

Case IPR2023-00580
Patent No. 10,669,738

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GLOBAL SHADE CORPORATION,
Petitioner,

v.

WITH-U E-COMMERCE (SHANGHAI) CO., LTD.,
Patent Owner.

Case IPR2023-00580
Patent 10,669,738

CONTINGENT MOTION TO AMEND

PURSUANT TO 37 C.F.R. § 42.121

INCLUDING REQUEST FOR MTA PILOT PROGRAM

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Statutes

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37 C.F.R. § 42.121	1, 13
37 C.F.R. § 42.121(a)(3)	12
37 C.F.R. § 42.121(d)(2)	1

LIST OF EXHIBITS

Exhibit No.	Description
2001	Non-Final Office Action, September 26, 2019 (with accompanying Notice of References Cited, Search Notes, and EAST Search History)
2002	Non-Final Office Action, September 28, 2018
2003	U.S. Patent Publication No. 2015/0308147 (“Lee”)
2004	U.S. Patent No. 6,929,017 (“Byun”)
2005	Office Action Response, February 10, 2020
2006	Notice of Allowance, February 27, 2020
2007	Declaration of Wendy Reffeor, Ph.D. (with attached CV)
2008	U.S. Patent No. 5,230,358 (“Forell”)
2009	U.S. Patent No. 4,945,936 (“Surrendi”)
2010	U.S. Patent No. 4,202,363 (“Watts”)
2011	U.S. Patent No. 3,929,146 (“Maiken”)
2012	U.S. Patent No. 2,771,087 (“Simonson”)
2013	Originally-Filed Specification (U.S. Patent App. No. 15/925,314)
2014	Originally-Filed Drawings (U.S. Patent App. No. 15/925,314)
2015	Originally-Filed Specification (Parent Application - U.S. Patent App. No. 15/549,164)

2016	PCT Pub. No. WO2017/028659 (PCT/CN2016/091675)
2017	Espacenet Patent Translate Translation of PCT Pub. No. WO2017/028659 (PCT/CN2016/091675)
2018	Japanese Pat. Pub. No. JP3200660U (JP Patent App. No. 2015-004155U)
2019	Espacenet Patent Translate Translation of Japanese Pat. Pub. No. JP3200660U (JP Patent App. No. 2015-004155U)
2020	Declaration of Jared L. DuJack

I. INTRODUCTION AND SUMMARY

Pursuant to 35 U.S.C. § 316, 37 C.F.R. § 42.121, and the MTA Pilot Program, Patent Owner files this *Contingent* Motion to Amend. Patent Owner proposes 5 substitute claims (numbered 15–19) which are set forth below in the Claims Appendix. *Infra* § IX. Substitute claims correspond, respectively, to challenged independent claim 1 and challenged dependent claims 2, 4, 13, and 14.

A. CONTINGENCY

This is a Contingent Motion to Amend. If the claims of the '738 Patent are found patentable, this Contingent Motion to Amend is respectfully withdrawn.

B. REQUEST FOR PRELIMINARY GUIDANCE

Patent Owner respectfully requests preliminary guidance on this contingent motion in accordance with the MTA Pilot Program Notice outlined in the Scheduling Order. Paper 9 at 4-5.

C. BURDEN OF PERSUASION

Petitioner bears the burden of persuasion “to show that any proposed substitute claims are unpatentable by a preponderance of the evidence.”

Lectrosonics, Inc. v. Zaxcom, Inc., IPR2018-01129, -01130, Paper No. 15 (citing *Aqua Products, Inc. v. Matal*, 872 F.3d 1290 (Fed. Cir. 2017)); *see also* 37 C.F.R. § 42.121(d)(2).

II. CONTENT OF THE AMENDMENT

Substitute independent claim 15 includes the full limitations of challenged independent claim 1 and adds additional limitations regarding the central lock and the transition to the unfolded state. Substitute dependent claim 16 includes the full limitations of challenged dependent claim 2, and adds detail regarding the outer retractable unit and the structure of the first connecting rod.

Substitute dependent claims 17–19 include the limitations of challenged dependent claims 4, 13, and 14, respectively, but amend the dependency of the claims to the appropriate substitute claim. No other amendments are presented.

III. SUPPORT FOR THE AMENDMENTS

Each of the proposed substitute claims is supported by the original disclosure of the '738 Patent and all priority documents.

The '738 Patent was filed on March 19, 2018 as U.S. Pat. App. No. 15/925,314. The original specification for the '738 Patent is presented as Exhibit 2013. The original drawings for the '738 Patent are presented as Exhibit 2014.

The '738 Patent claims priority to U.S. Pat. App. No. 15/549,164 (filed on August 6, 2017 and now U.S. Pat. No. 10,273,710) which is a national stage entry of PCT/CN2016/091675 (filed July 26, 2016) which claimed priority to Japanese Patent Application 2015-004155U (filed August 18, 2015). The original

specification of the parent application (U.S. Pat. App. No. 15/549,164 now U.S. Pat. No. 10,273,710) is presented as Exhibit 2015. PCT/CN2016/091675 was published in Chinese as PCT Pub. No. WO2017/028659 (Pub. Date of February 23, 2017). A copy of PCT Pub. No. WO2017/028659 is presented as Exhibit 2016. A machine translation of PCT Pub. No. WO2017/028659 available from the European Patent Office's Espacenet Patent Translate system is presented as Exhibit 2017 and is referred to below as the "PCT Translation." Japanese Patent Application 2015-004155U was published as JP3200660U on October 29, 2015. A copy of the JP3200660U publication is attached as Exhibit 2018. A machine translation of the JP3200660U publication available from the European Patent Office's Espacenet Patent Translate system is presented as Exhibit 2019 and is referred to below as the "JP Translation." The subject matter, figures, and reference numerals of the parent application, PCT/CN2016/091675, and Japanese Patent Application 2015-004155U correspond to one another.

Support for proposed substitute claim 15 (amending challenged independent claim 1) is outlined in the chart below:

Claim Limitation	Support in the Originally Filed Specification (Ex. 2013)	Support in the Priority Documents (Parent, PCT Translation, JP Translation)
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15. (Preamble) A collapsible canopy frame, comprising:	Page 1, ¶ 1 through Page 2, ¶ 2. Page 5, ¶ 1 through Page 7, ¶ 1. Figures 6, 19–21.	Parent: Page 1, line 3 through Page 3, line 11; Page 6, line 22 through Page 9, line 13. PCT Translation: Page 1, line 10 through Page 2, line 59. JP App Translation: ¶¶ [0001]–[0013]. Figures 6, 19–21.
A. at least three supporting legs,	Page 2, ¶ 2. Page 5, ¶ 2. Figures 6, 19–21.	Parent: Page 2, lines 22–23; Page 7, lines 22–23. PCT Translation: Page 2, lines 43–47; Page 5, lines 194–199. JP App Translation: ¶¶ [0007], [0012]. Figures 6, 19–21.
B. a plurality of outer retractable units, each outer retractable unit connected between two adjacent supporting legs, each said outer retractable unit comprises a plurality of hinged X-shaped rod members, each X-shaped rod member comprises a first eave pipe and second eave pipe hinged to one another,	Page 2, ¶ 2. Page 5, ¶ 2. Page 7, ¶ 2 (continuing onto Page 8). Figures 6, 18–21.	Parent: Page 2, lines 22–27; Page 7, lines 22–28; Page 9, line 14 through Page 10, line 13. PCT Translation: Page 2, lines 43–47; Page 5, lines 194–199; Page 6, line 239 through Page 7, line 264. JP App Translation: ¶¶ [0007], [0012], [0014]. Figures 6, 18–21.
C. a plurality of inner retractable units comprising inner ends, each inner retractable unit connected to a supporting leg, wherein said outer retractable units and said inner retractable units form a roof of said	Page 2, ¶ 2. Page 5, ¶ 2 (continuing onto Page 6). Page 7, ¶ 2 through Page 8, ¶ 2. Figures 6, 18–21.	Parent: Page 2, lines 22–27; Page 7, lines 22–28; Page 9, line 14 through Page 10, line 13. PCT Translation: Page 2, lines 43–47; Page 5, lines 194–199; Page 6, line 239 through Page 7, line 264.

collapsible canopy frame, and		JP App Translation: ¶¶ [0007], [0012], [0014]. Figures 6, 18–21.
D. a central lock, comprising:	Page 2, ¶ 2. Page 5, ¶¶ 1–2. Page 6, ¶ 2 (continuing onto Page 7). <i>See also</i> Page 8, ¶ 3 through Page 14, ¶ 2. Figures 1–16, 19–26.	Parent: Page 2, lines 7–19; Page 7, lines 20–22; Page 8, line 4 through Page 9, line 13; <i>see also</i> Page 10, line 27 through Page 16, line 17. PCT Translation: Page 2, lines 43–59; Page 5, lines 194–199; <i>see also</i> Page 7, line 265 through Page 10, line 410. JP App Translation: ¶¶ [0007], [0012]–[0013]; <i>see also</i> ¶¶ [0016]–[0025]. Figures 1–16, 19–26.
1. a center top cap,	Page 5, ¶ 1. Page 6, ¶ 2 (first 2 lines). Page 12, ¶ 3 (first 4 lines). Figures 1–3, 7, 8, 12, 17, 19–22.	Parent: Page 6, line 22 through Page 7, line 19; Page 8, lines 4–5; Page 14, lines 24–27. PCT Translation: Page 5, lines 174–205; Page 9, lines 367–370. JP App Translation: ¶¶ [0011], [0013], [0023]. Figures 1–3, 7, 8, 12, 17, 19–22.
2. a center bottom cap,	Page 5, ¶ 1. Page 6, ¶ 2. Page 7, ¶ 1. <i>See also</i> Page 8, ¶ 2 through Page through Page 14, ¶ 2. Figures 1–13, 17, 19–26.	Parent: Page 6, line 22 through Page 7, line 19; Page 8, line 4 through Page 9, line 13; <i>see also</i> Page 10, line 14 through Page 16, line 17. PCT Translation: Page 5, lines 174–205; Page 9, line 367 through Page 10, line

		390; <i>see also</i> Page 7, line 265 through Page 10, line 410. JP App Translation: ¶¶ [0011], [0013], [0015]–[0025]. Figures 1–13, 17, 19–26.
3. a center pole positioned between said center top cap and said center bottom cap, wherein said central lock is locked when said center pole is connected to both said center top cap and said center bottom cap, and wherein said center lock is unlocked when there is a disconnection between said center bottom cap and said center pole, wherein said central lock locks said collapsible canopy frame in an unfolded state when said central lock is locked and permits said collapsible canopy frame to be folded into a folded state when said central lock is unlocked, wherein said inner ends of said inner retractable units are connected through said central lock, <u>and</u>	Page 5, ¶ 1. Page 6, ¶ 2. Page 7, ¶ 1. <i>See also</i> Page 8, ¶ 2 through Page through Page 14, ¶ 2. Figures 1–4, 6, 7–9, 12, 17, 19, 22, 23, 25.	Parent: Page 6, line 22 through Page 7, line 19; Page 8, line 4 through Page 9, line 13; <i>see also</i> Page 10, line 14 through Page 16, line 17. PCT Translation: Page 5, lines 174–205; Page 9, line 367 through Page 10, line 390; <i>see also</i> Page 7, line 265 through Page 10, line 410. JP App Translation: ¶¶ [0011], [0013], [0015]–[0025]. Figures 1–4, 6, 7–9, 12, 17, 19, 22, 23, 25.
<u>4. a locking piece received in said center bottom cap,</u>	Page 5, ¶ 1 “a locking piece 4 capable of moving back and forth along a radial direction of the center pole 2 is received in	Parent: Page 7, lines 5–6 (“a locking piece 4 capable of moving back and forth along a radial direction of the center pole 2 is received in the center bottom cap 3”).

	the center bottom cap 3”). Figures 2–12.	PCT Translation: Page 5, lines 177–181. JP App Translation: ¶¶ [0011]. Figures 2–12.
<u>wherein said center bottom cap comprises a bottom cap seat and a bottom cap cover that are connected to one another, a receiving chamber is provided in said center bottom cap at a junction between said bottom cap seat and said bottom cap cover, and wherein said locking piece is located within said receiving chamber and between said bottom cap cover and said bottom cap seat;</u>	Page 8, ¶ 3 (continuing onto Page 9). Page 8, ¶ 3 (lines 1–2) (“the center bottom cap 3 comprises a bottom cap seat 31 and a bottom cap cover 32 that are connected to one another...”). Page 8, ¶ 3 (lines 3–4) (“a receiving chamber 311 is provided in the center bottom cap 3 at a junction between the bottom cap seat 31 and the bottom cap cover 32”). Page 9, ¶ 1 (lines 1–2) (“the locking piece 4 is provided threading the receiving chamber 311 and the opening 312, located between the bottom cap seat 31 and the bottom cap cover 32”). Figures 1, 6, 11.	Parent: Page 10, line 27 through Page 11, line 19; Page 10, lines 27–29 (“the center bottom cap 3 comprises a bottom cap seat 31 and a bottom cap cover 32 that are connected to one another”); Page 10, line 29 through Page 11 line 1 (“a receiving chamber 311 is provided in the center bottom cap 3 at a junction between the bottom cap seat 31 and the bottom cap cover 32”). Page 11, lines 3–5 (“the locking piece 4 is provided threading the receiving chamber 311 and the opening 312, located between the bottom cap seat 31 and the bottom cap cover 32”). PCT Translation: Page 7, lines 275–289. JP App Translation: ¶¶ [0016]. Figures 1, 6, 11.
<u>wherein said collapsible canopy frame is moved to said unfolded state by</u>	Page 8, ¶ 2 (lines 1–7) (“As for the roof frame of the canopy	Parent: Page 10, lines 14–20 (“As for the roof frame of the canopy with the above-

<u>pushing said center bottom cap upwards to drive said plurality of inner retractable units outwardly, which causes said plurality of outer retractable units and said at least three supporting legs to extend outwards, until said center bottom cap is connected with said center top cap.</u>	with the above-mentioned structure, in the process that the center bottom cap 3 of the central lock is pushed upwards to unfold the canopy, the upward movement of the center bottom cap 3 enables the inner retractable units 8 to extend outwards; and simultaneously the sliding sleeve 9 is enabled to move upwards along the length direction of the supporting leg 6, such that the outer retractable units 7 and the four supporting legs 6 gradually extend until the entire canopy is fully unfolded and the center bottom cap 3 is connected with the lower end of the center pole 2.”). <i>See also</i> Page 6, ¶ 2 (lines 5–17). Figures 1, 16, 17, and 19–21.	mentioned structure, in the process that the center bottom cap 3 of the central lock is pushed upwards to unfold the canopy, the upward movement of the center bottom cap 3 enables the inner retractable units 8 to extend outwards; and simultaneously the sliding sleeve 9 is enabled to move upwards along the length direction of the supporting leg 6, such that the outer retractable units 7 and the four supporting legs 6 gradually extend until the entire canopy is fully unfolded and the center bottom cap 3 is connected with the lower end of the center pole 2.”); <i>see also</i> Page 8, lines 8–20. PCT Translation: Page 7, lines 265–270; <i>see also</i> Page 6, lines 206–214. JP App Translation: ¶¶ [0015]; <i>see also</i> ¶ [0013]. Figures 1, 16, 17, and 19–21.
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Support for proposed substitute claim 16 (amending challenged dependent claim 2) is outlined in the chart below:

Claim Limitation	Support in the Originally Filed Specification (Ex. 2013)	Support in the Priority Documents (Parent, PCT Translation, JP Translation)
16. Preamble: The collapsible canopy frame according as in claim [[1]] 15,	See above	See above
<u>wherein each said outer retractable unit comprises three hinged X-shaped rod members, and</u>	Page 7, ¶ 2 (lines 3–4) (“The outer retractable unit 7 comprises three hinged X-shaped rod members”). Figures 16, 19, and 21.	Parent: Page 9, lines 16–17 (“The outer retractable unit 7 comprises three hinged X-shaped rod members”). PCT Translation: Page 6, lines 240–241. JP App Translation: ¶¶ [0014]. Figures 16, 19, and 21.
<u>wherein: each said supporting leg comprises a sliding sleeve that is moved for moving along a length direction of said respective supporting leg by said pushing of said center bottom cap,</u>	Page 7, ¶ 2 (lines 1–2) (“each supporting leg 6 is sleeved with a sliding sleeve 9 for moving along a length direction of the supporting leg 6”). Page 8, ¶ 2 (lines 2–5) (“the upward movement of the center bottom cap 3 enables the inner retractable units 8 to extend outwards; and simultaneously the sliding sleeve 9 is enabled to move upwards along the length direction of the supporting leg 6”). Figures 16, 19, and 21.	Parent: Page 9, lines 14–15 (“each supporting leg 6 is sleeved with a sliding sleeve 9 for moving along a length direction of the supporting leg 6”); Page 10, lines 16–18 (“the upward movement of the center bottom cap 3 enables the inner retractable units 8 to extend outwards; and simultaneously the sliding sleeve 9 is enabled to move upwards along the length direction of the supporting leg 6”). PCT Translation: Page 5, line 239 through Page 6, line 274. JP App Translation: ¶¶ [0014]–[0015]. Figures 16, 19, and 21.

an upper end of each said supporting leg is fixed with a fixed joint, each said inner retractable unit comprises a first oblique top pipe and a second oblique top pipe hinged to one another, said first oblique top pipe is hinged with a first connecting rod, said second oblique top pipe is hinged with a second connecting rod, an inner end of said first oblique top pipe is hinged with a center top cap of said central lock, an inner end of said first connecting rod is hinged with a center bottom cap of said central lock,	Page 7, ¶ 2 (lines 2–3) (“an upper end of each supporting leg 6 is fixed with a fixed joint 10”). Page 7, ¶ 2 (lines 7–17) (“The inner retractable unit 8 comprises a first oblique top pipe 81 and a second oblique top pipe 82 hinged to one another through a connection piece with a U-shaped cross section, a first connecting rod 83 is hinged at or close to a midpoint of the first oblique top pipe 81, a second connecting rod 84 is hinged at or close to a midpoint of the second oblique top pipe 82; inner ends of four first oblique top pipes 81 are all hinged with the center top cap 1 of the central lock, inner ends of four first connecting rods 83 are all hinged with the center bottom cap 3 of the central lock. The fixed joint 10 at the upper end of the supporting leg 6 is hinged with outer ends of the first eave pipes 71 of two X-shaped rod members and an outer end of one second oblique top pipe 82, the sliding sleeve 9 on the supporting leg 6 is hinged with outer ends of the second eave pipes 72 of two X-	Parent: Page 9, lines 15–16 (“an upper end of each supporting leg 6 is fixed with a fixed joint 10”); Page 9, line 20 through Page 10, line 1 (“The inner retractable unit 8 comprises a first oblique top pipe 81 and a second oblique top pipe 82 hinged to one another through a connection piece with a U-shaped cross section, a first connecting rod 83 is hinged at or close to a midpoint of the first oblique top pipe 81, a second connecting rod 84 is hinged at or close to a midpoint of the second oblique top pipe 82; inner ends of four first oblique top pipes 81 are all hinged with the center top cap 1 of the central lock, inner ends of four first connecting rods 83 are all hinged with the center bottom cap 3 of the central lock. The fixed joint 10 at the upper end of the supporting leg 6 is hinged with outer ends of the first eave pipes 71 of two X-shaped rod members and an outer end of one second oblique top pipe 82, the sliding sleeve 9 on the supporting leg 6 is hinged with outer ends of the second eave pipes 72 of two X-
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	shaped rod members and an outer end of one second connecting rod 84.”). Figures 16–19, 21.	shaped rod members and an outer end of one second connecting rod 84.”). PCT Translation: Page 6, line 239 through Page 7, line 264. JP App Translation: ¶ [0014]. Figures 16–19, 21.
<u>and, in said unfolded state, said first connecting rod extends upward from said center bottom cap to said first oblique top pipe to form a Y-shaped member,</u>	Page 7, ¶ 2 (continuing onto Page 8) (“In this embodiment, the first oblique top pipe 81 and the first connecting rod 83, as well as the second oblique top pipe 82 and the second connecting pipe 84, forms a Y-shaped member”). Figures 16–19, 21 (showing first connecting rod 83 extending from the center bottom cap 3 and up to the first oblique top pipe 81 to form a Y-shape).	Parent: Page 10, lines 1–4 (“In this embodiment, the first oblique top pipe 81 and the first connecting rod 83, as well as the second oblique top pipe 82 and the second connecting pipe 84, forms a Y-shaped member”). PCT Translation: Page 7, lines 254–264. JP App Translation: ¶ [0014]. Figures 16–19, 21.
an outer end of a first eave pipe and an outer end of said second oblique top pipe are hinged with said fixed joint, an outer end of said second eave pipe and an outer end of said second connecting rod are hinged with said sliding sleeve.	Page 8, ¶ 1 (lines 6–12) (“As for the outermost X-shaped member of the inner retractable unit 8, an outer end of the third oblique top pipe 85 is hinged with the sliding sleeve 9, and an outer end of the fourth oblique top pipe 86 is hinged with the fixed joint 10.”). Figures 16–19, 21.	Parent: Page 10, lines 11–13 (“As for the outermost X-shaped member of the inner retractable unit 8, an outer end of the third oblique top pipe 85 is hinged with the sliding sleeve 9, and an outer end of the fourth oblique top pipe 86 is hinged with the fixed joint 10.”). PCT Translation: Page 6, line 239 through Page 7, line 264. JP App Translation: ¶ [0014]. Figures 16–19, 21.

Proposed substitute claims 17–19 (amending challenged dependent claims 4, 13, and 14) are only presented to amend the dependency of the respective claims to the appropriate substitute claim. No other amendments are presented.

IV. NUMBER AND SCOPE OF THE SUBSTITUTE CLAIMS

Patent Owner submits that a reasonable number of substitute claims is proposed, pursuant to 35 U.S.C. § 316(d)(1)(B) and 37 C.F.R. § 42.121(a)(3). Specifically, Patent Owner proposes only one substitute claim for each of challenged claims 1, 2, 4, 13, and 14. Further, the amendments for claims 4, 13, and 14 are limited to changing dependency. Additionally, the scope of each substitute independent claim is not enlarged but rather, narrowed with the addition of at least one narrowing limitation. *See* 35 U.S.C. § 316(d)(3). Further, the amendments do not introduce new matter. *See id.*

V. LEVEL OF SKILL

Patent Owner proposes that the level of skill for the substitute claims be the level set forth in the Patent Owner Preliminary Response, Prelim. Resp. 3, and further discussed in § III of the concurrently filed Patent Owner Response. This is consistent with the Board’s determination that “no express finding is necessary” regarding the level of skill in the art is required. Decision 10.

VI. CLAIM CONSTRUCTION

Patent Owner does not propose any specific construction for the proposed substitute claims. This is consistent with the Board's determination that no explicit construction was required. Decision 11.

VII. THE AMENDMENTS RESPOND TO PETITIONER'S GROUNDS AND THE SUBSTITUTE CLAIMS ARE PATENTABLE

In accordance with 37 C.F.R. § 42.121, the amendments presented respond to at least one asserted ground of unpatentability.

A. SUBSTITUTE CLAIM 15

The amendments of substitute claim 15 (independent claim 1) respond to Grounds 1 and 2 asserted by Petitioner. Ground 1 is alleged obviousness based on combination of Rousselle and Tsai. As interpreted by the Board, the proposed rejection also involves the alternative modification of starting with Tsai's canopy frame and adding in Rousselle's central lock. Ground 2 also relies on the structure of Ground 1 along with further reference to Ohnishi for details regarding the lock.

1. THE LIMITATIONS RELATED TO THE LOCK ARE NOT TAUGHT

Proposed substitute independent claim 1 includes additional features of the central lock that are not taught by either proposed ground of rejection, namely, the limitations wherein the central lock comprises "a locking piece received in said center bottom cap, wherein said center bottom cap comprises a bottom cap seat

and a bottom cap cover that are connected to one another, a receiving chamber is provided in said center bottom cap at a junction between said bottom cap seat and said bottom cap cover, and wherein said locking piece is located within said receiving chamber and between said bottom cap cover and said bottom cap seat.”

**a. SUBSTITUTE CLAIM 15 INCORPORATES
LIMITATIONS FROM UNCHALLENGED CLAIM 5**

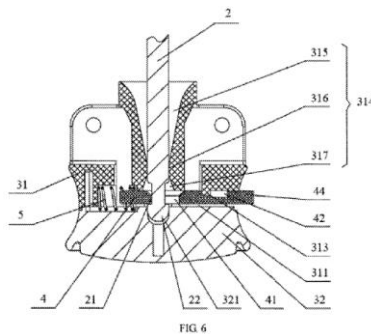
Petitioner relies on the combination of Tsai and Rousselle as allegedly teaching the central lock of challenged independent claim 1. However, Petitioner has not asserted this combination teaches the limitations of claim 5 of the '738 Patent. Likewise, Petitioner relies on the additional combination of Tsai and Rousselle with Ohnishi as allegedly teaching the central lock of challenged dependent claim 4. Again, Petitioner has not asserted this combination teaches the limitations of claim 5 of the '738 Patent. Instead, this claim is unchallenged.

Patent Owner has incorporated certain limitations from this unchallenged claim 5. Petitioner has not alleged that the cited references teach any of these limitations from unchallenged claim 5 and, as discussed in more detail below, the cited references do not teach these limitations.

**b. NONE OF THE REFERENCES TEACH THE RECITED
LIMITATIONS**

Again, the Petitioner did not allege that any of the references teach these limitations of the central lock. Further, review of the references shows that they do not disclose that structure.

The '738 Patent teaches that, in embodiments, the lock includes a bottom cap seat and a bottom cap cover, a receiving chamber provided in said center bottom cap at a junction between said bottom cap seat and said bottom cap cover. Ex. 1001, 6:9–14; Ex. 2013, Page 8, ¶ 3. Further, the locking piece is located within said receiving chamber and **between said bottom cap cover and said bottom cap seat**. Ex. 1001, 6:17–20; Ex. 2013, Page 9, ¶ 1 (lines 1–2). This structure is depicted in Figure 6 reproduced below:

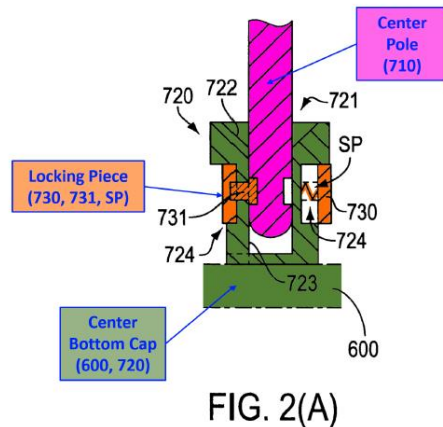


Ex. 1001, Fig. 6. As shown, the locking piece 4 is positioned between the bottom cap seat 31 and the bottom cap cover 32.

Tsai does not teach a central lock and thus does not teach this structure.

Rousselle also fails to teach this structure. Rousselle does not position the locking piece between the bottom cap seat and the bottom cap cover. In fact,

Petitioner's interpretation of Rousselle confirms this difference—Petitioner provides an annotated version of Rousselle's Fig. 2A reproduced below:



Pet. 62. As shown therein, Petitioner interprets the alleged locking piece as being positioned within the alleged center bottom cap. The locking piece is not, and cannot be interpreted as, located within said receiving chamber and between said bottom cap cover and said bottom cap seat as recited in the substitute claim.

The additional reference of Ground 2 (Ohnishi) is only cited as disclosing the locking piece, and not any of the other structure of the central lock. Petitioner states “this Ground replaces Rousselle's locking piece with Ohnishi's.” Pet. 76 (internal footnotes omitted). Petitioner does not discuss any other components of the central lock in the discussion of Ohnishi, as such discussion would allegedly be repetitive and Ohnishi was not relevant to them. *Id.* Accordingly, Ohnishi was not asserted to teach any other relevant components of the central lock such as the

bottom seat cap or the bottom cap cover. Further, review of Ohnishi's structure shows that it does not teach these features. Ohnishi's alleged locking piece is not located within said receiving chamber and between said bottom cap cover and said bottom cap seat as recited in substitute claim 15.

2. THE UNFOLDING IS NOT TAUGHT

Substitute claim 15 also amends independent claim 1 by reciting the limitations "wherein said collapsible canopy frame is moved to said unfolded state by pushing said center bottom cap upwards to drive said plurality of inner retractable units outwardly, which causes said plurality of outer retractable units and said at least three supporting legs to extend outwards, until said center bottom cap is connected with said center top cap."

a. THE PRIMARY MODIFICATION IS INOPERABLE AND WOULD NOT RESULT IN THE LIMITATIONS

As discussed in detail in the Patent Owner Response, Petitioner's primary modification involved starting with Rousselle's umbrella tent and adding in the alleged outer retractable units from Tsai. This proposed addition of Tsai's outer units and X-shaped members to Rousselle's umbrella tent would result in an umbrella tent **incapable of being folded**. Rousselle's umbrella tent does not and cannot use X-shaped members between the legs, **because Rousselle's legs are**

required to invert, i.e., pivot 180 degrees, as part of the unfolding process. *Id.* at Fig. 1(D). Adding Tsai's outer units and X-shaped members to Rousselle's umbrella tent as proposed by Petitioner would result in several additional attachment points between Rousselle's leg tubes, such that Rousselle's leg tubes would not be capable of performing the required pivoting and thus they (and the resulting structure) would not be capable of folding.

Accordingly, the primary modification would not arrive at a device that can be moved from the folded state to the unfolded state by pushing the center bottom cap upwards to drive said plurality of inner retractable units outwardly, which causes said plurality of outer retractable units and said at least three supporting legs to extend outwards.

b. THE ALTERNATIVE MODIFICATION WOULD ALSO NOT ARRIVE AT THE RECITED LIMITATIONS

As argued in the Patent Owner response, Tsai is activated by pulling on the legs and Tsai's structure uses that action to drive the unfolding. Ex. 1005, 10:25 through 11:11. This is different from the recited limitations. Further, Tsai teaches against any center activation like that of the proposed claim. Tsai disparages center activation because it requires another user in the center of the tent to push the central components up. *Id.* at 2:19–22. Moreover, Tsai uses leg locks instead

of a central lock and expressly teaches that such leg locks are preferable to other locking methods, for example, center locking methods such as those Tsai explicitly disparages. *Id.* at 5:3–5; *see also id.* at 2:12–25. Still further, the alleged inner units 3 of Tsai are “canopy supporting rods” and serve to hold up the canopy material and prevent sagging of that canopy material. *Id.* 4:19–22. These inner units do not provide meaningful structural support other than holding up the canopy, nor do they drive the folding/unfolding of the structure. In fact, Tsai is clear that the canopy support (and canopy support rods) are not directly pushed. *Id.* at 4:27–28 (stating “the canopy support need not be manually pushed to its unfolded orientation”). The entire unfolding and positioning is driven by the legs and outer units.

Thus, Tsai expressly teaches against incorporating central activation and teaches away from a device that can be moved from the folded state to the unfolded state by pushing the center bottom cap upwards to drive said plurality of inner retractable units outwardly, which causes said plurality of outer retractable units and said at least three supporting legs to extend outwards.

B. SUBSTITUTE CLAIM 16

Substitute dependent claim 16 includes the full limitations of challenged dependent claim 2, but recites the limitation wherein each said outer retractable

unit comprises three hinged X-shaped rod members, replaces a sliding sleeve ~~for~~ moving with a sliding sleeve that is moved, adds that the sliding sleeve is moved by said pushing of said center bottom cap, and adds the additional limitations that in said unfolded state, said first connecting rod extends upward from said center bottom cap to said first oblique top pipe to form a Y-shaped member.

1. THE OUTER RETRACTABLE UNITS ARE NOT TAUGHT

The '738 Patent teaches that the outer retractable unit 7 may comprise three hinged X-shaped rod members, Ex. 1001, 5:15–16; Ex. 2013, Page 7, ¶ 2 (lines 3–4), and depicts this embodiment, for example, in Figure 16 reproduced below:

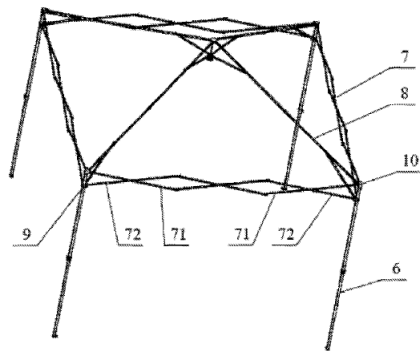
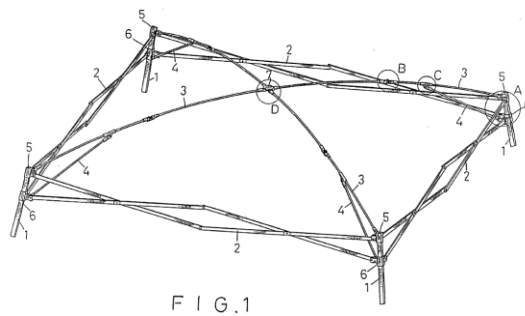


FIG 16

Ex. 1001, Figure 16.

Rousselle does not teach retractable outer units.

Tsai does not teach retractable outer units comprising three hinged X-shaped rod members. Tsai's primary embodiment only uses two alleged X-shaped rod members as shown in Figure 1 reproduced below:



Ex. 1005, Figure 1. Tsai's other embodiments rely on more complex arrangements using two scissors-type linkages along with an additional linking device. Ex. 1005, 9:29 through 10:15. This is significantly different and more complicated than the three hinged X-shaped rod members shown in the '738 Patent and recited in the substitute claim.

2. MOVEMENT OF THE SLIDING SLEEVE BY PUSHING THE CENTER BOTTOM CAP IS NOT TAUGHT

Neither reference teaches a structure where the sliding sleeve is moved by pushing of the center bottom cap. Further, as discussed above, Rousselle and Tsai would not be combined to arrive at a device intended to perform or capable of performing central activation. Thus, the references do not teach these limitations.

3. THE CONNECTING ROD EXTENDING UPWARD IS NOT TAUGHT

As shown in Figures 16 and 17 reproduced below, in embodiments of the '738 Patent, the first connecting rod 83 extends upward from the center bottom cap 32 to the first oblique top pipe 81 when the canopy is in the unfolded state.

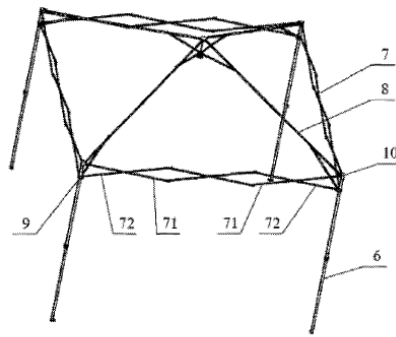


FIG. 16

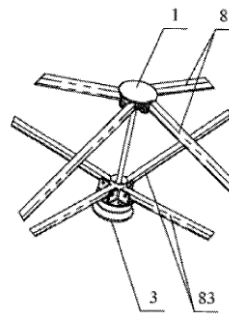


FIG. 17

Ex. 1001, Figs. 16, 17. As explained in the specification, this forms a “Y-shaped member.” Ex. 1001, 5:36–41; Ex. 2013, Page 7, ¶ 2 (continuing onto Page 8) (“In this embodiment, the first oblique top pipe 81 and the first connecting rod 83, as well as the second oblique top pipe 82 and the second connecting pipe 84, forms a Y-shaped member”).

Rousselle’s central lock does not use this structure in the unfolded state, i.e., Rousselle does not teach that when unfolded and locked, the first connecting rod extends upward from the center bottom cap to the first oblique top pipe to form a Y-shaped member. As shown in Figures 1A and 1C reproduced below, Rousselle’s alleged connecting rod extends downward toward the leg tube 310.

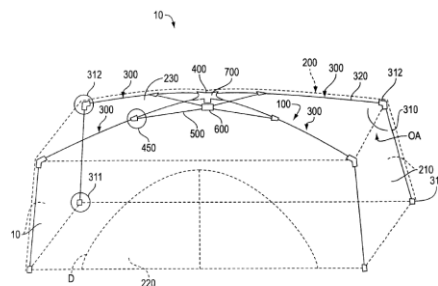


FIG. 1(A)

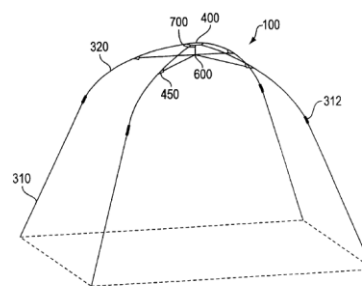


FIG. 1(C)

Ex. 1003, Figs. 1(A), 1(C). Similarly, Rousselle's other embodiments, such as that of Figure 18C shown below, also use an alleged connecting rod that extends downward toward the leg tube 310.

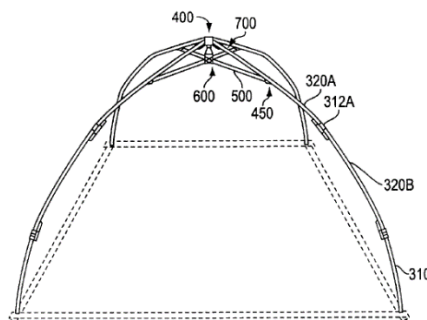
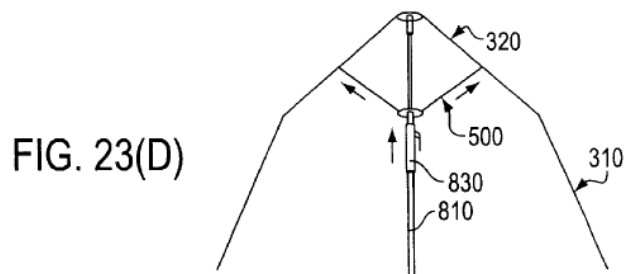


FIG. 18(A)

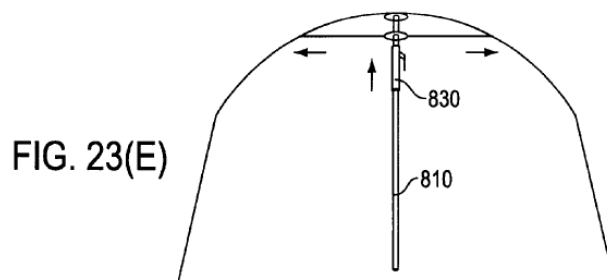
Ex. 1003, Figs. 18(A).

The horizontal or downward orientation of the alleged connecting rod in Rousselle does not provide the upward structural support in the unfolded state as does the connecting rod of Patent Owner's embodiments. As a result, a different force distribution is achieved with the connecting rod extending upwardly than with the alleged connecting rod of Rousselle extending horizontally or downward. A force distribution achieved without an upwardly extending connecting rod that forms a "Y-shape" with the first oblique top pipe (i.e. using a horizontal or downward extension of the alleged connecting rod of Rousselle) may be suitable for the curved roof structure of Rousselle's flexible umbrella tent when in the unfolded state. See Ex. 1003, Fig. 23(F).

However, modifying Rouselle's alleged connecting rod to extend upwardly instead of horizontally or downwardly to provide further upward structural support would simply not be considered by a person having ordinary skill in the art. At a point during the unfolding process of the Rouselle tent, the alleged connecting rod (i.e. center tubes 500) extends upwardly:



Ex. 1003, Fig. 23(D). However, the lower clevis 600 must be further moved upwardly into contact with the upper clevis 400, causing the center tubes 500 to extend horizontally or downwardly in the unfolded state:



Ex. 1003, Fig. 23(E). As shown in Figure 23(E), the upper clevis 400 and lower clevis 600 are connected and the tent is in the unfolded state, with the center tubes 500 extending horizontally or downwardly – but not upwardly. Prematurely

halting the unfolding process at a point where the center tubes 500 extend upwardly would result in the upper clevis 400 and the lower clevis 600 not being locked together, frustrating the purpose of Rousselle's central lock and obviating its inclusion.

Thus, Rousselle does not show, and one of skill in the art would not be taught to use, a first connecting rod that extends upward from the center bottom cap to the first oblique top pipe to form a Y-shaped member when the canopy is in the unfolded state.

Further, Tsai does not teach a central lock nor a first connecting rod extending from a center bottom cap and cannot teach these limitations.

C. SUBSTITUTE CLAIMS 17–19

Substitute dependent claims 17–19 amend the dependency of the respective claim to the appropriate substitute claim. No other amendments are presented.

VIII. CONCLUSION

Patent Owner respectfully requests that, should claims 1 or 2 of the '738 Patent be found to be unpatentable, the Board grant this Contingent Motion to Amend with respect to the corresponding substitute claim(s). Should the challenged claims be upheld as patentable, Patent Owner respectfully requests that this Contingent Motion to Amend not be considered.

Case IPR2023-00580
Patent No. 10,669,738

Respectfully submitted,

Date: November 13, 2023

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IX. CLAIMS APPENDIX

1–14. (Unchanged)

15. (Proposed Substitute for Claim 1) A collapsible canopy frame, comprising:
- A. at least three supporting legs,
 - B. a plurality of outer retractable units, each outer retractable unit connected between two adjacent supporting legs, each said outer retractable unit comprises a plurality of hinged X-shaped rod members, each X-shaped rod member comprises a first eave pipe and second eave pipe hinged to one another,
 - C. a plurality of inner retractable units comprising inner ends, each inner retractable unit connected to a supporting leg, wherein said outer retractable units and said inner retractable units form a roof of said collapsible canopy frame, and
 - D. a central lock, comprising:
 - 1. a center top cap,
 - 2. a center bottom cap,
 - 3. a center pole positioned between said center top cap and said center bottom cap, wherein said central lock is locked when said center pole is connected to both said center top cap and said center bottom cap, and wherein said center lock is unlocked when there is a disconnection between said center bottom cap and said center pole, wherein said central lock locks said collapsible canopy frame in an unfolded state when said central lock is locked and permits said collapsible canopy frame to be folded into a folded state when said central lock is unlocked, wherein said inner ends of said inner retractable units are connected through said central lock, and

4. a locking piece received in said center bottom cap, wherein said center bottom cap comprises a bottom cap seat and a bottom cap cover that are connected to one another, a receiving chamber is provided in said center bottom cap at a junction between said bottom cap seat and said bottom cap cover, and wherein said locking piece is located within said receiving chamber and between said bottom cap cover and said bottom cap seat; wherein said collapsible canopy frame is moved to said unfolded state by pushing said center bottom cap upwards to drive said plurality of inner retractable units outwardly, which causes said plurality of outer retractable units and said at least three supporting legs to extend outwards, until said center bottom cap is connected with said center top cap.

16. (Proposed Substitute for Claim 2) The collapsible canopy frame according as in claim [[1]] 15, wherein each said outer retractable unit comprises three hinged X-shaped rod members, and wherein: each said supporting leg comprises a sliding sleeve that is moved for moving along a length direction of said respective supporting leg by said pushing of said center bottom cap, an upper end of each said supporting leg is fixed with a fixed joint, each said inner retractable unit comprises a first oblique top pipe and a second oblique top pipe hinged to one another, said first oblique top pipe is hinged with a first connecting rod, said second oblique top pipe is hinged with a second connecting rod, an inner end of said first oblique top pipe is hinged with a center top cap of said central lock, an inner end of said first connecting rod is hinged with a center bottom cap of said central lock, and, in said unfolded state, said first connecting rod extends upward from said center bottom cap to said first oblique top pipe to form a Y-shaped member, an outer end of a

first eave pipe and an outer end of said second oblique top pipe are hinged with said fixed joint, an outer end of said second eave pipe and an outer end of said second connecting rod are hinged with said sliding sleeve.

17. (Proposed Substitute for Claim 4) The collapsible canopy frame as in claim [[1]] 15, where said central lock further comprises: a locking piece capable of moving back and forth along a radial direction of said center pole, wherein said locking piece is received in said center bottom cap, a first through hole through which said center pole can pass through is provided in said locking piece, and an end portion of said center pole is provided with a clamping groove and a clamp locking part located at the lower end of said clamping groove; when said central lock is in a locked state, part of an inner wall of said first through hole of said locking piece is clamped with said clamping groove of said center pole, and an upper end surface of said clamp locking part abuts against a lower end surface of said locking piece; and when said central lock is in said unlocked state, said inner wall of said first through hole of said locking piece is separated from said clamping groove and said clamp locking part can pass through said first through hole.

18. (Proposed Substitute for Claim 13) The collapsible canopy frame as in claim [[4]] 17, wherein: said first through hole comprises a clamping hole part and a through hole part arranged side by side, said clamping hole part has a diameter not smaller than that of said clamping groove, said through hole part has a diameter greater than that of said clamp locking part.

19. (Proposed Substitute for Claim 14) The collapsible canopy frame as in claim [[4]] 17, wherein: said clamping groove is an annular groove, an end portion of said clamp locking part is provided with a guide part of a semispherical shape or a conical shape with a gradually decreased diameter.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the Patent Owner's
Contingent Motion to Amend is being served on November 13, 2023, via email
directed to counsel of record for the Petitioner at the following:

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