

Doc Code: PA.
Document Description: Power of Attorney

Approved for use through 11/31/2013. OMB 0351-0035
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POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

☒ I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above:

36255

OR

☐ I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:

☐ The address associated with the above-mentioned Customer Number

OR

☐ The address associated with Customer Number:

OR

☐ Firm or
Individual Name

Address

City

State

Zip

Country

Telephone

Email

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

- ☒ Inventor or Joint Inventor (title not required below)
- ☐ Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)
- ☐ Assignee or Person to Whom the inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)
- ☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity)

Signature

Jing Bian

Date (Optional)

2-18/3/17

Name

Jing Bian

Title

Applicant

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

☒ Total of 2 forms are submitted.

This collection of information is required by 37 CFR 1.331, 1.332, and 1.333. The information is required to obtain or retain a benefit by the public which is in the (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Global Shade Ex. 1014
IPR Petition USP 10,669,738

Doc Code: PA.
Document Description: Power of Attorney

PTC/AIA/82B (07-13)
Approved for use through 5/31/2018. OMB 0581-0035
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POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

☒ I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above:

OR

36255

☐ I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:

☐ The address associated with the above-mentioned Customer Number

OR

☐ The address associated with Customer Number:

OR

☐ Firm or
Individual Name

Address

City

State

Zip

Country

Telephone

Email

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

--

- ☒ Inventor or Joint Inventor (title not required below)
- ☐ Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)
- ☐ Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)
- ☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(7) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature

Shengyong Yang

Date (Optional)

2-18-17

Name

Shengyong Yang

Title

Applicant

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

☒ Total of 2 forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to be paid by the USPTO in process of an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.31 and 1.34. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

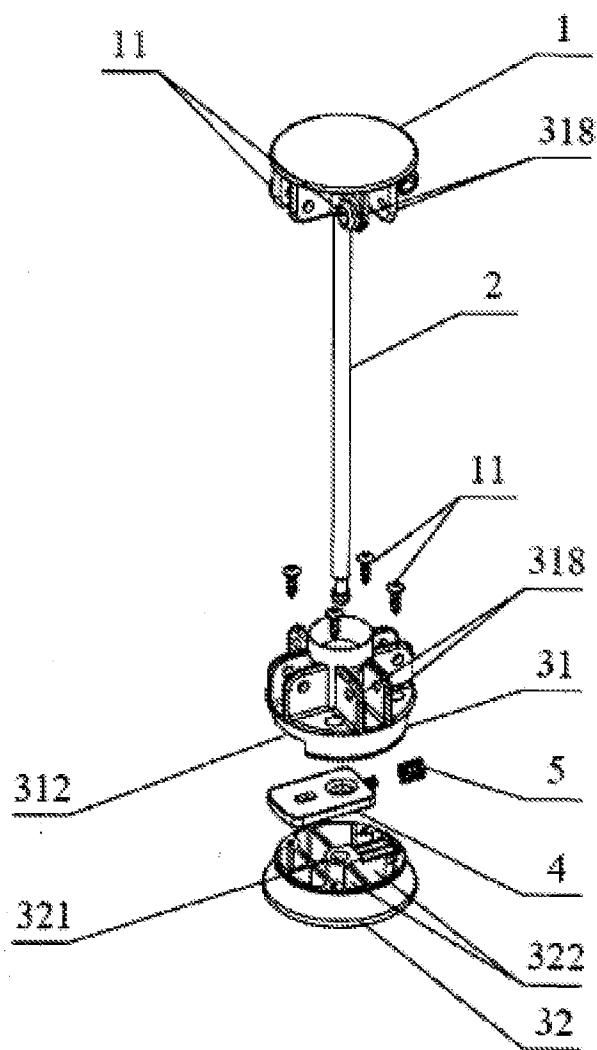


FIG. 1

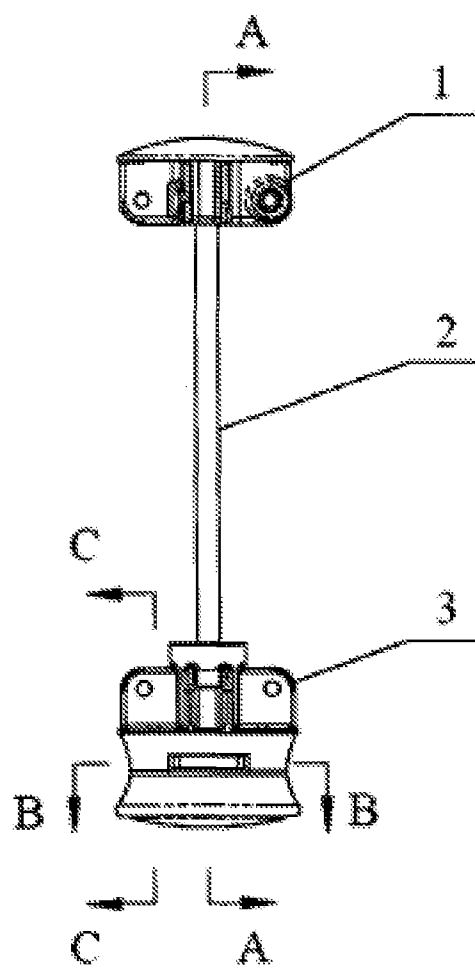


FIG 2

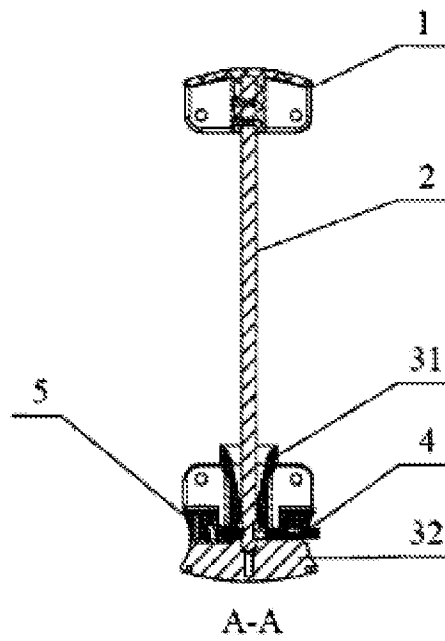


FIG 3

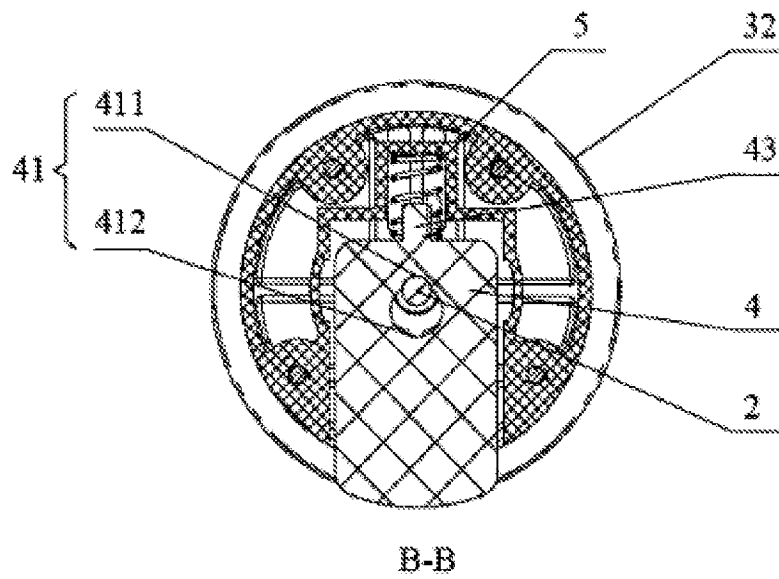


FIG 4

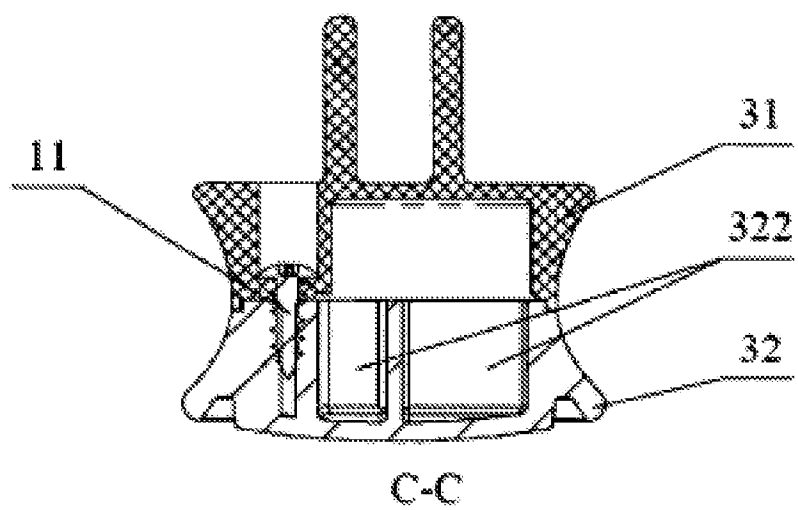


FIG. 5



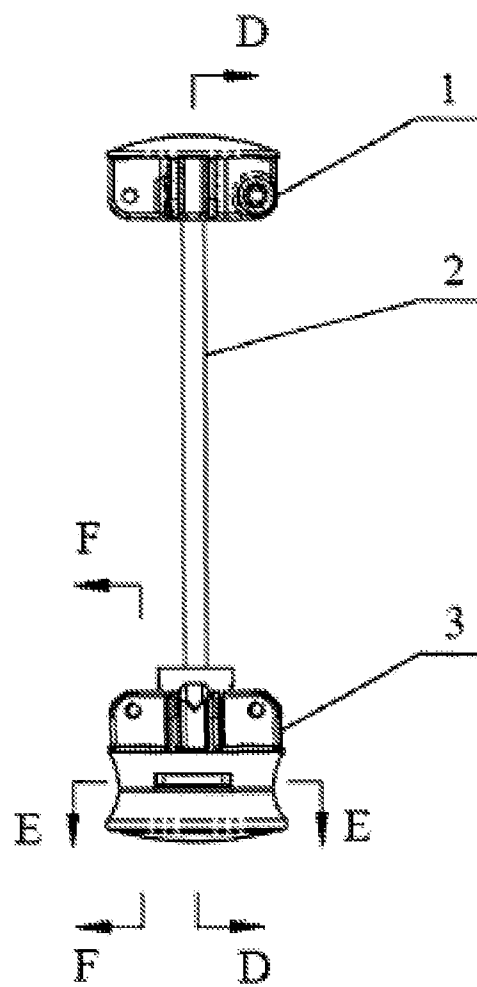


FIG. 7

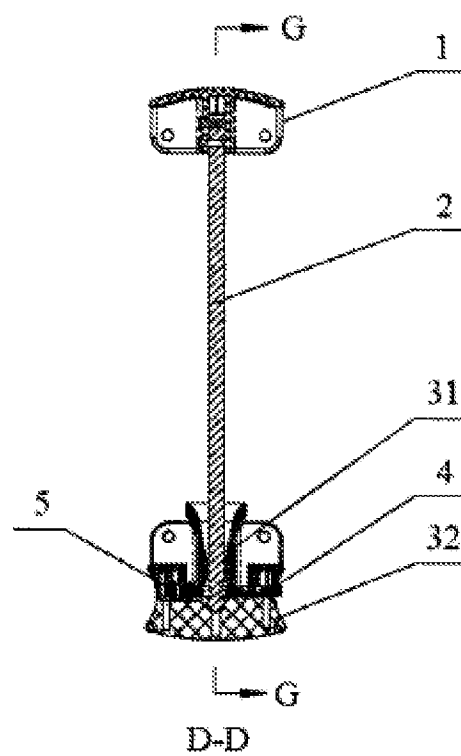
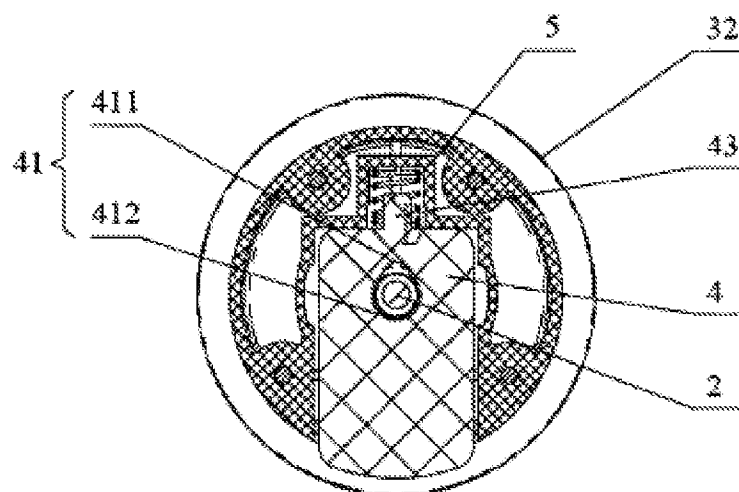
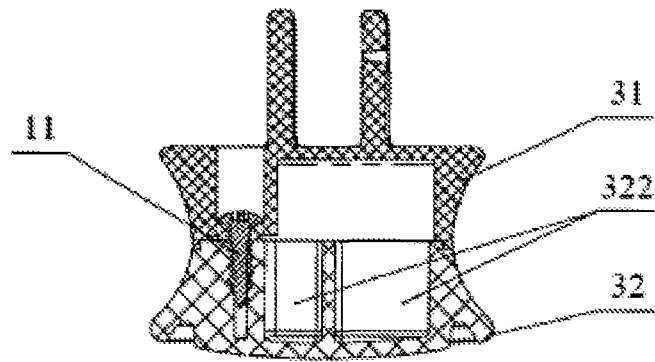


FIG. 8



E-E

FIG. 9



F-F

FIG. 10

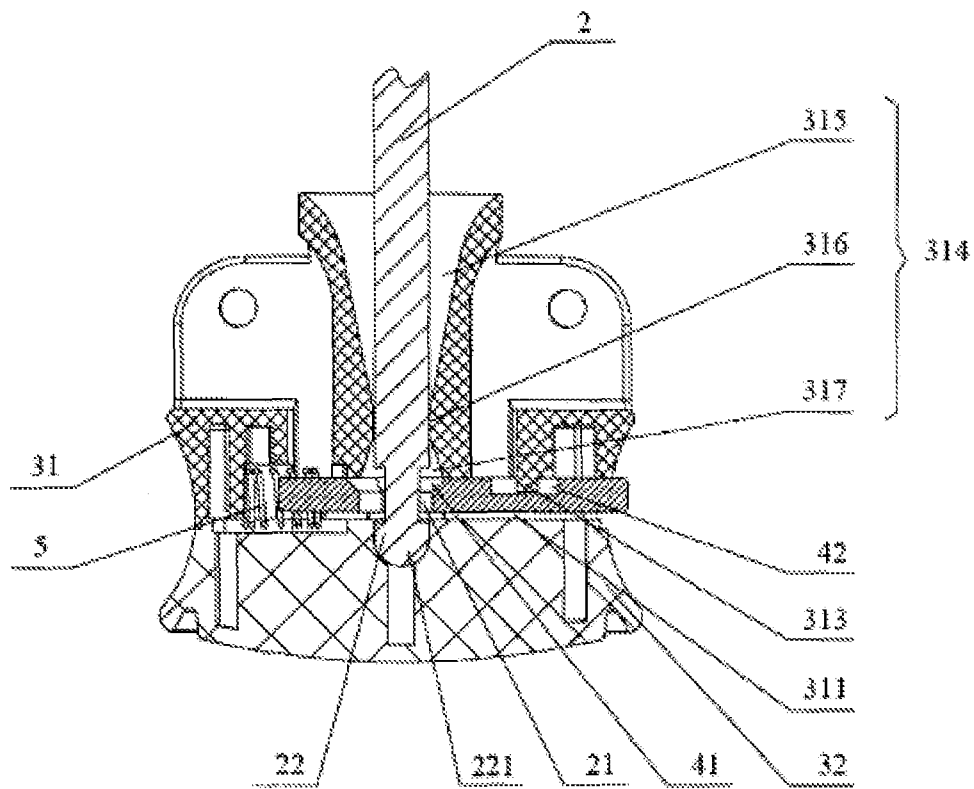


FIG. 11

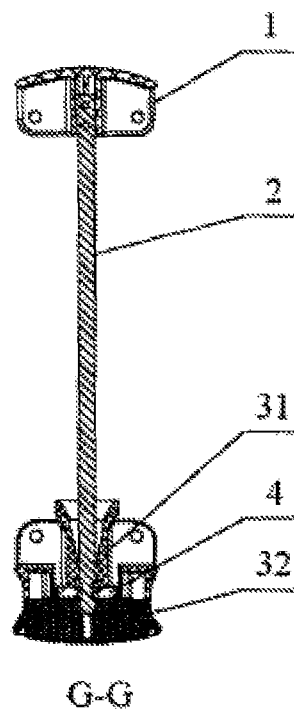


FIG. 12

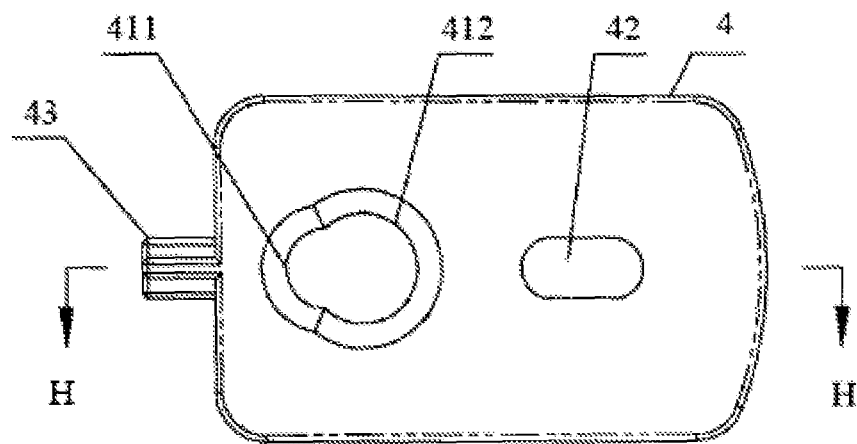


FIG. 13

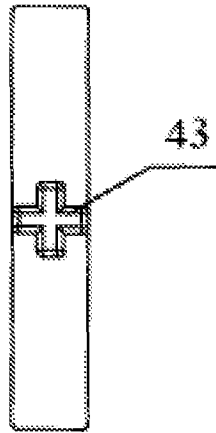
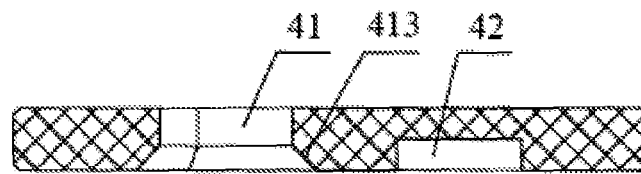


FIG. 14



H-H

FIG. 15

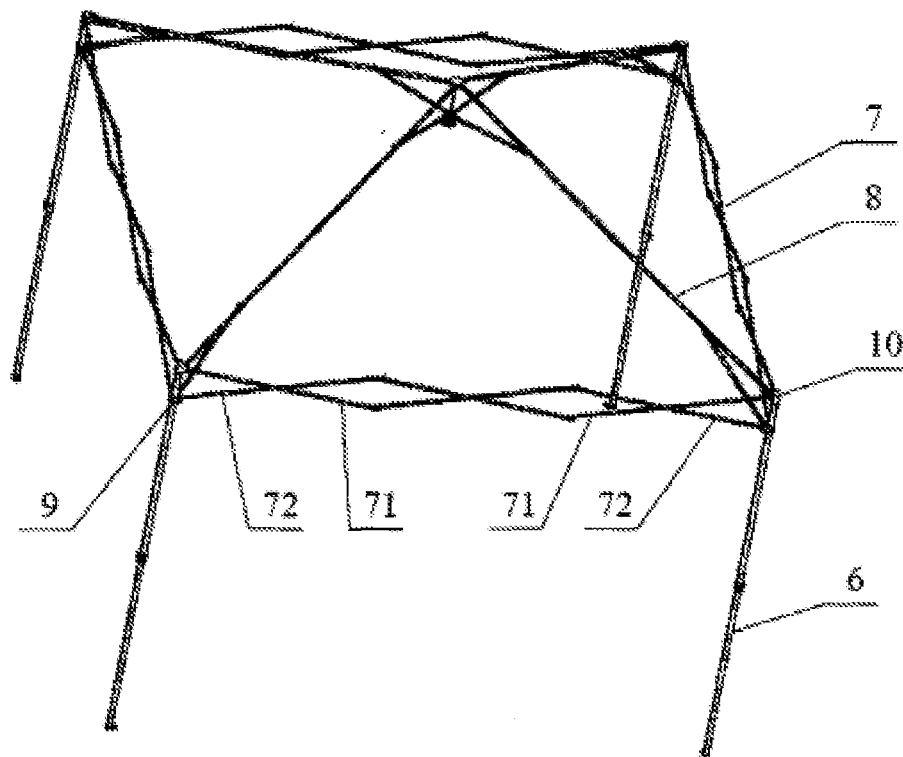


FIG. 16

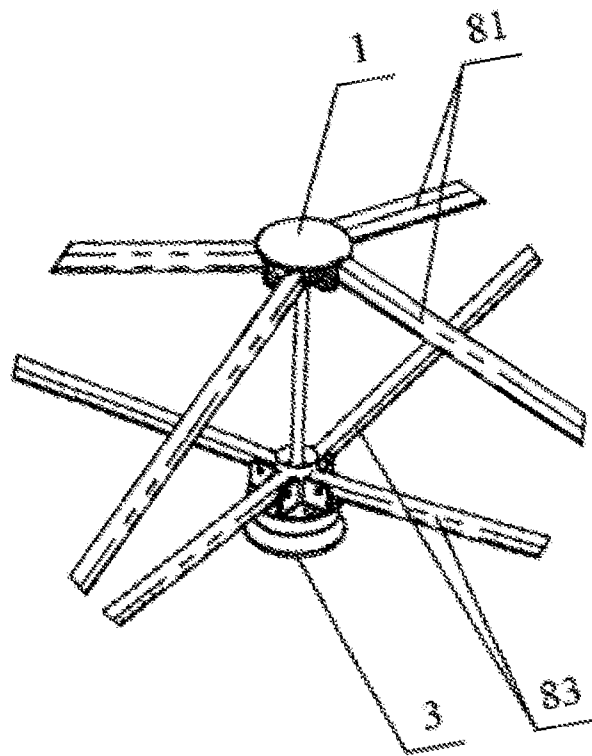


FIG 17

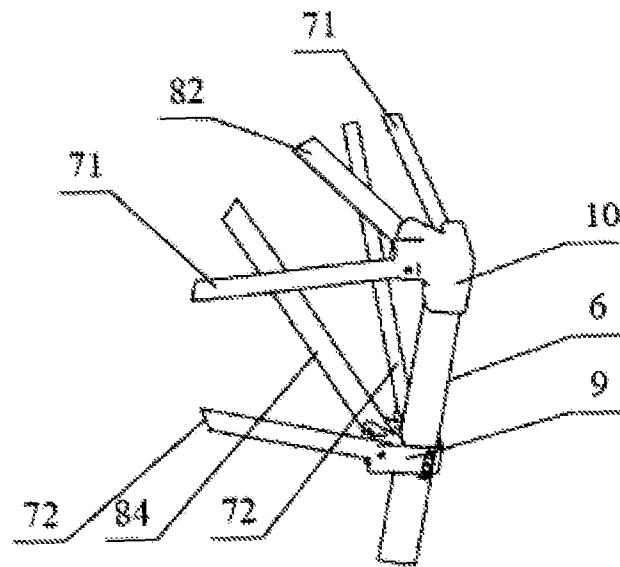


FIG. 18

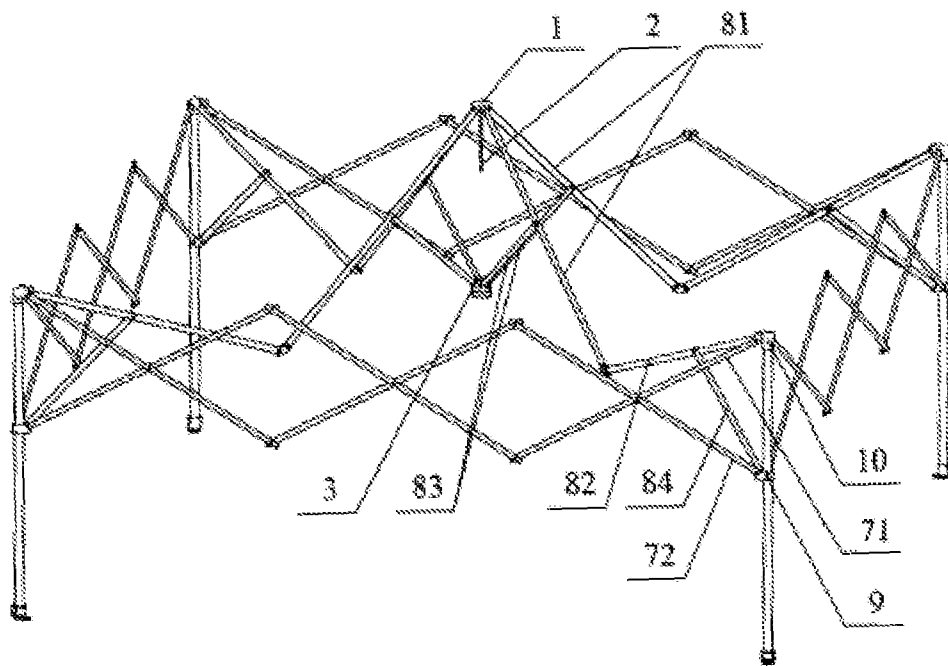


FIG. 19

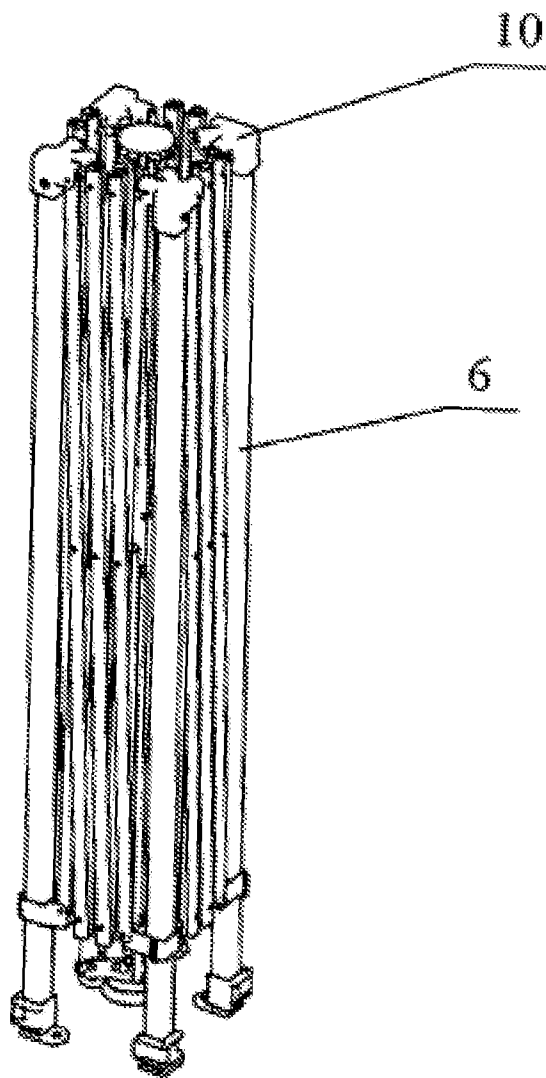


FIG 20

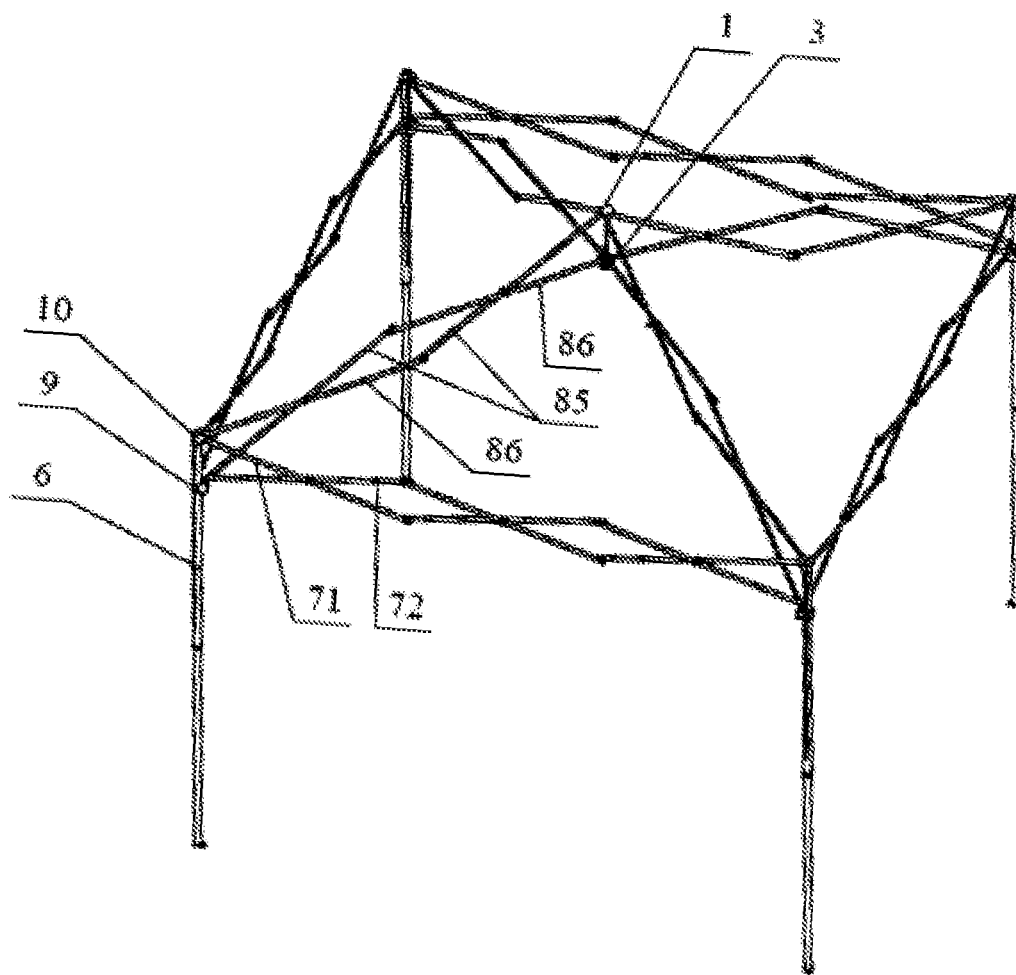


FIG. 21

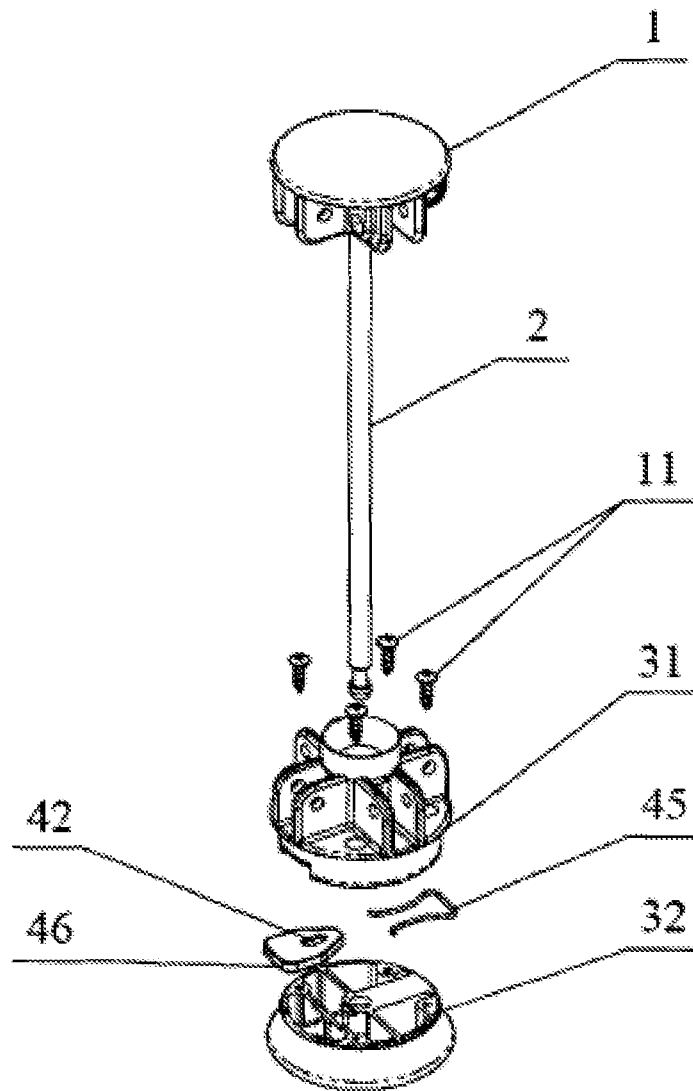


FIG. 22

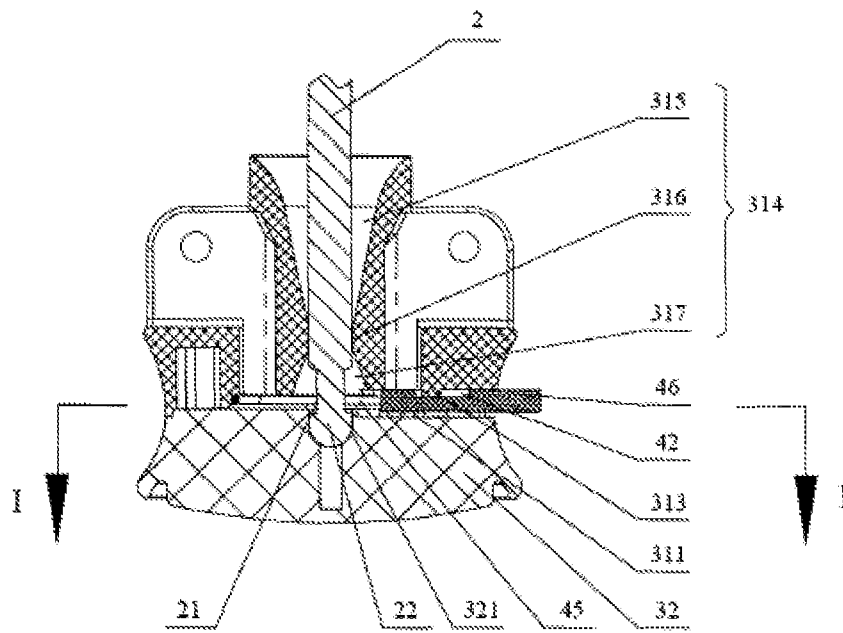


FIG. 23

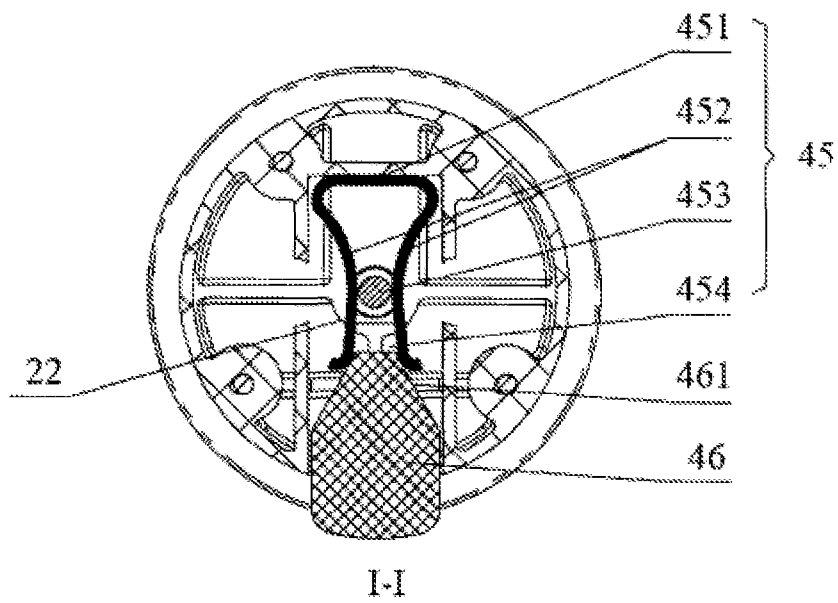


FIG. 24

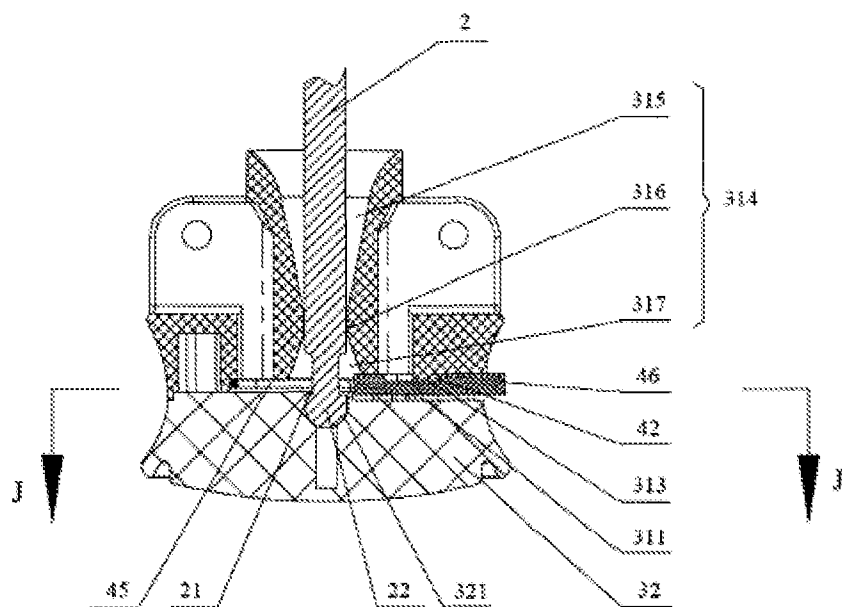
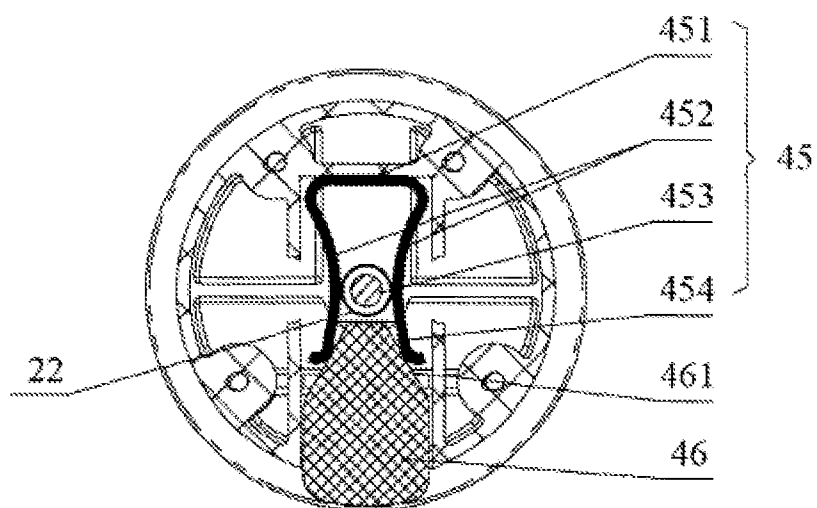


FIG. 25



J-J

FIG. 26

Electronic Patent Application Fee Transmittal

Application Number:				
Filing Date:				
Title of Invention:	COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK			
First Named Inventor/Applicant Name:	Shengyong Yang			
Filer:	John R. Ross			
Attorney Docket Number:	withu1			
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
UTILITY FILING FEE (ELECTRONIC FILING)	4011	1	75	75
UTILITY SEARCH FEE	2111	1	330	330
UTILITY EXAMINATION FEE	2311	1	380	380
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				785

Electronic Acknowledgement Receipt

EFS ID:	32095257
Application Number:	15925314
International Application Number:	
Confirmation Number:	6809
Title of Invention:	COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK
First Named Inventor/Applicant Name:	Shengyong Yang
Customer Number:	36255
Filer:	John R. Ross
Filer Authorized By:	
Attorney Docket Number:	withu1
Receipt Date:	19-MAR-2018
Filing Date:	
Time Stamp:	17:13:02
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	EFT
Payment was successfully received in RAM	\$ 785
RAM confirmation Number	032018INTEFSW17292700
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Application Data Sheet	aia0014.pdf	1822333	no	8
			7cc81c3af8d7cb724507fc89ee69c5d74f1150cc		
Warnings:					
Information:					
2		aYangCIP.pdf	90627	yes	19
			d6fb016d16ffede8619135c2f235b7fd1a3ea42f		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Specification		1	14	
	Claims		15	18	
	Abstract		19	19	
Warnings:					
Information:					
3		aYangDECPOA.pdf	6500677	yes	4
			f8d3c2fb6f861c620fec280e4e25a1002db97ee2		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Oath or Declaration filed		1	2	
	Power of Attorney		3	4	
Warnings:					
Information:					

4	Drawings-only black and white line drawings	aYangDWG.pdf	646044	no	18
			58df46c0c5f3425d8ddb3cde4258c82fc64f3644		
Warnings:					
Information:					
5	Fee Worksheet (SB06)	fee-info.pdf	34974	no	2
			ea63c982b991473e665d0204077c599301c37fe7		
Warnings:					
Information:					
Total Files Size (in bytes):			9094655		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	withu1
		Application Number	
Title of Invention	COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK		
The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76. This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.			

Secrecy Order 37 CFR 5.2:

☐	Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)
--------------------------	---

Inventor Information:

Inventor	1				Remove	
Legal Name						
Prefix	Given Name	Middle Name	Family Name	Suffix		
Mr. v	Shengyong		Yang	v		
Residence Information (Select One) US Residency ☒ Non US Residency Active US Military Service						
City	Shanghai		Country of Residence ⁱ	CN		
Mailing Address of Inventor:						
Address 1		Rm 214B, No. 358 Bdg, No. 3663, N. Zhongshan Rd				
Address 2						
City	Shanghai		State/Province			
Postal Code	200062		Country ⁱ	CN		
Inventor	2				Remove	
Legal Name						
Prefix	Given Name	Middle Name	Family Name	Suffix		
Mr. v	Jing		Bian	v		
Residence Information (Select One) US Residency ☒ Non US Residency Active US Military Service						
City	Shanghai		Country of Residence ⁱ	CN		
Mailing Address of Inventor:						
Address 1		Rm 214B, No. 358 Bdg, No. 3663, N. Zhongshan Rd				
Address 2						
City	Shanghai		State/Province			
Postal Code	200062		Country ⁱ	CN		
All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the Add button.						
Add						

Correspondence Information:

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	withu1
		Application Number	
Title of Invention	COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK		

Enter either Customer Number or complete the Correspondence Information section below.
For further information see 37 CFR 1.33(a).

☐ An Address is being provided for the correspondence information of this application.

Customer Number	36255		
Email Address	john@rosspatent.com	Add Email	Remove Email

Application Information:

Title of the Invention	COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK		
Attorney Docket Number	withu1	Small Entity Status Claimed	☒
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	18	Suggested Figure for Publication (if any)	

Filing By Reference:

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32). Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

Please Select One:	☒ Customer Number	☐ US Patent Practitioner	☐ Limited Recognition (37 CFR 11.9)
Customer Number	36255		

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	withu1
		Application Number	
Title of Invention	COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim information in the Application Data Sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.

When referring to the current application, please leave the "Application Number" field blank.

Prior Application Status	Pending	Remove	
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
	Continuation in part of	15549164	2017-08-06
Prior Application Status	Pending	Remove	
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
15549164	a 371 of international	PCT/CN2016/091675	2016-07-26
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the Add button.			Add

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX)ⁱ the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

			Remove
Application Number	Country ⁱ	Filing Date (YYYY-MM-DD)	Access Code ⁱ (if applicable)
Additional Foreign Priority Data may be generated within this form by selecting the Add button.			Add

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013. ☐ NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.
--

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	withu1
		Application Number	
Title of Invention	COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK		

Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

NOTE: This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

A. Priority Document Exchange (PDX) - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	withu1
		Application Number	
Title of Invention	COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK		

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	withu1
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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	withu1
		Application Number	
Title of Invention	COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK		

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COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK

The present invention relates to an outdoor product, in particular to a collapsible canopy frame having a central lock. This application is a Continuation-in-Part (CIP) of U.S. Patent Application Serial No. 15/549,164 filed on August 6, 2017, which is National Stage Entry of PCT Application Serial No. PCT/CN2016/091675, filed on July 26, 2016, both of which are incorporated by reference herein.

BACKGROUND OF THE INVENTION

Collapsible canopies that are capable of being locked into an unfolded position are very popular in modern society. Generally, each canopy comprises a foldable canopy frame and a canopy fabric, the canopy frame consists of a roof frame and four or more supporting legs, the supporting legs are used for supporting the roof frame and are provided with a locking structure on each supporting leg respectively, the canopy fabric covers the roof frame and is used for sunshading, rain sheltering or wind sheltering. At present, the locking structure is generally a locking pin, and an unfolded state of the canopy is locked by way of respectively locking each supporting leg. However, this way has the following defects:

In a process where a canopy is unfolded or folded, a user needs to perform a locking operation or an unlocking operation on a locking mechanism of each supporting leg one by one when unfolding or folding the canopy. The operation is cumbersome, functional defects or improper operation of forcing unlocking can occur. Also, the unfolding or folding of the canopy needs cooperation of many people so that the canopy can be erected. In addition, in a process where the canopy is unfolded and is erected, stresses of stress points of a plurality of supporting legs are not uniform, thus it is very difficult to support the canopy at optimum points and consequently the supporting effect of the canopy is influenced. Damages to the canopy mostly occur at the supporting legs of the canopy, since positions of sliding blocks need to be fixed after the canopy is unfolded, and holes are formed in the supporting legs at the fixing positions of the sliding blocks for inserting locking pins. Holes in the supporting legs weakens the supporting strength of the supporting legs, and the supporting legs are usually damaged at the fixing positions of the sliding blocks and consequently the service life of the canopy is shortened.

What is needed is collapsible canopy frame with a better locking mechanism.

SUMMARY OF THE INVENTION

The present invention provides a collapsible canopy frame with an improved locking mechanism. The collapsible canopy frame has at least three supporting legs. The collapsible canopy frame also has a central lock that is used for locking the collapsible canopy frame in an unfolded state and permits the collapsible canopy frame to be folded into a folded state when the central lock is unlocked. An outer retractable unit is connected between each adjacent supporting leg. An inner retractable unit having an inner end is connected between each supporting leg and the central lock. The inner end of the inner retractable unit is connected through the central lock.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 illustrates an exploded view of a central lock of the present invention.

FIG. 2 illustrates a structural schematic view of a central lock in a locked state.

FIG. 3 illustrates an A-A sectional view of FIG. 2.

FIG. 4 illustrates a B-B sectional view of FIG. 2.

FIG. 5 illustrates a C-C sectional view of FIG. 2.

FIG 6 illustrates a schematic view of a connection between a center pole and a center bottom cap in FIG. 2.

FIG 7 illustrates a structural schematic view of a central lock in an unlocked state.

FIG. 8 illustrates a D-D sectional view of FIG. 7.

FIG. 9 illustrates an E-E sectional view of FIG. 7.

FIG, 10 illustrates an F-F sectional view of FIG. 7.

FIG, 11 illustrates a schematic view of a connection between a center pole and a center bottom cap in FIG 7.

FIG. 12 illustrates a G-G sectional view of FIG. 8.

FIG. 13 illustrates a top view of a locking piece of the present invention. FIG 14 illustrates a left view of FIG. 13.

FIG 15 illustrates an H-H sectional view of FIG 13.

FIG 16 illustrates a structural schematic view of a canopy in an unfolded state of the present invention.

FIG. 17 illustrates a structural schematic view of the central lock in FIG. 16.

FIG. 18 illustrates a schematic view of a connection of the sliding block, the fixed joint and the supporting leg in FIG 16.

FIG. 19 illustrates a state view of a canopy in an unfolding or folding process. FIG 20 illustrates a structural schematic view of a canopy after being folded. FIG. 21 illustrates another embodiment of a canopy.

FIG. 22 illustrates another embodiment of a central lock of the present invention.

FIG. 23 illustrates a schematic view of a connection between the center pole and the center bottom cap when the central lock in FIG 22 is in a locked state.

FIG. 24 illustrates an I-I sectional view of FIG. 23.

FIG. 25 illustrates a schematic view of a connection between the center pole and the center bottom cap when the central lock in FIG. 22 is in an unlocked state.

FIG. 26 illustrates a J-J sectional view of FIG. 25.

DESCRIPTION OF THE REFERENCE NUMBERS

- 1 Center top cap
- 2 Center pole
- 3 Center bottom cap
- 4 Locking piece
- 5 Spring
- 6 Supporting leg
- 7 Outer retractable unit
- 8 Inner retractable unit
- 9 Sliding sleeve
- 10 Fixed joint
- 11 Screw
- 21 Clamping groove
- 22 Clamp locking part
- 31 Bottom cap seat
- 32 Bottom cap cover
- 41 First through hole
- 42 Groove

43 Guide supporting part
44 Locking piece pressing part
45 Elastic wire
46 Unlocking push piece
71 First eave pipe
72 Second eave pipe
81 First oblique top pipe
82 Second oblique top pipe
83 First connecting rod
84 Second connecting rod
85 Third oblique top pipe
86 Fourth oblique top pipe
221 Guide part
311 Receiving chamber
312 Opening
313 Detachment preventing part
314 Second through hole
315 First conical part
316 Cylindrical part
317 Second conical part
318 Connection piece
321 Receiving hole
322 Material reducing groove
411 Clamping hole part
412 Through hole part
413 Chamfered part
451 Elastic wire body part
452 Elastic deforming part
453 Narrow opening
454 Socket
461 Guide surface

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The present invention provides a central lock and a canopy mounted with the central lock. As illustrated in FIG. 1 and FIG. 2, the central lock comprises a center pole 2, a center top cap 1 fixedly arranged at one end of the center pole 2, and a center bottom cap 3 detachably connected to the other end of the center pole 2. As illustrated in FIG. 1, the center top cap 1 is fixedly connected with one end of the center pole 2 through a screw 11; a detachable connection structure between the center bottom cap 3 and the other end of the center pole 2 is as illustrated in FIG. 2 to FIG. 12, a locking piece 4 capable of moving back and forth along a radial direction of the center pole 2 is received in the center bottom cap 3, a first through hole 41 (FIG. 6) through which the center pole 2 can pass is provided in the locking piece 4, and the end part of the center pole 2 is provided with a clamping groove 21 and a clamp locking part located at the lower end of the clamping groove 21. When the central lock is in a locked state, as illustrated in FIG. 6, part of an inner wall of the first through hole 41 of the locking piece 4 is clamped with the clamping groove 21 of the center pole 2, an upper end surface of the clamp locking part 22 abuts against a lower end surface of the locking piece 4, thus the clamp locking part 22 cannot thread the first through hole 41 and the center pole 2 and the center bottom cap 3 are in a mutually connected state. When the central lock is in an unlocked state, as illustrated in FIG. 11, the locking piece 4 moves along the radial direction of the center pole 2 such that the inner wall of the first through hole 41 of the locking piece 4 is separated from the clamping groove 21, the clamp locking part 22 can thread the first through hole 41, thus the center pole 2 can be moved out of the center bottom cap 3 such that the center pole 2 is separated from the center bottom cap 3.

Further, the central lock is mainly mounted in a canopy, so that the canopy can have a better supporting effect. Of course, the central lock may also be mounted in other devices. As illustrated in FIG. 16, the canopy mounted with the central lock comprises at least three supporting legs 6, outer retractable units 7 connected between every two adjacent supporting legs 6 and inner retractable units 8 connected to each supporting leg 6, the outer retractable units 7 and the inner retractable units 8 form a roof frame of the canopy, the roof frame and the plurality of supporting legs 6 form a canopy frame of the canopy, a canopy fabric covers the roof frame, and inner ends of the inner retractable units 8 of the canopy are connected through the central lock. In this embodiment, there are four supporting legs

6. Accordingly, there are four outer retractable units 7 and four inner retractable units 8 respectively. In addition, for convenience of operation, the center top cap 1 is located at an upper end of the center pole 2 and the center bottom cap 3 is located at a lower end of the center pole 2, so that the center bottom cap 3 can be pulled upwards or downwards conveniently.

When the canopy is in a folded state, as illustrated in FIG 20, the center top cap 1 and the center bottom cap 3 of the central lock are in a mutually separated state. When the canopy is unfolding, as illustrated in FIG 19, the four supporting legs 6 are centered about the central lock and unfolded outwards, the outer retractable units 7 and the inner retractable units 8 are gradually stretched outwards. After the canopy is unfolded, the center bottom cap 3 is pushed towards the center pole 2, i.e., the center bottom cap 3 moves upwards such that the center pole 2 is inserted into the center bottom cap 3 and the clamping groove 21 of the center pole 2 is clamped with part of the inner wall of the first through hole 41, thus part of the upper end surface of the clamp locking part 22 abuts against part of the lower end surface of the locking piece 4, so as to restrict the clamp locking part 22 from passing through the first through hole 41 and further to restrict the center pole 2 from falling out of the center bottom cap 3, accordingly, the mutual connection between the center bottom cap 3 and the center pole 2 is achieved. After the center bottom cap 3 is connected with the center pole 2, the unfolded state of the canopy is fixed and maintained, the entire canopy is locked, at this point, the inner retractable units 8, as well as the outer retractable units 7 accordingly, cannot automatically extend and retract with no external force, and thus the stability of the unfolded state of the canopy is very good. The plurality of inner retractable units 8 are uniformly distributed at the periphery of the central lock, such that each inner retractable unit 8 is uniformly stressed and each supporting leg 6 averagely undertakes the gravity of the roof frame, so as to improve the overall supporting effect of the canopy. In addition, as the canopy mounted with the central lock is unfolded, the canopy can be fixed by connecting the center pole with the center bottom cap. As compared with the mechanical locking method in which the sliding blocks are fixed by locking pins in the prior art, there is no need to fix the sliding blocks in the supporting legs in the present application, thereby it is not necessary to provide holes in the supporting legs of the canopy for fixing the sliding blocks, accordingly the strength of the supporting legs of the canopy is enhanced, the

structural strength of the canopy is enhanced and the service life of the canopy is prolonged. When the canopy is folded, the locking piece 4 is moved such that the inner wall of the first through hole 41 of the locking piece 4 is separated from the clamping groove 21, at this point, the clamp locking part 22 can pass through the first through hole 41, and the center pole 2 also can move out of the center bottom cap 3 to separate the center pole 2 from the center bottom cap 3; and thereafter, force is applied to pull the center bottom cap 3 away from the center pole 2, i.e., the center bottom cap 3 is pulled downwards to enable the inner retractable units 8 to be folded towards the central lock, as illustrated in FIG 19, finally the outer retractable units 7 are gradually folded and the plurality of supporting legs 6 are folded towards the central lock, as illustrated in FIG. 20. To sum up, the canopy mounted with the central lock of the present invention is very convenient to be unfolded or folded, has good support effect and high strength after the canopy is unfolded, and has long service life. The central lock is simple in structure, easy to manufacture and low in cost.

Further, as illustrated in FIG 16 to FIG. 18, each supporting leg 6 is sleeved with a sliding sleeve 9 for moving along a length direction of the supporting leg 6, an upper end of each supporting leg 6 is fixed with a fixed joint 10. The outer retractable unit 7 comprises three hinged X-shaped rod members, each X-shaped rod member comprises a first eave pipe 71 and a second eave pipe 72 hinged to one another, with a hinging point between the first eave pipe 71 and the second eave pipe 72 being located at or close to a midpoint of the first eave pipe 71 or the second eave pipe 72. The inner retractable unit 8 comprises a first oblique top pipe 81 and a second oblique top pipe 82 hinged to one another through a connection piece with a U-shaped cross section, a first connecting rod 83 is hinged at or close to a midpoint of the first oblique top pipe 81, a second connecting rod 84 is hinged at or close to a midpoint of the second oblique top pipe 82; inner ends of four first oblique top pipes 81 are all hinged with the center top cap 1 of the central lock, inner ends of four first connecting rods 83 are all hinged with the center bottom cap 3 of the central lock. The fixed joint 10 at the upper end of the supporting leg 6 is hinged with outer ends of the first eave pipes 71 of two X-shaped rod members and an outer end of one second oblique top pipe 82, the sliding sleeve 9 on the supporting leg 6 is hinged with outer ends of the second eave pipes 72 of two X-shaped rod members and an outer end of one second connecting rod 84. In this embodiment, the first oblique top pipe 81 and the first connecting rod 83, as well as

the second oblique top pipe 82 and the second connecting pipe 84, forms a Y-shaped member, i.e., the inner retractable unit 8 consists of a plurality of Y-shaped members. In another embodiment, the inner retractable unit 8 may also consists of a plurality of X-shaped members, as illustrated in FIG. 21, at this point, each X-shaped member of the inner retractable unit 8 comprises a third oblique top pipe 85 and a fourth oblique top pipe 86 hinged to one another. As for the innermost X-shaped member of the inner retractable unit 8, an inner end of the third oblique top pipe 85 is hinged with the center top cap 1 of the central lock, and an inner end of the fourth oblique top pipe 86 is hinged with the center bottom cap 3 of the central lock. As for the outermost X-shaped member of the inner retractable unit 8, an outer end of the third oblique top pipe 85 is hinged with the sliding sleeve 9, and an outer end of the fourth oblique top pipe 86 is hinged with the fixed joint 10.

As for the roof frame of the canopy with the above-mentioned structure, in the process that the center bottom cap 3 of the central lock is pushed upwards to unfold the canopy, the upward movement of the center bottom cap 3 enables the inner retractable units 8 to extend outwards; and simultaneously the sliding sleeve 9 is enabled to move upwards along the length direction of the supporting leg 6, such that the outer retractable units 7 and the four supporting legs 6 gradually extend until the entire canopy is fully unfolded and the center bottom cap 3 is connected with the lower end of the center pole 2. Contrarily, after the center bottom cap 3 is separated from the lower end of the center pole 2, in the process that the center bottom cap 3 is pulled downwards, the downward movement of the center bottom cap 3 enables the inner retractable units 8 to fold inwards; and simultaneously the sliding sleeve 9 is enabled to move downwards along the length direction of the supporting leg 6, such that the outer retractable units 7 and the four supporting legs 6 gradually fold until the entire canopy is fully folded.

Further, as illustrated in FIG. 1, FIG 6 and FIG. 11, the center bottom cap 3 comprises a bottom cap seat 31 and a bottom cap cover 32 that are connected to one another fixedly through a plurality of screws, a receiving chamber 311 is provided in the center bottom cap 3 at a junction between the bottom cap seat 31 and the bottom cap cover 32, an opening 312 communicated with the receiving chamber 311 is provided in an outer wall of the center

bottom cap 3, and the locking piece 4 is provided threading the receiving chamber 311 and the opening 312, located between the bottom cap seat 31 and the bottom cap cover 32, and supported by the bottom cap cover 32. The receiving chamber 311 may be fully disposed in the bottom cap seat 31, or in the bottom cap cover 32, or in the bottom cap seat 31 and the bottom cap cover 32 together. The bottom cap seat 31 and the bottom cap cover 32 are detachably connected through the screws, thereby facilitating the mounting of the center bottom cap 3 and the locking piece 4. In addition, there are eight connection pieces 318 provided in the bottom cap seat 31 of the center bottom cap 3 and the center top cap 1 respectively, the eight connection pieces 318 form four connection piece groups which are provided at intervals of 90°, i.e., each connection piece group comprises two connection pieces 318, with a receiving groove being formed between the two connection pieces 318. The inner ends of the four first oblique top pipes 81 are disposed in the four receiving grooves in the center top cap 1 and hinged with the connection pieces 318 through bolts respectively, and threads at end portions of the bolts are connected with nuts. The inner ends of the four first connecting rods 83 are disposed in the four receiving grooves of the bottom cap seat 31 and hinged with the connection pieces 318 through bolts respectively, and threads at end portions of the bolts are connected with nuts.

In the present application, there are two embodiments for the locking piece 4. The first embodiment of the locking piece 4 is as illustrated in FIG. 1 to FIG. 15, and the second embodiment of the locking piece 4 is as illustrated in FIG. 21 to FIG. 26. Specifically, in the first embodiment, the locking piece 4 is an integral member, i.e., an integral structure. At this point, as illustrated in FIG. 6 and FIG. 11, the receiving chamber 311 is provided with a compressible elastic element along the radial direction of the center pole 2, the elastic element abuts against the locking piece 4 and an inner wall of the receiving chamber 311 at two ends respectively. The bottom cap seat 31 is provided with a protruding detachment preventing part 313, the locking piece 4 is provided with a groove 42 for receiving the detachment preventing part 313. When the central lock is in a locked state, the locking piece 4 applies an acting force to center pole 2 in the radial direction by means of elastic force of the elastic element, to enable part of the inner wall of the first through hole 41 to be located in the clamping groove 21, i.e., to enable part of the inner wall of the first through hole 41 to be clamped with the clamping groove 21 to restrict the center pole 2 from falling out of

the first through hole 41 along an axial direction. Part of the side surface of the detachment preventing part 313 abuts against part of the inner wall of the groove 42 to restrict the locking piece 4 from falling out of the receiving chamber 311. Preferably, as illustrated in FIG. 1, FIG. 13 and FIG. 14, the elastic element is a spring 5, the locking piece 4 is provided with a protruding guide supporting part 43 at the end away from the opening 312, the guide supporting part 43 has a cross section of cross-shape and the spring 5 sleeves the guide supporting part 43, to guarantee that the locking piece 4 has good stability when moving inwards, and the overall structure also has good stability when the central lock is in the locked state.

Preferably, as illustrated in FIG. 13, the first through hole 41 comprises a clamping hole part 411 and a through hole part 412 arranged side by side, the clamping hole part 411 has a diameter not smaller than that of the clamping groove 21, i.e., the diameter of the clamping hole part 411 is equal to or slightly greater than the diameter of the clamping groove 21; the through hole part 412 has a diameter greater than that of the clamp locking part 22. Consequently, when the central lock is in the locked state, the clamping groove 21 at the lower end of the center pole 2 is clamped with the clamping hole part 411 of the first through hole 41, the center pole 2 and the through hole part 412 of the first through hole 41 are eccentrically arranged, as illustrated in FIG 4, i.e., an axis of the center pole 2 and an axis of the through hole part 412 are in parallel but are not overlapped. When it needs to unlock the central lock, the user exerts force to push a locking piece pressing part 44 to enable the locking piece pressing part 44 to move inwards to compress the elastic element until the center rod 2 and the through hole part 412 of the first through hole 41 in the locking piece 4 are concentrically arranged, as illustrated in FIG 9, i.e., the axis of the center pole 2 and the axis of the through hole part 412 are overlapped, the inner wall of the clamping hole part 411 is removed from the clamping groove 21 and thereby the clamp locking part 22 at the lower end of the center pole 2 can be removed from the through hole part 412.

In the second embodiment, the locking piece 4 is in a detachable form, as illustrated in FIG. 22 to FIG. 26, and comprises an elastic wire 45 and an unlocking push piece 46, the elastic wire 45 is U-shaped and comprises an elastic wire body part 451 and two elastic deforming parts 452 respectively provided at two ends of the elastic wire body part 451, the two elastic

deforming parts 452 are X-shaped with a narrow opening 453 for forming the first through hole 41 being provided in the middle of the two elastic deforming parts 452. The narrow opening 453 is an opening section having a smallest spacing between the elastic deforming parts 452, end portions of the elastic deforming parts 452 form a socket 454 and an inner end of the unlocking push piece 46 is located in the socket 454. In a natural state, the narrow opening 453 has a caliber smaller than or equal to the diameter of the clamping groove 21, when the center pole 2 is inserted into the center bottom cap 3, the clamp locking part 22 widens the narrow opening 453 until the clamping groove 21 in the center pole 2 is aligned with the inner wall of the narrow opening 453 of the elastic wire 45, then the narrow opening 453 is narrowed under the effect of the elastic restoring force of the elastic wire 45, thereby the inner wall of the narrow opening 453 is enabled to be clamped in the clamping groove 21 in the center pole 2, and thus the position locking of the center bottom cap 3 and the center top cap I is achieved, as illustrated in FIG. 23 and FIG. 24. When it needs to unlock, the unlocking push piece 46 is pressed and pushed inwards, the socket 454 of the elastic wire 45 is widened until the caliber of the narrow opening 453 is greater than the diameter of the clamp locking part 22, such that the clamp locking part 22 is capable of passing through the narrow opening 453, as illustrated in FIG. 25 and FIG. 26, consequently, the separation between the center top cap 1 and the center bottom cap 3 is achieved and the folding action of the canopy is achieved.

Preferably, as illustrated in FIG. 23 and FIG. 25, the bottom cap seat 31 is provided with a protruding detachment preventing part 313, the unlocking push piece 46 is provided with a groove 42 for receiving the detachment preventing part 313. With mutual cooperation between the detachment preventing part 313 and the groove 42, it enables to prevent the unlocking push piece 46 from falling out of the receiving chamber 311 as well as from being excessively pressed during unlocking. The unlocking push piece 46 is provided with two guide surfaces 416 in contact with the end portions of the elastic deforming parts 452 respectively, and the guide surfaces 461 are spread and inclining away from the elastic wire 45, i.e., an inner end of the unlocking push piece 46 is trapezoidal, so as to guarantee that the socket 454 and the narrow opening 453 of the elastic wire can be accurately widened when the unlocking push piece 46 is pushed inwards.

More preferably, in order to facilitate the movement of the locking piece 4, at least part of

the locking piece 4 is disposed outside the center bottom cap 3 to form the locking piece pressing part 44.

Further, as illustrated in FIG. 6, the bottom cap seat 31 is provided with a second through hole 314 through which the center pole 2 can pass, the axis of the second through hole 314 coincides with the axis of the center pole 2. The bottom cap cover 32 is provided with a receiving hole 321 for receiving the clamp locking part 22 and being adaptive to an outer wall of the clamp locking part 22. The second through hole 314, the first through hole 41 and the receiving hole 321 are in a communication manner. When the central lock is in the locked state, the lower end of the center pole 2 is sequentially disposed in the second through hole 314 of the bottom cap seat 31 and the first through hole 41 of the locking member 4, the clamp locking part 22 is received in the receiving hole 321 of the bottom cap cover 32. Since the shape of the inner wall of the receiving hole 321 is adapted to the shape of the outer wall of the clamp locking part 22, the inner wall of the receiving hole 321 is fit with the outer wall of the clamp locking part 22, thereby the clamp locking part 22 of the center pole 2 can be prevented from shaking, jumping and the like under the effect of external force, and thus the locking reliability of the central lock is improved.

To sum up, during the locking of the central lock comprising the bottom cap seat 31, the bottom cap cover 32, the spring 5, the locking piece 4, the center pole 2, the center top cap 1 and the like, the user pushes the center bottom cap 3 to move upwards, and the distance between the center bottom cap 3 and the center top cap 1 gradually decreases. When no external force is applied to the locking piece 4, the locking piece 4 is only subjected to the elastic force of the spring 5, by which part of the inner wall of the groove 42 of the locking piece 4 abuts against part of the outer wall of the detachment preventing part 313 of the bottom cap seat 31, consequently, the locking member 4 is still received in the receiving chamber 311 under the effect of the elastic force of the spring 5 and is unable to fall out of the receiving chamber 311, and the through hole part 412 of the first through hole 41 of the locking piece 4 and the second through hole 314 of the bottom cap seat 31 are eccentrically arranged. The user continues to push the center bottom cap 3 to move upwards until the lower end of the center pole 2 enters the second through hole 314 in the bottom cap seat 31. The user continues to apply force to move center bottom cap 3 upwards, and when the

locking part 22 at the lower end of the center pole 2 enters the upper end of the first through hole 41 of the locking piece 4, the user applies acting force to overcome the pressure applied by the spring 5 to the locking piece 4 to move the locking piece inwards, so that the clamp locking part 22 at the lower end of the center pole 2 passes through the first through hole 41 of the locking piece 4 to be received in the receiving hole 321 of the bottom cap cover 32, further, the locking piece 4 is restored under the effect of the elastic force of the spring 5, so that the clamping hole part 411 of the first through hole 41 is enabled to be clamped with the clamping groove 21 of the center pole 2, thereby the connection between the center pole 2 and the center bottom cap 3 is completed and the locking of the central lock is achieved. During the unlocking, the user presses the locking piece pressing part 44 inwards to overcome the elastic force of the spring 5 to move the locking piece 4 inwards; when the inner wall of the clamping hole part 411 is separated from the clamping groove 21 and the center pole 22 is aligned with the through hole part 412 of the first through hole 41, the center bottom cap 3 is pulled to move downwards.

Further, in order to facilitate the center pole 2 to thread the bottom cap seat 31 and the locking piece 4, as illustrated in FIG. 6 and FIG. 11, the second through hole 314 sequentially comprises a first conical part 315 with a gradually decreased diameter, a cylindrical part 316 and a second conical part 317 with a gradually increased diameter along the direction that the center pole 2 threads the center bottom cap 3, and a diameter of the cylindrical part 316 is slightly greater than the diameter of the center pole 2. Consequently, as the bottom cap seat 31 moves upwards to be connected with the lower end of the center pole 2, the opening of the first conical part 315 at the upper end of the second through hole 314 is relatively larger to facilitate the clamp locking part 22 to be inserted into the bottom cap seat 31. As illustrated in FIG 15, the upper end of the first through hole 41 is chamfered to form a chamfered part 413 with a gradually decreased diameter, thus the opening at the upper end of the first through hole 41 is also relatively large and has a certain inclination to facilitate the clamp locking part 22 to be inserted into the locking piece 4, so as to play a role of guiding. When the center pole 2 is separated from the center bottom cap 3, the bottom cap seat 31 moves downwards, and the opening of the second conical part 317 at the lower end of the second through hole 314 is relatively large to facilitate the clamp locking part 22 to fall out of the second through hole 314. Preferably, the clamping groove 21 is an annular

groove, an end portion of the clamp locking part 22 is provided with a guide part 221 of a semispherical shape or a conical shape with a gradually decreased diameter, by which the guide part 221 facilitates entering the first through hole 41 of the locking piece 4 and abrasion hardly occurs.

Further, as illustrated in FIG. 1, in the case that the structural strength of the central lock is guaranteed, the bottom cap seat 32 is provided with a plurality of material reducing grooves 322 to reduce the amount of material and lower the cost. In addition, the center bottom cap 3 has an arc-shaped side surface to facilitate grasping the center bottom cap 3.

To sum up, the present invention effectively overcomes various disadvantages in the prior art and thus has a great industrial utilization value.

Although the above-preferred embodiments have been described with specificity, persons skilled in this art will recognize that many changes to the specific embodiments disclosed above could be made without departing from the spirit of the invention. Therefore, the attached claims and their legal equivalents should determine the scope of the invention.

What is claimed is:

1. A collapsible canopy frame, comprising:
 - A. at least three supporting legs,
 - B. a plurality of outer retractable units, each outer retractable unit connected between every two adjacent supporting legs,
 - C. a plurality of inner retractable units comprising inner ends, each inner retractable unit connected to each supporting leg, wherein said outer retractable units and said inner retractable units form a roof of said collapsible canopy frame, and
 - D. a central lock for locking said collapsible canopy frame in an unfolded state when said central lock is locked and for permitting said collapsible canopy frame to be folded into a folded state when said central lock is unlocked, wherein said inner ends of said inner retractable units are connected through said central lock.
2. The collapsible canopy frame according as in Claim 1, wherein: each said supporting leg comprises a sliding sleeve for moving along a length direction of said supporting leg, an upper end of said supporting leg is fixed with a fixed joint, said outer retractable unit comprises a plurality of hinged X-shaped rod members, each X-shaped rod member comprises a first eave pipe a second eave pipe hinged to one another; said inner retractable unit comprises a first oblique top pipe and a second oblique top pipe hinged to one another, said first oblique top pipe is hinged with a first connecting rod, said second oblique top pipe is hinged with a second connecting rod, an inner end of said first oblique top pipe is hinged with a center top cap of said central lock, an inner end of said first connecting rod is hinged with a center bottom cap of said central lock, an outer end of a first eave pipe and an outer end of said second oblique top pipe are hinged with said fixed joint, an outer end of said second eave pipe and an outer end of said second connecting rod are hinged with said sliding sleeve.
3. The collapsible canopy frame as in Claim 1, wherein: each said supporting leg comprises a sliding sleeve for moving along a length direction of said supporting leg, an upper end of said supporting leg is fixed with a fixed joint, said outer retractable unit comprises a plurality of hinged X-shaped rod members, each said

X-shaped rod member comprises a first eave pipe and a second eave pipe hinged to one another; said inner retractable unit comprises a plurality of X-shaped members hinged one by one, each X-shaped member comprises a third oblique top pipe and a fourth oblique top pipe hinged to one another, an inner end of said third oblique top pipe is hinged with a center top cap of said central lock, and an inner end of said fourth oblique top pipe is hinged with said center bottom cap of said central lock, an outer end of said first eave pipe and an outer end of said fourth oblique top pipe are hinged with said fixed joint, an outer end of said second eave pipe and an outer end of said third oblique top pipe are hinged with said sliding sleeve.

4. The collapsible canopy frame as in Claim 1, where said central lock further comprises: a center pole, a center top cap fixedly arranged at one end of said center pole and a center bottom cap detachably connected to another end of said center pole, a locking piece capable of moving back and forth along a radial direction of said center pole, wherein said locking piece is received in said center bottom cap, a first through hole through which said center pole can pass through is provided in said locking piece, and an end portion of said center pole is provided with a clamping groove and a clamp locking part located at the lower end of said clamping groove; when said central lock is in a locked state, part of an inner wall of said first through hole of said locking piece is clamped with said clamping groove of said center pole, and an upper end surface of said clamp locking part abuts against a lower end surface of said locking piece; and when said central lock is in said unlocked state, said inner wall of said first through hole of said locking piece is separated from said clamping groove and said clamp locking part can pass through said first through hole.
5. The collapsible canopy frame as in Claim 4, wherein: said center bottom cap comprises a bottom cap seat and a bottom cap cover that are fixedly connected to one another, a receiving chamber is provided in said center bottom cap at a junction between said bottom cap seat and said bottom cap cover, an opening communicated with said receiving chamber is provided in an outer wall of said center bottom cap, said locking piece is provided threading said receiving chamber and said opening

and supported by said bottom cap cover.

6. The collapsible canopy frame as in Claim 5, wherein: said locking piece is an integral structure, said receiving chamber is provided with a compressible elastic element along a radial direction of said center pole, said elastic element abuts against said locking piece and an inner wall of said receiving chamber at two ends respectively, said bottom cap seat is provided with a protruding detachment preventing part, said locking piece is provided with a groove for receiving said detachment preventing part; when said central lock is in said locked state, said elastic element enables part of said inner wall of said first through hole to be clamped with said clamping groove, and said detachment preventing part abuts against an inner wall of said groove.
7. The collapsible canopy frame as in Claim 6, wherein: said elastic element is a spring, said locking piece is provided with a protruding guide supporting part at an end away from said opening, and said spring sleeves said guide supporting part.
8. The collapsible canopy frame as in Claim 5, wherein: said locking piece is in a detachable form and comprises an elastic wire and an unlocking push piece, said elastic wire is U-shaped and comprises an elastic wire body part and two elastic deforming parts respectively provided at two ends of said elastic wire body part, a narrow opening for forming said first through hole is provided between said two elastic deforming parts, end portions of said elastic deforming parts form a socket and an inner end of said unlocking push piece is located in said socket; when said central lock is in an unlocked state, said unlocking push piece widens said socket and said narrow opening of said elastic wire.
9. The collapsible canopy frame as in Claim 8, wherein: said bottom cap seat is provided with a protruding detachment preventing part, said unlocking push piece is provided with a groove for receiving said detachment preventing part; when said central lock is in a locked state, said detachment preventing part abuts against an inner wall of said groove.

10. The collapsible canopy frame as in Claim 8, wherein: said unlocking push piece is provided with two guide surfaces in contact with said end portions of said elastic deforming parts respectively and said guide surfaces are spread and inclining away from said elastic wire.
11. The collapsible canopy frame as in Claim 5, wherein: said bottom cap seat is provided with a second through hole through which said center pole can pass, said bottom cap cover is provided with a receiving hole for receiving said clamp locking part and being adaptive to an outer wall of said clamp locking part, said second through hole, said first through hole and said receiving hole are in a communication manner.
12. The collapsible canopy frame as in Claim 11, wherein: said second through hole sequentially comprises a first conical part with a gradually decreased diameter, a cylindrical part and a second conical part with a gradually increased diameter along the direction that said center pole threads said center bottom cap, said upper end of said first through hole is provided with a chamfered part with a gradually decreased diameter.
13. The collapsible canopy frame as in Claim 4, wherein: said first through hole comprises a clamping hole part and a through hole part arranged side by side, said clamping hole part has a diameter not smaller than that of said clamping groove, said through hole part has a diameter greater than that of said clamp locking part.
14. The collapsible canopy frame as in Claim 4, wherein: said clamping groove is an annular groove, an end portion of said clamp locking part is provided with a guide part of a semispherical shape or a conical shape with a gradually decreased diameter.

ABSTRACT

A collapsible canopy frame with an improved locking mechanism. The collapsible canopy frame has at least three supporting legs. The collapsible canopy frame also has a central lock that is used for locking the collapsible canopy frame in an unfolded state and permits the collapsible canopy frame to be folded into a folded state when the central lock is unlocked. An outer retractable unit is connected between each adjacent supporting leg. An inner retractable unit having an inner end is connected between each supporting leg and the central lock. The inner end of the inner retractable unit is connected through the central lock.

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK
As the below named inventor, I hereby declare that: This declaration is directed to: ☒ The attached application, or ☐ United States application or PCT international application number _____ filed on _____ The above-identified application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed invention in the application. I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both. WARNING: Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.	
LEGAL NAME OF INVENTOR Inventor: <u>Jing Bian</u> Date (Optional): <u>2018/3/17</u> Signature: <u>Jing Bian</u>	
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DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK
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As the below named inventor, I hereby declare that:

This declaration is directed to:



The attached application, or



United States application or PCT international application number _____

filed on _____

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

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LEGAL NAME OF INVENTOR

Inventor: Shengyang Yang

Date (Optional): 2018-3-17

Signature: Sheng Yang Yang

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875						Application or Docket Number 15/925,314		
APPLICATION AS FILED - PART I								
(Column 1)		(Column 2)		SMALL ENTITY		OTHER THAN SMALL ENTITY		
FOR	NUMBER FILED	NUMBER EXTRA	RATE(\$)	FEE(\$)		RATE(\$)	FEE(\$)	
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	75		N/A		
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A	330		N/A		
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	380		N/A		
TOTAL CLAIMS (37 CFR 1.16(j))	14	minus 20 = *	x 50 =	0.00	OR			
INDEPENDENT CLAIMS (37 CFR 1.16(h))	1	minus 3 = *	x 230 =	0.00				
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			0.00				
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				0.00				
			TOTAL	785		TOTAL		
* If the difference in column 1 is less than zero, enter "0" in column 2.								
APPLICATION AS AMENDED - PART II								
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY		
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)
	Total (37 CFR 1.16(i))	*	Minus **	=	x =	OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus ***	=	x =	OR	x =	
	Application Size Fee (37 CFR 1.16(s))					OR		
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					OR		
			TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE		
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY		
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)
	Total (37 CFR 1.16(i))	*	Minus **	=	x =	OR	x =	
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	Application Size Fee (37 CFR 1.16(s))					OR		
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					OR		
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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
15/925,314	03/19/2018	3636	785	withu1	14	1

CONFIRMATION NO. 6809

36255
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FILING RECEIPT



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Date Mailed: 04/16/2018

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Power of Attorney: The patent practitioners associated with Customer Number 36255

Domestic Priority data as claimed by applicant

This application is a CIP of 15/549,164
which is a 371 of PCT/CN2016/091675 07/26/2016

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see <http://www.uspto.gov> for more information.) - None.

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The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 15/925,314**

Projected Publication Date: 07/26/2018

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK

Preliminary Class

135

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

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NOT GRANTED

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/925,314	03/19/2018	Shengyong Yang	withul

CONFIRMATION NO. 6809

PUBLICATION NOTICE



OC000000101264805

36255
ROSS PATENT LAW OFFICE
P.O. BOX 2138
DEL MAR, CA 92014

Title: COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK

Publication No. US-2018-0209167-A1

Publication Date: 07/26/2018

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently <http://www.uspto.gov/patft/>.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Public Records Division. The Public Records Division can be reached by telephone at (571) 272-3150 or (800) 972-6382, by facsimile at (571) 273-3250, by mail addressed to the United States Patent and Trademark Office, Public Records Division, Alexandria, VA 22313-1450 or via the Internet.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/925,314	03/19/2018	Shengyong Yang	withu1	6809
36255	7590	09/28/2018		
ROSS PATENT LAW OFFICE P.O. BOX 2138 DEL MAR, CA 92014			EXAMINER CANFIELD, ROBERT	
			ART UNIT	PAPER NUMBER
			3635	
			NOTIFICATION DATE	DELIVERY MODE
			09/28/2018	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

john@rosspatent.com
rosspatent@pacbell.net

Notice of Pre-AIA or AIA Status

1. This is a first Office on the merits for application serial number 15/925,314 file 3/19/18 as a continuation-in-part of application serial number 15/549,164. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA. Claims 1-14 are pending.

2. The following is a quotation of 35 U.S.C. 112(b):
(b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:
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.

3. Claims 1-14 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

Claim 1 erroneously recites that **each** outer retractable unit is connected between **every** two adjacent support legs. This is not what is disclosed. Each outer retractable unit is connected between two adjacent supporting legs but each unit is not connected between every adjacent legs.

Similarly, **each** inner retractable unit is not connected to **each** supporting leg as called for in claim 1. Each inner retractable unit is connected to a supporting leg as disclosed, shown and understood.

In throughout the claims it is not clear which supporting leg each occurrence of “said supporting leg” references.

Similarly, it is not clear which outer retractable unit “said out retractable unit” references and which inner retractable unit “said inner retractable unit” references as a plurality of each have been defined. And again, which fixed joint and sliding sleeve are referenced by “said fixed joint” and “said sliding sleeve”?

In claim 2, the language “a first eave pipe a second eave pipe” is unclear. It appears applicant intended to recite “a first eave pipe and a second eave pipe”.

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on nonstatutory double patenting provided the reference application or patent either is shown to be commonly owned with the examined application, or claims an invention made as a

result of activities undertaken within the scope of a joint research agreement. See MPEP § 717.02 for applications subject to examination under the first inventor to file provisions of the AIA as explained in MPEP § 2159. See MPEP §§ 706.02(l)(1) - 706.02(l)(3) for applications not subject to examination under the first inventor to file provisions of the AIA. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The USPTO Internet website contains terminal disclaimer forms which may be used. Please visit www.uspto.gov/patent/patents-forms. The filing date of the application in which the form is filed determines what form (e.g., PTO/SB/25, PTO/SB/26, PTO/AIA/25, or PTO/AIA/26) should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For more information about eTerminal Disclaimers, refer to www.uspto.gov/patents/process/file/efs/guidance/eTD-info-I.jsp.

5. Claims 1-14 are provisionally rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1-14 of copending Application No. 15/549,164 (reference application). Although the claims at issue are not identical, they are not patentably distinct from each other because the subject matter of the instant claims is included within the co-pending claims.

This is a provisional nonstatutory double patenting rejection because the patentably indistinct claims have not in fact been patented.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a)(1) the claimed invention was patented, described in a printed publication, or in public use, on sale or otherwise available to the public before the effective filing date of the claimed invention.

7. Claims 1 and 2 as best understood are rejected under 35 U.S.C. 102(a)(1) as being anticipated by U.S. 2015/0308147 to Lee.

Figure 5 shows the inner retractable units having inner ends connected to a central lock 101-105 and outer ends attached to fixed joints 118 at the top of support legs and sliding sleeves 119. The central lock is shown in more detail in figure 12. Outer retractable members comprised of X-members 120 are attached to adjacent legs.

8. Claims 1 and 3 as best understood are rejected under 35 U.S.C. 102(a)(1) as being anticipated by Ochi.

Legs 2, outer X-shaped retractable rod members 3, inner X-shaped retractable rod members 4, connected to central lock 5/5a. The legs have sliding sleeves 2a and fixed joints at the top thereof.

9. Claims 1 and 3 as best understood are rejected under 35 U.S.C. 102(a)(1) as being anticipated by U.S. 6,929,017 to Byun.

Byun provides a canopy having the claimed legs 1, fixed joints 2, sliding sleeves 3, X shaped retractable units between the leg and X-shaped

retractable units between legs and a central locking hub structure [figure 2A], As no particular central lock is recited due to the cancellation of the dependency the structure of figure 2A is considered to meet “the central lock” as it includes locking holes 11.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT CANFIELD whose telephone number is (571)272-6840. The examiner can normally be reached on M-F 10-6, some Saturdays.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joshua Michener can be reached on 571-272-1467. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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ROBERT CANFIELD
Primary Examiner
Art Unit 3635

/Robert Canfield/
Primary Examiner, Art Unit 3635

<i>Notice of References Cited</i>	Application/Control No. 15/925,314		Applicant(s)/Patent Under Reexamination	
	Examiner ROBERT CANFIELD		Art Unit 3635	Page 1 of 1

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*	B	US-20150308147-A1	10-2015	Lee; Dong-Hak	E04H1/1205	135/145
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*	G	US-20150247339-A1	09-2015	Lee; Dong-Hak	E04H15/50	135/145
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	O	743222 A2	11-1996	EP	DE FILIPPO	-
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)

Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes 	Application/Control No. 15/925,314	Applicant(s)/Patent Under Reexamination Yang et al.
	Examiner ROBERT CANFIELD	Art Unit 3635

CPC - Searched*		
Symbol	Date	Examiner
E04H 15/28, 32, 36, 44, 48, 50	09/25/2018	RC
A45B25/08		
E05B65/00 -crossed with text		

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner
135	20.3, 24, 39, 40, 135, 145, 147, 159	09/25/2018	RC
70	34		
292	150		

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
EAST classification/citation/text/name search - history attached	09/25/2018	RC
consulted Ex. Gall class 70		

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

/Robert Canfield/ Primary Examiner, Art Unit 3635	
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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
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S3	713	((135/145) or (135/147) or (135/159)).CCLS.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	OFF	2018/09/21 12:58
S4	6	("1642267").URPN.	USPAT	OR	ON	2018/09/21 13:02
S5	4	("2003/0024563").URPN.	USPAT	OR	ON	2018/09/21 13:03
S6	52	("1257535" "1712836" "1772646" "20020074032" "20030024563" "20030172966" "20040182430" "20040255997" "20050028856" "20050241688" "20060070649" "20060096631" "20070012347" "2486170" "4156433" "4607656" "4779635" "5274980" "5275188" "5421356" "5490532" "5490533" "5566701" "5634483" "5794640" "5934301" "5944040" "6035874" "6148835" "6230727" "6354316" "6397872" "6439251" "6508262" "6575656" "6581617" "6598614" "6708707").PN. OR ("7240686").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2018/09/21 13:03
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S10	159	S9 not S3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 13:17
S11	3	("2007/0131265").URPN.	USPAT	OR	ON	2018/09/21 13:20
S12	0	("2010/0319743").URPN.	USPAT	OR	ON	2018/09/21 13:22
S13	0	("2010/0319743").URPN.	USPAT	OR	ON	2018/09/21 13:22
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S17	3	("2003/0183257").URPN.	USPAT	OR	ON	2018/09/21 13:31
S18	81	("0579373" "1734170" "20020179134" "20030062074" "20030183257" "20050249545" "20060062632" "20060169311" "20060254635" "20070003361" "20070182198" "20080011345" "20090156094" "20090206211" "20100090444" "20100122718" "20100156069" "20130015629" "20140030012" "20140251394" "20150052662"	US-PGPUB; USPAT; USOCR	OR	ON	2018/09/21 13:31

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S21	7884	e04h15/28,32,36,44,48,50.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 14:06
S22	3280	e04h15/28,32,36,44,48,50.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 14:07
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S24	31	("1449894" "2864389" "2953145" "3738378").PN. OR ("3874397").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2018/09/21 14:58
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S28	179	S27 not S26	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 15:05
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S30	0	((("WITH-U") near3 ("E-COMMERCE") near3 ("SHANGHAI")) near3 ("CO") near3 ("LTD"))).AS,AANM.	USPAT	OR	ON	2018/09/21 15:10
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S32	872	S31 not (S20 S23 S24 S26 S28 S29)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 15:11
S33	811	e05b65/00.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 15:17
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S35	611	(tent umbrella canopy) with (cap hub) with (lock locking)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 15:18
S36	25760	135/\$.CCLS.	US-PGPUB;	OR	ON	2018/09/21

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			15:28
S37	2764	central adj lock	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 15:28
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S40	339	(70/34).CCLS.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	OFF	2018/09/21 15:53
S41	24	("3820283" "5138855" "5664445" "5987939" "6055832" "6364339" "6379072" "6402181" "6405572" "6419258" "6457336" "6543260").PN. OR ("6913413").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2018/09/21 16:02
S42	711	(292/150).CCLS.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	OFF	2018/09/21 16:04
S43	4	("0233,255").PN.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	OFF	2018/09/21 16:05
S44	6	("233255").URPN.	USPAT	OR	ON	2018/09/21 16:07
S45	113	("1200267" "1958019" "2541461" "3494156").PN. OR ("3731963").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2018/09/21 16:13
S46	2	("6,796,154").PN.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	OFF	2018/09/21 16:17
S47	40	("1194034" "1307161" "1401971" "1504220" "1809003" "4236395" "4576021" "4622833" "4666106"	US-PGPUB; USPAT; USOCR	OR	ON	2018/09/21 16:17

		"4760719" "4878366" "5315848" "5372018" "5375442" "5463885" "5520034" "5787742" "5899101" "5927108" "6073470" "6360571" "6672115").PN. OR ("6796154").URPN.				
S48	92	(tent umbrella canopy) with (cap hub) with (latch latching)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 16:19
S49	29941	(hub cap notch runner) with (release releasble releasing detach detached detaching detachable) with (latch lock latching locking)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 16:22
S50	138	S36 and S49	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 16:22
S51	5481	S49 with (pole rod shaft)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 16:25
S52	1308	S51 same (slid slide sliding)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 16:25
S53	19	(US-20050097829-\$ or US-20100319743-\$ or US-20030062074-\$ or US- 20030183257-\$ or US-20040084074-\$ or US-20160348392-\$ or US-20180209167-\$.did. or (US-2530765-\$ or US-9956981-\$ or US-5632290-\$ or US-6176246-\$ or US-0233255-\$ or US-7984936-\$).did. or (JP-2017160784-\$).did. or (US- 20100319743-\$ or KR-1253113-\$ or US- 20090140531-\$ or US-20040089036-\$ or EP-743222-\$).did.	US-PGPUB; USPAT; JPO; DERWENT	OR	ON	2018/09/22 14:16
S54	667	((135/145) or (135/147)).CCLS.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	OFF	2018/09/22 15:08
S55	3	("20070012347").PN.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	OFF	2018/09/22 15:14

S56	59	("0402755" "1712836" "1853367" "2723673" "3810482" "4601301" "4607656" "4641676" "4779635" "4827958" "4877044" "4945584" "4947884" "5035253" "5069572" "5244001" "5275188" "5490532" "5590674" "5632292" "5634483" "5794640").PN. OR ("6138702").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2018/09/22 15:25
S57	42	("2799286" "4558713" "4607565" "4607656" "4641676" "4779635" "4947884" "5244001" "5421356" "5490533" "5794640" "5944040" "6206020" "6374843" "6470902" "6598614" "6708707" "6725873").PN. OR ("6929017").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2018/09/22 15:27
S58	12	((("YANG") near3 ("Shengyong")) OR (("BIAN") near3 ("Jing"))).INV.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2018/09/25 13:59

9/ 25/ 2018 3:55:42 PM
C:\ Users\ rcanfield\ Documents\ EAST\ Workspaces\ 15925314.wsp

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5347967

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
MR. SHENGYONG YANG	03/17/2018
MR. JING BIAN	03/17/2018
RECEIVING PARTY DATA	
Name:	WITH-U E-COMMERCE (SHANGHAI) CO., LTD.
Street Address:	RM 214B NO. 358 BULD, NO. 3663 N. ZHONGSHAN RD
City:	SHANGHAI
State/Country:	CHINA
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	15925314
CORRESPONDENCE DATA	
Fax Number:	(760)820-4186
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
Phone:	7607441843
Email:	john@rosspatent.com
Correspondent Name:	JOHN R. ROSS, III
Address Line 1:	P.O. BOX 2138
Address Line 4:	DEL MAR, CALIFORNIA 92014
NAME OF SUBMITTER:	JOHN R. ROSS, III
SIGNATURE:	/jrr/
DATE SIGNED:	01/29/2019
This document serves as an Oath/Declaration (37 CFR 1.63).	
Total Attachments: 1 source=asg925#page1.tif	

ASSIGNMENT OF INVENTION AND PATENT APPLICATION

For value received, Shengyong Yang and Jing Bian (hereinafter assignor(s)) hereby sells, assigns, transfers and sets over unto

With-U E-Commerce (Shanghai) Co., LTD

and its successors or assigns (hereinafter assignee), assignor's entire right, title and interest in the following:

(A) the Inventions and Patent Applications entitled "COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK";

(B) any patent or reissues of any patent that may be granted thereon;

(C) any applications which are continuations, continuations-in-part, substitutions, or divisions of said application; and

(D) any applications which claim priority to said application.

Assignor(s) hereby further sells, assigns, transfers, and sets over unto assignee, assignor's entire right, title and interest in and to said inventions in each and every country foreign to the United States; and assignor(s) further conveys to assignee the priority rights resulting from the above-identified applications for United States patents. Assignors agree to execute all papers, give any required testimony and perform other lawful acts, at assignee's expense, as assignee may require to enable assignee to perfect assignee's interest in any resulting patent of the United States and countries foreign thereto, and to acquire, hold, enforce, convey, and uphold the validity of the said patent and reissues and extensions thereof, and assignee's interest therein.

In testimony whereof assignor has executed this Assignment on the date stated.

Shengyong Yang (Signature) 2018/3/17
Shengyong Yang Date

Jing Bian (Signature) 2018/3/17
Jing Bian Date

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875				Application or Docket Number 15/925,314		Filing Date 03/19/2018		☐ To be Mailed				
ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO												
APPLICATION AS FILED - PART I												
		(Column 1)	(Column 2)									
FOR		NUMBER FILED	NUMBER EXTRA		RATE (\$)		FEE (\$)					
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))		N/A	N/A		N/A							
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))		N/A	N/A		N/A							
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))		N/A	N/A		N/A							
TOTAL CLAIMS (37 CFR 1.16(i))		minus 20 = *		x \$50 =								
INDEPENDENT CLAIMS (37 CFR 1.16(h))		minus 3 = *		x \$230 =								
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))		If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).										
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))												
* If the difference in column 1 is less than zero, enter "0" in column 2.					TOTAL							
APPLICATION AS AMENDED - PART II												
		(Column 1)		(Column 2)	(Column 3)							
AMENDMENT	03/28/2019	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)		ADDITIONAL FEE (\$)				
	Total (37 CFR 1.16(i))	* 14	Minus	** 20	= 0	x \$50 =		0				
	Independent (37 CFR 1.16(h))	* 1	Minus	*** 3	= 0	x \$230 =		0				
	☐ Application Size Fee (37 CFR 1.16(s))											
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))											
								TOTAL ADD'L FEE		0		
		(Column 1)		(Column 2)	(Column 3)							
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)		ADDITIONAL FEE (\$)				
	Total (37 CFR 1.16(i))	*	Minus	**	=	x \$0 =						
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x \$0 =						
	☐ Application Size Fee (37 CFR 1.16(s))											
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))											
								TOTAL ADD'L FEE				
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.						LIE						
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".						/VENICE M WILLIAMS/						
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".												
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.												

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.: 15/925,314
Filed: 03/19/2018
Applicant: Yang
For: COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK
Examiner: Canfield, Robert
Art Unit: 3636
Conf. No: 6809

Amendment

Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

Sir,

This letter is in response to Examiner's Office Action. Please amend the above-identified patent application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 9 of this paper.

**COMBINED AMENDMENT AND PETITION FOR EXTENSION OF
TIME UNDER 37 CFR 1.136(a) (Small Entity)**

Serial No.: 15/925,314
Filed: 03/19/2018
Applicant: Yang
For: COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK
Examiner: Canfield, Robert
Art Unit: 3636
Conf. No: 6809

TO THE COMMISSIONER FOR PATENTS

This is a response and petition under the provisions of 37 CFR 1.136(a) to extend the period for filing a response to the Office Action of 9/6/18 in the above-identified application.

The requested extension is for three months from 12/28/18 to 3/28/19.

Fee for 3 month extension is \$700.

The fee for the amendment is to be paid as follows:

- The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 602336:
 - Any additional filing fees required under 37 CFR 1.16.
 - Any patent application processing fees under 37 CFR 1.17.
- Charge any additional fees which may be required to Deposit Account No. 602336.

/John R. Ross, III/

John R. Ross, III (Regis. No. 43060)
Ross Patent Law Office (ph: 760-744-1843)
P.O. Box 2138
Del Mar, CA 92014

03/28/2019

Date

Electronic Patent Application Fee Transmittal				
Application Number:		15925314		
Filing Date:		19-Mar-2018		
Title of Invention:		COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK		
First Named Inventor/Applicant Name:		Shengyong Yang		
Filer:		John R. Ross		
Attorney Docket Number:		withu1		
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension - 3 months with \$0 paid	2253	1	700	700
Miscellaneous:				
Total in USD (\$)				700

Electronic Acknowledgement Receipt

EFS ID:	35558660
Application Number:	15925314
International Application Number:	
Confirmation Number:	6809
Title of Invention:	COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK
First Named Inventor/Applicant Name:	Shengyong Yang
Customer Number:	36255
Filer:	John R. Ross
Filer Authorized By:	
Attorney Docket Number:	withu1
Receipt Date:	28-MAR-2019
Filing Date:	19-MAR-2018
Time Stamp:	13:58:58
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	\$ 700
RAM confirmation Number	032919INTEFSW00000272602336
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		withU1OA0319.pdf	51821	yes	8
			78d5da990100b411dc7407d79c76d3659b9fcdc4		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Applicant Arguments/Remarks Made in an Amendment		7	8	
	Claims		2	6	
	Amendment/Req. Reconsideration-After Non-Final Reject		1	1	
Warnings:					
Information:					
2	Extension of Time	withU1TIME0319.pdf	18965	no	1
			3228d7922d735297f1b93f1d2bed0de4e9fb55cf		
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	30684	no	2
			00a56e601577296c2d14fd8b57d58b790736d493		
Warnings:					
Information:					
Total Files Size (in bytes):			101470		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

REMARKS/ARGUMENTS

35 USC 112

Examiner has rejected Claims 1 – 14 under 35 USC 112(b). In response, Applicant has appropriately amended the claims to remove the basis for the rejection.

Double Patenting – Terminal Disclaimer

Examiner has provisionally rejected Claims 1 -14 on the ground of nonstatutory double patenting as being unpatentable over claims 1-14 of copending Application No. 15/549,164. In response, Applicant has submitted a terminal disclaimer to remove the basis for the rejection.

35 USC 102

Examiner has rejected Claims 1, 2 and 3 as being anticipated by Lee, Ochi and Byun. In response, Applicant has amended Independent Claim 1 to include limitations not disclosed in the prior art. Only Applicant shows:

- a central lock, comprising:
 - a center top cap,
 - a center bottom cap,
 - a center pole positioned between said center top cap and said center bottom cap, wherein said central lock is locked when said center pole is connected to both said center top cap and said center bottom cap, and wherein said central lock is unlocked when said center pole is disconnected from either said center top cap or said center bottom cap, wherein said central lock is for locking said collapsible canopy frame in an unfolded state when said central lock is locked and for permitting said collapsible canopy frame to be folded into a folded state when said central lock is unlocked, wherein said inner ends of said inner retractable units are connected through said central lock.

CONCLUSION

Applicant submits that this application, as the claims are presently limited, defines a novel, patentable, and truly valuable invention. Hence, allowance of this application is respectfully submitted to be proper and is respectfully solicited.

Respectfully Submitted,

/John R. Ross, III/
John R. Ross, III

Ross Patent Law Office
Regis. No. 43060
PO Box 2138
Del Mar, CA 92014
Phone: 858-755-3122
Fax: 858-755-3122

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A collapsible canopy frame, comprising:
 - A. at least three supporting legs,
 - B. a plurality of outer retractable units, each outer retractable unit connected between ~~every~~ two adjacent supporting legs,
 - C. a plurality of inner retractable units comprising inner ends, each inner retractable unit connected to a ~~each~~ supporting leg, wherein said outer retractable units and said inner retractable units form a roof of said collapsible canopy frame, and
 - D. a central lock, comprising:
 1. a center top cap,
 2. a center bottom cap,
 3. a center pole positioned between said center top cap and said center bottom cap, wherein said central lock is locked when said center pole is connected to both said center top cap and said center bottom cap, and wherein said central lock is unlocked when said center pole is disconnected from either said center top cap or said center bottom cap, wherein said central lock is ~~a central lock~~ for locking said collapsible canopy frame in an unfolded state when said central lock is locked and for permitting said collapsible canopy frame to be folded into a folded state when said central lock is unlocked, wherein said inner ends of said inner retractable units are connected through said central lock.
2. (currently amended) The collapsible canopy frame according as in Claim 1, wherein: each said supporting leg comprises a sliding sleeve for moving along a length direction of each said supporting leg, an upper end of each said supporting leg is fixed with a fixed joint, each said outer retractable unit comprises a plurality of hinged X-shaped rod members, each X-shaped rod member comprises a first eave pipe and ~~a~~ second eave pipe hinged to one another; each said inner retractable unit comprises a first oblique top pipe and a second oblique top pipe hinged to one another, said first oblique top pipe is hinged with a first connecting rod, said second oblique top pipe is hinged with a second connecting rod, an

inner end of said first oblique top pipe is hinged with a center top cap of said central lock, an inner end of said first connecting rod is hinged with a center bottom cap of said central lock, an outer end of a first eave pipe and an outer end of said second oblique top pipe are hinged with said fixed joint, an outer end of said second eave pipe and an outer end of said second connecting rod are hinged with said sliding sleeve.

3. (currently amended) The collapsible canopy frame as in Claim 1, wherein: each said supporting leg comprises a sliding sleeve for moving along a length direction of each said supporting leg, an upper end of each said supporting leg is fixed with a fixed joint, each said outer retractable unit comprises a plurality of hinged X-shaped rod members, each said X-shaped rod member comprises a first eave pipe and a second eave pipe hinged to one another; each said inner retractable unit comprises a plurality of X-shaped members hinged one by one, each X-shaped member comprises a third oblique top pipe and a fourth oblique top pipe hinged to one another, an inner end of said third oblique top pipe is hinged with a center top cap of said central lock, and an inner end of said fourth oblique top pipe is hinged with said center bottom cap of said central lock, an outer end of said first eave pipe and an outer end of said fourth oblique top pipe are hinged with said fixed joint, an outer end of said second eave pipe and an outer end of said third oblique top pipe are hinged with said sliding sleeve.
4. (original) The collapsible canopy frame as in Claim 1, where said central lock further comprises: a center pole, a center top cap fixedly arranged at one end of said center pole and a center bottom cap detachably connected to another end of said center pole, a locking piece capable of moving back and forth along a radial direction of said center pole, wherein said locking piece is received in said center bottom cap, a first through hole through which said center pole can pass through is provided in said locking piece, and an end portion of said center pole is provided with a clamping groove and a clamp locking part located at the lower end of said clamping groove; when said central lock is in a locked state, part of an inner wall of said first through hole of said locking piece is clamped with said clamping groove of said center pole, and an upper end surface of said clamp locking part abuts against a lower end surface of said locking piece; and when said central lock is in said

unlocked state, said inner wall of said first through hole of said locking piece is separated from said clamping groove and said clamp locking part can pass through said first through hole.

5. (original) The collapsible canopy frame as in Claim 4, wherein: said center bottom cap comprises a bottom cap seat and a bottom cap cover that are fixedly connected to one another, a receiving chamber is provided in said center bottom cap at a junction between said bottom cap seat and said bottom cap cover, an opening communicated with said receiving chamber is provided in an outer wall of said center bottom cap, said locking piece is provided threading said receiving chamber and said opening and supported by said bottom cap cover.
6. (original) The collapsible canopy frame as in Claim 5, wherein: said locking piece is an integral structure, said receiving chamber is provided with a compressible elastic element along a radial direction of said center pole, said elastic element abuts against said locking piece and an inner wall of said receiving chamber at two ends respectively, said bottom cap seat is provided with a protruding detachment preventing part, said locking piece is provided with a groove for receiving said detachment preventing part; when said central lock is in said locked state, said elastic element enables part of said inner wall of said first through hole to be clamped with said clamping groove, and said detachment preventing part abuts against an inner wall of said groove.
7. (original) The collapsible canopy frame as in Claim 6, wherein: said elastic element is a spring, said locking piece is provided with a protruding guide supporting part at an end away from said opening, and said spring sleeves said guide supporting part.
8. (original) The collapsible canopy frame as in Claim 5, wherein: said locking piece is in a detachable form and comprises an elastic wire and an unlocking push piece, said elastic wire is U-shaped and comprises an elastic wire body part and two elastic deforming parts respectively provided at two ends of said elastic wire body part, a narrow opening for forming said first through hole is provided between said two elastic deforming parts, end portions of said elastic deforming parts form a socket and an inner end of said unlocking

push piece is located in said socket; when said central lock is in an unlocked state, said unlocking push piece widens said socket and said narrow opening of said elastic wire.

9. (original) The collapsible canopy frame as in Claim 8, wherein: said bottom cap seat is provided with a protruding detachment preventing part, said unlocking push piece is provided with a groove for receiving said detachment preventing part; when said central lock is in a locked state, said detachment preventing part abuts against an inner wall of said groove.
10. (original) The collapsible canopy frame as in Claim 8, wherein: said unlocking push piece is provided with two guide surfaces in contact with said end portions of said elastic deforming parts respectively and said guide surfaces are spread and inclining away from said elastic wire.
11. (original) The collapsible canopy frame as in Claim 5, wherein: said bottom cap seat is provided with a second through hole through which said center pole can pass, said bottom cap cover is provided with a receiving hole for receiving said clamp locking part and being adaptive to an outer wall of said clamp locking part, said second through hole, said first through hole and said receiving hole are in a communication manner.
12. (original) The collapsible canopy frame as in Claim 11, wherein: said second through hole sequentially comprises a first conical part with a gradually decreased diameter, a cylindrical part and a second conical part with a gradually increased diameter along the direction that said center pole threads said center bottom cap, said upper end of said first through hole is provided with a chamfered part with a gradually decreased diameter.
13. (original) The collapsible canopy frame as in Claim 4, wherein: said first through hole comprises a clamping hole part and a through hole part arranged side by side, said clamping hole part has a diameter not smaller than that of said clamping groove, said through hole part has a diameter greater than that of said clamp locking part.
14. (original) The collapsible canopy frame as in Claim 4, wherein: said clamping groove is an annular groove, an end portion of said clamp locking part is provided with a guide part of

a semispherical shape or a conical shape with a gradually decreased diameter.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/925,314	03/19/2018	Shengyong Yang	withu1	6809

36255 7590 04/12/2019
ROSS PATENT LAW OFFICE
P.O. BOX 2138
DEL MAR, CA 92014

EXAMINER
CANFIELD, ROBERT

ART UNIT	PAPER NUMBER
3635	

NOTIFICATION DATE	DELIVERY MODE
04/12/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

john@rosspatent.com
rosspatent@pacbell.net

Notice of Pre-AIA or AIA Status

1. This Office action is in response to the amendment filed 3/28/19. Claims 1-14 are pending. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. The following is a quotation of the first paragraph of 35 U.S.C. 112(a):

(a) IN GENERAL.—The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

The following is a quotation of the first paragraph of pre-AIA 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-14 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 has been amended to recites that the center pole can be disconnected from either said center top cap or said center bottom cap. This limitation appears broader than that supported by the original disclosure. No support is found in the original disclosure for disconnecting the center pole from the center top cap. All embodiments are directed towards disconnecting the center pole from only the bottom center cap in the unlocked state. If applicant believes there is support for the alternative of disconnecting the center top cap from the center pole the examiner requests specifically where support may be found for such an embodiment.

2. Claims 2-14 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

Each of claims 2 and 3 recites that “each said supporting leg comprises a sliding sleeve for moving along a length of each said supporting leg”. This is not what is disclosed. It appears the intent is “each said supporting leg comprises a sliding sleeve for moving along a length of [[each]] said respective supporting leg”?

Claim 4 is indefinite because the first three lines appear to repeat limitations added to independent claim 1. As written it appears there is a further center pole, center top cap and center bottom cap which as understood is not what is disclosed.

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on nonstatutory double patenting provided the reference application or patent either is shown to be commonly owned with the examined application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. See MPEP § 717.02 for applications subject to examination under the first inventor to file provisions of the AIA as explained in MPEP § 2159. See MPEP §§ 706.02(I)(1) - 706.02(I)(3) for applications not subject to examination under the first inventor to file provisions of the AIA. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The USPTO Internet website contains terminal disclaimer forms which may be used. Please visit www.uspto.gov/patent/patents-forms. The filing date of the application in which the form is filed determines what form (e.g., PTO/SB/25, PTO/SB/26,

PTO/AIA/25, or PTO/AIA/26) should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For more information about eTerminal Disclaimers, refer to

www.uspto.gov/patents/process/file/efs/guidance/eTD-info-I.jsp.

4. Claims 1-14 are provisionally rejected on the ground of nonstatutory double patenting as being unpatentable over allowed claims 3-7, 9, 10, 15-18 of copending Application No. 15/549,164 (reference application). Although the claims at issue are not identical, they are not patentably distinct from each other because the subject matter of the instant claims is included within the co-pending claims.

This is a provisional nonstatutory double patenting rejection because the patentably indistinct claims have not in fact been patented.

5. Claims 1-3 are rejected under 35 U.S.C. 102(a)(1) as being anticipated by US 2013/0002949 to Yang.

The Yang reference was filed 07/01/14 which is prior to any earliest priority date claimed in the instant application.

Yang provides a collapsible canopy frame as shown in figure 3 including legs 11, outer retractable units 12, inner retractable units 14, a center lock comprised of an upper cap 23, a bottom cap 24 and center pole 24. The legs include sliding sleeves 21 and fixed joints 19. Figure 6-9 show how the upper cap may be disconnected from the center pole by lock 34 permitting the frame to be folded when unlocked.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 8,469,045 to Zhou teaches lower cap 9 released from a center pole having an upper cap attached there to for folding.

U.S. Patent 6,336,465 to Surrendi et al. provides eupper and lower cap which may be disconnected.

5. Applicant's arguments filed 3/28/19 have been fully considered but they are not persuasive.

Applicant argues that the double patenting rejection has been overcome by the filing of a terminal disclaimer. No such terminal disclaimer has been received.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT CANFIELD whose telephone number is (571)272-6840. The examiner can normally be reached on M-F 10-6, some Saturdays.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joshua Michener can be reached on 571-272-1467. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ROBERT CANFIELD

Primary Examiner
Art Unit 3635

/Robert Canfield/
Primary Examiner, Art Unit 3635

<i>Notice of References Cited</i>	Application/Control No. 15/925,314		Applicant(s)/Patent Under Reexamination Yang et al.	
	Examiner ROBERT CANFIELD		Art Unit 3635	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20160002949-A1	01-2016	Yang; Shengyong	E04H15/46	135/139
*	B	US-20030183266-A1	10-2003	Suh, Dong Woog	E04H15/48	135/145
*	C	US-4627210-A	12-1986	Beaulieu; Bryan J.	A45B25/10	135/147
*	D	US-8469045-B2	06-2013	Zhou; Nanqing	E04H15/28	135/135
*	E	US-6336465-B1	01-2002	Surrendi; Dennis C.	E04H15/28	135/121
	F					
	G					
	H					
	I					
	J					
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FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

<i>Search Notes</i> 	Application/Control No. 15/925,314	Applicant(s)/Patent Under Reexamination Yang et al.
	Examiner ROBERT CANFIELD	Art Unit 3635

CPC - Searched*		
Symbol	Date	Examiner
E04H 15/28, 32, 36, 44, 48, 50	09/25/2018	RC
A45B25/08		
E05B65/00 -crossed with text		

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner
135	20.3, 24, 39, 40, 135, 145, 147, 159	09/25/2018	RC
70	34		
292	150		

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
EAST classification/citation/text/name search - history attached	09/25/2018	RC
consulted Ex. Gall class 70		
reviewed art tagged in EAST against new claim 1 and performed some citation searching- history attached	04/09/2019	RC

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

/Robert Canfield/ Primary Examiner, Art Unit 3635	
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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	2	("20180238075").PN.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	OFF	2018/09/20 16:23
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S3	713	((135/145) or (135/147) or (135/159)).CCLS.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	OFF	2018/09/21 12:58
S4	6	("1642267").URPN.	USPAT	OR	ON	2018/09/21 13:02
S5	4	("2003/0024563").URPN.	USPAT	OR	ON	2018/09/21 13:03
S6	52	("1257535" "1712836" "1772646" "20020074032" "20030024563" "20030172966" "20040182430" "20040255997" "20050028856" "20050241688" "20060070649" "20060096631" "20070012347" "2486170" "4156433" "4607656" "4779635" "5274980" "5275188" "5421356" "5490532" "5490533" "5566701" "5634483" "5794640" "5934301" "5944040" "6035874" "6148835" "6230727" "6354316" "6397872" "6439251" "6508262" "6575656" "6581617" "6598614" "6708707").PN. OR ("7240686").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2018/09/21 13:03
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S11	3	("2007/0131265").URPN.	USPAT	OR	ON	2018/09/21 13:20
S12	0	("2010/0319743").URPN.	USPAT	OR	ON	2018/09/21 13:22
S13	0	("2010/0319743").URPN.	USPAT	OR	ON	2018/09/21 13:22
S14	872	S9 S3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 13:24
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S17	3	("2003/0183257").URPN.	USPAT	OR	ON	2018/09/21 13:31
S18	81	("0579373" "1734170" "20020179134" "20030062074" "20030183257" "20050249545" "20060062632" "20060169311" "20060254635" "20070003361" "20070182198" "20080011345" "20090156094" "20090206211" "20100090444" "20100122718" "20100156069" "20130015629" "20140030012" "20140251394" "20150052662" "20150083174" "20150086290" "20150151771" "20150329135" "20160324324" "2385716" "2714387" "2777454" "3425428" "3593997" "4083601" "4815784" "4926893" "5041043" "5232005" "5331993" "5403239" "5560383" "5632290" "5809700" "5842732" "6250320" "6260566" "6263893" "6446981" "6508262" "6684893" "6718600"	US-PGPUB; USPAT; USOCR	OR	ON	2018/09/21 13:31

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S20	1734	S15 S14	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 14:06
S21	7884	e04h15/28,32,36,44,48,50.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 14:06
S22	3280	e04h15/28,32,36,44,48,50.cpc.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 14:07
S23	2681	S22 not S20	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 14:07
S24	31	("1449894" "2864389" "2953145" "3738378").PN. OR ("3874397").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2018/09/21 14:58
S25	4604	S21 not (S20 S23)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 15:04
S26	138	S25 and lock	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 15:04
S27	190	S25 and hub	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 15:05

S28	179	S27 not S26	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 15:05
S29	12	((("YANG") near3 ("SHENGYONG")) OR (("BIAN") near3 ("JING"))).INV.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2018/09/21 15:09
S30	0	((("WITH-U") near3 ("E-COMMERCE") near3 ("SHANGHAI") near3 ("CO") near3 ("LTD"))).AS,AANM.	USPAT	OR	ON	2018/09/21 15:10
S31	950	a45b25/08.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 15:10
S32	872	S31 not (S20 S23 S24 S26 S28 S29)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 15:11
S33	811	e05b65/00.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 15:17
S34	1	S33 and (tent umbrella canopy)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 15:17
S35	611	(tent umbrella canopy) with (cap hub) with (lock locking)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 15:18
S36	25760	135/\$.CCLS.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 15:28
S37	2764	central adj lock	US-PGPUB; USPAT; USOCR; FPRS;	OR	ON	2018/09/21 15:28

			EPO; JPO; DERWENT; IBM_TDB			
S38	0	S36 and S37	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 15:28
S39	113	S37 and (tent canopy hub)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 15:28
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S43	4	("0233,255").PN.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	OFF	2018/09/21 16:05
S44	6	("233255").URPN.	USPAT	OR	ON	2018/09/21 16:07
S45	113	("1200267" "1958019" "2541461" "3494156").PN. OR ("3731963").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2018/09/21 16:13
S46	2	("6,796,154").PN.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	OFF	2018/09/21 16:17
S47	40	("1194034" "1307161" "1401971" "1504220" "1809003" "4236395" "4576021" "4622833" "4666106" "4760719" "4878366" "5315848" "5372018" "5375442" "5463885" "5520034" "5787742" "5899101" "5927108" "6073470" "6360571" "6672115").PN. OR ("6796154").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2018/09/21 16:17
S48	92	(tent umbrella canopy) with (cap hub) with (latch latching)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2018/09/21 16:19

			DERWENT; IBM_TDB			
S49	29941	(hub cap notch runner) with (release releasble releasing detach detached detaching detachable) with (latch lock latching locking)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 16:22
S50	138	S36 and S49	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 16:22
S51	5481	S49 with (pole rod shaft)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 16:25
S52	1308	S51 same (slid slide sliding)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/09/21 16:25
S53	19	(US-20050097829-\$ or US-20100319743-\$ or US-20030062074-\$ or US- 20030183257-\$ or US-20040084074-\$ or US-20160348392-\$ or US-20180209167-\$).did. or (US-2530765-\$ or US-9956981-\$ or US-5632290-\$ or US-6176246-\$ or US-0233255-\$ or US-7984936-\$).did. or (JP-2017160784-\$).did. or (US- 20100319743-\$ or KR-1253113-\$ or US- 20090140531-\$ or US-20040089036-\$ or EP-743222-\$).did.	US-PGPUB; USPAT; JPO; DERWENT	OR	ON	2018/09/22 14:16
S54	667	((135/145) or (135/147)).CCLS.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	OFF	2018/09/22 15:08
S55	3	("20070012347").PN.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	OFF	2018/09/22 15:14
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S57	42	("2799286" "4558713" "4607565" "4607656" "4641676" "4779635"	US-PGPUB; USPAT;	OR	ON	2018/09/22 15:27

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S58	12	((("YANG") near3 ("Shengyong"))) OR (("BIAN") near3 ("Jing"))).INV.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2018/09/25 13:59
S59	2	("6929017").PN.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	OFF	2018/09/25 15:24
S60	713	((135/145) or (135/147) or (135/159)).CCLS.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	OFF	2018/09/25 15:24
S61	2	((("20070012347") or ("6929017"))).PN.	US-PGPUB; USPAT	OR	OFF	2018/09/25 15:59

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**Courtesy Reminder for
Application Serial No: 15/925,314**

Attorney Docket No: withu1

Customer Number: 36255

Date of Electronic Notification: 04/12/2019

This is a courtesy reminder that new correspondence is available for this application. If you have not done so already, please review the correspondence. The official date of notification of the outgoing correspondence will be indicated on the form PTOL-90 accompanying the correspondence.

An email notification regarding the correspondence was sent to the following email address(es) associated with your customer number:

rosspatent@pacbell.net
john@rosspatent.com

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If you have any questions, please email the Electronic Business Center (EBC) at EBC@uspto.gov or call 1-866-217-9197.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.: 15/925,314
Filed: 03/19/2018
Applicant: Yang
For: COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK
Examiner: Canfield, Robert
Art Unit: 3636
Conf. No: 6809

Amendment

Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

Sir,

This letter is in response to Examiner's Office Action. Please amend the above-identified patent application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 7 of this paper.

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A collapsible canopy frame, comprising:
 - A. at least three supporting legs,
 - B. a plurality of outer retractable units, each outer retractable unit connected between two adjacent supporting legs,
 - C. a plurality of inner retractable units comprising inner ends, each inner retractable unit connected to a supporting leg, wherein said outer retractable units and said inner retractable units form a roof of said collapsible canopy frame, and
 - D. a central lock, comprising:
 1. a center top cap,
 2. a center bottom cap,
 3. a center pole positioned between said center top cap and said center bottom cap, wherein said central lock is locked when said center pole is connected to both said center top cap and said center bottom cap, and wherein said central lock is unlocked when there is a disconnection between said center top cap, said center bottom cap and said center pole ~~said center pole is disconnected from either said center top cap or said center bottom cap~~, wherein said central lock is for locking said collapsible canopy frame in an unfolded state when said central lock is locked and for permitting said collapsible canopy frame to be folded into a folded state when said central lock is unlocked, wherein said inner ends of said inner retractable units are connected through said central lock.
2. (currently amended) The collapsible canopy frame according as in Claim 1, wherein: each said supporting leg comprises a sliding sleeve for moving along a length direction of ~~each~~ said respective supporting leg, an upper end of each said supporting leg is fixed with a fixed joint, each said outer retractable unit comprises a plurality of hinged X-shaped rod members, each X-shaped rod member comprises a first eave pipe and second eave pipe hinged to one another; each said inner retractable unit comprises a first oblique top pipe and a second oblique top pipe hinged to one another, said first oblique top pipe is hinged

with a first connecting rod, said second oblique top pipe is hinged with a second connecting rod, an inner end of said first oblique top pipe is hinged with a center top cap of said central lock, an inner end of said first connecting rod is hinged with a center bottom cap of said central lock, an outer end of a first eave pipe and an outer end of said second oblique top pipe are hinged with said fixed joint, an outer end of said second eave pipe and an outer end of said second connecting rod are hinged with said sliding sleeve.

3. (currently amended) The collapsible canopy frame as in Claim 1, wherein: each said supporting leg comprises a sliding sleeve for moving along a length direction of ~~each~~ said respective supporting leg, an upper end of each said supporting leg is fixed with a fixed joint, each said outer retractable unit comprises a plurality of hinged X-shaped rod members, each said X-shaped rod member comprises a first eave pipe and a second eave pipe hinged to one another; each said inner retractable unit comprises a plurality of X-shaped members hinged one by one, each X-shaped member comprises a third oblique top pipe and a fourth oblique top pipe hinged to one another, an inner end of said third oblique top pipe is hinged with a center top cap of said central lock, and an inner end of said fourth oblique top pipe is hinged with said center bottom cap of said central lock, an outer end of said first eave pipe and an outer end of said fourth oblique top pipe are hinged with said fixed joint, an outer end of said second eave pipe and an outer end of said third oblique top pipe are hinged with said sliding sleeve.

4. (currently amended) The collapsible canopy frame as in Claim 1, where said central lock further comprises: ~~a center pole, a center top cap fixedly arranged at one end of said center pole and a center bottom cap detachably connected to another end of said center pole,~~ a locking piece capable of moving back and forth along a radial direction of said center pole, wherein said locking piece is received in said center bottom cap, a first through hole through which said center pole can pass through is provided in said locking piece, and an end portion of said center pole is provided with a clamping groove and a clamp locking part located at the lower end of said clamping groove; when said central lock is in a locked state, part of an inner wall of said first through hole of said locking piece is clamped with said clamping groove of said center pole, and an upper end surface of said clamp locking

part abuts against a lower end surface of said locking piece; and when said central lock is in said unlocked state, said inner wall of said first through hole of said locking piece is separated from said clamping groove and said clamp locking part can pass through said first through hole.

5. (original) The collapsible canopy frame as in Claim 4, wherein: said center bottom cap comprises a bottom cap seat and a bottom cap cover that are fixedly connected to one another, a receiving chamber is provided in said center bottom cap at a junction between said bottom cap seat and said bottom cap cover, an opening communicated with said receiving chamber is provided in an outer wall of said center bottom cap, said locking piece is provided threading said receiving chamber and said opening and supported by said bottom cap cover.
6. (original) The collapsible canopy frame as in Claim 5, wherein: said locking piece is an integral structure, said receiving chamber is provided with a compressible elastic element along a radial direction of said center pole, said elastic element abuts against said locking piece and an inner wall of said receiving chamber at two ends respectively, said bottom cap seat is provided with a protruding detachment preventing part, said locking piece is provided with a groove for receiving said detachment preventing part; when said central lock is in said locked state, said elastic element enables part of said inner wall of said first through hole to be clamped with said clamping groove, and said detachment preventing part abuts against an inner wall of said groove.
7. (original) The collapsible canopy frame as in Claim 6, wherein: said elastic element is a spring, said locking piece is provided with a protruding guide supporting part at an end away from said opening, and said spring sleeves said guide supporting part.
8. (original) The collapsible canopy frame as in Claim 5, wherein: said locking piece is in a detachable form and comprises an elastic wire and an unlocking push piece, said elastic wire is U-shaped and comprises an elastic wire body part and two elastic deforming parts respectively provided at two ends of said elastic wire body part, a narrow opening for forming said first through hole is provided between said two elastic deforming parts, end

portions of said elastic deforming parts form a socket and an inner end of said unlocking push piece is located in said socket; when said central lock is in an unlocked state, said unlocking push piece widens said socket and said narrow opening of said elastic wire.

9. (original) The collapsible canopy frame as in Claim 8, wherein: said bottom cap seat is provided with a protruding detachment preventing part, said unlocking push piece is provided with a groove for receiving said detachment preventing part; when said central lock is in a locked state, said detachment preventing part abuts against an inner wall of said groove.
10. (original) The collapsible canopy frame as in Claim 8, wherein: said unlocking push piece is provided with two guide surfaces in contact with said end portions of said elastic deforming parts respectively and said guide surfaces are spread and inclining away from said elastic wire.
11. (original) The collapsible canopy frame as in Claim 5, wherein: said bottom cap seat is provided with a second through hole through which said center pole can pass, said bottom cap cover is provided with a receiving hole for receiving said clamp locking part and being adaptive to an outer wall of said clamp locking part, said second through hole, said first through hole and said receiving hole are in a communication manner.
12. (original) The collapsible canopy frame as in Claim 11, wherein: said second through hole sequentially comprises a first conical part with a gradually decreased diameter, a cylindrical part and a second conical part with a gradually increased diameter along the direction that said center pole threads said center bottom cap, said upper end of said first through hole is provided with a chamfered part with a gradually decreased diameter.
13. (original) The collapsible canopy frame as in Claim 4, wherein: said first through hole comprises a clamping hole part and a through hole part arranged side by side, said clamping hole part has a diameter not smaller than that of said clamping groove, said through hole part has a diameter greater than that of said clamp locking part.
14. (original) The collapsible canopy frame as in Claim 4, wherein: said clamping groove is an

annular groove, an end portion of said clamp locking part is provided with a guide part of a semispherical shape or a conical shape with a gradually decreased diameter.

REMARKS/ARGUMENTS

35 USC 112(a)

Examiner has rejected Claims 1 – 14 under 35 USC 112(a). In response, Applicant has appropriately amended Claim 1 in accordance with Examiner's suggestions to remove the basis for the rejection.

35 USC 112(b)

Examiner has rejected Claims 2 – 14 under 35 USC 112(b). In response, Applicant has appropriately amended Claims 2 – 4 in accordance with Examiner's suggestions to remove the basis for the rejection.

Double Patenting – Terminal Disclaimer

Examiner has provisionally rejected Claims 1 -14 on the ground of nonstatutory double patenting as being unpatentable over claims 1-14 of copending Application No. 15/549,164. In response, Applicant has submitted a terminal disclaimer to remove the basis for the rejection.

35 USC 102(a)(1)

Examiner has rejected Claims 1-3 under 35 USC 102(a)(1) as being anticipated by US 2016/0002949 to Yang. Specifically, Examiner states that the "...Yang reference was filed 07/01/14 which is prior to any earliest priority date claimed in the instant application."

Applicant respectfully submits that this rejection is improper. 35 USC 102(a) states:

[a] person shall be entitled to a patent unless—

- (1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention;

It should be noted that 35 USC 102(a)(1) requires that the prior art reference was "patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention. In this case, the earliest reference date for the Yang reference is its publication date of 1/7/16, not its filing date. The present application

claims a priority date of 7/26/16. This is over 6 months after the priority date of the Yang reference. However, 35 USC 102(b)(1) provides an exception to 35 USC 102(a)(1). 35 USC 102(b)(1) states:

[b](1) A disclosure made 1 year or less before the effective filing date of a claimed invention **shall not be prior art** to the claimed invention under subsection (a)(1) if—

- (A) **the disclosure was made by the inventor** or joint inventor or by another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor; or
- (B) the subject matter disclosed had, before such disclosure, been publicly disclosed by the inventor or a joint inventor or another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor.

The inventor for Publication no. 2016/0002949 is Shengyong Yang. The same person (Shengyong Yang) is also the inventor of the present application. Therefore, the exception applies and Examiner's rejection is improper.

Applicant has specifically addressed each rejection raised by the Examiner and has appropriately responded so as to successfully place the application in condition for allowance. Therefore, Applicant respectfully requests that Examiner now allow the application as currently amended.

CONCLUSION

Applicant submits that this application, as the claims are presently limited, defines a novel, patentable, and truly valuable invention. Hence, allowance of this application is respectfully submitted to be proper and is respectfully solicited.

Respectfully Submitted,

/John R. Ross, III/
John R. Ross, III
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**TERMINAL DISCLAIMER TO OBIATE A DOUBLE PATENTING
REJECTION OVER A "PRIOR" PATENT**Docket Number (Optional)
withu1

In re Application of: Shengyong Yang

Application No.: 15/925,314

Filed: 03-19-2018

For: COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK

The applicant, WITH-U E-COMMERCE (SHANGHAI) CO., LTD., owner of 100 percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of **prior patent** No. 10,273,710 as the term of said **prior patent** is presently shortened by any terminal disclaimer. The applicant hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the **prior patent** are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the applicant does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory term of the **prior patent**, "as the term of said **prior patent** is presently shortened by any terminal disclaimer," in the event that said **prior patent** later:

- expires for failure to pay a maintenance fee;
- is held unenforceable;
- is found invalid by a court of competent jurisdiction;
- is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321;
- has all claims canceled by a reexamination certificate;
- is reissued; or
- is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.

Check either box 1 or 2 below, if appropriate.

1. ☐ The undersigned is the applicant. If the applicant is an assignee, the undersigned is authorized to act on behalf of the assignee.

I hereby acknowledge that any willful false statements made are punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

2. ☒ The undersigned is an attorney or agent of record. Reg. No. 43060

Signature Date 6-25-19

John R. Ross, III
Typed or printed name

Attorney of Record Title 760-744-1843 Telephone Number

- ☒ Terminal disclaimer fee under 37 CFR 1.20(d) included.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.321. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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AMENDMENT (Small Entity)

Serial No.: 15/925,314
Filed: 03/19/2018
Applicant: Yang
For: COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK
Examiner: Canfield, Robert
Art Unit: 3636
Conf. No: 6809

TO THE COMMISSIONER FOR PATENTS

This is a response to the Office Action of 4/12/19 in the above-identified application.

Enclosed is a Terminal disclaimer fee under 37 CFR 1.20(d) for \$160

The fee for the amendment is to be paid as follows:

- The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 602336:
 - Any additional filing fees required under 37 CFR 1.16.
 - Any patent application processing fees under 37 CFR 1.17.
- Charge any additional fees which may be required to Deposit Account No. 602336.

/John R. Ross, III/

John R. Ross, III (Regis. No. 43060)
Ross Patent Law Office (ph: 760-744-1843)
P.O. Box 2138
Del Mar, CA 92014

6/25/19

Date

Electronic Patent Application Fee Transmittal				
Application Number:		15925314		
Filing Date:		19-Mar-2018		
Title of Invention:		COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK		
First Named Inventor/Applicant Name:		Shengyong Yang		
Filer:		John R. Ross		
Attorney Docket Number:		withu1		
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
STATUTORY OR TERMINAL DISCLAIMER	2814	1	160	160
Total in USD (\$)				160

Electronic Acknowledgement Receipt

EFS ID:	36411016
Application Number:	15925314
International Application Number:	
Confirmation Number:	6809
Title of Invention:	COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK
First Named Inventor/Applicant Name:	Shengyong Yang
Customer Number:	36255
Filer:	John R. Ross
Filer Authorized By:	
Attorney Docket Number:	withu1
Receipt Date:	26-JUN-2019
Filing Date:	19-MAR-2018
Time Stamp:	01:07:30
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	\$ 160
RAM confirmation Number	062619INTEFSW00007809602336
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		withu1OA0619.pdf	56224	yes	8
			dfb3d46e561d5bf2ad7e576c443d91746513ed93		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Response After Final Action		1	1	
	Claims		2	6	
	Applicant Arguments/Remarks Made in an Amendment		7	8	
Warnings:					
Information:					
2	Terminal Disclaimer Filed	withu1TD0619.pdf	70904	no	1
			edd13ee56f67052c7ec1b054d994b1923e5f4e57		
Warnings:					
Information:					
3	Transmittal Letter	withu1TRANS0619.pdf	17125	no	1
			dc00eb75e0fa3b2878e15cc15c622af2ed3ad2b8		
Warnings:					
Information:					
4	Fee Worksheet (SB06)	fee-info.pdf	30619	no	2
			fc029140bb372e54bd1a0cf61c118c3ae689ed2a		
Warnings:					
Information:					
Total Files Size (in bytes):			174872		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875				Application or Docket Number 15/925,314		Filing Date 03/19/2018		☐ To be Mailed		
ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO										
APPLICATION AS FILED - PART I										
		(Column 1)	(Column 2)							
FOR		NUMBER FILED	NUMBER EXTRA	RATE (\$)		FEE (\$)				
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))		N/A	N/A	N/A						
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))		N/A	N/A	N/A						
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))		N/A	N/A	N/A						
TOTAL CLAIMS (37 CFR 1.16(i))		minus 20 =	*	x \$50 =						
INDEPENDENT CLAIMS (37 CFR 1.16(h))		minus 3 =	*	x \$230 =						
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))		If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).								
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))										
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL						
APPLICATION AS AMENDED - PART II										
		(Column 1)		(Column 2)	(Column 3)					
AMENDMENT	06/26/2019	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)		ADDITIONAL FEE (\$)		
	Total (37 CFR 1.16(i))	* 14	Minus	** 20	= 0	x \$50 =		0		
	Independent (37 CFR 1.16(h))	* 1	Minus	*** 3	= 0	x \$230 =		0		
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))									
						TOTAL ADD'L FEE		0		
		(Column 1)		(Column 2)	(Column 3)					
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)		ADDITIONAL FEE (\$)		
	Total (37 CFR 1.16(i))	*	Minus	**	=	x \$0 =				
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x \$0 =				
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))									
						TOTAL ADD'L FEE				
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.						LIE				
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".						/SHAREILL A COLES/				
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".										
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.										

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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Application Number * 15/925,314 *	Application/Control No. 15/925,314	Applicant(s)/Patent under Reexamination Yang et al.	
	Examiner CANFIELD, ROBERT	Art Unit 3635	
Document Code - DISQ		Internal Document - DO NOT MAIL	

TERMINAL DISCLAIMER	☐ APPROVED	☒ DISAPPROVED
Date Filed: <u>26 June 2019</u>	This patent is subject to a Terminal Disclaimer	

Approved/Disapproved by:
/JEAN PROCTOR/ Technology Center: OPLC Telephone: (571)272-1040 The terminal disclaimer identifies a party who is not the applicant (only for applications filed on or after September 16, 2012; See FP 14.26.10): For cases filed on/after 9/16/12, 37 CFR 1.321 specifies that the applicant can disclaim, and the terminal disclaimer must specify the extent of the applicant's ownership. A request under 37 CFR 1.46(c) to change the applicant needs to be filed, which is (1) a request, signed by a 1.33 (b) party, (2) a corrected ADS (37 CFR 1.76(c)) that identifies the "new" applicant in the applicant information, and is underlined since it is new, and (3) a 3.73(c) statement showing chain of title to the new applicant. Along with the § 1.46(c) request we need a POA that gives power to the attorney who is signing the TD, along with another copy of the TD, unless they file a TD that is signed by the applicant.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/925,314	03/19/2018	Shengyong Yang	withu1	6809
36255	7590	07/05/2019		
ROSS PATENT LAW OFFICE P.O. BOX 2138 DEL MAR, CA 92014			EXAMINER CANFIELD, ROBERT	
			ART UNIT	PAPER NUMBER
			3635	
			NOTIFICATION DATE	DELIVERY MODE
			07/05/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

john@rosspatent.com
rosspatent@pacbell.net

Notice of Pre-AIA or AIA Status

1. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.
2. The amendment filed 6/26/19 after final is not entered for the following reasons:
 - a. The scope of the change made to claim 1 is unclear and it also does not appear to be commensurate with that of the original disclosure. As noted in the last office action all disclosed embodiments are directed towards disconnecting the center pole from only the bottom cap in the unlocked state. The new limitation requires further consideration.
 - b. The terminal disclaimer filed 6/26/19 has not been approved thus the double patenting rejection remains.

/JEAN PROCTOR/

Technology Center: OPLC

Telephone: (571)272-1040

The terminal disclaimer identifies a party who is not the applicant (only for applications filed on or after September 16, 2012; See FP 14.26.10):

For cases filed on/after 9/16/12, 37 CFR 1.321 specifies that the applicant can disclaim, and the terminal disclaimer must specify the extent of the applicant's ownership.

A request under 37 CFR 1.46(c) to change the applicant needs to be filed, which is (1) a request, signed by a 1.33 (b) party, (2) a corrected ADS (37 CFR 1.76(c)) that identifies the "new" applicant in the applicant information, and is underlined since it is new, and (3) a 3.73(c) statement showing chain of title to the new applicant. Along with the § 1.46(c) request we need a POA that gives power to the attorney who is signing the TD, along with another copy of the TD, unless they file a TD that is signed by the applicant.

3. The changes to claims 2-4 would overcome the prior rejections under 35 U.S.C. 112(b).

4. With respect to the Yang reference, the examiner first notes that there was a typo in the heading of the rejection set out in section 5. The correct publication number is 2016/0002949, not 2013/0002949. The examiner agrees with applicant that effective date of the instant application (for an embodiment where the center pole disconnects from the bottom cap) is 7/26/16. The rejection under 35 U.S.C. 102(a)(1) was improper and thus the rejection under Yang is withdrawn. 35 U.S.C. 102(a)(2) does not apply either because of the same inventor.

5. U.S. 6,336,465 to Surreni et al. noted in section 6 of the last office action appears relevant to at least claim 1 as proposed. Legs 61, outer retractable units 4, inner retractable units 14, top cap 2, center pole 9 and bottom cap 3. Note nothing in the claims requires the inner ends of the inner retractable units to be directly attached or connected to the legs.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT CANFIELD whose telephone number is (571)272-6840. The examiner can normally be reached on M-F 10-6, some Saturdays.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joshua Michener can be reached on 571-272-1467. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ROBERT CANFIELD
Primary Examiner
Art Unit 3635

7. /Robert Canfield/
Primary Examiner, Art Unit 3635

Advisory Action Before the Filing of an Appeal Brief	Application No. 15/925,314	Applicant(s) Yang et al.	
	Examiner ROBERT CANFIELD	Art Unit 3635	AIA (FITF) Status Yes

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 26 June 2019 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

NO NOTICE OF APPEAL FILED

1. ☒ The reply was filed after a final rejection. No Notice of Appeal has been filed. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114 if this is a utility or plant application. Note that RCEs are not permitted in design applications. The reply must be filed within one of the following time periods:

a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action; or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

c) ☐ A prior Advisory Action was mailed more than 3 months after the mailing date of the final rejection in response to a first after-final reply filed within 2 months of the mailing date of the final rejection. The current period for reply expires _____ months from the mailing date of the prior Advisory Action or SIX MONTHS from the mailing date of the final rejection, whichever is earlier.

Examiner Note: If box 1 is checked, check either box (a), (b) or (c). ONLY CHECK BOX (b) WHEN THIS ADVISORY ACTION IS THE FIRST RESPONSE TO APPLICANTS FIRST AFTER-FINAL REPLY WHICH WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. ONLY CHECK BOX (c) IN THE LIMITED SITUATION SET FORTH UNDER BOX (c). See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) or (c) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendments filed after a final rejection, but prior to the date of filing a brief, will not be entered because

a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);

b) ☐ They raise the issue of new matter (see NOTE below);

c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See attached. (See 37CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicants reply has overcome the following rejection(s): _____

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☐ For purposes of appeal, the proposed amendment(s): (a) ☐ will not be entered, or (b) ☐ will be entered, and an explanation of how the new or amended claims would be rejected is provided below or appended.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____

9. ☐ The affidavit or other evidence filed after final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

10. ☐ The affidavit or other evidence filed after the date of filing the Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

11. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

12. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____

13. ☐ Note the attached Information *Disclosure Statement(s)*. (PTO/SB/08) Paper No(s). _____

14. ☐ Other: _____

STATUS OF CLAIMS

15. The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____

Claim(s) objected to: _____

Claim(s) rejected: 1-14.

Claim(s) withdrawn from consideration: _____

/Robert Canfield/ Primary Examiner, Art Unit 3635	
--	--

DO NOT ENTER: /RC/

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.: 15/925,314
Filed: 03/19/2018
Applicant: Yang
For: COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK
Examiner: Canfield, Robert
Art Unit: 3636
Conf. No: 6809

Amendment

Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

Sir,

This letter is in response to Examiner's Office Action. Please amend the above-identified patent application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 7 of this paper.

REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL **(Submitted Only via EFS-Web)**

Application Number	15/925,314	Filing Date	2018-03-19	Docket Number (if applicable)		Art Unit	3636
First Named Inventor	Yang			Examiner Name	Canfield, Robert		

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.

Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV

SUBMISSION REQUIRED UNDER 37 CFR 1.114

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☒ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

☒ Consider the arguments in the Appeal Brief or Reply Brief previously filed on 2019-06-26

☐ Other _____

☐ Enclosed

☐ Amendment/Reply

☐ Information Disclosure Statement (IDS)

☐ Affidavit(s)/ Declaration(s)

☐ Other _____

MISCELLANEOUS

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____
 (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other _____

FEES

The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.

☒ The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No 602336

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

☒ Patent Practitioner Signature
 Applicant Signature

Signature of Registered U.S. Patent Practitioner			
Signature	/jnr/	Date (YYYY-MM-DD)	2019-09-10
Name	John R. Ross, III	Registration Number	43060

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal				
Application Number:		15925314		
Filing Date:		19-Mar-2018		
Title of Invention:		COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK		
First Named Inventor/Applicant Name:		Shengyong Yang		
Filer:		John R. Ross		
Attorney Docket Number:		withu1		
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension - 2 months with \$0 paid	2252	1	300	300
Miscellaneous:				
RCE- 1ST REQUEST	2801	1	650	650
Total in USD (\$)				950

Electronic Acknowledgement Receipt

EFS ID:	37124957
Application Number:	15925314
International Application Number:	
Confirmation Number:	6809
Title of Invention:	COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK
First Named Inventor/Applicant Name:	Shengyong Yang
Customer Number:	36255
Filer:	John R. Ross
Filer Authorized By:	
Attorney Docket Number:	withu1
Receipt Date:	10-SEP-2019
Filing Date:	19-MAR-2018
Time Stamp:	19:58:06
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	\$950
RAM confirmation Number	E201990J59078491
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		withu1OA0919.pdf	41482	yes	3
			14d258bf46ceabc046cc1cd98ab5ef7d6e7b0da5		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Extension of Time		1	1	
	Response After Final Action		2	3	
Warnings:					
Information:					
2	Request for Continued Examination (RCE)	withu1RCE0919.pdf	1349896	no	3
			3c23673197e4cead20d597616a5c08736f9f944b		
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	32539	no	2
			6dff5af91145579c583b8d1bbe8aa4a15d734486		
Warnings:					
Information:					
Total Files Size (in bytes):			1423917		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

**COMBINED AMENDMENT AND PETITION FOR EXTENSION OF
TIME UNDER 37 CFR 1.136(a) (Small Entity)**

Serial No.: 15/925,314
Filed: 03/19/2018
Applicant: Yang
For: COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK
Examiner: Canfield, Robert
Art Unit: 3636
Conf. No: 6809

TO THE COMMISSIONER FOR PATENTS

This is a response and petition under the provisions of 37 CFR 1.136(a) to extend the period for filing a response to the Office Action of 4/12/19 in the above-identified application and to the Advisory Action of 7/5/19.

Please see attached a Request for Continued Examination (RCE).

The requested extension is for two months from 7/12/19 to 9/12/19.

Fee for 2 month extension is \$300.

The fee for the RCE is \$650.

The fee for the amendment is to be paid as follows:

- The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 602336:
 - Any additional filing fees required under 37 CFR 1.16.
 - Any patent application processing fees under 37 CFR 1.17.
- Charge any additional fees which may be required to Deposit Account No. 602336.

/John R. Ross, III/

John R. Ross, III (Regis. No. 43060)
Ross Patent Law Office (ph: 760-744-1843)
P.O. Box 2138
Del Mar, CA 92014

9/10/19

Date

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.: 15/925,314
Filed: 03/19/2018
Applicant: Yang
For: COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK
Examiner: Canfield, Robert
Art Unit: 3636
Conf. No: 6809

Response to Advisory Action

Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

Sir,

This letter is in response to Examiner's Advisory Action.

Remarks/Arguments begin on page 2 of this paper.

REMARKS/ARGUMENTS

In the Advisory Action, Examiner stated that the proposed amendment will not be entered because they raise new issues that would require further consideration and/or search. In response Applicant is submitting a Request for Continued Examination (RCE).

CONCLUSION

Applicant submits that this application, as the claims are presently limited, defines a novel, patentable, and truly valuable invention. Hence, allowance of this application is respectfully submitted to be proper and is respectfully solicited.

Respectfully Submitted,

/John R. Ross, III/
John R. Ross, III
Ross Patent Law Office
Regis. No. 43060
PO Box 2138
Del Mar, CA 92014
Phone: 760-744-1843
Email: john@rosspatent.com



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/925,314	03/19/2018	Shengyong Yang	withu1	6809

36255 7590 09/26/2019
ROSS PATENT LAW OFFICE
P.O. BOX 2138
DEL MAR, CA 92014

EXAMINER

CANFIELD, ROBERT

ART UNIT	PAPER NUMBER
----------	--------------

3635

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

09/26/2019

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

john@rosspatent.com
rosspatent@pacbell.net

Notice of Pre-AIA or AIA Status

1. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.
2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/26/19 has been entered. Claims 1-14 remain pending.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1-14 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 has been amended to recites that there is a disconnection between said center top cap, said center bottom cap and said center pole. As best understood, this limitation appears broader than that supported by the original disclosure. No support is

found in the original disclosure for disconnecting the center pole from the center top cap which as best understood appears to be covered by the amended claim language. All embodiments are directed towards disconnecting the center pole from only the bottom center cap in the unlocked state. If applicant believes there is support for the alternative of disconnecting the center top cap from the center pole the examiner requests specifically where support may be found for such an embodiment.

5. Claims 1-14 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

Claim 1 has been amended to recite "when there is a disconnection between said center top cap, said center bottom cap and said center pole." It is not clear what the intended metes and bounds of this limitation are. It appears to cover a disconnection between any and all of the three components which as best understood is not what is disclosed. As previously noted all disclosed embodiments are directed towards disconnecting the center pole from only the bottom center cap in the unlocked state. If applicant believes there is support for the alternative of disconnecting the center top cap from the center pole the examiner requests specifically where support may be found for such an embodiment. The examiner suggests amending the claim language to - - when there is a disconnection between [[said center top cap,]] said center bottom cap and said center pole - -.

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on nonstatutory double patenting provided the reference application or patent either is shown to be commonly owned with the examined application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. See MPEP § 717.02 for applications subject to examination under the first inventor to file provisions of the AIA as explained in MPEP § 2159. See MPEP §§ 706.02(l)(1) - 706.02(l)(3) for applications not subject to examination under the first inventor to file provisions of the AIA. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The USPTO Internet website contains terminal disclaimer forms which may be used. Please visit www.uspto.gov/patent/patents-forms. The filing date of the application in which the form is filed determines what form (e.g., PTO/SB/25, PTO/SB/26, PTO/AIA/25, or PTO/AIA/26) should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For more information about eTerminal Disclaimers, refer to www.uspto.gov/patents/process/file/efs/guidance/eTD-info-I.jsp.

7. Claims 1-14 are rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 10,273,710. Although the claims at issue are not identical, they are not patentably distinct from each other because the subject matter of the instant claims is included within the patent claims.

8. Claim 1 as best understood is rejected under 35 U.S.C. 102(a)(1) as being anticipated by U.S. Patent 4,256,129 to Gilsenan.

Gilsenan provides legs 70, outer retractable units 50, inner retractable units 30 and central lock 10. Central lock 10 comprises upper cap 11, bottom cap 13 and center pole 22. As best understood the disconnection shown in figure 1 meets the limitation "when there is a disconnection between said center top cap, said center bottom cap and said center pole."

9. Claim 1 as best understood is rejected under 35 U.S.C. 102(a)(1) as being anticipated by U.S. 2005/0016573 to Wu.

Wu provides legs 2, outer retractable units 3, inner retractable units 4 and a central lock. Central lock comprises upper cap 8, bottom cap 92 and center pole 22. As best understood the disconnection shown in figure 4 meets the limitation “when there is a disconnection between said center top cap, said center bottom cap and said center pole.”

10. Applicant's arguments filed 6/26/19 have been fully considered but they are not persuasive.

Applicant's argument that the rejection under 35 USC 112(a) has been overcome as applicant amended the claims in accordance with the examiner's suggestions is not persuasive. The amended language is both unclear and does not appear commensurate with the original disclosure for the reasons indicated in the above 112(a/b) rejections. No suggestions were previously provided but as noted above the examiner suggests amending the claim language to - - when there is a disconnection between [[said center top cap,]] said center bottom cap and said center pole - -.

Applicant argues that the double patenting rejection has been overcome by the filing of a terminal disclaimer. As noted in the advisory action mailed 7/05/19 the terminal disclaimer has not been approved.

The terminal disclaimer does not comply with 37 CFR 1.321 because:

This application was filed on or after September 16, 2012. The party identified in the terminal disclaimer is not the applicant of record. A request to change the applicant

under 37 CFR 1.46(c) must be filed and must include an application data sheet specifying the applicant in the applicant information section and comply with 37 CFR 3.71 and 3.73. To be reconsidered, the terminal disclaimer must be filed with the request under 37 CFR 1.46(c).

Also note the double patenting rejection has been updated to reflect that U.S. Application serial number 15/549,164 has subsequently issued as U.S. Patent 10,273,710.

The amendments to claims 2-4 overcome the previous rejections under 35 U.S.C. 112(b).

The argument concerning US 2016/0002949 to Yang are persuasive and the rejections under 35 USC 102(a)(1) have been withdrawn.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT CANFIELD whose telephone number is (571)272-6840. The examiner can normally be reached on M-F 10-6, some Saturdays.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joshua Michener can be reached on 571-272-1467. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ROBERT CANFIELD
Primary Examiner
Art Unit 3635

/Robert Canfield/
Primary Examiner, Art Unit 3635

<i>Notice of References Cited</i>	Application/Control No. 15/925,314		Applicant(s)/Patent Under Reexamination Yang et al.	
	Examiner ROBERT CANFIELD		Art Unit 3635	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20190277053-A1	09-2019	Yang; Shengyong	E04H15/50	1/1
*	B	US-20190234102-A1	08-2019	Lu; Nengxiao	E04H15/46	1/1
*	C	US-20100319743-A1	12-2010	ZHOU; Nanqing	E04H15/28	135/135
*	D	US-20050016573-A1	01-2005	Wu, Weidan	E04H15/48	135/98
*	E	US-6345639-B1	02-2002	Rousselle; Gisele B.	E04H15/28	135/126
*	F	US-4256129-A	03-1981	Gilsenan; John T.	E04H15/50	135/143
*	G	US-3929146-A	12-1975	Maiken; Francis H.	E04H15/28	135/98
*	H	US-2530765-A	11-1950	GREENUP ROY T	E04H15/28	135/98
*	I	US-20190234101-A1	08-2019	Lu; Nengxiao	E04H15/50	1/1
	J					
	K					
	L					
	M					

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

<i>Search Notes</i> 	Application/Control No. 15/925,314	Applicant(s)/Patent Under Reexamination Yang et al.
	Examiner ROBERT CANFIELD	Art Unit 3635

CPC - Searched*		
Symbol	Date	Examiner
E04H 15/28, 32, 36, 44, 48, 50	09/25/2018	RC
A45B25/08		
E05B65/00 -crossed with text		
E04H15/44, 48, 50, 52 - all databases except FPRS	09/20/2019	RC

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner
135	20.3, 24, 39, 40, 135, 145, 147, 159	09/25/2018	RC
70	34		
292	150		

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
EAST classification/citation/text/name search - history attached	09/25/2018	RC
consulted Ex. Gall class 70		
reviewed art tagged in EAST against new claim 1 and performed some citation searching- history attached	04/09/2019	RC
reviewed all art of record against amended claims and went through e04h15/44,48,50,52 again (all data bases other than FPRS)	09/20/2019	RC

/Robert Canfield/ Primary Examiner, Art Unit 3635	
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<i>Search Notes</i> 	Application/Control No. 15/925,314	Applicant(s)/Patent Under Reexamination Yang et al.
	Examiner ROBERT CANFIELD	Art Unit 3635

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

/Robert Canfield/ Primary Examiner, Art Unit 3635	
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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	("10273710").PN.	USPAT	OR	OFF	2019/09/20 14:14
L23	0	("2003/0183266").URPN.	USPAT	OR	ON	2019/09/20 14:33
L25	1	("8469045").PN.	USPAT	OR	OFF	2019/09/20 14:38
L26	23	("1031868" "1034846" "1045976" "1513655" "4256129" "5329953" "7293573" "7607447").PN. OR ("8469045").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2019/09/20 14:38
L27	12	("2710012" "2948287" "3000386" "3710806" "3888056").PN. OR ("4256129").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2019/09/20 14:39
L28	45	("2530765").URPN.	USPAT	OR	ON	2019/09/20 14:44
L29	50	("0033959" "1743043" "2530765" "2720886" "3563592").PN. OR ("4074682").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2019/09/20 14:44
L30	77	("0039116" "0673568" "0709528" "0840483" "1124420" "1269413" "1414616" "1502898" "1618851" "1695009" "2117947" "2220610" "2483660" "2530765" "2771087" "2804633" "2948287" "2974965" "3105505" "3223098" "3330582" "3454021" "3721462" "3724473" "3929146" "4131381" "4202363" "4277934" "4372703" "4627210" "4637748" "4645372" "4674523" "4906123" "4945936" "5195551" "5230358" "5871026").PN. OR ("6345639").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2019/09/20 14:46
L31	881	135/145,147,159.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/09/20 14:50
L32	5264	e04h15/44,48,50,52.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/09/20 14:53
L33	2943	e04h15/44,48,50,52.cpc.	US-PGPUB; USPAT; USOCR;	OR	ON	2019/09/20 14:53

			EPO; JPO; DERWENT; IBM_TDB			
L34	9	("2005/0016573").URPN.	USPAT	OR	ON	2019/09/20 15:08
L35	20	("20050186023" "20060062632" "20080156962" "7293934" "9797157" "20150308147" "20040141803" "20050155637" "6708707" "20130092207" "10273711" "4256129" "20140130837" "9828788" "20030183266" "20180238075" "20140174491" "1666757" "20040084074" "9995057").PN.	US-PGPUB; USPAT	OR	ON	2019/09/20 15:58
L36	18	("20160348392" "9956981" "6336465" "0233255" "20110023924" "20140116488" "20150308147" "6929017" "8469045" "20070012347" "20150247339" "5813425" "7178539" "4627210" "20150376913" "20030183266" "20160002949" "20050097829").PN.	US-PGPUB; USPAT	OR	ON	2019/09/20 16:14
L37	11	(US-20100319743-\$ or US-20050016573-\$ or US-20190234102-\$ or US-20190277053-\$).did. or (US-2530765-\$ or US-6929017-\$ or US-4256129-\$ or US-3929146-\$ or US- 6345639-\$).did. or (CN-107476647-\$ or US-20190234101-\$).did.	US-PGPUB; USPAT; DERWENT	OR	ON	2019/09/20 16:14
L38	10	37 not 36	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/09/20 16:15

9/ 20/ 2019 4:17:39 PM
C:\ Users\ rcanfield\ Documents\ EAST\ Workspaces\ 15925314.wsp

CORRECTED ADS FORM

Application Number	15925314
Title of Invention	COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK

Inventor Information

****If no data is shown, no data has been corrected****

	Data of Record	Updated Data
Order Number		
Name		

Residence Information

Residency		
City		
State		
Country of Residence		

Mailing Address of Inventor

Address 1		
Address 2		
City,State/Province, Postal Code		
Country		

Application Information

	Data of Record	Updated Data
Title of Invention	COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK	
Attorney Docket Number	withu1	
Entity Type	Small	

Domestic Benefit/National Stage Information

****If no data is shown, no data has been corrected****

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121,365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing this information in the application data sheet constitutes the specific reference required by 35 U.S. C. 119(e) or 120, and 37 CFR 1.78(a).

	Data of Record	Updated Data
Prior Application Status		
Application Number		
Continuity Type		
Prior Application Number		
Filing Date (YYYY-MM-DD)		
Patent Number		
Issue Date (YYYY-MM-DD)		

Foreign Priority Information

****If no data is shown, no data has been corrected****

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX) the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

	Data of Record	Updated Data
Application Number		
Country		
Filing Date		
Access Code		

Applicant Information

****If no data is shown, no data has been corrected****

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

	Data of Record	Updated Data
Applicant Type		<u>ASG</u>
If applicant is the legal representative, indicate the authority to file the patent application, the inventor is		
Name of the Deceased or Legally Incapacitated Inventor		
Applicant is an Organization		<u>Yes</u>
Name		
Organization Name		<u>WITH-U E-COMMERCE (SHANGHAI) CO., LTD.</u>
Address 1		<u>RM 214B NO. 358 BULD, NO. 3663 N. ZHONGSHAN RD</u>
Address 2		

City,State/Province,Postal Code		<u>SHANGHAI OT 200062</u>
Country		<u>CN</u>
Phone Number		
Fax Number		
Email Address		

Assignee Information including Non-Applicant Assignee Information

****If no data is shown, no data has been corrected****

Providing this information in the application data sheet does not substitute for compliance with any requirement of part 3 of Title 37 of the CFR to have an assignment recorded in the Office

	Data of Record	Updated Data
Order		
Applicant is an Organization		
Name		
Organization Name		

Mailing Address

Address 1		
Address 2		
City,State/Province,Postal Code		
Country		
Phone Number		
Fax Number		
Email Address		

Signature

NOTE: This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b).

This Application Data Sheet **must** be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e.g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

Signature	/JRR/	Registration Number	43060
First Name	John	Last Name	Ross

Electronic Acknowledgement Receipt

EFS ID:	38542656
Application Number:	15925314
International Application Number:	
Confirmation Number:	6809
Title of Invention:	COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK
First Named Inventor/Applicant Name:	
Customer Number:	36255
Filer:	John R. Ross
Filer Authorized By:	
Attorney Docket Number:	withu1
Receipt Date:	10-FEB-2020
Filing Date:	19-MAR-2018
Time Stamp:	16:10:31
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Application Data Sheet to update/ correct info	CorrectedADS.pdf	65617	no	5
			584d8fdcc147e08cb373c10df66f996a13d8607		

Warnings:

Information:	
Total Files Size (in bytes):	65617
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.	

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.: 15/925,314
Filed: 03/19/2018
Applicant: Yang
For: COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK
Examiner: Canfield, Robert
Art Unit: 3636
Conf. No: 6809

Amendment

Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

Sir,

This letter is in response to Examiner's Office Action. Please amend the above-identified patent application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 7 of this paper.

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A collapsible canopy frame, comprising:
 - A. at least three supporting legs,
 - B. a plurality of outer retractable units, each outer retractable unit connected between two adjacent supporting legs, each said outer retractable unit comprises a plurality of hinged X-shaped rod members, each X-shaped rod member comprises a first eave pipe and second eave pipe hinged to one another,
 - C. a plurality of inner retractable units comprising inner ends, each inner retractable unit connected to a supporting leg, wherein said outer retractable units and said inner retractable units form a roof of said collapsible canopy frame, and
 - D. a central lock, comprising:
 1. a center top cap,
 2. a center bottom cap,
 3. a center pole positioned between said center top cap and said center bottom cap, wherein said central lock is locked when said center pole is connected to both said center top cap and said center bottom cap, and wherein said center lock is unlocked when there is a disconnection between said center bottom cap and said center pole, ~~and wherein said central lock is unlocked when there is a disconnection between said center top cap, said center bottom cap and said center pole,~~ wherein said central lock ~~locks is for locking~~ said collapsible canopy frame in an unfolded state when said central lock is locked and permits for permitting said collapsible canopy frame to be folded into a folded state when said central lock is unlocked, wherein said inner ends of said inner retractable units are connected through said central lock.
2. (currently amended) The collapsible canopy frame according as in Claim 1, wherein: each said supporting leg comprises a sliding sleeve for moving along a length direction of said respective supporting leg, an upper end of each said supporting leg is fixed with a fixed joint, ~~each said outer retractable unit comprises a plurality of hinged X-shaped rod members, each X-shaped rod member comprises a first eave pipe and second eave pipe~~

~~hinged to one another~~; each said inner retractable unit comprises a first oblique top pipe and a second oblique top pipe hinged to one another, said first oblique top pipe is hinged with a first connecting rod, said second oblique top pipe is hinged with a second connecting rod, an inner end of said first oblique top pipe is hinged with a center top cap of said central lock, an inner end of said first connecting rod is hinged with a center bottom cap of said central lock, an outer end of a first eave pipe and an outer end of said second oblique top pipe are hinged with said fixed joint, an outer end of said second eave pipe and an outer end of said second connecting rod are hinged with said sliding sleeve.

3. (currently amended) The collapsible canopy frame as in Claim 1, wherein: each said supporting leg comprises a sliding sleeve for moving along a length direction of said respective supporting leg, an upper end of each said supporting leg is fixed with a fixed joint, ~~each said outer retractable unit comprises a plurality of hinged X-shaped rod members, each said X-shaped rod member comprises a first eave pipe and a second eave pipe hinged to one another~~; each said inner retractable unit comprises a plurality of X-shaped members hinged one by one, each X-shaped member comprises a third oblique top pipe and a fourth oblique top pipe hinged to one another, an inner end of said third oblique top pipe is hinged with a center top cap of said central lock, and an inner end of said fourth oblique top pipe is hinged with said center bottom cap of said central lock, an outer end of said first eave pipe and an outer end of said fourth oblique top pipe are hinged with said fixed joint, an outer end of said second eave pipe and an outer end of said third oblique top pipe are hinged with said sliding sleeve.
4. (previously presented) The collapsible canopy frame as in Claim 1, where said central lock further comprises: a locking piece capable of moving back and forth along a radial direction of said center pole, wherein said locking piece is received in said center bottom cap, a first through hole through which said center pole can pass through is provided in said locking piece, and an end portion of said center pole is provided with a clamping groove and a clamp locking part located at the lower end of said clamping groove; when said central lock is in a locked state, part of an inner wall of said first through hole of said locking piece is clamped with said clamping groove of said center pole, and an upper end surface of said

clamp locking part abuts against a lower end surface of said locking piece; and when said central lock is in said unlocked state, said inner wall of said first through hole of said locking piece is separated from said clamping groove and said clamp locking part can pass through said first through hole.

5. (original) The collapsible canopy frame as in Claim 4, wherein: said center bottom cap comprises a bottom cap seat and a bottom cap cover that are fixedly connected to one another, a receiving chamber is provided in said center bottom cap at a junction between said bottom cap seat and said bottom cap cover, an opening communicated with said receiving chamber is provided in an outer wall of said center bottom cap, said locking piece is provided threading said receiving chamber and said opening and supported by said bottom cap cover.
6. (original) The collapsible canopy frame as in Claim 5, wherein: said locking piece is an integral structure, said receiving chamber is provided with a compressible elastic element along a radial direction of said center pole, said elastic element abuts against said locking piece and an inner wall of said receiving chamber at two ends respectively, said bottom cap seat is provided with a protruding detachment preventing part, said locking piece is provided with a groove for receiving said detachment preventing part; when said central lock is in said locked state, said elastic element enables part of said inner wall of said first through hole to be clamped with said clamping groove, and said detachment preventing part abuts against an inner wall of said groove.
7. (original) The collapsible canopy frame as in Claim 6, wherein: said elastic element is a spring, said locking piece is provided with a protruding guide supporting part at an end away from said opening, and said spring sleeves said guide supporting part.
8. (original) The collapsible canopy frame as in Claim 5, wherein: said locking piece is in a detachable form and comprises an elastic wire and an unlocking push piece, said elastic wire is U-shaped and comprises an elastic wire body part and two elastic deforming parts respectively provided at two ends of said elastic wire body part, a narrow opening for forming said first through hole is provided between said two elastic deforming parts, end

portions of said elastic deforming parts form a socket and an inner end of said unlocking push piece is located in said socket; when said central lock is in an unlocked state, said unlocking push piece widens said socket and said narrow opening of said elastic wire.

9. (original) The collapsible canopy frame as in Claim 8, wherein: said bottom cap seat is provided with a protruding detachment preventing part, said unlocking push piece is provided with a groove for receiving said detachment preventing part; when said central lock is in a locked state, said detachment preventing part abuts against an inner wall of said groove.
10. (original) The collapsible canopy frame as in Claim 8, wherein: said unlocking push piece is provided with two guide surfaces in contact with said end portions of said elastic deforming parts respectively and said guide surfaces are spread and inclining away from said elastic wire.
11. (original) The collapsible canopy frame as in Claim 5, wherein: said bottom cap seat is provided with a second through hole through which said center pole can pass, said bottom cap cover is provided with a receiving hole for receiving said clamp locking part and being adaptive to an outer wall of said clamp locking part, said second through hole, said first through hole and said receiving hole are in a communication manner.
12. (original) The collapsible canopy frame as in Claim 11, wherein: said second through hole sequentially comprises a first conical part with a gradually decreased diameter, a cylindrical part and a second conical part with a gradually increased diameter along the direction that said center pole threads said center bottom cap, said upper end of said first through hole is provided with a chamfered part with a gradually decreased diameter.
13. (original) The collapsible canopy frame as in Claim 4, wherein: said first through hole comprises a clamping hole part and a through hole part arranged side by side, said clamping hole part has a diameter not smaller than that of said clamping groove, said through hole part has a diameter greater than that of said clamp locking part.
14. (original) The collapsible canopy frame as in Claim 4, wherein: said clamping groove is an

annular groove, an end portion of said clamp locking part is provided with a guide part of a semispherical shape or a conical shape with a gradually decreased diameter.

REMARKS/ARGUMENTS

35 USC 112(b)

Examiner has rejected Claims 1 – 14 under 35 USC 112(b). Specifically, Examiner has stated that:

Claim 1 has been amended to recite that there is a disconnection between said center top cap, said center bottom cap and said center pole. As best understood, this limitation appears broader than that supported by the original disclosure. No support is found in the original disclosure for disconnecting the center pole from the center top cap which as best understood appears to be covered by the amended claim language. All embodiments are directed towards disconnecting the center pole from only the bottom center cap in the unlocked state.

In response, Applicant has amended Claim 1 in accordance with Examiner's suggestion to remove the basis for the rejection. Claim 1 now includes the limitation "...wherein said center lock is unlocked when there is not a connection between said center pole and said center bottom cap..."

Double Patenting – Terminal Disclaimer

Examiner has provisionally rejected Claims 1 -14 on the ground of nonstatutory double patenting as being unpatentable over claims 1-14 of U.S. Patent No. 10,273,710. In response, Applicant has submitted a terminal disclaimer to remove the basis for the rejection.

35 USC 102(a)(1)

Examiner has rejected Claim 1 under 35 USC 102(a)(1) as being anticipated by Gilsonan. Also, Examiner has rejected Claim 1 as being anticipated by Wu. In response, Applicant has amended Claim 1 to remove the basis for the rejections. Specifically, Claim 1 now includes the limitation:

a plurality of outer retractable units, each outer retractable unit connected between two adjacent supporting legs, each said outer retractable unit comprises a plurality of hinged X-shaped rod members, each X-shaped rod member comprises a first eave pipe and second eave pipe hinged to one another,

Neither Gilsonan nor Wu show this limitation. Therefore, Claim 1 should now be allowable.

Therefore, Applicant respectfully submits that because the references cited by Examiner do not show Applicant's invention as presently claimed, Claim 1 should now be allowable.

CONCLUSION

Applicant submits that this application, as the claims are presently limited, defines a novel, patentable, and truly valuable invention. Hence, allowance of this application is respectfully submitted to be proper and is respectfully solicited.

Respectfully Submitted,

/John R. Ross, III/
John R. Ross, III
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PO Box 2138
Del Mar, CA 92014
Phone: 760-744-1843
Email: john@rosspatent.com

**COMBINED AMENDMENT AND PETITION FOR EXTENSION OF
TIME UNDER 37 CFR 1.136(a) (Small Entity)**

Serial No.: 15/925,314
Filed: 03/19/2018
Applicant: Yang
For: COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK
Examiner: Canfield, Robert
Art Unit: 3636
Conf. No: 6809

TO THE COMMISSIONER FOR PATENTS

This is a response and petition under the provisions of 37 CFR 1.136(a) to extend the period for filing a response to the Office Action of 9/26/19 in the above-identified application.

The requested extension is for two months from 12/26/19 to 2/26/20.

Fee for 2 month extension is \$300.

The fee for the amendment is to be paid as follows:

- The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 602336:
 - Any additional filing fees required under 37 CFR 1.16.
 - Any patent application processing fees under 37 CFR 1.17.
- Charge any additional fees which may be required to Deposit Account No. 602336.

/John R. Ross, III/

John R. Ross, III (Regis. No. 43060)
Ross Patent Law Office (ph: 760-744-1843)
P.O. Box 2138
Del Mar, CA 92014

2/10/2020

Date

Electronic Patent Application Fee Transmittal

Application Number:	15925314			
Filing Date:	19-Mar-2018			
Title of Invention:	COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK			
First Named Inventor/Applicant Name:	Shengyong Yang			
Filer:	John R. Ross			
Attorney Docket Number:	withu1			
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension - 2 months with \$0 paid	2252	1	300	300
Miscellaneous:				
Total in USD (\$)				300

Electronic Acknowledgement Receipt

EFS ID:	38542954
Application Number:	15925314
International Application Number:	
Confirmation Number:	6809
Title of Invention:	COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK
First Named Inventor/Applicant Name:	Shengyong Yang
Customer Number:	36255
Filer:	John R. Ross
Filer Authorized By:	
Attorney Docket Number:	withu1
Receipt Date:	10-FEB-2020
Filing Date:	19-MAR-2018
Time Stamp:	16:18:57
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	\$ 300
RAM confirmation Number	E202020G21150146
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Terminal Disclaimer Filed	sb0026-td.pdf	70641	no	1
			e1348294b4d933d941d59b9d3c01820a85c475fc		
Warnings:					
Information:					
2		withu1OA0220.pdf	51036	yes	8
			89379d9c6f0bcc76dfe00c28d4a4f4b04b7dee76		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Amendment/Req. Reconsideration-After Non-Final Reject		1	1	
	Claims		2	6	
	Applicant Arguments/Remarks Made in an Amendment		7	8	
Warnings:					
Information:					
3	Extension of Time	withu1TIME0220.pdf	18952	no	1
			146a682ee685c7bd7333f4a63ab42920e5a1c0fb		
Warnings:					
Information:					
4	Fee Worksheet (SB06)	fee-info.pdf	30610	no	2
			56b92fdfee95d63aee96beaa189fe29a7eb87cb		
Warnings:					
Information:					
Total Files Size (in bytes):			171239		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**TERMINAL DISCLAIMER TO OBIATE A DOUBLE PATENTING
REJECTION OVER A "PRIOR" PATENT**Docket Number (Optional)
with1

In re Application of: Shengyong Yang

Application No.: 15/925,314

Filed: 03-19-2018

For: Collapsible Canopy Frame Having a Central Lock

The applicant, WITH-U E-COMMERCE (SHANGHAI) CO., LTD., owner of 100 percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of **prior patent** No. 10,273,710 as the term of said **prior patent** is presently shortened by any terminal disclaimer. The applicant hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the **prior patent** are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the applicant does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory term of the **prior patent**, "as the term of said **prior patent** is presently shortened by any terminal disclaimer," in the event that said **prior patent** later:

- expires for failure to pay a maintenance fee;
- is held unenforceable;
- is found invalid by a court of competent jurisdiction;
- is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321;
- has all claims canceled by a reexamination certificate;
- is reissued; or
- is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.

Check either box 1 or 2 below, if appropriate.

1. ☐ The undersigned is the applicant. If the applicant is an assignee, the undersigned is authorized to act on behalf of the assignee.

I hereby acknowledge that any willful false statements made are punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

2. ☒ The undersigned is an attorney or agent of record. Reg. No. 43060

/JRR/

Signature

2-10-2020

Date

John R. Ross, III

Typed or printed name

Attorney of Record

Title

760-744-1843

Telephone Number

- ☐ Terminal disclaimer fee under 37 CFR 1.20(d) included.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.321. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Application Number * 15/925,314 *	Application/Control No. 15/925,314	Applicant(s)/Patent under Reexamination Yang et al.	
	Examiner CANFIELD, ROBERT	Art Unit 3635	
Document Code - DISQ		Internal Document - DO NOT MAIL	

TERMINAL DISCLAIMER	☒ APPROVED	☐ DISAPPROVED
Date Filed: <u>10 February 2020</u>	This patent is subject to a Terminal Disclaimer	

Approved/Disapproved by:
/JEAN PROCTOR/ Technology Center: OPLC Telephone: (571)272-1040



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/925,314	03/19/2018	Shengyong Yang	withu1

36255
ROSS PATENT LAW OFFICE
P.O. BOX 2138
DEL MAR, CA 92014

CONFIRMATION NO. 6809
IMPROPER CFR REQUEST



OC000000114655979

Date Mailed: 02/12/2020

RESPONSE TO REQUEST FOR CORRECTED FILING RECEIPT

Power of Attorney, Claims, Fees, System Limitations, and Miscellaneous

In response to your request for a corrected Filing Receipt, the Office is unable to comply with your request because:

- The ADS submitted on 02/10/2020 attempts to change the applicant but cannot be entered. Any request to change the applicant once the applicant has been specified must include (1) an application data sheet specifying the new applicant in the Applicant Information section, and (2) a statement under 37 CFR 3.73(c) (USPTO Form PTO/AIA/96 or an equivalent) to show chain of title to the new applicant. The application data sheet must contain markings to show the information that is being changed, with underlining for additions and strike-through or brackets for deletions. See 37 CFR 1.76(c)(2).

In order to make changes to the information of record, an ADS must be properly signed and properly marked up relative to the current information of record.

Proper signature: The ADS must be signed with a handwritten signature or proper S-signature by:

- A patent practitioner, with the practitioner's registration number accompanying the signature (e.g., immediately below or adjacent to the signature), or
- The applicant, if the applicant is an individual other than the inventor(s) and no power of attorney has been appointed, or
- All of the inventors, if no other applicant has been established and no power of attorney has been appointed.

A proper S-signature consists of only letters and/or Arabic numerals, with appropriate spaces and commas, periods, apostrophes, or hyphens for punctuation contained between a first single forward slash mark before, and a second single forward slash mark after, the S-signature.

Proper markings: The ADS must identify the changes being made with underlining for insertions and strike-through or brackets for text removed. No other markings or indications are acceptable. Where an ADS providing corrected or updated information does not contain all of the sections of the ADS, the entire section in which changes are being made must be included in the ADS. Information of record can generally be found on the latest filing receipt.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at (571) 272-4000 or (571) 272-4200 or 1-888-786-0101.

/ttran/



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

36255 7590 02/27/2020
ROSS PATENT LAW OFFICE
P.O. BOX 2138
DEL MAR, CA 92014

EXAMINER

CANFIELD, ROBERT

ART UNIT

PAPER NUMBER

3635

DATE MAILED: 02/27/2020

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/925,314	03/19/2018	Shengyong Yang	with1	6809

TITLE OF INVENTION: COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$500	\$0.00	\$0.00	\$500	05/27/2020

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

36255 7590 02/27/2020
ROSS PATENT LAW OFFICE
P.O. BOX 2138
DEL MAR, CA 92014

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/925,314	03/19/2018	Shengyong Yang	withul	6809

TITLE OF INVENTION: COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$500	\$0.00	\$0.00	\$500	05/27/2020

EXAMINER	ART UNIT	CLASS-SUBCLASS
CANFIELD, ROBERT	3635	135-145000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-09 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,

1 _____

(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. Fees submitted: ☐ Issue Fee ☐ Publication Fee (if required) ☐ Advance Order - # of Copies _____

4b. Method of Payment: (Please first reapply any previously paid fee shown above)

☐ Electronic Payment via EFS-Web ☐ Enclosed check ☐ Non-electronic payment by credit card (Attach form PTO-2038)

☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. Change in Entity Status (from status indicated above)

☐ Applicant certifying micro entity status. See 37 CFR 1.29

☐ Applicant asserting small entity status. See 37 CFR 1.27

☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/925,314	03/19/2018	Shengyong Yang	withu1	6809
36255	7590	02/27/2020	EXAMINER	
ROSS PATENT LAW OFFICE			CANFIELD, ROBERT	
P.O. BOX 2138			ART UNIT	
DEL MAR, CA 92014			PAPER NUMBER	
			3635	
DATE MAILED: 02/27/2020				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 15/925,314	Applicant(s) Yang et al.	
	Examiner ROBERT CANFIELD	Art Unit 3635	AIA (FITF) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/12/20.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☒ The allowed claim(s) is/are 1-14. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a) ☐ All b) ☐ Some *c) ☐ None of the:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892) 2. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____. 3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____. 4. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.	5. ☐ Examiner's Amendment/Comment 6. ☐ Examiner's Statement of Reasons for Allowance 7. ☐ Other _____.
---	---

<i>Search Notes</i> 	Application/Control No. 15/925,314	Applicant(s)/Patent Under Reexamination Yang et al.
	Examiner ROBERT CANFIELD	Art Unit 3635

CPC - Searched*		
Symbol	Date	Examiner
E04H 15/28, 32, 36, 44, 48, 50	09/25/2018	RC
A45B25/08		
E05B65/00 -crossed with text		
E04H15/44, 48, 50, 52 - all databases except FPRS	09/20/2019	RC

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner
135	20.3, 24, 39, 40, 135, 145, 147, 159	09/25/2018	RC
70	34		
292	150		

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

/Robert Canfield/ Primary Examiner, Art Unit 3635	
--	--

<i>Search Notes</i> 	Application/Control No. 15/925,314	Applicant(s)/Patent Under Reexamination Yang et al.
	Examiner ROBERT CANFIELD	Art Unit 3635

Search Notes		
Search Notes	Date	Examiner
EAST classification/citation/text/name search - history attached	09/25/2018	RC
consulted Ex. Gall class 70		
reviewed art tagged in EAST against new claim 1 and performed some citation searching- history attached	04/09/2019	RC
reviewed all art of record against amended claims and went through e04h15/44,48,50,52 again (all data bases other than FPRS)	09/20/2019	RC
checked application SN 16012076 and 161488273 for possible double patenting issues	02/13/2020	RC

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
	see attached EAST queries	02/13/2020	RC

/Robert Canfield/ Primary Examiner, Art Unit 3635	
--	--

Issue Classification 	Application/Control No. 15/925,314	Applicant(s)/Patent Under Reexamination Yang et al.
	Examiner ROBERT CANFIELD	Art Unit 3635

CPC						
Symbol					Type	Version
E04H	/	15	/	50	F	2013-01-01
E04H	/	15	/	44	I	2013-01-01
E04H	/	15	/	32	I	2013-01-01
E04H	/	15	/	48	I	2013-01-01
E05B	/	65	/	00	A	2013-01-01

CPC Combination Sets					
Symbol				Type	Set
	/		/		

NONE (Assistant Examiner) _____ (Date) _____		Total Claims Allowed: 14	
/Robert Canfield/ Primary Examiner, Art Unit 3635 (Primary Examiner) _____ (Date) _____		13 February 2020 O.G. Print Claim(s) 1	O.G. Print Figure 19

Issue Classification 	Application/Control No. 15/925,314	Applicant(s)/Patent Under Reexamination Yang et al.
	Examiner ROBERT CANFIELD	Art Unit 3635

INTERNATIONAL CLASSIFICATION			
CLAIMED			
E04H	/	15	/ 44
E04H	/	15	/ 48
E04H	/	15	/ 50
NON-CLAIMED			
	/		/

US ORIGINAL CLASSIFICATION	
CLASS	SUBCLASS

CROSS REFERENCES(S)						
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)					

NONE		Total Claims Allowed:	
(Assistant Examiner) (Date)		14	
/Robert Canfield/ Primary Examiner, Art Unit 3635 (Primary Examiner) (Date)		13 February 2020	
		O.G. Print Claim(s)	O.G. Print Figure
		1	19

Issue Classification 	Application/Control No. 15/925,314	Applicant(s)/Patent Under Reexamination Yang et al.
	Examiner ROBERT CANFIELD	Art Unit 3635

☒ Claims renumbered in the same order as presented by applicant ☐ CPA ☒ T.D. ☐ R.1.47															
CLAIMS															
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original

NONE (Assistant Examiner) _____ (Date) _____		Total Claims Allowed: 14	
/Robert Canfield/ Primary Examiner, Art Unit 3635 (Primary Examiner) _____ (Date) 13 February 2020		O.G. Print Claim(s) 1	O.G. Print Figure 19



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

BIB DATA SHEET

CONFIRMATION NO. 6809

SERIAL NUMBER 15/925,314	FILING or 371(c) DATE 03/19/2018 RULE	CLASS 135	GROUP ART UNIT 3635	ATTORNEY DOCKET NO. withu1		
APPLICANTS INVENTORS Shengyong Yang, Shanghai, CHINA; Jing Bian, Shanghai, CHINA; ** CONTINUING DATA ***** This application is a CIP of 15/549,164 08/06/2017 PAT 10273710 which is a 371 of PCT/CN2016/091675 07/26/2016 ** FOREIGN APPLICATIONS ***** ** IF REQUIRED, FOREIGN FILING LICENSE GRANTED *** SMALL ENTITY ** 04/12/2018						
Foreign Priority claimed ☐ Yes ☒ No 35 USC 119(a-d) conditions met ☐ Yes ☐ No Verified and Acknowledged <u>/ROBERT CANFIELD/</u> Examiner's Signature		☐ Met after Allowance Initials	STATE OR COUNTRY CHINA	SHEETS DRAWINGS 18	TOTAL CLAIMS 14	INDEPENDENT CLAIMS 1
ADDRESS ROSS PATENT LAW OFFICE P.O. BOX 2138 DEL MAR, CA 92014 UNITED STATES						
TITLE COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK						
FILING FEE RECEIVED 785	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit			

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L9	4	(US-20190234102-\$ or US-20190234101-\$).did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/02/13 20:43
L10	2	(US-20190234102-\$ or US-20190234101-\$).did.	US-PGPUB	OR	ON	2020/02/13 20:43
L11	27	("20160348392" "9956981" "6336465" "0233255" "20110023924" "20140116488" "20150308147" "20190277053" "20100319743" "20190234102" "6929017" "8469045" "20050016573" "2530765" "3929146" "20070012347" "20150247339" "5813425" "7178539" "4627210" "20190234101" "4256129" "20150376913" "20030183266" "20160002949" "20050097829" "6345639").PN.	US-PGPUB; USPAT	OR	ON	2020/02/13 20:43
L12	0	10 not 11	US-PGPUB; USPAT	OR	ON	2020/02/13 20:44

2/ 13/ 2020 8:44:15 PM

C:\ Users\ rcanfield\ Documents\ EAST\ Workspaces\ 15925314.wsp

EAST Search History

EAST Search History (I nterference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L4	1808	(E04H15/50 or E04H15/48 or E04H15/44).cpc.	US-PGPUB; USPAT	OR	ON	2020/02/13 20:28
L5	470	4 and @py> "2015"	US-PGPUB; USPAT	OR	ON	2020/02/13 20:29
L6	5	collapsible with canopy with (lock locking) with (cap hub)	US-PGPUB; USPAT	OR	ON	2020/02/13 20:41
L7	13	(folding foldable) with canopy with (lock locking) with (cap hub)	US-PGPUB; USPAT	OR	ON	2020/02/13 20:42
L8	2	"Term Removed"	US-PGPUB	OR	ON	2020/02/13 20:42

2/ 13/ 2020 8:44:32 PM
C:\ Users\ rcanfield\ Documents\ EAST\ Workspaces\ 15925314.wsp

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address):

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

36253 7590 02/27/2020
ROSS PATENT LAW OFFICE
P.O. BOX 2138
DEL MAR, CA 92014

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below:

(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/925,314	03/19/2018	Shengyong Yang	with/	6809

TITLE OF INVENTION: COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$500	\$0.00	\$0.00	\$500	05/27/2020

EXAMINER	ART UNIT	CLASS-SUBCLASS
CANFIELD, ROBERT	3635	135-145000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

2. For printing on the patent front page, list

- (1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1. John R. Ross, III
2. John R. Ross
3. _____

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/A7; Rev 03-09 or more recent) attached. Use of a Customer Number is required.

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE, (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. Fee(s) submitted: ☒ Issue Fee ☐ Publication Fee (if required) ☐ Advance Order - # of Copies _____

4b. Method of Payment: (Please first reapply any previously paid fee shown above)

☐ Electronic Payment via EFS-Web ☐ Enclosed check ☐ Non-electronic payment by credit card (Attach form PTO-2038)

☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. Change in Entity Status (from status indicated above):

- ☐ Applicant certifying micro entity status. See 37 CFR 1.29
☐ Applicant asserting small entity status. See 37 CFR 1.27
☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

Electronic Patent Application Fee Transmittal				
Application Number:		15925314		
Filing Date:		19-Mar-2018		
Title of Invention:		COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK		
First Named Inventor/Applicant Name:		Shengyong Yang		
Filer:		John R. Ross		
Attorney Docket Number:		withu1		
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
UTILITY APPL ISSUE FEE	2501	1	500	500

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				500

Electronic Acknowledgement Receipt

EFS ID:	39274665
Application Number:	15925314
International Application Number:	
Confirmation Number:	6809
Title of Invention:	COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK
First Named Inventor/Applicant Name:	Shengyong Yang
Customer Number:	36255
Filer:	John R. Ross
Filer Authorized By:	
Attorney Docket Number:	withu1
Receipt Date:	27-APR-2020
Filing Date:	19-MAR-2018
Time Stamp:	15:11:43
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	\$ 500
RAM confirmation Number	E20204QF12131838
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	issuefeewithu1.pdf	720273	no	1
			43a3303a89dfd10899405d829ddab6e900d510c5		
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30303	no	2
			d5d14e6cbfefd824544a45764b437b67d06a4056		
Warnings:					
Information:					
Total Files Size (in bytes):			750576		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					



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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/925,314	06/02/2020	10669738	with1	6809

36255 7590 05/13/2020
ROSS PATENT LAW OFFICE
P.O. BOX 2138
DEL MAR, CA 92014

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site <http://pair.uspto.gov> for additional applicants):

Shengyong Yang, Shanghai, CHINA;
Jing Bian, Shanghai, CHINA;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No.: 10,699,738
Issue date: 06/02/2020
App No.: 15/925,314
Filed: 03/19/2018
Applicant: Yang
For: COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK
Examiner: Canfield, Robert
Art Unit: 3636
Conf. No: 6809

REQUEST FOR CERTIFICATE OF CORRECTION PURSUANT TO 37 C.F.R. 1.323

Pursuant to 37 C.F.R. Section 1.323, this is a request for Certificate of Correction in the above-identified patent.

In particular, in Column 10, Line 27, Claim 1, delete “center lock” and insert “central lock”.

The nature of the mistake, i.e., the type of the mistake for which correction is sought is a mistake that is of a typographical error.

The fee for the amendment is to be paid as follows:

- The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 602336:
- Charge any additional fees which may be required to Deposit Account No. 602336.

/John R. Ross, III/
John R. Ross, III (Regis. No. 43060)
Ross Patent Law Office (ph: 760-744-1843)
P.O. Box 2138
Del Mar, CA 92014

8/13/2020
Date

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**Page 1 of 1

PATENT NO. : 10,669,738

APPLICATION NO.: 15/925,314

ISSUE DATE : June 2, 2020

INVENTOR(S) : Shengyong Yang and Jing Bian

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the Claims

In Column 10, Line 27, Claim 1, delete "center lock" and insert "central lock"

MAILING ADDRESS OF SENDER (Please do not use Customer Number below):

John R. Ross, III, esq.
P.O. Box 2138
Del Mar, CA 92014

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Electronic Patent Application Fee Transmittal				
Application Number:		15925314		
Filing Date:		19-Mar-2018		
Title of Invention:		COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK		
First Named Inventor/Applicant Name:		Shengyong Yang		
Filer:		John R. Ross		
Attorney Docket Number:		withu1		
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
CERTIFICATE OF CORRECTION	2811	1	150	150

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				150

Electronic Acknowledgement Receipt

EFS ID:	40281524
Application Number:	15925314
International Application Number:	
Confirmation Number:	6809
Title of Invention:	COLLAPSIBLE CANOPY FRAME HAVING A CENTRAL LOCK
First Named Inventor/Applicant Name:	Shengyong Yang
Customer Number:	36255
Filer:	John R. Ross
Filer Authorized By:	
Attorney Docket Number:	withu1
Receipt Date:	13-AUG-2020
Filing Date:	19-MAR-2018
Time Stamp:	19:21:01
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	\$ 150
RAM confirmation Number	E20208CJ21321104
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Request for Certificate of Correction	withu1COC0820b.pdf	84731	no	2
			96f23c67377c879ef14f7bb9858dfed6f38805b3		
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30247	no	2
			699b774b0cbd57ef73647437f41367fc46689821		
Warnings:					
Information:					
Total Files Size (in bytes):			114978		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 10,669,738 B2
APPLICATION NO. : 15/925314
DATED : June 2, 2020
INVENTOR(S) : Yang et al.

Page 1 of 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the Claims

In Column 10, Line 27, Claim 1, delete “center lock” and insert --central lock--

Signed and Sealed this
Fifteenth Day of September, 2020



Andrei Iancu
Director of the United States Patent and Trademark Office