

A Possible Bessler Wheel Design by Lawrence Tseung on Aug 3, 2006

One of the useful discussion websites is: <http://www.besslerwheel.com>. Follow the thread – Cosmic Energy Electricity Generators. The Claim is a FREE ENERGY Machine built in the 17th Century by Bessler. We now fully understand how to extract gravitational energy from the Swing and the related devices. We shall present an overview to show that using gravitational energy directly and continuously does not violate any Laws of Physics. We follow that with a design to create a FREE ENERGY Machine using 17th Century technology.

Overview

Using gravitational energy one time has always been possible – weight or water coming down from a higher level. Many people have tried to use gravitational energy directly and continuously. One of the best on record was the **Bessler Wheel** at the beginning of the 18th Century.

The most frequent scientific argument against such a FREE ENERGY machine is the Law of Conservation of Energy. **We also believe in this Law.** However, scientists previously ignored many non-obvious forms of energy. The example we quote here is that of the **Pendulum**. When we pull the pendulum to one side before letting go, there are three forces and two energy terms involved. The forces are the horizontal pull, the weight and the tension of the string. The two energies are the horizontal energy from the pull and the vertical energy in raising the weight.

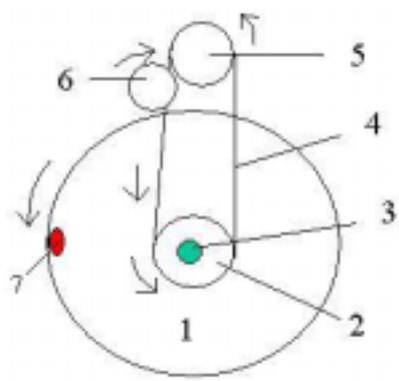
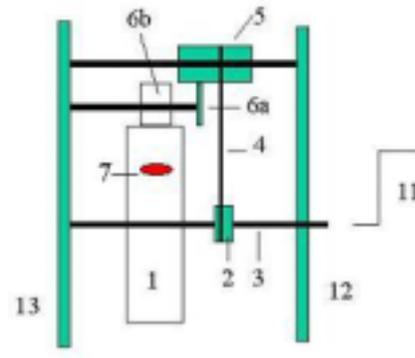
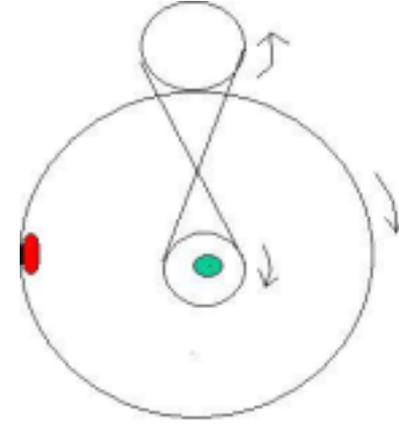
The Mathematical Analysis uses the Parallelogram of Forces taught in high schools. **The analysis has been confirmed by many scientists including Georg Kuenstler of the [Bessler Wheel Forum](#).** It clearly shows that the Pendulum is an Over Unity Device of approximately 1.5. We only need to supply 2 units of horizontal pull energy, 3 units will enter the system. The extra 1 unit is FREE – from the tension of the string in raising the weight or FREE ENERGY from gravity.

Previous inventors did not know the above theory. They did not realize that **2/3 of the output energy should be fed back to the input** if they want to build a working system. Some succeeded but were rejected by the “authoritative school of scientists” who never studied the **correct theory of the Pendulum**. Some inventors sadly carried their secrets to their graves like Bessler. We examined dozens of **rejected inventions** in both China and around the World and found that they were **workable**.

The Suggested Design

The design is just a simple **overbalanced wheel** with a **feedback** mechanism. Almost any known overbalanced wheel may be substituted. Other feedback mechanism may also be used. If 2/3 of the output energy could be fed back to the input, the FREE ENERGY machine would be the result.

Many discussed [overbalanced wheel](#) designs at the [Bessler Wheel Forum](#) should work if the inventors added the feedback mechanisms!

 <p>Figure 1 View showing the Large Wheel</p>	 <p>Figure 2 View showing the gears</p>
 <p>Figure 3 The Simpler Design</p>	<p>Figure 3 on the left is an even simpler version of the design. We discovered the design after looking at some of the Bessler Wheel Diagrams.</p> <p>This actually confirmed our theory that the Swing is an 1.5 Over Unity Device.</p> <p>The Wheel can be thought of as a bunch of Swings in 360 degree rotation.</p> <p>It was far too simple – no wonder Bessler had to hide the secret! It is also similar to the Asa Jackson Wheel.</p>

The Design Diagrams

In Figures 1 and 2:

1 is a Large Wheel or Cylinder (**simple, uniformly distributed Weight initially**).

2 is a gear connected to the Central Axle 3

3 is the Central Axle from which energy is extracted
4 is a Belt that allows the energy and the torque to be transmitted to upper gear 5
5 is the Upper toothed gear that drives Toothed Gear 6a
6a is the Toothed Gear that will rotate anti-clockwise (other wheels rotate clockwise)
6b is a Wheel that will provide the pulse force to the Large Wheel 1 via friction
7 is a **Weight or Hole to make the Wheel overbalanced (add and adjust later)**
11 is the Hand Crank to turn the Large Wheel 1 initially
12 is a Frame, Board or Box to connect the axles and to hide the details optionally
13 is also a Frame or Board to connect the axles.

The Operational Steps

- (1) Hand Crank 11 is temporary connected to Central Axle 2 to rotate the Large Wheel 1 in a clockwise direction. Gear 3, Belt 4 and Gear 5 will also rotate in the clockwise direction.
- (2) Gear 5 will turn Tooth Wheel 6a and the Friction Wheel 6b in the anti-clockwise direction.
- (3) The Friction Wheel 6b will also help to turn the Large Wheel 1 at the rim in the clockwise direction. The Weight or Hole 7 also helps to provide the pulse force.
- (4) In other words, the use of the Hand Crank 11 will provide three ways to turn the Large Wheel 1. (Steps 1 and 3).
- (5) The sizes of Large Wheel 1, Gear 5, Tooth Wheel 6a and Friction Wheel 6b, Weight/Hole 7 are adjusted so that at a certain speed of rotation, the pulse energy is sufficient to rotate the Large Wheel 1 without the use of Hand Crank 11.
- (6) At this point, the Hand Crank 11 can be removed. If designed and experimented properly, the rotating Frictional Wheel 6b and Weight/Hole 7 will be the effective pulse force to Large Wheel 1. **Large Wheel 1 will lead out additional gravitational energy to help to maintain rotation and to supply the energy for the Gears, Belts and Frictional Wheel 6b.**

Optionally, there might be some extra energy left to do some demonstration such as lifting weights at the shaft of Gear 5 or other similar techniques (not shown).

The theory has been **covered fully and repeatedly** in the previous posts at the discussion websites <http://www.besslerwheel.com> and is repeated in the Appendix. This particular design is suitable for fun and research purposes at Universities and other non-profit seeking institutions.

Quote:

The Challenge:

Can you look at the swing or the pendulum and deduce that you can draw Energy from Gravity directly? Mr. Lee Cheung Kin, a 72 years old rocket scientist, who was forced to wash toilets for 7 years during the Cultural Revolution, did it. Can you repeat it?

From a USA professor: “Almost every human being have seen the swing or the pendulum. Only the Number One Genius in the World can succeed in conceiving and designing the machine to extract energy from gravity. My colleagues and I could not do it. But once the answer is explained, it is obvious.”

Can you understand the theory? When the answer is revealed, is it obvious to you?

When the opportunity of infinite wealth and World Peace knocks on your door (or emailed to you). Can you and do you know how to use it?

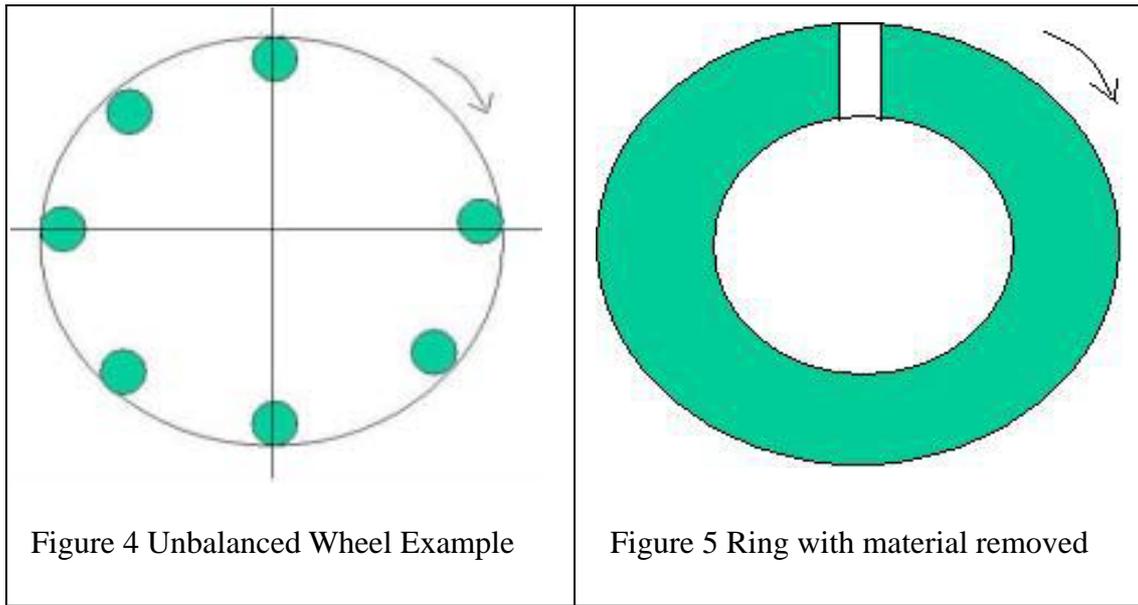
Question:

Why do we use an **unbalanced wheel** to rotate and provide the Pulse Force?

Steady motion along a straight line or constant rotation will involve no Force and hence no Energy Exchange as required by Newton’s Laws of Motion. With the unbalanced wheel, there will be acceleration and deceleration. Force and Energy Exchange will then take place. To be more exact, the gravitational energy gained during the acceleration will be “stored” temporarily and “released” during the deceleration phase. **The Bessler Wheel did not have constant speed rotation, it had half the rotation accelerating and half the rotation decelerating.**

Figure 6 below clearly shows that the Weighted, Unbalanced or Overbalanced Wheel is effectively a Pendulum.

The Modern IC Pulse technique is also not constant rotation. The electrical load would slow down the rotation of the cylinder but the Pulse would accelerate it again.



In Figure 4, there are 7 fixed weights distributed unevenly as shown. In Figure 5, there are rows of holes drilled to remove some mass at one section.

1. An initial starting force is required to get the rotation to a certain speed.
2. The rotation will lead out additional gravitational energy. **This fact was ignored by Scientists previously.**
3. The unbalanced rotation provides the Pulse Force.

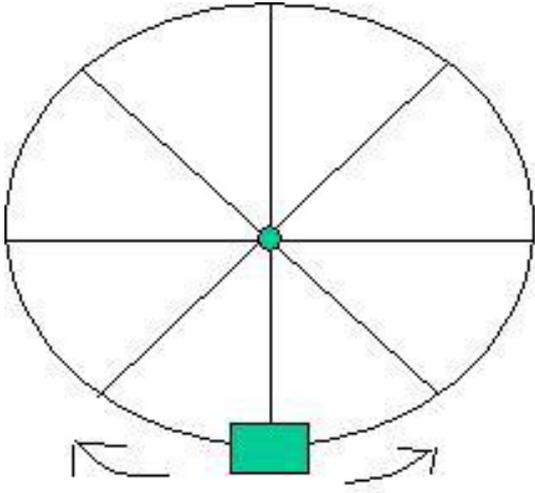
Many participants in the Discussion Forum focused heavily on the unbalanced or overbalanced wheel with internal motion. The theory clearly predicts that gravitational energy can be lead out by a Swinging, a Vibrating or a Rotating Object **(as stated in our patent application)** so long as we have a suitable Pulse Force.

The suitable Pulse Force can be

- A mechanical feedback mechanism such as in Figures 1-3.
- A movement of the unbalanced or overbalanced wheel as in Figure 4-6
- An electrical arrangement such as that in the Double Motor or that in the Liang Machine
- Not listed mechanisms
- Some combination of the above

I personally favor

- The balanced-wheel design as it is more suitable for high-speed rotation. Wobbling could be kept to a minimum.
- Pulse Force provided by electrical means such as ICs. Why use ancient technology?

 <p>Figure 6 Weighted Wheel</p>	<p>Figure 6 shows a weighted wheel</p> <p>It is clear that the mathematical analysis of this weighted wheel should be similar to that of the Pendulum.</p> <p>This can be extended to the analysis of all unbalanced or overbalanced wheels.</p> <p>I prefer not to go into overbalanced wheels with internal movements. I believe that they are not necessary and introduce unreliability.</p>
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Implementation Details on Figures 1 and 2

- (1) One can start with the bicycle type parts and build the prototype. The important thing to check is that the efficiency from the Central Axle 3 to the Friction Wheel 6a is at least 66.7%.
- (2) If you have access to a machine shop, you can be much more flexible. The support frame is important – Parts 12 and 13.
- (3) The Radius can be 0.5 meter; the Mass can be about 10Kg. The maximum energy that can be extracted per revolution would be $2MGR$ or 98Newton-Meters. The rotational speed can be 60 rpm. The **effective energy output** is likely to be about 5% or 5 Newton-Meters per second approximately. This is sufficient to do the demonstration. (Remember that at least 67% must be fed back.)
- (4) In the above example, the loss due to friction etc can be 28% (100-5-67). I believe Bessler was able to achieve that with 17th or 18th Century tools.
- (5) The chance of building a working prototype of the above design is extremely good with modern day technology. If an engineering college or university takes this up as a PhD student project, I am sure such a prototype can be built.
- (6) Did somebody mention about a **Prize Money** for a working FREE ENERGY machine? Could someone post the details?
- (7) It is possible to remove the Hand Crank 11 and get the initial rotational velocity (momentum) by making the overbalanced weight fall a longer distance with a spin by hand. However, that would demand the use of a large Wheel. This design works with a smaller wheel such as the Bicycle Wheel.

Expected Questions and Answers

(1) Can a simple Wheel or Cylinder be an Over Unity Device?

The Mother pushing her Child on a Swing can be **proven mathematically** to be an **Over Unity Device with a Coefficient of Over Unity = 1.5**. The Cylinder with most of the mass at the rim can also be proven to be an even better Over Unity Device with the Rotational Speed as an important factor. The **maximum** energy that could be extracted **per rotation is 2MGR**. (The mathematics is skipped here.) The **Pulse Force** can be applied at the Rim.

(2) If a Cylinder were an Over Unity Device, are there existing inventions utilizing it?

- The **Double Motor or Feedback Motor** is one example using the Cylinder Over Unity Technique. The Joe Newman machine first announced in 1965 is an example. Mr. Chan in our group produced a prototype 10 years ago.
- The Rotating Cylinder pulsed by Hall Effect ICs is the Dr. Liang machine or the **third generation** Cosmic Energy Electricity Generator videoed in Sept. 2003.
- The **Bessler Wheel also used the Cylinder!**

(3) What should be the next step if the Bessler Wheel mystery is solved as outlined?

- Consider building such a device
 - i. Use Modern Day Tools and Parts (One group started)
 - ii. Use 17th Century Material
- Think of alternative designs using the Cylinder as the Over Unity Device
 - i. Re-examine your previous designs and improve
 - ii. Come up with new designs (May have a Worldwide Competition)
- Re-examine the many so-called Perpetual Motion Machines
 - i. One type uses Energy from Air (or compressible fluid), Floatation Techniques, or “indirect gravity” techniques
 - ii. One type uses Ions in the Air (Lightning in a Box)
 - iii. The other types use vibration, oscillation, rotation in Energy Fields
- Dream about the New World with Infinite Energy
 - i. Cities under the Ocean
 - ii. Cities in the Sky
- How to achieve long lasting World Peace and Prosperity
 - i. No more wars in Middle East
 - ii. How to distribute the Infinite Wealth

Appendix Mathematical Proof That the Swing is a 1.5 Over Unity Device

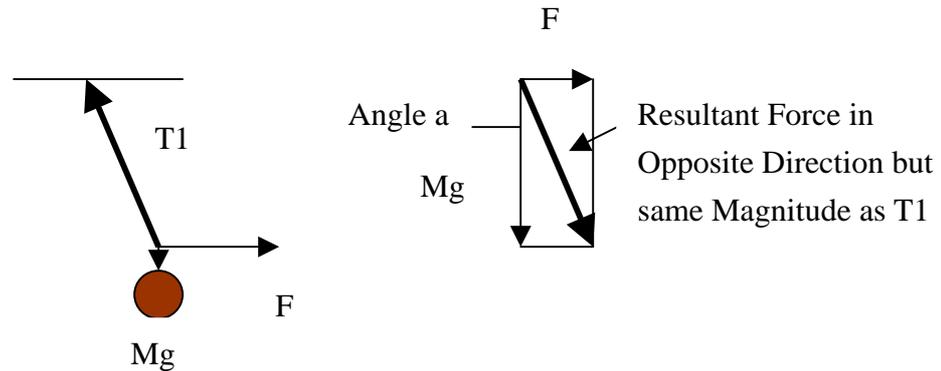


Figure A1 Force Analysis when Pendulum is pulled by Pulse Force F

The Law of Parallelogram of Forces states that the resultant of two forces acting at the same point can be represented by the diagonal of the Parallelogram that passes through this point.

In Figure A1, the Pendulum of weight Mg is pulled from the vertical position by a horizontal “pulse force” F . The resultant of these two forces can be represented by the diagonal of the Parallelogram that happens to be a rectangle. This resultant force will be exactly equal to the Tension $T1$ on the string at equilibrium as shown in Figure A1. In this example,

$T1$ (horizontal) = F but in the opposite direction

$T1$ (vertical) = Mg but in the opposite direction

It is readily proven that in this case, the Tension of the String $T1$ is more than Mg as the diagonal of a rectangle is longer than any of the sides. In particular,

$T1$ (vertical) x the raised height of the Pendulum
= Work done against Gravity

This energy is NOT equal to the Pulse Force Energy. The Pulse Force Energy should be equal to

F x horizontal displacement of the Pendulum.

When a 60Kg person sits on the stationary swing, there are two forces to consider - the Weight Mg (60Kg) and the Tension in the string T . T is equal to 60Kg at equilibrium.

When a 10kg horizontal force is applied (ignore the pulse part for now - just assume a constant force) to the 60 kg person, there are three forces to consider -

the Weight Mg (60kg), the Tension in the string T_1 and the Horizontal Force F (10Kg). These THREE forces will be at equilibrium and obey the Law of Parallelogram of Forces.

When you apply the Law of Parallelogram of Forces to these three forces, you get $T_1 = \text{sqrt root of } (Mg * Mg + F * F)$ or 60.82763Kg.

Thus T_1 is definitely greater than T .

The Tension in the String T_1 is responsible for lifting the 60Kg person.

Once you accept the above analysis, the rest is strictly mathematics.

- (1) The angle a is given by $\tan(a) = 10/60$ or 9.48degrees.
- (2) The horizontal energy is $F \times \text{Length} \times \sin(a) = 1.64703\text{Length}$ (in Newton-meters)
- (3) The vertical energy is $Mg \times \text{Length} \times (1 - \cos(a)) = 0.819411\text{Length}$ (in Newton-meters)

In other words 1.64703 units of supplied energy (horizontal)

Leads out

0.819411 units of FREE energy (vertical)

The coefficient of over unity (COU)

= total output energy / supplied energy

$= (1.64703 + 0.819411) / 1.64703$

$= 1.497508$

$= 1.5$ approximately!

Note that 2 units of Horizontal Energy Leads Out 1 unit of Vertical Energy approximately. All these 3 units of energy are stored or conserved in the Pendulum System. If the system is over 66.7% efficient, the system can supply FREE gravitational energy. For example, if the system is 80% efficient, 66.7% can be fed back and 13.7% (80-66.3) can be used to generate electricity or do useful work. The remaining 20% could be lost due to friction or heat etc.

A Weighted Wheel is effectively a Pendulum. A Balanced Wheel can be treated as a bunch of Pendulums in 360 degrees rotation. **Mystery of the Bessler Wheel is now completely solved.**