

Conceptual Patent of Reactionless Propulsion System/Jorcarna  
(無反作用力推進系統概念)

(A propelling mechanism by redirection or elimination of the reaction force generated as the by-product of process for generation of )

First Proposed Date: 12/02/2003 (Paul Toomer)

Date:12/22/05

Inventor: Paul Toomer,

Contact: [jorjencar@leeds322.wanadoo.co.uk](mailto:jorjencar@leeds322.wanadoo.co.uk)

Phone:

Co-Inventor: Euler

Address:

Contact: [ideas.euler@gmail.com](mailto:ideas.euler@gmail.com)

Phone: (852)36715678

Reference: <http://magneticpropulsion.mysite.wanadoo-me.mbers.co.uk/>  
[http://www.ufoseek.com/m/AntiGravity/Paul\\_Toomer\\_L1830/](http://www.ufoseek.com/m/AntiGravity/Paul_Toomer_L1830/)

Background:

According to the Newton's Third Law that each force must accompany with an equal and opposite force thus implying that any object can't propel itself from the inside, and Conservation of momentum further states that any object must maintain a constant sum of momentum at any moment. The implication, to some, is that any object can NEVER propel itself from the inside. If this any object include Biological entities, then animal is a simply an impossible creature: Since many living creatures are propelling themselves from the inside, including human being.

A careful review reveal that although Newton's Third Law demand a reaction of equal force accompany every action, but it doesn't states exactly where should the action and reaction eventually take effect. Thus there is no reason to assume that any action force initialized inside an object must be canceled by the reaction cause by this action. Similarly, the law of conservation of momentum demand that an object moving forward must accompany with some other component moving backward for an originally stationary object, but it doesn't demand that the other component moving backward to be EXPEL nor the backward moment to reach the end of the object.

The breakthrough in this conceptual innovation is that we discover that we could use both action and reaction force to propel an object from the inside, instead of using only the action force and wasting the reaction force. This system allow redirection the reaction force via: **A.** Liquid Pressure; **B.** System of attraction and repulsion, **C.** Mechanical force-transferring system like pulley or string; or **D.** Some combinations of all of the above to transfer the reaction force to the same side as the action force. The end result is that we achieve a REACTIONLESS propulsion system which could propel an object from the inside WITHOUT necessity of a exhaust. Without the limitation impose by the exhaust and necessity of fuel, this Reaction Propulsion System could drive any vehicle on any place inside or outside Earth(As long as we had energy).

Development of idea:

Consider the simplest case of hanging by a thread of a Magnet with the side N facing the wall near the driver in a truck. In the wall there embedded another Magnet with the pole N facing the back side of the truck. What happen if we push the hanging Magnet toward the back side of the truck? Ideally, the hanging Magnet would first rise to that side then fall back toward the front, and because of the repulsion exist between the hanging Magnet and the embedded Magnet, it would gradually slow down until it rest at the equilibrium position. While at the same time, due to the principle of action reaction pairs; the hanging Magnet also exert a force in the opposite direction of its own movement. The end result is the truck is propelled forward. To continually propel the truck forward, we just need to swing the thread hanging the Magnet backward once it slow down. Clearly, the truck is propelling forward by the reaction force of the hanging Magnet, and the action force acting on it is consumed by acting against gravity on its way up.

There are however, technical problems associated with the above design that we can generalize to all cases: 1. Without any restriction of the direction of movement of the thread led by the Magnetic force, the thread may turn the hanging Magnet into facing the embedded Magnet, thus we have attraction instead of repulsion. Thereby as result the truck move backward. So an environment or mechanical device Restraining the movement of the hanging Magnet is necessary; 2. Since the Repulsing action is started afar, the strength of the resulting propulsion may NOT be strong enough. The ideal case is we let the Repulsion start only when the hanging Magnet is closest. Thus a Electromagnet whose polarity is controlled by electrical circuit for precise timing(by detecting the angular position of the thread) is necessary for best effect; 3. We need a mechanism to swing the thread once its swing decrease in range, as the repulsion force as the source of propelling action would be greater if the hanging Magnet is closest to the embedded Magnet; 4. It is the reaction force of the hanging Magnet cause the truck to propel forward, while the effect of the action force applied by the embedded Magnet to the hanging Magnet never affected the movement of the truck as this design intended to prevent it from interact with any other part of truck. This is just one design which dissipate the unwanted effect of repulsing force while leaving the intended effect, it would be more energy efficient if both action and reaction force are utilized. Thus a mechanism to redirect reaction force with the goal to cause the same propelling effect as the action force is necessary. These four technical considerations are thus the basic of every RPS.

A slightly modified design is to affixed two Magnets of like poles facing each other at both end of the object we want to propel. When the thread hanging the Magnet is inbetween the range of two Magnetic field, the net resultant force between the hanging Magnet and the two other Magnets is a stronger action force acting to push the hanging Magnet backward while propelling the truck forward. Again the reaction force is absorbed by the gravity. The technical problems associated with this design is we need a precise timing mechanism to control the polarities on either the hanging Magnet or the stationary Magnets so that the action and reaction force is of the strongest strength. The polarities of the embedded Magnets and the hanging Magnet doesn't have to match this example, just any combinations that could resulted a net resultant force to propel the hanging Magnet to one side of the truck. Therefore the reaction force would propel the truck in the opposite direction.

Now further consider another case when a reversed C arm which is free to rotate on the axis on the middle of it affixed to the floor of the truck, and if we place two Magnets on

its openings. And the openings are corresponding to the two another Magnet embedded in one side of the truck. We start the system by rotating it so one end is closest to one embedded Magnet. At that moment if we generate a repulsing force at the one end, that force would cause the C arm system to rotate in the opposite direction while the truck move forward. Similar thing happens when the other end 'hit' the embedded Magnet. We can thus use the action and reaction force to act on the same side of the object we want to propel. The shape of the tube doesn't matter as long as both end are on the same side of the object we want to propel. Now imagine this C-tube without rotatable axis is filled with liquid with a Magnet on top of a piston on top of liquid on each openings.

Claim:

The system in its entirety including all its necessary process and necessary functioning components stated here for the purpose of using various mechanical/electrical mechanisms to create a net resultant propelling action on an object by utilizing both an action force along with its reaction force generated from the same source, which the reaction force either acting on the same direction as the action force, or the effect of reaction force being nullify by some means to prevent it from interfering with the propelling action of the system as a whole.

Summary:

At least four functional components are necessary in every Reactionless Propulsion System:

A. Mechanism to provide the source of the action and reaction force which is where the kinetic energy of the sequence coming from, usually we have more than one. For instance we could have Magnet embedded within the wall of truck, which is taken as the Source of kinetic energy in the system;

B. A mechanism to transfer and redirect the reaction force it received back to the same side as the action take place(Could be in the same location or a different location, as long as both of them in the same end of the object we want to propel). Originally, this reaction force would reach the other end of the object thus canceling the effect of action force. This is the most critical component of this system which make the whole useful for our purpose. For instance we could have a U-tube filled with liquid as MEDIUM to transferring action/reaction force to another side;

C. A Mechanism to elicit the production of repulsing/attraction force through using the movement of B(Eliciting Agent), as well as compensating the eventually slowing down of the system. For instance, we could push one end of a tube with Electromagnet to elicit the repulsing force from the SOURCE;

D. An optional timing circuit to CONTROL the exact timing and strength of the action/reaction force(if the generation of attracting/repulsing force require electrical energy) in order in improve the efficiency of the propulsion.

There are altogether four ways to redirect the reaction force to the destination that is in the same side as where action force started, thus created a Reactionless propulsion System.

First is via Hydraulic Pressure by channeling the reaction back to the side of action. For instance: Consider a U-tube filled with liquid, and if we place a weight on one opening, the liquid on the other opening would rise. So if we applying a force to the one end, that force would be transferred as Pressure in the other opening operating in a different direction. We can thus direct action and reaction to the same side of the object we want to

propel. The shape of the tube doesn't matter as long as both end are on the same side of the object we want to propel;

Second is via System of Repulsing or Attracting Magnet/Electrical Pole in an environment that constrain their action so it function as a string to pass the reaction force from where it original started to a destination which is on the same side as where it originate. The constrain here is to ensure their reaction to the force is useful for the purpose of transferring action/reaction force. (i.e. No flipping of attracting/repulsing agents) For instance: Consider another U-tube filled with Magnet which the like pole facing each other with a Magnet nearest to the openings. What happen if we are pushing on the one end? The force we apply would then transferred from a Magnet to another Magnet until it reach the other end. The shape of the tube doesn't matter as long as both end are on the same side of the object we want to propel. Moreover, we are using the pushing action here therefore we need Magnet to pushing each other by repulsion; we can also use pulling action to induce system of attracted Magnets pulling each other. Or we can even using them together as long as we achieve the goal of transferring action/reaction force to the same side as it originally start.

Third is by using Spring, pulley or other Mechanical device that are intended to change the direction of reaction force until it reach the same side as the where action took placed. For instance, we could replace the attracting/repulsing Magnets in above description with a spring, and everything would function as previously described. Or

Fourth is any combinations of all of the above three which achieve the same purpose of transferring an action/reaction force from where it original started to a destination which is on the same side as where it originate.

(Another possibility is to use Magnetic fluid to take the place of solid state Magnet in the second method. Since Magnetic fluid would act as a Magnet when a solid Magnet when exposing to a Magnetic field, then two of this could be use to repulsing or attracting each other as stated in Second Mechanism.)

Fifth is any combinations of above mechanism which serve the purpose of transferring an action/reaction force from where it original started to a destination which is on the same side as where it originate.

The overall process could be describe in the following paragraph. First, Eliciting Agent would induce an end or a component of RPS to approach the SOURCE, where the CONTROL would turn the electromagnet into a polarity that could ELICIT the attraction/repulsion force. Once this goal is achieved. A component or the whole end of RPS either move or remain stationary to redirect the reaction force original acting on itself to another end of RPS or a component of that end. Once the reaction force has reach that other end, a component or that end of RPS would then approach the SOURCE while let the CONTROL decide the best timing to ELICIT another respond from the SOURCE. The whole process repeat itself at the other end indefinitely. Since both the action force and reaction is directed to the same direction, a net propelling action is thus achieved.

The Newton's Third Law is satisfied here as we have two action and reaction pairs: Source and the Medium. The only curious thing is that one reaction force has become an action force through this invention.

The momentum is also conserved on two separate counts: 1. The movement of the object we intended to propel and the opposite movement of the Medium or part of physical mechanism intended to transfer the reaction action to become action force; and, 2: The forward and backward movement of the Medium or that physical mechanism as a whole.

The bulk of the total kinetic energy of this system coming from all the repulsion and attraction is turned into propelling action. Since repulsing and attracting force doesn't consume any electrical energy, the biggest waste of energy is in the electrical resistance of the electrical component, and component for generation of Magnetic/Electrical field. Thus this invention is much energy efficient compare to any existing propellant based engine, and it also allow much precise control of the strength and period of propelling action.