

FORM 2
PATENTS ACT, 1970
(39 of 1970)
&
The Patents Rules, 2003
PROVISIONAL SPECIFICATION
(See section 10 and rule 13)

1. TITLE OF THE INVENTION

**“GRAVITY DRIVEN ELECTRICAL ENERGY GENERATION
SYSTEM AND METHOD ON A FLOATING BED”**

2. APPLICANTS

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CASTLE, BAKKANNAPALEM,
BEHIND SVS ROYAL PARADISE,
MADHURWADA, VISAKHAPATNAM,
ANDHRA PRADESH.**

3. PREAMBLE TO THE DESCRIPTION

PROVISIONAL

The following specification particularly describes the invention and the manner in which it is to be performed.

4. DESCRIPTION

Technical Field of the invention

5 [001] The present invention generally relates to mechanical power generation system. More particularly, relates to gravity driven electrical energy generation system runs by the liquid pumping.

Background of the invention

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[002] Primary understanding of energy is that it is transferred to an object in order to move it. This transferring of energy can be in the form of force. The amount of energy transferred by the force to move an object is called work or work done. Thus, the relation between Work and Energy is direct. That is, the difference in
15 the Kinetic energy of an object is work done by an object.

[003] Work and energy are dimensionally same, energy constrained does work. Further energy is a scalar while work is a vector. The difference between previous understanding and the new light the inventor is throughing on the subject is that,
20 they are not the same thing. So when energy fields are constrained in certain ways, work can be extracted, and we can call this as ‘field effect principle’.

[004] By using ‘field effect principle’ three engineering machines are imagined by the inventor Mr. ANNE, Vijaya Venkata Deepak. They are:

- 25 1. Gravity pump: this is in mechanical engineering and uses the gravitational field. The inventor filed an Indian patent application No. 201741007494 on March 03, 2017, titled “POWER GENERATION FROM ENERGY STORED UNDER GRAVITY” which is hereby incorporated by reference;
2. Solar radio: this is in electronic engineering and uses the sun’s radiation
30 particularly at infrared frequencies The inventor filed an Indian patent application

no. 202141002132 on Jan 17, 2021, titled "SOLAR RADIO" which is hereby incorporated by reference;

3. INDUCTION GENERATOR: this is in electrical engineering and uses the fields of super strong permanent magnets;

5 4. GRAVITY DRIVEN ELECTRICAL ENERGY GENERATION SYSTEM AND METHOD: this relates to gravity driven electrical energy generation system.

[005] The composite gravity pump which uses gravity induced vacuum in one segment and compressed air in another segment is capable of generating only sub
10 kilowatt power due to the difference between gauge pressure and real pressure.

[006] It has been discovered that the problems left unanswered by known art including the cited document can be solved by an improved gravity driven electrical energy generation system. Therefore, the inventor felt the need for
15 gravity driven electrical energy generation system and method on a floating bed with large amount of generation.

Brief Summary of the invention

20 [007] The following presents a simplified summary of the disclosure in order to provide a basic understanding to the reader. This summary is not an extensive overview of the disclosure and it does not identify key/critical elements of the invention or delineate the scope of the invention. Its sole purpose is to present some concepts disclosed herein in a simplified form as a prelude to the more
25 detailed description that is presented later.

[008] It is an object of the invention to construct a system operated on gravity driven electrical energy generation system.

[009] It is yet another object of the invention to construct a system to extend the air vent deeper into the double bottom tank normally terminates at roof of the tank, creating an airlock when tank is filled with sea water.

5 [010] It is yet another object of the invention to maintain the draft of floating bed to be around 7 meters to 8 meters.

[011] It is yet another object of the invention to allow air lock as well as filling of double bottom tank.

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[012] It is another object of the invention to produce electrical energy by constructing a sea water based circuit.

[013] According to an aspect of the present invention, a Gravity driven electrical energy generation system and method on a floating bed is disclosed. The system comprises of a double bottom holding tank, an air vent, a hydroelectric generator connecting pipes and a set of valves.

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[014] In accordance with an aspect of the present invention, the air vent of the double bottom tank extends deeper into the tank. The large tank is filled up with sea water and a large amount of air is locked resulting in an air lock. An air lock is a restriction of sea water filling caused by air trapped in a high point of a tank. The air, being less dense than the sea water, rises to high points. This phenomenon is known as air lock. The air lock leads to liquid pumping to the deck by the air vent outlet.

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[015] In accordance with an aspect of the present invention, the double bottom tank of the floating bed is filling with sea water. The air inside the tank is raise to high points as it gets trapped. Neither the tank filling nor the air escape is possible without stopping. When neither of these is permitted, the tank continues to pump the liquid drawn by gravity.

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[016] In accordance with an aspect of the present invention, wherein the sea chest must be submerged in 7 to 8 meters of sea water, enabling the air lock and tank filling, which leads to the pumping of the liquid from the sea chest by gravity to the deck. Hydro electric generators are arranged at the outlet of air vent of double bottom tank to generate electrical energy under the influence of gravity.

[017] In accordance with an aspect of the present invention, method of generating electrical energy by driving hydro electric generator under the influence of gravity on a floating bed follows extending the length of air vent into the double bottom tank. Allowing the sea water to fill up the tank by identifying the large amount of air packed in the double bottom tank creating air lock. Allowing the filling of tank and locking of air in the double bottom tank creates a gravity pump suctioning sea water. The hydro electric generators produce electricity by pumping liquid from the air vent.

[018] Further objects, features, and advantages of the invention will be readily apparent from the following description of the preferred embodiments thereof, taken in conjunction with the accompanying drawings.

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Brief Description of the Drawings

[019] The invention will be further understood from the following detailed description of a preferred embodiment taken in conjunction with an appended drawing, in which:

[020] Fig. 1 illustrates the block diagram of the components in gravity driven electrical energy generation system on a floating bed, according to an exemplary embodiment of the present invention.

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Detailed Description of the invention

[021] It is to be understood that the present disclosure is not limited in its application to the details of construction and the arrangement of components set forth in the following description or illustrated in the drawings. The present disclosure is capable of other embodiments and of being practiced or of being carried out in various ways. In addition, it is to be understood that the phraseology and terminology used herein is for the purpose of description and should not be regarded as limiting.

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[022] The use of “including”, “comprising” or “having” and variations thereof herein is meant to encompass the items listed thereafter and equivalents thereof as well as additional items. The terms “a” and “an” herein do not denote a limitation of quantity, but rather denote the presence of at least one of the referenced items. Further, the use of terms “first”, “second”, and “third”, and the like, herein do not denote any order, quantity, or importance, but rather are used to distinguish one element from another.

[023] According to an exemplary embodiment of the present invention, a Gravity driven electrical energy generation system and method on a floating bed is disclosed. The system comprises of a double bottom holding tank, an air vent, a hydroelectric generator connecting pipes and a set of valves.

[024] In accordance with an exemplary embodiment of the present invention, the holding tank is composed of openings for filling by sea water using gravitational field. In a floating bed the air vent of the double bottom tank normally terminates at the roof of the mentioned tank. But, it is extended into the tank capturing, retaining air, creating a pressurized air lock after tank is filled up by seawater under influence of gravity of seawater outside floating bed, at significant draft.

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[025] In accordance with an exemplary embodiment of the present invention, wherein the draft of the floating bed is maintained around 7 meters to 8 meters and the air vent of the double bottom tank extends further into the tank. The large tank is filled up with sea water and a large amount of air is locked resulting in an air lock. The air, being less dense than the sea water, rises to high points. This phenomenon is known as air lock. The air lock leads to liquid pumping to the deck by the air vent outlet.

[026] In accordance with an exemplary embodiment of the present invention, the double bottom tank of the floating bed is filling with sea water. The air inside the tank gets raised to high points as it gets trapped. Neither the tank filling nor the air escape is possible without stopping. When neither of these is permitted, the tank continues to pump the liquid drawn by gravity from the sea suction. Hydro electric generators are arranged at the outlet of air vent of double bottom tank to generate electrical energy under the influence of gravity.

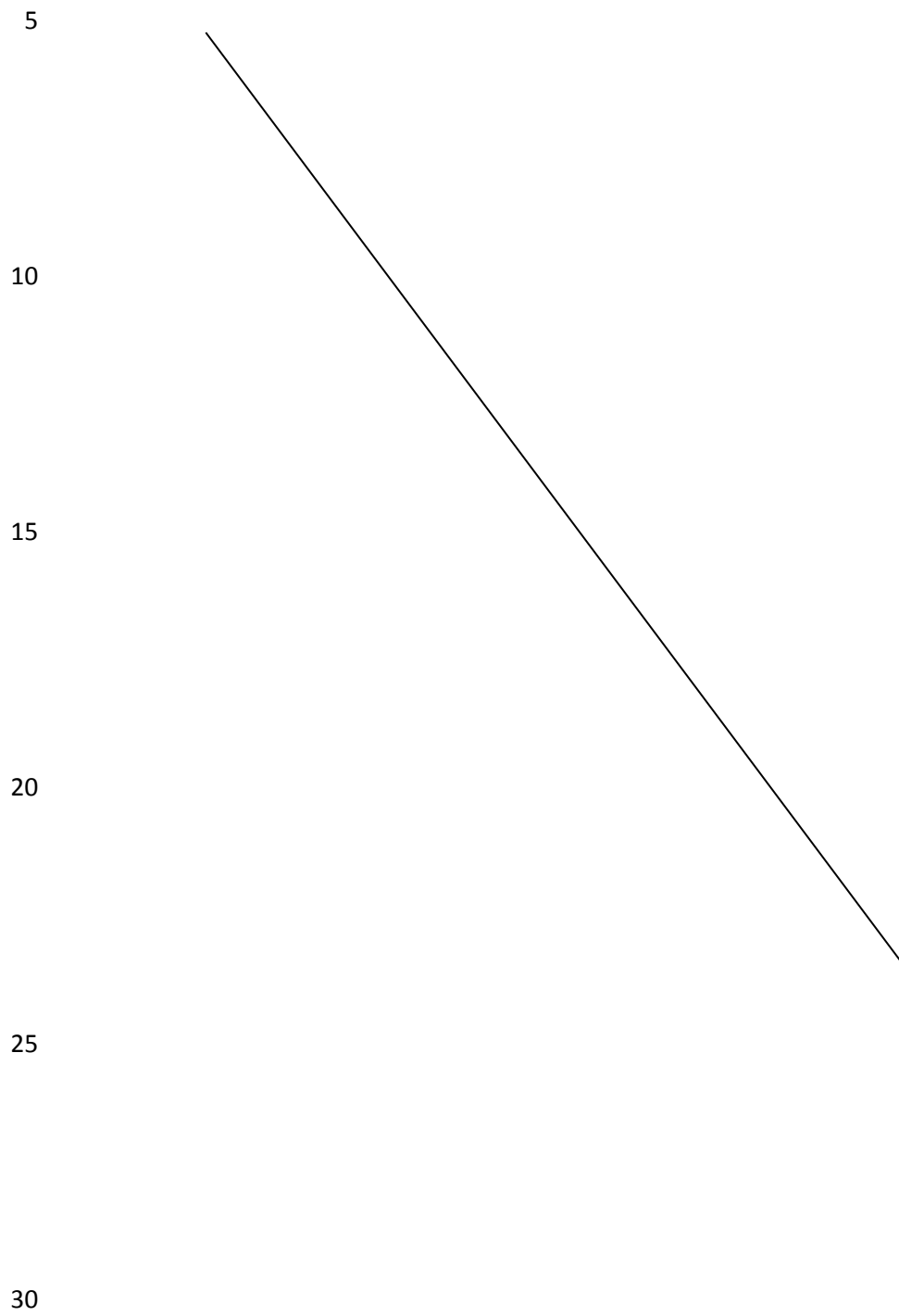
[027] In accordance with an exemplary embodiment of the present invention, method of generating electrical energy by driving hydro electric generator under the influence of gravity in a floating follows extending the length of air vent into the double bottom tank. Allowing the sea water to fill up the tank by identifying the large amount of air packed in the double bottom tank creating air lock. Allowing the filling of tank and locking of air in the double bottom tank creates a gravity pump suctioning sea water. The hydro electric generators produce electricity by pumping liquid from the air vent.

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[028] Referring to Figures, Fig. 1 illustrates the double bottom tank (102) comprising air vent (104) extending from the terminal deep into the tank (104). The floating bed is maintained at a draft of 7 meters to 8 meters. The sea chest has connecting pipes (114) and valves (112) that enable water to be sucked into the double bottom holding tank (102) by gravity. The water pumped by the outlet of

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air vent is forced to rotate the hydro electric generator (108) placed on the deck of floating bed i.e. above outside seawater level.



5. CLAIMS

I/We Claim:

1. A gravity driven electrical energy generation system (100) on a floating bed, comprising of:
 - 5 a double bottom holding tank (102), an air vent (104), a hydroelectric generator (108), connecting pipes (114) and a set of valves (112);
wherein, the said double bottom holding tank (102) is composed of openings for filling of sea water by using gravitational field;
the said double bottom holding tank (102) is filled to create air lock and
10 accumulates air on emptying the holding tank (102);
the said air vent (104) is extended providing balance of pressure that will be developed in the said double bottom holding tank (102);
the set of valves (112) are used to regulate the flow of sea water and the series of pipes (114) are used to connect the system (100); and
15 the hydroelectric generator (108) converts the energy of flowing water into mechanical energy, and thereafter into electrical energy.

2. A method of generating electrical energy by driving gravity pump on a floating bed follows:
 - 20 Immersing and maintaining the sea chest around 7 -8 mts in the sea water;
extending the length of air vent (104) into the double bottom holding tank (102);
allowing the sea water to fill up the double bottom holding tank (102);
identifying the large amount of air packed in the double bottom holding
25 tank (102) creating air lock;
allowing the filling of tank and locking of air in the double bottom tank (102) creates a gravity pump suctioning sea water;
allowing the pumping of liquid from the air vent (102) to run the large hydro electric generator (108);
30 the hydro electric generators (108) are used to generate electrical energy.

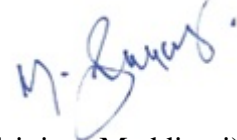
3. The method as claimed in claim 1, wherein the air vent (102) of the double bottom tank (104) is extended from termination into the tank for allowing the pumping of the sea water on to the hydro electric generators.

5 4. The method as claimed in claim 1, wherein the outlet air vent (102) allowing the gravity driven pumping of water on to the hydro electric generators for electricity generation.

10 **6. DATE AND SIGNATURE**

Dated this 21st November, 2022

Signature



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**TITLE: “GRAVITY DRIVEN ELECTRICAL ENERGY GENERATION
SYSTEM AND METHOD ON A FLOATING BED”**

7. ABSTRACT

5 A gravity driven electrical energy generation system (100) on a floating bed
comprises of a double bottom holding tank (102), an air vent (104), a
hydroelectric generator (108), connecting pipes (114) and a set of valves (112).
The floating bed is maintained at a draft of 7-8 meters. The said double bottom
holding tank (102) is composed of openings for filling of sea water by using
10 gravitational field. The said double bottom holding tank (102) is stored with air to
create air lock and accumulates air. The said air vent (104) is extended providing
balance of pressure that will be developed in the said double bottom holding tank
(102) and hydroelectric generator (108) converts the energy of flowing sea water
into mechanical energy, and thereafter into electrical energy.

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Figure associated with Abstract is Fig. 1.

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