



iJRASET

International Journal For Research in
Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 6 Issue: II Month of publication: February 2018

DOI: <http://doi.org/10.22214/ijraset.2018.2103>

www.ijraset.com

Call: ☎ 08813907089

E-mail ID: ijraset@gmail.com

Principle and Working of Gravity Power Generation Mechanism

Ranjit G. Wagh¹, Snehal D. Gongle², Vaibhav A. Lohkhare³, Saurabh V. Yenkar⁴, Arpesh D. Chirde⁵.

^{1,2,3,4} Final Year Student, ⁵ Assistant Professor, Mechanical Engineering DES's COET Dhamangaon (Rly), Maharashtra, India.

Abstract: Visualizing the present scenario conservation of energy has become biggest issue. There is need of generating and implementing of alternative option to generating power to avoid the hazardous effect of pollution and global warming. The gravity is the force which is available at every instance of earth. That's why we made a such type of mechanism which uses gravity as a source to generate electrical energy, An arrangement made up in such a way that the gravitational force is get converted into electrical energy by kinetic energy of body.

Keywords: Renewable sources, Pollution, Gravitational Force, Kinetic Energy.

I. INTRODUCTION

Now a day's demand of energy continuously increases with the rapid growth of industrialization and urbanization. It causes pollution and global warming while satisfying the demand of energy. After few year sources like coal, wood, water, will be finish. Instead of those sources like solar, wind, biomass etc. is available at particular instant of time. That why we need some other sources to fulfilling our energy demand and requirement. For that we are introducing the innovative method of generating power by gravity of the earth, which is present all time at anywhere on the earth. But in reality the design could not turn into physical body. It didn't work as they thought theoretically. It is convincible to cover up the gravitational energy away from an object, so that can result into citation of energy from gravitational range, which may result into generation of gravitational electrical power technologically beneficial. Hence to provide solution for this, we studied the principle of gravity power generation mechanism, to give better efficiency to the system and improve the working of power generation.

II. LITERATURE SURVEY

Near about 400 years ago Sir Isaac Newton had invented the phenomenon of gravity. After that London based scientist Martin Radford and Jim Reeves researches developing light as an off-line project for 4 years. To make gravity light they were used and tested manufacture that has appropriate knowledge of it. To the storing of energy and produce lighting, the gravity power generation was the innovative approach. Creating the 30- minutes light it takes only 3-secs to lift the weight which powers gravity at its descent.

Chun-Cho Wang and Yuh-suiang has strongly implemented the idea of gravity power generation mechanism, as per their conception for the electricity, more simplified mechanism issued. The basic intention behind the invention is to implementation of gravity power generation mechanism is to provide continues and balanced operation to continuously switch over type gravitational potential energy into the kinetic energy into electrical energy, so as to perform for a while, effective and balanced energy output.

Russian researcher Mikhail Dmitrive apparently construct a mechanism can be trapped to generate energy. They worked for a long time for actualizing and testing the system and he is quite successful in his work. Generally his design is based on the principle of having a wheel attaching weight itself and implementing for those weights to be balanced outwards when falling and balanced inwards when rising. Due to many arms tangled, it may results into inequality which causes the wheel to rotate continuously and if the weights are in proper size, then rotation is dynamic and can be used to generate electricity.

III. WORKING PRINCIPLE

The machine is stand on simple principle i.e. 'when an object is placed on a higher level ground then due to the gravitational force it experiences a pull towards the lower level and gains kinetic energy. This kinetic energy can be utilized in a précised manner in which it can be transformed into electrical energy.' The basic idea used that is perpetual motion which channel the motion that gets on without any other source of energy. The perpetual motion is the deal like propeller which never stops rotating without any motor. In this way we try to attain perpetual motion using gravitational energy.

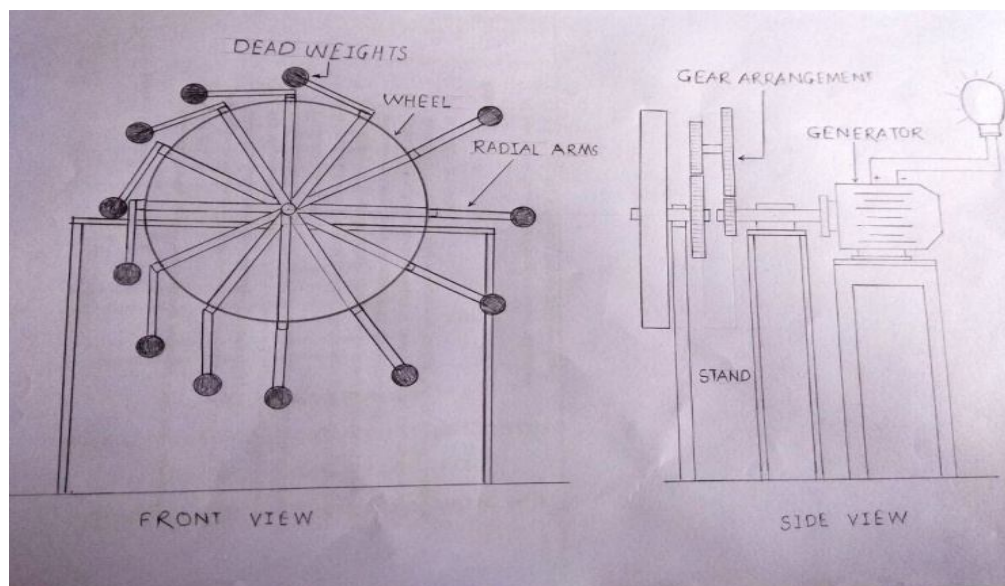


Fig. 2.1: Schematic view of a gravity power generation mechanism.

IV. WORKING

The figure shows the gravity power generation mechanism. The arrangement consists of dead weight fixed on wheel carrying variable loads and supporting stand. The system of gears arranges in such a way that, the diameter of upper gear is more co-related with bottom gear and those two gears are adjust in a vertical line. Variable weights are placed on the wheel as we can see in fig.2.1 and this wheel is fatherly linked with the flywheel. The mini D.C. generator is used for the electricity generation which is linked with flywheel and that flywheel is attached to the bottom gear. In this arrangement the flywheel is introduced for the balancing of loads.

In this arrangement it needs some initial thrust to achieve the spinning of dead weights in circular manner. Due to gravitational energy, the weights from higher elevation are drops down which results into the gravitational force and due to that bottom weight pulled up because of the action upper weights and this system will keep on for a while. This arrangement is to be order to convert gravitational potential energy into the kinetic energy by employing gravity conversion unit. By adopting of externally spread out single directional swing arm, which results into positive torque and minimizes negative torque with help of overlapping action of single directional swing arm as to work long time, effective and never cease of converting gravitational potential energy into kinetic energy. After that another conversion of energy of converting kinetic energy into electrical energy, that kinetic energy will be transferred to the generator. And lastly the power supply system is employed to transmit electrical energy out.

V. SCOPE OF STUDY

- A. Choosing of gravity power generation mechanism is the most basic clause for the power generation.
- B. To generate electricity use gravity power, thus conversion of potential energy to kinetic energy using perpetual motion machine.
- C. To use gravity power generation to generate power up to 60 watt.
- D. Uncomplicated structure should be avoided.
- E. Conversion ratio should be higher.
- F. To perform a long time energy conversion it needs some starting energy.
- G. It can be separately producing electricity and can be linked to the wind power side by side.

VI. ADVANTAGES

- 1) Gravity is the constant source of energy on which the mechanism being operates.
- 2) For the [power generation mechanism, location or site selection does not play important role.
- 3) For longer term energy generation, small investment of is required.
- 4) The mechanism is 100% free from pollution and eco-friendly too.

VII. CONCLUSION

We conclude that, it provides ideas about the principle of gravity power generation mechanism. The main motto of the study is to soar up the mechanism of power generation. It may help to find substitute for conventional power generation.

REFERENCES

- [1] Vidhan Srivastava, Sumit Chaudhary, Shailesh M. Pandey, Kulvinder Rana "Gravity Power Generation" IJMRS's International Journal of Engineering Sciences, Vol. 01, Issue 03, September 2012.
- [2] George O. Schur, "Gravity actuated thermal motor", United States Patent number: 4121420.
- [3] Richard P Feynman, Robert B Leighton, Matthew Sands "Lecture on physics", Narosa book distributors Ltd., volume 1.
- [4] Chun-chao Wang, Yuh-suiang Wang "Gravity Power Generation Mechanism" United States patent number: 20090115195 A1 App No. 11/935,228 May, 2009.
- [5] Victor Rene Angulo Valpreda, Mayra Palomares Coral US 8344537 B2 App No. 12/668,757 January, 2013.
- [6] Mr. Rakesh S. Ambade, Mr. Roushan Prabhakar, Mr. A Review on Gravity Power Generation International Journal of Innovative Research in Science, Engineering and Technology, vol. 3, issue. 4, pp. 11085, 2014
- [7] About Mikhail Dmitri Gravity wheel motor: peswiki.com/index.php/Directory:Mikhail_Dmitriev_Gvty_Wheel (Date of access: Sep 30, 2015).
- [8] About industrial overview and Renewable energy replacements: www.adeniumcapital.com/industry-overview.aspx (Date of access: Sep 25, 2015).
- [9] Transcript of Gravitational Potential Energy: prezi.com/ahf5irczdxnf/gravitational-potential-energy/ (Date of access: Sep 25, 2015).
- [10] Details about Synchronous motor driver: <http://resultsdownload25y.tk/synchronous-motor-driver/> (Date of access: Sep 25, 2015).
- [11] Details about LED light: http://www.entrustexim.com/about_led_light.html (Date of access: Sep 25, 2015).



10.22214/IJRASET



45.98



IMPACT FACTOR:
7.129



IMPACT FACTOR:
7.429



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089  (24*7 Support on Whatsapp)