

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF GEORGIA
ATLANTA DIVISION**

ATLEISURE, LLC,

Plaintiff,

v.

TREASURE GARDEN, INC.,

Defendant.

Case No. 1:24-cv-02270-TWT

**DEFENDANT TREASURE GARDEN, INC.'S NONINFRINGEMENT CONTENTIONS,
INVALIDITY CONTENTIONS, AND ACCOMPANYING DOCUMENT PRODUCTION**

Pursuant to NDGA Patent L.R. 4.2, 4.3, and 4.4, Defendant Treasure Garden, Inc. (“Treasure Garden”) hereby serves the following Response to Infringement Contentions for Claims, 1, 5, 6, and 7 (“the Asserted Claims”) of U.S. Patent No. 8,104,492 (the “’492 Patent”) identified by Plaintiff ATLeisure, LLC (“ATLeisure”) together with Treasure Garden’s Invalidity Contentions and identification of certain prior art relied upon by Treasure Garden and the accompanying document production.

I. PRELIMINARY STATEMENT AND RESERVATION OF RIGHTS

This disclosure is directed to invalidity and non-infringement issues only and does not address enforceability issues. Treasure Garden reserves all rights regarding such issues. This Response to Infringement Contentions and Invalidity Contentions is preliminary and is based on Treasure Garden’s knowledge, understanding, and belief of the facts and information available to it at the time of service. Discovery is ongoing and the Court has not yet construed the Asserted

Claims. Accordingly, in accordance with NDGA Patent L.R. 4.5, Treasure Garden reserves the right to modify or supplement this Response to Infringement Contentions and Invalidity Contentions at a later time with information later discovered and/or in response to the Court's claim construction.

In addition, the deadline for disclosure of expert opinions is set for a date in the future. Accordingly, Treasure Garden reserves the right to modify or supplement this response and disclosure in accordance with the opinions of experts. Further, Treasure Garden incorporates by reference herein each expert witness disclosure served by Treasure Garden in this case.

This Response to Infringement Contentions and Invalidity Contentions is directed to the claims identified by Plaintiff in its Infringement Contentions and served on Treasure Garden on August 23, 2024. The claims are Claims, 1, 5, 6, and 7 of U.S. Patent No. 8,104,492. Treasure Garden reserves the right to amend its Response to Infringement Contentions and Invalidity Contentions based on without limitation: (i) information provided by ATLeisure concerning its infringement allegations, theories, contentions, or facts supporting them; (ii) information provided by ATLeisure concerning the priority, conception, and reduction to practice dates for any of the Asserted Claims; (iii) any additional information provided by ATLeisure; (iv) any change by ATLeisure in the claims it is asserting (provided the Court allows any such modifications to the Asserted Claims); (v) additional prior art obtained through discovery, including without limitation discovery from ATLeisure or from third parties; (vi) the Court's claim construction order; and/or (vii) any other basis in law or in fact.

The exhibits to these Response to Infringement Contentions and Invalidity Contentions contain claim charts citing particular teachings and/or disclosures of certain prior art references. However, persons having ordinary skill in the art at the time of each respective patent's effective

filing date may view an item of prior art in view of other publications, literature, products, and their understanding. The cited portions are only examples, and Treasure Garden reserves the right to rely on uncited portions of the prior art references, other publications, and testimony, including expert testimony, to establish bases for combination of certain cited references that render the asserted claim of each respective asserted patent anticipated or obvious.

II. TREASURE GARDEN'S RESPONSE TO ATLEISURE'S INFRINGEMENT CONTENTIONS

Treasure Garden's claim charts, supporting its denial that any of the Asserted Claims is infringed by the Accused Products, as required under Patent L.R. 4.2(a)(1), are attached as Exhibits 1-7. Treasure Garden further reserves the right to supplement, amend, or materially modify these contentions based on, the Court's claim construction, any modification to the infringement position taken by ATLeisure, or ATLeisure's response or supplemental responses to Treasure Garden's discovery requests.

A. Objection to Identification of ProShade and Allen + Roth Products

Treasure Garden objects to ATLeisure's inclusion of the following products in ATLeisure's identification of accused products: "ProShade: [https://www.costco.com/proshade-10ftsquare-led-wood-look-cantilever-umbrella-with-rolling base.product.4000077543.html](https://www.costco.com/proshade-10ftsquare-led-wood-look-cantilever-umbrella-with-rolling-base.product.4000077543.html)" and "Allen + Roth: [https://www.lowes.com/pd/allenroth-10-ft Boulder-Solar-Powered-Cantilever-Patio-Umbrella-with Base/5013581835?idProductFound=false&idExtracted=true](https://www.lowes.com/pd/allenroth-10-ft-Boulder-Solar-Powered-Cantilever-Patio-Umbrella-with-Base/5013581835?idProductFound=false&idExtracted=true)." Treasure Garden does not make, use, sell, offer for sale, or import these products. Additionally, ATLeisure's infringement contentions fail to comply with NDGA Patent L.R. 4.1(b)(3) which requires a "chart identifying specifically where each element of each asserted claim is found within each Accused Instrumentality." ATLeisure did not provide any charts for these products.

B. Priority Date of the '492 Patent

Treasure Garden disputes ATLeisure's contention that the Asserted Claims can claim priority to the May 5, 2008 filing date of provisional application no. 61/050,353. Non-provisional application no. 12/435,640 filed May 5, 2009, which matured into the '492 Patent, contains substantial new matter — including a new locking means cam structure — that was not included in the provisional application. This new matter changed the scope of all issued claims.

III. TREASURE GARDEN'S INVALIDITY CONTENTIONS

A. Identification of Each Item of Prior Art

Treasure Garden identifies the following items of prior art that anticipate and/or render obvious each of the Asserted Claims. Further, Treasure Garden identifies and incorporates herein by reference: (1) all prior art references identified during prosecution of the '492 Patent including the references cited on the face of the '492 Patent; (2) the admitted prior art references in the '492 Patent's specification; (3) references cited during prosecution of the '492 Patent; (4) references cited in any proceeding before the USPTO regarding the '492 Patent; and (5) references cited in any invalidity contentions submitted in any current or prior action or proceeding involving the '492 Patent.

1. Patents and Printed Publications

- Chinese Utility Model Patent No. CN 201076109Y (“Wang ’109”) (Appl. No. No. ZL 200720183886.3), which issued on June 25, 2008;
- Chinese Utility Model Patent No. CN 201197439Y (“Wang ’439”) (Appl. No. ZL 200820088054.8), which issued on February 25, 2009;
- Chinese Utility Model Patent No. CN 01207982Y (“Wu ’982”) (Appl. No. ZL 200820120192.X), which issued on March 18, 2009;

- Chinese Utility Model Patent No. CN 201001460Y (“Wang ’460”) (Appl. No. ZL 200720106096.5), which issued on January 9, 2008;
- Chinese Utility Model Patent No. CN 1208009C (“Chen ’009”) (Appl. No. ZL 02160666.8), which issued on June 29, 2005;
- U.S. Patent No. 6,478,037 (“Tung ’037”), which issued on November 12, 2002;
- U.S. Patent No., 7,886,755 (“Tung ’755”), which issued on February 15, 2011 and was filed on February 24, 2009;
- U.S. Patent No. 7,156,114 (“Lo ’114”), which issued on January 2, 2007;
- U.S. Design Patent No. D609,453 (Liu ’453) issued on February 9, 2010 and was filed on May 2, 2008;
- U.S. Patent No. 6,014,980 (“Glatz ’980”), which issued on January 18, 2000;
- U.S. Patent No. 6,321,763 (“Ma ’763”), which issued on November 27, 2001.
- U.S. Patent No. 6,196,242 (“Xu ’242”), which issued on March 6, 2001;
- U.S. Patent No. 7,341,068 (“Liu ’068”), which issued on March 11, 2008 and was filed on September 17, 2004;
- US Patent No. 5,284,171 (“Liu ’171”), which issued on February 8, 1994;
- U.S. Patent No. 4,619,281 (“Redl ’281”), which issued on October 28, 1986;
- U.S. Patent No. 2,747,591 (“Ogden ’591”), which issued on May 29, 1956;
- U.S. Patent No. 5,937,882 (“Harbaugh ’882”), which issued on August 17, 1999;
- U.S. Patent No. 7,398,790 to Glatz (“Glatz ’790”), which issued on July 15, 2008 and was filed as a PCT application on July 9, 2004.
- U.S. Patent Application No. 2008/0236640 (“Huali ’640”), which was filed on March 28, 2008 and published on October 2, 2008;

- U.S. Patent Application No. 2006/0081277 (“Liu ’277”), which was filed on September 17, 2004 and published on April 20, 2006;
- German Patent Application Publication No. DE20014895U1 (“Bertola ’895”), which was published on November 16, 2001;
- European Patent Application No. EP1602297A1 (“Ma ’297”), which published on December 7, 2005.

The prior art references may disclose or otherwise include the elements of the Asserted Claims of the ’492 Patent, either explicitly, inherently, or via an obvious modification or combination of the prior art references and may also be relied upon to show the state of the art during the relevant timeframes.

Additionally, to the extent they qualify as prior art, Treasure Garden reserves the right to rely upon: (1) foreign counterparts (patents and/or published patent applications) of the U.S. patents and/or publications identified in these contentions; (2) U.S. counterparts (patents and/or published patent applications) of foreign patents and/or foreign patent publications identified in these contentions; (3) prior art activities discussed in, or related to, patents and/or publications identified in these contentions; (4) activities or other work performed by the named inventor(s), author(s), or assignee(s) of the patents and/or publications identified in these contentions; and (5) U.S. and foreign patents and published patent applications corresponding to products and publications identified in these contentions.

2. Prior Art Products

Upon information and belief, Treasure Garden identifies the following products that were on sale, in public use, and/or were publicly known in the United States as prior art references.

- Yotrio Product Related to Model No. YJAF-018 which was in use/sold from at least April 13, 2008 by Yvone Gong and Representatives of Yotrio Group Co., Ltd. to Cameron Hoover and Judy Gripenstraw of PSI Sales/Orchard Supply and to representatives of Yotrio Corp. (U.S.) and which was in use/sold from at least February 20, 2008 by Candace Lin or Joy Zhu and Representatives of Yotrio Group Cp., Ltd. to Jeff Willaims, First Choice Global Marketing, Target Corporation, and to the representatives of Yotrio Corp. (U.S.).

B. Statement as to Anticipation or Obviousness

The charts in Exhibits 8-18 set forth whether each prior art reference anticipates or renders obvious each of the Asserted Claims. For each obviousness combination identified, these charts also set forth the motivation to combine each specific combination of prior art references.

1. Prior Art References that Anticipate the Asserted Claims

Treasure Garden identifies at least the following patents and printed publications as prior art references that anticipate the Asserted Claims of the '492 Patent under pre-AIA 35 U.S.C. §§ 102(a), (b), and/or 102(e).

- Wang '109 (see Ex. 8)
- Wang '439 (see Ex. 9)
- Wu '982 (see Ex. 10)
- Tung '755 (see Ex. 11)
- Yotrio Product Related to Model No. YJAF-018 (see Ex. 12)

2. Prior Art References that Render the Asserted Claims Obvious

Below, Treasure Garden identifies exemplary combinations of references that render the Asserted Claims obvious. These exemplary combinations should not be construed to suggest that any reference or sub-combination of references included in these combinations would not alone

have rendered the Asserted Claims obvious or anticipated. The provided combinations are not exhaustive. Treasure Garden reserves the right to rely on additional or alternative obviousness combinations, particularly after the court construes the Asserted Claims and as Treasure Garden's investigation continues.

- Wang '109 in view of Liu '171 for Claims 1, 5, 6, and 7 of the '492 Patent (see Ex. 8)
- Chen '009 in view of Wang '460 or Huali '640 for Claims 1, 6, and 7 of the '492 Patent (see Ex. 13)
- Chen '009 in view of Wang '460 or Huali '640 and in further view of Liu '453, Bertola '895, or Glatz '790 for Claim 5 of the '492 Patent (see Ex. 13)
- Lo '114 in view of Wang '460 or Huali '640 and in further view of Liu '171 for Claims 1 and 7 of the '492 Patent (see Ex. 14)
- Lo '114 in view of Wang '460 or Huali '640 and in further view of Liu '171 and in further view of Liu '453, Bertola '895, or Glatz '790 for Claim 5 of the '492 Patent (see Ex. 14)
- Lo '114 in view of Wang '460 or Huali '640 and in further view of Liu '171 and in further view of Xu '242 for Claim 6 of the '492 Patent (see Ex. 14)
- Liu '453 in view of Wang '460 or Huali '640 and in further view of Liu '171 or Redl '271 or Ogden '591 for Claims 1, 5, and 7 of the '492 Patent (see Ex. 15)
- Liu '453 in view of Wang '460 or Huali '640 or Redl '271 or Ogden '591 and in further view of Liu '171 and in further view of Chen '009, Xu '242, or Glatz '980 for Claim 6 of the '492 Patent (see Ex. 15)
- Liu '068 in view of Wang '460 or Huali '640 and in further view of Liu '171 for Claims 1 and 7 of the '492 Patent (see Ex. 16)

- Liu '068 in view of Wang '460 or Huali '640 and in further view of Liu '171 and in further view of Liu '453, Bertola '895, or Glatz '790 for Claim 5 of the '492 Patent (see Ex. 16)
- Liu '068 in view of Wang '460 or Huali '640 and in further view of Liu '171 and in further view of Xu '242 or Chen '009 for Claim 6 of the '492 Patent (see Ex. 16)
- Glatz '980 in view of Wang '460 or Huali '640 for Claims 1, 6, and 7 of the '492 Patent (see Ex. 17)
- Glatz '980 in view of Wang '460 or Huali '640 or Redl '271 or Ogden '591 and in further view of Liu '453, Bertola '895, or Glatz '790 for Claim 5 of the '492 Patent (see Ex. 17)
- Ma '763 in view of Ma '297 and in further view of Wang '460, Tung '037, Liu '171, or Harbaugh '882 for Claim 1, 5, 6, and 7 of the '492 Patent (see Ex. 18)

3. Motivations to Combine

In *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007), the Supreme Court emphasized that inventions arising from ordinary innovation, ordinary skill, or common sense should not be patentable. *Id.* at 1732, 1738, 1742- 43, 1746. A patent claim is obvious if the combination of elements was obvious to try or there existed at the time of the invention a known problem for which there was an obvious solution encompassed by the patent's claims. If a person of ordinary skill can implement a predictable variation, 35 U.S.C. § 103 bars its patentability.

Because the alleged inventions claimed in the Asserted Claims of the '492 Patent simply arrange old elements from the prior art with each performing the same function it had been known to perform and yield no more than what one would expect from such an arrangement, the prior art combinations render the Asserted Claims obvious. The identified prior art references, including portions cited in the attached charts at Exhibits 13-18, address the same or similar technical issues and suggest the same or similar solutions to those issues alleged to be addressed by the inventions

claimed in the Asserted Claims. One of ordinary skill in the art would understand that the features and functionality disclosed in these prior art references describe the limited number of identified solutions that would have been useful in conjunction with other references to provide the known benefits associated with those features and functions. One of ordinary skill in the art would have known that it would have been feasible to combine these features with other prior art references to achieve predictable results.

A person of ordinary skill would have been motivated to combine the identified prior art based on the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. Further, in the prior art, there were well-recognized design needs and desires and market pressures to develop the features claimed in the Asserted Claims. Such factors provided ample reason to combine the prior art elements as set forth in the charts in Exhibits 13-18. *See KSR*, 127 S. Ct. at 1742. Treasure Garden will further elaborate on the motivations to combine the prior art, including through reliance on expert testimony, at the appropriate later stage of this lawsuit.

Treasure Garden also hereby incorporates by reference the statements and reasoning set forth by the Examiner during prosecution of the '492 Patent as to why it would have been obvious to modify or combine references to achieve the limitations of the Asserted Claims. In addition to the prior art in the attached charts, Treasure Garden also relies on the "Background of the Invention" and other relevant portions of the Asserted Patent as well as the prosecution history of the Asserted Patent, including the references cited during prosecution.

C. Charts Identifying Where in Each Prior Art Reference Each Element is Found

Attached hereto as Exhibits 8-18 are charts identifying where specifically in each identified item of prior art, each limitation of each of the Asserted Claims is found. Each prior art reference

identified in the charts in Exhibits 8-18 for the '492 Patent may be combined with the other prior art references in the same way or any of the other charts in Exhibits 8-18 to render obvious the Asserted Claims in combination. Prior art disclosures also may be combined with information known to persons skilled in the art at the time of the alleged invention and understood and supplemented in view of the common sense of persons skilled in the art at the time of the alleged invention.

Treasure Garden has endeavored to cite the most relevant portions of the identified prior art. However, other portions of the identified prior art may additionally disclose, either expressly or inherently, and/or render obvious, either alone or in the identified combinations, one or more elements or limitations of the Asserted Claims. Treasure Garden reserves the right to rely on uncited portions of the identified prior art to establish the invalidity of the Asserted Claims. Treasure Garden also reserves the right to rely on expert testimony to provide context to, or aid in understanding, the cited portions of the identified prior art.

As the Court has not yet construed the Asserted Claims, Treasure Garden reserves the right to identify other prior art and to supplement, modify, or otherwise amend its patent disclosures and invalidity contentions as necessary following claim construction by the Court. Further, Treasure Garden's identification of prior art is not to be taken as an admission as to the proper construction of any claim term, and Treasure Garden expressly reserves the right to adopt claim constructions inconsistent with the claim charts attached hereto. Treasure Garden's identification of prior art should not be construed as foreclosing any argument(s) during the claim construction phase of this case.

D. Invalidity of Asserted Claims under 35 U.S.C. § 112

Treasure Garden identifies below grounds upon which it presently contends the Asserted Claims of the '492 Patent are invalid for failure to meet one or more of the requirements of 35 U.S.C. § 112. Treasure Garden has not yet taken any depositions related to these issues, and this Court has not yet construed the Asserted Claims. Treasure Garden specifically reserves the right to amend and/or supplement its invalidity contentions to identify additional grounds for invalidity based on a failure to comply with the requirements of 35 U.S.C. § 112 as discovery progressed and after the Court's claim construction.

Section 112 includes a definiteness requirement. *See* 35 U.S.C. § 112, ¶ 2 (“The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.”). Claims that depend from claims that are indefinite inherit the indefiniteness of the claims from which they depend and are also indefinite.

Treasure Garden contends that Claim 1 of the '492 Patent is indefinite due to the inclusion of the limitations “lower and upper locations” and “the angle.”

IV. DOCUMENT PRODUCTION

Treasure Garden is producing herewith copies of the references identified herein. Treasure Garden reserves the right to identify and produce additional documents.

September 23, 2024

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TREASURE GARDEN, INC.

EXHIBIT 1

Exhibit 1: Non-Infringement Chart for the Starlux AKZ Plus Cantilever

No.	Claim Limitation	Non-Infringement
Claim 1		
1 [preamble]	An umbrella comprising:	
1[a]	a main pole having a lower end for support by a support surface and extending generally upward to an upper end;	Treasure Garden Inc. (“Treasure Garden”) acknowledges that the Starlux AKZ Plus Cantilever (the “Accused Product”) includes a “main pole having a lower end for support by a support surface and extending generally upward to an upper end.”
1[b]	a sliding member associated with the main pole and selectably moveable thereon between lower and upper locations along the main pole;	Treasure Garden acknowledges that the Accused Product includes a “sliding member associated with the main pole and selectably moveable thereon between lower and upper locations along the main pole.”
1[c]	locking means for releasably securing the sliding member to the main pole at a selected location along the main pole;	Treasure Garden denies that the Accused Product includes this limitation. The Accused Product does not have a “locking means” as disclosed and claimed in the ‘492 Patent. Instead, the Accused Product has a spring-loaded button in connection with a locking pin and locking teeth.

No.	Claim Limitation	Non-Infringement
		 Spring-loaded button with locking pin and locking teeth Main Pole Squeeze grip handle to disengage from track  Release grip handle to lock into place

No.	Claim Limitation	Non-Infringement
1[d]	an umbrella canopy having a central region;	Treasure Garden acknowledges that the Accused Product includes an “umbrella canopy having a central region.”
1[e]	an arm associated with the central region and extending radially therefrom to an outer end operatively associated with the sliding member;	Treasure Garden acknowledges that the Accused Product includes an “an arm associated with the central region and extending radially therefrom to an outer end operatively associated with the sliding member.”
1[f]	a brace having a first end pivotably attached to an upper portion of the pole above the sliding member and a second end pivotably attached to the arm;	Treasure Garden acknowledges that the Accused Product includes a “brace having a first end pivotably attached to an upper portion of the pole above the sliding member and a second end pivotably attached to the arm.”
1[g]	a winding mechanism having a winder hub around which a line can be wound, the winder hub being mounted to the sliding member and movable therewith;	Treasure Garden denies that the Accused Product includes this limitation. The Accused Product includes a “winding mechanism having a winder hub around which a line can be wound.” However, Treasure Garden denies that the winder hub in the Accused Product is “mounted to the sliding member and movable therewith.” In the Accused Product, the winder hub is mounted to the arm.

No.	Claim Limitation	Non-Infringement
		The 'Non-Infringement' column contains three photographs of mechanical components, each with red leader lines pointing to specific parts labeled in white boxes: Top Left: A black, cylindrical component. A label 'Arm' points to the upper section, and a label 'Winding Mechanism' points to the lower, more complex section. Top Right: A disassembled view of a mechanical assembly. Labels include 'Arm' pointing to the upper housing, 'Winding Mechanism' pointing to the internal gear-like structure, and 'Winder Hub' pointing to the central circular component at the bottom. Bottom: A close-up of a mechanical joint. Labels include 'Sliding Member' pointing to a horizontal component, 'Arm' pointing to a curved, bracket-like part, and 'Winding Mechanism' pointing to a small, circular component at the bottom.

No.	Claim Limitation	Non-Infringement
1[h]	a line having a first end that winds around the winder hub, an intermediate portion extending from the winder hub along the arm to the umbrella canopy, and a second end that engages the umbrella canopy;	Treasure Garden acknowledges that the Accused Product includes “a line having a first end that winds around the winder hub, an intermediate portion extending from the winder hub along the arm to the umbrella canopy, and a second end that engages the umbrella canopy.”
1[i]	wherein rotation of the winder hub tensions or relaxes the line depending upon the direction of rotation of the winder hub, and	Treasure Garden acknowledges that “rotation of the winder hub” in the Accused Product “tensions or relaxes the line depending upon the direction of rotation of the winder hub.”
1[j]	wherein operation of the winding mechanism to apply tension to the line opens and closes the umbrella canopy in response to movement of the line; and	Treasure Garden acknowledges that the “operation of the winding mechanism in the Accused Product to apply tension to the line opens and closes the umbrella canopy in response to movement of the line.”
1[k]	wherein the angle of the umbrella canopy with respect to the main pole can be	Treasure Garden acknowledges that an “angle of the umbrella canopy with respect to the main pole in the Accused Product can be controlled by moving the sliding member along the main pole.”

No.	Claim Limitation	Non-Infringement
	controlled by moving the sliding member along the main pole.	
Claim 5		
5	The umbrella of claim 1, wherein the sliding member has a handle associated therewith	Treasure Garden acknowledges that the Accused Product includes a “sliding member that has a handle associated therewith.”
Claim 6		
6	The umbrella of claim 1, wherein the line extends along at least substantially the entire length of the arm.	Treasure Garden acknowledges that the Accused Product includes a “line that extends along at least substantially the entire length of the arm.”
Claim 7		
7	The umbrella of claim 1, further comprising a crank handle operatively associated with the winder hub, whereby rotating the crank handle causes the winder hub to rotate.	Treasure Garden acknowledges that the Accused Products includes a “crank handle operatively associated with the winder hub, whereby rotating the crank handle causes the winder hub to rotate.”

EXHIBIT 2

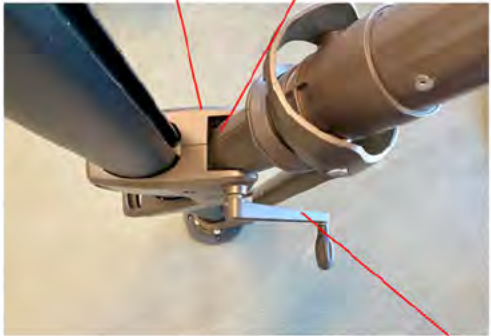
Exhibit 2: Non-Infringement Chart for the AKZP13 Plus Cantilever

No.	Claim Limitation	Non-Infringement
Claim 1		
1 [preamble]	An umbrella comprising:	
1[a]	a main pole having a lower end for support by a support surface and extending generally upward to an upper end;	Treasure Garden Inc. (“Treasure Garden”) acknowledges that the AKZP13 Plus Cantilever (the “Accused Product”) includes a “main pole having a lower end for support by a support surface and extending generally upward to an upper end.”
1[b]	a sliding member associated with the main pole and selectably moveable thereon between lower and upper locations along the main pole;	Treasure Garden acknowledges that the Accused Product includes a “sliding member associated with the main pole and selectably moveable thereon between lower and upper locations along the main pole.”
1[c]	locking means for releasably securing the sliding member to the main pole at a selected location along the main pole;	Treasure Garden denies that the Accused Product includes this limitation. The Accused Product does not have a “locking means” as disclosed and claimed in the ‘492 Patent. Instead, the Accused Product has a spring-loaded button in connection with a locking pin and locking teeth.

No.	Claim Limitation	Non-Infringement
		 Spring-loaded button with locking pin and locking teeth Main Pole Squeeze grip handle to disengage from track  Release grip handle to lock into place

2- AKZP13 PLUS CANTILEVER

No.	Claim Limitation	Non-Infringement
1[d]	an umbrella canopy having a central region;	Treasure Garden acknowledges that the Accused Product includes an “umbrella canopy having a central region.”
1[e]	an arm associated with the central region and extending radially therefrom to an outer end operatively associated with the sliding member;	Treasure Garden acknowledges that the Accused Product includes an “an arm associated with the central region and extending radially therefrom to an outer end operatively associated with the sliding member.”
1[f]	a brace having a first end pivotably attached to an upper portion of the pole above the sliding member and a second end pivotably attached to the arm;	Treasure Garden acknowledges that the Accused Product includes a “brace having a first end pivotably attached to an upper portion of the pole above the sliding member and a second end pivotably attached to the arm.”
1[g]	a winding mechanism having a winder hub around which a line can be wound, the winder hub being mounted to the sliding member and movable therewith;	Treasure Garden denies that the Accused Product includes this limitation. The Accused Product includes a “winding mechanism having a winder hub around which a line can be wound.” However, Treasure Garden denies that the winder hub in the Accused Product is “mounted to the sliding member and movable therewith.” In the Accused Product, the winder hub is mounted to the arm.

No.	Claim Limitation	Non-Infringement
		 Arm Winding Mechanism  Arm Winding Mechanism Winder Hub  Sliding Member Arm Winding Mechanism

4- AKZP13 PLUS CANTILEVER

No.	Claim Limitation	Non-Infringement
1[h]	a line having a first end that winds around the winder hub, an intermediate portion extending from the winder hub along the arm to the umbrella canopy, and a second end that engages the umbrella canopy;	Treasure Garden acknowledges that the Accused Product includes “a line having a first end that winds around the winder hub, an intermediate portion extending from the winder hub along the arm to the umbrella canopy, and a second end that engages the umbrella canopy.”
1[i]	wherein rotation of the winder hub tensions or relaxes the line depending upon the direction of rotation of the winder hub, and	Treasure Garden acknowledges that the “rotation of the winder hub in the Accused Product tensions or relaxes the line depending upon the direction of rotation of the winder hub.”
1[j]	wherein operation of the winding mechanism to apply tension to the line opens and closes the umbrella canopy in response to movement of the line; and	Treasure Garden acknowledges that the “operation of the winding mechanism in the Accused Product to apply tension to the line opens and closes the umbrella canopy in response to movement of the line.”
1[k]	wherein the angle of the umbrella canopy with respect to the main pole can be	Treasure Garden acknowledges that an “angle of the umbrella canopy with respect to the main pole in the Accused Product can be controlled by moving the sliding member along the main pole.”

No.	Claim Limitation	Non-Infringement
	controlled by moving the sliding member along the main pole.	
Claim 5		
5	The umbrella of claim 1, wherein the sliding member has a handle associated therewith	Treasure Garden acknowledges that the Accused Product includes a “sliding member with a handle associated therewith.”
Claim 6		
6	The umbrella of claim 1, wherein the line extends along at least substantially the entire length of the arm.	Treasure Garden acknowledges that the Accused Product includes a “line extending along at least substantially the entire length of the arm.”
Claim 7		
7	The umbrella of claim 1, further comprising a crank handle operatively associated with the winder hub, whereby rotating the crank handle causes the winder hub to rotate.	Treasure Garden acknowledges the Accused Products includes a “crank handle operatively associated with the winder hub, whereby rotating the crank handle causes the winder hub to rotate.”

EXHIBIT 3

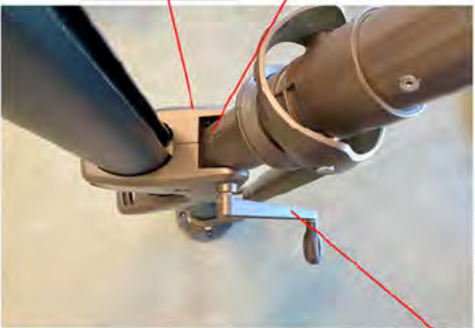
Exhibit 3: Non-Infringement Chart for the AKZPRT Plus Cantilever

No.	Claim Limitation	Non-Infringement
Claim 1		
1 [preamble]	An umbrella comprising:	
1[a]	a main pole having a lower end for support by a support surface and extending generally upward to an upper end;	Treasure Garden Inc. (“Treasure Garden”) acknowledges that the AKZPRT Plus Cantilever (the “Accused Product”) includes a “main pole having a lower end for support by a support surface and extending generally upward to an upper end.”
1[b]	a sliding member associated with the main pole and selectably moveable thereon between lower and upper locations along the main pole;	Treasure Garden acknowledges that the Accused Product includes a “sliding member associated with the main pole and selectably moveable thereon between lower and upper locations along the main pole.”
1[c]	locking means for releasably securing the sliding member to the main pole at a selected location along the main pole;	Treasure Garden denies that the Accused Product includes this limitation. The Accused Product does not have a “locking means” as disclosed and claimed in the ‘492 Patent. Instead, the Accused Product has a spring-loaded button in connection with a locking pin and locking teeth.

No.	Claim Limitation	Non-Infringement
		 Spring-loaded button with locking pin and locking teeth Main Pole Squeeze grip handle to disengage from track  Release grip handle to lock into place

2- AKZPRT PLUS CANTILEVER

No.	Claim Limitation	Non-Infringement
1[d]	an umbrella canopy having a central region;	Treasure Garden acknowledges that the Accused Product includes an “umbrella canopy having a central region.”
1[e]	an arm associated with the central region and extending radially therefrom to an outer end operatively associated with the sliding member;	Treasure Garden acknowledges that the Accused Product includes an “an associated with the central region and extending radially therefrom to an outer end operatively associated with the sliding member.”
1[f]	a brace having a first end pivotably attached to an upper portion of the pole above the sliding member and a second end pivotably attached to the arm;	Treasure Garden acknowledges that the Accused Product includes a “brace having a first end pivotably attached to an upper portion of the pole above the sliding member and a second end pivotably attached to the arm.”
1[g]	a winding mechanism having a winder hub around which a line can be wound, the winder hub being mounted to the sliding member and movable therewith;	Treasure Garden denies that the Accused Product includes this limitation. The Accused Product includes a “winding mechanism having a winder hub around which a line can be wound.” However, Treasure Garden denies that the winder hub in the Accused Product is “mounted to the sliding member and movable therewith.” In the Accused Product, the winder hub is mounted to the arm.

No.	Claim Limitation	Non-Infringement
		 Arm Winding Mechanism  Arm Winding Mechanism Winder Hub  Sliding Member Arm Winding Mechanism

4- AKZPRT PLUS CANTILEVER

No.	Claim Limitation	Non-Infringement
1[h]	a line having a first end that winds around the winder hub, an intermediate portion extending from the winder hub along the arm to the umbrella canopy, and a second end that engages the umbrella canopy;	Treasure Garden acknowledges that the Accused Product includes “a line having a first end that winds around the winder hub, an intermediate portion extending from the winder hub along the arm to the umbrella canopy, and a second end that engages the umbrella canopy.”
1[i]	wherein rotation of the winder hub tensions or relaxes the line depending upon the direction of rotation of the winder hub, and	Treasure Garden acknowledges that the “rotation of the winder hub in the Accused Product tensions or relaxes the line depending upon the direction of rotation of the winder hub.”
1[j]	wherein operation of the winding mechanism to apply tension to the line opens and closes the umbrella canopy in response to movement of the line; and	Treasure Garden acknowledges that the “operation of the winding mechanism in the Accused Product to apply tension to the line opens and closes the umbrella canopy in response to movement of the line.”
1[k]	wherein the angle of the umbrella canopy with respect to the main pole can be	Treasure Garden acknowledges that an “angle of the umbrella canopy with respect to the main pole in the Accused Product can be controlled by moving the sliding member along the main pole.”

No.	Claim Limitation	Non-Infringement
	controlled by moving the sliding member along the main pole.	
Claim 5		
5	The umbrella of claim 1, wherein the sliding member has a handle associated therewith	Treasure Garden acknowledges that the Accused Product includes a “sliding member with a handle associated therewith.”
Claim 6		
6	The umbrella of claim 1, wherein the line extends along at least substantially the entire length of the arm.	Treasure Garden acknowledges that the Accused Product includes a “line that extends along at least substantially the entire length of the arm.”
Claim 7		
7	The umbrella of claim 1, further comprising a crank handle operatively associated with the winder hub, whereby rotating the crank handle causes the winder hub to rotate.	Treasure Garden acknowledges the Accused Products includes a “crank handle operatively associated with the winder hub, whereby rotating the crank handle causes the winder hub to rotate.”

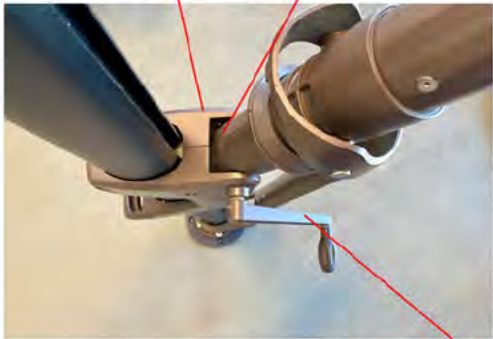
EXHIBIT 4

Exhibit 4: Non-Infringement Chart for the AKZPSQ11 Plus Cantilever

No.	Claim Limitation	Non-Infringement
Claim 1		
1 [preamble]	An umbrella comprising:	
1[a]	a main pole having a lower end for support by a support surface and extending generally upward to an upper end;	Treasure Garden Inc. (“Treasure Garden”) acknowledges that the AKZPSQ11 Plus Cantilever (the “Accused Product”) includes a “main pole having a lower end for support by a support surface and extending generally upward to an upper end.”
1[b]	a sliding member associated with the main pole and selectably moveable thereon between lower and upper locations along the main pole;	Treasure Garden acknowledges that the Accused Product includes a “sliding member associated with the main pole and selectably moveable thereon between lower and upper locations along the main pole.”
1[c]	locking means for releasably securing the sliding member to the main pole at a selected location along the main pole;	Treasure Garden denies that the Accused Product includes this limitation. The Accused Product does not have a “locking means” as disclosed and claimed in the ‘492 Patent to releasably secure the sliding member to the main pole at a selected location along using the main pole. Instead, the Accused Product has a spring-loaded button in connection with a locking pin and locking teeth.

No.	Claim Limitation	Non-Infringement
		 Spring-loaded button with locking pin and locking teeth Main Pole Squeeze grip handle to disengage from track  Release grip handle to lock into place

No.	Claim Limitation	Non-Infringement
1[d]	an umbrella canopy having a central region;	Treasure Garden acknowledges that the Accused Product includes an “umbrella canopy having a central region.”
1[e]	an arm associated with the central region and extending radially therefrom to an outer end operatively associated with the sliding member;	Treasure Garden acknowledges that the Accused Product includes an “an arm associated with the central region and extending radially therefrom to an outer end operatively associated with the sliding member.”
1[f]	a brace having a first end pivotably attached to an upper portion of the pole above the sliding member and a second end pivotably attached to the arm;	Treasure Garden acknowledges that the Accused Product includes a “brace having a first end pivotably attached to an upper portion of the pole above the sliding member and a second end pivotably attached to the arm.”
1[g]	a winding mechanism having a winder hub around which a line can be wound, the winder hub being mounted to the sliding member and movable therewith;	Treasure Garden denies that the Accused Product includes this limitation. The Accused Product has a “winding mechanism having a winder hub around which a line can be wound.” However, Treasure Garden denies that the winder hub in the Accused Product is “mounted to the sliding member and movable therewith.” In the Accused Product, the winder hub is mounted to the arm.

No.	Claim Limitation	Non-Infringement
		 Arm Winding Mechanism  Arm Winding Mechanism Winder Hub  Sliding Member Arm Winding Mechanism

No.	Claim Limitation	Non-Infringement
1[h]	a line having a first end that winds around the winder hub, an intermediate portion extending from the winder hub along the arm to the umbrella canopy, and a second end that engages the umbrella canopy;	Treasure Garden acknowledges that the Accused Product includes “a line having a first end that winds around the winder hub, an intermediate portion extending from the winder hub along the arm to the umbrella canopy, and a second end that engages the umbrella canopy.”.
1[i]	wherein rotation of the winder hub tensions or relaxes the line depending upon the direction of rotation of the winder hub, and	Treasure Garden acknowledges that the “rotation of the winder hub in the Accused Product tensions or relaxes the line depending upon the direction of rotation of the winder hub.”
1[j]	wherein operation of the winding mechanism to apply tension to the line opens and closes the umbrella canopy in response to movement of the line; and	Treasure Garden acknowledges that the “operation of the winding mechanism in the Accused Product to apply tension to the line opens and closes the umbrella canopy in response to movement of the line.”
1[k]	wherein the angle of the umbrella canopy with respect to the main pole can be	Treasure Garden acknowledges that an “angle of the umbrella canopy with respect to the main pole in the Accused Product can be controlled by moving the sliding member along the main pole. “

No.	Claim Limitation	Non-Infringement
	controlled by moving the sliding member along the main pole.	
Claim 5		
5	The umbrella of claim 1, wherein the sliding member has a handle associated therewith	Treasure Garden acknowledges that the Accused Product includes a “sliding member with a handle associated therewith.”
Claim 6		
6	The umbrella of claim 1, wherein the line extends along at least substantially the entire length of the arm.	Treasure Garden acknowledges that the Accused Product includes a “line that extends along at least substantially the entire length of the arm.”
Claim 7		
7	The umbrella of claim 1, further comprising a crank handle operatively associated with the winder hub, whereby rotating the crank handle causes the winder hub to rotate.	Treasure Garden acknowledges the Accused Products includes a “crank handle operatively associated with the winder hub, whereby rotating the crank handle causes the winder hub to rotate.”

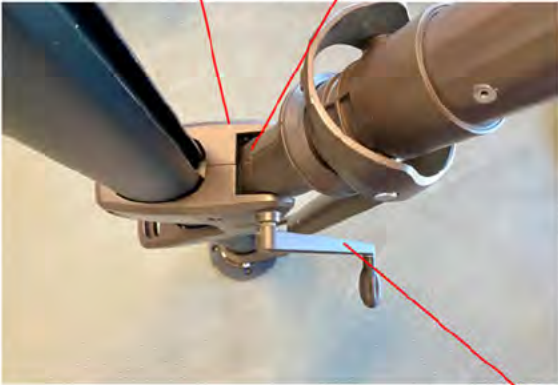
EXHIBIT 5

Exhibit 5: Non-Infringement Chart for the AKZP Plus Cantilever

No.	Claim Limitation	Non-Infringement
Claim 1		
1 [preamble]	An umbrella comprising:	
1[a]	a main pole having a lower end for support by a support surface and extending generally upward to an upper end;	Treasure Garden Inc. (“Treasure Garden”) acknowledges that the AKZP Plus Cantilever (the “Accused Product”) includes a “main pole having a lower end for support by a support surface and extending generally upward to an upper end.”
1[b]	a sliding member associated with the main pole and selectably moveable thereon between lower and upper locations along the main pole;	Treasure Garden acknowledges that the Accused Product includes a “sliding member associated with the main pole and selectably moveable thereon between lower and upper locations along the main pole.”
1[c]	locking means for releasably securing the sliding member to the main pole at a selected location along the main pole;	Treasure Garden denies that the Accused Product includes this limitation. The Accused Product does not have a “locking means” as disclosed and claimed in the ‘492 Patent. Instead, the Accused Product has a spring-loaded button in connection with a locking pin and locking teeth.

No.	Claim Limitation	Non-Infringement
		 Spring-loaded button with locking pin and locking teeth Main Pole Squeeze grip handle to disengage from track  Release grip handle to lock into place

No.	Claim Limitation	Non-Infringement
1[d]	an umbrella canopy having a central region;	Treasure Garden acknowledges that the Accused Product includes an “umbrella canopy having a central region.”
1[e]	an arm associated with the central region and extending radially therefrom to an outer end operatively associated with the sliding member;	Treasure Garden acknowledges that the Accused Product includes an “an arm associated with the central region and extending radially therefrom to an outer end operatively associated with the sliding member.”
1[f]	a brace having a first end pivotably attached to an upper portion of the pole above the sliding member and a second end pivotably attached to the arm;	Treasure Garden acknowledges that the Accused Product includes a “brace having a first end pivotably attached to an upper portion of the pole above the sliding member and a second end pivotably attached to the arm.”
1[g]	a winding mechanism having a winder hub around which a line can be wound, the winder hub being mounted to the sliding member and movable therewith;	Treasure Garden denies that the Accused Product includes this limitation. The Accused Product includes a “winding mechanism having a winder hub around which a line can be wound.” However, Treasure Garden denies that the winder hub in the Accused Product is “mounted to the sliding member and movable therewith.” In the Accused Product, the winder hub is mounted to the arm.

No.	Claim Limitation	Non-Infringement
		 Arm Winding Mechanism  Arm Winding Mechanism Winder Hub  Sliding Member Arm Winding Mechanism

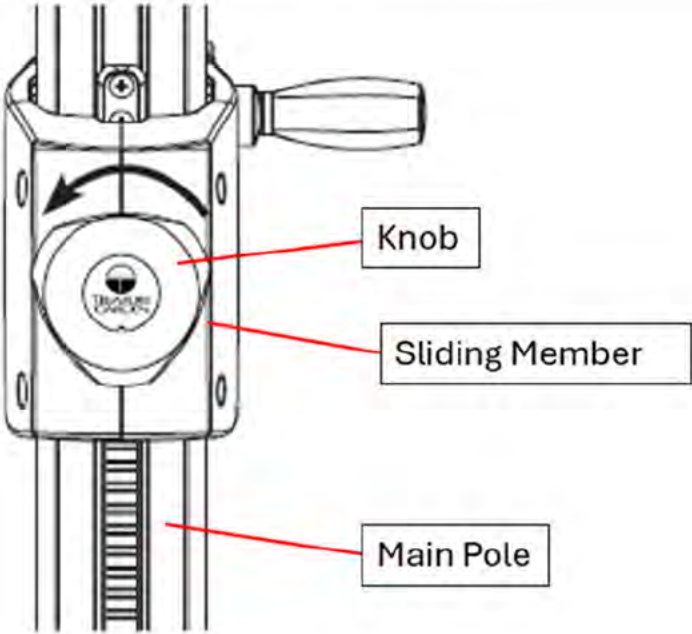
No.	Claim Limitation	Non-Infringement
1[h]	a line having a first end that winds around the winder hub, an intermediate portion extending from the winder hub along the arm to the umbrella canopy, and a second end that engages the umbrella canopy;	Treasure Garden acknowledges that the Accused Product includes “a line having a first end that winds around the winder hub, an intermediate portion extending from the winder hub along the arm to the umbrella canopy, and a second end that engages the umbrella canopy.”
1[i]	wherein rotation of the winder hub tensions or relaxes the line depending upon the direction of rotation of the winder hub, and	Treasure Garden acknowledges that “rotation of the winder hub” in the Accused Product “tensions or relaxes the line depending upon the direction of rotation of the winder hub.”
1[j]	wherein operation of the winding mechanism to apply tension to the line opens and closes the umbrella canopy in response to movement of the line; and	Treasure Garden acknowledges that the “operation of the winding mechanism in the Accused Product to apply tension to the line opens and closes the umbrella canopy in response to movement of the line.”
1[k]	wherein the angle of the umbrella canopy with respect to the main pole can be controlled by moving	Treasure Garden acknowledges that an “angle of the umbrella canopy with respect to the main pole in the Accused Product can be controlled by moving the sliding member along the main pole.”

No.	Claim Limitation	Non-Infringement
	the sliding member along the main pole.	
Claim 5		
5	The umbrella of claim 1, wherein the sliding member has a handle associated therewith	Treasure Garden acknowledges that the Accused Product includes a “sliding member that has a handle associated therewith.”
Claim 6		
6	The umbrella of claim 1, wherein the line extends along at least substantially the entire length of the arm.	Treasure Garden acknowledges that the Accused Product includes a “line that extends along at least substantially the entire length of the arm.”
Claim 7		
7	The umbrella of claim 1, further comprising a crank handle operatively associated with the winder hub, whereby rotating the crank handle causes the winder hub to rotate.	Treasure Garden acknowledges that the Accused Products includes a “crank handle operatively associated with the winder hub, whereby rotating the crank handle causes the winder hub to rotate.”

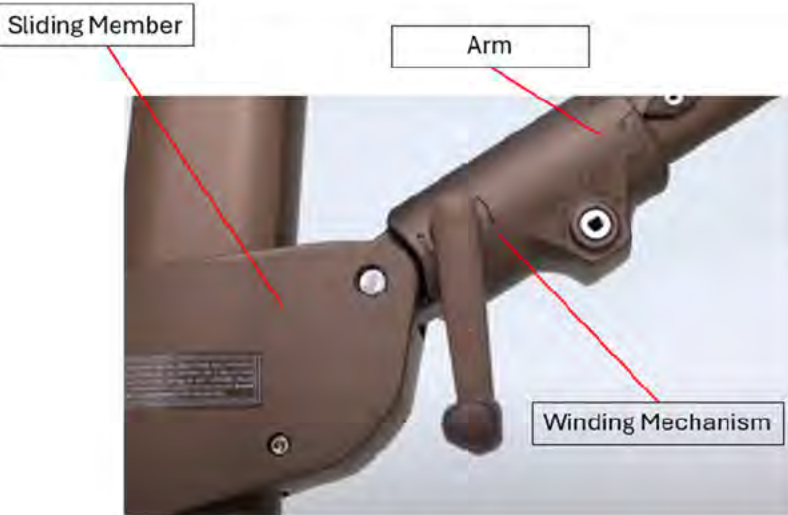
EXHIBIT 6

Exhibit 6: Non-Infringement Chart for the AG25TR Cantilever

No.	Claim Limitation	Non-Infringement
Claim 1		
1 [preamble]	An umbrella comprising:	
1[a]	a main pole having a lower end for support by a support surface and extending generally upward to an upper end;	Treasure Garden Inc. ("Treasure Garden") acknowledges that the AG25TR Cantilever (the "Accused Product") includes a "main pole having a lower end for support by a support surface and extending generally upward to an upper end.".
1[b]	a sliding member associated with the main pole and selectably moveable thereon between lower and upper locations along the main pole;	Treasure Garden acknowledges that the Accused Product includes a "sliding member associated with the main pole and selectably moveable thereon between lower and upper locations along the main pole."
1[c]	locking means for releasably securing the sliding member to the main pole at a selected location along the main pole;	Treasure Garden denies that the Accused Product includes this limitation. The Accused Product does not have a "locking means" as disclosed and claimed in the '492 Patent to releasably secure the sliding member to the main pole at a selected location along using the main pole. Instead, the Accused Product uses a knob to fix the sliding member to the main pole.

No.	Claim Limitation	Non-Infringement
		 (Fig. 3)
1[d]	an umbrella canopy having a central region;	Treasure Garden acknowledges that the Accused Product includes an “umbrella canopy having a central region.”
1[e]	an arm associated with the central region and extending radially therefrom to an outer end	Treasure Garden acknowledges that the Accused Product includes an “an arm associated with the central region of the umbrella canopy which extends radially therefrom to an outer end of the arm which is operatively associated with the sliding member.”

No.	Claim Limitation	Non-Infringement
	operatively associated with the sliding member;	
1[f]	a brace having a first end pivotably attached to an upper portion of the pole above the sliding member and a second end pivotably attached to the arm;	Treasure Garden acknowledges that the Accused Product includes a “brace having a first end pivotably attached to an upper portion of the pole above the sliding member and a second end pivotably attached to the arm.”
1[g]	a winding mechanism having a winder hub around which a line can be wound, the winder hub being mounted to the sliding member and movable therewith;	Treasure Garden denies that the Accused Product includes this limitation. The Accused Product has a “winding mechanism having a winder hub around which a line can be wound.” However, Treasure Garden denies that the winder hub in the Accused Product is “mounted to the sliding member and movable therewith.” In the Accused Product, the winder hub is mounted to the arm.

No.	Claim Limitation	Non-Infringement
		
1[h]	a line having a first end that winds around the winder hub, an intermediate portion extending from the winder hub along the arm to the umbrella canopy, and a second end that engages the umbrella canopy;	Treasure Garden acknowledges that the Accused Product includes a “line having a first end that winds around the winder hub that has an intermediate portion extending from the winder hub along the arm to the umbrella canopy and has a second end that engages the umbrella canopy.”
1[i]	wherein rotation of the winder hub tensions or relaxes the line depending upon the direction of	Treasure Garden acknowledges that the “rotation of the winder hub in the Accused Product tensions or relaxes the line depending upon the direction of rotation of the winder hub.”

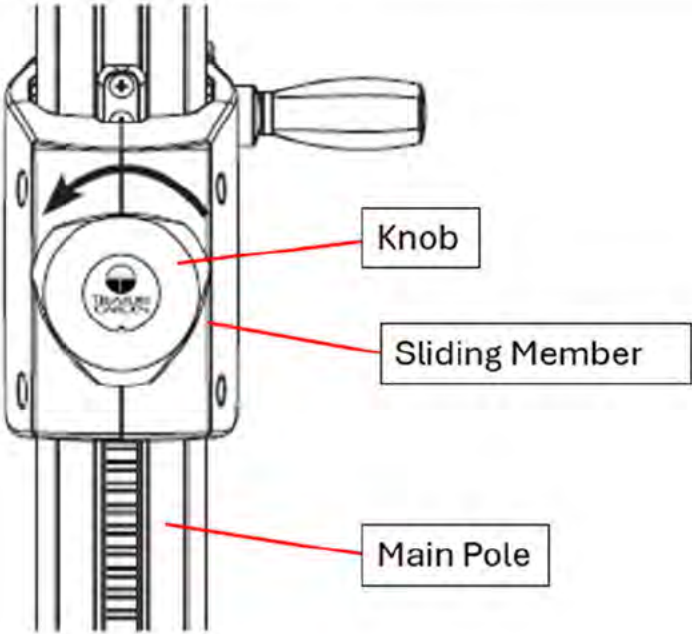
No.	Claim Limitation	Non-Infringement
	rotation of the winder hub, and	
1[j]	wherein operation of the winding mechanism to apply tension to the line opens and closes the umbrella canopy in response to movement of the line; and	Treasure Garden acknowledges that the “operation of the winding mechanism in the Accused Product to apply tension to the line opens and closes the umbrella canopy in response to movement of the line.”
1[k]	wherein the angle of the umbrella canopy with respect to the main pole can be controlled by moving the sliding member along the main pole.	Treasure Garden acknowledges that an “angle of the umbrella canopy with respect to the main pole in the Accused Product can be controlled by moving the sliding member along the main pole.”
Claim 6		
6	The umbrella of claim 1, wherein the line extends along at least substantially the entire length of the arm.	Treasure Garden acknowledges that the Accused Product includes a “line extending along at least substantially the entire length of the arm.”

No.	Claim Limitation	Non-Infringement
		Claim 7
7	The umbrella of claim 1, further comprising a crank handle operatively associated with the winder hub, whereby rotating the crank handle causes the winder hub to rotate.	Treasure Garden acknowledges the Accused Products includes a “crank handle operatively associated with the winder hub, whereby rotating the crank handle causes the winder hub to rotate.”

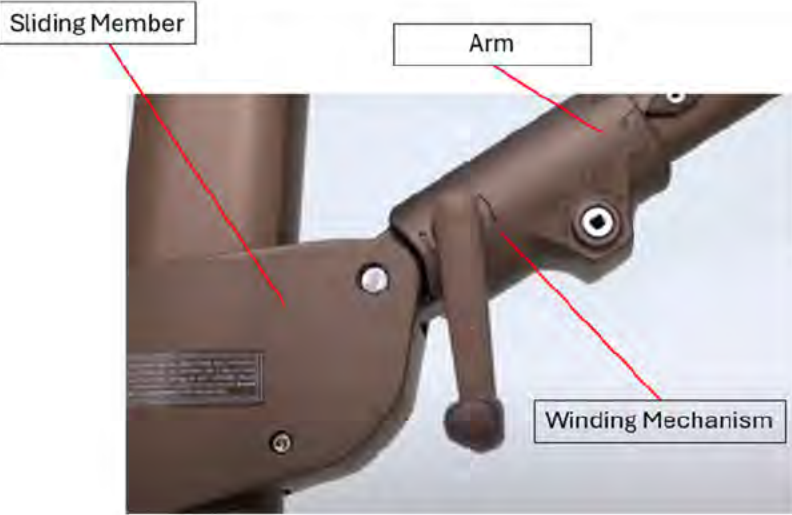
EXHIBIT 7

Exhibit 7: Non-Infringement Chart for the AG25TSQR Cantilever

No.	Claim Limitation	Non-Infringement
Claim 1		
1 [preamble]	An umbrella comprising:	
1[a]	a main pole having a lower end for support by a support surface and extending generally upward to an upper end;	Treasure Garden Inc. (“Treasure Garden”) acknowledges that the AG25TSQR Cantilever (the “Accused Product”) includes a “main pole having a lower end for support by a support surface and extending generally upward to an upper end.”
1[b]	a sliding member associated with the main pole and selectably moveable thereon between lower and upper locations along the main pole;	Treasure Garden acknowledges that the Accused Product includes a “sliding member associated with the main pole which is selectably moveable thereon between the lower end and the upper end along the main pole.”
1[c]	locking means for releasably securing the sliding member to the main pole at a selected location along the main pole;	Treasure Garden denies that the Accused Product includes this limitation. The Accused Product does not have a “locking means” as disclosed and claimed in the ‘492 Patent to releasably secure the sliding member to the main pole at a selected location along using the main pole. Instead, the Accused Product uses a knob to fix the sliding member to the main pole.

No.	Claim Limitation	Non-Infringement
		 (Fig. 3)
1[d]	an umbrella canopy having a central region;	Treasure Garden acknowledges that the Accused Product includes an “umbrella canopy having a central region.”
1[e]	an arm associated with the central region and extending radially therefrom to an outer end	Treasure Garden acknowledges that the Accused Product includes an “an arm associated with the central region of the umbrella canopy which extends radially therefrom to an outer end of the arm which is operatively associated with the sliding member.”

No.	Claim Limitation	Non-Infringement
	operatively associated with the sliding member;	
1[f]	a brace having a first end pivotably attached to an upper portion of the pole above the sliding member and a second end pivotably attached to the arm;	Treasure Garden acknowledges that the Accused Product includes a “brace having a first end pivotably attached to an upper portion of the pole above the sliding member and a second end pivotably attached to the arm.”
1[g]	a winding mechanism having a winder hub around which a line can be wound, the winder hub being mounted to the sliding member and movable therewith;	Treasure Garden denies that the Accused Product includes this limitation. The Accused Product has a “winding mechanism having a winder hub around which a line can be wound.” However, Treasure Garden denies that the winder hub in the Accused Product is “mounted to the sliding member and movable therewith.” In the Accused Product, the winder hub is mounted to the arm.

No.	Claim Limitation	Non-Infringement
		
1[h]	a line having a first end that winds around the winder hub, an intermediate portion extending from the winder hub along the arm to the umbrella canopy, and a second end that engages the umbrella canopy;	Treasure Garden acknowledges that the Accused Product includes a line having a first end that winds around the winder hub that has an intermediate portion extending from the winder hub along the arm to the umbrella canopy and has a second end that engages the umbrella canopy.
1[i]	wherein rotation of the winder hub tensions or relaxes the line depending upon the direction of	Treasure Garden acknowledges that the “rotation of the winder hub in the Accused Product tensions or relaxes the line depending upon the direction of rotation of the winder hub.”

No.	Claim Limitation	Non-Infringement
	rotation of the winder hub, and	
1[j]	wherein operation of the winding mechanism to apply tension to the line opens and closes the umbrella canopy in response to movement of the line; and	Treasure Garden acknowledges that the “operation of the winding mechanism in the Accused Product to apply tension to the line opens and closes the umbrella canopy in response to movement of the line.”
1[k]	wherein the angle of the umbrella canopy with respect to the main pole can be controlled by moving the sliding member along the main pole.	Treasure Garden acknowledges that an “angle of the umbrella canopy with respect to the main pole in the Accused Product can be controlled by moving the sliding member along the main pole.”
Claim 6		
6	The umbrella of claim 1, wherein the line extends along at least substantially the entire length of the arm.	Treasure Garden acknowledges that the Accused Product includes a “line extending along at least substantially the entire length of the arm.”

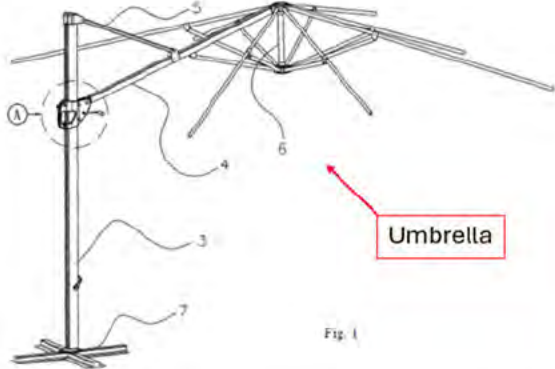
No.	Claim Limitation	Non-Infringement
Claim 7		
7	The umbrella of claim 1, further comprising a crank handle operatively associated with the winder hub, whereby rotating the crank handle causes the winder hub to rotate.	Treasure Garden acknowledges the Accused Products includes a “crank handle operatively associated with the winder hub, whereby rotating the crank handle causes the winder hub to rotate.”

EXHIBIT 8

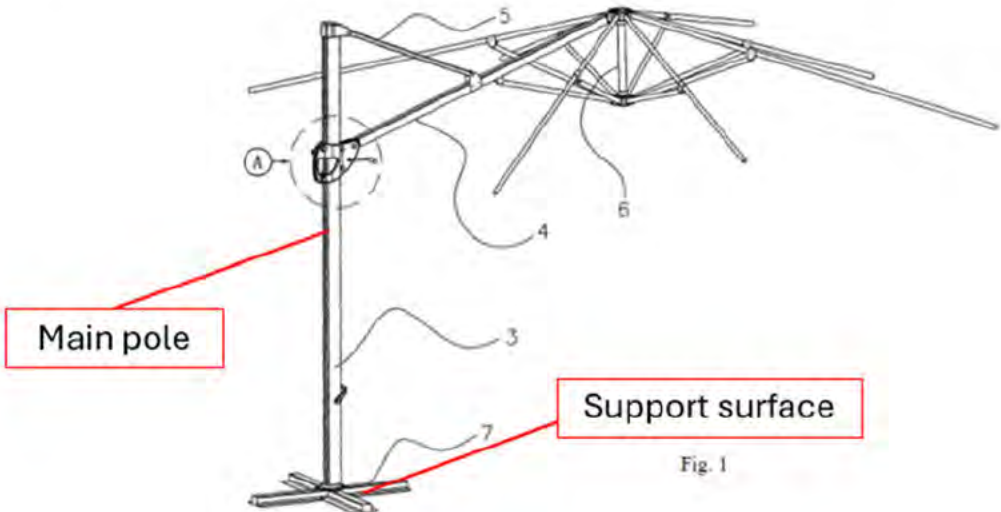
**Exhibit 8 - Invalidity Chart for U.S. Patent No. 8,104,492¹ (the '492 Patent) Based on Chinese Utility Model Patent
CN201076109Y (Wang '109)**

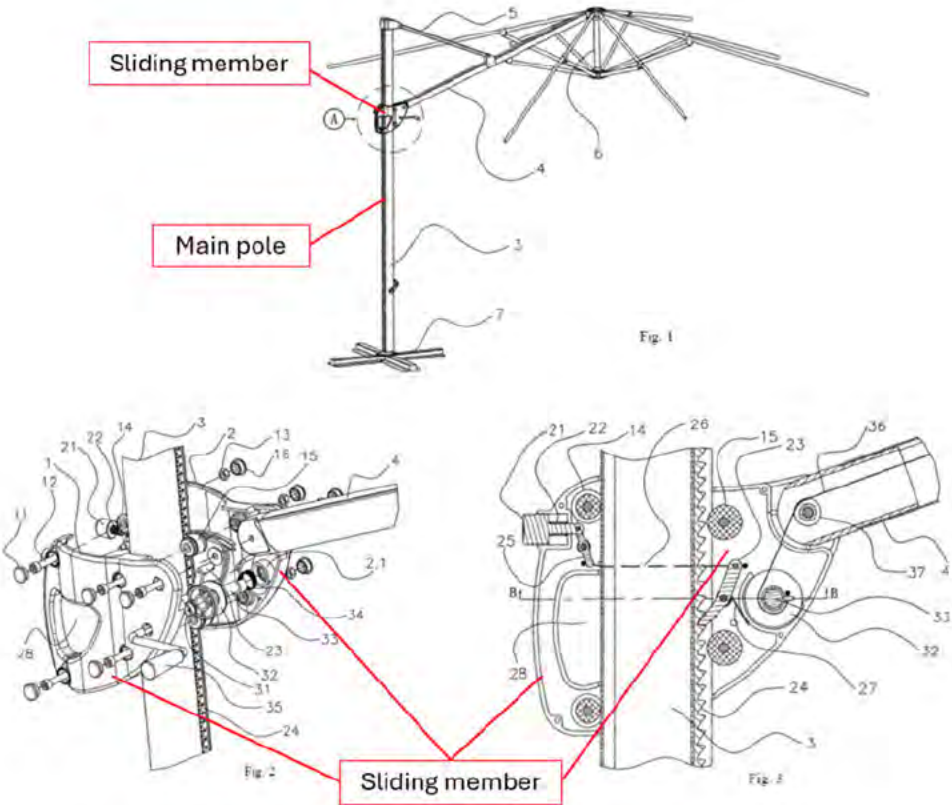
This chart is based on Plaintiff's apparent interpretations of the asserted claim(s) and Defendant's investigation to date. Citations to portions of any reference in this chart are exemplary only, and Defendant may rely on the entirety of the references cited herein to show that the asserted claims are invalid. Further, as Defendant's investigations and discovery are ongoing, Defendant reserves the right to amend or supplement this claim chart to include additional information and/or invalidity contentions identified in connection with Defendant's ongoing investigations. To the extent that every element below is not explicitly or inherently disclosed by the prior art reference, this prior art reference in combination (1) with the knowledge of one of ordinary skill in the art and/or (2) with other prior art identified in the invalidity contentions and/or otherwise herein, renders the asserted claims obvious.

¹ As discussed in the contentions, Claim 1 of the Asserted Patent cannot claim priority to the May 5, 2008 filing date of provisional application no. 61/050,353. Instead, the priority date of Claim 1 of the Asserted Patent is May 5, 2009.

No.	Claim Limitation	Basis for Invalidity
Claim 1 Anticipated under pre-AIA 35 U.S.C. § 102: Chinese Utility Model Patent CN201076109Y (“Wang ’109”) (issued on June 25, 2008) or obvious under pre-AIA 35 U.S.C. § 103: Wang ’109 (issued on June 25, 2008) in view of U.S. Patent No. 5,284,171 (“Liu ’171”) (issued on February 8, 1994)		
1 [preamble]²	An umbrella comprising:	Wang ’109 discloses an umbrella (parasol). <i>See e.g.</i>, Title (referencing the parasol); Abstract (referencing the parasol); Claims 1-6 (referencing the parasol); Technical Field (referencing the parasol); Background of the Art (referencing the parasol); Summary (referencing the parasol); Description at p. 3-5 (referencing the parasol); Fig. 1 (see annotated below).  Fig. 1
1[a]	a main pole having a lower end for support by a support surface and extending generally upward to an upper end;	Wang ’109 discloses a main pole (vertical pole 3) having a lower end for support by a support surface (base 7) and extending generally upward to an upper end. <i>See e.g.</i>, Wang ’109 at Abstract (“a bottom end of a vertical pole is installed on a base...an inner end of a diagonal pulling rod is axially connected to a top end of the vertical pole”); Claim 1 (“A straight pole foldable hanging parasol, wherein a bottom end of a vertical pole

² Defendant makes no concessions or admissions regarding the claim preamble, *e.g.*, that it is or is not limiting, but reserves its right on that and other claim construction issues.

No.	Claim Limitation	Basis for Invalidity
		(3) is installed on a base (7)... (5) is axially connected to a top end of the vertical pole (3)...”; Description at page 3 (“the bottom part of the vertical pole 3 of the straight pole foldable hanging parasol is fixed to the base 7” and “The outer end of the diagonal pulling rod 5 is connected to a middle part of the diagonal rod 4, and the inner end thereof is connected to the top end of the vertical pole 3”); Fig. 1 (annotated below)  Fig. 1
1[b]	a sliding member associated with the main pole and selectably moveable thereon between lower and upper locations along the main pole;	Wang '109 discloses a sliding member (positioning mechanism) associated with the main pole (vertical pole 3) and selectably moveable thereon between lower and upper locations along the main pole (vertical pole 3). <i>See e.g.</i>, Wang '109 at Abstract (“the positioning mechanism is sleeved on the vertical pole”); Claim 1 (“the positioning mechanism is sleeved on the vertical pole”); Description at page 2 (“the positioning mechanism is sleeved on the vertical pole”) and (“the tilt angle of the parasol surface can be adjusted at will by holding the positioning mechanism and pressing the button.”) and page 4 (“Working mechanism: hold the handle hole 28 and push the positioning mechanism upward... stop pushing upward, under the gravity of the parasol frame 6, ... the positioning mechanism to move[s] downward” and “The positioning position of the above

No.	Claim Limitation	Basis for Invalidity
		structure can be decided at will, which is easy to use"); Fig. 1 (annotated below), Fig. 2 (annotated below)  Fig. 1 Fig. 2
1[c]	locking means for releasably securing the sliding member to the main pole at a	Wang '109 discloses a locking means (locking block 23; tooth heads of the row of teeth 24; button 21; torsion spring 27; crank arm 25; spring 22; steel wire 26) for releasably securing the sliding member (positioning mechanism) to the main pole (vertical pole 3) at a selected location along the main pole (vertical pole 3).

No.	Claim Limitation	Basis for Invalidity
	selected location along the main pole;	<i>See e.g., Wang '109</i> at Abstract (“the positioning mechanism is sleeved on the vertical pole, the vertical pole is axially provided with a recess, a row of teeth is fixedly installed in the recess, an elastic locking block engaged with the row of teeth is provided in the positioning mechanism, one end of the locking block is connected to a push button via a steel wire”); Description at page 2 (“the vertical pole is axially formed with a recess, a row of teeth is fixedly provided in the recess, an elastic locking block engaged with the row of teeth is installed in the positioning mechanism, and one end of the locking block is connected to a push button via a steel wire” and “The positioning mechanism is enclosed by two shells, the locking block is a lever structure, and a support shaft thereof is installed between the shells, a torsion spring is sleeved over a middle part of the support shaft, one end of the locking block can be engaged with the row of teeth, and the other end thereof is connected to a bottom end of a crank arm via the steel wire, and a top end of the crank arm is hinged to the button sleeved with a spring. The positioning mechanism is provided with a plurality of rollers in contact with an outer wall of the vertical pole, a screw and a nut for fixing the two shells are respectively plugged with a plug and another plug, the shells are provided with a handle hole; and the button is located above the handle hole.”), page 3 (“The tooth heads of the row of teeth 24 are arranged upward. The positioning mechanism is fixed by the two shells 1 and 2 with the screw 12 and the nut 13, and the vertical pole 3 is movably engaged by it. The locking block 23 in the shells is a lever structure, and its support shaft is sleeved with a torsion spring 27 and installed between the two shells 1 and 2. The elastic force of the torsion spring 27 causes the bottom end of the locking block 23 to engage with the row of teeth 24 to prevent the positioning mechanism from moving downward. The upper end of the locking block 23 is tied with the steel wire 26, the other end of the steel wire 26 is connected to the bottom end of the crank arm 25, and the upper end of the crank arm 25 is hinged to the button 21 sleeved with a spring 22”), and page 4 (“Working mechanism: hold the handle hole 28 and push the positioning mechanism upward, the locking block 23 moves upward along the teeth of the row of teeth 24, and the inner end of the diagonal rod 4 moves upward to make the parasol frame 6 tilt downward; stop pushing upward, under the gravity of the parasol frame 6, the diagonal rod 4 drive the positioning mechanism to move downward; since the locking block 23 is engaged downward against the teeth of the row of teeth 24, the diagonal rod 4 is positioned. Press the button 21 by the hand, so the locking block 23 is turned by the crank arm 25, and thus the locking block 23 and the row of teeth 24 are disengaged. At this time,

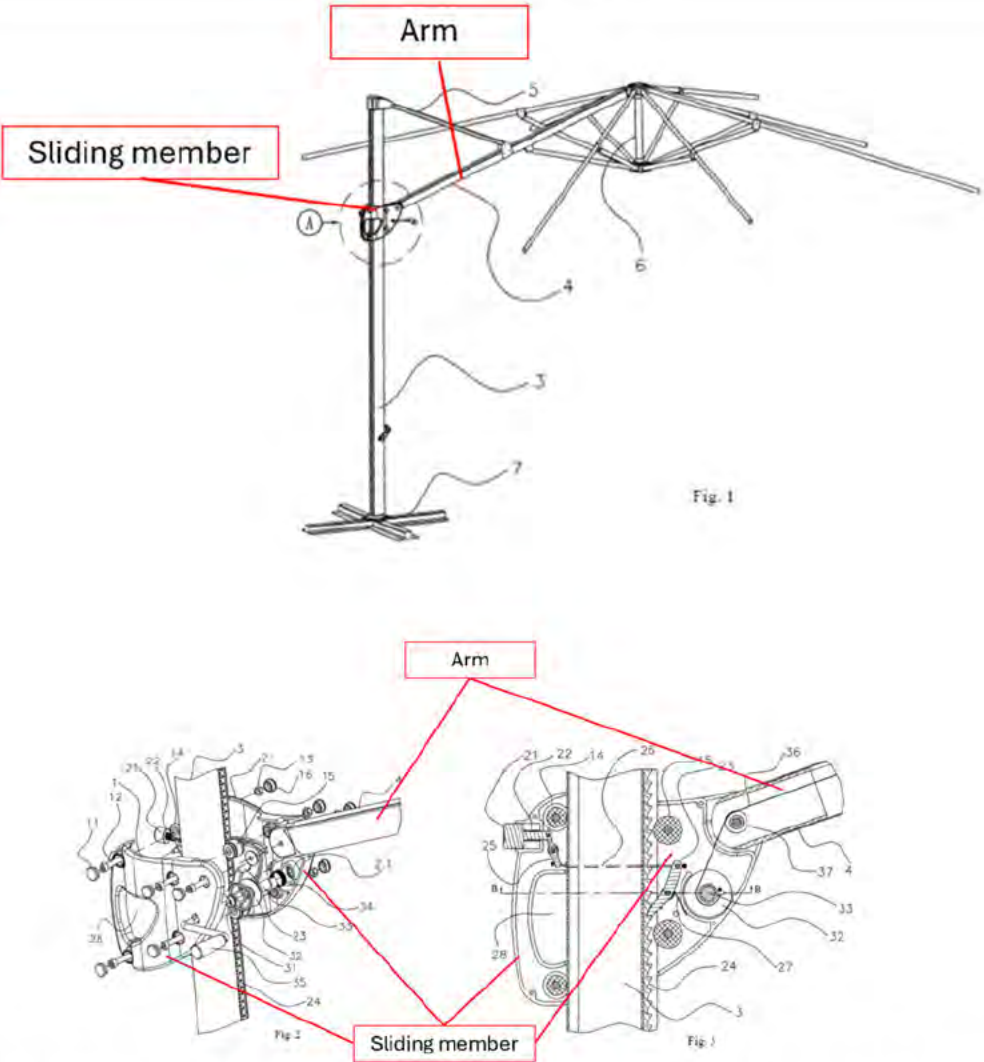
No.	Claim Limitation	Basis for Invalidity
		the diagonal rod 4 can be controlled to move downward to make the parasol frame 6 tilt upward; then release the button 21, the locking block 23 and the row of teeth 24 are reengaged, and the diagonal rod 4 is positioned again. The positioning position of the above structure can be decided at will, which is easy to use.”); Claim 1 (“the positioning mechanism is sleeved on the vertical pole (3), the vertical pole (3) is axially formed with a recess, a row of teeth (24) is fixedly provided in the recess, an elastic locking block (23) engaged with the row of teeth (24) is installed in the positioning mechanism, and one end of the locking block (23) is connected to a push button (21) via a steel wire (26).”); Claim 2 (“the positioning mechanism is enclosed by two shells (1, 2), the locking block (23) is a lever structure, and a support shaft thereof is installed between the shells (1, 2), a torsion spring (27) is sleeved over a middle part of the support shaft, one end of the locking block (23) can be engaged with the row of teeth (24), and the other end thereof is connected to a bottom end of a crank arm (25) via the steel wire (26), and a top end of the crank arm (25) is hinged to the button (21) sleeved with a spring (22).”);Fig. 2; Fig. 3 (annotated below) Fig. 2 Fig. 3 To the extent this limitation requires the locking means (e.g., ratchet-and-pawl mechanism) to be on same side as the user interface, a person of ordinary skill in the art would have been motivated to combine the teachings of Wang '109 with the teachings of Liu '171.

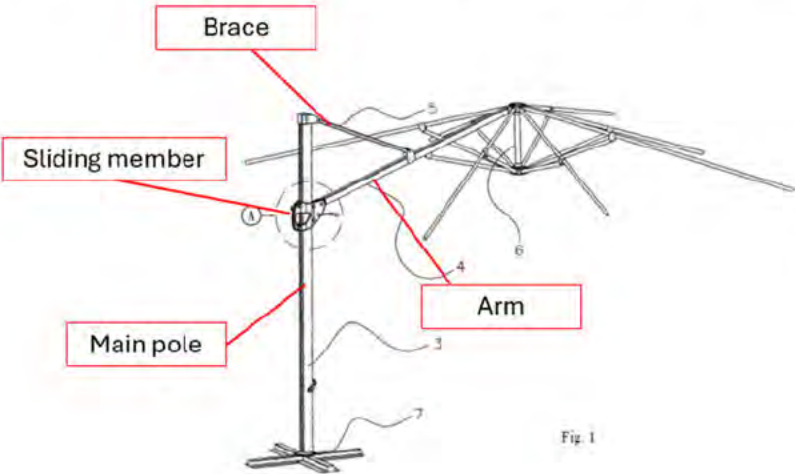
No.	Claim Limitation	Basis for Invalidity
		<i>See e.g.</i>, Liu '171 at Abstract (“rack-like member is equipped with a plurality of consecutive Z-shaped teeth each having an oblique face...supporting pin having an extended front tip at one end which is led through a through hole disposed at the front of the cavity and is connected to a pivotally operated arc arm pivotally fixed to a lug on the outer wall of the runner at the other end. The extended front tip of the supporting pin is selectively engaged with the teeth of the rack-like member and can disengage there with by actuation of the arc arm so as to make the supporting pin retrievably actuated.”); 1:19-31 (“So the actuation of the arc arm connected to the end of the supporting pin which is led through a through hole on the lid can force the supporting pin to move backward against the bias spring and the release of the arm permits the biased spring to push the supporting pin to travel in a reverse direction so as to let the front tip of the supporting pin to selectively engage with one tooth of the rack like member whereby the runner of the sunshade can be automatically retained in place when it is pushed upwardly open, and can be slidably operated downwardly when the pivot arm is actuated to make the supporting pin withdrawn in the cavity, permitting the runner to move downward.”); 2:21-38 (“a rack-like member having a plurality of Z-shaped teeth and disposed at a section of the main shaft of the sunshade and the runner slidably mounted onto the main shaft is provided with a spring biased supporting pin received in a cavity thereon and connected to a pivotally operated arc arm at one end; the tip of the supporting pin is constantly in abutment against the oblique face of the Z shaped teeth and is able to be urged into the cavity as the runner is pushed upwardly there along and pop out to support the runner in place each time as the runner passes over one Z-shaped tooth so that the sunshade can be easily opened with the runner constantly retained in place; and it can be readily collapsed by simple actuation of the pivotal arc arm to make the supporting pin disengage with the rack-like member, permitting the runner to be pushed downwardly without restraint.”); 3:1-6 (“An elongated rack-like member 25 having a plurality of Z-shaped teeth 252 is disposed on a section of the main shaft 2. The length of the rack-like member 25 is equal to the distance in which the runner 21 travels from an opening position to a closing position along the main shaft 2.”); 3:10-30 (“The rack-like member 25 is slidably engaged with a groove 221 disposed on the inner wall of the runner 21. An open-ended cavity 211 having a hole disposed at the front end thereof accommodates a spring 26 and a supporting pin 28 therein. The supporting pin 28 is provided with a restraint flange 281 at the front portion thereof so that the spring 26

No.	Claim Limitation	Basis for Invalidity
		can be fixed in place by abutment against the flange 281 at one end and against a lid 27 secured to the opened end of the cavity 211. The front tip of the supporting pin 28 led through the hole at the front end of the cavity 211 is selectively engaged with one of the teeth 252 of the rack-like member 25. The front tip of the supporting pin 28 is provided with an oblique face which is in parallel with the oblique face 253 of the Z-shaped teeth. The rear end of the supporting 28 led through a through hole on the lid is pivotally connected to an arc arm 29 which is pivotally fixed to a lug 20 disposed on the outer wall of the runner 21 whereby the actuation of the arm 29 will make the spring biased supporting pin 28 to separate from the rack-like member 25.”); 3:31-49 (“To close the sun shade, the arc arm 29 is pivotally triggered and held in place, resulting in the backward pulling of the supporting pin 28 so as to make the same separate from the locking tooth of the rack-like member 25, permitting the runner 21 to travel downwardly freely to collapse the sunshade.”); Fig. 2; Fig. 3 (see annotated below). <i>See also e.g. Liu '171 at Claim 1.</i> A person of ordinary skill in the art would have understood that a simple substitution of the known locking means (locking block 23; tooth heads of the row of teeth 24; button 21; torsion spring 27; crank arm 25; spring 22; steel wire 26) in Wang '109 with the known locking

No.	Claim Limitation	Basis for Invalidity
		means in Liu '171 would have yield predictable results to improve collapsable umbrella products. Indeed, Liu '171 and Wang '109 both relate to collapsable umbrella products and are thus in the same industry. Also, because Wang '109 discloses at least a motivation to “reduce[] production costs” and “simplif[y]ing] the assembly” (<i>see</i> Wang '109 at page 2), a person of ordinary skill in the art would understand that using Liu '171's locking mechanism would require less parts and would also reduce the cost of making the product. Liu '171 also explains how teeth disposed on the main shaft of the sunshade (i.e. umbrella) provide several advantages, including: (1) allowing operation by operators who are too weak to open a heavy sunshade with one hand; (2) reducing the danger that a user will injure their fingers in the crevice formed by the main shaft and runner; (3) making operation of the umbrella more convenient; and (4) reducing the effort required to operate the sunshade. (Liu '171 at 1:57-2:11, 2:38-42, 3:50-4:8).
1[d]	an umbrella canopy having a central region;	Wang '109 discloses an umbrella canopy having a central region. Description at page 2 (“the parasol can be positioned by releasing the hand so as to achieve the best sunshade effect”); Fig. 1. Fig. 1 To the extent this claim limitation is interpreted to require both a canopy support structure and a canopy fabric/expandable shade element and Wang '109 is interpreted as not disclosing a fabric/expandable shade element, a person of ordinary skill in the art would understand that an umbrella canopy (including both a canopy support structure and a canopy fabric/expandable shade element) would be needed to allow this device to function (<i>i.e.</i>,

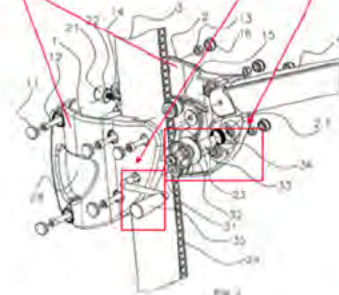
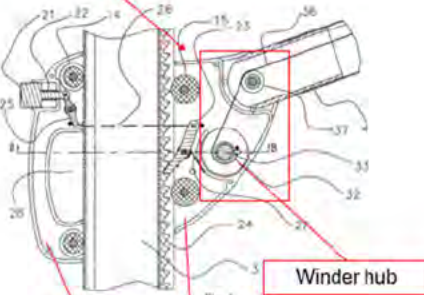
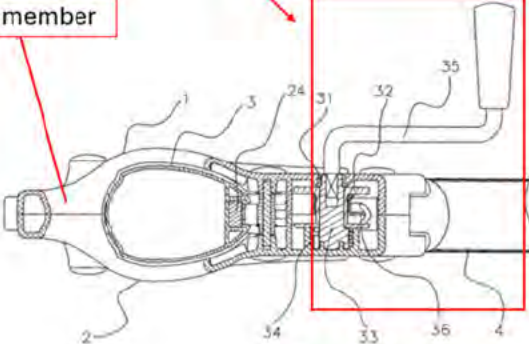
No.	Claim Limitation	Basis for Invalidity
		provide shade). Moreover, Liu '171 discloses both a canopy support structure and a canopy fabric/expandable shade element. A person of ordinary skill in the art would also understand that the umbrella canopy would have a central region.
1[e]	an arm associated with the central region and extending radially therefrom to an outer end operatively associated with the sliding member;	Wang '109 discloses an arm (diagonal rod 4) associated with the central region and extending radially therefrom to an outer end (inner end of the diagonal rod) operatively associated with the sliding member (positioning mechanism). <i>See e.g.</i>, Wang '109 at Description at page 1 (“an outer end of a diagonal rod is hinged to a parasol frame, and an inner end thereof is hinged to a middle part of the vertical pole... an inner end of the diagonal rod is axially connected to a positioning mechanism”), page 3 (“the outer end of the diagonal rod 4 is hinged to the parasol frame 6, and the inner end thereof is connected to the positioning mechanism”), and page 4 (“Working mechanism: hold the handle hole 28 and push the positioning mechanism upward...and the inner end of the diagonal rod 4 moves upward to make the parasol frame 6 tilt downward; stop pushing upward, under the gravity of the parasol frame 6, the diagonal rod 4 drive the positioning mechanism to move downward”); Fig. 1 (see annotated below); Fig. 2 (see annotated below); and Fig. 3 (see annotated below).

No.	Claim Limitation	Basis for Invalidity
		 Fig. 1 Fig. 2 Fig. 3 Arm Sliding member To the extent Wang '109 does not disclose the “central region” of an umbrella canopy, a person of ordinary skill in the art would understand that an umbrella canopy would be needed

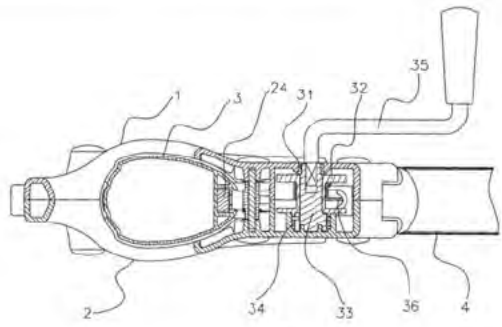
No.	Claim Limitation	Basis for Invalidity
		to allow this device to function (<i>i.e.</i> , provide shade). A person of ordinary skill in the art would also understand that the umbrella canopy would have a central region.
1[f]	a brace having a first end pivotably attached to an upper portion of the pole above the sliding member and a second end pivotably attached to the arm;	Wang '109 discloses a brace (diagonal pulling rod 5) having a first end pivotably attached to an upper portion of the pole (vertical pole 3) above the sliding member (positioning mechanism) and a second end pivotably attached to the arm (diagonal rod 4). <i>See e.g.</i>, Wang '109 at Abstract (“an inner end of a diagonal pulling rod is axially connected to a top end of the vertical pole, and an outer end thereof is axially connected to a middle part of the diagonal rod”); Description at page 1 (“an inner end of the diagonal pulling rod is axially connected to a top end of the vertical pole, and an outer end thereof is axially connected to a middle part of the diagonal rod”) and page 3 (“The outer end of the diagonal pulling rod 5 is connected to a middle part of the diagonal rod 4, and the inner end thereof is connected to the top end of the vertical pole 3. A in the figure shows the position of the positioning mechanism and the rope reel.”); Claim 1 (“an inner end of the diagonal pulling rod (5) is axially connected to a top end of the vertical pole (3), and an outer end thereof is axially connected to a middle part of the diagonal rod (4)”; Fig. 1 (see annotated below) 

No.	Claim Limitation	Basis for Invalidity
1[g]	a winding mechanism having a winder hub around which a line can be wound, the winder hub being mounted to the sliding member and movable therewith;	Wang '109 discloses a winding mechanism (crank handle 35; crank shaft 33) having a winder hub (rope reel wheel 32) around which a line (parasol rope 36) can be wound, the winder hub (rope reel wheel 32) being mounted to the sliding member (positioning mechanism) and movable therewith. <i>See e.g.</i>, Wang '109 at Abstract (“The above-mentioned special positioning mechanism is adopted, and a rope reel is installed to the positioning mechanism”); Description at page 2 (“A rope reel for controlling the opening and closing of the parasol frame is installed within the two shells. A rope reel wheel of the rope reel is fixed with a parasol rope, a torsion spring is sleeved on a crank shaft, two ends of the torsion spring abut against the rope reel wheel and the crank shaft, the shell is provided with a tube wall for accommodating the torsion spring, when the rope reel wheel drives the torsion spring to twist, the diameter of the torsion spring increases and thus presses the tube wall to stop the rope reel wheel, and when the crank shaft drives the torsion spring to twist, the diameter of the torsion spring decreases and thus rotates relative to the tube wall to drive the rope reel wheel to rotate. The other end of the parasol rope penetrates into the diagonal rod and is connected to the parasol frame via a pulley in the diagonal rod”; “The above-mentioned special positioning mechanism is adopted, and a rope reel is installed to the positioning mechanism”), page 4 (“The shells 1 and 2 of the positioning mechanism are also equipped with a rope reel. The crank shaft 33 of the rope reel is installed between the two shells 1 and 2. One end of the crank shaft 33 is provided with a circular arc boss, the torsion spring 34 is sleeved on the boss, and the boss is clamped with the arc surfaces at two ends of the torsion spring 34. The rope reel wheel 32 is movably sleeved on the crank shaft 33, the rope reel wheel 32 is provided with a protrusion, and the protrusion is clamped on the other arc surface of the two ends of the torsion spring 34. The shell 2 is provided with a tube wall 2.1, and the crank shaft 33 with the torsion spring 34 is inserted into the tube wall 2.1, so that the torsion spring 34 is accommodated within the tube wall 2.1. The other end of the crank shaft 33 is sleeved with a copper sleeve 31 which further passes through the shell 1. The copper sleeve 31 is in direct contact with the crank shaft 33 to avoid wear of the shell

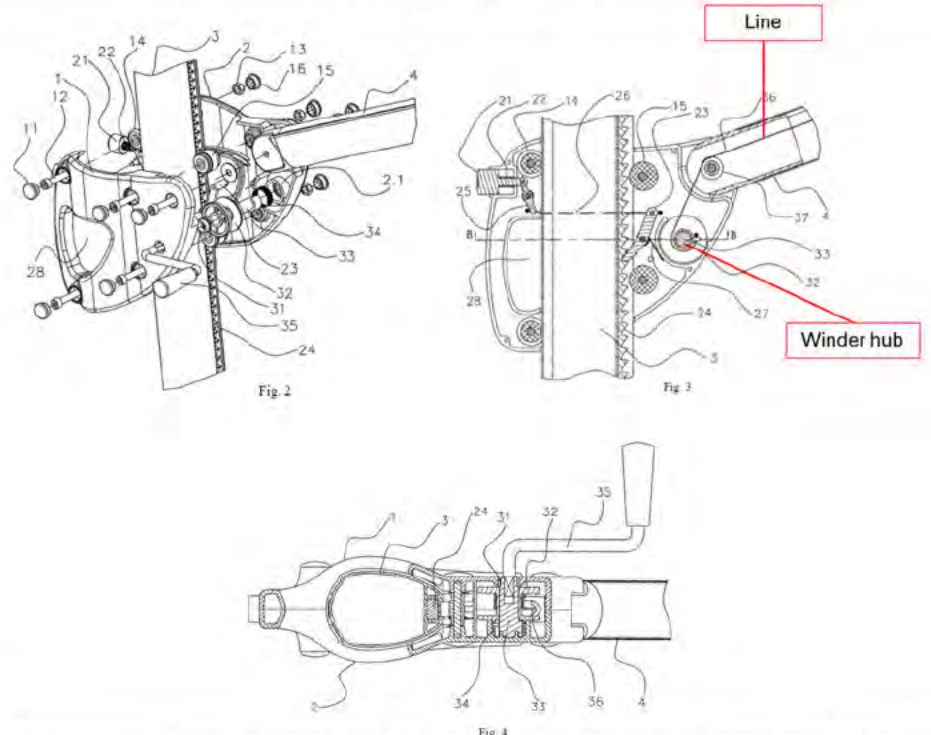
No.	Claim Limitation	Basis for Invalidity
		1. The crank handle 35 is inserted into the crank shaft 33 to reel the parasol rope 36. The rope reel wheel 32 is fixed with one end of the parasol rope 36”, and page 5 (“When the crank handle 35 is turned clockwise or counterclockwise, the crank shaft 33 drives the torsion spring 34 to twist, the diameter of the torsion spring 34 becomes smaller and thus can rotate freely in the tube wall 2.1, thereby driving the rope reel wheel 32 to rotate, the rope reel wheel 32 drives the parasol rope 36 to tighten or relax, and the parasol frame 6 opens or closes. Next release the crank handle 35, the parasol frame 6 is closed under the gravity, and the parasol rope 36 is tightened....The rope reel is installed in the positioning mechanism, and the parasol rope 36 does not need to pass through the vertical pole 3, such that the parasol rope 36 is not easy to break”); Claim 5 (“The straight pole foldable hanging parasol according to claim 3, characterized in that a rope reel wheel (32) of the rope reel is fixed with a parasol rope (36), a torsion spring (34) is sleeved on a crank shaft (33), two ends of the torsion spring (34) abut against the rope reel wheel (32) and the crank shaft (33), the shell (2) is provided with a tube wall (2.1) for accommodating the torsion spring (34), when the rope reel wheel (32) drives the torsion spring (34) to twist, the diameter of the torsion spring increases and thus presses the tube wall (2.1) to stop the rope reel wheel (32), and when the crank shaft (33) drives the torsion spring (34) to twist, the diameter of the torsion spring decreases and thus rotates relative to the tube wall (2.1) to drive the rope reel wheel (32) to rotate”); Fig. 2 (see annotated below); Fig. 3 (see annotated below); Fig. 4 (see annotated below).

No.	Claim Limitation	Basis for Invalidity
		Winding mechanism having winder hub around which a line can be wound Sliding member  Fig. 4  Fig. 5 Winder hub Sliding member Winding mechanism having winder hub around which a line can be wound Sliding member  Fig. 4

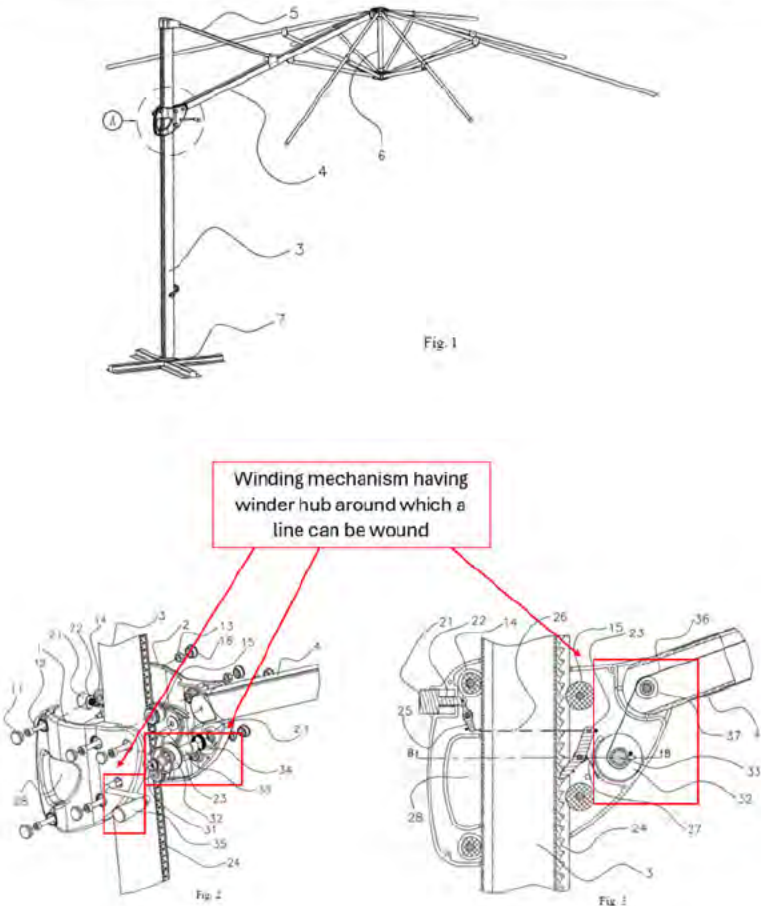
No.	Claim Limitation	Basis for Invalidity
1[h]	a line having a first end that winds around the winder hub, an intermediate portion extending from the winder hub along the arm to the umbrella canopy, and a second end that engages the umbrella canopy;	Wang '109 discloses a line (parasol rope 36) having a first end that winds around the winder hub (rope reel wheel 32), an intermediate portion extending from the winder hub (rope reel wheel 32) along the arm (diagonal rod 4) to the umbrella canopy, and a second end that engages the umbrella canopy. <i>See e.g.</i>, Wang '109 at Description at page 2 (“A rope reel wheel of the rope reel is fixed with a parasol rope, a torsion spring is sleeved on a crank shaft, two ends of the torsion spring abut against the rope reel wheel and the crank shaft, the shell is provided with a tube wall for accommodating the torsion spring, when the rope reel wheel drives the torsion spring to twist, the diameter of the torsion spring increases and thus presses the tube wall to stop the rope reel wheel, and when the crank shaft drives the torsion spring to twist, the diameter of the torsion spring decreases and thus rotates relative to the tube wall to drive the rope reel wheel to rotate. The other end of the parasol rope penetrates into the diagonal rod and is connected to the parasol frame via a pulley in the diagonal rod”), page 4 (“The rope reel wheel 32 is fixed with one end of the parasol rope 36, and the other end of the parasol rope 36 is inserted into the diagonal rod 4 and connected to the parasol frame 6 via the pulley 37 inside the diagonal rod 4”), and page 5 (“When the crank handle 35 is turned clockwise or counterclockwise, the crank shaft 33 drives the torsion spring 34 to twist, the diameter of the torsion spring 34 becomes smaller and thus can rotate freely in the tube wall 2.1, thereby driving the rope reel wheel 32 to rotate, the rope reel wheel 32 drives the parasol rope 36 to tighten or relax, and the parasol frame 6 opens or closes. Next release the crank handle 35, the parasol frame 6 is closed under the gravity, and the parasol rope 36 is tightened. At this time, the rope reel wheel 32 has a tendency to rotate under the action of the parasol rope 36, the rope reel wheel 32 drives the torsion spring 34 to twist and increase the diameter of the torsion spring 34, so the torsion spring 34 presses and the tube wall 2.1 to stop the rope reel wheel 32, and the parasol frame 6 remains unchanged.”); Claim 6 (“The straight pole foldable hanging parasol according to claim 5, characterized in that the other end of the parasol rope (36) penetrates into the diagonal rod (4) and is connected to the parasol frame (6) via a pulley (37) in the diagonal rod (4)”); Fig. 1; Fig. 2; Fig. 3 (see annotated below); Fig. 4.

No.	Claim Limitation	Basis for Invalidity
		 To the extent Wang '109 does not disclose an umbrella canopy fabric, a person of ordinary skill in the art would understand that an umbrella canopy fabric would be needed to allow this device to function (<i>i.e.</i>, foldable but providing shade when not folded).
1[i]	wherein rotation of the winder hub tensions or relaxes the line depending upon the direction of rotation of the winder hub, and	Wang '109 discloses wherein rotation of the winder hub (rope reel wheel 32) tensions or relaxes the line (parasol rope 36) depending upon the direction of rotation of the winder hub (rope reel wheel 32). <i>See e.g.</i>, Wang '109 at Description at page 2 (“A rope reel wheel of the rope reel is fixed with a parasol rope, a torsion spring is sleeved on a crank shaft, two ends of the torsion spring abut against the rope reel wheel and the crank shaft, the shell is provided with a tube wall for accommodating the torsion spring, when the rope reel wheel drives the torsion spring to twist, the diameter of the torsion spring increases and thus presses the tube wall to stop the rope reel wheel, and when the crank shaft drives the torsion spring to twist, the diameter of the torsion spring decreases and thus rotates relative to the tube wall to drive the rope reel wheel to rotate.”) and page 5 (“When the crank handle 35 is turned clockwise or counterclockwise, the crank shaft 33 drives the torsion spring 34 to twist, the diameter of the torsion spring 34 becomes smaller and thus can rotate freely in the tube wall 2.1, thereby driving the rope reel wheel 32 to rotate, the rope reel wheel 32 drives the parasol rope 36 to tighten or relax, and the parasol frame 6 opens or closes. Next release the crank handle 35, the parasol frame 6 is

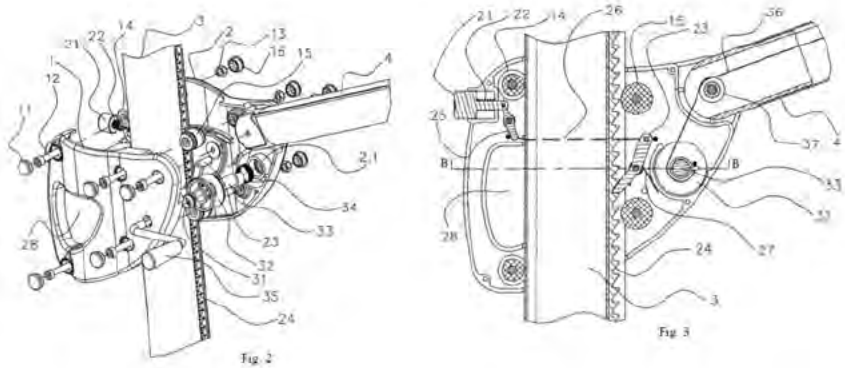
No.	Claim Limitation	Basis for Invalidity
		closed under the gravity, and the parasol rope 36 is tightened. At this time, the rope reel wheel 32 has a tendency to rotate under the action of the parasol rope 36, the rope reel wheel 32 drives the torsion spring 34 to twist and increase the diameter of the torsion spring 34, so the torsion spring 34 presses and the tube wall 2.1 to stop the rope reel wheel 32, and the parasol frame 6 remains unchanged.”); Claim 5 (“The straight pole foldable hanging parasol according to claim 3, characterized in that a rope reel wheel (32) of the rope reel is fixed with a parasol rope (36), a torsion spring (34) is sleeved on a crank shaft (33), two ends of the torsion spring (34) abut against the rope reel wheel (32) and the crank shaft (33), the shell (2) is provided with a tube wall (2.1) for accommodating the torsion spring (34), when the rope reel wheel (32) drives the torsion spring (34) to twist, the diameter of the torsion spring increases and thus presses the tube wall (2.1) to stop the rope reel wheel (32), and when the crank shaft (33) drives the torsion spring (34) to twist, the diameter of the torsion spring decreases and thus rotates relative to the tube wall (2.1) to drive the rope reel wheel (32) to rotate.”); Fig. 1; Fig. 2; Fig. 3 (see annotated below); Fig. 4. Fig. 1

No.	Claim Limitation	Basis for Invalidity
		 Fig. 2 Fig. 3 Fig. 4
1[j]	wherein operation of the winding mechanism to apply tension to the line opens and closes the umbrella canopy in response to movement of the line; and	Wang '109 discloses wherein operation of the winding mechanism (crank handle 35; crank shaft 33) to apply tension to the line (parasol rope 36) opens and closes the umbrella canopy in response to movement of the line (parasol rope 36). <i>See e.g.,</i> Wang '109 at Description at page 2 (“A rope reel wheel of the rope reel is fixed with a parasol rope, a torsion spring is sleeved on a crank shaft, two ends of the torsion spring abut against the rope reel wheel and the crank shaft, the shell is provided with a tube wall for accommodating the torsion spring, when the rope reel wheel drives the torsion spring to twist, the diameter of the torsion spring increases and thus presses the tube wall to stop the rope reel wheel, and when the crank shaft drives the torsion spring to twist, the diameter of the torsion spring decreases and thus rotates relative to the tube wall to drive the rope reel wheel to

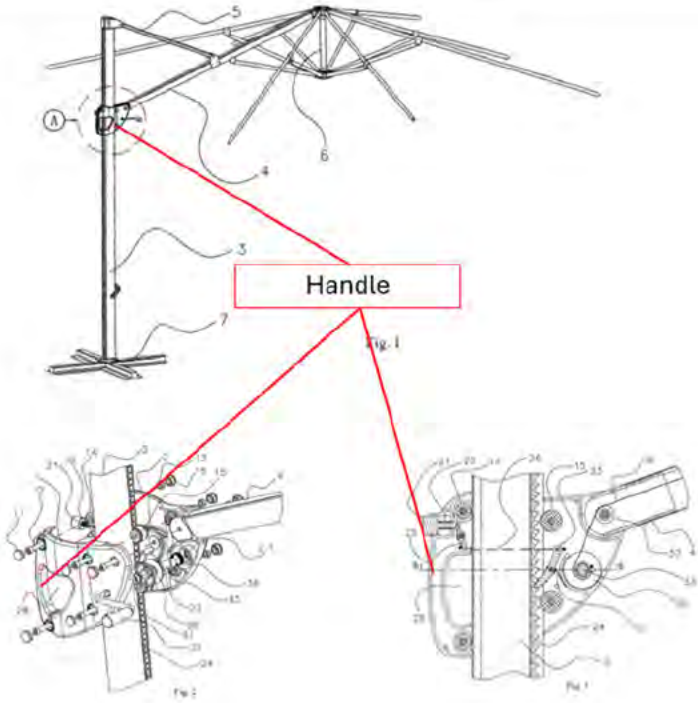
No.	Claim Limitation	Basis for Invalidity
		rotate.”) and page 5 (“When the crank handle 35 is turned clockwise or counterclockwise, the crank shaft 33 drives the torsion spring 34 to twist, the diameter of the torsion spring 34 becomes smaller and thus can rotate freely in the tube wall 2.1, thereby driving the rope reel wheel 32 to rotate, the rope reel wheel 32 drives the parasol rope 36 to tighten or relax, and the parasol frame 6 opens or closes. Next release the crank handle 35, the parasol frame 6 is closed under the gravity, and the parasol rope 36 is tightened. At this time, the rope reel wheel 32 has a tendency to rotate under the action of the parasol rope 36, the rope reel wheel 32 drives the torsion spring 34 to twist and increase the diameter of the torsion spring 34, so the torsion spring 34 presses and the tube wall 2.1 to stop the rope reel wheel 32, and the parasol frame 6 remains unchanged.”; Claim 5 (“The straight pole foldable hanging parasol according to claim 3, characterized in that a rope reel wheel (32) of the rope reel is fixed with a parasol rope (36), a torsion spring (34) is sleeved on a crank shaft (33), two ends of the torsion spring (34) abut against the rope reel wheel (32) and the crank shaft (33), the shell (2) is provided with a tube wall (2.1) for accommodating the torsion spring (34), when the rope reel wheel (32) drives the torsion spring (34) to twist, the diameter of the torsion spring increases and thus presses the tube wall (2.1) to stop the rope reel wheel (32), and when the crank shaft (33) drives the torsion spring (34) to twist, the diameter of the torsion spring decreases and thus rotates relative to the tube wall (2.1) to drive the rope reel wheel (32) to rotate.”); Fig. 1; Fig. 2 (see annotated below); Fig. 3 (see annotated below); Fig. 4.

No.	Claim Limitation	Basis for Invalidity
		 Fig. 1 Winding mechanism having winder hub around which a line can be wound Fig. 2 Fig. 3
1[k]	wherein the angle of the umbrella canopy with respect to the main pole can be controlled by moving	Wang '109 discloses wherein the angle of the umbrella canopy with respect to the main pole (vertical pole 3) can be controlled by moving the sliding member (positioning mechanism) along the main pole (vertical pole 3).

No.	Claim Limitation	Basis for Invalidity
	the sliding member along the main pole.	See e.g., Wang '109 at Description at page 3 (“The rollers 14 and 15 on both sides can touch the outer wall of the vertical pole 3, which improves the flexibility of the positioning mechanism sliding along the vertical pole 3... A handle hole 28 is formed on the left side of the shell, and a button 21 is above the handle hole 28. While holding the handle hole 28, a user can press the button 21 with the thumb. At this time, the user can move the diagonal rod 4 by applying force up and down on the handle hole 28, which can be operated with one hand and is thus ergonomic”) and page 4 (“Working mechanism: hold the handle hole 28 and push the positioning mechanism upward, the locking block 23 moves upward along the teeth of the row of teeth 24, and the inner end of the diagonal rod 4 moves upward to make the parasol frame 6 tilt downward; stop pushing upward, under the gravity of the parasol frame 6, the diagonal rod 4 drive the positioning mechanism to move downward; since the locking block 23 is engaged downward against the teeth of the row of teeth 24, the diagonal rod 4 is positioned. Press the button 21 by the hand, so the locking block 23 is turned by the crank arm 25, and thus the locking block 23 and the row of teeth 24 are disengaged. At this time, the diagonal rod 4 can be controlled to move downward to make the parasol frame 6 tilt upward; then release the button 21, the locking block 23 and the row of teeth 24 are reengaged, and the diagonal rod 4 is positioned again. The positioning position of the above structure can be decided at will, which is easy to use.”); Fig. 1 (see annotated below); Fig. 2; Fig. 3 Fig. 1

No.	Claim Limitation	Basis for Invalidity
		 Fig. 2 Fig. 3

No.	Claim Limitation	Basis for Invalidity
Claim 5 Anticipated under pre-AIA 35 U.S.C. § 102: Wang '109 (issued on June 25, 2008) or obvious under pre-AIA 35 U.S.C. § 103: Wang '109 (issued on June 25, 2008) in view of Liu '171 (issued on February 8, 1994)		
5	The umbrella of claim 1, wherein the sliding member has a handle associated therewith.	Wang '109 discloses wherein the sliding member (positioning mechanism) has a handle (handrail hole 28) associated therewith, <i>See e.g.</i>, Wang '109 at Description at page 2 (“the shells are provided with a handle hole; and the button is located above the handle hole”), page 4 (“A handle hole 28 is formed on the left side of the shell, and a button 21 is above the handle hole 28. While holding the handle hole 28, a user can press the button 21 with the thumb. At this time, the user can move the diagonal rod 4 by applying force up and down on the handle hole 28, which can be operated with one hand and is thus ergonomic” and “[w]orking mechanism: hold the handle hole 28 and push the positioning mechanism upward, the locking block 23 moves upward along the teeth of the row of teeth 24, and the inner end of the diagonal rod 4 moves upward to make the parasol frame 6 tilt downward; stop pushing upward, under the gravity of the parasol frame 6, the diagonal rod 4 drive the positioning mechanism to move downward; since the locking block 23 is engaged downward against the teeth of the row of teeth 24, the diagonal rod 4 is positioned.); Claim 3 (“...are provided with a handle hole (28); and the button (21) is located above the handle hole (28)”; Figs 1-3 (see annotated below).

No.	Claim Limitation	Basis for Invalidity
		 Fig. 1 Fig. 2 Fig. 3 Handle

No.	Claim Limitation	Basis for Invalidity
Claim 6 Anticipated under pre-AIA 35 U.S.C. § 102: Wang '109 (issued on June 25, 2008) or obvious under pre-AIA 35 U.S.C. § 103: Wang '109 (issued on June 25, 2008) in view of Liu '171 (issued on February 8, 1994)		
6	The umbrella of claim 1, wherein the line extends along at least substantially the entire length of the arm.	Wang '109 discloses wherein the line (parasol rope 36) extends along at least substantially the entire length of the arm (diagonal rod 4) <i>See e.g.</i>, Wang '109 at Description at page 2 (“A rope reel for controlling the opening and closing of the parasol frame is installed within the two shells. A rope reel wheel of the rope reel is fixed with a parasol rope, a torsion spring is sleeved on a crank shaft, two ends of the torsion spring abut against the rope reel wheel and the crank shaft, the shell is provided with a tube wall for accommodating the torsion spring, when the rope reel wheel drives the torsion spring to twist, the diameter of the torsion spring increases and thus presses the tube wall to stop the rope reel wheel, and when the crank shaft drives the torsion spring to twist, the diameter of the torsion spring decreases and thus rotates relative to the tube wall to drive the rope reel wheel to rotate. The other end of the parasol rope penetrates into the diagonal rod and is connected to the parasol frame via a pulley in the diagonal rod”); Figures 1 and 3 (see annotated below).

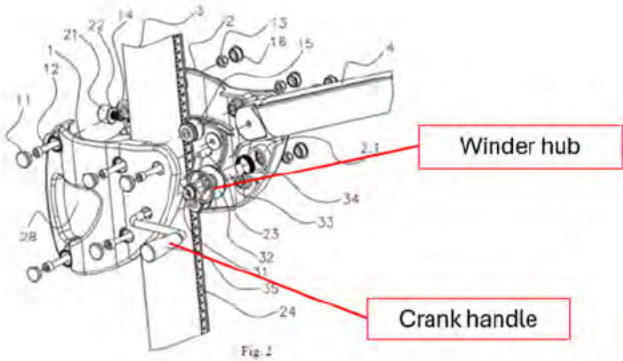
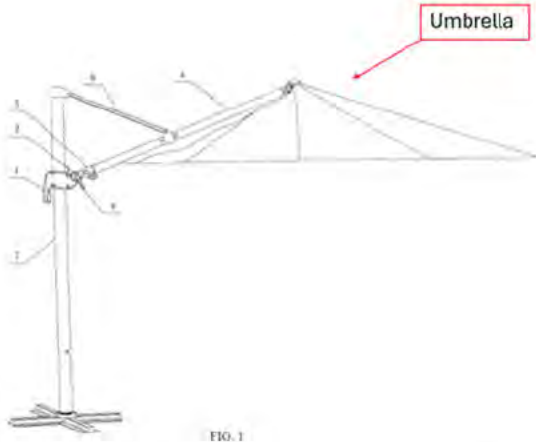
No.	Claim Limitation	Basis for Invalidity
Claim 7 Anticipated under pre-AIA 35 U.S.C. § 102: Wang '109 (issued on June 25, 2008) or obvious under pre-AIA 35 U.S.C. § 103: Wang '109 (issued on June 25, 2008) in view of Liu '171 (issued on February 8, 1994)		
7	The umbrella of claim 1, further comprising a crank handle operatively associated with the winder hub, whereby rotating the crank handle causes the winder hub to rotate.	Wang '109 discloses a crank handle (crank handle 35) operatively associated with the winder hub (rope reel wheel 32), whereby rotating the crank handle (crank handle 35) causes the winder hub ((rope reel wheel 32)) to rotate. <i>See e.g.</i>, Wang '109 at Description at page 2 (“the other hand can turn the crank handle to control the opening and closing of the parasol frame”), page 4 (“The crank handle 35 is inserted into the crank shaft 33 to reel the parasol rope 36. The rope reel wheel 32 is fixed with one end of the parasol rope 36”) and page 5 (“When the crank handle 35 is turned clockwise or counterclockwise, the crank shaft 33 drives the torsion spring 34 to twist, the diameter of the torsion spring 34 becomes smaller and thus can rotate freely in the tube wall 2.1, thereby driving the rope reel wheel 32 to rotate, the rope reel wheel 32 drives the parasol rope 36 to tighten or relax, and the parasol frame 6 opens or closes. Next release the crank handle 35, the parasol frame 6 is closed under the gravity, and the parasol rope 36 is tightened.”); Fig. 2 (see annotated below) 

EXHIBIT 9

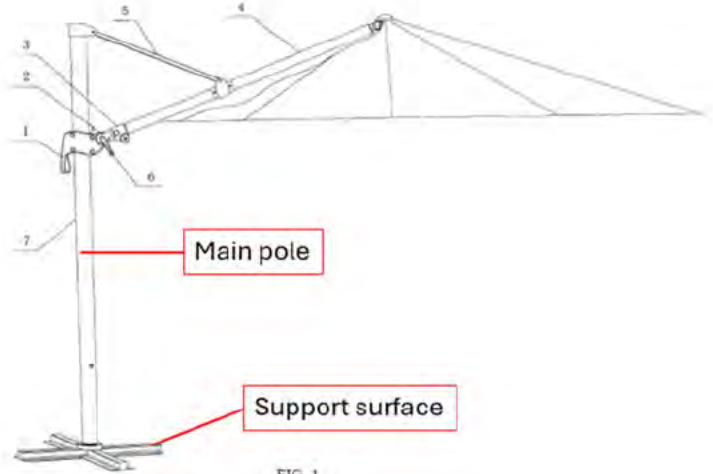
**Exhibit 9 - Invalidity Chart for U.S. Patent No. 8,104,492¹ (the '492 Patent) Based on Chinese Utility Model Patent
CN201197439Y (Wang '439)**

This chart is based on Plaintiff's apparent interpretations of the asserted claim(s) and Defendant's investigation to date. Citations to portions of any reference in this chart are exemplary only, and Defendant may rely on the entirety of the references cited herein to show that the asserted claims are invalid. Further, as Defendant's investigations and discovery are ongoing, Defendant reserves the right to amend or supplement this claim chart to include additional information and/or invalidity contentions identified in connection with Defendant's ongoing investigations. To the extent that every element below is not explicitly or inherently disclosed by the prior art reference, this prior art reference in combination (1) with the knowledge of one of ordinary skill in the art and/or (2) with other prior art identified in the invalidity contentions and/or otherwise herein, renders the asserted claims obvious.

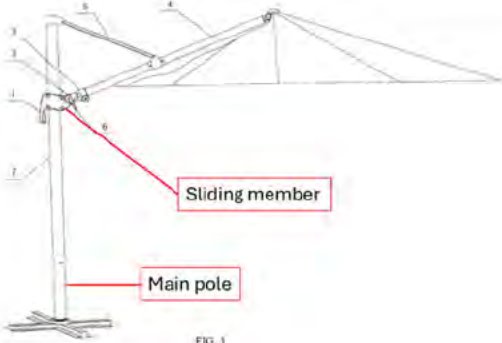
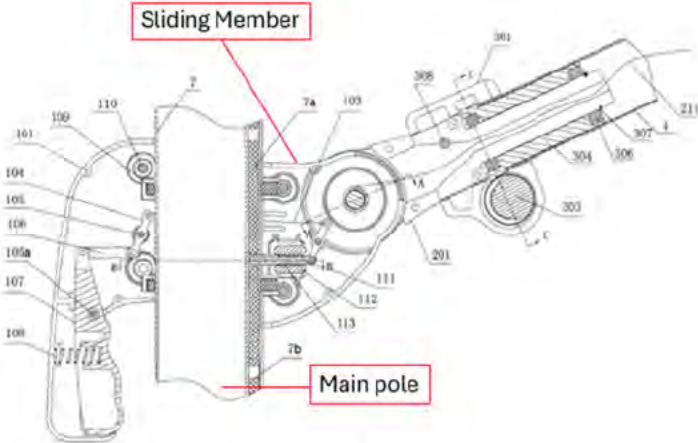
¹ As discussed in the contentions, Claim 1 of the Asserted Patent cannot claim priority to the May 5, 2008 filing date of provisional application no. 61/050,353. Instead, the priority date of Claim 1 of the Asserted Patent is May 5, 2009.

No.	Claim Limitation	Basis for Invalidity
Claim 1 Anticipated under pre-AIA 35 U.S.C. § 102: Chinese Utility Model Patent CN201197439Y (“Wang ’439”) (issued on February 25, 2009)		
1 [preamble] ²	An umbrella comprising:	Wang ’439 discloses an umbrella (“Sunshade parasol”). <i>See e.g.</i>, Title (“Sunshade Parasol Cranking Device”); Abstract, Claims 1-9, Description, Fig. 1. 
1[a]	a main pole having a lower end for support by a support surface and extending generally upward to an upper end;	Wang ’439 discloses a main pole (pole 7) having a lower end for support by a support surface and extending generally upward to an upper end. <i>See e.g.</i>, Wang ’439 at Summary at pages 1-2 (“the handle mechanism which is sleeved on a pole is composed of a left handle shell and a right handle shell, the elastic positioning hole provided on the pole is installed in the handle mechanism, the elastic positioning pin is linked

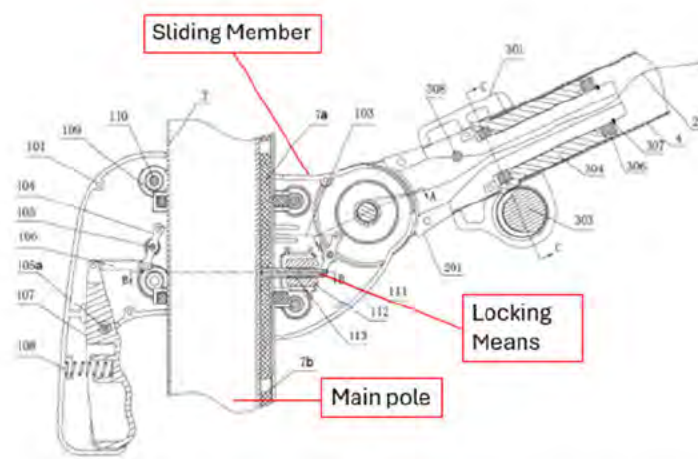
² Defendant makes no concessions or admissions regarding the claim preamble, *e.g.*, that it is or is not limiting, but reserves its right on that and other claim construction issues.

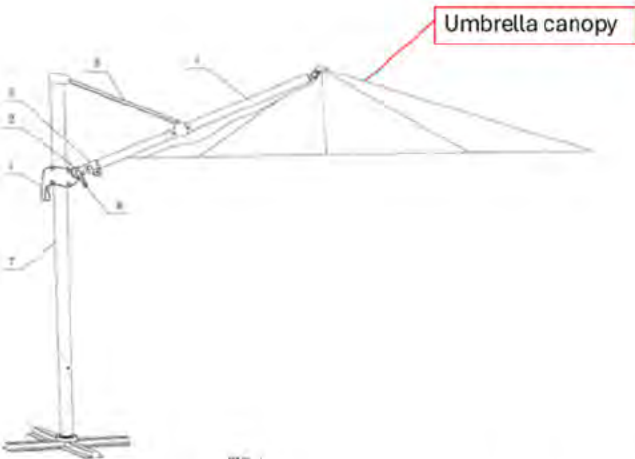
No.	Claim Limitation	Basis for Invalidity
		with a handle switch provided on the handle mechanism...” and page 3 (“the handle mechanism is used to slide on the pole of the sunshade parasol to control the left and right tilting of the parasol”); Description at page 4 (“the handle mechanism 1 is sleeved on a pole 7, and an outer end of the device is connected to an outer tube 4.”); Claim 1 (“the handle mechanism (1) which is sleeved on a pole (7)”); Claim 3 (“The sunshade parasol cranking device according to claim 1, characterized in that the inner cavity of the handle mechanism (1) is provided with a pole sliding sleeve (109) for sleeve-connecting the pole (7), and convex points (114) for slidably matching with the pole (7) are provided around an inner side of the pole sliding sleeve (109).”); and Fig. 1 (see annotated below)  FIG. 1
1[b]	a sliding member associated with the main pole and selectably moveable thereon between lower and upper	Wang '439 discloses a sliding member (handle mechanism 1) associated with the main pole (pole 7) and selectably moveable thereon between lower and upper locations along the main pole (pole 7). <i>See e.g.,</i> Wang '439 at Abstract (“A sunshade parasol cranking device is provided, which belongs to the technical field of sunshade parasol mounting bracket, and is characterized in

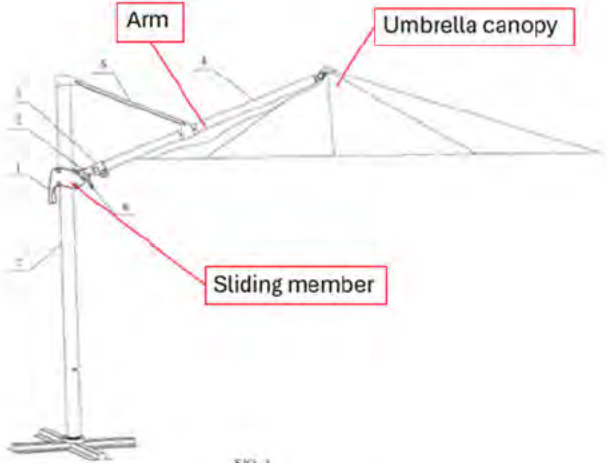
No.	Claim Limitation	Basis for Invalidity
	locations along the main pole;	that the sunshade parasol cranking device comprises a handle mechanism, a cranking mechanism, and a turning mechanism that are connected with each other for cooperation, an elastic positioning pin that is connected to a handle switch is installed in the handle mechanism... ”); Wang ’439 at Summary at page 1 (“The sunshade parasol cranking device is characterized in that the inner cavity of the handle mechanism is provided with a pole sliding sleeve for sleeve-connecting the pole, and convex points for slidably matching with the pole are provided around an inner side of the pole sliding sleeve.”), page 2 (“The sunshade parasol cranking device is characterized in that the inner cavity of the handle mechanism is provided with a pole sliding sleeve for sleeve-connecting the pole, and convex points for slidably matching with the pole are provided around an inner side of the pole sliding sleeve. The sunshade parasol cranking device is characterized in that a handle switch spring is connected between the handle switch and the shells of the handle mechanism. The sunshade parasol cranking device is characterized in that the elastic positioning pin is elastically slidably matched with a fixing sleeve connected and arranged in the inner cavity of the handle mechanism via a positioning pin spring.”), and page 3 (“The handle mechanism is used to slide on the pole of the sunshade parasol to control the left and right tilting of the parasol.”); Description at page 4 (“the handle mechanism 1 is sleeved on a pole 7, and an outer end of the device is connected to an outer tube 4.” and “This can prevent the handle mechanism 1 from shaking during sliding. The handle mechanism 1 can slide up and down via the convex points 114 and the corresponding grooves provided on the pole 7.”); Description at page 4 (“the elastic positioning pin 111 is linked with a handle switch 107 provided on the handle mechanism 1.”), page 5 (“the handle mechanism 1 can slide on the pole 7.”), and page 6 (“The handle mechanism 1 slides on the pole 7.”); Claim 1 (“...the handle mechanism (1) which is sleeved on a pole (7)...”); Claim 3 (“The sunshade parasol cranking device according to claim 1, characterized in that the inner cavity of the handle mechanism (1) is provided with a pole sliding sleeve (109) for sleeve connecting the pole (7)...”); Figs. 1 and 2 (see annotated below).

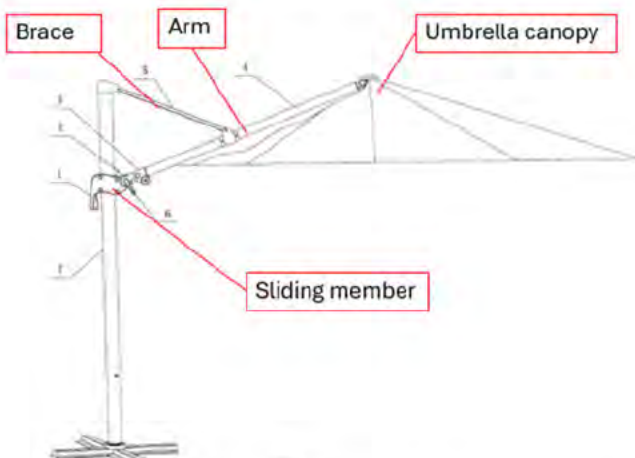
No.	Claim Limitation	Basis for Invalidity
		 
1[c]	locking means for releasably securing the sliding member to	Wang '439 discloses a locking means (elastic positioning pin 111) for releasably securing the sliding member (handle mechanism 1) to the main pole (pole 7) at a selected location along the main pole (pole 7).

No.	Claim Limitation	Basis for Invalidity
	the main pole at a selected location along the main pole;	<i>See e.g.</i>, Wang '439 at Abstract (“[A]n elastic positioning pin that is connected to a handle switch is installed in the handle mechanism...”); Summary at page 1 (“an elastic positioning pin which is inserted into a positioning hole provided on the pole is installed in the handle mechanism, the elastic positioning pin is linked with a handle switch provided on the handle mechanism”) and page 2 (“The sunshade parasol cranking device is characterized in that the elastic positioning pin is elastically slidably matched with a fixing sleeve connected and arranged in the inner cavity of the handle mechanism via a positioning pin spring.”); Description at page 4 (“An elastic positioning pin 111 is installed in the handle mechanism 1 and is inserted into a positioning hole 7b provided on the pole 7. The positioning holes 7b are arranged at a certain distance on a plastic strip 7a connected to one side of the pole 7. The elastic positioning pin 111 is linked with a handle switch 107 provided on the handle mechanism 1. For example, the handle switch 107 is linked with the elastic positioning pin 111 via a transmission pin 106 provide at an upper end of the handle switch 107, a transmission lever member 104 provided at the front and rear side, and a corresponding connection rope 103.”) and page 5 (“handle switch spring 108 is provided between the handle switch 107 and the left handle shell 101, the elastic positioning pin 111 is elastically slidably matched with a fixing sleeve 112 provided and connected in the inner cavity of the handle mechanism 1 via a positioning pin spring 113. A user can press the handle switch 107, the elastic positioning pin 111 is then pulled out of the positioning hole 7b by means of the linkage of the transmission pin 106, the front and rear transmission lever members 104 and the connection rope 103, so the handle mechanism 1 can slide on the pole 7, and the elastic positioning pin 111 is inserted into another positioning hole 7b for positioning with the positioning pin spring 113.”); Claim 1 (“...an elastic positioning pin (111) which is inserted into a positioning hole (7b) provided on the pole (7) is installed in the handle mechanism (1), the elastic positioning pin (111) is linked with a handle switch (107) provided on the handle mechanism (1)...”); Claim 2 (“The sunshade parasol cranking device according to claim 1, characterized in that the handle switch (107) is linked to the elastic positioning pin (111) via a transmission pin (106), transmission lever members (104) arranged at the front and rear, and a corresponding connection rope (103)”); Claim 5 (“The sunshade parasol cranking device according to claim 1, characterized in that the elastic positioning pin (111) is elastically

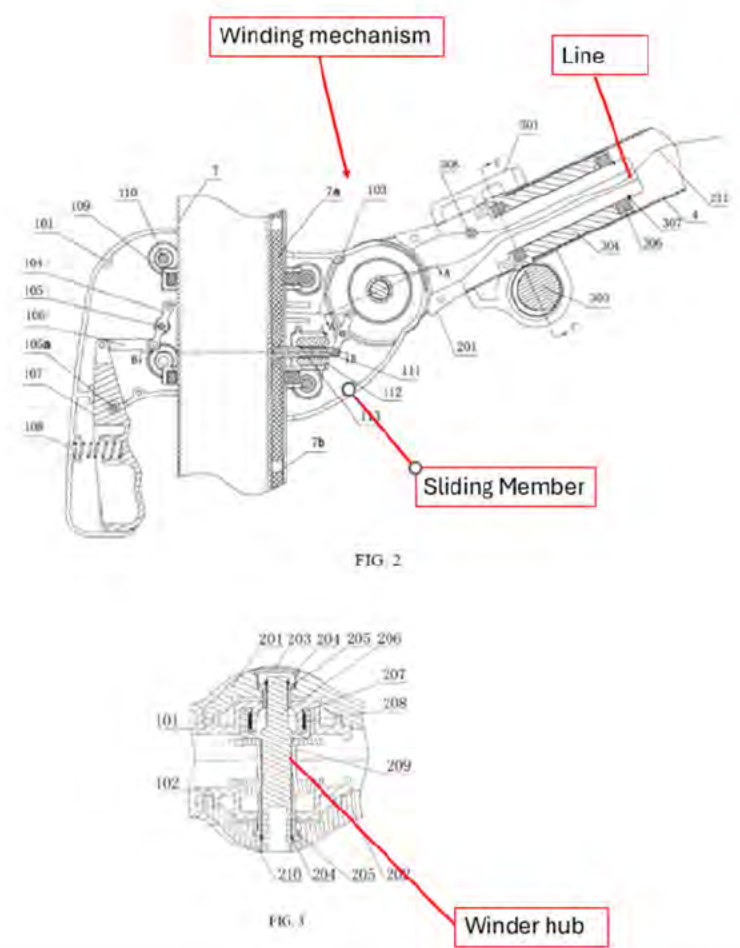
No.	Claim Limitation	Basis for Invalidity
		slidably matched with a fixing sleeve (112) connected and arranged in the inner cavity of the handle mechanism (1) via a positioning pin spring (113).”; and Fig. 2 (see annotated below).  FIG. 2
1[d]	an umbrella canopy having a central region;	Wang '439 discloses an umbrella canopy (parasol surface) having a central region. <i>See e.g.,</i> Wang '439 at Description at page 3 (“a sun-shading hanging umbrella can be adjusted in any angle in the front and back as well as left and right directions o select the appropriate sun-shading angle and improve the shadin[g] effect.”); Wang ‘439 p. 5 (“An umbrella rope 211 for controlling the opening and closing of the umbrella surface”) and page 5 (“so that the hanging umbrella can be adjusted arbitrarily within the range of 180 degrees horizontally to adjust the inclination of the hanging umbrella before and after. The handrail mechanism 1 glides on the vertical rod 7 and rotates around the outer convex circle of the hand crank axle 206 and the left hand crank housing 101 and the right hand crank housing 102 through the left hand crank housing 201 and the right hand crank housing 202, and the diagonal rod 5 is movably connected with the outer pipe 4 to adjust the left and right tilt angle of the hanging umbrella. When the handrail mechanism 1 glides down, the outer pipe 4 merges vertically toward the vertical rod 7 so that the umbrella face is inclined to the left.”);

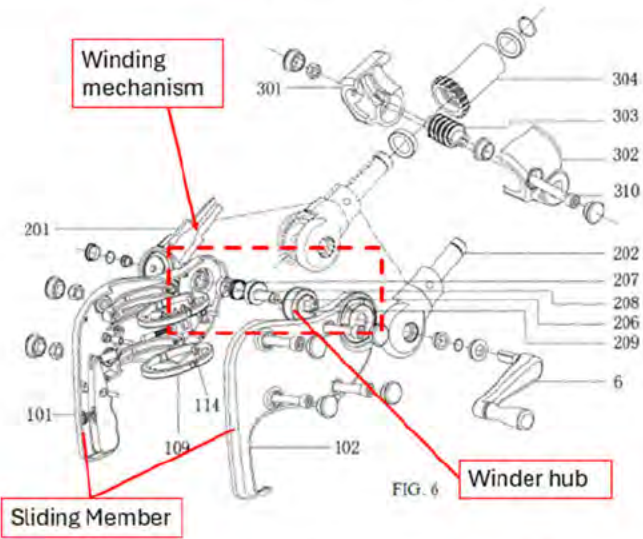
No.	Claim Limitation	Basis for Invalidity
		Claim 1 (“an umbrella rope (211) is installed on the rope winding wheel (209) to control the opening and closing of the umbrella surface”); Fig. 1 (see annotated below)  FIG. 1
1[e]	an arm associated with the central region and extending radially therefrom to an outer end operatively associated with the sliding member;	Wang '439 discloses an arm (outer tube 4) associated with the central region and extending radially therefrom to an outer end operatively associated with the sliding member (handle mechanism 1). <i>See, e.g.,</i> Wang '439 at Description at page 4 (“the handle mechanism 1 is sleeved on a pole 7, and an outer end of the device is connected to an outer tube 4.”), page 5 (“An oblique gear sleeve 304 for connecting the outer tube 4 and a meshing word gear 303 are arranged in the left turning shell 301 and the right turning shell 302” and “By means of the rotation of the left cranking shell 201 and the right cranking shell 202 around the cranking shaft 206 and the round surfaces of the left handle shell 101 and the right handle shell 102 and the movabl[e] connection between the diagonal rod 5 and the outer tube 4, the left and right tilting angles of the parasol can be adjusted.”), and page 6 (“The outer tube 4 then rotates accordingly to freely adjust the parasol within a range of 180 degrees relative to the horizontal level, adjusting the front and rear tilting angles of the parasol.”); Fig. 1 (see annotated below)

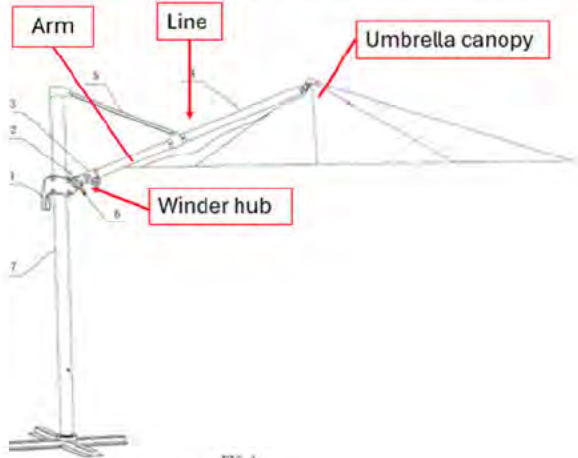
No.	Claim Limitation	Basis for Invalidity
		
1[f]	a brace having a first end pivotably attached to an upper portion of the pole above the sliding member and a second end pivotably attached to the arm;	Wang '439 discloses a brace (diagonal rod 5) having a first end pivotably attached to an upper portion of the pole (pole 7) above the sliding member (handle mechanism 1) and a second end pivotably attached to the arm (outer tube 4). <i>See e.g.,</i> Wang '439 at Description at page 6 (“By means of the rotation of the left cranking shell 201 and the right cranking shell 202 around the cranking shaft 206 and the round surfaces of the left handle shell 101 and the right handle shell 102 and the movabl[e] connection between the diagonal rod 5 and the outer tube 4, the left and right tilting angles of the parasol can be adjusted. When the handle mechanism 1 slides downward, the outer tube 4 merges vertically with the pole 7, such that the parasol surface tilts to the left.”); Fig. 1

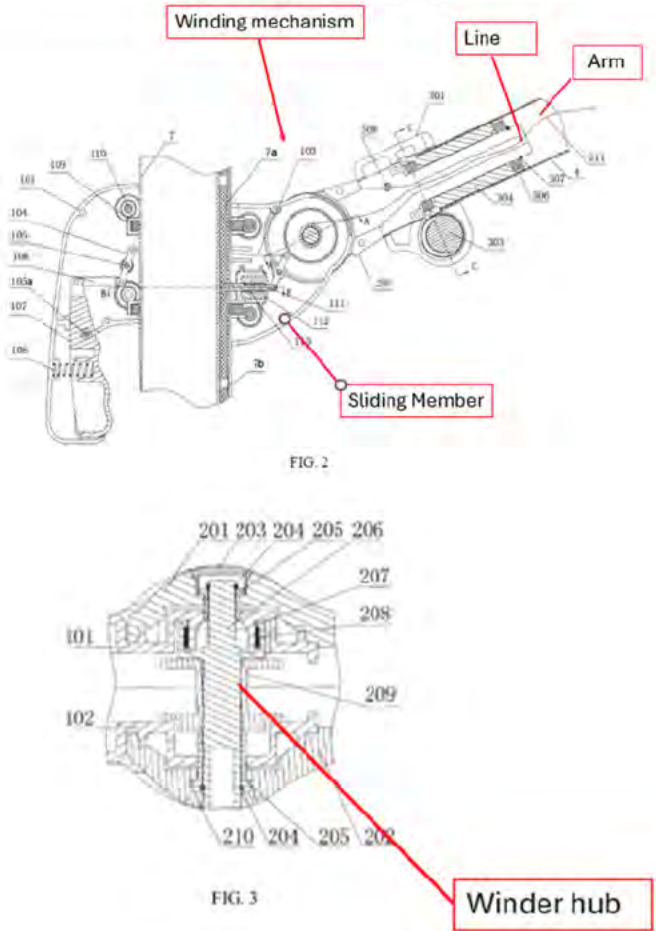
No.	Claim Limitation	Basis for Invalidity
		 FIG. 1
1[g]	a winding mechanism having a winder hub around which a line can be wound, the winder hub being mounted to the sliding member and moveable therewith;	Wang '439 discloses a winding mechanism (cranking mechanism 2) having a winder hub (rope winding wheel 209) around which a line (parasol rope 211) can be wound, the winder hub (rope winding wheel 209) being mounted to the sliding member (handle mechanism 1) and moveable therewith. <i>See e.g.,</i> Wang '439 at Abstract at pages 1-2 (“A sunshade parasol cranking device is provided, which belongs to the technical field of sunshade parasol mounting bracket, and is characterized in that the sunshade parasol cranking device comprises a handle mechanism, a cranking mechanism, and a turning mechanism that are connected with each other for cooperation, an elastic positioning pin that is connected to a handle switch is installed in the handle mechanism, the cranking mechanism comprising a cranking shaft and a rope winding wheel is arranged at a front end of the handle mechanism, a parasol rope for controlling the opening and closing of the parasol surface is wound around the rope winding wheel, a turning mechanism is arranged at the front end of the handle mechanism with a left cranking shell and a right cranking shell that are coaxially and movably matched with the cranking shaft, an

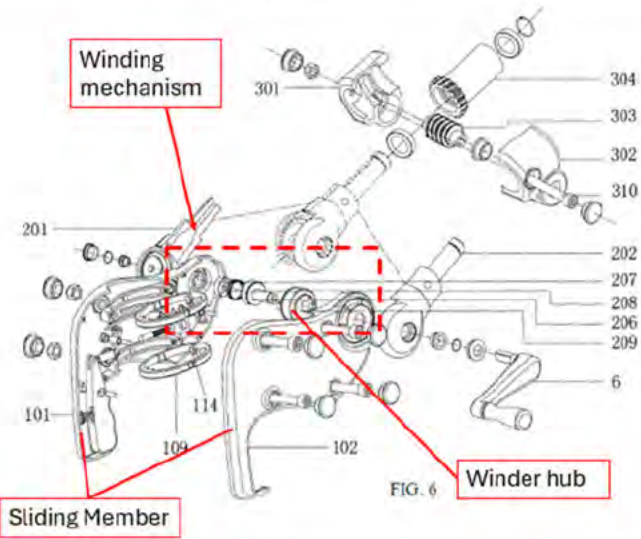
No.	Claim Limitation	Basis for Invalidity
		oblique gear sleeve for connecting an outer tube and a meshing worm gear are arranged in the turning mechanism. The sunshade parasol cranking device controls the left and right tilting angles with the handle mechanism, controls the front and rear tilting angles with the turning mechanism, and controls the opening and closing of the parasol surface with the cranking mechanism, so that the sunshade parasol can be adjusted at any angle in the front and rear, left and right directions"); Description at page 2 ("the cranking mechanism is provided in a front end inner cavity of the handle mechanism, the cranking mechanism comprises a cranking shaft and a rope winding wheel which is sleeved therewith, a rope for controlling the opening and closing of the parasol surface is wound around the rope winding wheel"), page 3 ("the cranking mechanism is used to control the opening and closing of the parasol"), page 5 ("A front end inner cavity of the handle mechanism 1 is provided with a cranking mechanism 2. The cranking mechanism 2 comprises a cranking shaft 206 and a rope winding wheel 209 sleeved therewith. Both ends of the cranking shaft 206 are connected in series to the left handle shell 101 and the right handle shell 102. A washer 207 and a torsion spring 208 are provided between the cranking shaft 206 and the left handle shell 101. The rope winding wheel 209 is controlled to be unable to rotate freely by means of the torsion spring 208, which can provide an anti-slip effect. The rope winding wheel 209 is provided with a parasol rope 211 for controlling the opening and closing of the parasol surface. One end of the cranking shaft 206 is provided with a connection hole for connecting with the cranking handle 6, and the cranking handle 6 is inserted into the connection hole for rotation. The cranking shaft 206 and the rope winding wheel 209 sleeved therewith can rotate, such that the parasol rope 211 is taken in or sent out to control the opening and closing of the parasol surface. The left cranking shell 201 and the right cranking shell 202 that are coaxially and movably matched with the cranking mechanism 2 are provided on two outer sides of the front end of the handle mechanism 1."); Claim 1 ("..."the cranking mechanism (2) comprises a cranking shaft (206) and a rope winding wheel (209) which is sleeved therewith, a parasol rope (211) for controlling the opening and closing of the parasol surface is wound around the rope winding wheel (209)..."); Fig. 2 , 3, and 6 (see annotated below)

No.	Claim Limitation	Basis for Invalidity
		 Winding mechanism Line Sliding Member FIG. 2 FIG. 3 Winder hub

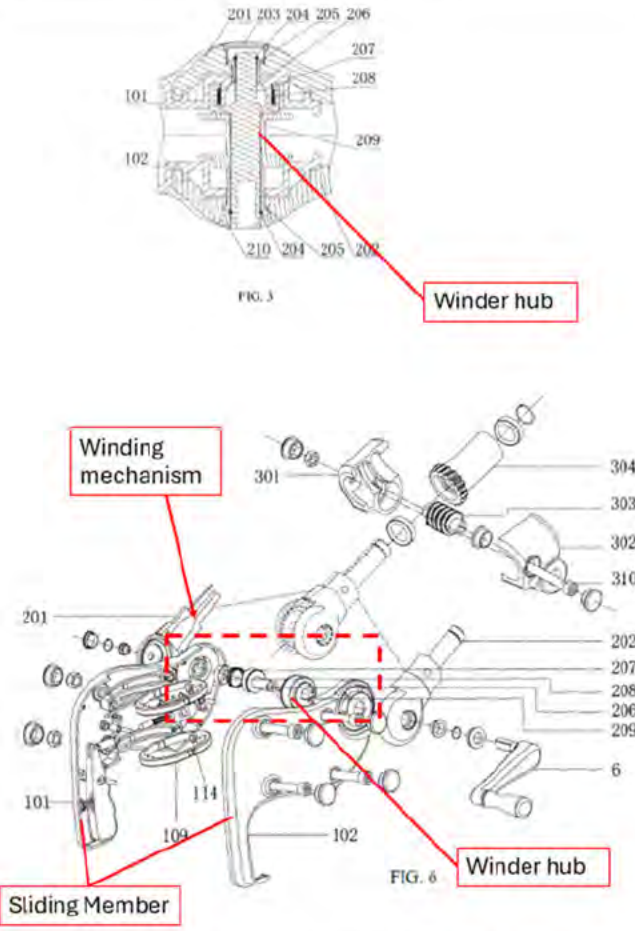
No.	Claim Limitation	Basis for Invalidity
		
1[h]	a line having a first end that winds around the winder hub, an intermediate portion extending from the winder hub along the arm to the umbrella canopy, and a second end that engages the umbrella canopy;	Wang '439 discloses a line (parasol rope 211) having a first end that winds around the winder hub (rope winding wheel 209), an intermediate portion extending from the winder hub (rope winding wheel 209) along the arm (outer tube 4) to the umbrella canopy (parasol surface), and a second end that engages the umbrella canopy (parasol surface). <i>See e.g.</i>, Wang '439 at Abstract at (“The sunshade parasol cranking device controls the left and right tilting angles with the handle mechanism, controls the front and rear tilting angles with the turning mechanism, and controls the opening and closing of the parasol surface with the cranking mechanism, so that the sunshade parasol can be adjusted at any angle in the front and rear, left and right directions.”); Summary at Page 2 (“[T]he cranking mechanism is provided in a front end inner cavity of the handle mechanism, the cranking mechanism comprises a cranking shaft and a rope winding wheel which is sleeved therewith, a rope for controlling the opening and closing of the parasol surface is wound around the rope winding wheel[.]”); Description at page 4 (“The sunshade parasol cranking device comprises a handle mechanism 1, a cranking mechanism 2, and a turning mechanism 3 which are connected to

No.	Claim Limitation	Basis for Invalidity
		each other for cooperation, the handle mechanism 1 is sleeved on a pole 7, and an outer end of the device is connected to an outer tube 4.”) and page 5 (“The cranking mechanism 2 comprises a cranking shaft 206 and a rope winding wheel 209 sleeved therewith. Both ends of the cranking shaft 206 are connected in series to the left handle shell 101 and the right handle shell 102. A washer 207 and a torsion spring 208 are provided between the cranking shaft 206 and the left handle shell 101. The rope winding wheel 209 is controlled to be unable to rotate freely by means of the torsion spring 208, which can provide an anti-slip effect. The rope winding wheel 209 is provided with a parasol rope 211 for controlling the opening and closing of the parasol surface. One end of the cranking shaft 206 is provided with a connection hole for connecting with the cranking handle 6, and the cranking handle 6 is inserted into the connection hole for rotation. The cranking shaft 206 and the rope winding wheel 209 sleeved therewith can rotate, such that the parasol rope 211 is taken in or sent out to control the opening and closing of the parasol surface.”); Claim 1 (“...the cranking mechanism (2) comprises a cranking shaft (206) and a rope winding wheel (209) which is sleeved therewith, a parasol rope (211) for controlling the opening and closing of the parasol surface is wound around the rope winding wheel (209).”); Figs. 1, 2, 3, and 6 (see annotated below).  FIG. 1

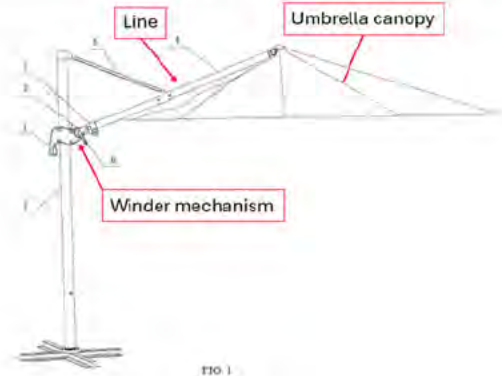
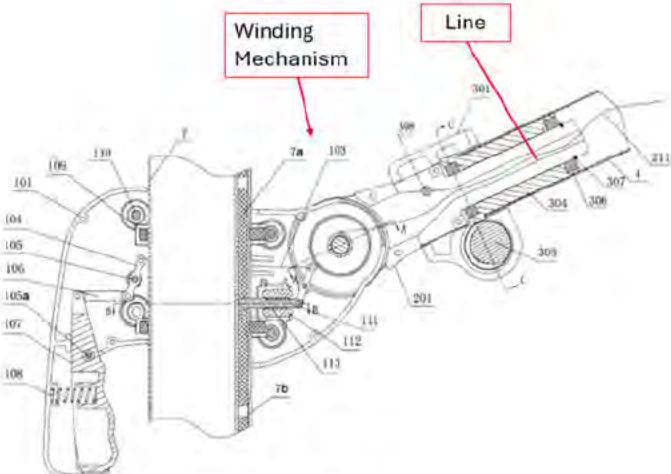
No.	Claim Limitation	Basis for Invalidity
		 FIG. 2 FIG. 3 Winding mechanism Line Arm Sliding Member Winder hub

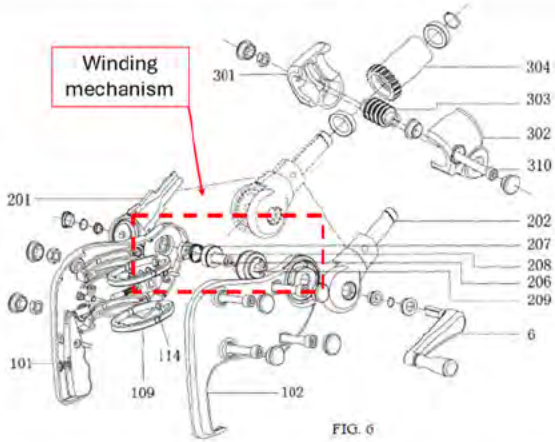
No.	Claim Limitation	Basis for Invalidity
		
1[i]	wherein rotation of the winder hub tensions or relaxes the line depending upon the direction of rotation of the winder hub, and	Wang '439 discloses wherein rotation of the winder hub (rope winding wheel 209) tensions or relaxes the line (parasol rope 211) depending upon the direction of rotation of the winder hub (rope winding wheel 209). <i>See e.g.</i>, Wang '439 at Abstract (“The sunshade parasol cranking device controls the left and right tilting angles with the handle mechanism, controls the front and rear tilting angles with the turning mechanism, and controls the opening and closing of the parasol surface with the cranking mechanism, so that the sunshade parasol can be adjusted at any angle in the front and rear, left and right directions.”); Summary at page 2 (“[T]he cranking mechanism is provided in a front end inner cavity of the handle mechanism, the cranking mechanism comprises a cranking shaft and a rope winding wheel which is sleeved therewith, a rope for controlling the opening and closing of the parasol surface is wound around the rope winding wheel[.]”); Description at page 5 (“The cranking mechanism 2 comprises a cranking shaft 206 and a rope winding wheel 209 sleeved therewith. Both ends of the cranking shaft 206 are connected in series to the left handle shell 101 and the right

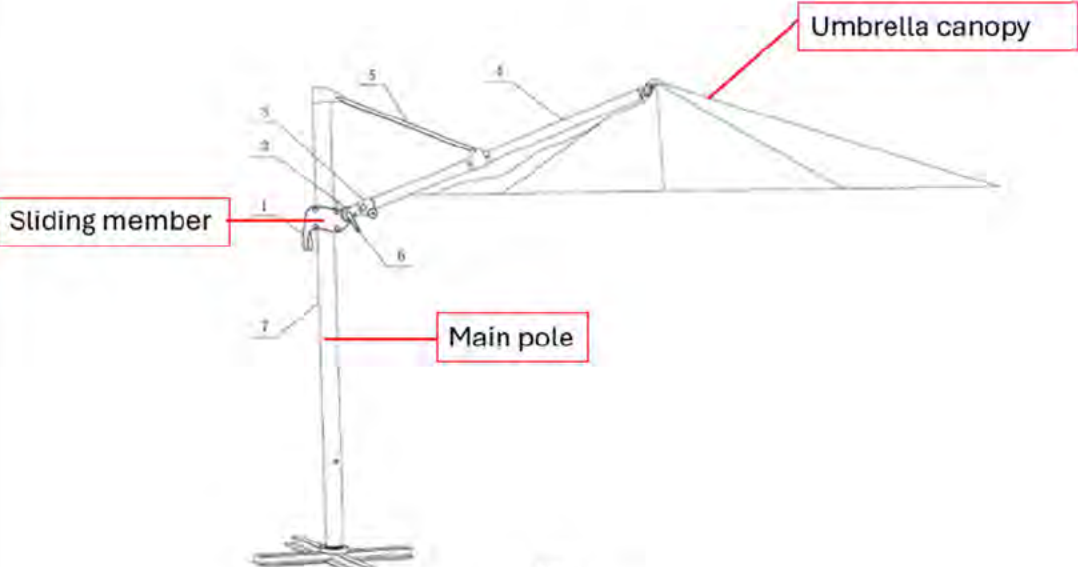
No.	Claim Limitation	Basis for Invalidity
		handle shell 102. A washer 207 and a torsion spring 208 are provided between the cranking shaft 206 and the left handle shell 101. The rope winding wheel 209 is controlled to be unable to rotate freely by means of the torsion spring 208, which can provide an anti-slip effect. The rope winding wheel 209 is provided with a parasol rope 211 for controlling the opening and closing of the parasol surface. One end of the cranking shaft 206 is provided with a connection hole for connecting with the cranking handle 6, and the cranking handle 6 is inserted into the connection hole for rotation. The cranking shaft 206 and the rope winding wheel 209 sleeved therewith can rotate, such that the parasol rope 211 is taken in or sent out to control the opening and closing of the parasol surface.”); Claim 1 (“...the cranking mechanism (2) comprises a cranking shaft (206) and a rope winding wheel (209) which is sleeved therewith, a parasol rope (211) for controlling the opening and closing of the parasol surface is wound around the rope winding wheel (209)...”); Figs. 2,3, and 6 (see annotated below). FIG. 2

No.	Claim Limitation	Basis for Invalidity
		 FIG. 3 Winder hub Winding mechanism Sliding Member FIG. 6 Winder hub
1[j]	wherein operation of the winding mechanism to apply tension to the line opens and closes the umbrella canopy in	Wang '439 discloses wherein operation of the winding mechanism (cranking mechanism 2) to apply tension to the line (parasol rope 211) opens and closes the umbrella canopy (parasol surface) in response to movement of the line (parasol rope 211). <i>See e.g.</i>, Wang '439 at Abstract (“The sunshade parasol cranking device controls the left and right tilting angles with the handle mechanism, controls the front and rear tilting angles with

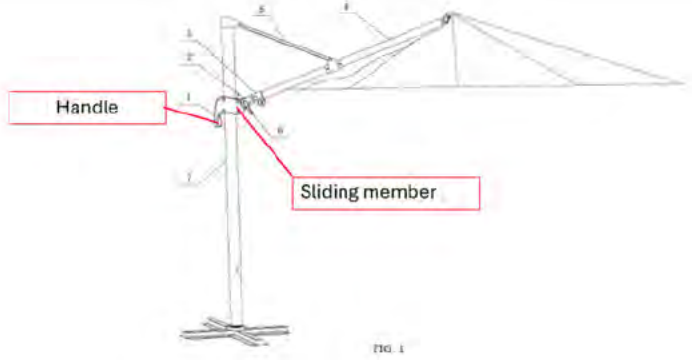
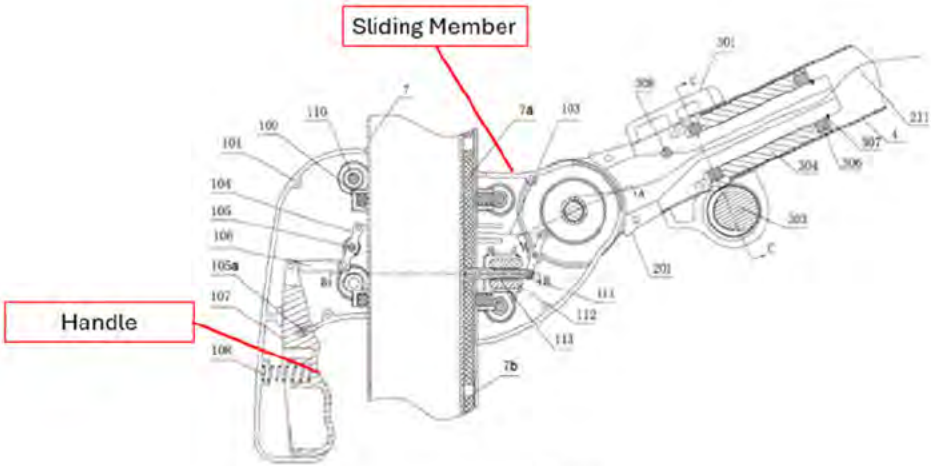
No.	Claim Limitation	Basis for Invalidity
	response to movement of the line; and	the turning mechanism, and controls the opening and closing of the parasol surface with the cranking mechanism, so that the sunshade parasol can be adjusted at any angle in the front and rear, left and right directions.”); Summary at page 2 (“[T]he cranking mechanism is provided in a front end inner cavity of the handle mechanism, the cranking mechanism comprises a cranking shaft and a rope winding wheel which is sleeved therewith, a rope for controlling the opening and closing of the parasol surface is wound around the rope winding wheel[.]”); Description at page 5 (“The cranking mechanism 2 comprises a cranking shaft 206 and a rope winding wheel 209 sleeved therewith. Both ends of the cranking shaft 206 are connected in series to the left handle shell 101 and the right handle shell 102. A washer 207 and a torsion spring 208 are provided between the cranking shaft 206 and the left handle shell 101. The rope winding wheel 209 is controlled to be unable to rotate freely by means of the torsion spring 208, which can provide an anti-slip effect. The rope winding wheel 209 is provided with a parasol rope 211 for controlling the opening and closing of the parasol surface. One end of the cranking shaft 206 is provided with a connection hole for connecting with the cranking handle 6, and the cranking handle 6 is inserted into the connection hole for rotation. The cranking shaft 206 and the rope winding wheel 209 sleeved therewith can rotate, such that the parasol rope 211 is taken in or sent out to control the opening and closing of the parasol surface.”); Claim 1 (“...the cranking mechanism (2) comprises a cranking shaft (206) and a rope winding wheel (209) which is sleeved therewith, a parasol rope (211) for controlling the opening and closing of the parasol surface is wound around the rope winding wheel (209)...”); Figs. 1, 2, and 6 (see annotated below).

No.	Claim Limitation	Basis for Invalidity
		 FIG. 1  FIG. 2

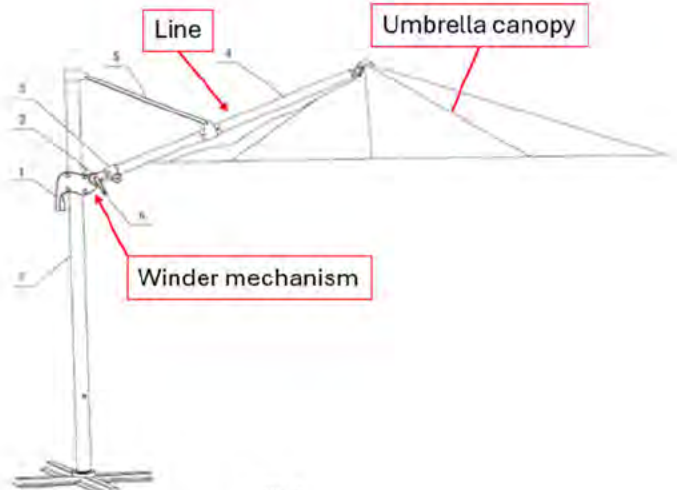
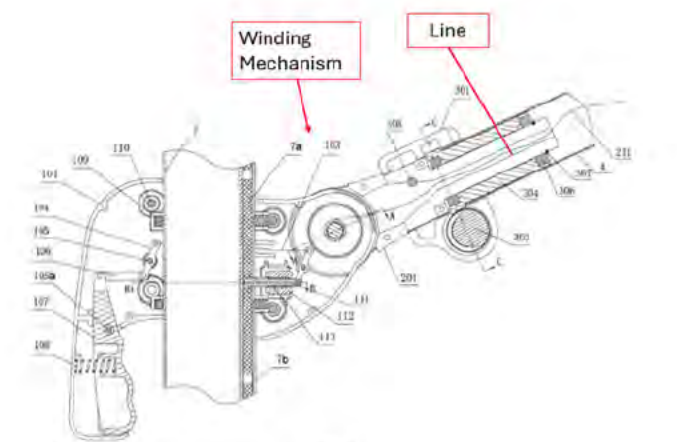
No.	Claim Limitation	Basis for Invalidity
		
1[k]	wherein the angle of the umbrella canopy with respect to the main pole can be controlled by moving the sliding member along the main pole.	Wang '439 discloses wherein the angle of the umbrella canopy (parasol surface) with respect to the main pole (mast 2) can be controlled by moving the sliding member (slide 54) along the main pole (pole 7). <i>See e.g.</i>, Wang'439 at Abstract (“The sunshade parasol cranking device controls the left and right tilting angles with the handle mechanism.”); Summary at page 1 (“The present utility model aims to provide a technical solution for a sunshade parasol cranking device which integrates parasol opening and closing control, left and right tilting adjustment and front and back tilting adjustment, so as to overcome the problems in the existing technology”) and page 3 (“The handle mechanism is used to slide on the pole of the sunshade parasol to control the left and right tilting of the parasol.”); Description at page 6 (“The handle mechanism 1 slides on the pole 7. By means of the rotation of the left cranking shell 201 and the right cranking shell 202 around the cranking shaft 206 and the round surfaces of the left handle shell 101 and the right handle shell 102 and the movably connection between the diagonal rod 5 and the outer tube 4, the left and right tilting angles of the parasol can be adjusted. When the handle mechanism 1 slides downward, the outer tube 4 merges vertically with the pole 7, such that the parasol surface tilts to the left.”); Fig 1 (see annotated below).

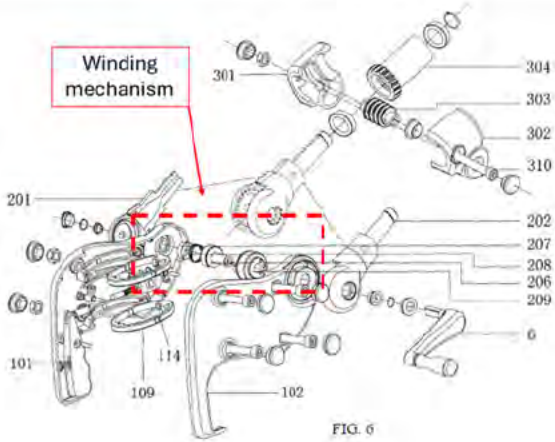
No.	Claim Limitation	Basis for Invalidity
		 FIG. 1.

No.	Claim Limitation	Basis for Invalidity
Claim 5		
Anticipated under pre-AIA 35 U.S.C. § 102: Wang '439 (issued on February 25, 2009)		
5	The umbrella of claim 1, wherein the sliding member has a handle associated therewith.	Wang '439 discloses wherein the sliding member (handle mechanism 1) has a handle associated therewith (handle mechanism 1). <i>See e.g.</i>, Wang '439 at Abstract (“A sunshade parasol cranking device is provided, which belongs to the technical field of sunshade parasol mounting bracket, and is characterized in that the sunshade parasol cranking device comprises a handle mechanism...”); Summary at pages 1-3 (“A sunshade parasol cranking device is provided, which is characterized in that the sunshade parasol cranking device comprises a handle mechanism”, “The sunshade parasol cranking device is characterized in that a handle switch spring is connected between the handle switch and the shells of the handle mechanism”, and “[the] handle mechanism is used to slide on the pole of the sunshade parasol to control the left and right tilting of the parasol.”; Description at page 4 (“The sunshade parasol cranking device comprises a handle mechanism 1, a cranking mechanism 2, and a turning mechanism 3 which are connected to each other for cooperation, the handle mechanism 1 is sleeved on a pole 7, and an outer end of the device is connected to an outer tube 4. The handle mechanism 1 that is sleeved on the pole 7 is composed of a left handle shell 101 and a right handle shell 102 connected and matched by screws 110. An inner cavity of the handle mechanism 1 is provided with a pole sliding sleeve 109 for being sleeved on the pole 7.”), pages 4-5 (“The handle switch 107 is movably connected with a cylindrical pin 105a provided on the inner side of the left handle shell 101 of the handle mechanism 1 as the central axis...so the handle mechanism 1 can slide on the pole 7, and the elastic positioning pin 111 is inserted into another positioning hole 7b for positioning with the positioning pin spring 113. A front end inner cavity of the handle mechanism 1 is provided with a cranking mechanism 2.”), apge 5 (“The left cranking shell 201 and the right cranking shell 202 that are coaxially and movably matched with the cranking mechanism 2 are provided on two outer sides of the front end of the handle mechanism 1.”), and page 6 (“The handle mechanism 1 slides on the pole 7.”); <i>See</i> Claims 1, 3, 4, and 5 (all reference the handle mechanism); Figs. 1 and 2 (see annotated below).

No.	Claim Limitation	Basis for Invalidity
		 FIG. 1  FIG. 2

No.	Claim Limitation	Basis for Invalidity
Claim 6		
Anticipated under pre-AIA 35 U.S.C. § 102: Wang '439 (issued on February 25, 2009)		
6	The umbrella of claim 1, wherein the line extends along at least substantially the entire length of the arm.	Wang '439 discloses wherein the line (parasol rope 211) extends along at least substantially the entire length of the arm (outer tube 4). <i>See e.g.</i>, Wang '439 at Abstract (“The sunshade parasol cranking device controls the left and right tilting angles with the handle mechanism, controls the front and rear tilting angles with the turning mechanism, and controls the opening and closing of the parasol surface with the cranking mechanism, so that the sunshade parasol can be adjusted at any angle in the front and rear, left and right directions.”); Summary at page 2 (“[T]he cranking mechanism is provided in a front end inner cavity of the handle mechanism, the cranking mechanism comprises a cranking shaft and a rope winding wheel which is sleeved therewith, a rope for controlling the opening and closing of the parasol surface is wound around the rope winding wheel[.]”); Description at page 5 (“The cranking mechanism 2 comprises a cranking shaft 206 and a rope winding wheel 209 sleeved therewith. Both ends of the cranking shaft 206 are connected in series to the left handle shell 101 and the right handle shell 102. A washer 207 and a torsion spring 208 are provided between the cranking shaft 206 and the left handle shell 101. The rope winding wheel 209 is controlled to be unable to rotate freely by means of the torsion spring 208, which can provide an anti-slip effect. The rope winding wheel 209 is provided with a parasol rope 211 for controlling the opening and closing of the parasol surface. One end of the cranking shaft 206 is provided with a connection hole for connecting with the cranking handle 6, and the cranking handle 6 is inserted into the connection hole for rotation. The cranking shaft 206 and the rope winding wheel 209 sleeved therewith can rotate, such that the parasol rope 211 is taken in or sent out to control the opening and closing of the parasol surface.”); Claim 1 (“...the cranking mechanism (2) comprises a cranking shaft (206) and a rope winding wheel (209) which is sleeved therewith, a parasol rope (211) for controlling the opening and closing of the parasol surface is wound around the rope winding wheel (209)...”); Figs. 1, 2, and 6 (see annotated below).

No.	Claim Limitation	Basis for Invalidity
		 FIG. 1  FIG. 2

No.	Claim Limitation	Basis for Invalidity
		 FIG. 6 To the extent Wang '439 does not explicitly disclose this limitation, a person of ordinary skill in the art would recognize that it is inherent in the disclosure that the line (parasol rope 211) shown in Fig. 2 extends throughout the arm (outer tube 4) so that the action of winding can manipulate the umbrella canopy.

No.	Claim Limitation	Basis for Invalidity
Claim 7		
Anticipated under pre-AIA 35 U.S.C. § 102: Wang '439 (issued on February 25, 2009)		
7	The umbrella of claim 1, further comprising a crank handle operatively associated with the winder hub, whereby rotating the crank handle causes the winder hub to rotate.	Wang '439 discloses a crank handle (cranking handle 6.) operatively associated with the winder hub (rope winding wheel 209), whereby rotating the crank handle (cranking handle 6) causes the winder hub (rope winding wheel 209) to rotate. <i>See e.g.</i>, Wang '439 at page 5 (“The cranking mechanism 2 comprises a cranking shaft 206 and a rope winding wheel 209 sleeved therewith. Both ends of the cranking shaft 206 are connected in series to the left handle shell 101 and the right handle shell 102. A washer 207 and a torsion spring 208 are provided between the cranking shaft 206 and the left handle shell 101. The rope winding wheel 209 is controlled to be unable to rotate freely by means of the torsion spring 208, which can provide an anti-slip effect. The rope winding wheel 209 is provided with a parasol rope 211 for controlling the opening and closing of the parasol surface. One end of the cranking shaft 206 is provided with a connection hole for connecting with the cranking handle 6, and the cranking handle 6 is inserted into the connection hole for rotation. The cranking shaft 206 and the rope winding wheel 209 sleeved therewith can rotate, such that the parasol rope 211 is taken in or sent out to control the opening and closing of the parasol surface.”); Claim 9 (“The sunshade parasol cranking device according to claim 1, characterized in that an end of the cranking shaft (206) and an end of the worm gear (303) are respectively provided with connection holes for connecting with a cranking handle (6).”); Fig. 6 (see annotated below).

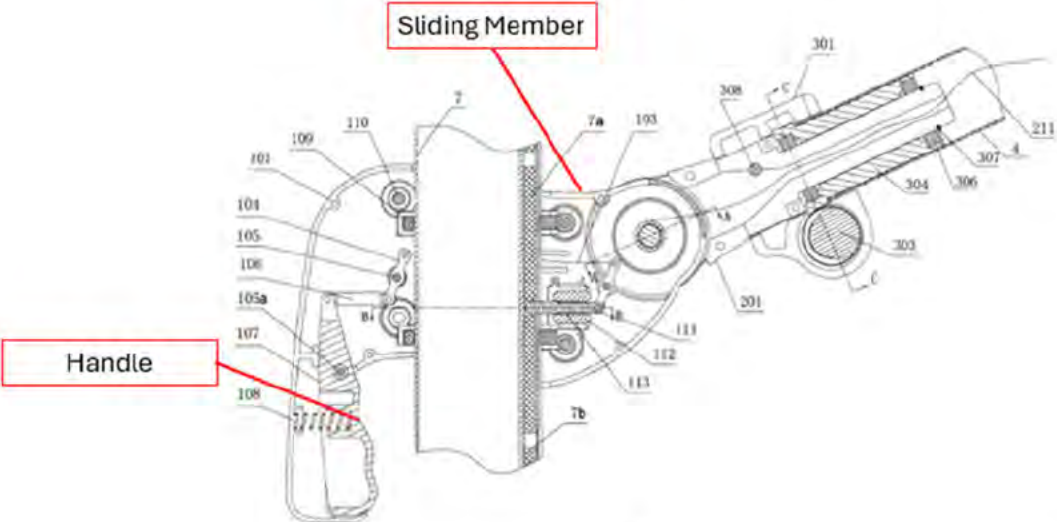
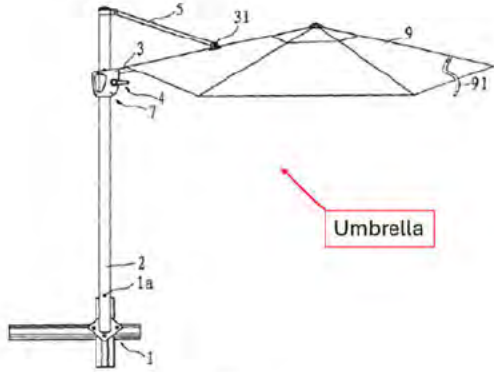
No.	Claim Limitation	Basis for Invalidity
		 FIG. 2

EXHIBIT 10

**Exhibit 10 - Invalidity Chart for U.S. Patent No. 8,104,492¹ (the '492 Patent) Based on Chinese Utility Model Patent
CN201207982 (Wu '982)**

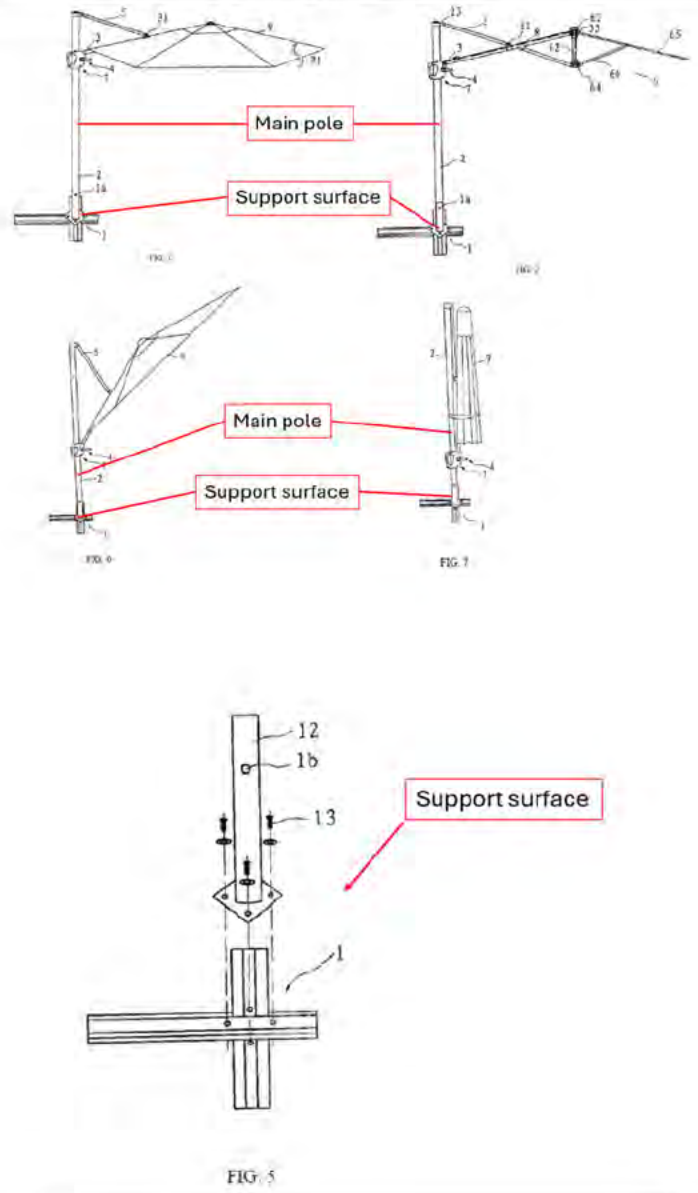
This chart is based on Plaintiff's apparent interpretations of the asserted claim(s) and Defendant's investigation to date. Citations to portions of any reference in this chart are exemplary only, and Defendant may rely on the entirety of the references cited herein to show that the asserted claims are invalid. Further, as Defendant's investigations and discovery are ongoing, Defendant reserves the right to amend or supplement this claim chart to include additional information and/or invalidity contentions identified in connection with Defendant's ongoing investigations. To the extent that every element below is not explicitly or inherently disclosed by the prior art reference, this prior art reference in combination (1) with the knowledge of one of ordinary skill in the art and/or (2) with other prior art identified in the invalidity contentions and/or otherwise herein, renders the asserted claims obvious.

¹ As discussed in the contentions, Claim 1 of the Asserted Patent cannot claim priority to the May 5, 2008 filing date of provisional application no. 61/050,353. Instead, the priority date of Claim 1 of the Asserted Patent is May 5, 2009.

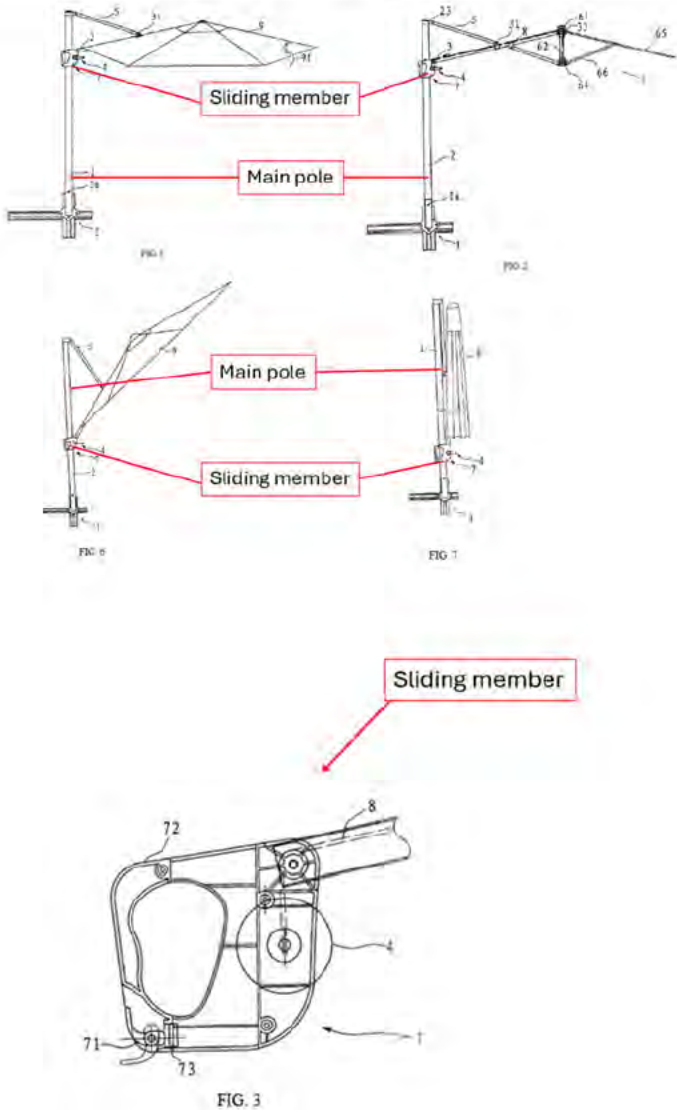
No.	Claim Limitation	Basis for Invalidity
Claim 1		
Anticipated under pre-AIA 35 U.S.C. § 102: Chinese Utility Model Patent CN201207982 (“Wu ’982”) (issued on March 18, 2009)		
1 [preamble] ²	An umbrella comprising:	Wu ’982 discloses an umbrella (sunshade parasol). <i>See e.g.</i>, Wu ’982 at Title (referencing the sunshade parasol); Abstract (referencing the sunshade parasol); Description (referencing the sunshade parasol); Claims 1-7 (referencing the sunshade parasol); Technical Field (referencing the sunshade parasol); Background Art (referencing the sunshade parasol); Summary (referencing the sunshade parasol); Description at p. 4-6 (referencing the sunshade parasol); Fig. 1 (see annotated below)  FIG. 1
1[a]	a main pole having a lower end for support by a support surface and extending generally upward to an upper end;	Wu ’982 discloses a main pole (pole 2) having a lower end for support by a support surface (cross member 1; vertical tube 12) and extending generally upward to an upper end. <i>See e.g.</i>, Wu ’982 at Abstract (“a pole (2) for supporting the parasol frame”); Summary at (“a pole for supporting the parasol frame... a connecting rod with one end thereof rotatably connected to an upper end of the pole... a vertical tube is sleeved on a bottom end of the pole,

² Defendant makes no concessions or admissions regarding the claim preamble, *e.g.*, that it is or is not limiting, but reserves its right on that and other claim construction issues.

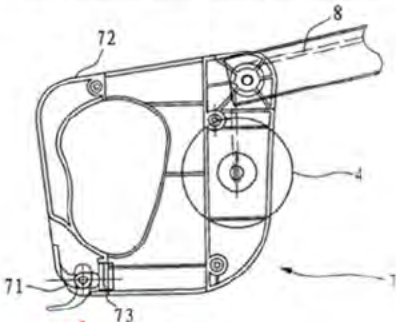
No.	Claim Limitation	Basis for Invalidity
		the bottom end of the pole has a positioning ball, correspondingly, an outer wall of the vertical tube has a positioning through hole; and a cross member is provided at the bottom end of the vertical tube. This makes it easier to plug the vertical tube into the pole and fix it with a positioning ball. As a result, the pole is more stable and can be detachably connected to the vertical tube...”; Description at p. 4 (“Embodiment: with reference to FIG. 1, 2, 6 and 7, the sunshade parasol in this embodiment comprises a parasol frame 6, a pole 2 ...”, “The pole 2 is used to support the parasol frame 6. The locking mechanism 7 is arranged in a middle part of the pole 2 in an up-and-down movable manner to adjust the upward angle of the parasol surface 9”, “The cam wrench 71 can drive the pressing block 73 to press the pole 2 so as to position the height of the parasol frame 6”), p. 5 (“The locking and unlocking between the sliding sleeve 72 and the pole 2 can be achieved by means of rotating the cam wrench 71”, “An end of the connecting rod 5 is rotatably connected to a pole hinge 23 at an upper end of the pole 2”, “A limit pin is provided in an upper middle part of the pole 2 to cooperate with the sliding sleeve in the locking mechanism 7 for limit fit”), and p. 6 (“As shown in FIG. 5, the vertical tube 12 is inserted into a bottom end of the pole 2, and the outer diameter of the vertical tube 12 is smaller than the outer diameter of the pole 2. The bottom end of the pole 2 has a positioning ball 1a. Correspondingly, the outer wall of the vertical tube 12 has a positioning through hole 1b. The bottom end of the vertical tube 12 is fixed with a cross member 1 by a screw 13. When the positioning ball 1a pops out of the positioning through hole 1b on vertical tube 12, it indicates that the pole 2 is connected and fixed to the vertical tube 12.”); Claim 1 (referring pole 2), Claim 3 (referring pole 2), Claim 4 (referring vertical tube 12, pole 2, and cross member 1); Claim 5 (referencing pole 2); Figs. 1,2, and 5-7 (see annotated below).

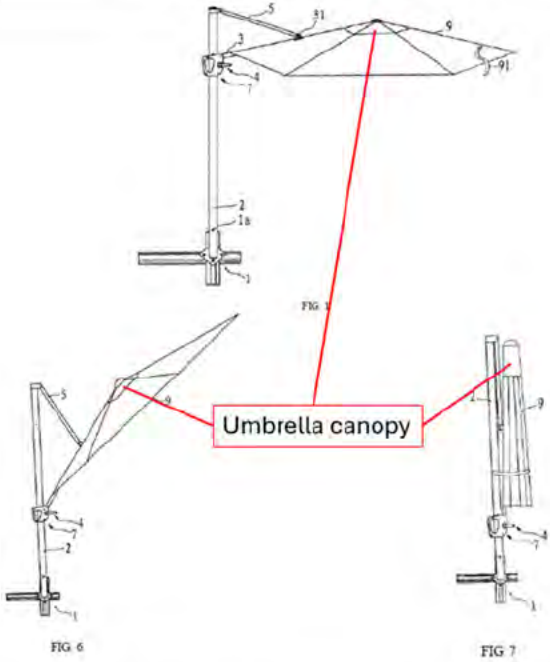
No.	Claim Limitation	Basis for Invalidity
		 FIG. 1 FIG. 2 FIG. 3 FIG. 4 FIG. 5 Main pole Support surface

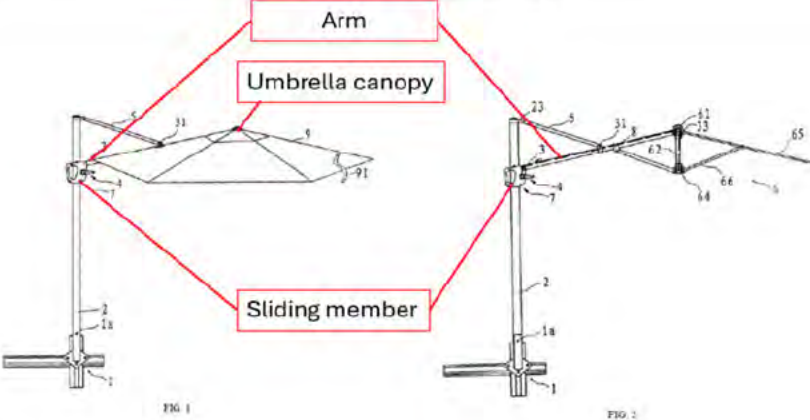
No.	Claim Limitation	Basis for Invalidity
1[b]	a sliding member associated with the main pole and selectably moveable thereon between lower and upper locations along the main pole;	Wu '982 discloses a sliding member (locking mechanism 7; sliding sleeve 72) associated with the main pole (pole 2) and selectably moveable thereon between lower and upper locations along the main pole (pole 2). <i>See e.g.</i>, Wu '982 at Abstract (“a locking mechanism (7) arranged in a middle part of the pole (2) in an up-and-down movable manner”); Summary at (“a locking mechanism arranged in a middle part of the pole in an up-and-down movable manner...locking mechanism comprises: a sliding sleeve with a handle for the pole to pass therethrough, wherein the cranking mechanism is arranged on one side of the sliding sleeve...characterized in that a limiting pin is arranged in an upper middle part of the pole for limit fit with the sliding sleeve in the locking mechanism.”); Description at p. 4 (“The locking mechanism 7 is arranged in a middle part of the pole 2 in an up-and-down movable manner to adjust the upward angle of the parasol surface 9. The locking mechanism 7 further comprises a sliding sleeve, a pressing block, and a cam wrench”) and p. 5 (“the cranking mechanism 4 is used to control the opening and closing of the parasol frame 6. It is arranged on one side of the locking mechanism 7 and is capable of moving along with the locking mechanism 7.”); Claim 1 (“a locking mechanism (7) arranged in a middle part of the pole (2) in an up-and-down movable manner”); Claim 3 (“...locking mechanism (7) comprises: a sliding sleeve (72) with a handle for the pole (2) to pass therethrough, wherein the cranking mechanism (4) is arranged on one side of the sliding sleeve (72)”); Claim 5 (“characterized in that a limiting pin is arranged in an upper middle part of the pole (2) for limit fit with the sliding sleeve in the locking mechanism (7).”); Figs.1-3 and 6-7 (see annotated below).

No.	Claim Limitation	Basis for Invalidity
		 FIG. 1 FIG. 2 FIG. 3 Sliding member Main pole Sliding member

No.	Claim Limitation	Basis for Invalidity
1[c]	locking means for releasably securing the sliding member to the main pole at a selected location along the main pole;	Wu '982 discloses a locking means (locking mechanism 7; sliding sleeve 72; cam wrench 71; pressing block 73; limiting pin) for releasably securing the sliding member (locking mechanism 7; sliding sleeve 7) to the main pole (pole 2) at a selected location along the main pole (pole 2). <i>See e.g.</i>, Wu '982 at Abstract (“a locking mechanism (7) arranged in a middle part of the pole (2) in an up-and-down movable manner”); Summary at (“a locking mechanism arranged in a middle part of the pole in an up-and-down movable manner...a sliding sleeve with a handle for the pole to pass therethrough, wherein the cranking mechanism is arranged on one side of the sliding sleeve...a limiting pin is arranged in an upper middle part of the pole for limit fit with the sliding sleeve in the locking mechanism. This can prevent the sliding sleeve from moving too far to the top of the pole...”); Description at p. 4-5 (“The locking mechanism 7 is arranged in a middle part of the pole 2 in an up-and-down movable manner to adjust the upward angle of the parasol surface 9. The locking mechanism 7 further comprises a sliding sleeve, a pressing block, and a cam wrench... The cam wrench 71 can drive the pressing block 73 to press the pole 2 so as to position the height of the parasol frame 6. A head of the cam wrench 71 is rotatably arranged in the inner cavity of the sliding sleeve 72, and a tail thereof is at the same side of the handle, so as to expose the sliding sleeve 72 for operation. The locking and unlocking between the sliding sleeve 72 and the pole 2 can be achieved by means of rotating the cam wrench 71.”), p. 5 (“A limit pin is provided in an upper middle part of the pole 2 to cooperate with the sliding sleeve in the locking mechanism 7 for limit fit.”); Claim 1 (“a locking mechanism (7) arranged in a middle part of the pole (2) in an up-and-down movable manner”); Claim 3 (“...locking mechanism (7) comprises: a sliding sleeve (72) with a handle for the pole (2) to pass therethrough, wherein the cranking mechanism (4) is arranged on one side of the sliding sleeve (72); a pressing block (73), which is arranged in a transversely movable manner in an inner cavity of the sliding sleeve (72); and a cam wrench (71) that is capable of driving the pressing block (73) to press the pole (2) so as to position the height of the parasol frame (6), wherein a head thereof is arranged in a rotatable manner in the inner cavity of the sliding sleeve (72), and a tail thereof is located on the same side of the handle, so as to expose the sliding sleeve (72) for operation.”); Claim 5 (“a limiting pin is arranged in an upper middle part of the pole (2) for limit fit with the sliding sleeve in the locking mechanism (7)”; Fig. 3 (see annotated below).

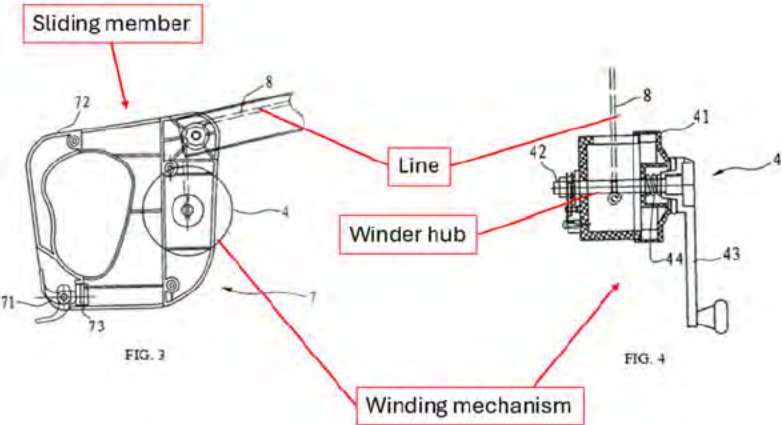
No.	Claim Limitation	Basis for Invalidity
		 FIG. 3 Locking mechanism
1[d]	an umbrella canopy having a central region;	Wu '982 discloses an umbrella canopy (parasol surface 9) having a central region. <i>See e.g.</i>, Wu '982 at Abstract (“A sunshade parasol is provided, which comprises a ... parasol surface (9) for sunshade”); Summary at (“The technical problem in the existing technology to be solved by the present utility model is to provide a sunshade parasol which has a simple, reasonable and practical structure, is easy and quick to operate, and can adjust the sunshade direction and the opening size of the parasol surface... a foldable parasol frame, which is covered with a parasol surface for sunshade...It can easily adjust the angle of the parasol surface and provide the up and down pitch function”); Description at p. 4 (“The parasol frame 6 is foldable and covered with a parasol surface 9 for sunshade. The pole 2 is used to support the parasol frame 6. The locking mechanism 7 is arranged in a middle part of the pole 2 in an up-and-down movable manner to adjust the upward angle of the parasol surface 9.”); Claim 1 (“a foldable parasol frame (6), which is covered with a parasol surface (9) for sunshade”); Figs. 1, 6, and 7 (see annotated below).

No.	Claim Limitation	Basis for Invalidity
		
1[e]	an arm associated with the central region and extending radially therefrom to an outer end operatively associated with the sliding member;	Wu '982 discloses an arm (suspension arm 3) associated with the central region and extending radially therefrom to an outer end operatively associated with the sliding member (locking mechanism 7; sliding sleeve 72). <i>See e.g.</i>, Wu '982 at Abstract (“a hollow suspension arm (3) with one end thereof connected to the locking mechanism (7)”); Summary at (“a hollow suspension arm with one end thereof connected to the locking mechanism and another end thereof pivotally connected to the parasol frame”); Description at p. 5 (“The suspension arm 3 is hollow, and a rope 8 passes through the suspension arm. An end of the rope 8 is connected to the locking mechanism 7, and another end thereof is pivotally connected to the parasol frame 6”); Claim 1 (“a hollow suspension arm (3) with one end thereof connected to the locking mechanism (7) and another end thereof pivotally connected to the parasol frame (6)”); Figs 1 and 2 (see annotated below).

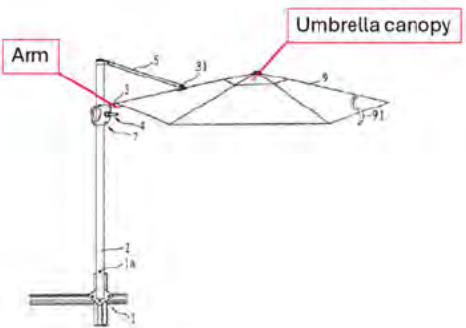
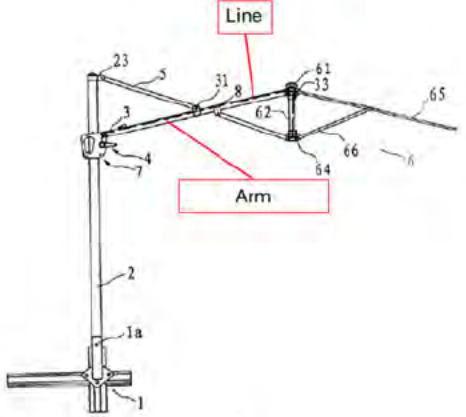
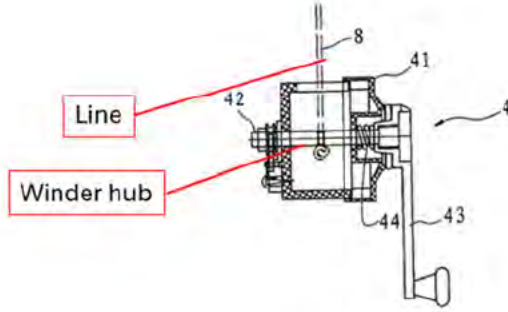
No.	Claim Limitation	Basis for Invalidity
		 FIG. 1 FIG. 2
1[f]	a brace having a first end pivotably attached to an upper portion of the pole above the sliding member and a second end pivotably attached to the arm;	Wu '982 discloses a brace (connecting rod 5) having a first end pivotably attached to an upper portion of the pole (pole 2) above the sliding member (locking mechanism 7; sliding sleeve 72) and a second end pivotably attached to the arm (suspension arm 3). <i>See e.g.</i>, Wu '982 at Abstract (“a connecting rod (5) with one end thereof rotatably connected to an upper end of the pole (2) and another end thereof rotatably connected to a suspension arm hinge (31) provided in a middle part of the suspension arm (3)”); Summary at (“a connecting rod with one end thereof rotatably connected to an upper end of the pole and another end thereof rotatably connected to a suspension arm hinge provided in a middle part of the suspension arm”); Description at p. 4 (“the sunshade parasol in this embodiment comprises a parasol frame 6, a pole 2, a locking mechanism 7, a suspension arm 3, a cranking mechanism 4, a rope 8, a connecting rod 5, and a vertical tube 12”), p. 4 (“An end of the connecting rod 5 is rotatably connected to a pole hinge 23 at an upper end of the pole 2, and another end thereof is rotatably connected to a suspension arm hinge 31 provided in a middle part of the suspension arm 3”); Claim 1 (“a connecting rod (5) with one end thereof rotatably connected to an upper end of the pole (2) and another end thereof rotatably connected to a suspension arm hinge (31) provided in a middle part of the suspension arm (3)”); Figs. 1, 2, and 7 (see annotated below)

No.	Claim Limitation	Basis for Invalidity
		FIG. 1 FIG. 2 FIG. 3
1[g]	a winding mechanism having a winder hub around which a line can be wound, the winder hub being mounted to the sliding member and movable therewith;	Wu '982 discloses a winding mechanism (cranking mechanism 4) having a winder hub (rope winding shaft 42) around which a line (rope 8) can be wound, the winder hub (rope winding shaft 42) being mounted to the sliding member (locking mechanism 7; sliding sleeve 72) and movable therewith. <i>See e.g.</i>, Wu '982 at Abstract (“a rope (8) arranged in the hollow suspension arm (3) with one end of the rope (8) connected to a cranking mechanism (4) and another end thereof fixed to a short rib parasol plate of the parasol frame (6)”; Summary (“a rope arranged in the hollow suspension arm with one end of the rope connected to a cranking mechanism and another end thereof fixed to a short rib parasol plate of the parasol frame...a rope winding shaft wound with the rope, which is transversely arranged in an inner cavity of the cranking shell; a

No.	Claim Limitation	Basis for Invalidity
		cranking handle, which is connected to an end of the rope winding shaft and is capable of driving the rope winding shaft to rotate.”); Description at p. 5 (“The suspension arm 3 is hollow, and a rope 8 passes through the suspension arm. An end of the rope 8 is connected to the locking mechanism 7, and another end thereof is pivotally connected to the parasol frame 6...the cranking mechanism 4 is used to control the opening and closing of the parasol frame 6. It is arranged on one side of the locking mechanism 7 and is capable of moving along with the locking mechanism 7. It is specifically composed of a cranking shell 41, a rope winding shaft 42, a cranking handle 43, and a torsion spring 44. The rope winding shaft 42 is wound with the rope 8 and is transversely arranged in an inner cavity of the cranking shell 41. The cranking handle 43 is connected to an end of the rope winding shaft 42 and can drive the rope winding shaft 42 to rotate. The torsion spring 44 is arranged between the rope winding shaft 42 and the cranking shell 41, and is located at an inner end of the cranking handle 43, so as to reduce the force for winding the rope... the rope 8 is arranged in the hollow suspension arm 3, one end of the rope is connected to the rope winding shaft 42 arranged on the cranking mechanism 4, and another end thereof is fixed to a short rib parasol plate of the parasol frame 6 with a rope plug. An end of the connecting rod 5 is rotatably connected to a pole hinge 23 at an upper end of the pole 2, and another end thereof is rotatably connected to a suspension arm hinge 31 provided in a middle part of the suspension arm 3. Specifically, an end of the rope 8 is connected to the rope winding shaft 42 on the cranking mechanism 4, and then passes through the fixed pulleys at both ends of the inner cavity of the suspension arm, and another end of the rope passes through the fixed pulley 33 in the suspension rod 62 on the parasol frame, and is then fixed to a short rib parasol plate 64 of the parasol frame 6 with a rope plug. The parasol frame 6 is specifically composed of a finial 61, a suspension rod 62, a long parasol rib 65, a short parasol rib 66, and a short parasol plate 64, a short parasol rib on the inner side is movably hinged with another hinge on the suspension arm, the short parasol plate 64 can be sleeved on the suspension rod 62 to move up and down. The rope 8 passes through the suspension rod 62 and is then fixed to the short parasol plate 64, and the parasol frame 6 can be unfolded by pulling the rope 8.”); Claim 1 (“a rope (8) arranged in the hollow suspension arm (3) with one end of the rope (8) connected to a cranking mechanism (4) and another end thereof fixed to a short rib parasol plate of the parasol frame (6)”; Claim 2 (“the cranking mechanism (4) comprises: a cranking shell (41); a rope winding shaft (42) wound with the rope (8), which is transversely arranged in an inner cavity of the cranking shell (41);

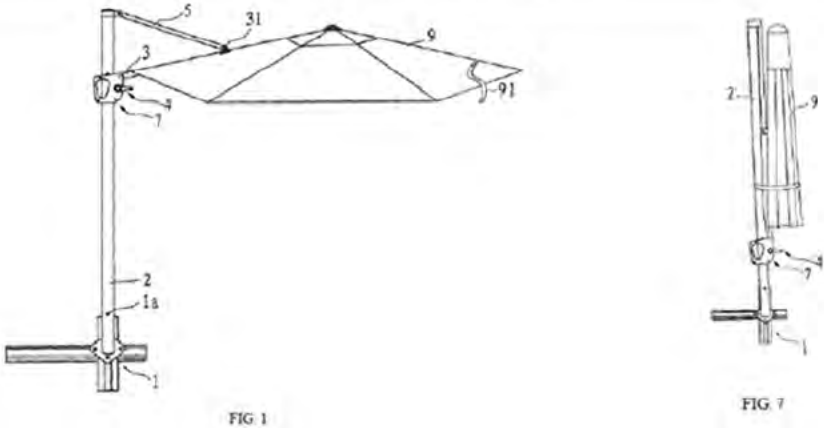
No.	Claim Limitation	Basis for Invalidity
		a cranking handle (43), which is connected to an end of the rope winding shaft (42) and is capable of driving the rope winding shaft (42) to rotate; and a torsion spring (44), which is arranged between the rope winding shaft (42) and the cranking shell (41)"); Figs. 3 and 4 (see annotated below). 
1[h]	a line having a first end that winds around the winder hub, an intermediate portion extending from the winder hub along the arm to the umbrella canopy, and a second end that engages the umbrella canopy;	Wu '982 discloses a line (rope 8) having a first end that winds around the winder hub (rope winding shaft 42), an intermediate portion extending from the winder hub (rope winding shaft 42) along the arm (suspension arm 3) to the umbrella canopy (parasol surface 9), and a second end that engages the umbrella canopy (parasol surface 9). <i>See e.g.</i>, Wu '982 at Abstract ("a rope (8) arranged in the hollow suspension arm (3) with one end of the rope (8) connected to a cranking mechanism (4) and another end thereof fixed to a short rib parasol plate of the parasol frame (6); the sunshade parasol is characterized in that the cranking mechanism (4) for controlling the opening and closing of the parasol frame (6) is arranged on one side of the locking mechanism (7) and is capable of moving along with the locking mechanism (7)"); Summary ("a foldable parasol frame, which is covered with a parasol surface for sunshade... a rope arranged in the hollow suspension arm with one end of the rope connected to a cranking mechanism and another end thereof fixed to a short rib parasol plate of the parasol frame... a rope winding shaft wound with the rope, which is

No.	Claim Limitation	Basis for Invalidity
		transversely arranged in an inner cavity of the cranking shell; a cranking handle, which is connected to an end of the rope winding shaft and is capable of driving the rope winding shaft to rotate..."); Description at p. 5 ("The suspension arm 3 is hollow, and a rope 8 passes through the suspension arm. An end of the rope 8 is connected to the locking mechanism 7, and another end thereof is pivotally connected to the parasol frame 6...the cranking mechanism 4 is used to control the opening and closing of the parasol frame 6. It is arranged on one side of the locking mechanism 7 and is capable of moving along with the locking mechanism 7. It is specifically composed of a cranking shell 41, a rope winding shaft 42, a cranking handle 43, and a torsion spring 44. The rope winding shaft 42 is wound with the rope 8 and is transversely arranged in an inner cavity of the cranking shell 41. The cranking handle 43 is connected to an end of the rope winding shaft 42 and can drive the rope winding shaft 42 to rotate. The torsion spring 44 is arranged between the rope winding shaft 42 and the cranking shell 41, and is located at an inner end of the cranking handle 43, so as to reduce the force for winding the rope... the rope 8 is arranged in the hollow suspension arm 3, one end of the rope is connected to the rope winding shaft 42 arranged on the cranking mechanism 4, and another end thereof is fixed to a short rib parasol plate of the parasol frame 6 with a rope plug. An end of the connecting rod 5 is rotatably connected to a pole hinge 23 at an upper end of the pole 2, and another end thereof is rotatably connected to a suspension arm hinge 31 provided in a middle part of the suspension arm 3. Specifically, an end of the rope 8 is connected to the rope winding shaft 42 on the cranking mechanism 4, and then passes through the fixed pulleys at both ends of the inner cavity of the suspension arm, and another end of the rope passes through the fixed pulley 33 in the suspension rod 62 on the parasol frame, and is then fixed to a short rib parasol plate 64 of the parasol frame 6 with a rope plug. The parasol frame 6 is specifically composed of a finial 61, a suspension rod 62, a long parasol rib 65, a short parasol rib 66, and a short parasol plate 64, a short parasol rib on the inner side is movably hinged with another hinge on the suspension arm, the short parasol plate 64 can be sleeved on the suspension rod 62 to move up and down. The rope 8 passes through the suspension rod 62 and is then fixed to the short parasol plate 64, and the parasol frame 6 can be unfolded by pulling the rope 8."); Claim 1 ("a foldable parasol frame (6), which is covered with a parasol surface (9) for sunshade... a rope (8) arranged in the hollow suspension arm (3) with one end of the rope (8) connected to a cranking mechanism (4) and another end thereof fixed to a short rib parasol plate of the parasol frame (6)"); Claim 2 ('a rope winding

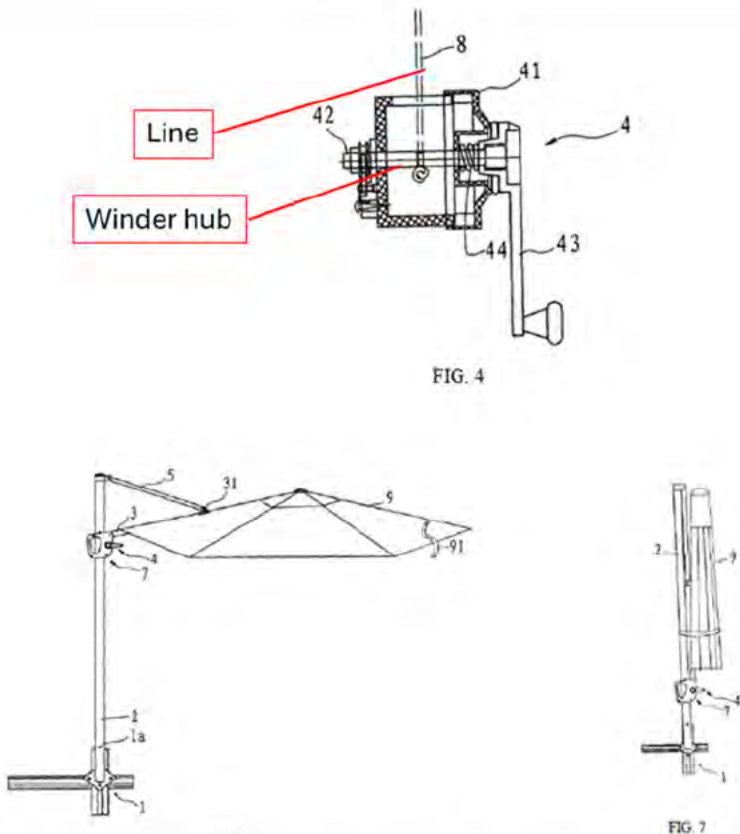
No.	Claim Limitation	Basis for Invalidity
		shaft (42) wound with the rope (8), which is transversely arranged in an inner cavity of the cranking shell (41); a cranking handle (43), which is connected to an end of the rope winding shaft (42) and is capable of driving the rope winding shaft (42) to rotate"); Figs. 1, 2, and 4 (see annotated below).  FIG. 1  FIG. 2  FIG. 4

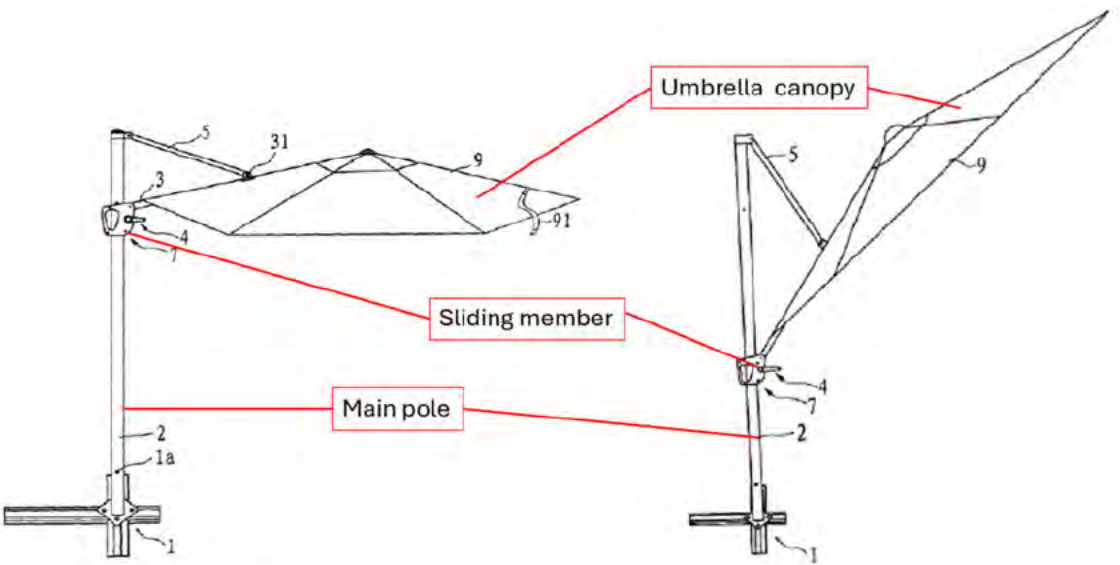
No.	Claim Limitation	Basis for Invalidity
1[i]	wherein rotation of the winder hub tensions or relaxes the line depending upon the direction of rotation of the winder hub, and	Wu '982 discloses wherein rotation of the winder hub (rope winding shaft 42) tensions or relaxes the line (rope 8) depending upon the direction of rotation of the winder hub (rope winding shaft 42). <i>See e.g.</i>, Wu '982 at Abstract (“and a rope (8) arranged in the hollow suspension arm (3) with one end of the rope (8) connected to a cranking mechanism (4) and another end thereof fixed to a short rib parasol plate of the parasol frame (6); the sunshade parasol is characterized in that the cranking mechanism (4) for controlling the opening and closing of the parasol frame (6) is arranged on one side of the locking mechanism (7) and is capable of moving along with the locking mechanism (7)”; Summary (“the sunshade parasol is characterized in that the cranking mechanism for controlling the opening and closing of the parasol frame is arranged on one side of the locking mechanism and is capable of moving along with the locking mechanism...a rope winding shaft wound with the rope, which is transversely arranged in an inner cavity of the cranking shell; a cranking handle, which is connected to an end of the rope winding shaft and is capable of driving the rope winding shaft to rotate”); Description at p. 5 (“the cranking mechanism 4 is used to control the opening and closing of the parasol frame 6. It is arranged on one side of the locking mechanism 7 and is capable of moving along with the locking mechanism 7. It is specifically composed of a cranking shell 41, a rope winding shaft 42, a cranking handle 43, and a torsion spring 44. The rope winding shaft 42 is wound with the rope 8 and is transversely arranged in an inner cavity of the cranking shell 41. The cranking handle 43 is connected to an end of the rope winding shaft 42 and can drive the rope winding shaft 42 to rotate. The torsion spring 44 is arranged between the rope winding shaft 42 and the cranking shell 41, and is located at an inner end of the cranking handle 43, so as to reduce the force for winding the rope... the rope 8 is arranged in the hollow suspension arm 3, one end of the rope is connected to the rope winding shaft 42 arranged on the cranking mechanism 4, and another end thereof is fixed to a short rib parasol plate of the parasol frame 6 with a rope plug. An end of the connecting rod 5 is rotatably connected to a pole hinge 23 at an upper end of the pole 2, and another end thereof is rotatably connected to a suspension arm hinge 31 provided in a middle part of the suspension arm 3. Specifically, an end of the rope 8 is connected to the rope winding shaft 42 on the cranking mechanism 4, and then passes through the fixed pulleys at both ends of the inner cavity of the suspension arm, and another end of the rope passes through the fixed pulley 33 in the suspension rod 62 on the

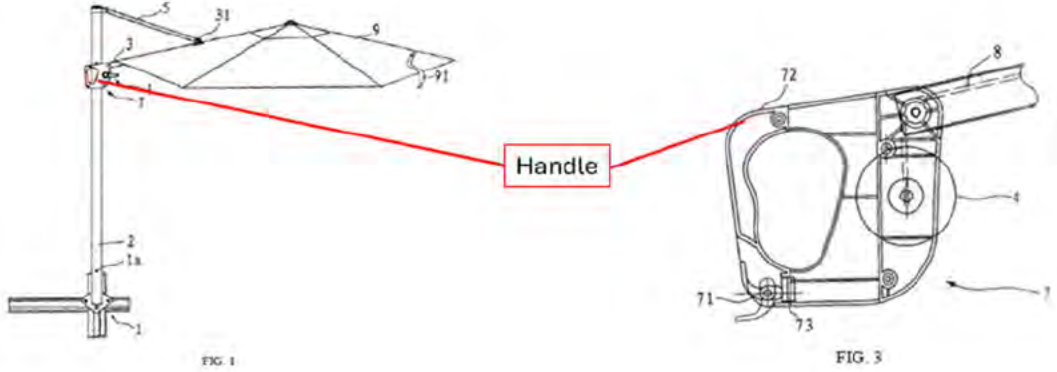
No.	Claim Limitation	Basis for Invalidity
		parasol frame, and is then fixed to a short rib parasol plate 64 of the parasol frame 6 with a rope plug. The parasol frame 6 is specifically composed of a finial 61, a suspension rod 62, a long parasol rib 65, a short parasol rib 66, and a short parasol plate 64, a short parasol rib on the inner side is movably hinged with another hinge on the suspension arm, the short parasol plate 64 can be sleeved on the suspension rod 62 to move up and down. The rope 8 passes through the suspension rod 62 and is then fixed to the short parasol plate 64, and the parasol frame 6 can be unfolded by pulling the rope 8.”); Claim 2 (“a rope winding shaft (42) wound with the rope (8), which is transversely arranged in an inner cavity of the cranking shell (41); a cranking handle (43), which is connected to an end of the rope winding shaft (42) and is capable of driving the rope winding shaft (42) to rotate”); Claim 1 (“the sunshade parasol is characterized in that the cranking mechanism (4) for controlling the opening and closing of the parasol frame (6) is arranged on one side of the locking mechanism (7) and is capable of moving along with the locking mechanism (7)”); Figs. 1, 4 (see annotated below), and 7. FIG. 4

No.	Claim Limitation	Basis for Invalidity
		 FIG 1 FIG 7
1[j]	wherein operation of the winding mechanism to apply tension to the line opens and closes the umbrella canopy in response to movement of the line; and	Wu '982 discloses wherein operation of the winding mechanism (cranking mechanism 4) to apply tension to the line (rope 8) opens and closes the umbrella canopy (parasol surface 9) in response to movement of the line (rope 8). <i>See e.g.</i>, Wu '982 at Abstract (“and a rope (8) arranged in the hollow suspension arm (3) with one end of the rope (8) connected to a cranking mechanism (4) and another end thereof fixed to a short rib parasol plate of the parasol frame (6); the sunshade parasol is characterized in that the cranking mechanism (4) for controlling the opening and closing of the parasol frame (6) is arranged on one side of the locking mechanism (7) and is capable of moving along with the locking mechanism (7)”; Summary (“the sunshade parasol is characterized in that the cranking mechanism for controlling the opening and closing of the parasol frame is arranged on one side of the locking mechanism and is capable of moving along with the locking mechanism...a rope winding shaft wound with the rope, which is transversely arranged in an inner cavity of the cranking shell; a cranking handle, which is connected to an end of the rope winding shaft and is capable of driving the rope winding shaft to rotate”); Description at p. 5

No.	Claim Limitation	Basis for Invalidity
		(“the cranking mechanism 4 is used to control the opening and closing of the parasol frame 6. It is arranged on one side of the locking mechanism 7 and is capable of moving along with the locking mechanism 7. It is specifically composed of a cranking shell 41, a rope winding shaft 42, a cranking handle 43, and a torsion spring 44. The rope winding shaft 42 is wound with the rope 8 and is transversely arranged in an inner cavity of the cranking shell 41. The cranking handle 43 is connected to an end of the rope winding shaft 42 and can drive the rope winding shaft 42 to rotate. The torsion spring 44 is arranged between the rope winding shaft 42 and the cranking shell 41, and is located at an inner end of the cranking handle 43, so as to reduce the force for winding the rope... the rope 8 is arranged in the hollow suspension arm 3, one end of the rope is connected to the rope winding shaft 42 arranged on the cranking mechanism 4, and another end thereof is fixed to a short rib parasol plate of the parasol frame 6 with a rope plug. An end of the connecting rod 5 is rotatably connected to a pole hinge 23 at an upper end of the pole 2, and another end thereof is rotatably connected to a suspension arm hinge 31 provided in a middle part of the suspension arm 3. Specifically, an end of the rope 8 is connected to the rope winding shaft 42 on the cranking mechanism 4, and then passes through the fixed pulleys at both ends of the inner cavity of the suspension arm, and another end of the rope passes through the fixed pulley 33 in the suspension rod 62 on the parasol frame, and is then fixed to a short rib parasol plate 64 of the parasol frame 6 with a rope plug. The parasol frame 6 is specifically composed of a finial 61, a suspension rod 62, a long parasol rib 65, a short parasol rib 66, and a short parasol plate 64, a short parasol rib on the inner side is movably hinged with another hinge on the suspension arm, the short parasol plate 64 can be sleeved on the suspension rod 62 to move up and down. The rope 8 passes through the suspension rod 62 and is then fixed to the short parasol plate 64, and the parasol frame 6 can be unfolded by pulling the rope 8.”); Claim 2 (“a rope winding shaft (42) wound with the rope (8), which is transversely arranged in an inner cavity of the cranking shell (41); a cranking handle (43), which is connected to an end of the rope winding shaft (42) and is capable of driving the rope winding shaft (42) to rotate”); Claim 1 (“the sunshade parasol is characterized in that the cranking mechanism (4) for controlling the opening and closing of the parasol frame (6) is arranged on one side of the locking mechanism (7) and is capable of moving along with the locking mechanism (7)”); Figs. 1, 4 (see annotated below), and 7.

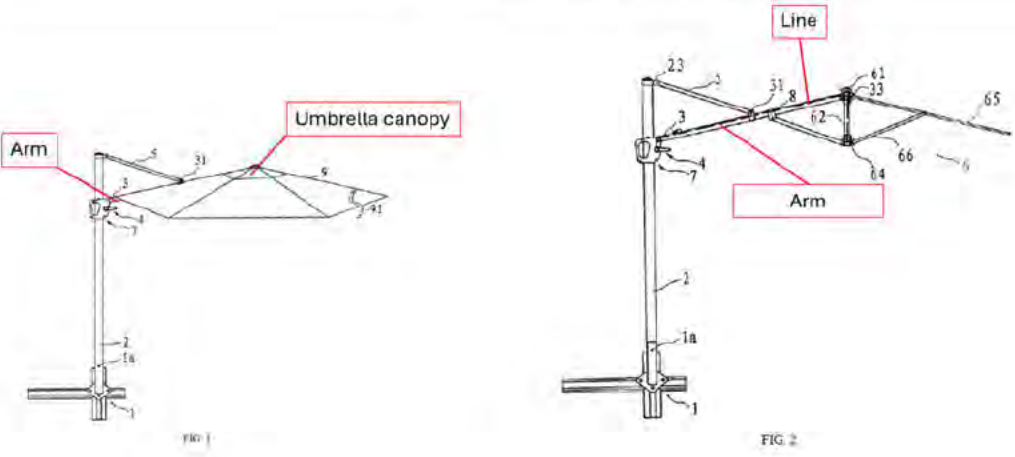
No.	Claim Limitation	Basis for Invalidity
		 FIG. 4 FIG. 1 FIG. 7
1[k]	wherein the angle of the umbrella canopy with respect to the main pole can be controlled by moving the sliding member along the main pole.	Wu '982 discloses wherein the angle of the umbrella canopy (parasol surface 9) with respect to the main pole (pole 2) can be controlled by moving the sliding member (locking mechanism 7; sliding sleeve 72) along the main pole (pole 2). <i>See e.g.,</i> Wu '982 at Abstract (“the sunshade parasol is characterized in that the cranking mechanism (4) for controlling the opening and closing of the parasol frame (6) is arranged on one side of the locking mechanism (7) and is capable of moving along with the locking mechanism (7). The structure is simple, reasonable and practical, the operation is easy and

No.	Claim Limitation	Basis for Invalidity
		quick, and the sunshade direction and the opening size of the parasol can be adjusted.”); Summary (“The technical problem in the existing technology to be solved by the present utility model is to provide a sunshade parasol which has a simple, reasonable and practical structure, is easy and quick to operate, and can adjust the sunshade direction and the opening size of the parasol surface... Compared with the existing technology, the present utility model has the following advantages: the cam wrench locking mechanism and the cranking mechanism are arranged together, which can facilitate sliding up and down and lock on the pole. It can easily adjust the angle of the parasol surface and provide the up and down pitch function, thereby greatly enhancing the practical function of the parasol. It can change the sunshade direction freely, and has a reasonable structure, easy operation, and better wind resistance.”); Figs. 1 and 6 (see annotated below).  FIG. 1 FIG. 6

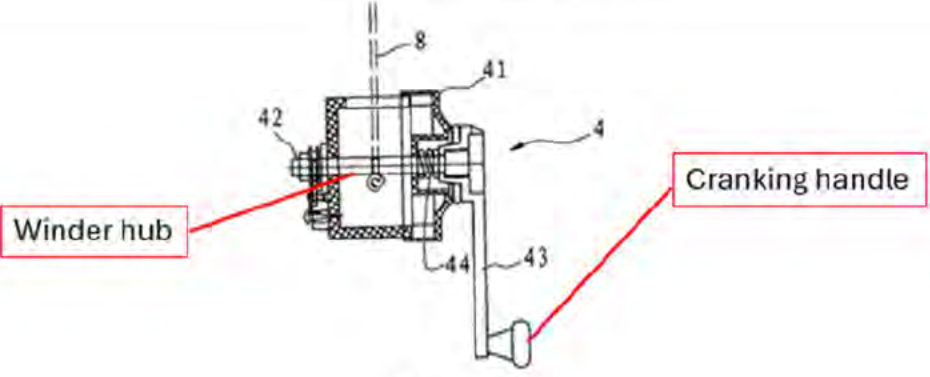
No.	Claim Limitation	Basis for Invalidity
Claim 5		
Anticipated under pre-AIA 35 U.S.C. § 102: Wu '982 (issued on March 18, 2009)		
5	The umbrella of claim 1, wherein the sliding member has a handle associated therewith.	Wu '982 discloses wherein the sliding member (locking mechanism 7; sliding sleeve 72) has a handle associated therewith. <i>See e.g., Wu '982 at Fig. 3 (see annotated below)</i>  To the extent Wu '982 does not disclose a handle, a person of ordinary skill in the art would understand Fig. 3's sliding sleeve 72 has a handle built in.

No.	Claim Limitation	Basis for Invalidity
Claim 6 Anticipated under pre-AIA 35 U.S.C. § 102: Wu '982 (issued on March 18, 2009)		
6	The umbrella of claim 1, wherein the line extends along at least substantially the entire length of the arm.	Wu '982 discloses wherein the line (rope 8) extends along at least substantially the entire length of the arm (suspension arm 3) <i>See e.g.</i>, Wu '982 at Abstract (“a rope (8) arranged in the hollow suspension arm (3) with one end of the rope (8) connected to a cranking mechanism (4) and another end thereof fixed to a short rib parasol plate of the parasol frame (6); the sunshade parasol is characterized in that the cranking mechanism (4) for controlling the opening and closing of the parasol frame (6) is arranged on one side of the locking mechanism (7) and is capable of moving along with the locking mechanism (7)”; Summary (“a foldable parasol frame, which is covered with a parasol surface for sunshade... a rope arranged in the hollow suspension arm with one end of the rope connected to a cranking mechanism and another end thereof fixed to a short rib parasol plate of the parasol frame... a rope winding shaft wound with the rope, which is transversely arranged in an inner cavity of the cranking shell; a cranking handle, which is connected to an end of the rope winding shaft and is capable of driving the rope winding shaft to rotate...”; Description at p. 5 (“The suspension arm 3 is hollow, and a rope 8 passes through the suspension arm. An end of the rope 8 is connected to the locking mechanism 7, and another end thereof is pivotally connected to the parasol frame 6...the cranking mechanism 4 is used to control the opening and closing of the parasol frame 6. It is arranged on one side of the locking mechanism 7 and is capable of moving along with the locking mechanism 7. It is specifically composed of a cranking shell 41, a rope winding shaft 42, a cranking handle 43, and a torsion spring 44. The rope winding shaft 42 is wound with the rope 8 and is transversely arranged in an inner cavity of the cranking shell 41. The cranking handle 43 is connected to an end of the rope winding shaft 42 and can drive the rope winding shaft 42 to rotate. The torsion spring 44 is arranged between the rope winding shaft 42 and the cranking shell 41, and is located at an inner end of the cranking handle 43, so as to reduce the force for winding the rope... the rope 8 is arranged in the hollow suspension arm 3, one end of the rope is connected to the rope winding shaft 42 arranged on the cranking mechanism

No.	Claim Limitation	Basis for Invalidity
		4, and another end thereof is fixed to a short rib parasol plate of the parasol frame 6 with a rope plug. An end of the connecting rod 5 is rotatably connected to a pole hinge 23 at an upper end of the pole 2, and another end thereof is rotatably connected to a suspension arm hinge 31 provided in a middle part of the suspension arm 3. Specifically, an end of the rope 8 is connected to the rope winding shaft 42 on the cranking mechanism 4, and then passes through the fixed pulleys at both ends of the inner cavity of the suspension arm, and another end of the rope passes through the fixed pulley 33 in the suspension rod 62 on the parasol frame, and is then fixed to a short rib parasol plate 64 of the parasol frame 6 with a rope plug. The parasol frame 6 is specifically composed of a finial 61, a suspension rod 62, a long parasol rib 65, a short parasol rib 66, and a short parasol plate 64, a short parasol rib on the inner side is movably hinged with another hinge on the suspension arm, the short parasol plate 64 can be sleeved on the suspension rod 62 to move up and down. The rope 8 passes through the suspension rod 62 and is then fixed to the short parasol plate 64, and the parasol frame 6 can be unfolded by pulling the rope 8.”); Claim 1 (“a foldable parasol frame (6), which is covered with a parasol surface (9) for sunshade... a rope (8) arranged in the hollow suspension arm (3) with one end of the rope (8) connected to a cranking mechanism (4) and another end thereof fixed to a short rib parasol plate of the parasol frame (6)”); Claim 2 (“a rope winding shaft (42) wound with the rope (8), which is transversely arranged in an inner cavity of the cranking shell (41); a cranking handle (43), which is connected to an end of the rope winding shaft (42) and is capable of driving the rope winding shaft (42) to rotate”); Figs. 1 and 2 (see annotated below).

No.	Claim Limitation	Basis for Invalidity
		 FIG. 1 FIG. 2

No.	Claim Limitation	Basis for Invalidity
Claim 7		
Anticipated under pre-AIA 35 U.S.C. § 102: Wu '982 (issued on March 18, 2009)		
7	The umbrella of claim 1, further comprising a crank handle operatively associated with the winder hub, whereby rotating the crank handle causes the winder hub to rotate.	Wu '982 discloses a crank handle (cranking handle 43) operatively associated with the winder hub (rope winding shaft 42), whereby rotating the crank handle (cranking handle 43) causes the winder hub (rope winding shaft 42) to rotate. <i>See e.g.</i>, Wu '982 at Summary (“a rope arranged in the hollow suspension arm with one end of the rope connected to a cranking mechanism and another end thereof fixed to a short rib parasol plate of the parasol frame...a rope winding shaft wound with the rope, which is transversely arranged in an inner cavity of the cranking shell; a cranking handle, which is connected to an end of the rope winding shaft and is capable of driving the rope winding shaft to rotate.”); Description at p. 5 (“It is specifically composed of a cranking shell 41, a rope winding shaft 42, a cranking handle 43, and a torsion spring 44. The rope winding shaft 42 is wound with the rope 8 and is transversely arranged in an inner cavity of the cranking shell 41. The cranking handle 43 is connected to an end of the rope winding shaft 42 and can drive the rope winding shaft 42 to rotate. The torsion spring 44 is arranged between the rope winding shaft 42 and the cranking shell 41, and is located at an inner end of the cranking handle 43, so as to reduce the force for winding the rope.”); Claim 1 (“a rope (8) arranged in the hollow suspension arm (3) with one end of the rope (8) connected to a cranking mechanism (4) and another end thereof fixed to a short rib parasol plate of the parasol frame (6)”; Claim 2 (“the cranking mechanism (4) comprises: a cranking shell (41); a rope winding shaft (42) wound with the rope (8), which is transversely arranged in an inner cavity of the cranking shell (41); a cranking handle (43), which is connected to an end of the rope winding shaft (42) and is capable of driving the rope winding shaft (42) to rotate; and a torsion spring (44), which is arranged between the rope winding shaft (42) and the cranking shell (41)”; Fig. 4 (see annotated below).

No.	Claim Limitation	Basis for Invalidity
		 FIG. 4