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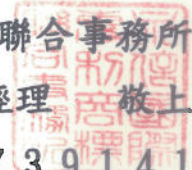
2016 年 07 月 20 日

- 一、關於 台端委託本所辦理第 13/732,459 號『自我固定之水輪機結構』美國發明專利領證及繳交 1 至 3.5 年年費乙案，頃接美國專利商標局頒發第 US 9,382,895 號發明專利證書，特此轉呈，敬請查收。
- 二、本發明專利權期限自申請日 2013 年 01 月 02 日起算 20 年，專利權期間自授權公告日 2016 年 07 月 05 日至 2033 年 01 月 02 日止。
- 三、依法規定，本專利須於 2020 年 01 月 05 日前繳納第 3.5 至 7.5 年年費，否則，本專利權即告終止，請惠予留意，以確保 台端權益。
- 四、隨函檢附本案專利證書正本乙份。
- 五、本案本所編號：I8885，往後查詢時請註明，如有任何不明確之處尚請不吝賜教，本所必將竭盡全力為 台端服務。

此 順頌

商祺

永信國際專利商標聯合事務所
接洽人：林宗文 經理 敬上
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The
United
States
of
America



**The Director of the United States
Patent and Trademark Office**

Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America, and if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States of America, or importing into the United States of America, products made by that process, for the term set forth in 35 U.S.C. 154(a)(2) or (c)(1), subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b). See the Maintenance Fee Notice on the inside of the cover.

Michelle K. Lee

Director of the United States Patent and Trademark Office



US009382895B2

(12) **United States Patent**
Lin

(10) **Patent No.:** US 9,382,895 B2
(45) **Date of Patent:** Jul. 5, 2016

(54) **SELF-POSITIONING DEVICE FOR WATER TURBINE**

(56) **References Cited**

U.S. PATENT DOCUMENTS

- (71) Applicant: KUN SHAN UNIVERSITY, Tainan (TW)
 - (72) Inventor: Shueei-Muh Lin, Tainan (TW)
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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 782 days.

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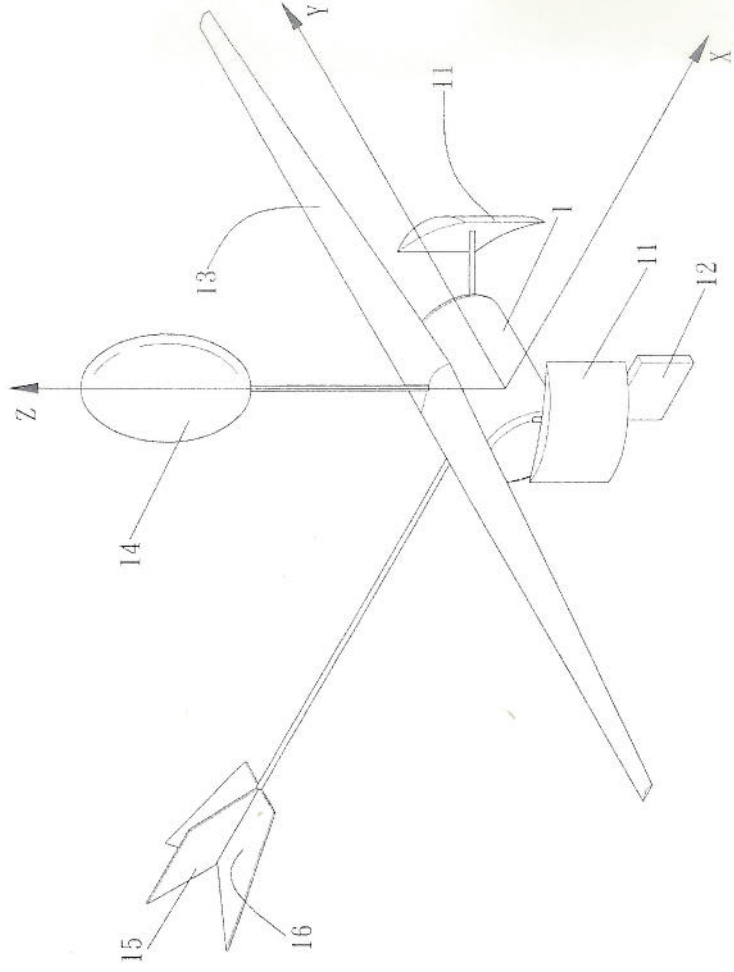
(51) **Int. Cl.**
F03B 13/10 (2006.01)
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U.S. Cl.
CPC **F03B 17/061** (2013.01); **F05B 22/40/97** (2013.01); **Y02E 10/28** (2013.01)

(58) **Field of Classification Search**
USPC 415/8
See application file for complete search history.

(57) **ABSTRACT**

A water generator assembly includes a water generator having two forwarding wings on the front end thereof and the forwarding wings are applied by current and generate a resistance force and a lifting force. The resistance force and the lifting force are combined as a composition force which has a forwarding component force in the X-axis to offset the drag force caused by the current applying to the water generator. A component force in Y-axis is offset by the forwarding wings. A balance wing is connected to the water generator to prevent the water generator from spinning about the X-axis. The water generator has a lifting wing to generate a lifting force to lift the water generator. A buoyant floats and indexes the water generator facing the current and prevent the water generator from spinning about the Y-axis.

9 Claims, 9 Drawing Sheets



MAINTENANCE FEE NOTICE

If the application for this patent was filed on or after December 12, 1980, maintenance fees are due three years and six months, seven years and six months, and eleven years and six months after the date of this grant, or within a grace period of six months thereafter upon payment of a surcharge as provided by law. The amount, number and timing of the maintenance fees required may be changed by law or regulation. Unless payment of the applicable maintenance fee is received in the United States Patent and Trademark Office on or before the date the fee is due or within a grace period of six months thereafter, the patent will expire as of the end of such grace period.

PATENT TERM NOTICE

If the application for this patent was filed on or after June 8, 1995, the term of this patent begins on the date on which this patent issues and ends twenty years from the filing date of the application or, if the application contains a specific reference to an earlier filed application or applications under 35 U.S.C. 120, 121, 365(c), or 386(c), twenty years from the filing date of the earliest such application ("the twenty-year term"), subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b), and any extension as provided by 35 U.S.C. 154(b) or 156 or any disclaimer under 35 U.S.C. 253.

If this application was filed prior to June 8, 1995, the term of this patent begins on the date on which this patent issues and ends on the later of seventeen years from the date of the grant of this patent or the twenty-year term set forth above for patents resulting from applications filed on or after June 8, 1995, subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b) and any extension as provided by 35 U.S.C. 156 or any disclaimer under 35 U.S.C. 253.