of the outer wall.**

As explained above, Guo anticipates or renders obvious claim 1. *See* Section VI.A.1 above. Guo also discloses this additional feature because Guo discloses perpendicular side frames (highlighted red side is perpendicular to highlighted blue side) that are connected by an upper corner member (highlighted in orange) to form an angled corner:



Ex. 1004, Fig. 1 (annotated).

Guo does not explicitly disclose a horizontal lower corner member because the lower portions of the angled members are joined directly together. However, it would have been obvious in view of Guo to join the lower angled members with a lower horizontal corner member (similar to the upper horizontal corner member) in order to soften the sharpness of the corner to improve safety. Ex. 1013, ¶ 105.

Guo teaches that sharp angles in an trampoline arena are undesirable and hazardous (Ex. 1004, 4:[0002] (“vertical rods are hazardous”), so Guo teaches the use of more gentle angles for the sidewall (*id.* at 5:[0004] (“[T]he angle included between the side wall . . . and the bottom of the stereoscopic trampoline net is greater than or equal to 90° and smaller than 180°.”). In addition, Guo teaches using different shapes for the horizontal deck frames, and it would have been an obvious design choice to build a polygon-shaped horizontal deck with additional corners as compared to a square-shaped horizontal deck, depending on the environment in which the trampoline is located. *E.g.*, Ex. 1004, 7:[0024]; *see* Ex. 1013, ¶ 105.

**B. Ground 2: Guo in view of Publicover renders obvious claims 8, 10, and 19**

**1. Claim 8**

- a. The arena of claim 7, wherein each of the plurality of side frames further includes an upper bracket connected to the top first upright member portion and receiving the at least one upper frame member.**

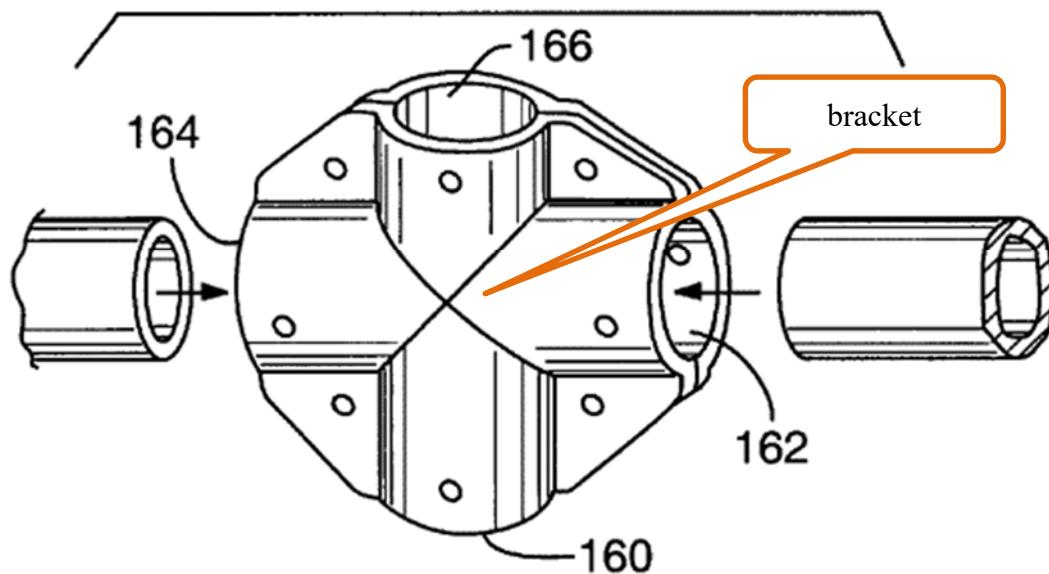
As explained above, Guo anticipates or renders obvious claim 7. *See* Section VI.A.1 above. Guo does not explicitly disclose using brackets to connect frame members, but it would have been obvious to a POSITA to use brackets to securely fasten frame members together. A bracket is any intermediate component for fixing one component to another, and using a bracket would have been a simple and obvious way of connecting two parts of a frame together. Ex. 1013, ¶¶ 38-40, 106. This would have been a simple substitution of a familiar element (joint substituted for a bracket) in its expected way (for frame connections) to achieve its predictable result of securely connecting the pieces of frame. *Id.* ¶ 106. Using a bracket for a connection would have been an obvious design choice from among well-known ways of connecting two frame elements together with (*e.g.*, bolts, welding, ties, fasteners, etc.) with known trade-offs (*e.g.*, costs, ease of construction/deconstruction, stability, durably, etc.) as brackets are routinely used in framing applications, including for trampolines. *Id.*

For example, Publicover teaches using brackets to connect an upper vertical

frame member to and receive a horizontal frame member. Ex. 1006, 11:65-12:21.

Publicover explains that brackets allow the frame to be constructed of separate members that are securely fastened together. Ex. 1006, 11:65-67 (“Suitable wall-support posts can be mounted so that they extend upwardly from a trampoline frame, and do not extend to the ground.”) Publicover teaches that a horizontal portion can be connected to and received in the bracket. Ex. 1006, 12:5-9 (“The bracket can be designed to receive free ends of four separate tubing members as illustrated. Or, a passage way can be provided through the bracket, horizontally and/or vertically, so that the bracket can be secured at a location between the free ends of a tube.”). Figure 10, below shows one example of such a bracket that is designed to connect and receive intersecting frame members, and a POSITA would have known that “[m]yriad other such variations will be apparent.” Ex. 1006, 12:20-21; Ex. 1013, ¶ 107.

FIG. 10



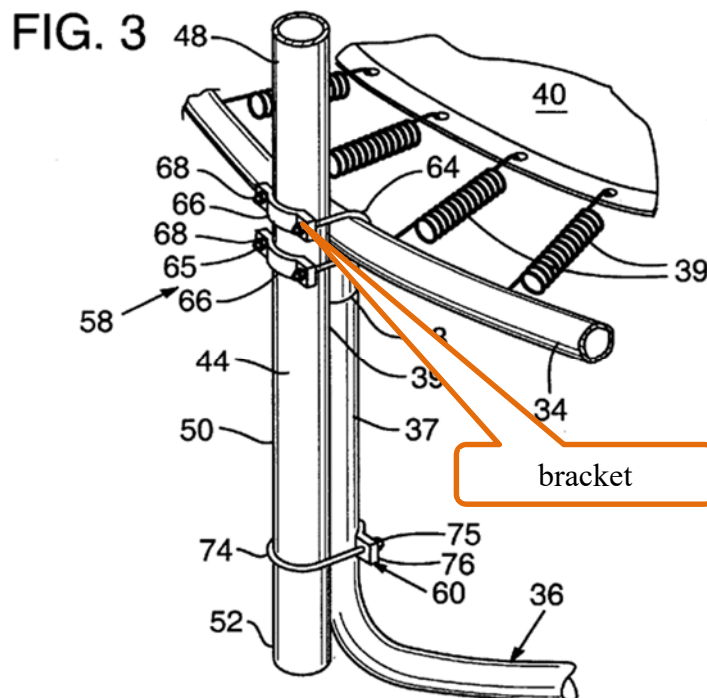
Ex. 1006, Fig. 10 (annotated).

A POSITA would have immediately recognized that brackets would provide a simple and secure way of connecting individual frame elements when building a trampoline arena like Guo's. Ex. 1013, ¶ 108. This would support Guo's goal of requiring less space for transportation because a POSITA would have known that smaller, individual frame pieces connected by brackets would require less space and would be easier to disassemble, transport, and reassemble than a side-frame constructed from a single, continuous piece. *Id.*; see Ex. 1004, 4:[0002]; see also Section VI.A.8.a above. Accordingly, it would have been obvious to use brackets to securely connect the upright frame members to the horizontal members and this limitation would have been obvious over Guo in view of Publicover.

## 2. Claim 10

- a. The arena of claim 1, wherein each of the plurality of side frames further includes a lower bracket connected to the lower angled member portion and attaching the deck thereto.**

As explained above, Guo anticipates or renders obvious claim 1. *See* Section VI.A.1 above. The additional limitation of claim 10 would have been obvious over Guo in view of Publicover for the reasons explained above with respect to claim 8 because it would have been obvious to a POSITA to use brackets to connect individual frame members, including to connect the angled members to the horizontal deck. *See* Section VI.B.1.a above. Specifically, Publicover teaches using a bracket to connect a vertically angled member to the horizontal deck:





Ex. 1006, Fig. 3. “Each clamp 66 has two openings that respectively receive one threaded end 65 of each of the two U-bolts. Nuts 68 are tightened onto the threaded ends 65 of the U-bolts 64 in order to secure the post 44 to the frame 34.” Ex. 1006, 4:1-5. A POSITA would have found it obvious to use brackets to connect Guo’s horizontal deck to the angled members in order to securely attach the deck to the side-frames. Ex. 1013, ¶¶ 109-111; *see* Section VI.B.1.a above. Accordingly, this limitation would have been obvious over Guo in view of Publicover.

### 3. Claim 19

- a. **A trampoline arena comprising:**
  - a plurality of rigid side frames defining a wall, a plurality of voids being defined between the plurality of side frames, each of the plurality of rigid side frames comprising an upper bracket and a deck bracket, the plurality of side frames interconnected at the upper brackets by a plurality of upper frame members;**
  - a plurality of trampolines connected to the side frames along peripheries thereof and extending across the plurality of voids;**
  - a padding assembly including a plurality of pads at least partially overlying the side frames and the peripheries of the trampolines; and**
  - a trampoline covered deck connected to the plurality of side frames at the deck brackets.**

Claim 19 is essentially the same scope as claim 1, except that it includes additional bracket limitations for connecting the upper frame members and for connecting the deck. Thus, for the reasons stated above with respect to claims 1 (basic structure), claim 7 (upper frame), claim 8 (upper bracket), and 10 (deck

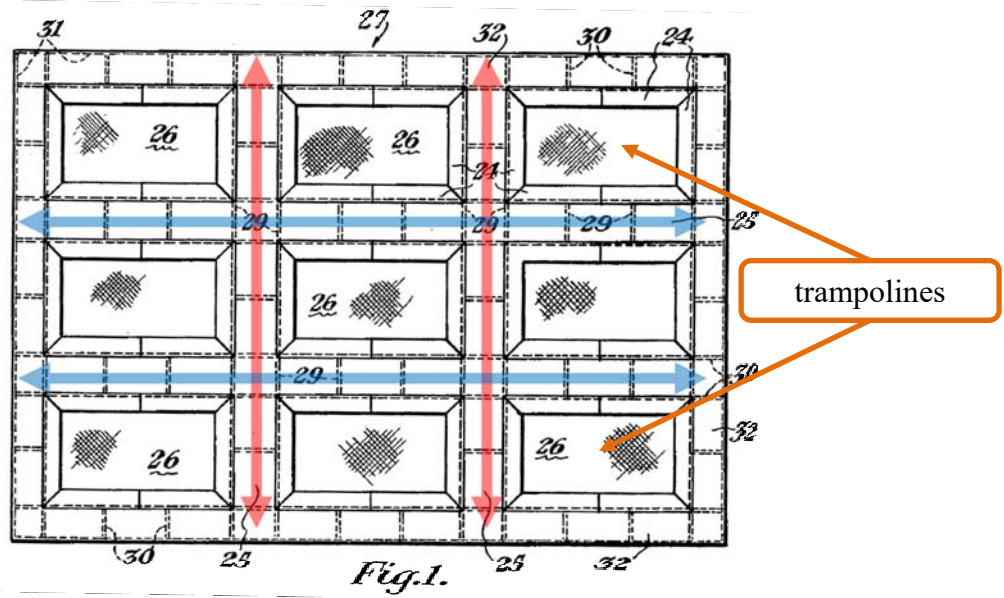
bracket), Guo in view of Publicover renders obvious claim 19. *See* Section VI.A.1, VI.B.1, and VI.B.2 above; Ex. 1013, ¶ 112.

**C. Ground 3: Guo in view of Publicover and in further view of Grelle renders obvious claims 11-15**

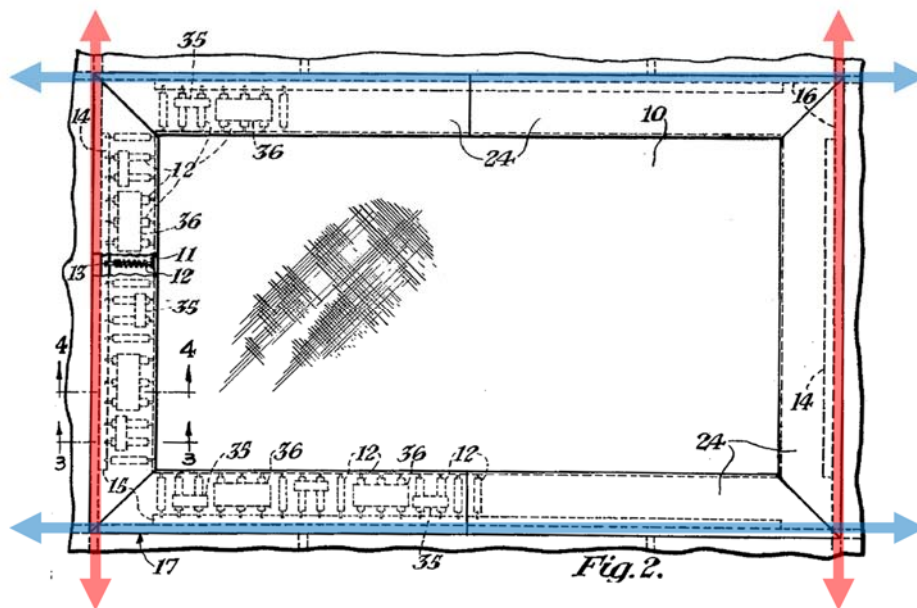
**1. Claim 11**

- a. The arena of claim 10, wherein the deck comprises:**  
**a plurality of intersecting longitudinal and transverse deck frame elements, a plurality of deck voids being defined between the plurality of intersecting longitudinal and transverse deck frame elements; and**  
**a plurality of deck trampolines connected to the plurality of intersecting longitudinal and transverse deck frame elements along peripheries thereof and extending across the plurality of deck voids.**

As explained above, Guo in view of Publicover renders obvious claim 10. *See* Section VI.B.2 above. The additional limitation of claim 11 is obvious in further view of Grelle, which discloses the horizontal trampoline deck is formed from multiple intersecting longitudinal frames (highlighted in red below) and transverse frames (highlighted in blue below) forming a plurality of trampolines as shown in Figure 1:



Ex. 1008, Fig. 1; *see also id.* at 1:49-51. Trampolines are connected inside the voids formed between each of the intersecting frames, and Figure 2 shows a “single trampoline unit illustrating the attachment of the rebound springs and the location and manner of attachment of the spring covers”:



Ex. 1008, Fig. 2; *see also id.* at 2:31-55; Ex. 1013, ¶¶ 113-115, 117.

A POSITA would have been motivated to add the frame elements of Grelle to Guo's design in order to build a larger deck and support more trampolines. *See* Ex. 1004, 4:[0001] (“The present invention relates to a large fitness and amusement facility”); *id.* at 7:[0025] (motivating the “goal of the trampoline net having a bigger usable area”); Ex. 1013, ¶ 116. In making a large arena, a POSITA would have recognized that as a trampoline net gets larger, the response of the trampoline near the center becomes significantly different than nearer the frame. Ex. 1013, ¶ 116. Dividing the trampoline into multiple segments alleviates this problem and provides for a consistent trampoline response while allowing for a larger trampoline deck. *Id.* In addition, a POSITA would have recognized that as the deck area becomes larger, the deflection of the trampoline at the center is so great that it becomes unsafe or the trampoline must be tightened to such a stiffness that portions are unusable as a trampoline. *Id.* A POSITA would have therefore been motivated to divide the deck into multiple segments to allow for a larger trampoline while alleviating the safety concerns and inconsistencies in trampoline response. *Id.* In addition, a POSITA would have been motivated to use separate trampoline sections in order to allow multiple users to bounce on the trampoline arena at the same time without affecting each other's bounce. *Id.*

## 2. Claim 12

- a. **The arena of claim 11, wherein the plurality of intersecting longitudinal and transverse deck frame elements are rigid elements.**

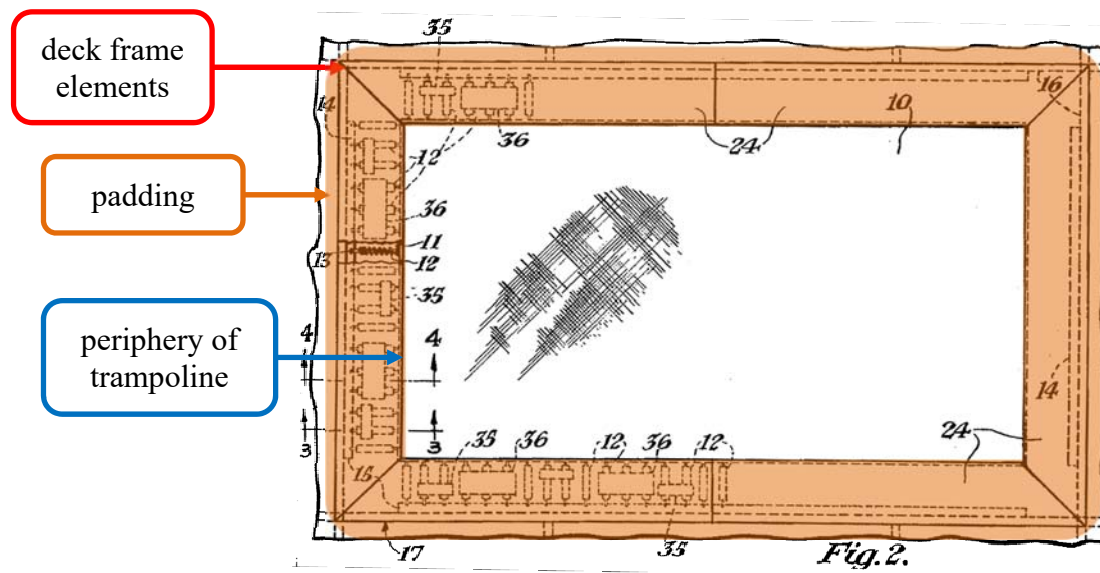
As explained above, Guo in view of Publicover and Grelle renders obvious claim 11. *See* Section VI.C.1 above. The additional features of claim 12 are disclosed by Grelle and therefore obvious over this same combination. As discussed above, Grelle discloses a horizontal deck with longitudinal and transverse deck frame elements. Grelle further discloses that these elements, *i.e.*, each “box frame,” “may be made of metal or a rigid plastic.” Ex. 1008, 2:31-40. Thus, Grelle discloses rigid elements. Ex. 1013, ¶ 119. Thus, for the same reasons stated above, the combination of Guo, Publicover, and Grelle render obvious claim 12. *See* Section VI.C.1 above.

## 3. Claim 13

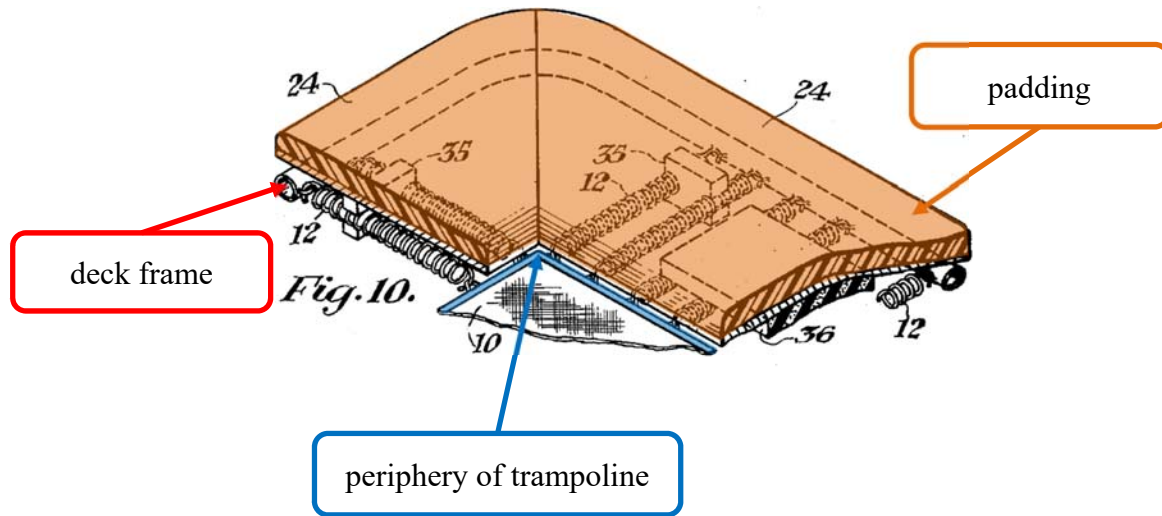
- a. **The arena of claim 11, wherein the padding assembly at least partially overlays plurality of intersecting longitudinal and transverse deck frame elements and the peripheries of the deck trampolines.**

As explained above, Guo in view of Publicover and Grelle renders obvious claim 11. *See* Section VI.C.1 above. The additional features of claim 13 are disclosed by Grelle and therefore obvious over this same combination. Ex. 1013, ¶ 121. Grelle discloses protective padding that covers the edges of each trampoline and the springs that attach each trampoline to the intersecting frame members. Ex.

1008, 1:27-32, 2:63-65, 3:1-31, Figs. 1-2, 10. Grelle teaches that the padding “eliminate[s] the hazards of injury to a jumper from striking the trampoline frame or from slipping between the springs.” Ex. 1008, 1:13-18. As shown for example in Figures 2 and 10, to prevent a user’s foot from slipping between the springs, Grelle’s padding (highlighted in orange) covers the trampoline deck’s outer frame (dotted lines) and the peripheries of the trampoline (dotted lines):



Ex. 1008, Fig. 2.



Ex. 1008, Fig. 10; Ex. 1013, ¶ 122.

It would have been obvious to combine Grelle's box frames (and therefore the associated padding) with Guo and Publicover for added safety and for the reasons explained above. Ex. 1013, ¶¶ 113-117; *see* Section VI.C.1.a above.

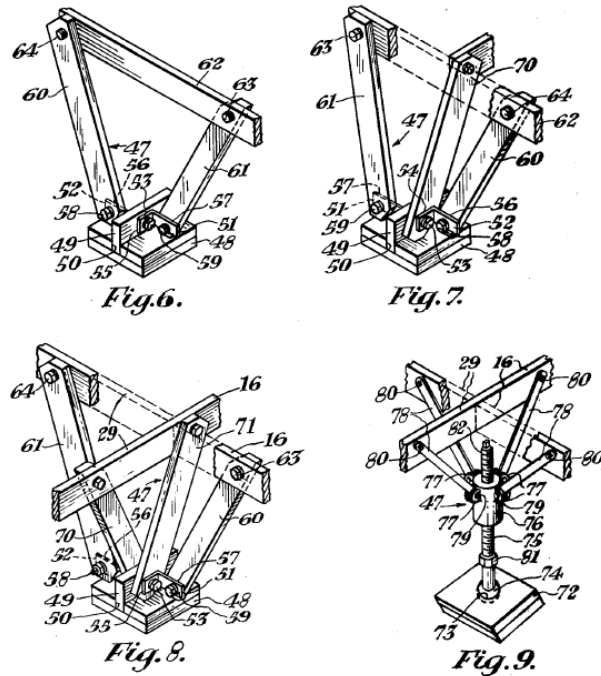
#### 4. Claim 14

- a. **The arena of claim 11, further comprising: a plurality of support legs supporting the longitudinal and transverse deck frame elements.**

As explained above, Guo in view of Publicover and Grelle renders obvious claim 11. *See* Section VI.C.1 above. The additional features of claim 14 are disclosed by Grelle and therefore obvious over this same combination. Ex. 1013, ¶ 123.

Grelle discloses that each trampoline's "box frame" is supported by braces (*i.e.*, support legs). *E.g.*, Ex. 1008 (Grelle), 4:11-20 ("Each box frame is supported from the ground near its corners and at intervals along the length of its members as

required to give sufficient rigidity to the box frame and the platform by braces indicated generally by the numeral 47.”)



Ex. 1008 (Grelle), Figs. 6-9.

Grelle discloses braces (Figure 6), braces for T junctions (Figure 7), and braces for corners (Figure 8) of the trampoline box frames. Ex. 1008, 4:52-70. Grelle thus discloses a plurality of support legs supporting the longitudinal and transverse deck frame elements. Ex. 1013, ¶ 124. It would have been obvious to combine Grelle’s box frames (and therefore the associated support braces) with Guo and Publicover for the reasons explained above. *Id.* ¶ 125; *see* Section VI.C.1.a above.



## 5. Claim 15

- a. **The arena of claim 14, wherein the plurality of support legs are arranged at least one of intersections of the longitudinal and transverse deck frame elements and midpoints between the intersections of the longitudinal and transverse deck frame elements.**

As explained above, Guo in view of Publicover and Grelle renders obvious claim 14. *See* Section VI.C.4 above. The additional features of claim 15 are disclosed by Grelle and therefore obvious over this same combination. Ex. 1013, ¶ 126. As was discussed with claim 14 above, Grelle discloses that each trampoline's "box frame" (*i.e.*, the longitudinal and transverse deck frame elements) is supported by braces to provide rigidity to the deck structure. *Id.* Grelle further discloses that the braces are located at the intersections of the deck frame elements. *E.g.*, Ex. 1008, 4:64-65 ("Braces . . . may be provided ***at the corners*** of the box frames.") (emphasis added). Grelle also discloses that the braces are located at midpoints along the deck frame elements. Ex. 1008, 4:11-20 ("Each box frame is supported . . . ***at intervals along the length of its members*** as required to give sufficient rigidity to the box frame and the platform by braces.") (emphasis added).

It would have been obvious to combine Grelle's box frames (and therefore the associated support braces) with Guo and Publicover for the reasons explained above. Ex. 1013, ¶ 127; *see* Section VI.C.1.a above.

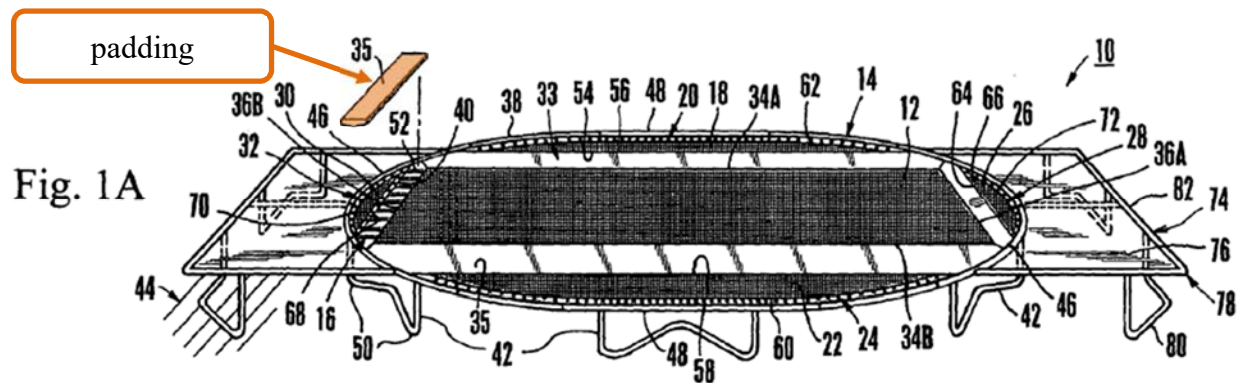
**D. Ground 4: Guo in view of Nissen renders obvious claims 16-17**

**1. Claim 16**

- a. The arena of claim 1, wherein the plurality of pads include a plurality of side base pads positioned along a transition between the outer wall and the deck, the side base pads having a wedge-shaped profile.**

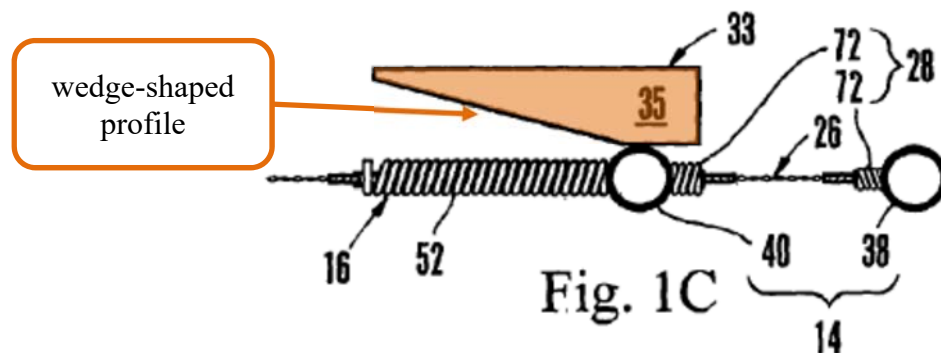
As explained above, Guo anticipates or renders obvious claim 1. *See* Section VI.A.1 above. The additional features of claim 16 are disclosed by Nissen (Ex. 1007) and this combination would have been obvious to a POSITA for the reasons discussed below. Ex. 1013, ¶ 128.

As discussed above, Guo disclosed using padding to cover the joints of the trampolines. Ex. 1004, 7:[0025]; Ex. 1013, ¶¶ 68-71. Nissen also disclosed using padding at the outer edges of the trampoline deck to cover the joints between the trampoline and the frame, where the trampoline connects to the frame. Ex. 1007, ¶ [0041] (“The pad assembly 33 helps to protect the user from injury. In this embodiment, the pad assembly 33 includes one or more pads 35 (one of the pads 35 is shown in an exploded view for clarity) that substantially cover at least a portion of the bed suspension assembly 16 and/or a portion of one or more of the side suspensions 20, 24 and/or the end suspensions.”); Ex. 1013, ¶ 129.



Ex. 1007, Fig. 1A.

Nissen teaches that the padding has wedge-shaped profile. Ex. 1013, ¶ 130. In a preferred embodiment, “pad assembly 33 includes a pad 35 having a somewhat trapezoidal cross-sectional shape, although this shape can vary” (Ex. 1007 ¶¶ [0045]-[0046]). *See id.* ¶¶ [0041], [0053]-[0054], Figs. 1A, 1B, 1C, and 2.



Ex. 1007, Fig. 1C.

It would have been obvious to a POSITA to use wedge-shaped padding disclosed in Nissen at the edges of Guo’s deck frame (*i.e.*, at the transition between the horizontal deck and the angled sidewalls) in order to provide safety to the user

at the frame members that are located at the transition between the horizontal deck and the angled side walls. Ex. 1004 (Guo), 7:[0025]; Ex. 1007 (Nissen), ¶¶ [0041], [0045]-[0046], [0053]-[0054]. Not only does the wedge shape “accommodate the up and down movement of the bed suspension assembly 16 during use of the trampoline 10” (Ex. 1007 (Nissen), ¶ [0046]), a POSITA would have recognized that using wedge-shaped padding with Guo’s trampoline arena would increase safety because it would reduce the sharpness of the angle at the transition between the horizontal deck to the vertical sidewalls. Ex. 1013, ¶ 131.

In addition, a POSITA would have recognized that using wedge-shaped padding would have been an obvious use of known elements (padding) in an expected way (to cover dangerous elements) to achieve the expected results of additional safety and comfort for the user of the trampoline, to lower their risk of injury when jumping near the sidewalls, and to ensure durability of the joints. *Id.* ¶ 132. Using wedge-shaped padding to cover sharp transitions would have been an obvious design choice from among well-known ways of protecting hazardous elements (*e.g.*, coatings, covers, cages, etc.) with known trade-offs (*e.g.*, costs, ease of construction/deconstruction, stability, durably, etc.) as padding that follows the shape of the underlying frame is routinely used to cover frames and joints, especially in active sports applications including trampolines. *Id.* Using a wedge shape for the padding was obvious design choice to try because there would have

been a finite number shapes for padding along an angled intersection, and any of these shapes would have had a reasonable expectation of success. *Id.* ¶ 133.

## **2. Claim 17**

- a. The arena of claim 16, wherein the plurality of pads include triangular base pads covering the lower corner members.**

As explained above, Guo in combination with Nissen renders obvious claim 16. *See* Section VI.D.1 above. For the same reasons stated above with respect to claim 16, claim 17 is also obvious because Nissen’s wedge-shaped pads are also triangular, and these pads would have covered the lower corners of the deck frame because of the rigid elements located there. *Id.*; Ex. 1013, ¶ 134. Thus, Guo in combination with Nissen also renders this claim obvious.

## **E. Ground 5: Widich renders obvious claims 1-10 and 19**

Widich anticipates all of the features of claims 1-10 and 19. To the extent Patent Owner argues that Widich fails to explicitly or inherently disclose certain features, those features would have been obvious to a POSITA, as shown below.

### **1. Claim 1**

- a. A trampoline arena comprising:**

Although the preamble is not limiting, Widich discloses a trampoline arena. Widich discloses a “trampboarding” arena with a “frame adapted to define plural planar fields intersecting at obtuse angles, a flexible material mounted therein and

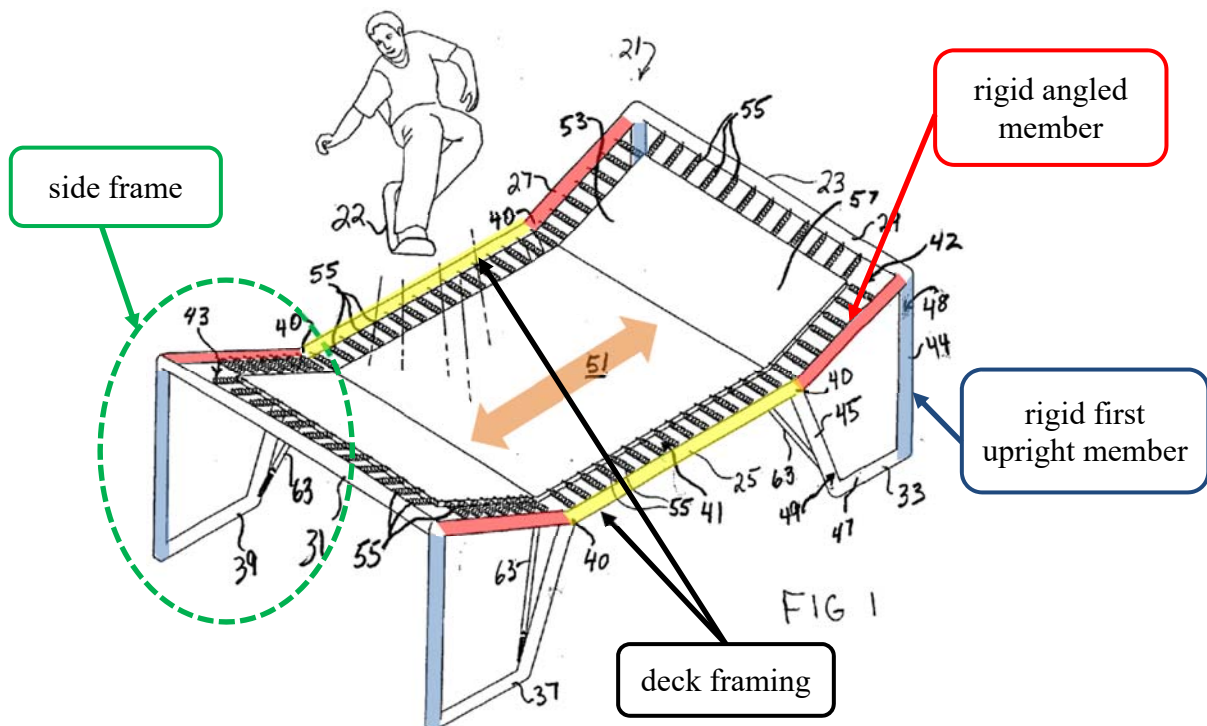
supported and located thereat to retain definition of the obtuse angles as defined by the frame at the flexible material when mounted at the frame and during use of the apparatus.” Ex. 1005, Abstract; *see also id.* at Figs. 1, and 7-8, ¶¶ [0004]-[0005], [0016]-[0018]. Widich’s arena “is constructed so that the resilient surface provides plural surface engagement angles across the surface.” *Id.* ¶ [0005]. Therefore, Widich discloses the “trampoline arena” of claim 1. Ex. 1013, ¶ 135.

- b. a plurality of side frames defining an outwardly sloping outer wall, each of the plurality of side frames including:**
  - i. a rigid first upright member having a top first upright member portion and a bottom first upright member portion mountable to a floor**
  - ii. a rigid angled member connected at an upper angled member portion to the top first upright member portion and extending at a downward angle therefrom to a lower angled member portion, a plurality of voids being defined between the plurality of angled members**

Widich discloses a plurality of rigid side frame frames that define and stably maintain the shape of the trampoline’s horizontal frame and angled side walls. For example, Widich discloses “a frame having first and second spaced support members that define at least first and second planar fields intersecting at an obtuse angle as defined by the support members.” Ex. 1005, ¶ [0006]. “The angle defining support includes a relatively rigid portion maintained adjacent to the bottom surface of the flexible material.” *Id.* ¶ [0008]. The frame is “preferably

made from welded steel or aluminum alloy tubes of sufficient thickness and a diameter to accommodate significant loads.” *Id.* ¶ [0034].

With reference to Figure 1, “the trampoline arena includes frame 23 formed from spaced side support members 25 and 27, end support members 29 and 31, and elevating members 33, 35, 37 and 39” that disclose the side frames of claim 1, each having a “rigid first upright member” (highlighted in blue), a “rigid angled member” (highlighted in red), and a “horizontally-extending deck” (horizontal orange arrow) framed by deck framing (highlighted in yellow):



Ex. 1005, Fig. 1; *see also id.* at Figs. 7-8; Ex. 1013, ¶ 137.

Although frame 23 is shown in the figure as a continuous structure with bends, Widich discloses that the “various members of frame 23 may be a

continuous structure and/or multiple welded or bolted units.” Ex. 1005, ¶ [0034]. For example, Widich uses the term “bend” interchangeably with “joint” when discussing portions of the frame. *Id.* ¶ [0035] (“Side support members 25 and 27 are characterized by obtuse angled joints (or bends)”). Accordingly, Widich discloses a frame structure formed from multiple frame members that are joined together in an appropriate fashion. Ex. 1013, ¶ 138.

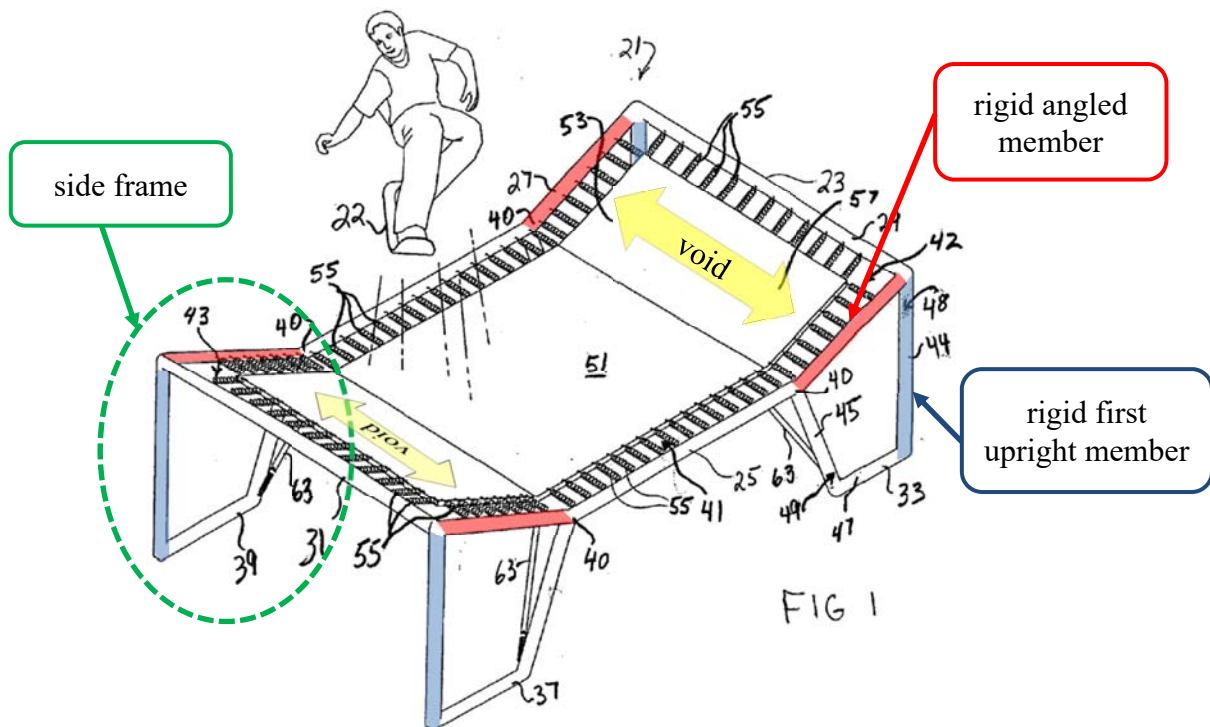
Widich discloses that the frame is mountable to the floor at the bottom portion of the vertical members because they serve as an interface to the floor that elevates the frame at the correct upward angle. Ex. 1005, ¶ [0037] (“Elevating members (or assemblies) 33, 35, 37 and 39 each include a long support 44, short support 45 and linking span 47 and, more generally, upper and lower portions 48 and 49, respectively (refer to elevating member 33 as shown in FIG. 1 for these details, members 35, 37 and 39 being identically constructed).”). Ex. 1013, ¶ 139.

To the extent Patent Owner argues that a particularly-shaped structure is necessary to make a frame “mountable to the floor,” such an interpretation would be incorrect because the neither the claims nor the specification require a particular structure. Nevertheless, Widich renders any such structure obvious because Widich teaches that upright supports (such as uprights 129 of auxiliary framework 105 of Figure 8) are “preferably provided with pivotably attached stabilizing feet 137.” Ex. 1005, ¶ [0044], Fig. 8. Thus, to the extent not explicit or inherent in a



frame that interfaces with a floor, adding “mountable” structure, such as stabilizing feet, would have been obvious. A POSITA would have been motivated to add stabilizing feet in order to provide stability for the floor-frame interface. Ex. 1005, ¶ [0044]; Ex. 1013, ¶ 139.

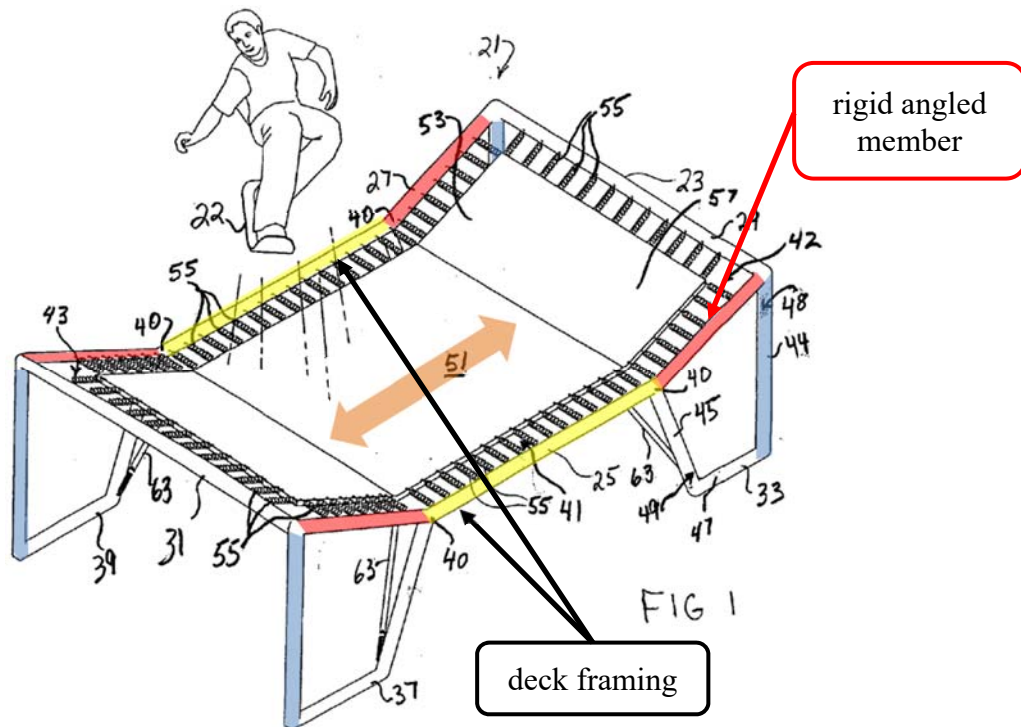
Widich’s frame also forms a plurality of voids between the angled members. As shown in Figure 1, the angled frame members are spaced apart to form voids (*i.e.*, areas where there are no frame members, shown by yellow arrows below) in which trampoline material is installed using springs. *E.g.*, Ex. 1005, ¶ [0038] (“Multiple resilient supports 55 (see FIG. 1, wherein only some of which are numbered) are connected between frame support members 25, 27, 29 and 31 and flexible material 53 utilizing known connection techniques”).



Ex. 1005, Fig. 1; *see also id.* at Figs. 7-8; Ex. 1013, ¶ 140.

**c. a horizontally-extending deck connected to the lower angled member portions of the plurality of side frames**

As explained above, Widich discloses a “horizontally-extending deck” (horizontal orange arrow) framed by deck framing (highlighted in yellow) that is connected to the angled member portions (highlighted in red) of the plurality of side frames:



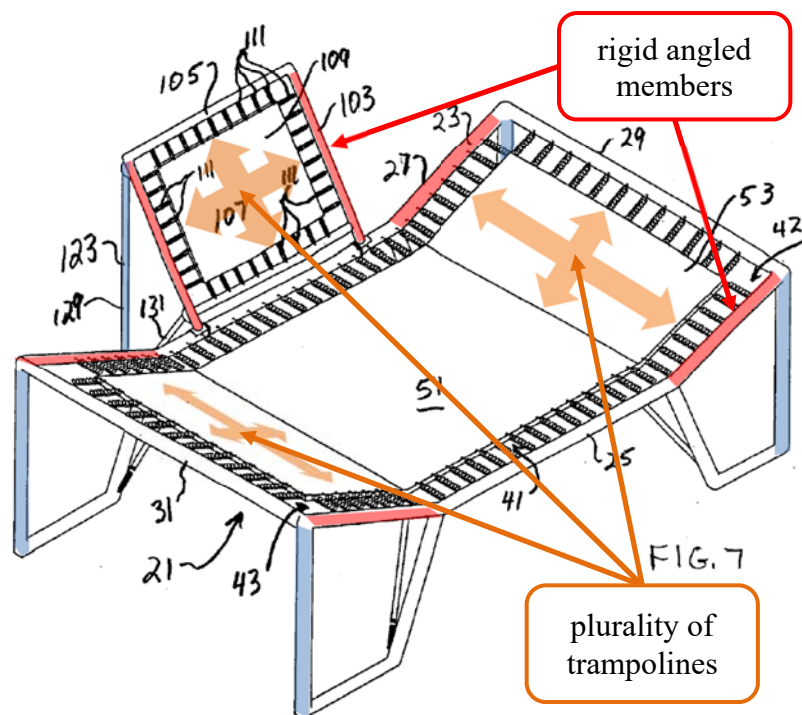
Ex. 1005, Fig. 1; *see also* Ex. 1005, Figs. 7-8; Ex. 1013, ¶¶ 141-142.

As Widich explains, “first planar field [41] tends to the horizontal when the frame is positioned for use.” Ex. 1005, ¶¶ [0006], [0016], [0038] (“The frame is preferably constructed so that planar field 41 tends to the horizontal when the

frame is set up for use.”).

- d. a plurality of trampolines connected to the angled members along peripheries thereof and extending across the plurality of voids**

Widich discloses this limitation. As shown for example in Figure 1 above and in Figure 7 below, the voids formed between side frames are covered by trampolines (highlighted by orange arrows) extending across the voids and along the peripheries of the angled members:



Ex. 1005, Fig. 7; *see also id.* at Fig. 8, ¶¶ [0038], [0043], [0047]; Ex. 1013, ¶ 143.

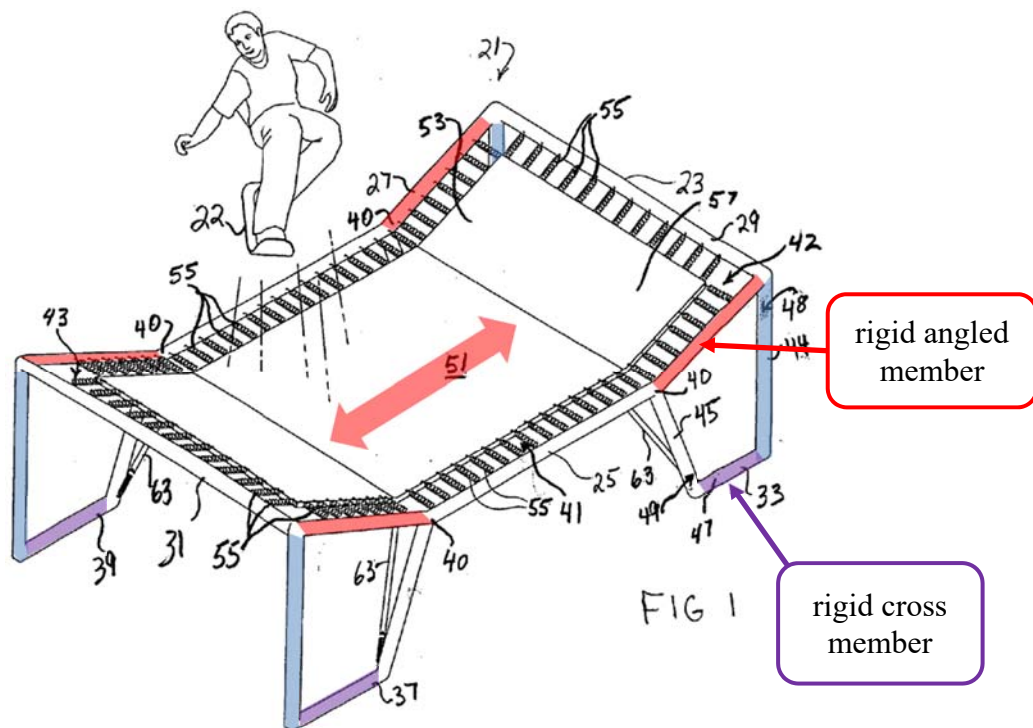
- e. a padding assembly including a plurality of pads at least partially overlying the angled members and the peripheries of the trampolines**

Widich discloses this limitation. “While not shown, safety padding may be deployed over selected exposed frame members as would be deemed prudent.”

Ex. 1005, ¶ [0037]. Because the exposed frame members include the angled members and the resilient supports connected to the peripheries of the trampolines, Widich discloses this limitation. Ex. 1013, ¶ 144.

## 2. Claim 2

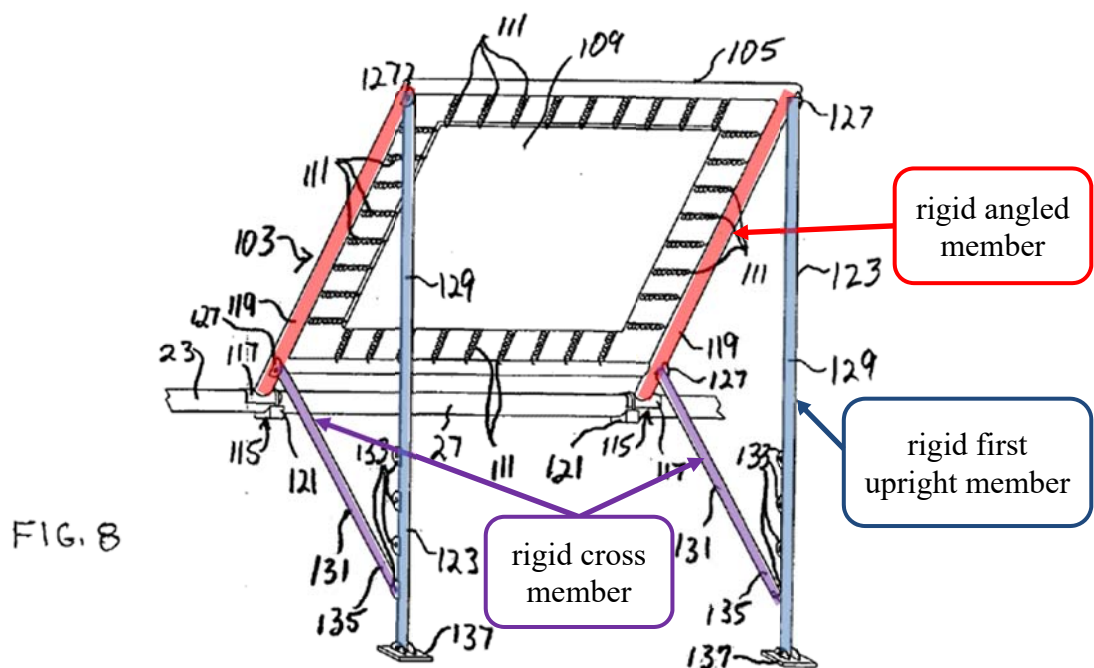
As explained above, Widich discloses or renders obvious claim 1. See Section VI.E.1 above. Widich also discloses using a rigid cross member to define and stably maintain the shape of the trampoline's horizontal frame and angled side walls. Widich's rigid cross members are shown highlighted in purple below:



Ex. 1005, Fig. 1; *see also id.* at Figs. 7-8; Ex 1013, ¶ 145.

Although Figure 1 of Widich does not explicitly show the rigid cross member being attached to the angled frame member (highlighted in red in the

Figure above), Widich discloses that the side frames can be constructed to allow for an adjustable angle for the sidewall. *Id.* ¶ [0036] (“Moreover, while fixed frame members are illustrated herein, frame 23 could be made so that the obtuse angle or angles established thereby are adjustable (for example, by locating securable pivots at locations 40 of members 25 and 27 together with a securable telescoping feature and related adaptations at elevating members 33, 35, 37 and 39).” In this adjustable configuration, the rigid cross member is attached to the angled frame member as shown in Figure 8 below:



Ex. 1005, Fig. 8; *see also id.* at Fig. 1; Ex. 1013, ¶¶ 146-147.

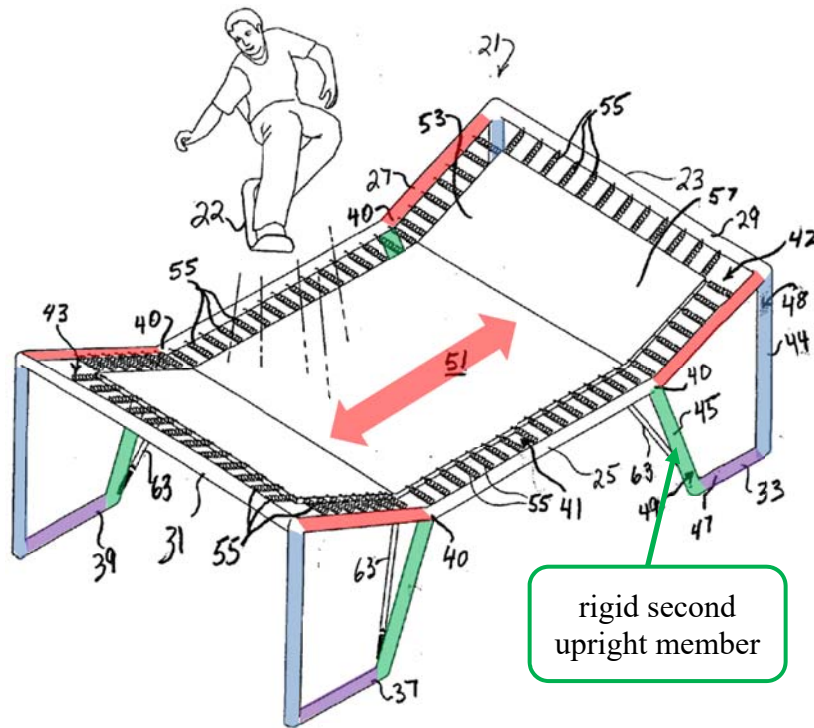
Widich’s discloses the use of “retaining bars” (highlighted in purple above) for stabilizing and setting the adjustable angle of the wall. Ex. 1005, ¶ [0044] (“In

that case, support arm assemblies 123 are provided with pivoting connections 127 between support arm upright 129 and retaining bar 131 and framework 105 (utilizing, for example, a tab and pin construction), with multiple angle selection tabs 133 welded at upright 129 for selected pinned retention of end 135 of retaining bar 131.”).

In addition, to the extent not explicit or inherent in the above disclosures, using a cross bar connecting the lower angled member to the vertical upright member would have been obvious in order to provide additional stability and adjustability to the frame. A POSITA would have been motivated to add a cross bar in order to construct trampboarding arenas that are “sturdily constructed, and are readily adjustable or manipulable over a variety of parameters.” Ex. 1005, ¶¶ [0005], [0036], [0044]. A POSITA would have also been motivated to use the retaining bar, *e.g.*, shown in Figure 8, to provide an adjustable angled side wall. *Id.*; Ex. 1013, ¶ 148.

### **3. Claim 3**

Widich discloses a rigid second upright member. Widich’s second rigid upright members are shown highlighted in green Figure 1:



Ex. 1005, Fig. 1; *see also id.* ¶ [0037] (“Elevating members (or assemblies) . . . each include a long support 44, **short support 45** . . .”). The top of short support 45 is connected to the bottom of the angled member at joint 40. *Id.* ¶ [0035]; Ex. 1013, ¶ 149.

In addition, Widich discloses that the frame is mountable to the floor at the bottom portion of the vertical members because they serve as an interface to the floor that elevates the frame at the correct upward angle. Ex. 1005, ¶ [0037].

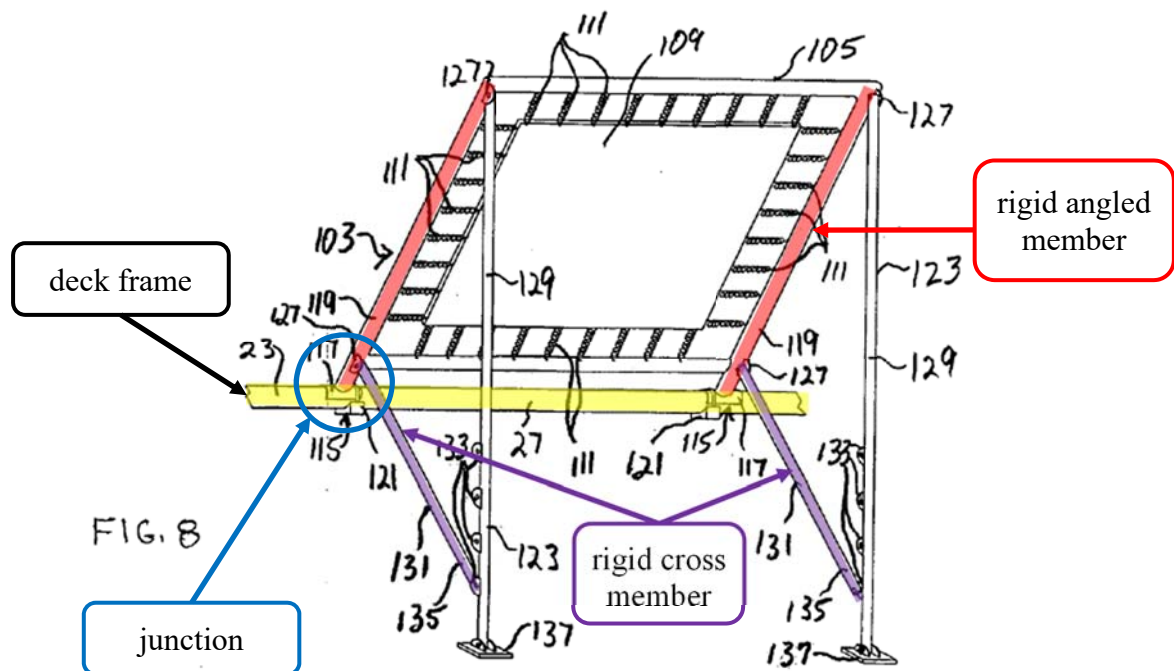
To the extent Patent Owner argues that “mountable to the floor” requires a particular structure for the bottom of the vertical members to be “mountable,” any such structure would have been obvious for the same the same reasons discussed with respect to the “first upright member” of claim 1. *See* Section VI.E.1.b.i



above; Ex. 1013, ¶ 150.

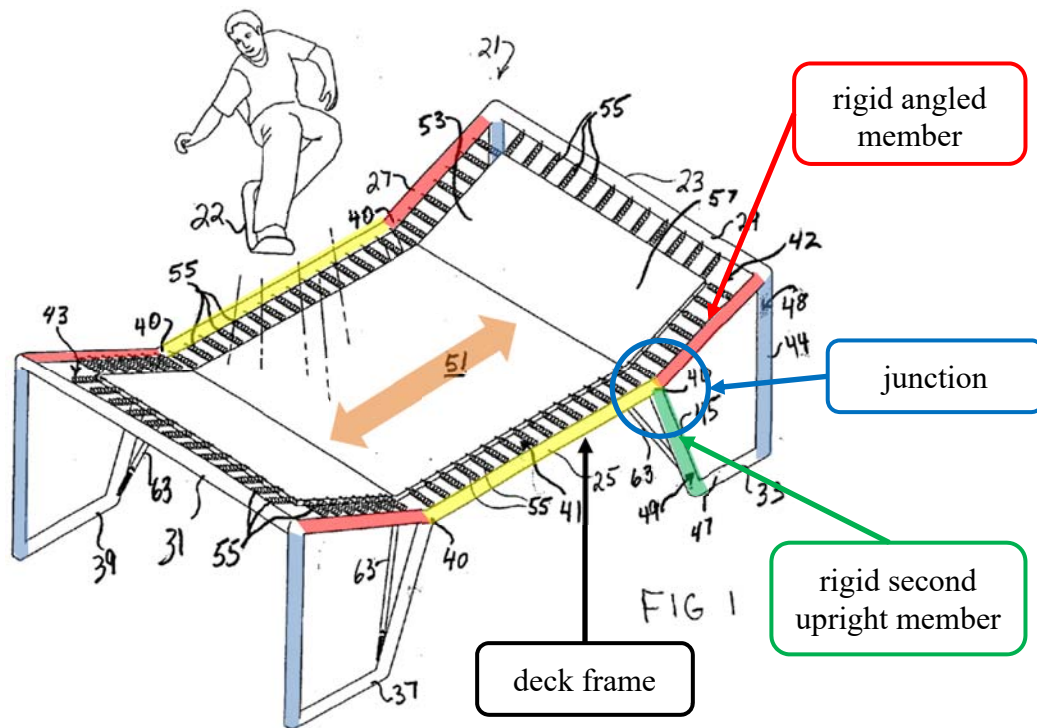
#### 4. Claim 4

As explained above, Widich discloses or renders obvious claim 3. *See* Section VI.E.3 above. As explained above with respect to claim 3, it would have been obvious in view of Widich's teaching to replace the fixed sidewall frame structures shown in Figure 1 with an adjustable configuration using the cross bar member disclosed in Figure 8 in order to provide adjustable angled side walls. *Id.* With this alternative configuration, as shown below in Figure 8, the end of the cross bar is connected at the horizontal deck frame member (27 in Figure 8) (Ex. 1005, ¶ [0044]), which is the joint where the vertical supports connect in order to elevate the horizontal deck above the floor (Ex. 1005, ¶ [0037]).





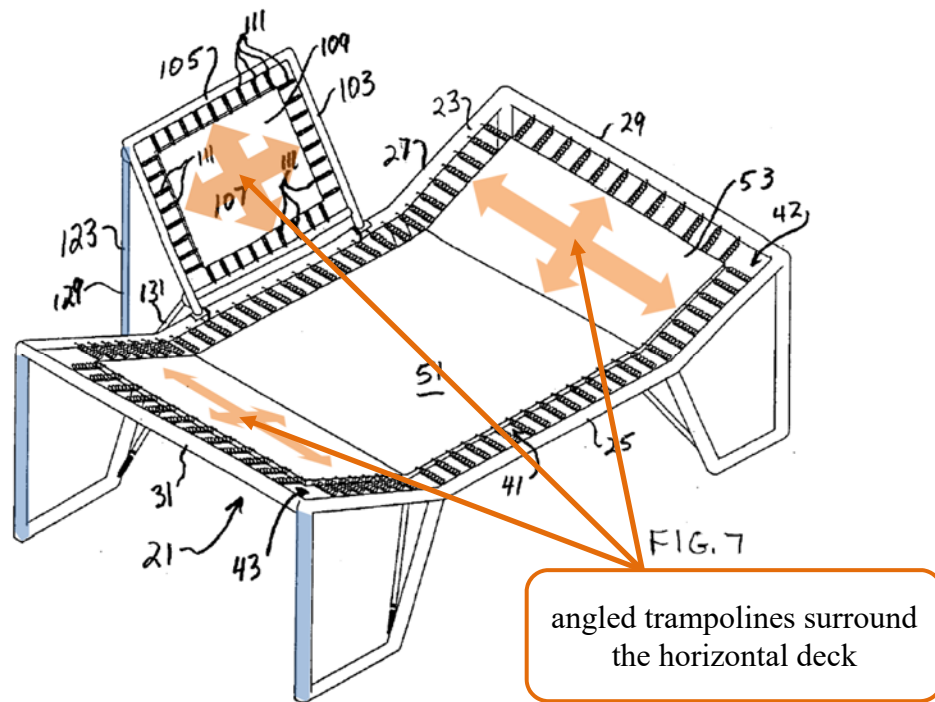
Ex. 1005, Fig. 8; *see also id.* at Fig. 1, ¶¶ [0037], [0044].



Ex. 1005, Fig. 1; *see also id.* at Fig. 8, ¶¶ [0037], [0044]; Ex. 1013, ¶¶ 142-144, 151.

## 5. Claim 5

As explained above, Widich discloses or renders obvious claim 1. *See* Section VI.E.1 above. Widich also discloses an outer wall that substantially surrounds the deck. As shown, for example, in Figure 7, angled rebounding surfaces are present on at least three sides of the four-sided horizontal deck, and therefore substantially surround the deck:



Ex. 1005, Fig. 7; Ex. 1013, ¶ 152.

To the extent Patent Owner argues Figure 7 does not disclose a substantially surrounded horizontal deck, such an interpretation would be improper because neither the claims nor the specification define the extent to which the walls must surround the deck to be “substantial.” Regardless, it would have been obvious to more substantially surround the horizontal deck. A POSITA would have been motivated by Widich’s teaching to add additional side walls in order to provide additional areas of resilient boarding surfaces. Ex. 1005, ¶ [0045] (“While a separable unit is shown with respect to structure 103, it should be appreciated that the structure of frame 23 of apparatus 21 could be conceived to accommodate additional ancillary angled resilient boarding surfaces adjacent to side supports

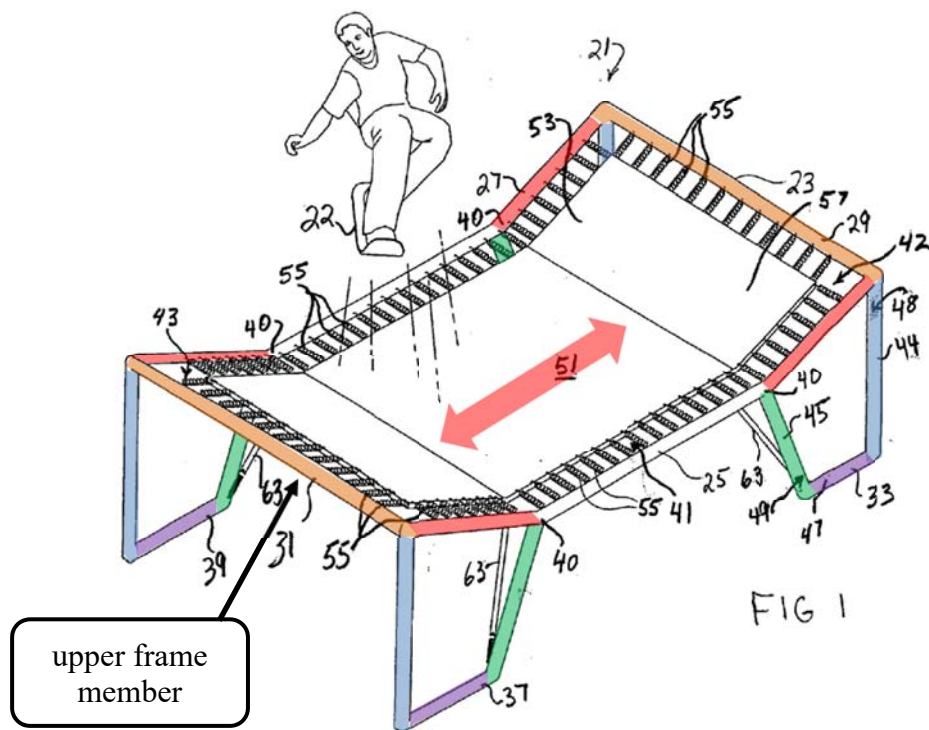
25/27 of the frame.”); *see also id.* ¶¶ [0046]-[0047] (teaching the desirability of additional, resilient surfaces to form an arena, depending on the various skills, tricks, and safety concerns); Ex. 1013, ¶ 153.

## **6. Claim 6**

As explained above, Widich anticipates or renders obvious claim 1. *See* Section VI.E.1 above. Widich also discloses the additional features of claim 6. As explained above, Widich discloses an outer wall with angled rebounding surfaces that are present on at least three sides of the four-sided horizontal deck, and therefore the fourth side is left open for accessing the trampoline arena. Ex. 1005, Fig. 7. In addition, Widich discloses that the arena “may also include boarder mounting platform 147 having stairs 149 and provided with safety railings 151” as shown, for example, in Figure 9. Ex. 1013, ¶ 154.

## **7. Claim 7**

As explained above, Widich anticipates or renders obvious claim 1. *See* Section VI.E.1 above. Widich also discloses using at least one upper frame member (*e.g.*, “end support members 29 and 31”) to interconnect side frames. Ex. 1005, ¶ [0034]. Widich’s upper frame member is highlighted in orange below:



Ex. 1005, Fig. 1; Ex. 1013, ¶ 155.

## 8. Claim 8

As explained above, Widich anticipates or renders obvious claim 7. *See* Section VI.E.7 above. Widich also discloses using a bracket to connect the upright member and receive the upper frame member. Widich discloses that the frame can be constructed from a continuous member with bends or from separate pieces joined together. Ex. 1005, ¶ [0034] (“The various members of frame 23 may be a continuous structure and/or multiple welded or bolted units.”). In addition, Widich discloses other types of configurations to connect joints, including using “securable pivots” to achieve the same purpose. Ex. 1005, ¶¶ [0035]-[0036], Fig. 8. Thus, Widich’s welds, bolts, and securable pivots disclose brackets connecting the top

upright member to and receiving the upper frame member. Ex. 1013, ¶ 156.

To the extent Patent Owner argues that this feature is not explicitly or inherently disclosed by Widich, it would have been obvious in view of this same disclosure to use a bracket. A POSITA would have been motivated to use brackets in order to form a secure connection at the joints of frame members. Ex. 1005, ¶¶ [0034]-[0036]; Ex. 1013, ¶¶ 38-40, 157. Brackets were a well-known method of joining frame members, and a POSITA would have recognized that brackets were a simple design choice from a limited number of ways to connect frame members. *See* Section V.F above.

## **9. Claim 9**

As explained above, Widich anticipates or renders obvious claim 7. *See* Section VI.E.7 above. For the reasons discussed above, Widich discloses forming the upper frame member out of a plurality of upper frame members. As stated above and shown in the annotated figure, Widich discloses using two upper frame members. *See* Section VI.E.7 above. In addition, Widich discloses that the “various members of frame 23 may be a continuous structure and/or multiple welded or bolted units.” Ex. 1005, ¶ [0034]; Ex. 1013, ¶ 158.

## **10. Claim 10**

As explained above, Widich anticipates or renders obvious claim 1. *See* Section VI.E.1 above. Widich also discloses using a bracket to connect the angled

member to the deck. Widich discloses that the frame can be constructed from a continuous member that uses bends or by separate pieces that are joined together. Ex. 1005, ¶ [0034] (“The various members of frame 23 may be a continuous structure and/or multiple welded or bolted units.”). In addition, Widich discloses other types of configurations to connect joints, including using “securable pivots” to achieve the same purpose. Ex. 1005, ¶¶ [0035]-[0036] (“While providing bends 40 at members 25 and 27 is illustrated herein to establish the intersecting fields established by frame 23, other constructions could be conceived of to achieve the same purpose.”); *see also* Fig. 8. Thus, Widich discloses connecting the angled member to the deck with brackets. Ex. 1013, ¶ 159.

To the extent Patent Owner argues that this feature is not explicitly or inherently disclosed by Widich, it would have been obvious in view of this same disclosure to use a bracket. A POSITA would have been motivated to use brackets in order to form a secure connection at the joints of frame members. Ex. 1005, ¶¶ [0034]-[0036]. Brackets were a well-known method of joining frame members, and a POSITA would have recognized that brackets were a well-known design choice from a limited number of ways to connect frame members. Ex. 1013, ¶¶ 38-40, 160; *see* Section V.F above.

## **11. Claim 19**

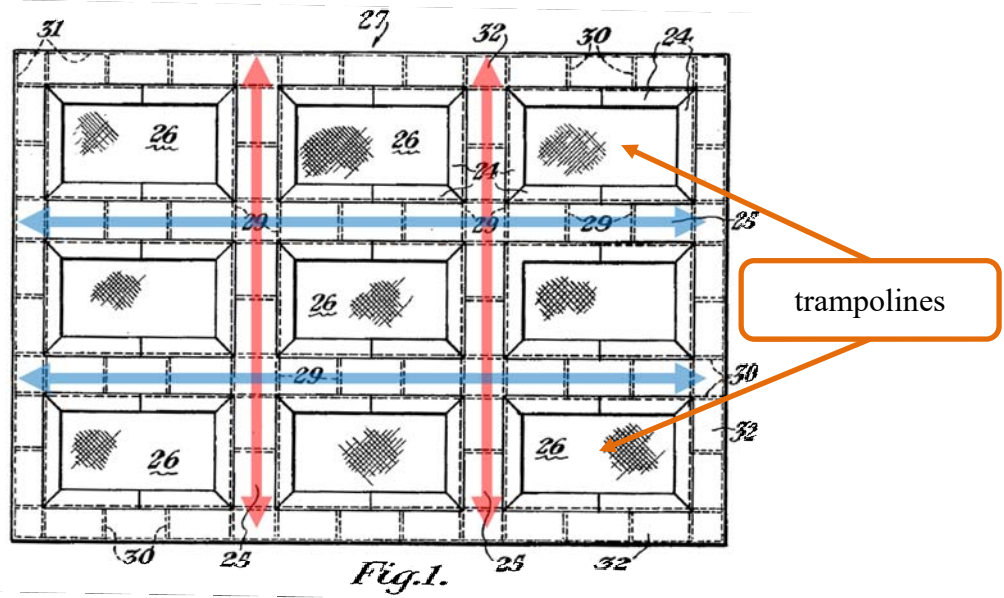
Claim 19 is essentially the same scope as claim 1, except that it includes

additional bracket limitations for connecting the upper frame members and for connecting the deck. Ex. 1013, ¶ 161. Thus, for the reasons stated above with respect to claims 1 (basic structure), claim 7 (upper frame), claim 8 (upper bracket), and 10 (deck bracket), Widich anticipates or renders obvious claim 19. *See* Section VI.E.1, VI.E.7, VI.E.8, and VI.E.10 above.

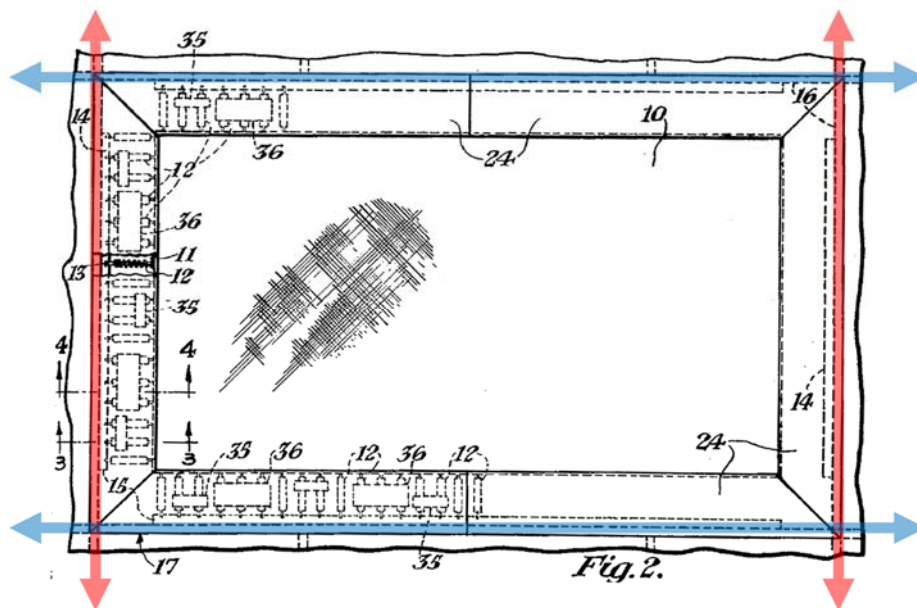
**F. Ground 6: Widich in view of Grelle renders obvious claims 11-15**

**1. Claim 11**

As explained in Ground 5 above, Widich anticipates or renders obvious claim 10. *See* Section VI.E.10 above. The additional limitation of claim 11 is obvious in further view of Grelle, which discloses the horizontal trampoline deck is formed from multiple intersecting longitudinal frames (highlighted in red below) and transverse frames (highlighted in blue below) forming a plurality of trampolines as shown in Figure 1:



Ex. 1008, Fig. 1; *see also id.* at 1:49-51. Trampolines are connected inside the voids formed between each of the intersecting frames, and Figure 2 shows a “single trampoline unit illustrating the attachment of the rebound springs and the location and manner of attachment of the spring covers”:





Ex. 1008, Fig. 2; *see also id.* at 2:31-55; Ex. 1013, ¶¶ 109-111.

A POSITA would have been motivated to add the frame elements of Grelle to Widich's design in order to add additional bouncing surfaces and build a larger area for the trampoline arena with suitably sized and shaped resilient surfaces. Ex. 1005, ¶ [0043] (suggesting the use of ancillary structures to provide "a suitably sized and shaped ancillary resilient boarding surface"), [0045]-[0046] (suggesting using "additional ancillary structures" that connect to "establish[] an assemblage providing a trampboarding arena"); Ex. 1008, 1:9-12 ("multiple-unit trampoline centers"); Ex. 1013, ¶ 163.

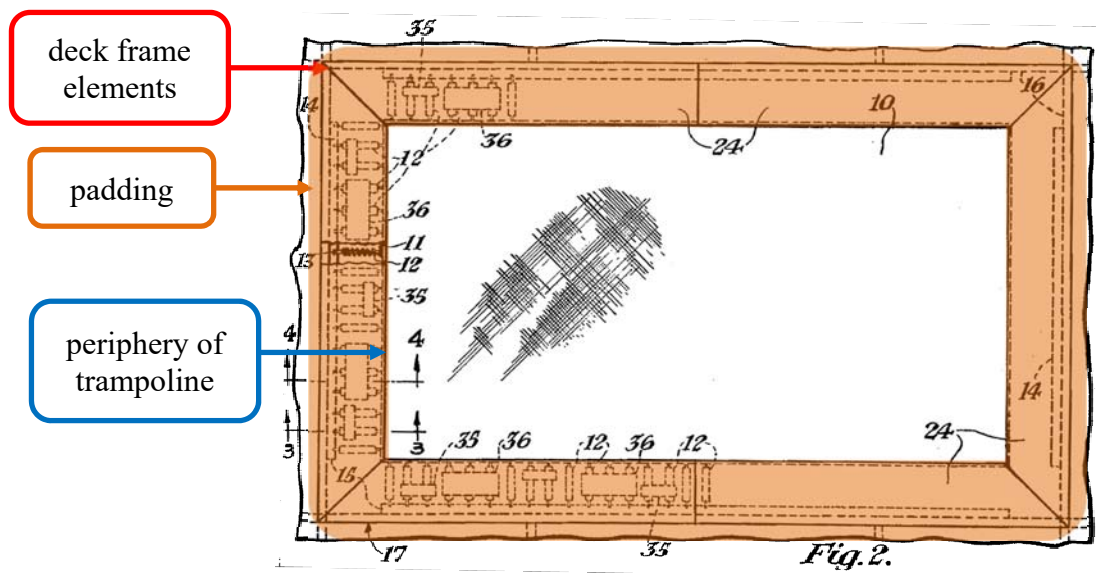
## **2. Claim 12**

As explained above, Widich in view of Grelle renders obvious claim 11. *See* Section VI.F.1 above. The additional features of claim 12 are disclosed by Grelle and therefore obvious over this same combination.

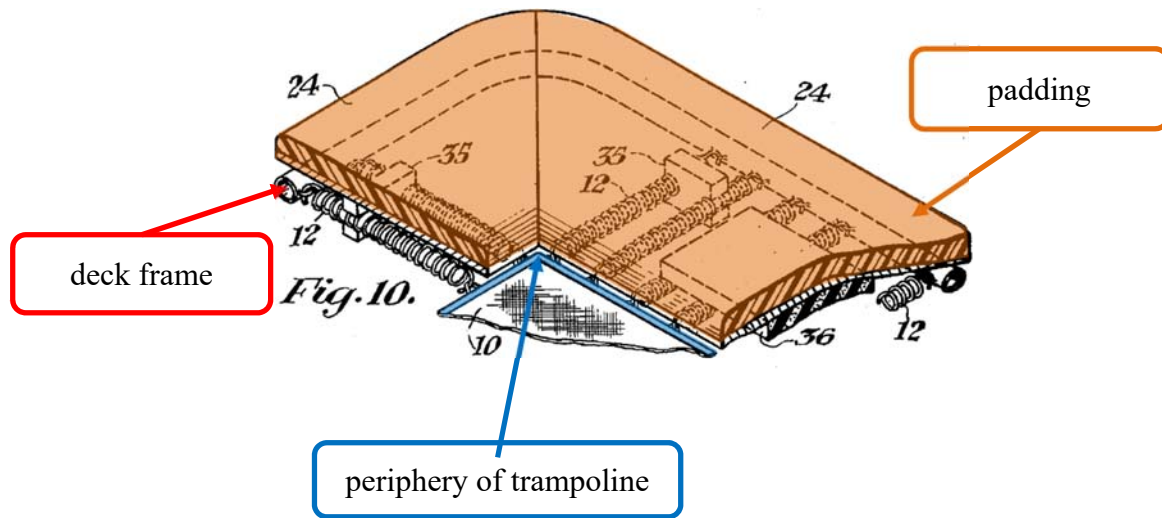
As discussed above, Grelle discloses a horizontal deck with longitudinal and transverse deck frame elements. Grelle further discloses that these elements, *i.e.*, each "box frame", "may be made of metal or a rigid plastic." Ex. 1008, 2:31-40. Thus, Grelle discloses rigid elements. Ex. 1013, ¶¶ 109-111, 164. Thus, for the same reasons stated above, the combination of Widich and Grelle render obvious claim 12. *See* Section VI.F.1 above.

### 3. Claim 13

As explained above, Widich in view Grelle renders obvious claim 11. *See* Section VI.F.1 above. The additional features of claim 13 are disclosed by Grelle and therefore obvious over this same combination. Ex. 1013, ¶ 165. Grelle discloses protective padding that covers the edges of each trampoline and the springs that attach each trampoline to the intersecting frame members. Ex. 1008, 1:27-32, 2:63-65, 3:1-31, Figs. 1-2, 10. Grelle teaches that the padding “eliminate[s] the hazards of injury to a jumper from striking the trampoline frame or from slipping between the springs.” Ex. 1008, 1:13-18. As shown for example in Figures 2 and 10, to prevent a user’s foot from slipping between the springs, Grelle’s padding (highlighted in orange) covers the trampoline deck’s outer frame (dotted lines) and the peripheries of the trampoline (dotted lines):



Ex. 1008, Fig. 2.



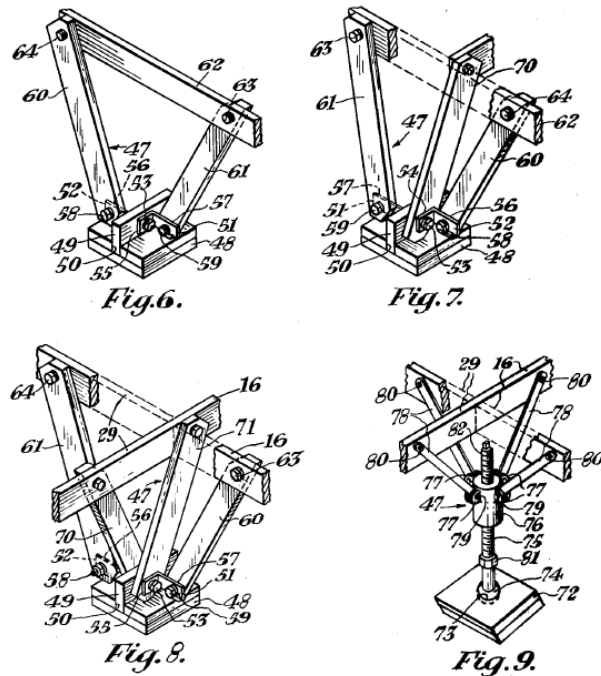
Ex. 1008, Fig. 10.

It would have been obvious to combine Grelle's box frames (and therefore the associated padding) with Widich for safety and for the reasons explained above. *See* Ex. 1013, ¶¶ 159, 165; Section VI.F.1 above

#### 4. Claim 14

As explained above, Widich in view of Grelle renders obvious claim 11. *See* Section VI.F.1 above. The additional features of claim 14 are disclosed by Grelle and therefore obvious over this same combination. Ex. 1013, ¶ 166.

Grelle discloses that each trampoline's "box frame" is supported by braces. *E.g.*, Ex. 1008 (Grelle), 4:11-20.



Ex. 1008 (Grelle), Figs. 6-9.

Grelle discloses braces (Figure 6), braces for T junctions (Figure 7), and braces for corners (Figure 8) of the trampoline box frames. Ex. 1008, 4:52-70. Grelle thus discloses a plurality of support legs supporting the longitudinal and transverse deck frame elements. It would have been obvious to combine Grelle's box frames (and therefore the associated support braces) with Widich for the reasons explained above. See Ex. 1013, ¶¶ 159, 167; Section VI.F.1 above.

## 5. Claim 15

As explained above, Widich in view of Grelle renders obvious claim 14. See Section VI.F.4 above. The additional features of claim 15 are disclosed by Grelle and therefore obvious over this same combination. Ex. 1013, ¶ 168. As was discussed with claim 14 above, Grelle discloses that each trampoline's "box

frame” is supported by braces to provide rigidity to the deck structure. Section VI.F.4 above. Grelle further discloses that the braces are located at the intersections of the deck frame elements. *E.g.*, Ex. 1008, 4:64-65 (“Braces . . . may be provided ***at the corners*** of the box frames.”) (emphasis added). Grelle also discloses that the braces are located at midpoints along the deck frame elements. Ex. 1008, 4:11-20 (“Each box frame is supported . . . ***at intervals along the length of its members*** as required to give sufficient rigidity to the box frame and the platform by braces.”) (emphasis added).

It would have been obvious to combine Grelle’s box frames (and therefore the associated support braces) with Widich for the reasons explained above. *See* Ex. 1013, ¶¶ 159, 167; Section VI.F.1 above.

## **G. Ground 7: Widich in view of Nissen renders obvious claims 16-17**

### **1. Claim 16**

As explained above, Widich anticipates or renders obvious claim 1. *See* Section VI.E.1 above. The additional features of claim 16 are disclosed by Nissen (Ex. 1007) and this combination would have been obvious to a POSITA for the reasons discussed below.

As discussed above, Widich disclosed using padding to cover the joints of the trampolines. Ex. 1013, ¶¶ 125-126, 170-171. “While not shown, safety padding may be deployed over selected exposed frame members as would be

deemed prudent.” Ex. 1005, ¶ [0037]. Nissen also disclosed using padding at the outer edges of the trampoline deck to cover the joints between the trampoline and the frame, where the trampoline connects to the frame. Ex. 1007 (Nissen), ¶ [0041] (“The pad assembly 33 helps to protect the user from injury. In this embodiment, the pad assembly 33 includes one or more pads 35 (one of the pads 35 is shown in an exploded view for clarity) that substantially cover at least a portion of the bed suspension assembly 16 and/or a portion of one or more of the side suspensions 20, 24 and/or the end suspensions.”)

Ex. 1007 (Nissen), Fig. 1A.



In addition, a POSITA would have recognized that using wedge-shaped padding would have been an obvious use of known elements (padding) in an expected way (to cover dangerous elements) to achieve the expected results of additional safety and comfort for the user of the trampoline, to lower their risk of injury when jumping near the sidewalls, and to ensure durability of the joints. Ex. 1013, ¶ 174. Using wedge-shaped padding to cover sharp transitions would have been an obvious design choice from among well-known ways of protecting hazardous elements (*e.g.*, coatings, covers, cages, etc.) with known trade-offs (*e.g.*, costs, ease of construction/deconstruction, stability, durability, etc.) as padding that follows the shape of the underlying frame is routinely used to cover frames and joints, especially in active sports applications including trampolines. *Id.* Using a wedge shape for the padding was an obvious design choice to try because there would have been a finite number shapes for padding along an angled intersection, and any of these shapes would have had a reasonable expectation of success as improving safety. *Id.*

## **2. Claim 17**

As explained above, Widich in combination with Nissen renders obvious claim 16. *See* Section VI.G.1 above. For the same reasons stated above with respect to claim 16, claim 17 is also obvious because Nissen's wedge-shaped pads are also triangular, and the pads would have covered the lower corners of the deck



frame because springs and frame elements are located there. *Id.*; Ex. 1013, ¶¶ 175, 168-170. Thus, Widich in combination with Nissen also renders this claim obvious.

## **VII. CONCLUSION**

For the reasons stated above, Petitioners have demonstrated it is more likely than not that at least one claim is unpatentable and therefore requests that the Board institute an *inter partes* review of claims 1-19 of the '575 patent.

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Respectfully submitted,

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## **CERTIFICATE OF COMPLIANCE WITH WORD COUNT**

This Petition complies with the type-volume limits of 37 C.F.R.

§ 42.24(a)(1)(i) because it contains 13,965 words, excluding the parts of this Petition that are exempted by 37 C.F.R. § 42.24(a), according to the word-processing system used to prepare this Petition. This is less than the 14,000 word limit.

November 15, 2018

/Brian A. Jones/  
Brian A. Jones

## CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Petition for *Inter Partes* Review of U.S. Patent No. 8,764,575 and all supporting materials (Exhibits 1001-1013 and Power of Attorney) were sent on November 15, 2018 to:

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