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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	USCP10338A-NSG
		Application Number	
Title of Invention	Waterproof Induction Actuated Container		
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Application Information:

Title of the Invention	Waterproof Induction Actuated Container		
Attorney Docket Number	USCP10338A-NSG	Small Entity Status Claimed	☒
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	8	Suggested Figure for Publication (if any)	

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☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in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.

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Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(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.

Prior Application Status	Pending	Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
	Continuation of	15271211	2016-09-20

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Title of Invention	Waterproof Induction Actuated Container		

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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(d). 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(h)(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).

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Application Number	Country ⁱ	Filing Date (YYYY-MM-DD)	Access Code ⁱ (if applicable)

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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.

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Title of Invention	Waterproof Induction Actuated Container		

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In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the instant patent application with respect to: 1) the instant patent application-as-filed; 2) any foreign application to which the instant patent application claims priority under 35 U.S.C. 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the instant patent application; and 3) any U.S. application-as-filed from which benefit is sought in the instant patent application.

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Clear				
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Mailing Address Information For Applicant:			
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		Application Number	
Title of Invention	Waterproof Induction Actuated Container		

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

Signature	/Raymond Y. Chan/		Date (YYYY-MM-DD)	2018-01-30	
First Name	Raymond Y.	Last Name	Chan	Registration Number	37484
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As a below named inventor, I hereby declare that:

My residence, mailing address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

Waterproof Induction Actuated Container

the specification of which is attached hereto unless the following box is checked:

☐ was filed on _____ as United States Application Number or PCT International Application Number _____ and was amended on _____ (if applicable).

The above-identified application was made or authorized to be made by me. I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 USC 119(a)-(d) or 365(h) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Priority Claimed	Certified Copy Attached
☐ Yes ☐ No	☐ Yes ☐ No
☐ Yes ☐ No	☐ Yes ☐ No
☐ Yes ☐ No	☐ Yes ☐ No

(Number) (Country) (Day/Month/Year Filed)

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☐ Additional foreign application numbers are listed on a supplemental priority data sheet attached hereto.

I hereby claimed the benefit under 35 USC 119(c) of any United States provisional application(s) listed below.

Application Number(s)

Filing Date (Day/Month/Year)

☐ Additional provisional application numbers are listed on a supplemental priority data sheet attached hereto.

I hereby appoint the following attorney(s) and/or agent(s), with full powers of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

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I hereby declare that all Statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor (given name, family name) Xin Wang

Inventor's signature

Date 09/17/2016

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Citizenship China

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Full name of second joint inventor, if any (given name, family name) Jiangqun Chen

Second Inventor's signature

Date 09/17/2016

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Citizenship China

Mailing Address No. 47, Pushang Zone, Jiashan Industrial Area, Fuzhou, Fujian, 350008 China

☐ Additional inventors are being named on separately numbered sheets attached hereto.

TITLE

Waterproof Induction Actuated Container

CROSS REFERENCE OF RELATED APPLICATION

[0001] This is a Continuation application that claims the benefit of priority under
5 35U.S.C. §120 to a non-provisional application, application number 15/271,211, filed
September 20, 2016. The afore-mentioned patent application is hereby incorporated by
reference in its entirety.

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whatsoever.

BACKGROUND OF THE PRESENT INVENTION

15 FIELD OF INVENTION

[0003] The present invention relates to a container, and more particularly to a
waterproof induction container, wherein the electrical and mechanical components are
sealed in a concealed compartment of the container to prevent any contamination of the
electrical and mechanical components by moisture, corrosive gas, and/or trash residuals.

DESCRIPTION OF RELATED ARTS'

[0004] A conventional container for storing predetermined objects, such as a trash container, usually comprises a container body having a storage cavity formed therein, and an opening communicated with the storage cavity, and a cover panel movably mounted
5 on top of the housing for selectively opening and enclosing the storage cavity for allowing the user to dispose predetermined objects into the container body. When the container is not in use, the storage cavity is substantially enclosed for physically separating the objects disposed in the storage cavity from an exterior of the container.

[0005] In recent years, electrically-operated containers or induction containers have
10 been developed in which the cover panel is largely driven by electrical and mechanical components so as to achieve automatic opening or closing of that cover panel via a motor. For most of these induction containers, such as induction trash cans, a sensor is formed on the housing and is utilized for detecting a target movement, such as a movement of the person throwing trash, in a detection range, so that when that person
15 stands in that detection range, the sensor will send a signal to the relevant electrical components so as to automatically lift up the cover panel, and when the user has left the detection range, the sensor will send a corresponding signal to those electrical components for automatically lowering down the cover panel so as to close the container.

[0006] However, the conventional induction container has several drawbacks. The
20 convention induction container does not include any water resistance feature to protect the electrical and mechanical components. For example, when the trash is disposed in the storage cavity of the container body, fluid residuals in the trash may accidentally spilled to the container body to damage the electrical and/or mechanical components. In addition, moisture and/or corrosive gas will be released from the trash, such that a circuit board
25 and/or mechanical components of the induction container will be eroded to shorten the service lifespan of the induction container.

[0007] In addition, the actuation of the cover panel is driven to open and close by the motor via a transmission shaft. In particular, one end of the transmission shaft is

connected to the cover panel, and an opposed end of the transmission shaft is connected to the motor via a gear unit. Through the structural configuration of the transmission shaft with the gear unit, the electrical and mechanical components cannot be concealed in a storage compartment of the housing. In addition, the transmission shaft is exposed,
5 such that moisture, corrosive gas, and/or trash residuals will inevitably contaminate the transmission shaft, the gear unit, and even the storage compartment.

[0008] Accordingly, a power supply unit is provided at the housing, wherein the power supply unit has a battery compartment formed at the bottom side of the housing and a battery cover detachably coupled at the bottom side of the housing to cover the battery
10 compartment. Therefore, the battery cover may accidentally fall into the storage cavity of the container body. The moisture, corrosive gas, and/or trash residuals will also inevitably contaminate the battery in the battery compartment and will erode the power supply unit as well. Once the power supply unit is malfunctioned, the cover panel cannot be operated as well. It is also inconvenient for the user to replace the battery in the
15 battery compartment because the housing must be detached from the container body for battery replacement.

SUMMARY OF THE PRESENT INVENTION

[0009] The invention is advantageous in that it provides a waterproof induction container, wherein different electrical and mechanical components of the container are
20 concealed in the side concealed compartment in a waterproof manner to prevent any contamination of the electrical and mechanical components by moisture, corrosive gas, and/or trash residuals. Therefore, the electrical and mechanical components of the container will be protected within the side concealed compartment against such adverse environmental factor as excess humidity, so as to prolong a general life span of the
25 present invention.

[0010] Another advantage of the invention is to a waterproof induction container, wherein the pivot shaft is directly driven by an actuation unit to move the cover panel between an opened position and a closed position.

[0011] Another advantage of the invention is to a waterproof induction container,
5 wherein two end portions of the pivot shaft are extended into the side concealed compartments respectively and are operatively linked to the actuation unit and a resilient element, such that the rotational movement of the pivot shaft is balanced at the two ends portions thereof to ensure the smooth pivotal movement of the cover panel.

[0012] Another advantage of the invention is to a waterproof induction container,
10 wherein the exposed portion of the pivot shaft between the two end portions thereof is received along a shaft sleeve of the cover panel to conceal the exposed portion of the pivot shaft so as to prevent the pivot shaft from exposing to the container opening of said container body.

[0013] Another advantage of the invention is to a waterproof induction container,
15 wherein the gear transmission unit serves as a decelerating gear unit for controllably lifting up and dropping down the cover panel at a speed determined by gear ratios of the gear transmission unit so as to move the cover panel between the opened and closed positions in a hydraulic manner.

[0014] Another advantage of the invention is to provide a water induction container,
20 wherein the servo motor, the transmission gear unit, and the pivot shaft are directly and operatively linked with each other so as to minimize energy lost through the energy transmission.

[0015] Another advantage of the invention is to a waterproof induction container, wherein the power supply unit is provided at the rear portion of the control housing, such
25 that the user is able to access the power supply unit, such as replacing the battery, without detaching the control housing from the container body. In addition, since there is no access of the power supply unit from the storage cavity, the battery compartment is not

communicated with the storage cavity to prevent any contamination of the battery compartment by moisture, corrosive gas, and/or trash residuals from the storage cavity.

[0016] Another object of the present invention is to provide a waterproof induction container, wherein the induction actuated container cover can be adapted to perform a
5 wide variety of functions so as to allow widespread application of the present invention.

[0017] Another object of the present invention is to provide a waterproof induction container, which does not require to alter the original structural design of the induction container, so as to minimize the manufacturing cost of the induction container incorporating with the induction actuated container cover.

10 [0018] Another object of the present invention is to provide a waterproof induction container, wherein no expensive or complicated structure is required to employ in the present invention in order to achieve the above mentioned objects. Therefore, the present invention successfully provides an economic and efficient solution for providing a
15 sterilized and clean configuration for the induction container to prevent any contamination of the electrical and mechanical components of the induction container.

[0019] Additional advantages and features of the invention will become apparent from the description which follows, and may be realized by means of the instrumentalities and combinations particular point out in the appended claims.

20 [0020] According to the present invention, the foregoing and other objects and advantages are attained by a waterproof induction container which comprises a container body and an induction actuated container cover. The container body has a storage cavity and a container opening communicating with the storage cavity. The induction actuated container cover comprises a control housing, a cover unit, and an automatic driving arrangement.

25 [0021] The control housing is detachably coupled at the container body at the container opening thereof, wherein the control housing has first and second side concealed

compartments formed at a rear portion of the control housing, and a cover opening formed between the first and second side concealed compartments to communicate with the storage cavity of the container body.

5 [0022] The cover unit comprises a pivot shaft having first and second end portions extended into the first and second side concealed compartments respectively, and a cover panel pivotally mounted to the control housing via the pivot shaft to pivotally move between a closed position that the cover panel covers at the cover opening to enclose the storage cavity and an opened position that the cover panel exposes the cover opening for communicating with the storage cavity.

10 [0023] The automatic driving arrangement comprises a sensor unit mounted at the control housing for detecting a target movement of a user, and an actuation unit concealed in the first side concealed compartment of the control housing in a waterproof manner to operatively link with the sensor unit and to operatively coupled to the pivot shaft, wherein the actuation unit is actuated to move the cover panel via the pivot shaft
15 between the opened and closed positions.

[0024] Still further objects and advantages will become apparent from a consideration of the ensuing description and drawings.

[0025] These and other objectives, features, and advantages of the present invention will become apparent from the following detailed description, the accompanying
20 drawings, and the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0026] Fig. 1 is a perspective view of a waterproof induction container according to a preferred embodiment of the present invention.

[0027] Fig. 2 is an exploded perspective view of the waterproof induction container
5 according to the above preferred embodiment of the present invention.

[0028] Fig. 3 is a perspective view of the induction actuated container cover of the waterproof induction container according to the above preferred embodiment of the present invention.

[0029] Fig. 4 is a perspective view of the induction actuated container cover of the
10 waterproof induction container without the upper casing according to the above preferred embodiment of the present invention.

[0030] Fig. 5 is a perspective view of the actuation driving arrangement of the waterproof induction container according to the above preferred embodiment of the present invention.

15 [0031] Fig. 6 is a rear view of a power supply unit of the waterproof induction container according to the above preferred embodiment of the present invention.

[0032] Fig. 7 is a sectional view of the induction actuated container cover according to the above preferred embodiment of the present invention.

[0033] Fig. 8 illustrates the resilient element of the induction actuated
20 container cover according to the above preferred embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0034] The following description is disclosed to enable any person skilled in the art to make and use the present invention. Preferred embodiments are provided in the following description only as examples and modifications will be apparent to those skilled in the art. The general principles defined in the following description would be applied to other embodiments, alternatives, modifications, equivalents, and applications without departing from the spirit and scope of the present invention.

[0035] Referring to Fig. 1 to Fig. 7 of the drawings, a waterproof induction container according to a preferred embodiment of the present invention is illustrated, wherein the waterproof induction container comprises a container body 10 and an induction actuated container cover.

[0036] The container body 10 has a storage cavity 11 and a container opening 12 formed at an upper portion of the container body 10, wherein the storage cavity 11 is utilized for storing predetermined objects, such as trash, disposed by a user of the present invention. Accordingly, the container opening 12 forms a top opening of the container body 10.

[0037] The induction actuated container cover comprises a control housing 30, a cover unit 40, and an automatic driving arrangement 50. The control housing 30, having a cover opening 31, is adapted for mounting at the container body 10 at the container opening thereof 12 to communicate the cover opening 31 with the storage cavity 11 of the container body 10. The control housing 30 further has first and second side concealed compartments 32, 33 formed at a rear portion of the control housing 30, wherein the cover opening 31 is formed between the first and second side concealed compartments 32, 33 to communicate with the storage cavity 11 of the container body 10. In one embodiment, the first and second side concealed compartments 32, 33 are left and right concealed compartments of the control housing 30.

[0038] The cover unit 40 comprises a pivot shaft 41 having first and second end portions 411, 412 extended into the first and second side concealed compartments 32, 33 respectively, and a cover panel 42 pivotally mounted to the control housing 30 via the pivot shaft 41 to pivotally move between a closed position that the cover panel 42 covers at the cover opening 31 to enclose the storage cavity 11 and an opened position that the cover panel 42 exposes the cover opening 31 for communicating with the storage cavity 11.

[0039] The automatic driving arrangement 50 comprises a sensor unit 51 mounted at the control housing 30 for detecting a target movement of a user, and an actuation unit 60 concealed in the first side concealed compartment 32 of the control housing 30 in a waterproof manner to operatively link with the sensor unit 51 and to operatively coupled to the pivot shaft 41, wherein the actuation unit 60 is actuated to move the cover panel 42 via the pivot shaft 41 between the opened and closed positions.

[0040] According to the preferred embodiment, the control housing 30 has a trapezoid cross section that a height of the front portion of the control housing 30 is shorter than that of the rear portion thereof to maximize a size of each of the first and second side concealed compartments 32, 33. Accordingly, a longitudinal width of the cover opening 31 between two sidewalls of the control housing 30 is larger than a transverse width of the cover opening 31 between the front wall and the rear wall of the control housing 30 to maximum an usable opening area of the cover opening 31 when the cover panel 42 is pivotally moved at the opened position.

[0041] In particular, the control housing 30 comprises a lower base frame 34 detachably coupled at the container opening 12 of the container body 10, and an upper casing 35 sealed and coupled at the lower base frame 34 to define the first and second side concealed compartments 32, 33 therebetween. Accordingly, the base frame 34, which has a annular shape, has a base platform 341 to support the automatic driving arrangement 50, wherein a sealing channel 342 is upwardly extended from a peripheral of the base platform 341 and a coupling channel is downwardly extended from the peripheral of the base platform 341 to detachably engage with an opening rim of the

container opening 12 of the container body 10. The upper casing 35 is sealed and coupled on the base frame 34. In particular, a bottom edge of the upper casing 35 is sealed and coupled at the sealing channel 342 of the base frame 34. Preferably, a sealing element 343 is disposed along the sealing channel 342 of the base frame 34 and is provided to seal a connection between the bottom edge of the upper casing 35 and the sealing channel 342 of the base frame 34 to ensure the waterproof configuration of the first and second side concealed compartments 32, 33. It is worth mentioning that the upper casing 35 has a trapezoid cross section to maximize the size of each of the first and second side concealed compartments 32, 33.

[0042] As shown in Fig. 4, the pivot shaft 41 is an elongated shaft extended between the first and second side concealed compartments 32, 33. In particular, the two end portions 411, 412 of the pivot shaft 41 are extended into and sealed in the first and second side concealed compartments 32, 33 respectively. The pivot shaft 41 further has an exposed portion 413 defined between the two end portions 411, 412, wherein the cover panel 42 is coupled at the exposed portion 413 of the pivot shaft 41.

[0043] Accordingly, the cover panel 42 has a folding edge coupled at the exposed portion 413 of the pivot shaft 41 and a free edge being pivotally on the control housing 30 to enclose the cover opening 31 thereof. The cover panel 42 comprises a shaft sleeve 421 formed along the folding edge thereof, wherein the exposed portion 413 of the pivot shaft 41 is received in the shaft sleeve 421 to conceal the exposed portion 413 of the pivot shaft 41 so as to prevent the pivot shaft 41 from exposing to the container opening 12 of the container body 10.

[0044] It is worth mentioning that the exposed portion 413 of the pivot shaft 41 has a non-circular cross section and the shaft sleeve 421 has a corresponding non-circular cross section to fit the exposed portion 413 of the pivot shaft 41, such that when the pivot shaft 41 is received along the shaft sleeve 421 and is driven to rotate, the cover panel 42 is pivotally moved between the opened and closed positions. As shown in Fig. 4, the control housing 30 further comprises a shaft housing 301 integrally extended between the first and second side concealed compartments 32, 33, wherein the shaft sleeve 421 is

received in the shaft housing 301, such that the pivot shaft 41 is hidden within the shaft housing 301 to keep the pivot shaft 41 away from the container opening 12 of the container body 10.

[0045] According to the preferred embodiment, the sensor unit 51 comprises a sensor circuit board 511 and a sensor 512 operatively linked to the sensor circuit board 511, wherein the sensor circuit board 511 and the sensor 512 are concealed in the front concealed compartment 36. The sensor 512 is mounted at a front side of the control housing 30 for delivering a sensor signal from a front side of the control housing 30 to detect a user's movement in front of the container body 10. The sensor circuit board 511 is electrically connected to the actuation unit 60 in such a manner that when the sensing unit 2311 detects the user's movement in front of the container body 10, the sensor 512 will send a corresponding sensor signal to the actuation input 60 for actuating the cover panel 42 to move from the normal closed position to the opened position.

[0046] As shown in Figs. 3 and 4, the control housing 30 further has a front concealed compartment 36 formed between the base frame 34 and the upper casing 35 at a position in front of the cover opening 31 of the control housing 30, wherein a slanted front wall 37 is defined on the front concealed compartment 36 at a top side of the upper casing 35. The sensor circuit board 511 is concealed in the front concealed compartment 36 and the sensor 512 is supported at the slanted front wall 37 of the control housing 30. Accordingly, a window 351 is formed on the top side of the upper casing 35, wherein the sensor 512 is connected to the sensor circuit board 511 below the window 351 of the upper casing 35. It is worth mentioning that since the sensor 512 is supported at the slanted front wall 37, the sensor 512 is supported in a slanted orientation. Therefore, the sensor 512 is located in front of the cover panel 42 to maximize the detecting range of the sensor 512 at the approaching direction for detecting the target movement.

[0047] According to the preferred embodiment, the actuation unit 60 comprises a servo motor 61 supported in the first side concealed compartment 32 of the control housing 30 and a gear transmission unit 62 operatively coupled between the first end portion 411 of

the pivot shaft 41 and the servo motor 61 for transmitting a rotational power from the servo motor 61 to the pivot shaft 41.

[0048] Accordingly, the sensor 512 will send the sensor signal to the actuation unit 60, the servo motor 61 is activated for generating the rotational power, wherein the rotational power is transmitted through the gear transmission unit 62 to drive the pivot shaft 41 to rotate. It is worth mentioning that the servo motor 61 can generate a forward rotational power to drive the pivot shaft 41 so as to move the cover panel 42 from the closed position to the opened position, and can generate a rearward rotational power to drive the pivot shaft 41 so as to move the cover panel 42 from the opened position to the closed position.

[0049] The gear transmission unit 62 is a decelerating gear unit for controllably lifting up and dropping down the cover panel 42 at a speed determined by gear ratios of the gear transmission unit 62 so as to move the cover panel 42 between the opened and closed positions in a hydraulic manner. In other words, the gear transmission unit 62 is adapted to transmit and convert the rotational power to the controlled decelerating and torque enhancing force so as to move the cover panel 42 between the opened and closed positions in a hydraulic manner. In other words, with the help of the gear transmission unit 62, the cover panel 42 can be lifted up and down in a manner as though it is lifted up and down hydraulically, i.e. generation of a decelerating and torque enhancing force in a stable and controllable manner.

[0050] As shown in Fig. 5, the gear transmission unit 62 comprises a gear worm sector 621 affixed at the first end portion 411 of the pivot shaft 41 to operatively coupled with the servo motor 61 via a gear seat. In particular, the gear worm sector 621 is one of the gear elements of the gear transmission unit 62. It is worth mentioning a curvature of the gear worm sector 621 is configured corresponding to the rotational movement of the pivot shaft 41. In other words, the angular length of the gear worm sector 621 is configured to allow the cover panel 42 to move between the opened and closed positions. Therefore, the servo motor 61, the transmission gear unit 62, and the pivot shaft 41 are

directly and operatively linked with each other so as to minimize energy lost through the energy transmission.

[0051] The automatic driving arrangement further comprises a resilient element 70 concealed in the second side concealed compartment 33 of the control housing 30 and coupled at the second end portion 412 of the pivot shaft 41. In one embodiment, the resilient element 70 is a coil spring coaxially coupled at the second end portion 412 of the pivot shaft 41 to apply an urging force to the cover panel 42. Preferably, one end of the coil spring is biased against the shaft sleeve 421 and an opposed end of the coil spring is biased against the shaft housing 301 to apply the urging force to the cover panel 42. Accordingly, the urging force generated by the resilient element 70 serves as an initial force towards the cover panel 42 for initially pushing up the cover panel 41 simultaneously when the cover panel 42 is started to move from the closed position to the opened position. In other words, the resilient element 70 will help the servo motor 61 to initially lift up the cover panel 42 at the closed position. The the urging force generated by the resilient element 70 also serves as a weight supporting force for partially offsetting a weight of the cover panel 42 when the cover panel 42 is started to move from the opened position to the closed position.

[0052] It is worth mentioning that the two end portions 411, 412 of the pivot shaft 41 are extended into the side concealed compartments 32, 33 respectively and are operatively linked to the actuation unit 60 and a resilient element 70, such that the rotational movement of the pivot shaft 41 is balanced at the two ends portions 411, 412 thereof to ensure the smooth pivotal movement of the cover panel 42.

[0053] The waterproof induction container further comprises a power supply unit 80 for electrically connecting with the sensor unit 50 and the actuation unit 60 of the automatic driving arrangement, wherein the power supply unit 80 comprises a battery compartment 81 formed within the rear portion of the control housing 30 and a battery compartment cover 82 detachably coupled at a rear wall 301 of the control housing 30 to enclose the battery compartment 81.

[0054] According to the preferred embodiment of the present invention, the power supply unit 80 is adapted for receiving one or more batteries (such as disposable batteries or rechargeable batteries) which acts as energy source for operating the automatic driving arrangement. Alternatively, the power supply unit 80 may be electrically connected to an external AC power source or utilizes rechargeable batteries for providing power to the automatic driving arrangement.

[0055] As shown in Figs. 6 and 7, the battery compartment 81 is formed at the control housing 30 at a position that an opening of the battery compartment 81 is formed at the rear wall 301 of the control housing 30, wherein the batteries can be operatively received in the battery compartment 81. The battery compartment 81 is located between the first and second side concealed compartments 32, 33 and below the pivot shaft 41.

[0056] The battery compartment cover 82 is a panel detachably coupled at the rear wall 301 of the control housing 30 at the opening of the battery compartment 81 to enclose the battery compartment 81. In other words, the user is able to access the power supply unit 80, such as replacing the battery, without detaching the control housing 30 from the container body 10. In addition, since there is no access of the power supply unit 30 from the storage cavity 11, the battery compartment 81 is not communicated with the storage cavity 11 to prevent any contamination of the batteries and the battery compartment 81 by moisture, corrosive gas, and/or trash residuals from the storage cavity 11.

[0057] The operation of the present invention is as follows: when the automatic driving arrangement is turned on, the sensor 512 is activated to search for user's movement in a detection range, e.g. an area in front of the induction actuated container, and when a user actually enters the detection range and approaches the induction actuated container, the sensor 512 will generate an actuation signal to the actuation unit 60 which then activates the servo motor 61 for controllably lifting up the cover panel 42 from the closed position to the opened position, and when the user leaves the detection range, the sensor 512 will also send another actuation signal to the actuation unit 60 which then actuates the servo motor 61 for moving the cover panel 42 from the opened position back to the closed position.

[0058] It is worth mentioning that, even if the user does not leave the detection range for long, the sensor circuit board 511 is pre-programmed to activate closing of the cover panel 42 when a predetermined time lapses after the cover panel 42 has been opened. This ensures that the cover panel 42 will be closed after a predetermined time period.

5 Thus, it is important to stress that the sensor circuit board 511 can actually pre-programmed in a wide variety of ways so as to fit specific needs of individual manufacturers or users. Moreover, the cover panel 42 may also be manually operated through a plurality of control buttons provided on the control housing 30.

[0059] One skilled in the art will understand that the embodiment of the present invention as shown in the drawings and described above is exemplary only and not intended to be limiting.

10

[0060] It will thus be seen that the objects of the present invention have been fully and effectively accomplished. The embodiments have been shown and described for the purposes of illustrating the functional and structural principles of the present invention and is subject to change without departure from such principles. Therefore, this invention includes all modifications encompassed within the spirit and scope of the following claims.

15

WHAT IS CLAIMED IS:

1. A waterproof induction container, comprising:

a container body having a storage cavity and a container opening; and

an induction actuated container cover which comprises:

5 a control housing detachably coupled at said container body at said container opening thereof, wherein said control housing has first and second side concealed compartments formed at a rear portion of said control housing, and a cover opening formed between said first and second side concealed compartments to communicate with said storage cavity of said container body;

10 a cover unit which comprises a pivot shaft having first and second end portions extended into said first and second side concealed compartments respectively, and a cover panel pivotally mounted to said control housing via said pivot shaft to pivotally move between a closed position that said cover panel covers at said cover opening to enclose said storage cavity and an opened position that said cover panel exposes said
15 cover opening for communicating with said storage cavity; and

an automatic driving arrangement, which comprises:

a sensor unit mounted at said control housing for detecting a target movement of a user;

an actuation unit concealed in said first side concealed compartment of said
20 control housing in a waterproof manner to operatively link with said sensor unit and to operatively coupled to said pivot shaft, wherein said actuation unit is actuated to move said cover panel via said pivot shaft between said opened and closed positions; and

means for initially pushing up said cover panel simultaneously when said cover panel is started to move from said closed position and partially offsetting a weight of said cover panel when said cover panel is started to move from said opened position.

2. The waterproof induction container, as recited in claim 1, wherein said
5 actuation unit comprises a servo motor supported in said first side concealed compartment of said control housing and a gear transmission unit operatively coupled between said first end portion of said pivot shaft and said servo motor for transmitting a rotational power from said servo motor to said pivot shaft.

3. The waterproof induction container, as recited in claim 2, wherein said
10 gear transmission unit comprises a gear worm sector affixed at said first end portion of said pivot shaft to operatively coupled with said servo motor.

4. The waterproof induction container, as recited in claim 3, wherein said
gear transmission unit is a decelerating gear unit for controllably lifting up and dropping down said cover panel at a speed determined by gear ratios of said gear transmission unit
15 so as to move said cover panel between said opened and closed positions in a hydraulic manner.

5. The waterproof induction container, as recited in claim 1, wherein said
control housing comprises a lower base frame detachably coupled at said container opening of said container body, and an upper casing sealed and coupled at said lower
20 base frame to define said first and second side concealed compartments therebetween.

6. The waterproof induction container, as recited in claim 3, wherein said
control housing comprises a lower base frame detachably coupled at said container opening of said container body, and an upper casing sealed and coupled at said lower base frame to define said first and second side concealed compartments therebetween.

7. The waterproof induction container, as recited in claim 1, wherein said
25 control housing has a trapezoid cross section that a height of said front portion of said

control housing is shorter than that of said rear portion thereof to maximize a size of each of said first and second side concealed compartments.

8. The waterproof induction container, as recited in claim 3, wherein said control housing has a trapezoid cross section that a height of said front portion of said control housing is shorter than that of said rear portion thereof to maximize a size of each of said first and second side concealed compartments.

9. The waterproof induction container, as recited in claim 6, wherein said control housing has a trapezoid cross section that a height of said front portion of said control housing is shorter than that of said rear portion thereof to maximize a size of each of said first and second side concealed compartments.

10. The waterproof induction container, as recited in claim 1, wherein said means comprises a resilient element concealed in said second side concealed compartment of said control housing and coupled at said second end portion of said pivot shaft to apply an urging force as an initial force towards said cover panel for initially pushing up said cover panel simultaneously when said cover panel is started to move from said closed position and as a weight supporting force for partially offsetting a weight of said cover panel when said cover panel is started to move from said opened position.

11. The waterproof induction container, as recited in claim 2, wherein said means comprises a resilient element concealed in said second side concealed compartment of said control housing and coupled at said second end portion of said pivot shaft to apply an urging force as an initial force towards said cover panel for initially pushing up said cover panel simultaneously when said cover panel is started to move from said closed position and as a weight supporting force for partially offsetting a weight of said cover panel when said cover panel is started to move from said opened position.

12. The waterproof induction container, as recited in claim 5, wherein said means comprises a resilient element concealed in said second side concealed compartment of said control housing and coupled at said second end portion of said pivot shaft to apply an urging force as an initial force towards said cover panel for initially
5 pushing up said cover panel simultaneously when said cover panel is started to move from said closed position and as a weight supporting force for partially offsetting a weight of said cover panel when said cover panel is started to move from said opened position.

13. The waterproof induction container, as recited in claim 1, wherein said
10 cover panel comprises a shaft sleeve formed along a folding edge thereof, wherein an exposed portion of said pivot shaft between said two end portions thereof is received in said shaft sleeve to conceal said exposed portion of said pivot shaft so as to prevent said pivot shaft from exposing to said container opening of said container body.

14. The waterproof induction container, as recited in claim 10, wherein said
15 cover panel comprises a shaft sleeve formed along a folding edge thereof, wherein an exposed portion of said pivot shaft between said two end portions thereof is received in said shaft sleeve to conceal said exposed portion of said pivot shaft so as to prevent said pivot shaft from exposing to said container opening of said container body.

15. The waterproof induction container, as recited in claim 11, wherein said
20 cover panel comprises a shaft sleeve formed along a folding edge thereof, wherein an exposed portion of said pivot shaft between said two end portions thereof is received in said shaft sleeve to conceal said exposed portion of said pivot shaft so as to prevent said pivot shaft from exposing to said container opening of said container body.

16. The waterproof induction container, as recited in claim 13, wherein said
25 exposed portion of said pivot shaft has a non-circular cross section and said shaft sleeve has a corresponding non-circular cross section to fit said exposed portion of said pivot shaft, such that said cover panel is pivotally moved between said opened and closed positions along with a rotation of said pivot shaft.

17. The waterproof induction container, as recited in claim 14, wherein said exposed portion of said pivot shaft has a non-circular cross section and said shaft sleeve has a corresponding non-circular cross section to fit said exposed portion of said pivot shaft, such that said cover panel is pivotally moved between said opened and closed positions along with a rotation of said pivot shaft.

18. The waterproof induction container, as recited in claim 15, wherein said exposed portion of said pivot shaft has a non-circular cross section and said shaft sleeve has a corresponding non-circular cross section to fit said exposed portion of said pivot shaft, such that said cover panel is pivotally moved between said opened and closed positions along with a rotation of said pivot shaft.

19. The waterproof induction container, as recited in claim 1, further comprising a power supply unit for electrically connecting with said automatic driving arrangement, wherein said power supply unit comprises a battery compartment formed within said rear portion of said control housing and a battery compartment cover detachably coupled at a rear wall of said control housing to enclose said battery compartment.

20. The waterproof induction container, as recited in claim 3, further comprising a power supply unit for electrically connecting with said automatic driving arrangement, wherein said power supply unit comprises a battery compartment formed within said rear portion of said control housing and a battery compartment cover detachably coupled at a rear wall of said control housing to enclose said battery compartment.

21. The waterproof induction container, as recited in claim 10, further comprising a power supply unit for electrically connecting with said automatic driving arrangement, wherein said power supply unit comprises a battery compartment formed within said rear portion of said control housing and a battery compartment cover detachably coupled at a rear wall of said control housing to enclose said battery compartment.

22. The induction actuated container cover, as recited in claim 1, wherein said control housing has a front concealed compartment defining a slanted front wall, wherein said sensor unit comprises sensor circuit board concealed in said front concealed compartment and a sensor supported at said slanted front wall of said control housing to
5 operatively linked to said sensor circuit board, such that said sensor is located in front of said cover panel to maximize said detecting range of said sensor at said approaching direction for detecting said target movement.

23. The induction actuated container cover, as recited in claim 2, wherein said control housing has a front concealed compartment defining a slanted front wall, wherein
10 said sensor unit comprises sensor circuit board concealed in said front concealed compartment and a sensor supported at said slanted front wall of said control housing to operatively linked to said sensor circuit board, such that said sensor is located in front of said cover panel to maximize said detecting range of said sensor at said approaching direction for detecting said target movement.

15 24. The induction actuated container cover, as recited in claim 5, wherein said control housing has a front concealed compartment defining a slanted front wall, wherein said sensor unit comprises sensor circuit board concealed in said front concealed compartment and a sensor supported at said slanted front wall of said control housing to operatively linked to said sensor circuit board, such that said sensor is located in front of
20 said cover panel to maximize said detecting range of said sensor at said approaching direction for detecting said target movement.

Waterproof Induction Actuated Container

ABSTRACT OF THE DISCLOSURE

A waterproof induction container includes a container body and an induction actuated container cover. The container body includes a storage cavity and a container opening. The induction actuated container cover includes a control housing, a cover panel, and an automatic driving arrangement. The control housing has a side concealed compartment and a cover opening. The cover panel is pivotally mounted to the control housing to pivotally move between a closed position and an opened position. The automatic driving arrangement is concealed in the side concealed compartment of the control housing in a waterproof manner to prevent any contamination of the automatic driving arrangement by moisture, corrosive gas, and trash residuals.

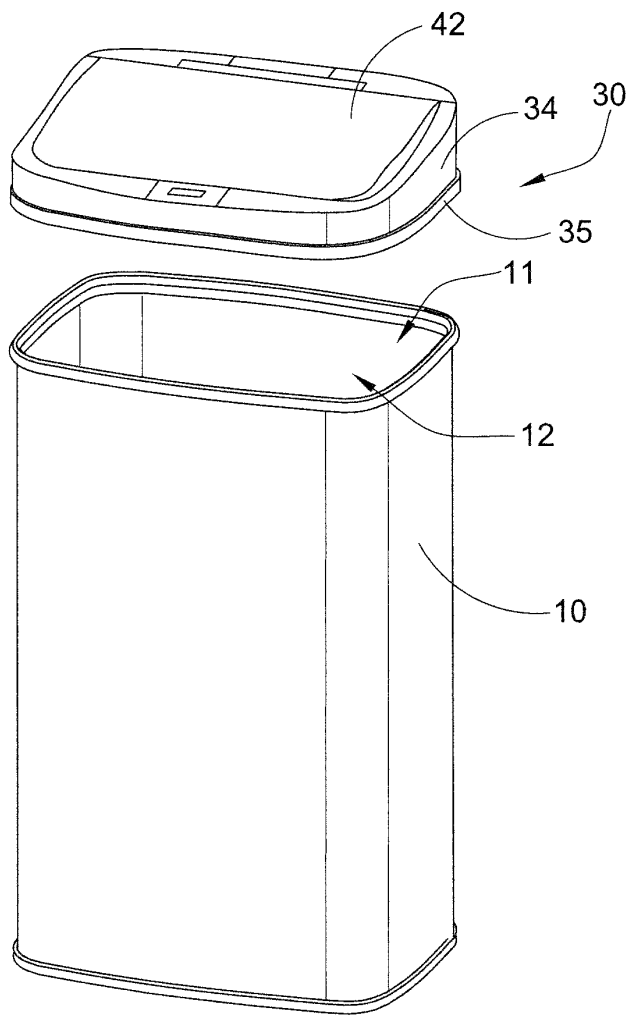


FIG.1

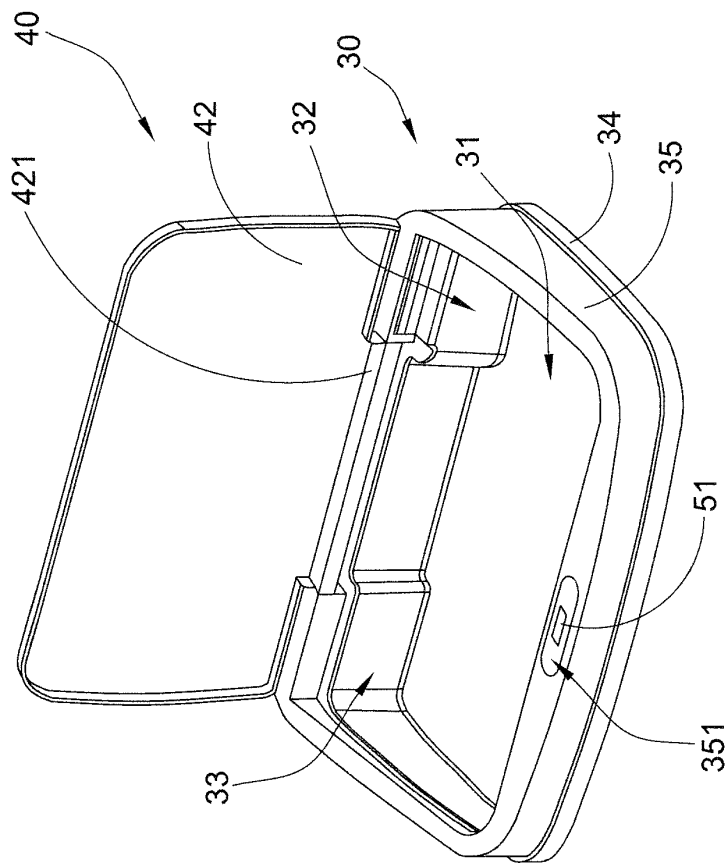


FIG.2

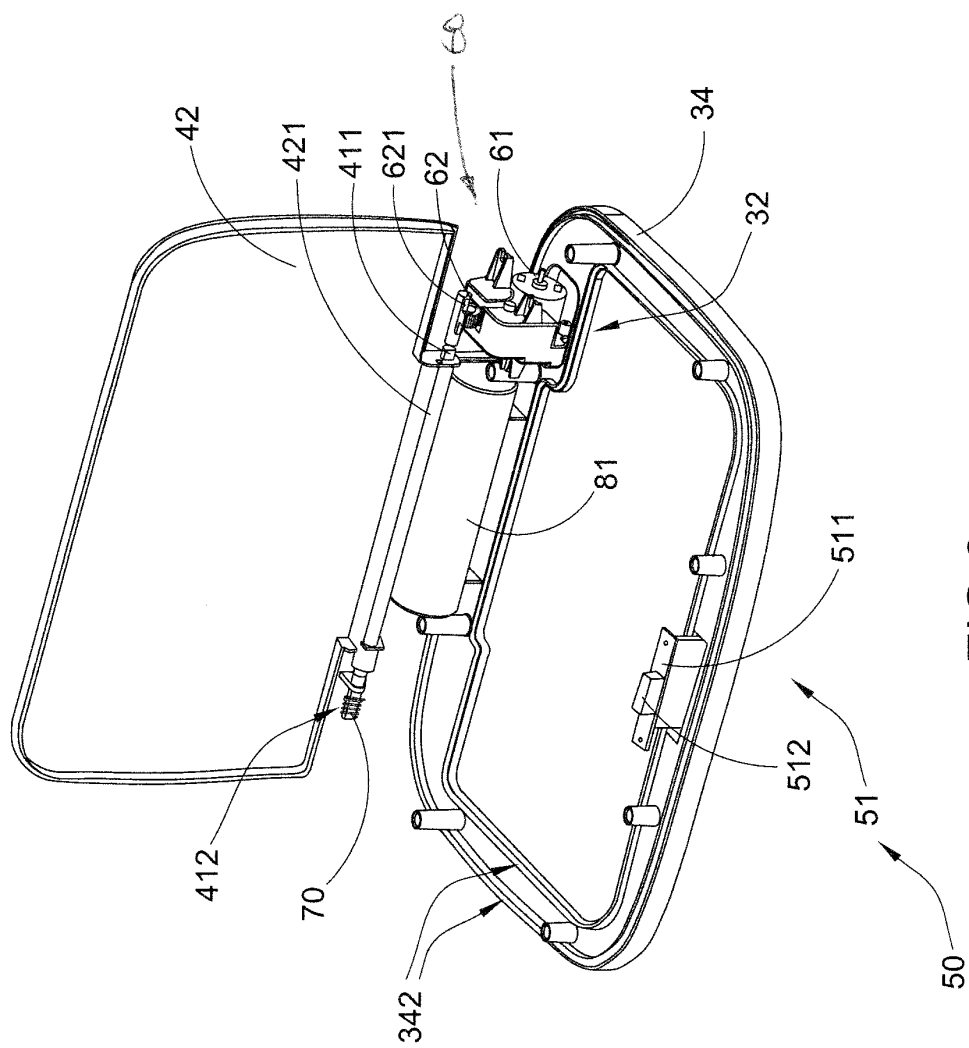


FIG.3

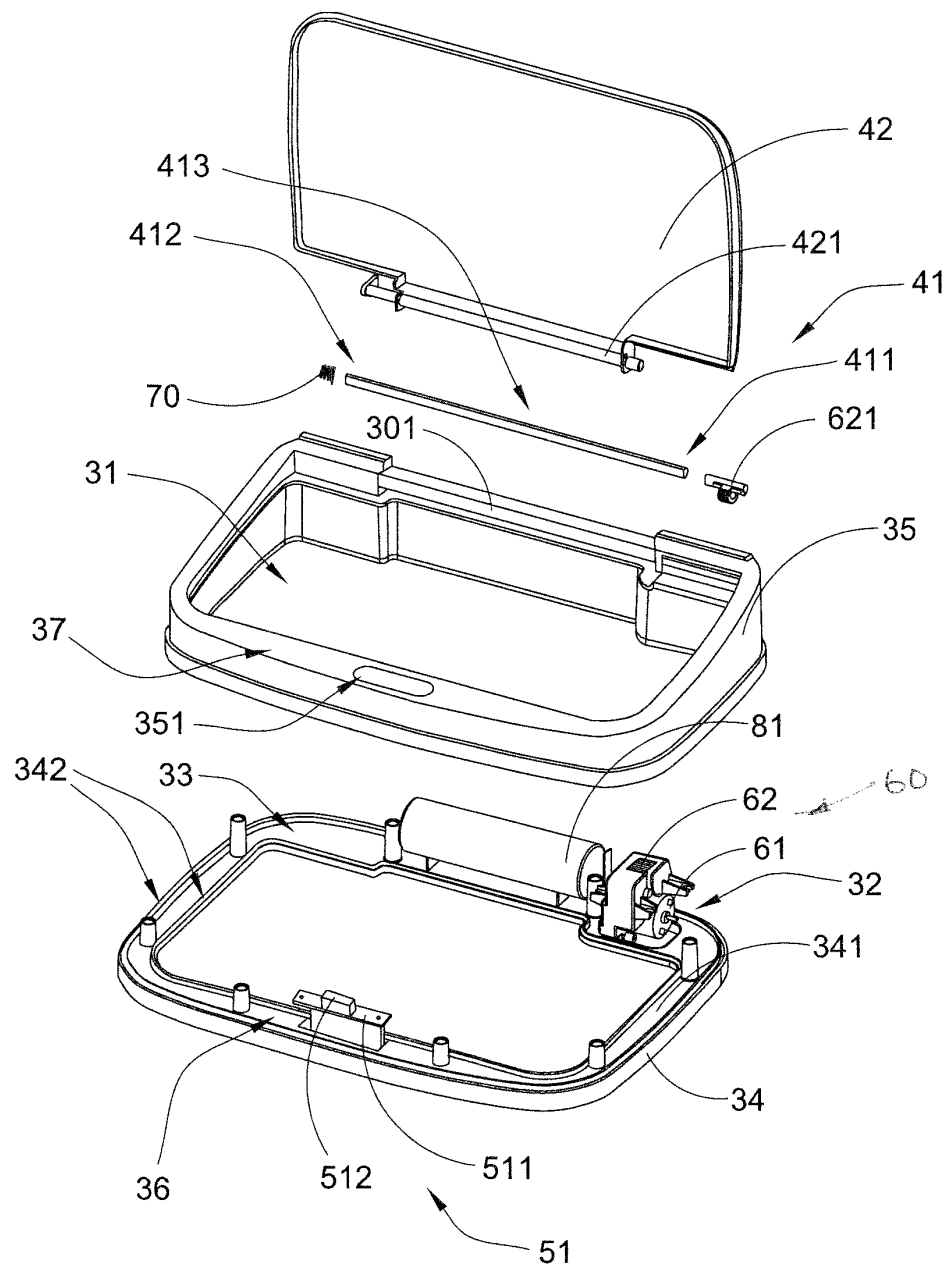
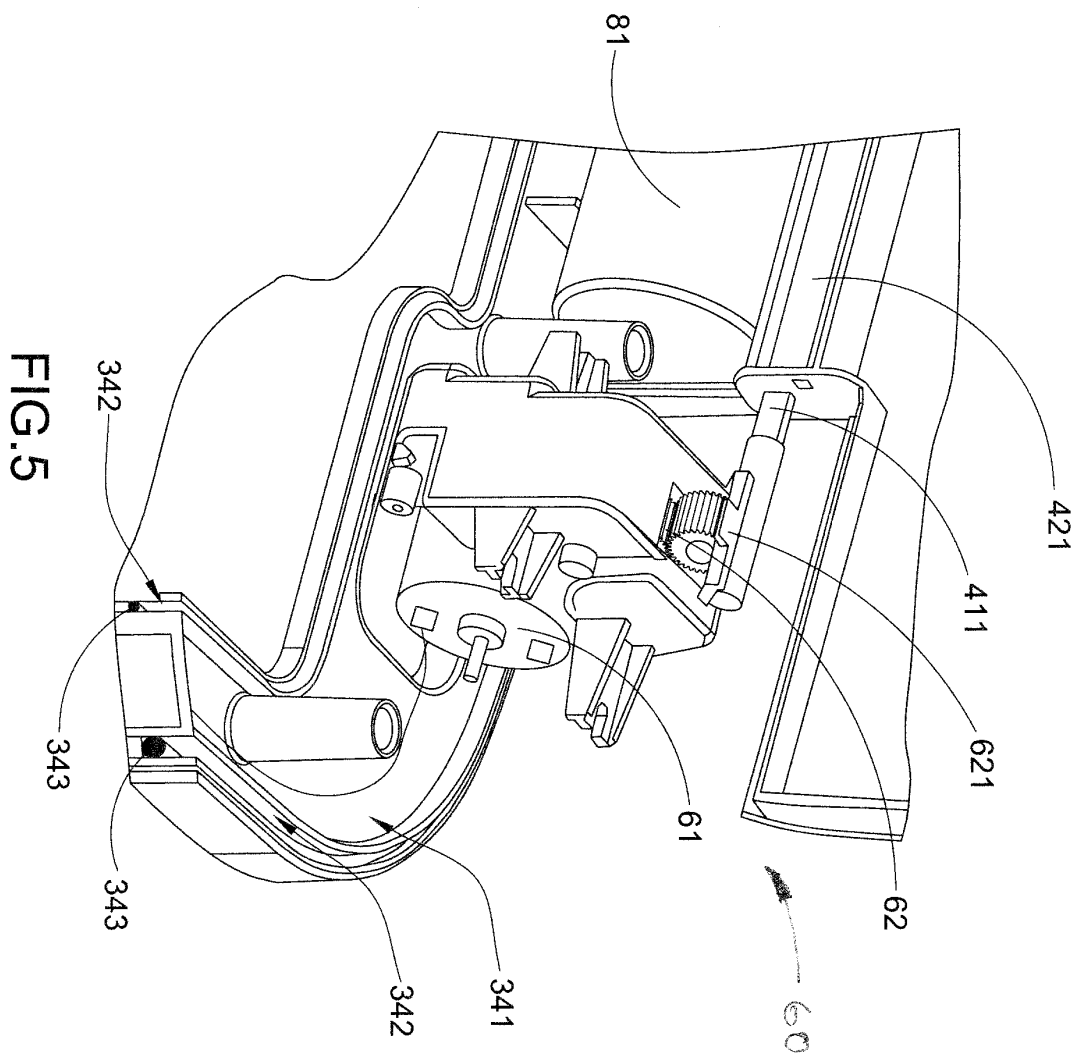


FIG.4



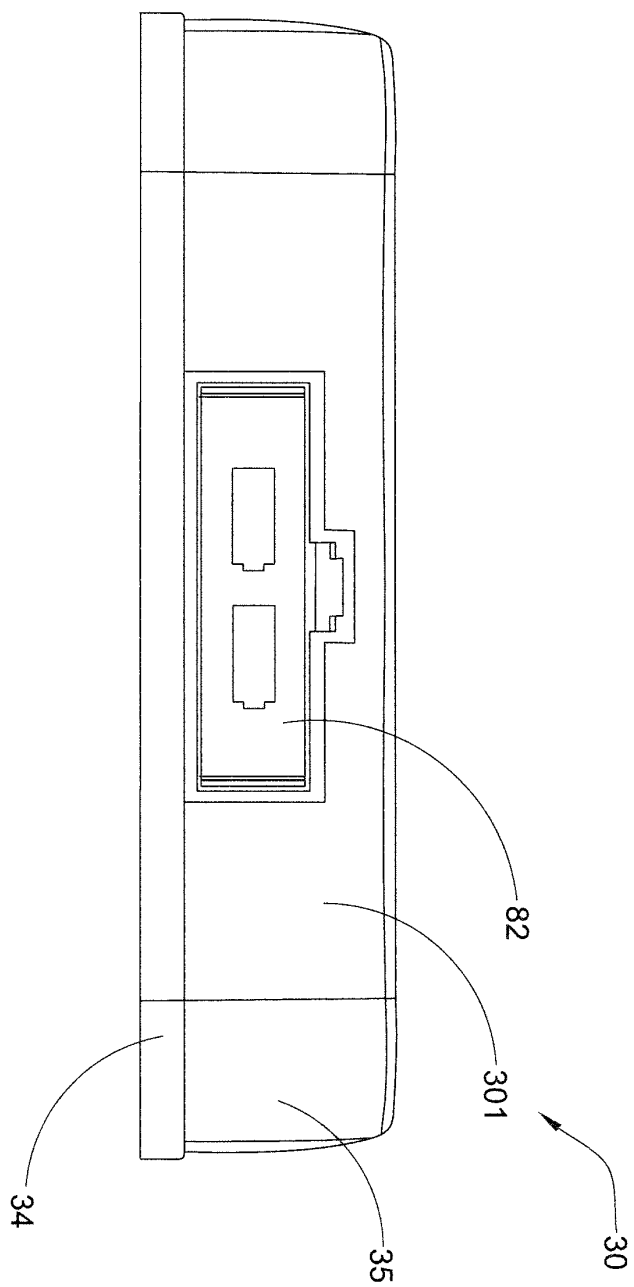


FIG. 6

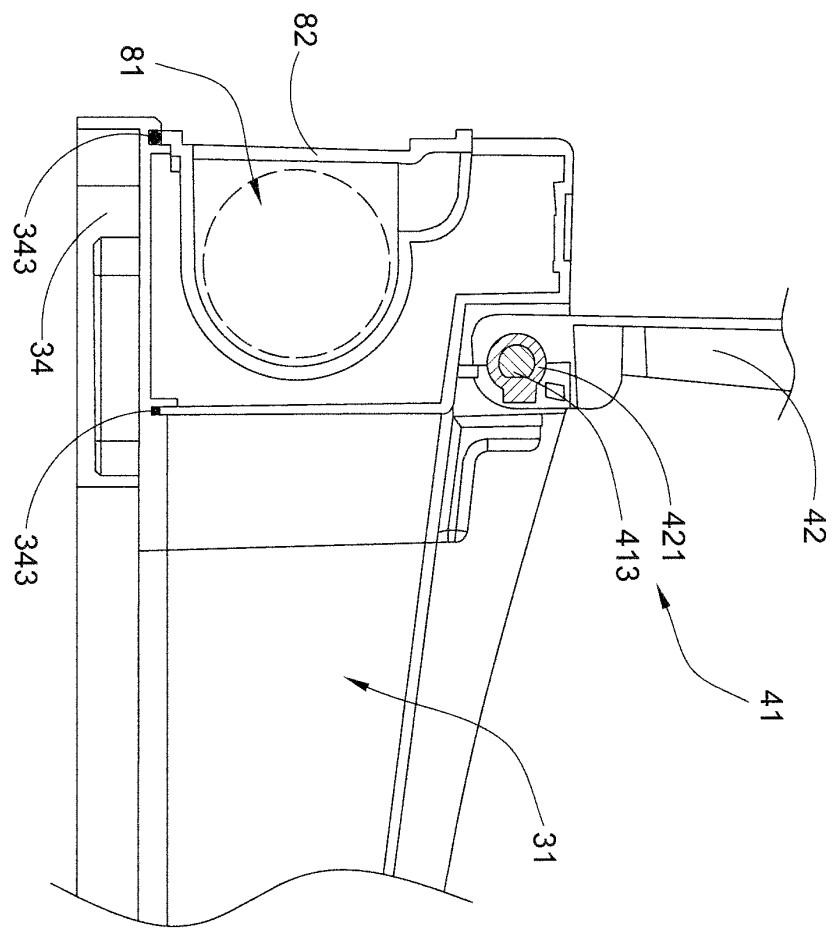


FIG. 7

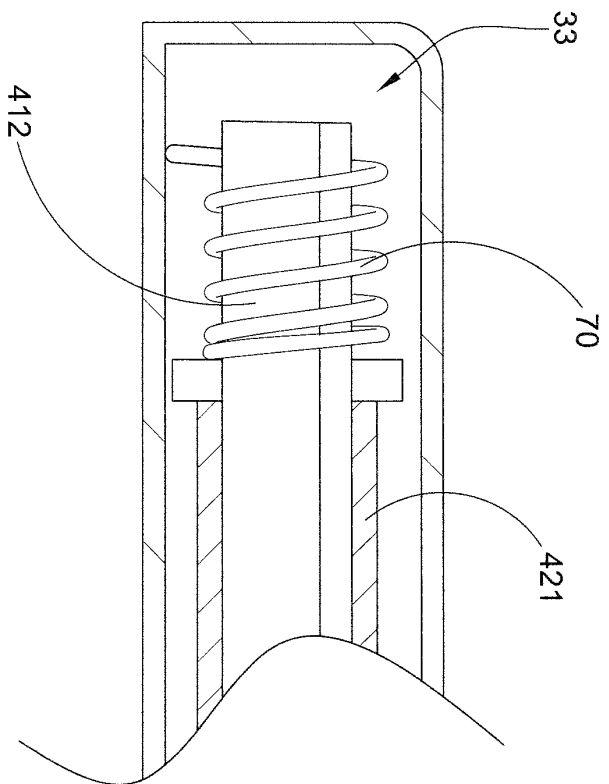


FIG. 8

Electronic Patent Application Fee Transmittal				
Application Number:				
Filing Date:				
Title of Invention:		Waterproof Induction Actuated Container		
First Named Inventor/Applicant Name:		Xin WANG		
Filer:		Raymond Yat Chan/Michael Lee		
Attorney Docket Number:		USCP10338A-NSG		
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:				
CLAIMS IN EXCESS OF 20	2202	4	50	200
Miscellaneous-Filing:				
Petition:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				985

Electronic Acknowledgement Receipt	
EFS ID:	31653562
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International Application Number:	
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First Named Inventor/Applicant Name:	Xin WANG
Customer Number:	30265
Filer:	Raymond Yat Chan/Michael Lee
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Attorney Docket Number:	USCP10338A-NSG
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Application Type:	Utility under 35 USC 111(a)

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RAM confirmation Number	013118INTEFSW22440700
Deposit Account	
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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	USCP10338ADS.pdf	1503116	no	7
			40468c62caa533dc5335748a7422432b343c6ca1		
Warnings:					
Information:					
2	Oath or Declaration filed	USCP10338declaration.pdf	182787	no	1
			73f06f5681cdf33ca69eea2bcb7874f4787a1de9		
Warnings:					
Information:					
3	Specification	USCP10338specification.pdf	107579	no	15
			6f92a9eb36809f82aafbdcacff4f25df38e8b0786		
Warnings:					
Information:					
4	Claims	USCP10338claims.pdf	62581	no	6
			c729146556dd9ef1cc5d0d5ce60c33f596a7c515		
Warnings:					
Information:					
5	Abstract	USCP10338abstract.pdf	47458	no	1
			6a5d0d690da1011b22656d9f9d419b5eec75e68f		
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6	Drawings-only black and white line drawings	USCP10338drawings.pdf	955276	no	8
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Information:					

7	Fee Worksheet (SB06)	fee-info.pdf	36648	no	2
			41579b31bcb1a499656b397d132fc5190e27f421		
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Total Files Size (in bytes):			2895445		
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FILING RECEIPT



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DAVID AND RAYMOND PATENT FIRM
108 N. YNEZ AVE., SUITE 128
MONTEREY PARK, CA 91754

Date Mailed: 03/09/2018

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

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Applicant(s)

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Power of Attorney:

Raymond Chan--37484

Domestic Priority data as claimed by applicant

This application is a CON of 15/271,211 09/20/2016

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.

Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access Application via Priority Document Exchange: No

Permission to Access Search Results: No

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 03/09/2018

page 1 of 3

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 15/884,342**

Projected Publication Date: 06/21/2018

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

Waterproof Induction Actuated Container

Preliminary Class

318

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

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15

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The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

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NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875						Application or Docket Number 15/884,342				
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), (j), 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(i))	24	minus 20 = *	4	x 50 =	200					
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					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	985	TOTAL				
APPLICATION AS AMENDED - PART II										
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY		OTHER THAN 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	=		x	=
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x	=		x	=
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))									
TOTAL ADD'L FEE								TOTAL ADD'L FEE		
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	=		x	=
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x	=		x	=
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))									
TOTAL ADD'L FEE								TOTAL ADD'L FEE		
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** 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 found in the appropriate box in column 1.										



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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/884,342	01/30/2018	Xin WANG	USCP10338A-NSG

CONFIRMATION NO. 8223

30265

DAVID AND RAYMOND PATENT FIRM
108 N. YNEZ AVE., SUITE 128
MONTEREY PARK, CA 91754

PUBLICATION NOTICE



OC000000100455840

Title:Waterproof Induction Actuated Container

Publication No.US-2018-0170669-A1

Publication Date:06/21/2018

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.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently <https://portal.uspto.gov/pair/PublicPair>. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

Attorney's
Docket No.: USCP10338A-NSG

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor: Xin Wang

Filing Date: 01/30/2018

Application Number: 15/884,342

Examiner: _____

Art Unit: 2837

Title Waterproof Induction Actuated Container

To: The Commissioner for Patents
Alexandria, VA 22313-1450

POWER OF ATTORNEY BY INVENTOR

As a named applicant/inventor of the entire interest of the above identified application/ patent, I hereby appoint the following attorney(s) and/or agent(s) to prosecute the application/patent identified above, and to transact all business in the Patent and trademark Office connected therewith:

Raymond Y. Chan, Reg. No. 37,484

Please Send Correspondence to:

Raymond Y. Chan
108 North Ynez Avenue
Suite 128
Monterey Park, CA 91754

Please Direct Telephone Calls to:

Raymond Y. Chan
(626) 571-9812

NAME OF INVENTOR: Xin Wang ; Jiangqun Chen

ADDRESS: No. 16, Xinchengxi Road, Qingkou Town, Minhou Country, Fuzhou, China

SIGNATURE

DATE

6/30/2018

Attorney's
Docket No.: USCP10338A-NSG

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor: Xin Wang

Filing Date: 01/30/2018

Application Number: 15/884,342

Examiner: _____

Art Unit: 2837

Title Waterproof Induction Actuated Container

To: The Commissioner for Patents
Alexandria, VA 22313-1450

POWER OF ATTORNEY BY ASSIGNEE

As a named assignee of the entire interest of the above identified application/ patent, I hereby appoint the following attorney(s) and/or agent(s) to prosecute the application/patent identified above, and to transact all business in the Patent and trademark Office connected therewith:

Raymond Y. Chan, Reg. No. 37,484

Please Send Correspondence to:

Raymond Y. Chan
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Please Direct Telephone Calls to:

Raymond Y. Chan
(626) 571-9812

NAME: Xin Wang

ADDRESS: 1929 Mount Vernon Ave., Pomona, CA 91768 USA

TITLE AND COMPANY: Chief Executive Officer, Nine Stars Group (U.S.A.) Inc.

SIGNATURE

DATE

Electronic Acknowledgement Receipt	
EFS ID:	33474235
Application Number:	15884342
International Application Number:	
Confirmation Number:	8223
Title of Invention:	Waterproof Induction Actuated Container
First Named Inventor/Applicant Name:	Xin WANG
Customer Number:	30265
Filer:	Raymond Yat Chan/Michael Lee
Filer Authorized By:	Raymond Yat Chan
Attorney Docket Number:	USCP10338A-NSG
Receipt Date:	21-AUG-2018
Filing Date:	30-JAN-2018
Time Stamp:	05:02:37
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	Power of Attorney	USCP10338POAinventor.pdf	465021	no	1
			5d2417e06f35f744cda9f92847d84f19366ff4ef		

Warnings:

Information:					
2	Power of Attorney	USCP10338POAassignee.pdf	465110	no	1
			3853c7c3c54bb7238ab7311c3b449223370941d2		
Warnings:					
Information:					
Total Files Size (in bytes):			930131		
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 NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/884,342	01/30/2018	Xin WANG	USCP10338A-NSG

CONFIRMATION NO. 8223

POA ACCEPTANCE LETTER

Raymond Y. Chan
Suite 128
108 North Ynez Avenue
Monterey Park, CA 91754



OC000000101749414

Date Mailed: 08/22/2018

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 08/21/2018.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

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.

/yterferra/



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/884,342	01/30/2018	Xin WANG	USCP10338A-NSG	8223
7590 Raymond Y. Chan Suite 128 108 North Ynez Avenue Monterey Park, CA 91754			EXAMINER DHAKAL, BICKEY	
			ART UNIT 2837	PAPER NUMBER
			MAIL DATE 12/20/2019	DELIVERY MODE PAPER

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 Pre-AIA or AIA Status

The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

DETAILED ACTION

Examiner Notes

Examiner cites particular columns and line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that, in preparing responses, the applicant fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Claim Interpretation

The following is a quotation of 35 U.S.C. 112(f):

(f) Element in Claim for a Combination. – An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

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

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

The claims in this application are given their broadest reasonable interpretation using the plain meaning of the claim language in light of the specification as it would be

understood by one of ordinary skill in the art. The broadest reasonable interpretation of a claim element (also commonly referred to as a claim limitation) is limited by the description in the specification when 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, is invoked.

As explained in MPEP § 2181, subsection I, claim limitations that meet the following three-prong test will be interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph:

- (A) the claim limitation uses the term “means” or “step” or a term used as a substitute for “means” that is a generic placeholder (also called a nonce term or a non-structural term having no specific structural meaning) for performing the claimed function;
- (B) the term “means” or “step” or the generic placeholder is modified by functional language, typically, but not always linked by the transition word “for” (e.g., “means for”) or another linking word or phrase, such as “configured to” or “so that”; and
- (C) the term “means” or “step” or the generic placeholder is not modified by sufficient structure, material, or acts for performing the claimed function.

Use of the word “means” (or “step”) in a claim with functional language creates a rebuttable presumption that the claim limitation is to be treated in accordance with 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph. The presumption that the claim limitation is interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, is rebutted when the claim limitation recites sufficient structure, material, or acts to entirely perform the recited function.

Absence of the word “means” (or “step”) in a claim creates a rebuttable presumption that the claim limitation is not to be treated in accordance with 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph. The presumption that the claim limitation is not interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, is rebutted when the claim limitation recites function without reciting sufficient structure, material or acts to entirely perform the recited function.

Claim limitations in this application that use the word “means” (or “step”) are being interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, except as otherwise indicated in an Office action. Conversely, claim limitations in this application that do not use the word “means” (or “step”) are not being interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, except as otherwise indicated in an Office action.

Because this/these claim limitation(s) **“means for initially pushing up”** in **claim 1** is/are being interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, it/they is/are being interpreted to cover the corresponding structure described in the specification as performing the claimed function, and equivalents thereof.

If applicant does not intend to have this/these limitation(s) interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, applicant may: (1) amend the claim limitation(s) to avoid it/them being interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph (e.g., by reciting sufficient structure to perform the claimed function); or (2) present a sufficient showing that the claim limitation(s) recite(s)

sufficient structure to perform the claimed function so as to avoid it/them being interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph.

Double Patenting

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 claims at issue 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); and *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 a nonstatutory double patenting ground provided the reference application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The USPTO internet Web site contains terminal disclaimer forms which may be used. Please visit <http://www.uspto.gov/forms/>. The filing date of the application will determine what form 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 <http://www.uspto.gov/patents/process/file/efs/guidance/eTD-info-I.jsp>.

Claims 1-24 are rejected on the ground of nonstatutory double patenting as being unpatentable over **claims 1-10** of U.S. Patent No. 10077154. It is clear that all the elements of the application **claims 1-24** are found in patented **claims 1-10**. The only difference between pending claims **1-24** and patented **claims 1-10** lie in the fact that the already patented claims include many more elements and is thus much more specific (narrow) than the pending claims. Thus the invention of patented **claims 1-10** is in effect a “species” of the “generic” invention of pending **claims 1-24**. It has been held that the generic invention is “anticipated” by the “species”. See *In re Goodman*, 29 USPQ2d 2010 (Fed. Cir. 1993). Since pending **claims 1-24** are anticipated by patented **claims 1-10**, they are not patentably distinct from the patented claims.

Claim Rejections - 35 USC § 103

In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of

rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 5 are rejected under 35 U.S.C. 103 as being unpatentable over Yang et al. US Pub. no. 2015/0259140 A1 in a view of Miyake et al. US Patent no. 7,338,635 B2.

Regarding claim 1, Yang discloses

A waterproof induction container (See Fig. 5, item 20), comprising:

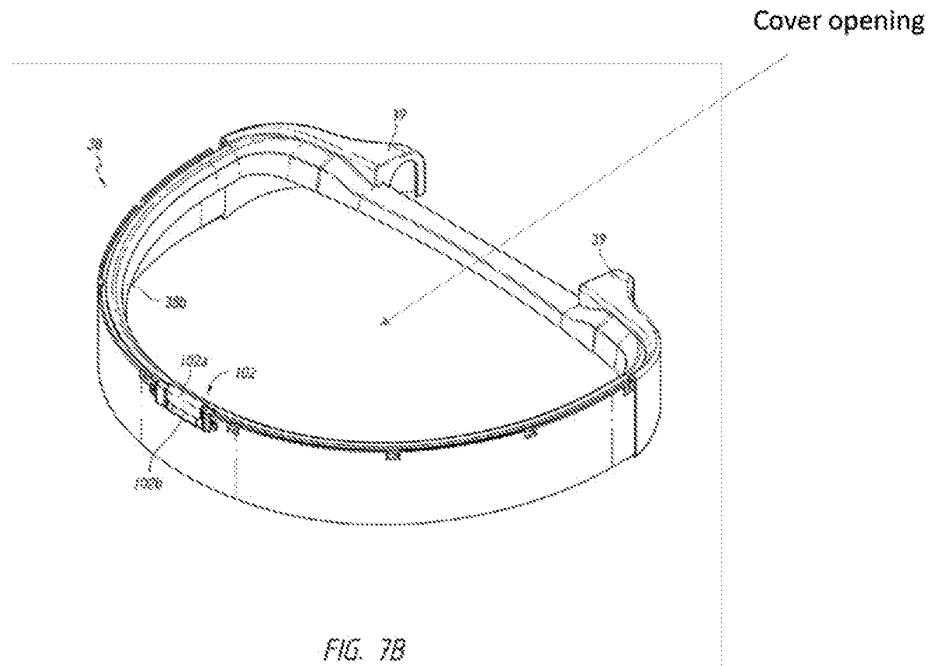
a container body (Item 22) having a storage cavity (See Fig. 5) and a container opening (Item 26); and

an induction actuated container cover (Items 24 and 38) which comprises:

a control housing (Item 38) detachably coupled at said container body at said container opening thereof, wherein said control housing has first and second side concealed compartments (Items 39) formed at a rear portion of said control housing, and a cover opening (**See Fig. below**) formed between said first and second side concealed compartments to communicate with said storage cavity of said container body (**See Fig. below**) (**See page 4, para 0052-0054**);

a cover unit (Item 56) which comprises a pivot shaft (Item 80) having first and second end portions extended into said first and second side concealed compartments respectively (See Fig. 11A and 11B), and a cover panel (Item 24) pivotally mounted to said control housing via said pivot shaft to pivotally move between a closed position that said cover panel covers at said cover opening to enclose said storage cavity and an opened position that said cover panel exposes said cover opening for communicating with said storage cavity (See page 10, para 0092 and 0093); and
an automatic driving arrangement (Item 70), which comprises:
a sensor unit (Item 102) mounted at said control housing for detecting a target movement of a user (See pages 4 and 5, para 0056 and para 0057); and

an actuation unit (Item 78) concealed in said first side concealed compartment of said control housing in a waterproof manner (Fig. 11A shows item 78 concealed in said first side of item 38 in a waterproof manner inherently) to operatively link with said sensor unit and to operatively coupled to said pivot shaft, wherein said actuation unit is actuated to move said cover panel via said pivot shaft between said opened and closed positions. (See page 3, para 0041, page 11, para 0101)



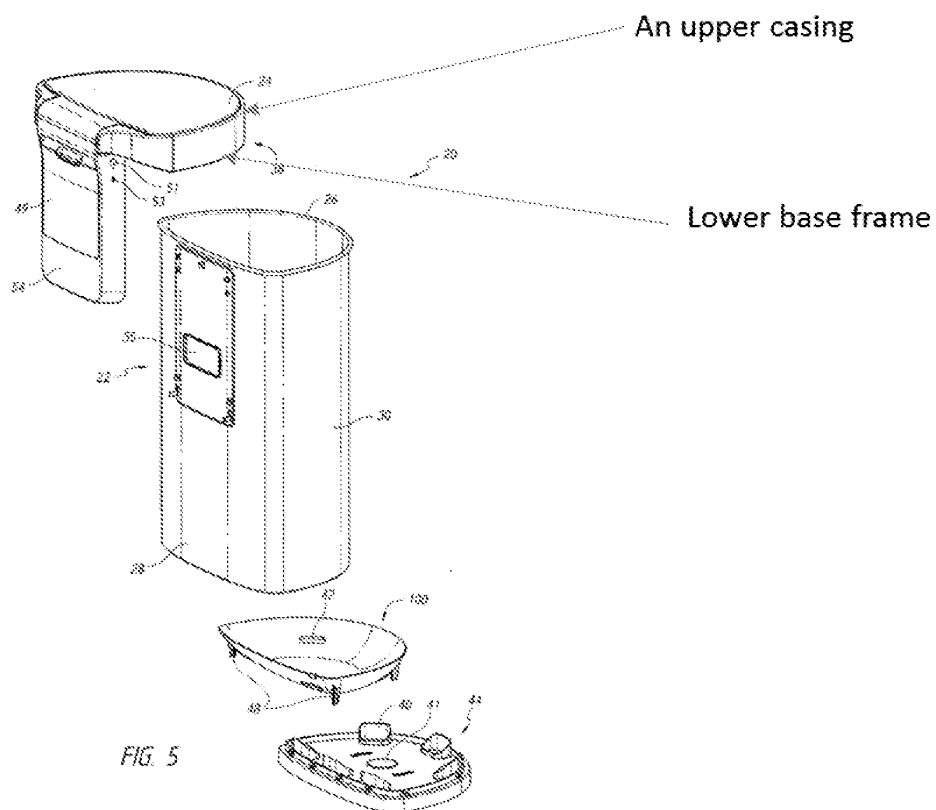
Yang is silent about “means for initially pushing up said cover panel simultaneously when said cover panel is started to move from said closed position and partially offsetting a weight of said cover panel when said cover panel is started to move from said opened position.”

Regarding claim 1, Miyake discloses means for (Items 15d and 16) initially pushing up said cover panel (Item 3) simultaneously when said cover panel is started to move from said closed position and partially offsetting a weight of said cover panel when said cover panel is started to move from said opened position. (See column 10, lines 11-67, column 11, lines 1-12. Also see Figs 9A-9D)

It would have been obvious to one having ordinary skill in the art before the effective filing date of the claimed invention to use a spring cam to push up the cover panel and partially offsetting a weight of the cover panel as taught by Miyake's in Yang's teaching to automatically open and close the cover by properly adjusting the balance between the individual forces. (See Miyake's column 11, lines 4-12)

Regarding claim 5, Yang discloses

wherein said control housing comprises a lower base frame detachably coupled at said container opening of said container body, and an upper casing sealed and coupled at said lower base frame to define said first and second side concealed compartments therebetween. **(See Fig. below)**



Claims 2-4, 6, 19, and 20 are rejected under 35 U.S.C. 103 as being unpatentable over Yang et al. US Pub. no. 2015/0259140 A1 in a view of Miyake et al. US Patent no. 7,338,635 B2 and further in a view of Wang et al. US Patent no. 8,678,219 B1.

Regarding claim 2, Yang discloses

, wherein said actuation unit comprises a servo motor (Item 78) supported in said first side concealed compartment of said control housing (See Figs. 11A and 11B where item 78 supported within item 38. See page 10, para 0092).

Yang and Miyake does not explicitly disclose “and a gear transmission unit operatively coupled between said first end portion of said pivot shaft and said servo motor for transmitting a rotational power from said servo motor to said pivot shaft.”

Regarding claim 2, Wang discloses and a gear transmission unit (See Fig. 5, item 52) operatively coupled between said first end portion of said pivot shaft (Item 201) and said servo motor for transmitting a rotational power from said servo motor to said pivot shaft. (See column 8, lines 9-42)

It would have been obvious to one having ordinary skilled in the art before the effective filing date of the claimed invention to use a gear transmission unit disclosed by Wang's in Yang's teachings for controllably lifting up and dropping down the lid panel at a speed determined by gear ratios of the gear transmission unit so as to move the lid panel between the opened and closed positions in a hydraulic manner. (See Wang's column 8, lines 1-8)

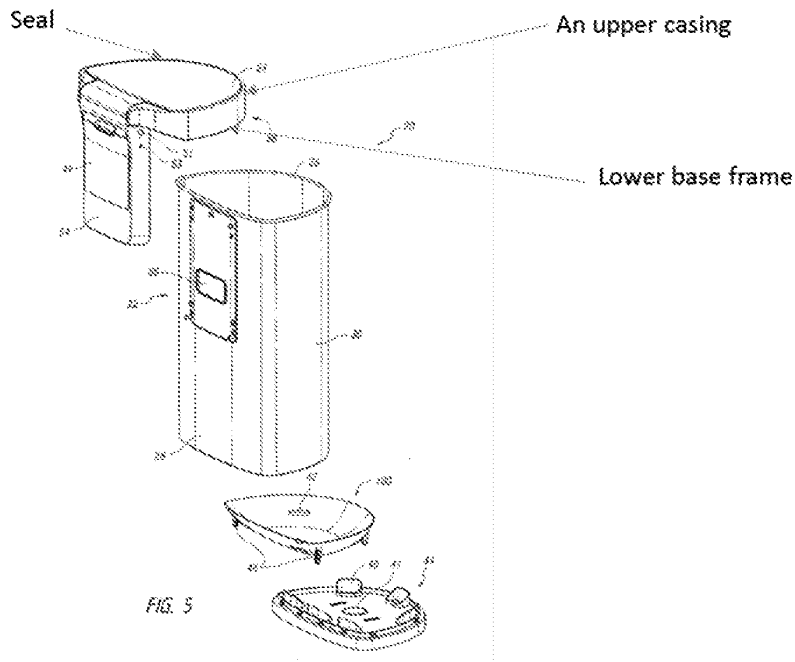
Regarding claim 3, a combination of Yang, Miyake and Wang discloses wherein said gear transmission unit comprises a gear worm sector (See Fig. 5, item 521) affixed at said first end portion of said pivot shaft (Fig. 5 shows item 521 coupled to end portion of

item 21) to operatively coupled with said servo motor. (See Wang's column 8, lines 25-42)

Regarding claim 4, a combination of Yang, Miyake and Wang discloses, wherein said gear transmission unit is a decelerating gear unit for controllably lifting up and dropping down said cover panel at a speed determined by gear ratios of said gear transmission unit

so as to move said cover panel between said opened and closed positions in a hydraulic manner. (See Wang's column 8, lines 1-8, lines 25-33)

Regarding claim 6, a combination of Yang, Miyake and Wang discloses, wherein said control housing comprises a lower base frame (**See Fig. below**) detachably coupled at said container opening (Item 26) of said container body, and an upper casing sealed (**See Fig. below**) and coupled at said lower base frame to define said first and second side concealed compartments (Fig. 7B shows compartments (Items 39)) therebetween.



Regarding claims 19 and 20, Yang is silent about “a power supply unit for electrically connecting with said automatic driving arrangement, wherein said power supply unit comprises a battery compartment formed within said rear portion of said control housing and a battery compartment cover detachably coupled at a rear wall of said control housing to enclose said battery compartment.”

Regarding claims 19 and 20, Wang discloses a power supply unit (Item 60) for electrically connecting with said automatic driving arrangement (Item 51), wherein said power supply unit comprises a battery compartment formed within said rear portion of said control housing and a battery compartment cover (Item 15) detachably coupled at a rear wall of said control housing to enclose said battery compartment (See Figs. 3 and 4 for detail). (See column 9, lines 50-67, column 10, lines 1-12)

It would have been obvious to one having ordinary skill in the art before the effective filing date of the claimed invention to use a power supply unit along with a battery compartment and a battery compartment cover disclosed by Wang in Yang's teachings to automatically operate the lid panel. (See Wang's column 7, lines 12-20)

Claim 7 is rejected under 35 U.S.C. 103 as being unpatentable over Yang et al. US Pub. no. 2015/0259140 A1 in a view of Miyake et al. US Patent no. 7,338,635 B2 and further in a view of Wang et al. US Patent no. 8,129,930 B2.

Regarding claim 7, Yang is silent about "wherein said control housing has a trapezoid cross section that a height of said front portion of said control housing is shorter than that of said rear portion thereof to maximize a size of each of said first and second side concealed compartments."

Regarding claim 7, Wang discloses wherein said control housing (Item 214) has a trapezoid cross section that a height of said front portion of said control housing is shorter than that of said rear portion thereof to maximize a size of each of said first and second side concealed compartments (Item 2142). (See column 5, lines 45-52)

It would have been obvious to one having ordinary skill in the art before the effective filing date of the claimed invention to use a trapezoid cross section disclosed by Wang's

in Yang's teachings to maximize an opening area of the cover opening. (See Wang's column 5, lines 45-52)

Claims 8 and 9 are rejected under 35 U.S.C. 103 as being unpatentable over Yang et al. US Pub. no. 2015/0259140 A1 in a view of Miyake et al. US Patent no. 7,338,635 B2 further in a view of Wang et al. US Patent no. 8,678,219 B1 and further in a view of Wang et al. US Patent no. 8,129,930 B2 .

Regarding claims 8 and 9, Yang is silent about “wherein said control housing has a trapezoid cross section that a height of said front portion of said control housing is shorter than that of said rear portion thereof to maximize a size of each of said first and second side concealed compartments.”

Regarding claims 8 and 9, Wang discloses wherein said control housing (Item 214) has a trapezoid cross section that a height of said front portion of said control housing is shorter than that of said rear portion thereof to maximize a size of each of said first and second side concealed compartments (Item 2142). (See column 5, lines 45-52)

It would have been obvious to one having ordinary skilled in the art before the effective filing date of the claimed invention to use a trapezoid cross section disclosed by Wang's in Yang's teachings to maximize an opening area of the cover opening. (See Wang's column 5, lines 45-52)

Claims 13, and 16 are rejected under 35 U.S.C. 103 as being unpatentable over Yang et al. US Pub. no. 2015/0259140 A1 in a view of Miyake et al. US Patent no. 7,338,635 B2 and further in a view of Yang et al. US Pub. no. 2017/0096299 A1.

Regarding claim 13, Yang is silent about, wherein said cover panel comprises a shaft sleeve formed along a folding edge thereof, wherein an exposed portion of said pivot shaft between said two end portions thereof is received in said shaft sleeve to conceal said exposed portion of said pivot shaft so as to prevent said pivot shaft from exposing to said container opening of said container body.”

Regarding claim 13, Yang discloses wherein said cover panel (Item 24) comprises a shaft sleeve (See Fig. 11A, item 64. Here covering is treated as a shaft sleeve) formed along a folding edge thereof, wherein an exposed portion of said pivot shaft (Item 80) between said two end portions (See Fig. 11A) thereof is received in said shaft sleeve to conceal said exposed portion of said pivot shaft so as to prevent said pivot shaft from exposing to said container opening (Item 26) of said container body (Item 22) (See page 14, para 0130).

It would have been obvious to one having ordinary skilled in the art before the effective filing date of the claimed invention to use a shaft sleeve disclosed by Yang's in Yang's teachings to protect the driving mechanism.

Regarding claim 16, a combination of Yang and Yang discloses, wherein said exposed portion of said pivot shaft has a non-circular cross section and said shaft sleeve has a corresponding **non-circular cross section** to fit said exposed portion of said pivot shaft, such that said cover panel is pivotally moved between said opened and closed positions along with a rotation of said pivot shaft is driven to rotate,. (See Yang's 2017, page 14, para 0130. Yang does not explicitly say "non-circular cross section". Applicant has not disclosed that having non-circular cross section solves any stated problem or is for any particular purpose. Moreover, it appears that the cross section of Yang (2017) would perform equally well with the non-circular cross section of said pivot shaft and said shaft sleeve.

Accordingly, it would have been prima facie obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to have the non-circular cross section in Yang's teaching because such a modification would have been considered a mere design consideration which fails to patentably distinguish over Yang (2017).

Conclusion

There are no prior art rejection for claims 10-12, 14-15, 17, 18 and 21-24 at the time of the invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BICKEY DHAKAL whose telephone number is (571)272-3577. The examiner can normally be reached on 8:30-4:30 PM.

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, Eduardo Santana can be reached on 5712722060. 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.

**/BICKEY DHAKAL/
Primary Examiner, Art Unit 2837**

<i>Notice of References Cited</i>	Application/Control No. 15/884,342		Applicant(s)/Patent Under Reexamination WANG et al.	
	Examiner BICKEY DHAKAL		Art Unit 2837	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-7338635-B2	03-2008	Miyake; Takashi	E05D11/082	422/243
*	B	US-20040069325-A1	04-2004	Cerruti, Daniele	A47L15/4409	134/25.2
	C					
	D					
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	F					
	G					
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	I					
	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. 15/884,342	Applicant(s)/Patent Under Reexamination WANG et al.
	Examiner BICKEY DHAKAL	Art Unit 2837

CPC - Searched*		
Symbol	Date	Examiner
A47G19/32 A47G29/00 H02P9/18 G05B2219/37604	12/18/2019	/BD/

CPC Combination Sets - Searched*		
Symbol	Date	Examiner
A47G19/32 A47G29/00 H02P9/18 G05B2219/37604	12/18/2019	/BD/

US Classification - Searched*			
Class	Subclass	Date	Examiner

* 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
Inventor and Assignee Searched	12/18/2019	/BD/
East Search	12/18/2019	/BD/

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

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<i>Index of Claims</i> 	Application/Control No. 15/884,342	Applicant(s)/Patent Under Reexamination WANG et al.
	Examiner BICKEY DHAKAL	Art Unit 2837

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS									
☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47									
CLAIM		DATE							
Final	Original	12/18/2019	12/18/2019						
	1	✓	✓						
	2	✓	✓						
	3	✓	✓						
	4	✓	✓						
	5	✓	✓						
	6	✓	✓						
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	22	✓	✓						
	23	✓	✓						
	24	✓	✓						

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	259	(A47G19/32 A47G29/00 H02P9/18 G05B2219/37604).cpc. and (garbage or container or trash)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/21 11:05
S2	47220	(garbage or container or trash or trash\$6) and (sensor or transducer or transmitter) and (shaft or axle) and (housing or cover or enclosure) and (actuator or motor or servo\$6 or servo)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/21 11:09
S4	10031	S2 and (cover near80 (closed or close or open or opened))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/21 11:10
S5	256	S4 and gear and (speed or velocity) and (waterproof or water\$3proof or water\$2resistance or waterresistance)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/21 11:13
S6	11	((WANG near3 Xin) (CHEN near3 Jiangqun)).inv. and S2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/21 11:17
S7	3521	(S4 and gear and (speed or velocity)) not S5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/21 11:18
S8	288	((waterproof or water\$3proof or water\$2resistance or waterresistance) near50 (shaft or transmission)) and (servo\$6 or servo or actuator or motor) and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/21 13:02
S9	186	S8 and (cover or enclosure or housing)	US-PGPUB;	OR	ON	2017/08/21

		and (open or opened or closed or close)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			13:03
S10	102	S8 not S9	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/21 13:12
S17	433	(trapezoid near20 (housing or enclosure or cover)) and (trash or trash\$6 or container or garbage)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/22 11:51
S18	2	"20150259140"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/22 11:58
S19	8	("2015/0259140").URPN.	USPAT	OR	ON	2017/08/22 11:58
S20	8	("2015/0259140").URPN.	USPAT	OR	ON	2017/08/22 12:00
S21	3210	(B65F1/163 B65F1/062 B65F1/1623 B65F1/1646 B65F43/38).cpc. and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/22 12:04
S22	0	(trapezoid near20 (housing or enclosure or cover)) and S21	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/22 12:04
S23	105	S21 and (motor or actuator or servo or servo\$6) and (sensor or transducer or transmitter)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/22 12:04
S24	6	("7750591" "8129930").pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/22 14:11
S25	2	S24 and (battery or cell)	US-PGPUB;	OR	ON	2017/08/22

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			14:13
S28	17511	(Shaft near6 sleeve) and (container or trash or trash\$6 or garbage)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/22 16:18
S29	2	(Shaft near6 sleeve) same (container or trash or trash\$6 or garbage) same end same conceal	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/22 16:20
S31	3214	((Shaft near6 sleeve) same (container or trash or trash\$6 or garbage)) and (motor or actuator or servo or servo\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/22 16:22
S32	2	S31 and ((hide or concea\$4) near20 (shaft or axle))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/22 16:22
S33	50077	(garbage or container or trash or trash\$6) and (sensor or transducer or transmitter) and (shaft or axle) and (housing or cover or enclosure) and (actuator or motor or servo\$6 or servo)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/08 14:34
S34	4070	S33 and (resilient near10 (element or member or device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/08 14:34
S35	362	S34 and (hide or conceal\$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/08 14:35
S36	339	S35 and cover and (shaft or axle)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON	2018/05/08 14:38

			IBM_TDB			
S37	3369	((Shaft near6 sleeve) same (container or trash or trash\$6 or garbage)) and (motor or actuator or servo or servo\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/08 14:45
S38	1	S37 and ((sens\$3 or detect\$4) near30 (conceal\$3 or hide)) same (housing or enclosure or cover)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/08 14:45
S40	104	((pushing or push or pushed) near20 cover near30 (opened or open) near30 (closed or close) near30 (coil or spring)) and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/16 17:53
S41	0	((pushing or push or pushed) near20 cover near30 (opened or open) near30 (closed or close) near30 (coil or spring) near30 (offset\$3 or balanc\$3) near30 (mass or weight)) and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/16 17:57
S42	104	((pushing or push or pushed) near20 cover near30 (opened or open) near30 (closed or close) near30 (coil or spring)) and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/16 17:58
S43	2520	(cover near80 (opened or open) near80 (closed or close) near80 (coil or spring)) and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/16 18:02
S44	2	(cover near80 (opened or open) near80 (closed or close) near80 (coil or spring) near80 ((offset\$3 or balanc\$3) near10 (weight or mass))) and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/16 18:17
S45	573	(cover near80 (opened or open) near80 (closed or close) near80 (coil or spring) near20 (force or pressure)) and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/16 18:24
S46	3	(cover near80 (opened or open) near80 (closed or close) near80 (coil or spring) near80 ((offset\$3 or balanc\$3 or overcome or overcame) near10 (weight	US-PGPUB; USPAT; USOCR; FPRS; EPO;	OR	ON	2019/12/17 09:18

		or mass))) and (garbage or container or trash or trash\$6)	JPO; DERWENT; IBM_TDB			
S47	342	(A47G19/32 A47G29/00 H02P9/18 G05B2219/37604).cpc. and (garbage or container or trash)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/17 09:19
S48	2523	(cover near80 (opened or open) near80 (closed or close) near80 (coil or spring)) and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/17 09:19
S51	16	(cover near80 (opened or open) near80 (closed or close) near80 (coil or spring) near80 pivot near80 shaft) and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/17 09:32
S52	17	(cover near80 (opened or open) near80 (closed or close) near80 (coil or spring) near80 pivot near80 shaft) and (garbage or container or trash or trash\$6 dispenser)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/17 09:46
S53	184	(cover near80 (opened or open) near80 (closed or close) near80 (coil or spring) near80 shaft) and (garbage or container or trash or trash\$6 dispenser)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/17 09:48
S56	105	(cover near80 (opened or open) near80 (closed or close) near80 resilient near30 spring) and (garbage or container or trash or trash\$6 dispenser)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/18 08:54
S57	110	((cover or panel) near80 (opened or open) near80 (closed or close) near80 resilient near30 spring) and (garbage or container or trash or trash\$6 dispenser)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/18 08:56
S58	5	S57 not S56	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/18 08:56
S60	2359	(cover near80 (opened or open) near80 (closed or close) near80 spring) and	US-PGPUB; USPAT;	OR	ON	2019/12/18 09:03

EAST Search History

		(garbage or container or trash or trash\$6)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S61	42	(cover near80 (opened or open) near80 (closed or close) near80 spring near50 (mass or weight)) and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/18 09:04
S62	220	(cover near80 (opened or open) near80 (closed or close) near80 spring) and (garbage or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/18 09:08

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S39	32	("I3" and cover and (shaft or axle)).clm.	US-PGPUB; USPAT	OR	ON	2018/05/08 14:42

12/ 18/ 2019 11:46:27 AM

C:\Users\bdhaka\Documents\EAST\Workspaces\15884342.wsp

Bibliographic Data

Application No: 15/884,342

Foreign Priority claimed: ☐ Yes ☒ No

35 USC 119 (a-d) conditions met: ☐ Yes ☐ No ☐ Met After Allowance

Verified and Acknowledged:

Examiner's Signature Initials

Title:

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01/30/2018	318	2837	USCP10338A-NSG
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APPLICANTS

INVENTORS

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CONTINUING DATA

This application is a CON of 15271211 09/20/2016 PAT 10077154

FOREIGN APPLICATIONS

IF REQUIRED, FOREIGN LICENSE GRANTED**

03/09/2018

** SMALL ENTITY **

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FILING FEE RECEIVED

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875				Application or Docket Number 15/884,342		Filing Date 01/30/2018		☐ To be Mailed	
ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO									
APPLICATION AS FILED - PART I									
FOR		(Column 1) NUMBER FILED	(Column 2) 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), (l), 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(j))		24 minus 20 =	* 4			x \$50 =		200	
INDEPENDENT CLAIMS (37 CFR 1.16(h))		1 minus 3 =	* 0			x \$230 =		0	
☐ 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		200	
APPLICATION AS AMENDED - PART II									
		(Column 1)		(Column 2)	(Column 3)				
AMENDMENT	03/20/2020	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)		ADDITIONAL FEE (\$)	
	Total (37 CFR 1.16(i))	* 24	Minus	** 24	= 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	
AMENDMENT		(Column 1)		(Column 2)	(Column 3)				
		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".						/GERALDINE L STANLEY/			
*** 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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In The United States Patent and Trademark Office

Application Number: 15/884,342

Examiner: Dhakal, Bickey

Applicant(s): Xin WANG

Group Art Unit: 2837

Filing Date: 01/30/2018

Title: Waterproof Induction Actuated Container

Date: 03/20/2020

AMENDMENT A

Honorable Commissioner for Patents,
P.O. Box 1450,
Alexandria, VA 22313-1450

Sir:

In response to the Office Action mailed 12/20/2019, kindly amend the above application as follows.

CLAIM AMENDMENTS

Claim 1 (currently amended): A waterproof induction container, comprising:

a container body having a storage cavity and a container opening; and

an induction actuated container cover which comprises:

a control housing detachably coupled at said container body at said container opening thereof, wherein said control housing has first and second side concealed compartments formed at a rear portion of said control housing, and a cover opening formed between said first and second side concealed compartments to communicate with said storage cavity of said container body;

a cover unit which comprises a pivot shaft having first and second end portions extended into said first and second side concealed compartments respectively, and a cover panel pivotally mounted to said control housing via said pivot shaft to pivotally move between a closed position that said cover panel covers at said cover opening to enclose said storage cavity and an opened position that said cover panel exposes said cover opening for communicating with said storage cavity; and

an automatic driving arrangement, which comprises:

a sensor unit mounted at said control housing for detecting a target movement of a user;

an actuation unit concealed in said first side concealed compartment of said control housing in a waterproof manner to operatively link with said sensor unit and to operatively coupled to said pivot shaft, wherein said actuation unit is actuated to move said cover panel via said pivot shaft between said opened and closed positions; and

~~means for~~ an element arranged to initially push ~~pushing~~ up said cover panel simultaneously when said cover panel is started to move from said closed position and partially offsetting a weight of said cover panel when said cover panel is started to move from said opened position.

Claim 2 (original): The waterproof induction container, as recited in claim 1, wherein said actuation unit comprises a servo motor supported in said first side concealed compartment of said control housing and a gear transmission unit operatively coupled between said first end portion of said pivot shaft and said servo motor for transmitting a rotational power from said servo motor to said pivot shaft.

Claim 3 (original): The waterproof induction container, as recited in claim 2, wherein said gear transmission unit comprises a gear worm sector affixed at said first end portion of said pivot shaft to operatively coupled with said servo motor.

Claim 4 (original): The waterproof induction container, as recited in claim 3, wherein said gear transmission unit is a decelerating gear unit for controllably lifting up and dropping down said cover panel at a speed determined by gear ratios of said gear transmission unit so as to move said cover panel between said opened and closed positions in a hydraulic manner.

Claim 5 (original): The waterproof induction container, as recited in claim 1, wherein said control housing comprises a lower base frame detachably coupled at said container opening of said container body, and an upper casing sealed and coupled at said lower base frame to define said first and second side concealed compartments therebetween.

Claim 6 (original): The waterproof induction container, as recited in claim 3, wherein said control housing comprises a lower base frame detachably coupled at said container opening of said container body, and an upper casing sealed and coupled at said lower base frame to define said first and second side concealed compartments therebetween.

Claim 7 (original): The waterproof induction container, as recited in claim 1, wherein said control housing has a trapezoid cross section that a height of said front portion of said control housing is shorter than that of said rear portion thereof to maximize a size of each of said first and second side concealed compartments.

Claim 8 (original): The waterproof induction container, as recited in claim 3, wherein said control housing has a trapezoid cross section that a height of said front portion of said control housing is shorter than that of said rear portion thereof to maximize a size of each of said first and second side concealed compartments.

Claim 9 (original): The waterproof induction container, as recited in claim 6, wherein said control housing has a trapezoid cross section that a height of said front portion of said control housing is shorter than that of said rear portion thereof to maximize a size of each of said first and second side concealed compartments.

Claim 10 (original): The waterproof induction container, as recited in claim 1, wherein said means comprises a resilient element concealed in said second side concealed compartment of said control housing and coupled at said second end portion of said pivot shaft to apply an urging force as an initial force towards said cover panel for initially pushing up said cover panel simultaneously when said cover panel is started to move from said closed position and as a weight supporting force for partially offsetting a weight of said cover panel when said cover panel is started to move from said opened position.

Claim 11 (original): The waterproof induction container, as recited in claim 2, wherein said means comprises a resilient element concealed in said second side concealed compartment of said control housing and coupled at said second end portion of said pivot shaft to apply an urging force as an initial force towards said cover panel for initially pushing up said cover panel simultaneously when said cover panel is started to move from said closed position and as a weight supporting force for partially offsetting a weight of said cover panel when said cover panel is started to move from said opened position.

Claim 12 (original): The waterproof induction container, as recited in claim 5, wherein said means comprises a resilient element concealed in said second side concealed compartment of said control housing and coupled at said second end portion of said pivot shaft to apply an urging force as an initial force towards said cover panel for initially pushing up said cover panel simultaneously when said cover panel is started to move from said closed position and as a weight supporting force for partially

offsetting a weight of said cover panel when said cover panel is started to move from said opened position.

Claim 13 (currently amended): The waterproof induction container, as recited in claim 1, wherein said cover panel comprises a shaft sleeve formed along a folding edge thereof, wherein an exposed portion of said pivot shaft between said two end portions thereof is received in said shaft sleeve to conceal said exposed portion of said pivot shaft so as to prevent said pivot shaft from exposing to said container opening of said container body, wherein when said pivot shaft is driven by said actuation unit to rotate, said shaft sleeve is driven by said pivot shaft to rotate, so that said cover panel is pivotally moved between said opened position and said closed position.

Claim 14(currently amended): The waterproof induction container, as recited in claim 1, wherein said cover panel comprises a shaft sleeve formed along a folding edge thereof, wherein an exposed portion of said pivot shaft between said two end portions thereof is received in said shaft sleeve to conceal said exposed portion of said pivot shaft so as to prevent said pivot shaft from exposing to said container opening of said container body, wherein when said pivot shaft is driven by said actuation unit to rotate, said shaft sleeve is driven by said pivot shaft to rotate, so that said cover panel is pivotally moved between said opened position and said closed position.

Claim 15 (currently amended): The waterproof induction container, as recited in claim 1, wherein said cover panel comprises a shaft sleeve formed along a folding edge thereof, wherein an exposed portion of said pivot shaft between said two end portions thereof is received in said shaft sleeve to conceal said exposed portion of said pivot shaft so as to prevent said pivot shaft from exposing to said container opening of said container body, wherein when said pivot shaft is driven by said actuation unit to rotate, said shaft sleeve is driven by said pivot shaft to rotate, so that said cover panel is pivotally moved between said opened position and said closed position.

Claim 16 (original): The waterproof induction container, as recited in claim 13, wherein said exposed portion of said pivot shaft has a non-circular cross section and said shaft sleeve has a corresponding non-circular cross section to fit said exposed

portion of said pivot shaft, such that said cover panel is pivotally moved between said opened and closed positions along with a rotation of said pivot shaft.

Claim 17 (original): The waterproof induction container, as recited in claim 14, wherein said exposed portion of said pivot shaft has a non-circular cross section and said shaft sleeve has a corresponding non-circular cross section to fit said exposed portion of said pivot shaft, such that said cover panel is pivotally moved between said opened and closed positions along with a rotation of said pivot shaft.

Claim 18 (currently amended): The waterproof induction container, as recited in claim 15, wherein said exposed portion of said pivot shaft has a non-circular cross section and said shaft sleeve has a corresponding non-circular cross section to fit said exposed portion of said pivot shaft, such that said cover panel is pivotally moved between said opened and closed positions along with a rotation of said pivot shaft.

Claim 19 (original): The waterproof induction container, as recited in claim 1, further comprising a power supply unit for electrically connecting with said automatic driving arrangement, wherein said power supply unit comprises a battery compartment formed within said rear portion of said control housing and a battery compartment cover detachably coupled at a rear wall of said control housing to enclose said battery compartment.

Claim 20 (original): The waterproof induction container, as recited in claim 3, further comprising a power supply unit for electrically connecting with said automatic driving arrangement, wherein said power supply unit comprises a battery compartment formed within said rear portion of said control housing and a battery compartment cover detachably coupled at a rear wall of said control housing to enclose said battery compartment.

Claim 21 (original): The waterproof induction container, as recited in claim 10, further comprising a power supply unit for electrically connecting with said automatic driving arrangement, wherein said power supply unit comprises a battery compartment formed within said rear portion of said control housing and a battery compartment cover

detachably coupled at a rear wall of said control housing to enclose said battery compartment.

Claim 22 (original): The induction actuated container cover, as recited in claim 1, wherein said control housing has a front concealed compartment defining a slanted front wall, wherein said sensor unit comprises sensor circuit board concealed in said front concealed compartment and a sensor supported at said slanted front wall of said control housing to operatively linked to said sensor circuit board, such that said sensor is located in front of said cover panel to maximize said detecting range of said sensor at said approaching direction for detecting said target movement.

Claim 23 (original): The induction actuated container cover, as recited in claim 2, wherein said control housing has a front concealed compartment defining a slanted front wall, wherein said sensor unit comprises sensor circuit board concealed in said front concealed compartment and a sensor supported at said slanted front wall of said control housing to operatively linked to said sensor circuit board, such that said sensor is located in front of said cover panel to maximize said detecting range of said sensor at said approaching direction for detecting said target movement.

Claim 24 (original): The induction actuated container cover, as recited in claim 5, wherein said control housing has a front concealed compartment defining a slanted front wall, wherein said sensor unit comprises sensor circuit board concealed in said front concealed compartment and a sensor supported at said slanted front wall of said control housing to operatively linked to said sensor circuit board, such that said sensor is located in front of said cover panel to maximize said detecting range of said sensor at said approaching direction for detecting said target movement.

REMARKS-General

1. The independent claim 1 is amended to further define the claiming subject matter and remove the means plus function clause. The dependent claim 13-15 are amended to include further limitations previously brought forth in the disclosure. No new matter has been included. All claims 1-24 as amended are submitted to be of sufficient clarity and detail to enable a person of average skill in the art to make and use the instant invention, so as to be pursuant to 35 USC 112.

2. With regard to the rejection of record based on prior art, Applicant will advance arguments to illustrate the manner in which the claimed invention defined by the amended claims is patentably distinguishable from the prior art of record. Reconsideration of the present application is requested.

Response to Rejection of Claims 1-24 under Nonstatutory Double Patenting

3. The applicant respectfully submits that a terminal disclaimer, in compliance with 37 C.F.R. §1.321(c), will be submitted upon any pending claim is indicated allowable to disclaim the terminal part of the statutory term of any patent granted on instant application which would extend beyond the expiration date of the full statutory term defined in 35 U.S.C. §154 to 156 and 173, as presently shortened by any terminal disclaimer, of prior Patent No. 10077154, in order to overcome the rejection of the claims 1-24 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of the U.S. Patent No. 10077154.

Response to Rejection of Claims 1-24 under 35USC§103

4. In the Office Action dated 12/20/2019, claims 1-24 were rejected under 35USC§103 as being unpatentable over Yang et al. (US Pub.No.2015/0259140) in view of Miyake et al. (U.S. Patent No. 7,338,635) and/or Wang et al (U.S. Patent No. 8,678,219) and/or Wang et al. (U.S. Patent No. 8,129,930) and/or Yang et al. (US Pub.No.2017/0096299). The rejected claims have been amended. Claims 1-24 are respectfully submitted to distinguish over Yang et al. and the supplemental arts for the reasons submitted below.

5. Accordingly, Pursuant to 35 U.S.C. §103:

“(a) A patent may not be obtained though the claimed invention is **not identically** disclosed or described as set forth in **section 102 of this title**, if the **differences** between the subject matter sought to be patented and the prior art are such that the **subject matter as a whole would have been obvious** at the time the claimed invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the claimed invention was made.”

6. In view of 35 U.S.C. 103, it is apparent that to be qualified as a prior art under 35USC103, the prior art must be cited under 35USC102 but the disclosure of the prior art and the claimed invention are not identical and there are one or more differences between the subject matter sought to be patented and the prior art. In addition, such differences between the subject matter sought to be patented **as a whole** and the prior art are obvious at the time the claimed invention was made to a person having ordinary skill in the art to which the subject matter pertains.

7. In other words, the differences between the subject matter sought to be patent as a whole of the instant invention and Yang et al. which is qualified as prior art of the instant invention under 35USC102 are obvious in view of the supplemental arts at the time the claimed invention was made to a person having ordinary skill in the art to which the subject matter pertains.

8. The applicant respectfully submits that in order to determine whether the differences between the subject matters sought to be patented as a whole of the instant invention and the primary prior art, Yang et al., are obvious in view of the supplemental arts we have to identify all the differences between the claims of the instant invention and Yang et al..

9. Yang et al. merely discloses a trashcan assembly includes a body portion 22, a lid portion 24 pivotably coupled with the body portion, and a sensor assembly 102 configured to generate a signal when an object is detected within a sensing region. The sensor assembly can include a plurality of transmitters having a first subset of transmitters and a second subset of transmitters. An electronic processor can generate an electronic signal to a power-operated drive mechanism for moving the lid portion 24

from a closed position to an open position when the sensor assembly 102 detects the object within the sensing region.

10. The applicant respectfully identifies the differences between the claims of the instant invention and Yang et al. as follows:

(a) Regarding the amended claim 1, Yang et al. does not teach “wherein said control housing has first and second side concealed compartments formed at a rear portion of said control housing, wherein a cover unit which comprises a pivot shaft having first and second end portions extended into said first and second side concealed compartments respectively”. The Examiner has interpreted the rear-projecting portions 39 as the first and second side concealed compartments of the instant invention, the applicant respectfully disagrees. As shown in Fig. 11C, the trim ring portion 38 can include a detent housing 160 positioned within the rear projecting portion 39. The detent housing 160 can include a first detent structure 162a configured to interface with a second detent structure disposed on the backside enclosure 56. As the trim ring portion 38 moves to an open position, the first detent structure 162a can interface with the second detent structure 162b to maintain the trim ring portion 38 in an open position. The first detent structure 162a can be a tooth, and the second detent structure 162b can be a divot, groove, opening, or likewise. Accordingly, **the rear projecting portions 39 of Yang et al. is not disclosed for receiving any electrical components for providing a waterproof effect for the electrical components**, but are just disclosed to house the detent housing for coupling with the backside enclosure, no waterproof structure is actually mentioned. However, the first and second side concealed compartments of the instant invention are disclosed to receive the two ends portions of the pivot shaft for providing the waterproof effect.

As shown in the bellow drawings, **the ends of the shaft 80 of Yang et al. is actually not extended into the rear projecting portions 39**, but is in a chamber between the two rear projecting portions 39. The chamber housing the shaft 80 of Yang et al. is not mentioned to a waterproof chamber.

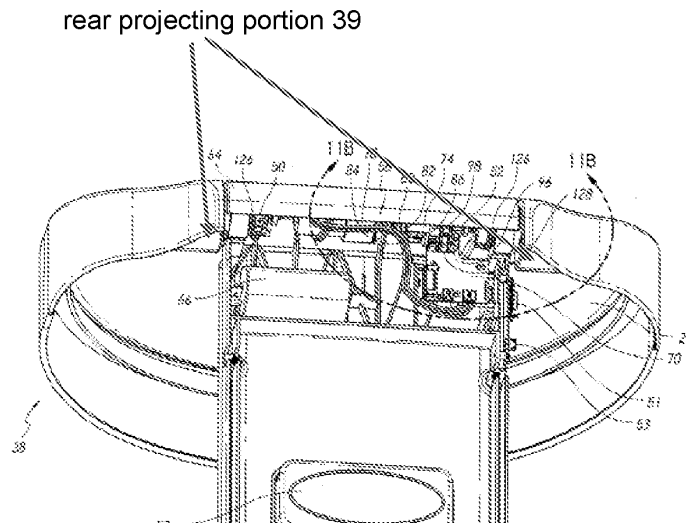


Fig. 11A

(b) Regarding the amended claim 1, Yang et al. does not teach “an actuation unit concealed in said first side concealed compartment of said control housing in a waterproof manner to operatively link with said sensor unit and to operatively coupled to said pivot shaft”. The Examiner has interpreted the drive motor as the actuation unit of the instant invention. However, **the drive motor of Yang et al. is not received in a concealed compartment in a waterproof manner**. As mentioned above, the shaft 80 and the drive motor 78 are actually received in a chamber between the two rear projecting portions 39, the chamber is not a waterproof chamber. No particular waterproof compartment is formed in Yang et al. for receiving the drive motor 78.

Drive motor 78 is not any waterproof compartment

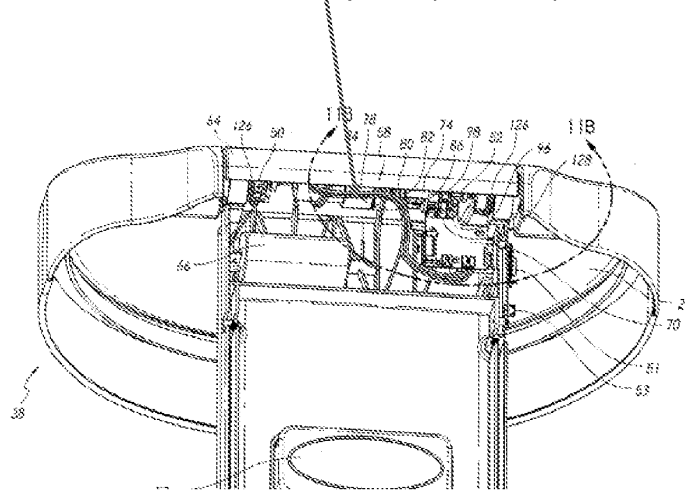


Fig. 11A

(c) Regarding the amended claim 1, as is admitted by the Examiner, Yang et al. does not teach “means for initially pushing up said cover panel simultaneously when said cover panel is started to move from said closed position and partially offsetting a weight of said cover panel when said cover panel is started to move from said opened position”. Yang et al. is silent regarding any structure for initially pushing up said cover panel.

(d) Regarding claims 2-4, as is admitted by the Examiner, Yang et al. does not teach the gear transmission unit comprising the gear worm sector.

(e) Regarding claims 5-6, Yang et al. does not teach “wherein said control housing comprises a lower base frame detachably coupled at said container opening of said container body, and an upper casing sealed and coupled at said lower base frame to define said first and second side concealed compartments therebetween”. The rear projecting portions 39 of Yang et al. which are interpreted as the concealed

compartments of the instant invention are not formed by any lower base frames and upper casings.

(f) Regarding claims 7-9, as is admitted by the Examiner, Yang et al. does not teach “wherein said control housing has a trapezoid cross section that a height of said front portion of said control housing is shorter than that of said rear portion thereof to maximize a size of each of said first and second side concealed compartments”.

(g) Regarding the amended claim 13, Yang et al. does not teach “wherein said exposed portion of said pivot shaft is received in said shaft sleeve to conceal said exposed portion of said pivot shaft so as to prevent said pivot shaft from exposing to said container opening of said container body, wherein when said pivot shaft is driven by said actuation unit to rotate, said shaft sleeve is driven by said pivot shaft to rotate, so that said cover panel is pivotally moved between said opened and closed positions”. Yang et al. only mentions that an end member 86 can be fixed to the motor shaft 80, such that torque from the motor 78 can be transmitted through the shaft 80 and into the end member 86. Rotational force produced by the motor 78 (via the shaft 80, end member 86, and/or clutch member 84) encourages rotation of the arms 106, 108 against the flanges 88, 90 to rotate the lid portion 24. However, **the shaft sleeve of the instant invention enclosing the pivot shaft is rotating when the cover panel is required to shift between the opened and closed positions.**

(h) Regarding claim 16, as is admitted by the Examiner, Yang et al. does not teach “wherein said exposed portion of said pivot shaft has a non-circular cross section and said shaft sleeve has a corresponding non-circular cross section to fit said exposed portion of said pivot shaft, such that said cover panel is pivotally moved between said opened and closed positions along with a rotation of said pivot shaft”. When the cross section of the exposed portion of the pivot shaft is circular, no other driving structure is provide at the pivot shaft, the rotating movement will not drive the shaft sleeve to rotate, so that the cover panel will not move. The cross section of the exposed portion of the pivot shaft of the instant invention is not circular, **and the cross section of the shaft sleeve is shaped to match with the pivot shaft, the rotating of the pivot shaft will drive the shaft sleeve to rotate.**

Non circular shaft and sleeve for synchronous movement

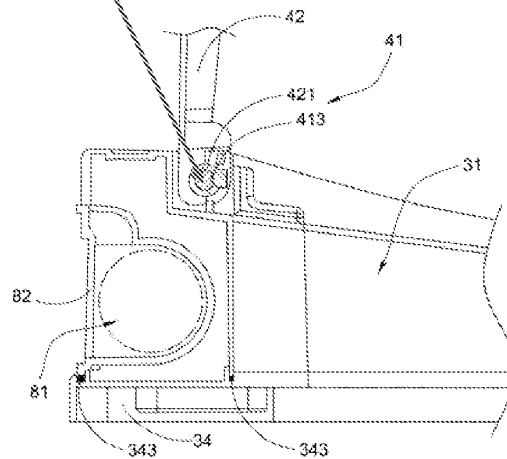


Fig. 7 of the instant invention

(i) Regarding claims 19-20, as is admitted by the Examiner, Yang et al. does not teach “further comprising a power supply unit for electrically connecting with said automatic driving arrangement, wherein said power supply unit comprises a battery compartment formed within said rear portion of said control housing and a battery compartment cover detachably coupled at a rear wall of said control housing to enclose said battery compartment”.

11. Whether the claims 1-24 as amended of the instant invention are obvious depends on whether the above differences (a) to (i) between the instant invention Yang et al. are obvious in view of the supplemental arts at the time of the claimed invention was made.

12. Furthermore, the applicant respectfully submits that when applying 35 USC 103, the following tenets of patent law must be adhered to:

(a) The claimed invention must be considered as a whole;

- (b) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination;
- (c) The references must be viewed without the benefit of hindsight vision afforded by the claimed invention; and
- (d) Reasonable expectation of success is the standard with which obviousness is determined.

Also, "The mere fact that a reference could be modified to produce the patented invention would not make the modification obvious unless it is suggested by the prior art." Libbey-Owens-Ford v. BOC Group, 4 USPQ 2d 1097, 1103 (DCNJ 1987).

13. Miyake merely teaches that the spring cam hinge 15 and the friction hinge 16 exert forces for supporting the cover 3 when it is in the fully open position. Specifically, as the ridges 15f and the grooves 15g of the first cam 15b mesh with the grooves 15i and the ridges 15h of the second cam 15c and the **spring 15d exerts its pushing force at the fully open position of the cover 3, the spring cam hinge 15 produces a force acting on the cover 3 in its further opening direction. If the weight of the cover 3 is larger than the force produced by the spring cam hinge 15, the cover 3 might be caused to close.** Since the friction hinge 16 produces a frictional force in a direction opposite to the closing direction of the cover 3, however, the cover 3 can be held in its open position. The pushing means of the instant invention is arranged for initially pushing up the cover panel, not like the spring cam hinge 15 of Miyake for fully support the cover 3 when the cover is at the fully open position. The cover panel of the instant invention is not supported by the pushing means when the cover panel is in the open position.

14. Even combining the features of Yang et al. and T Miyake, the combination still cannot teach the waterproof induction container of the instant invention. More specifically, the container of Yang et al. is modified to include the spring cam hinge 15 of Miyake for fully support the cover when the cover is at the fully open position . However, the combination cannot anticipate the structure of the instant invention which has the two side concealed compartments for receiving the two ends of the pivot shaft as well as the pushing means for retaining the pivot shaft in position while providing an

initial pushing up force instead of providing a support to cover panel in the fully open position.

15. Wang et al. (US Patent No. 8,678,219) merely discloses that the motorized unit 50 comprises a DC power generator 51, a gear transmission unit 52 which is operatively linked between the DC power generator 51 and the lid panel 20 for controllably lifting up and dropping down the lid panel 20 at a speed determined by gear ratios of the gear transmission unit 52 so as to move the lid panel 20 between the opened and closed positions in a hydraulic manner. However, **Wang et al. does not teach that the gear transmission unit 52 is received in any concealed compartment.**

16. Wang et al. (US Patent No. 8,129,930) merely teaches that the main housing body 214 has a trapezoidal cross section, a height of the front portion of the control housing 21 is shorter than that of the rear portion thereof, and the cover opening 211 is formed on the slanted ceiling 215 of the housing body 214 between the front and rear portions of the control housing 21 such that a surrounding wall of the cover opening 211 is extended inclinedly to maximize an opening area of the cover opening 211. Wang et al. does not teach the configuration of the trapezoidal cross section of the housing body 214 **for increasing a size of any concealed compartments**, but only teaches that the opening area of the cover opening 211 is increased.

17. Yang et al. (US Pub. No. 2017/0096299) merely teaches that the lid portion 24 can include a rear portion 64 covering at least a portion of the driving mechanism 58. The rear portion 64 of Yang et al. is not a folding edge, it is not embodied as a sleeve for sleeving with the shaft 80. In addition, the shaft sleeve of the instant invention is arranged for rotating with the pivot shaft for moving the cover panel. However, Yang et al. only mentions that rotational force produced by the motor 78 (via the shaft 80, end member 86, and/or clutch member 84) encourages rotation of the arms 106, 108 against the flanges 88, 90 to rotate the lid portion 24.

18. The applicant acknowledges the allowability of original claims 10-12, 1-15, 17, 18 and 21-24.

19. "To prevent the use of hindsight based on the claimed invention to defeat patentability of the claimed invention, this court requires the examiner to show a

motivation to combine the references that create the case of obviousness. In other words, the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited art references for combination in the manner claimed... [T]he suggestion to combine requirement stands as a critical safeguard against hindsight analysis and rote application of the legal test for obviousness..." In re Gorman, 933 F.2d 982, 986, 18 USPQ 2d 1885, 1888 (Fed. Cir. 1991).

20. Accordingly, the applicant believes that neither Yang et al., nor the supplemental arts, separately or in combination, suggests or makes any mention whatsoever of the difference subject features as claimed in the claims 1-24 as amended of the instant invention.

21. Applicant believes that for all of the foregoing reasons, all of the claims are in condition for allowance and such action is respectfully requested.

22. The cited but not relied upon references have been studied and are greatly appreciated, but are deemed to be less relevant than the relied upon references.

23. In view of the above, it is submitted that the claims are in condition for allowance. Reconsideration and withdrawal of the rejection are requested. Allowance of claims 1-24 at an early date is solicited.

24. Should the Examiner believe that anything further is needed in order to place the application in condition for allowance, he is requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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Tel.: 1-626-571-9812
Fax.: 1-626-571-9813

Certificate of EFS-Web Transmission

I hereby certify that this correspondence is being transmitted via the United States Patent and Trademark Office electronic filing system (EFS-Web) to the USPTO on March 20, 2020 (Date).

Typed or printed name of person signing this certificate:

Raymond Y. Chan
Reg. Nr. 37,484

/Raymond Y. Chan/
(Signature)

Electronic Acknowledgement Receipt	
EFS ID:	38931624
Application Number:	15884342
International Application Number:	
Confirmation Number:	8223
Title of Invention:	Waterproof Induction Actuated Container
First Named Inventor/Applicant Name:	Xin WANG
Correspondence Address:	Raymond Y. Chan - Suite 128 108 North Ynez Avenue Monterey Park CA 91754 US - -
Filer:	Raymond Yat Chan/Michael Lee
Filer Authorized By:	Raymond Yat Chan
Attorney Docket Number:	USCP10338A-NSG
Receipt Date:	20-MAR-2020
Filing Date:	30-JAN-2018
Time Stamp:	20:23:55
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

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Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment/Req. Reconsideration-After Non-Final Reject	USCP10338AmdACover.pdf	75061	no	1
			c681051108df649d61c4252a1622e1d2607ff2e9		
Warnings:					
Information:					
2	Claims	USCP10338AmdAClaims.pdf	114799	no	6
			9d8e4257f9bd1f37df09793ba293a9cb33b75d06		
Warnings:					
Information:					
3	Applicant Arguments/Remarks Made in an Amendment	USCP10338AmdARemarks.pdf	270995	no	11
			589de058f4a4cf4848274b8f568ce21e8c968a1e		
Warnings:					
Information:					
Total Files Size (in bytes):			460855		
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.					

Doc Code: DIST.E.FILE Document Description: Electronic Terminal Disclaimer - Filed		PTO/SB/25 U.S. Patent and Trademark Office Department of Commerce	
Electronic Petition Request	TERMINAL DISCLAIMER TO OBTAIN A PROVISIONAL DOUBLE PATENTING REJECTION OVER A PENDING "REFERENCE" APPLICATION		
Application Number	15884342		
Filing Date	30-Jan-2018		
First Named Inventor	Xin WANG		
Attorney Docket Number	USCP10338A-NSG		
Title of Invention	Waterproof Induction Actuated Container		
☒ Filing of terminal disclaimer does not obviate requirement for response under 37 CFR 1.111 to outstanding Office Action ☒ This electronic Terminal Disclaimer is not being used for a Joint Research Agreement.			
Owner		Percent Interest	
NINE STARS GROUP (U.S.A) INC.		100%	
The owner(s) of percent interest listed above 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 any patent granted on pending reference Application Number(s)			
15884342 filed on 01/30/2018 as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and any patent granted on the reference application 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 owner does not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term of any patent granted on said reference application, "as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application," in the event that any such patent granted on the pending reference application: 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 shortened by any terminal disclaimer filed prior to its grant.			
☒ Terminal disclaimer fee under 37 CFR 1.20(d) is included with Electronic Terminal Disclaimer request.			

☐ I certify, in accordance with 37 CFR 1.4(d)(4), that the terminal disclaimer fee under 37 CFR 1.20(d) required for this terminal disclaimer has already been paid in the above-identified application.	
Applicant claims the following fee status: ☒ Small Entity ☐ Micro Entity ☐ Regular Undiscounted	
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.	
THIS PORTION MUST BE COMPLETED BY THE SIGNATORY OR SIGNATORIES I certify, in accordance with 37 CFR 1.4(d)(4) that I am: ☒ An attorney or agent registered to practice before the Patent and Trademark Office who is of record in this application Registration Number <u>37484</u> ☐ A sole inventor ☐ A joint inventor; I certify that I am authorized to sign this submission on behalf of all of the inventors as evidenced by the power of attorney in the application ☐ A joint inventor; all of whom are signing this request	
Signature	/Raymond Y Chan/
Name	Raymond Y Chan

*Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner).
 Form PTO/SB/96 may be used for making this certification. See MPEP § 324.

Electronic Patent Application Fee Transmittal				
Application Number:		15884342		
Filing Date:		30-Jan-2018		
Title of Invention:		Waterproof Induction Actuated Container		
First Named Inventor/Applicant Name:		Xin WANG		
Filer:		Raymond Yat Chan		
Attorney Docket Number:		USCP10338A-NSG		
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
STATUTORY OR TERMINAL DISCLAIMER	2814	1	160	160
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				160

Doc Code: DISQ.E.FILE

Document Description: Electronic Terminal Disclaimer – Approved

Application No.: 15884342

Filing Date: 30-Jan-2018

Applicant/Patent under Reexamination: WANG

Electronic Terminal Disclaimer filed on June 12, 2020

☒ APPROVED

This patent is subject to a terminal disclaimer

☐ DISAPPROVED

Approved/Disapproved by: Electronic Terminal Disclaimer automatically approved by EFS-Web

U.S. Patent and Trademark Office

Electronic Acknowledgement Receipt	
EFS ID:	39702935
Application Number:	15884342
International Application Number:	
Confirmation Number:	8223
Title of Invention:	Waterproof Induction Actuated Container
First Named Inventor/Applicant Name:	Xin WANG
Correspondence Address:	Raymond Y. Chan - Suite 128 108 North Ynez Avenue Monterey Park CA 91754 - -
Filer:	Raymond Yat Chan
Filer Authorized By:	
Attorney Docket Number:	USCP10338A-NSG
Receipt Date:	12-JUN-2020
Filing Date:	30-JAN-2018
Time Stamp:	12:14:54
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$160

RAM confirmation Number	E20206BC14493576				
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 (Electronic)	eTerminal-Disclaimer.pdf	34086	no	2
			ace81d33771adde8ef59bd52e38b728c80b bd6fb		
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30393	no	2
			7c8d47a080560c1dc3d2bfe53a94e11d427 deefd		
Warnings:					
Information:					
Total Files Size (in bytes):			64479		
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

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

7590 06/26/2020
RAYMOND Y. CHAN
SUITE 128
108 NORTH YNEZ AVENUE
MONTEREY PARK, CA 91754

EXAMINER

DHAKAL, BICKEY

ART UNIT

PAPER NUMBER

2846

DATE MAILED: 06/26/2020

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/884,342	01/30/2018	Xin WANG	USCP10338A-NSG	8223

TITLE OF INVENTION: Waterproof Induction Actuated Container

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	09/28/2020

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)

7590 06/26/2020
RAYMOND Y. CHAN
SUITE 128
108 NORTH YNEZ AVENUE
MONTEREY PARK, CA 91754

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.

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.
15/884,342	01/30/2018	Xin WANG	USCP10338A-NSG	8223

TITLE OF INVENTION: Waterproof Induction Actuated Container

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	09/28/2020

EXAMINER	ART UNIT	CLASS-SUBCLASS
DHAKAL, BICKEY	2846	318-003000

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.
15/884,342	01/30/2018	Xin WANG	USCP10338A-NSG	8223
7590 06/26/2020 RAYMOND Y. CHAN SUITE 128 108 NORTH YNEZ AVENUE MONTEREY PARK, CA 91754			EXAMINER DHAKAL, BICKEY	
			ART UNIT 2846	PAPER NUMBER
DATE MAILED: 06/26/2020				

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. 15/884,342	Applicant(s) WANG et al.	
	Examiner BICKEY DHAKAL	Art Unit 2846	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 amendments filed on 03/20/2020.
☐ 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 1-24 . 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)	5. ☐ Examiner's Amendment/Comment
2. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____.	6. ☒ Examiner's Statement of Reasons for Allowance
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.	7. ☐ Other _____.
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date. _____.	

/BICKEY DHAKAL/ Primary Examiner, Art Unit 2846	
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Notice of Pre-AIA or AIA Status

The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

DETAILED ACTION

The Amendment filed 03/20/2020 has been entered. **Claims 1-24** are now allowable based on applicant's amendments and arguments.

Terminal Disclaimer

The terminal disclaimer filed on 06/12/2020 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent No. **10077154** has been reviewed and is accepted. The terminal disclaimer has been recorded.

REASONS FOR ALLOWANCE

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance:

Claims 1-24 are allowed.

Upon further consideration and in a view of the limitation, the prior art does not explicitly teach or fairly suggest alone or in combination the following:

Claims 1-24 are allowable among other elements and details, but for at least the reason, "wherein said control housing has first and second side concealed compartments formed at a rear portion of said control housing, wherein a cover unit which comprises a pivot shaft having first and second end portions extended into said first and second side concealed compartments respectively and an actuation unit concealed in said first side

concealed compartment of said control housing in a waterproof manner to operatively link with said sensor unit and to operatively coupled to said pivot shaft”

Applicant's arguments filed on 03/20/2020 are persuasive and examiner believes that the above limitations are neither inherent nor obvious. As a result, the claims are allowable.

Conclusion

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BICKEY DHAKAL whose telephone number is (571)272-3577. The examiner can normally be reached on M-F (7:30 AM-5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Colon-Santana can be reached on 571-272-2060. 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. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions, contact the Electronic Business Center at 866-217-9197. If you would like assistance call 800-786-9199 or 571-272-1000.

Application/Control Number: 15/884,342
Art Unit: 2846

Page 4

**/BICKEY DHAKAL/
Primary Examiner, Art Unit 2846**

<i>Search Notes</i> 	Application/Control No. 15/884,342	Applicant(s)/Patent Under Reexamination WANG et al.
	Examiner BICKEY DHAKAL	Art Unit 2846

CPC - Searched*		
Symbol	Date	Examiner
A47G19/32 A47G29/00 H02P9/18 G05B2219/37604	12/18/2019	/BD/

CPC Combination Sets - Searched*		
Symbol	Date	Examiner
A47G19/32 A47G29/00 H02P9/18 G05B2219/37604	12/18/2019	/BD/

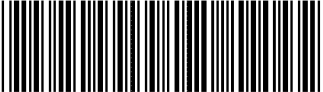
US Classification - Searched*			
Class	Subclass	Date	Examiner

* 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
Inventor and Assignee Searched	12/18/2019	/BD/
East Search	12/18/2019	/BD/
Update East search	06/19/2020	/BD/

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
Interference Searched	Interference Searched	06/19/2020	/BD/

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Issue Classification 	Application/Control No. 15/884,342	Applicant(s)/Patent Under Reexamination WANG et al.
	Examiner BICKEY DHAKAL	Art Unit 2846

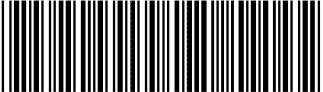
CPC						
Symbol					Type	Version
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B65F	/	1	/	1646	I	2013-01-01
B65F	/	2210	/	168	A	2013-01-01
B65F	/	2001	/	1684	A	2013-01-01

CPC Combination Sets				
Symbol	Type	Set	Ranking	Version
/		/		

NONE	Total Claims Allowed:	
(Assistant Examiner)	(Date)	24
/BICKEY DHAKAL/ Primary Examiner, Art Unit 2846	19 June 2020	O.G. Print Claim(s)
(Primary Examiner)	(Date)	1
		O.G. Print Figure
		1

U.S. Patent and Trademark Office

Part of Paper No.: 20200619

Issue Classification 	Application/Control No. 15/884,342	Applicant(s)/Patent Under Reexamination WANG et al.
	Examiner BICKEY DHAKAL	Art Unit 2846

INTERNATIONAL CLASSIFICATION			
CLAIMED			
B65F1/16		1	16
NON-CLAIMED			

US ORIGINAL CLASSIFICATION	
CLASS	SUBCLASS

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

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	24	
/BICKEY DHAKAL/ Primary Examiner, Art Unit 2846	19 June 2020	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1

Issue Classification 	Application/Control No. 15/884,342	Applicant(s)/Patent Under Reexamination WANG et al.
	Examiner BICKEY DHAKAL	Art Unit 2846

☐ 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
1	1	15	10	23	19										
2	2	9	11	7	20										
3	3	12	12	16	21										
4	4	17	13	24	22										
11	5	19	14	10	23										
5	6	21	15	13	24										
14	7	18	16												
6	8	20	17												
8	9	22	18												

NONE (Assistant Examiner) _____ (Date) _____		Total Claims Allowed: 24	
/BICKEY DHAKAL/ Primary Examiner, Art Unit 2846 (Primary Examiner) _____ (Date) 19 June 2020		O.G. Print Claim(s) 1	O.G. Print Figure 1

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L2	452	((waterproof or water\$3proof or water\$2resistance or waterresistance) near100 (shaft or transmission)) and (servo\$6 or servo or actuator or motor) and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/06/19 10:12
S1	259	(A47G19/32 A47G29/00 H02P9/18 G05B2219/37604).cpc. and (garbage or container or trash)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/21 11:05
S2	47,220	(garbage or container or trash or trash\$6) and (sensor or transducer or transmitter) and (shaft or axle) and (housing or cover or enclosure) and (actuator or motor or servo\$6 or servo)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/21 11:09
S4	10,031	S2 and (cover near80 (closed or close or open or opened))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/21 11:10
S5	256	S4 and gear and (speed or velocity) and (waterproof or water\$3proof or water\$2resistance or waterresistance)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/21 11:13
S6	11	((WANG near3 Xin) (CHEN near3 Jiangqun)).inv. and S2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/21 11:17
S7	3,521	(S4 and gear and (speed or velocity)) not S5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/21 11:18

S8	288	((waterproof or water\$3proof or water\$2resistance or waterresistance) near50 (shaft or transmission)) and (servo\$6 or servo or actuator or motor) and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/21 13:02
S9	186	S8 and (cover or enclosure or housing) and (open or opened or closed or close)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/21 13:03
S10	102	S8 not S9	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/21 13:12
S17	433	(trapezoid near20 (housing or enclosure or cover)) and (trash or trash\$6 or container or garbage)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/22 11:51
S18	2	"20150259140"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/22 11:58
S19	8	("2015/0259140").URPN.	USPAT	OR	ON	2017/08/22 11:58
S20	8	("2015/0259140").URPN.	USPAT	OR	ON	2017/08/22 12:00
S21	3,210	(B65F1/163 B65F1/062 B65F1/1623 B65F1/1646 B65F43/38).cpc. and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/22 12:04
S22	0	(trapezoid near20 (housing or enclosure or cover)) and S21	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/22 12:04
S23	105	S21 and (motor or actuator or servo or servo\$6) and (sensor or transducer or transmitter)	US-PGPUB; USPAT; USOCR; FPRS;	OR	ON	2017/08/22 12:04

			EPO; JPO; DERWENT; IBM_TDB			
S24	6	("7750591" "8129930").pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/22 14:11
S25	2	S24 and (battery or cell)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/22 14:13
S28	17,511	(Shaft near6 sleeve) and (container or trash or trash\$6 or garbage)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/22 16:18
S29	2	(Shaft near6 sleeve) same (container or trash or trash\$6 or garbage) same end same conceal	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/22 16:20
S31	3,214	((Shaft near6 sleeve) same (container or trash or trash\$6 or garbage)) and (motor or actuator or servo or servo\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/22 16:22
S32	2	S31 and ((hide or concea\$4) near20 (shaft or axle))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/08/22 16:22
S33	50,077	(garbage or container or trash or trash\$6) and (sensor or transducer or transmitter) and (shaft or axle) and (housing or cover or enclosure) and (actuator or motor or servo\$6 or servo)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/08 14:34
S34	4,070	S33 and (resilient near10 (element or member or device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2018/05/08 14:34

			DERWENT; IBM_TDB			
S35	362	S34 and (hide or conceal\$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/08 14:35
S36	339	S35 and cover and (shaft or axle)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/08 14:38
S37	3,369	((Shaft near6 sleeve) same (container or trash or trash\$6 or garbage)) and (motor or actuator or servo or servo\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/08 14:45
S38	1	S37 and ((sens\$3 or detect\$4) near30 (conceal\$3 or hide)) same (housing or enclosure or cover)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/08 14:45
S40	104	((pushing or push or pushed) near20 cover near30 (opened or open) near30 (closed or close) near30 (coil or spring)) and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/16 17:53
S41	0	((pushing or push or pushed) near20 cover near30 (opened or open) near30 (closed or close) near30 (coil or spring) near30 (offset\$3 or balanc\$3) near30 (mass or weight)) and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/16 17:57
S42	104	((pushing or push or pushed) near20 cover near30 (opened or open) near30 (closed or close) near30 (coil or spring)) and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/16 17:58
S43	2,520	(cover near80 (opened or open) near80 (closed or close) near80 (coil or spring)) and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2019/12/16 18:02

			DERWENT; IBM_TDB			
S44	2	(cover near80 (opened or open) near80 (closed or close) near80 (coil or spring) near80 ((offset\$3 or balanc\$3) near10 (weight or mass))) and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/16 18:17
S45	573	(cover near80 (opened or open) near80 (closed or close) near80 (coil or spring) near20 (force or pressure)) and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/16 18:24
S46	3	(cover near80 (opened or open) near80 (closed or close) near80 (coil or spring) near80 ((offset\$3 or balanc\$3 or overcome or overcame) near10 (weight or mass))) and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/17 09:18
S47	342	(A47G19/32 A47G29/00 H02P9/18 G05B2219/37604).cpc. and (garbage or container or trash)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/17 09:19
S48	2,523	(cover near80 (opened or open) near80 (closed or close) near80 (coil or spring)) and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/17 09:19
S51	16	(cover near80 (opened or open) near80 (closed or close) near80 (coil or spring) near80 pivot near80 shaft) and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/17 09:32
S52	17	(cover near80 (opened or open) near80 (closed or close) near80 (coil or spring) near80 pivot near80 shaft) and (garbage or container or trash or trash\$6 dispenser)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/17 09:46
S53	184	(cover near80 (opened or open) near80 (closed or close) near80 (coil or spring) near80 shaft) and (garbage	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2019/12/17 09:48

		or container or trash or trash\$6 dispenser)	DERWENT; IBM_TDB			
S56	105	(cover near80 (opened or open) near80 (closed or close) near80 resilient near30 spring) and (garbage or container or trash or trash\$6 dispenser)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/18 08:54
S57	110	((cover or panel) near80 (opened or open) near80 (closed or close) near80 resilient near30 spring) and (garbage or container or trash or trash\$6 dispenser)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/18 08:56
S58	5	S57 not S56	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/18 08:56
S60	2,359	(cover near80 (opened or open) near80 (closed or close) near80 spring) and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/18 09:03
S61	42	(cover near80 (opened or open) near80 (closed or close) near80 spring near50 (mass or weight)) and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/18 09:04
S62	220	(cover near80 (opened or open) near80 (closed or close) near80 spring) and (garbage or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/18 09:08
S63	4	"10077154".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/18 14:15
S67	56,618	(container or garbage or trash or trash\$6) and (waterproof or (water adj3 resistance))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2020/06/11 15:57

			DERWENT; IBM_TDB			
S68	1,110	(container or garbage or trash or trash\$6) and (waterproof or (water adj3 resistance)) and (cover near20 (shaft or axle or rod))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/06/11 15:59
S69	242	S68 and ((sens\$3 or detect\$3) near30 (user or operator or customer))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/06/11 16:02
S70	3	"20150259140"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/06/11 16:11
S71	265	S68 and ((sens\$3 or detect\$3 or motion) near30 (user or operator or customer))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/06/11 16:46
S72	23	S71 not S69	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/06/11 16:47
S73	447	((waterproof or water\$3proof or water\$2resistance or waterresistance) near100 (shaft or transmission)) and (servo\$6 or servo or actuator or motor) and (garbage or container or trash or trash\$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/06/11 16:49
S74	368	S73 not S69	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/06/11 16:49

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
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L1	10	((((waterproof or water\$3proof or water\$2resistance or waterresistance) near100 (shaft or transmission)) and (servo\$6 or servo or actuator or motor) and (garbage or container or trash or trash\$6)).clm.	US-PGPUB; USPAT	OR	ON	2020/06/19 10:06
S39	32	("I3" and cover and (shaft or axle)).clm.	US-PGPUB; USPAT	OR	ON	2018/05/08 14:42

6/19/2020 10:24:08 AM

C:\Users\bdhaka1\Documents\EAST\Workspaces\15884342.wsp

Bibliographic Data

Application No: 15/884,342

Foreign Priority claimed: ☐ Yes ☒ No

35 USC 119 (a-d) conditions met: ☐ Yes ☒ No ☐ Met After Allowance

Verified and Acknowledged:

Examiner's Signature Initials

Title:

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
01/30/2018	318	2846	USCP10338A-NSG
RULE			

APPLICANTS

INVENTORS

Xin WANG Fuzhou, CHINA

Jiangqun CHEN Fuzhou, CHINA

CONTINUING DATA

This application is a CON of 15271211 09/20/2016 PAT 10077154

FOREIGN APPLICATIONS

IF REQUIRED, FOREIGN LICENSE GRANTED**

03/09/2018

** SMALL ENTITY **

STATE OR COUNTRY

CHINA

ADDRESS

Raymond Y. Chan

Suite 128

108 North Ynez Avenue

Monterey Park, CA 91754

UNITED STATES

FILING FEE RECEIVED

\$985



In The United States Patent and Trademark Office

Application Number: 15/884,342
First Named Inventor: Xin Wang
Filing Date: 01/30/2018

Examiner: Dhakal, Bickey
Group Art Unit: 2846
Atty's Docket No.: USCP10338A-NSG

Title: Waterproof Induction Actuated Container

Date: July 9, 2020

Submission of Issue Fee and Publication Fee

MS Issue Fee
Commissioner for Patents
Alexandria, VA 22313-1450

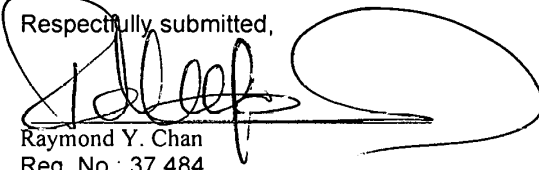
Sir:

In response to the Notice of Allowance and Fee(s) Due dated 06/26/2020, the applicant respectfully submits a payment of Issue Fee and Publication Fee.

- ☒ A check in the amount of **\$500.00** is enclosed herewith for the payment.
- ☐ The Director is hereby authorized by charging the required fee(s) in the amount of \$_____ to the Deposit Account Number 502111 in the name of David and Raymond Patent Firm.
- ☒ The fees submitted are believed to be correct. However, the Director is hereby authorized to charge the additional required fee(s) or credit any overpayment to Deposit Account Number 502111 in the name of David and Raymond Patent Firm.
- ☐ Please associate the customer number **30265** with the above identified application. The Correspondence Address and Fee Address are updated to read as: 108 N. Ynez Avenue, Suite 128, Monterey Park, CA 91754, US.
- ☐ Others:

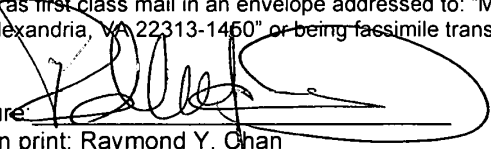
Please accept the payment(s) and/or document(s) and proceed with the issuance of the patent as soon as possible. Thank you for your assistance.

Respectfully submitted,


Raymond Y. Chan
Reg. No.: 37,484
108 N. Ynez Avenue, Suite 128
Monterey Park, CA 91754
Tel.: (626) 571 9812/ Fax: (626) 571 9813

Certification of Mailing or Transmission

I hereby certify that this correspondence is being deposited with the United States Postal Service with proper postage as first class mail in an envelope addressed to: "MS Issue Fee, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" or being facsimile transmitted to the USPTO on the date shown below.

Signature: 
Name in print: Raymond Y. Chan

Date: 09/25/2020

Best Available Copy

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)

7590 06/26/2020
RAYMOND Y. CHAN
SUITE 128
108 NORTH YNEZ AVENUE
MONTEREY PARK, CA 91754



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.

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.

Raymond Y. Chan (Typed or printed name)
 (Signature)
09/25/2020 (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/884,342	01/30/2018	Xin WANG	USCP10338A-NSG	8223

TITLE OF INVENTION: Waterproof Induction Actuated Container

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	09/28/2020

EXAMINER	ART UNIT	CLASS-SUBCLASS
DHAKAL, BICKEY	2846	318-003000

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,
- (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.

Raymond Y. Chan

1 David and Raymond Patent Firm

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

Nine Stars Group (U.S.A.) Inc.

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

Pomona, CA, USA

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. 502111

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

Typed or printed name Raymond Y. Chan

Date 09/25/2020

Registration No. 37,484



United States Patent and Trademark Office

Office of the Chief Financial Officer

Document Code:WFEE

User :C44690

Sale Accounting Date:09/30/2020

Sale Item Reference Number
15884342

Effective Date
09/29/2020

Document Number	Fee Code	Fee Code Description	Amount Paid	Payment Method
I20209TA28265097	2501	UTILITY APPL ISSUE FEE	\$500.00	Check



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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/884,342	11/03/2020	10822165	USCP10338A-NSG	8223

7590 10/14/2020
RAYMOND Y. CHAN
SUITE 128
108 NORTH YNEZ AVENUE
MONTEREY PARK, CA 91754

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 180 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):

Xin WANG, Fuzhou, CHINA;
Jiangqun CHEN, Fuzhou, CHINA;

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GRANT LETTER

APPLICATION #	DECISION DATE	DECISION ON PETITION #	ATTORNEY DOCKET NUMBER
15/884,342	04/04/2025	UNDER CFR 1.378(b)	USCP10338A-NSG

Title of Invention

Waterproof Induction Actuated Container

In re Patent # **10822165**

Issue date: **11/03/2020**

Filing date: **01/30/2018**

This is an electronic decision on the petition under 37 CFR 1.378(b), filed April 04, 2025 to accept unintentional delayed payment of the 3.5 year maintenance fee for the above-identified patent.

The petition is **GRANTED**.

The maintenance fee is accepted, and the above-identified patent reinstated as of April 04, 2025. This decision also constitutes notice that the fee has been accepted. An electronic copy of the petition and this decision has been created as an entry in the Image File Wrapper. Nevertheless, petitions should print and retain an independent copy.

Telephone inquiries concerning this decision should be directed to the Patent Electronic Business Center (EBC) at 866-217-9197.

Office of Petitions



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ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION # 15/884,342	RECEIPT DATE / TIME 04/04/2025 05:17:03 PM Z ET	ATTORNEY DOCKET # USCP10338A-NSG
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Title of Invention

Waterproof Induction Actuated Container

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	10822165
CONFIRMATION #	8223	FILED BY	Raymond Chan
PATENT CENTER #	69882230	FILING DATE	01/30/2018
CUSTOMER #	—	FIRST NAMED INVENTOR	Xin WANG
CORRESPONDENCE ADDRESS	RAYMOND Y. CHAN, - SUITE 128, 108 NORTH YNEZ AVENUE MONTEREY PARK, CALIFORNIA 91754 UNITED STATES	AUTHORIZED BY	-

Documents

TOTAL DOCUMENTS: 1

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
petition-request.pdf	2	ePetition Request Form	27 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
petition-request.pdf	B0C9482593E0D231A9355A190DB2E4256EC52161272DA3A53 8BA392959675E5C5E6F3BDE03980E0E362FE3E9BCB478994B 01C5F5FCEE2866E6BCEB22F0109F5C

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 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.



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PETITION TO ACCEPT UNINTENTIONAL DELAYED PAYMENT OF MAINTENANCE FEE (37 CFR 1.378(b))

APPLICATION # 15884342	FIRST NAMED INVENTOR Xin WANG	ATTORNEY DOCKET # USCP10338A-NSG	FILING DATE 01/30/2018
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Title of Invention

Waterproof Induction Actuated Container

In re Patent #: 10822165
Issue date: 11/03/2020}

The delay in the payment of the maintenance fee to the above-identified patent was unintentional.

PETITIONER(S) REQUEST THAT THE DELAYED PAYMENT OF THE MAINTENANCE FEE BE ACCEPTED AND THE PATENT REINSTATED

(1) Petition fee under 37 CFR 1.17(m) is attached

Applicant claims the following entity status

Small

(2) Statement

The delay in the payment of the maintenance fee to this patent was unintentional

- Petitioner(s) is reminded that a delay resulting from a deliberately chosen course of action or a change in circumstance is not an unintentional delay.
- Petitioner(s) is further reminded that a person seeking reinstatement of an expired patent should not make a statement that the delay in payment of the maintenance fee was unintentional unless the entire delay was unintentional, including the period from discovery that the maintenance fee was not timely paid until payment of the maintenance fee. For example, a statement that the delay in payment of the maintenance fee was unintentional would not be proper when the patentee becomes aware of an unintentional failure to timely pay the maintenance fee and then intentionally delays filing a petition for reinstatement of the patent under 37 CFR 1.378. See MPEP 2590.

NOTE: Where the petition under 37 CFR 1.378 is filed more than two years after the date the patent expired for nonpayment of the maintenance fee, the United States Patent and Trademark Office requires an additional explanation of the circumstances

surrounding the delay that establishes the entire delay was unintentional. This requirement is in addition to the requirement to provide a statement that the entire delay was unintentional. See Clarification of the Practice for Requiring Additional Information in Petitions Filed in Patent Applications and Patents Based on Unintentional Delay, 85 FR 12222 (March 2, 2020). See MPEP 711.03(c)(II)(C)-(F) for additional guidance on the information required to establish that the entire delay was unintentional.

Signature

I certify, in accordance with 37 CFR 1.4(d)(4) that I am:
An attorney or agent registered to practice before the Patent and Trademark Office who has been given power of attorney in this application

Signature	Name	Registration #
/Raymond Y Chan/	Raymond Chan	37484

PETAUTO SB64.0



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ELECTRONIC PAYMENT RECEIPT

APPLICATION # 15/884,342	RECEIPT DATE / TIME 04/04/2025 05:17:03 PM Z ET	ATTORNEY DOCKET # USCP10338A-NSG
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Title of Invention

Waterproof Induction Actuated Container

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	10822165
CONFIRMATION #	8223	FILED BY	Raymond Chan
PATENT CENTER #	69882230	AUTHORIZED BY	-
CUSTOMER #	-	FILING DATE	01/30/2018
CORRESPONDENCE ADDRESS	RAYMOND Y. CHAN, - SUITE 128, 108 NORTH YNEZ AVENUE MONTEREY PARK, CALIFORNIA 91754 UNITED STATES	FIRST NAMED INVENTOR	Xin WANG

Payment Information

PAYMENT METHOD CARD / 0843	PAYMENT TRANSACTION ID E202544H20088182	PAYMENT AUTHORIZED BY Raymond Chan
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FEE CODE	DESCRIPTION	ITEM PRICE(\$)	QUANTITY	ITEM TOTAL(\$)
2551	MAINTENANCE FEE DUE AT 3.5 YEARS	860.00	1	860.00
2558	PETITION FOR THE DELAYED PAYMENT OF THE FEE FOR MAINTAINING A PATENT IN FORCE, DELAY LESS THAN OR EQUAL TO TWO YEARS	904.00	1	904.00
TOTAL AMOUNT:				\$1,764.00

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

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New International Application Filed with the USPTO as a Receiving Office

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