Commissioner's Decision #1403 Décision du commissaire #1403

TOPICS: G00: Utility

SUJETS: G00 : Utilité

Application No. : 2,625,555

 $Demande \ n^o \quad : 2 \ 625 \ 555$ 

## IN THE CANADIAN PATENT OFFICE

## **DECISION OF THE COMMISSIONER OF PATENTS**

Patent application number 2,625,555, having been rejected under subsection 30(3) of the *Patent Rules* [SOR/96-423], has subsequently been reviewed in accordance with paragraph 30(6)(c) of the *Patent Rules*. The recommendation of the Board and the decision of the Commissioner follow:

# Agent for the Applicant

EQUINOX 410 - 1500 rue de College Montreal, Quebec

### **INTRODUCTION**

- [1] This recommendation concerns a review of patent application no. 2,625,555, bearing a filing date of April 4, 2007, and entitled "Machine Functioning on the Principle of Exploitation of Centrifugal Forces". The inventor and applicant is Mr. Jamel Jabari.
- [2] According to the abstract of the application, the present application relates to a "machine for generating mechanical energy and functioning on the principle of exploitation of centrifugal forces of masses being displaced along a closed mechanical circuit over at least a curved section of the circuit. Optionally, the machines also functions on the principle of energy gain caused by masses falling under the influence of gravity in the closed circuit that is permanently maintained in a state of dynamic unbalance with an input, continuous or not, of external energy".
- [3] For the reasons that follow, we recommend that the application be refused.

## PROSECUTION HISTORY

- [4] On May 1, 2012 a Final Action was issued pursuant to subsection 30(4) of the *Patent Rules*. The Final Action stated that the application was defective on the ground that the claims on file (claims 1-29) lack utility and do not comply with section 2 of the *Patent Act*.
- [5] In a November 1, 2013 response to the Final Action [Applicant's November 1, 2013 letter] the Applicant presented arguments regarding the lack of utility defect noted in the Final Action.
- [6] As the Examiner considered the application not to comply with *Patent Act*, pursuant to subsection 30(6) of the *Patent Rules* the application was forwarded to the Patent Appeal Board ["the Board"] for review on April 24, 2014, along with a Summary of Reasons

explaining why the application did not comply with the *Patent Act*. The Summary of Reasons maintained the grounds set out in the Final Action.

- [7] In a letter from the Board dated May 23, 2014, the Applicant was forwarded a copy of the Summary of Reasons and was provided an opportunity for a hearing.
- [8] In a response dated August 29, 2014, the Applicant stated that he did not wish to participate in a hearing, but provided additional written arguments to be taken into consideration by the Board.
- [9] Accordingly, this panel's review is based on the written record.

#### **ISSUES**

- [10] The sole issue requiring determination in this review is:
  - Do the claims on file (claims 1-29) lack utility?

#### LEGAL PRINCIPLES AND OFFICE PRACTICE

### **Claim construction**

[11] In accordance with *Free World Trust v Électro Santé Inc*, 2000 SCC 66, essential elements are identified through a purposive construction of the claims done by considering the whole of the disclosure, including the specification and drawings (see also *Whirlpool Corp v Camco Inc*, 2000 SCC 67 at paras. 49(f) and (g) and 52). In accordance with the Manual of Patent Office Practice [MOPOP] Chapter 13.05 (June 2015), the first step of purposive claim construction is to identify the person skilled in the art and their relevant common general knowledge. The next step is to identify the

problem addressed by the inventors and the solution disclosed in the application.

Essential elements can then be identified as those elements of the claims that are required to achieve the disclosed solution.

## **Utility**

[12] The statutory basis for the utility requirement is section 2 of the *Patent Act*, which reads:

"invention" means any new and <u>useful</u> art, process, machine, manufacture or composition of matter, or any new and <u>useful</u> improvement in any art, process, machine, manufacture or composition of matter; [emphasis added]

[13] The utility requirement was described by the Supreme Court of Canada in *Consolboard Inc v MacMillan Bloedel (Saskatchewan) Ltd*, [1981] SCR 504 at 525:

There is a helpful discussion in Halsbury's Laws of England, (3<sup>rd</sup> ed.), vol. 29, at p. 59, on the meaning of 'not useful' in patent law. It means "that the invention will not work, either in the sense that it will not operate at all or, more broadly, that it will not do what the specification promises that it will do". [emphasis added]

- [14] In *Pfizer Canada Inc v Apotex Inc* (2014), 125 CPR (4th) 81, the Federal Court of Appeal discussed the effect that promises made in a specification have on the threshold of utility that must be met for compliance with section 2 of the Act:
  - [64] ... the threshold that must be proven to establish utility is generally quite low, described as being no more than a "scintilla of utility" (*Olanzapine* 405 N.R. 1).
  - [65] The promise doctrine represents an exception to the above minimum statutory requirements. Though an inventor need not describe any particular utility for the invention, an inventor who explicitly promises a specific result

will be held to that promise when called upon to prove utility (*Plavix FCA* 447 N.R. 313 at paras. 48 and 49). That the invention may well have satisfied the scintilla threshold is of no assistance in establishing utility where a promise, if it be made, cannot be met (*Plavix FCA* 447 N.R. 313 at para. 54). [emphasis added]

[15] In *Wellcome Foundation Ltd v Apotex Inc* (1995), 60 CPR (3d) 135 at 154, the Federal Court of Appeal stated that the determination of the promised utility of a patent was an exercise in construction:

Since the utility of a patent must ultimately be judged against its promise, the exercise requires that the specification be carefully construed to determine exactly what that promise is.

[16] In *Apotex Inc v Wellcome Foundation Ltd*, 2002 SCC 77, Binnie J, delivering the judgment of the Court, clarified the two ways by which the utility of a claimed invention can be established and resolved that the relevant date for assessing utility is the filing date, stating at ¶46:

Unless the inventor is in a position to <u>establish utility as of the time the patent is applied for</u>, on the basis of either <u>demonstration</u> or <u>sound prediction</u>, the Commissioner "by law" is required to refuse the patent (*Patent Act*, s. 40). [emphasis added]

[17] In the same reasons for judgment, Binnie J stated the requirements of the doctrine of "sound prediction", at ¶70:

Firstly... there must be a factual basis for the prediction... Secondly, the inventor must have at the date of the patent application an articulable and "sound" line of reasoning from which the desired result can be inferred from the factual basis... Thirdly, there must be proper disclosure.

[18] In *Bell Helicopter Textron Canada Ltée v Eurocopter*, 2013 FCA 219 [*Eurocopter*], Mainville J, delivering the judgment of the Court, clarified that an assessment of the soundness of a prediction is to be performed through the eyes of the skilled person, possessed of the common general knowledge in the art, stating at ¶152:

In my opinion, the factual basis, the line of reasoning and the level of disclosure required by the doctrine of sound prediction are to be assessed as a function of the knowledge that the skilled person would have to base that prediction on, and as a function of what that skilled person would understand as a logical line of reasoning leading to the utility of the invention. [emphasis added]

#### **ANALYSIS**

#### **Claim construction**

The person skilled in the art and the common general knowledge of this person

[19] In the Applicant's November 1, 2013 letter, the skilled person was described as follows:

As the pending claims are directed to a machine for generating mechanical energy in which masses circulate around a track having at least one curved section with a system for exploiting centrifugal forces, the field of the invention is related to the generation of power by inertial motors, and a person skilled in the art would be a mechanical engineer, physicist or technician, familiar with rotating equipment and especially having a mind with an openness of mind and willing to understand. This is important since, as it is well known that today's physics theory of movement specifically states that the centrifugal force is a virtual or imaginary (or fictitious) force only used in equations to counteract the centripetal force applied onto a body undergoing a rotational displacement, the concept of real centrifugal force is new, as demonstrated hereafter, as in the application as filed. [underlining in original; italics added]

- [20] We accept the characterization of the skilled person as a mechanical engineer or physicist, familiar with rotating equipment. We also agree that the skilled person must have a mind willing to understand. At the same time, we must consider the common general knowledge of the skilled person on the filing date of the application, as the generally held understanding of scientific principles by persons skilled in the fields of mechanical engineering and physics on that date is relevant to the question of utility.
- [21] The subject of what constitutes common general knowledge was discussed in in *Eli Lilly* & Co v Apotex Inc, 2009 FC 991. At ¶97 Gauthier J quoted from General Tire & Rubber Co v Firestone Tyre & Rubber Co, [1972] RPC 457 (UKHL) at pp 482-483, itself quoting from *British Acoustic Films Ltd v Nettlefold Productions* (1935), 53 RPC 221 (Eng ChD), at p. 250:

A piece of particular knowledge as disclosed in a scientific paper does not become common general knowledge merely because it is widely read, and still less because it is widely circulated. Such a piece of knowledge only becomes general knowledge when it is generally known and accepted without question by the bulk of those who are engaged in the particular art, in other words, when it becomes part of their common stock of knowledge relating to the art. [emphasis added]

[22] As the claimed invention purports to be a machine functioning on the principle of exploitation of centrifugal forces, an understanding of the common general knowledge relating to centrifugal forces is relevant to an assessment of the utility of the invention. In *Physics for Scientists & Engineers* (2<sup>nd</sup> ed.), Serway, Raymond A. (Saunders College Publishing, 1986), the author describes Newton's first law of motion and the concept of inertial frames of reference, at pp. 81-82:

Newton's first law of motion:

An object at rest will remain at rest and an object in motion will continue in

motion with a constant velocity (that is, constant speed in a straight line) unless it experiences a net external force (or resultant force).

. . .

Newton's first law is sometimes called the *law of inertia*, and it applies to objects in an inertial frame of reference.

An inertial frame of reference is one in which an object, subject to no force, moves with constant velocity. That is, a reference frame in which Newton's first law is valid is called an inertial frame.

[23] The author then states Newton's second law of motion, which explains what happens to an object that has a non-zero resultant force acting on it, at pp. 83-84:

[T]he acceleration of an object is directly proportional to the resultant force acting on it and inversely proportional to its mass.

The author further explains the application of Newton's laws of motion to objects in a non-inertial frame of reference (one that is accelerating). In the following discussion, the skilled reader will understand that an object moving along a curved path, even if it is moving at a constant linear speed, still has an acceleration owing to the change in the *direction* of the velocity (as described at p. 65 of the text book). The author's explanation, including a reference to "centrifugal" force, is set out at pp. 113-114:

When Newton's laws of motion were introduced in Chapter 5, we emphasized that the laws are valid when observations are made in an *inertial* frame of reference. In this section, we shall analyze how an observer in a noninertial frame of reference (one that is accelerating) would attempt to apply Newton's second law.

If a particle moves with an acceleration *a* relative to an observer in an inertial frame, then the inertial user may use Newton's second law and correctly claim

that  $\sum F = ma$ . If an observer in an accelerated frame (the noninertial observer) tries to apply Newton's second law to the motion of the particle, the noninertial observer must introduce *fictitious* forces to make Newton's second law in that frame. Sometimes, these fictitious forces are referred to as inertial forces. These forces "invented" by the noninertial observer *appear* to be real forces in the accelerating frame. However, we emphasize that these fictitious forces *do not* exist when the motion is observed in an inertial frame. The fictitious forces are used only in an accelerating frame but *do not* represent "real" forces on the body. (By "real" forces, we mean the interaction of the body with its environment.) If the fictitious forces are properly defined in the accelerating frame, then the description of motion in this frame will be equivalent to the description by an inertial observer who considers only real forces. Usually, motions are analyzed using inertial reference frames, but there are cases in which an accelerating frame is more convenient.

In order to understand better the motion of a rotating system, consider a car travelling along a highway at a high speed and approaching a curved exit ramp, as in Figure 6.9. As the car takes the sharp left turn onto the ramp, a person sitting in the passenger seat slides to the right across the seat and hits the door. At that point, the force of the door keeps him from being ejected from the car. What causes the person to move toward the door? A popular, but *improper*, explanation is that some mysterious force pushes him outward. (This is often called the "centrifugal" force, but we shall not use this term since it often creates confusion.) The passenger invents this fictitious force in order to explain what is going on in his accelerated frame of reference.

The phenomenon is correctly explained as follows. Before the car enters the ramp, the passenger is moving in a straight-line path. As the car enters the ramp and travels a curved path, the passenger, because of inertia, tends to move along the original straight-line path. This is in accordance with Newton's first law: the natural tendency of a body is to continue moving in a straight line. However, if a sufficiently large centripetal force (toward the center of curvature) acts on the passenger, he will move in a curved path along with the car. The origin of this centripetal force is the force of friction between the passenger and the car seat. If this frictional force is not large enough, the passenger will slide across the seat

as the car turns under him. Eventually, the passenger encounters the door, which provides a large enough centripetal force to enable the passenger to follow the same curved path as the car. The passenger slides toward the door not because of some mysterious outward force but because *there is no centripetal force large enough to allow him to travel along the circular path followed by the car*.

In summary, one must be very careful to distinguish real forces from fictitious ones in describing motion in an accelerating frame. An observer in a car rounding a curve is in an accelerating frame and invents a fictitious outward force to explain why he or she is thrown outward. A stationary observer outside the car, however, considers only real forces on the passenger. To this observer, the mysterious outward force *does not exist!* The only real external force on the passenger is the centripetal (inward) force due to friction or the normal force of the door. [italics in original; underlining added]

- [25] As the invention is described by the Applicant as being a machine capable of providing an energetic efficiency ratio defined by a ratio of the mechanical energy generated by the machine over the sum of all external energy inputs provided into the machine larger than one, an understanding of the common general knowledge relating to such machines is relevant to an assessment of the utility of the invention. The *Dictionary of Physics* (Warner Books Printing, 1986), includes the following:
  - 1. Perpetual motion of the first kind: Motion in which a mechanism, once started, would continue indefinitely to perform useful work without being supplied with energy from an outside source. Such a device would contravene the first law of thermodynamics and is therefore not feasible. Many historical attempts, exercising great ingenuity, were constructed before the concept of energy and its conservation were understood. Some attempts have been made, since the first law of thermodynamics became generally accepted, by inventors seeking to establish loopholes in the laws of nature.
- [26] The McGraw-Hill Dictionary of Scientific Terms (6<sup>th</sup> ed.), (2003) states:

Perpetual motion machine of the first kind: a mechanism which, once set in motion, continues to do useful work without an input of energy, <u>or which</u> <u>produces more energy than is absorbed in its operation</u>; it violates the principle of conservation of energy. [emphasis added]

In summary, on the filing date of the present application the following was generally known and accepted by persons skilled in the art: Newton's laws of motion are applicable to everyday phenomena (although these laws are superseded by Einstein's theory of relativity when the speeds involved approach the speed of light, and by quantum theory when dealing with atomic and subatomic particles); centrifugal forces are not real forces, but are fictitious forces invented to explain what appears to be happening to an object in an accelerated frame of reference; and the law of conservation of energy, which provides that the total energy of an isolated system is constant: energy can be transformed from one form to another, but cannot be created or destroyed.

#### Problem and solution

[28] The description (p. 1) of the present application provides the following with respect to the background of the invention:

#### FIELD OF THE INVENTION

The present invention is concerned with a functioning principle for machines generating mechanical energy from centrifugal forces of masses in a closed mechanical circuit, and that is optionally maintained in a permanent state of dynamic unbalance using the falling of masses under the effect of earth's gravitational field.

#### BACKGROUND OF THE INVENTION

As is well known, a mass (M) that is situated at a given height (h) has a stored

potential energy (PE) of PE=M\*g\*h. When mass (M) is in free fall, potential energy (PE) is transformed into kinetic energy, and the energy conservation law permits the formulation of the following:

 $M*g*h=(1/2)*M*V^2$ 

where (V) is the velocity attained by the mass (M) after falling from height (h) and (g) is the acceleration of mass (M) due to the earth's gravitational field, namely 9.81 m/s<sup>2</sup> (or 32.2 ft/s<sup>2</sup>).

However, to perpetuate the falling motion of mass (M), it is necessary to raise the mass (M), after it (M) has fallen, once again to the starting point for the falling motion of the mass (M), namely the height (h). This raising requires furnishing of energy to mass (M), namely [M\*g\*h], without taking resistance into account, and thus there is no gain of energy as i.e. M\*g\*h=M\*g\*h when M, g, and h all have the same value.

It is to be noted that the fall of any mass in the earth's gravitational field is considered to be a state of dynamic unbalance (the sum of the external forces acting on the mass (M) during the fall is not null, i.e. not zero), which is different from any today existing machine.

[29] The description (p. 2) then states a problem associated with prior art machines:

To date, no machine can continuously generate more mechanical energy (positive gain, energetic efficiency ratio larger than one (1)) than the amount of energy input therein from outside, such as from Man.

Accordingly, there is a need for a machine functioning on the principle of exploitation of centrifugal forces, and typically on the principle of potential energy gain for generating mechanical energy.

[30] The description continues (p. 2), by introducing a solution to that problem:

#### SUMMARY OF THE INVENTION

It is therefore a general object of the present invention to provide a machine functioning on the principle of exploitation of centrifugal forces, and typically on the principle of potential energy gain for generating mechanical energy.

An advantage of the present invention is that the machine functioning on the principle of exploitation of centrifugal forces can be implemented in different ways, with different sizes for different output gains, while exploiting the centrifugal forces over at least one curved section.

Another advantage of the present invention is that the machine, also functioning on the principle of potential energy gain, to have an energetic efficiency ratio defined by a ratio of the mechanical energy generated by the machine over the sum of all external energy inputs (including from Man) provided into the machine larger than one, is permanently maintained in a state of dynamic unbalance, while having a system for exploiting centrifugal forces.

[31] The description goes on to describe the elements of the machine required to provide the above-noted solution, the elements corresponding to those recited in the claims.

Essential elements of the claims

- [32] The claims on file contain two independent claims. Independent claim 1 reads:
  - 1. A machine (10) for generating mechanical energy, said machine (10) comprising:
  - a closed circuit (12) rotationally driven around at least one rotationally free wheel (R1,R2,R3,R4) at least temporarily by an input of external energy (WO), a plurality of masses (M) selectively connecting to the closed circuit (12) to move therealong;
  - a system for guiding the masses along the circuit (12) to allow the masses (M)

to travel therealong; and

- a system for exploiting centrifugal forces of the masses located on at least one curved section of the closed circuit (12) to add to the circuit (12) an energy from the centrifugal forces of the masses (M) and different than said input of external energy (WO).

## [33] Independent claim 23 reads:

- 23. A machine (10) for generating mechanical energy, the machine (10) comprising:
- a closed circuit (12) located around one or a plurality of rotationally free wheels (R1,R2,R3,R4) with a plurality of masses (M) being displaced therealong, said closed circuit (12) being movably driven to reached a predetermined velocity (Vpre) equal to or larger than a minimum velocity (Vcir(min)) using an at least temporarily maintained input of external initial energy (W0);
- a system allowing the masses (M) to be guided along their displacement along the closed circuit (12); and
- a system allowing exploitation of centrifugal forces of the masses (M) located on at least one curved section of the closed circuit (12) to add to the circuit (12) an energy from the centrifugal forces of the masses (M) and different than said input of external initial energy (WO).
- [34] The skilled person would understand the essential elements of the machine that are common to the independent claims, and thus to all of claims 1-29 on file, are:
  - a. a closed circuit rotationally driven around at least one rotationally free wheel at least temporarily by an input of external energy;

- b. a plurality of masses selectively connecting to the closed circuit;
- c. a system for guiding the masses along the circuit; and
- d. a system for exploiting centrifugal forces of the masses located on at least one curved section of the closed circuit to add to the circuit an energy from the centrifugal forces of the masses different than said input of external energy.

## Utility

What is the standard against which the utility of the claimed invention is to be measured?

- [35] As noted earlier, when an inventor does not describe any particular utility for an invention, only a scintilla of utility need be established in order to satisfy the utility requirement. However, an inventor who explicitly promises a specific result will be held to that promise when called upon to prove utility.
- In this case, the skilled person would construe the specification as promising two specific results. First, all of the claims recite the feature of a system for exploiting centrifugal forces of the masses located on at least one curved section of the closed circuit to add to the circuit energy from the centrifugal forces of the masses that is different from the input of external energy. As this feature comprises an essential element of all of the claims, the skilled person would understand that the exploitation of centrifugal forces to generate energy is promised by the specification.
- [37] Second, as noted above, the description (Summary of the Invention) states that an advantage of the present invention is that the machine has an energetic efficiency ratio defined by a ratio of the mechanical energy generated by the machine over the sum of all

external energy inputs provided into the machine larger than one. While this feature does not appear in the claims, the skilled person would construe this statement in the description as a clear promise by the inventor that the machine is capable of generating more energy than is required to operate it.

[38] We must now determine whether this utility, i.e., a machine that exploits centrifugal forces to generate energy and that generates more energy than is required to operate the machine, has been established. As noted in the section on Legal Principles, unless the inventor is in a position to establish utility as of the time the patent is applied for, on the basis of either demonstration or sound prediction, the Commissioner "by law" is required to refuse the patent.

Was the required utility established by demonstration as of the filing date?

- [39] It is not disputed that as of the filing date (April 4, 2007) the Applicant had neither built nor tested any machine that exploits centrifugal forces to generate energy and that generates more energy than is required to operate the machine.
- [40] In a written submission to the Board dated August 29, 2014, the Applicant states, "[a] prototype of a machine functioning on the principle of gain of energy from centrifugal forces has recently been successfully manufactured, and works essentially as claimed in the present invention." However, we note that no test results have been provided to substantiate a demonstration of a machine having the required utility and, in any case, evidence of demonstrated utility that post-dates the filing date of the application and could not have been relied upon to establish demonstrated utility on the filing date.
- [41] The Applicant's November 1, 2013 letter refers to a demonstration made by the Applicant before the Examiner and his supervisor on October 30, 2008. In the same letter the Applicant admits that the device of the demonstration was not the apparatus of the

invention. Further, no measurements were recorded during this demonstration that would have shown energy being added to the device by centrifugal force. In any case, this demonstration, like the demonstration of the prototype mentioned above, occurred after the filing date of the application and therefore it could not have been relied upon to establish demonstrated utility on the filing date.

- [42] The Applicant's August 29, 2014 written submission to the Board states that the Applicant has *demonstrated* the invention's utility by the equations found in the specification as filed. A similar argument was raised in *Eurocopter*, *supra*, in which the Federal Court of Appeal discussed what evidence, other than that relating to building and testing an invention, may be sufficient in some situations to establish demonstrated utility, stating:
  - [147] Eurocopter takes the position that a mathematical demonstration through calculations and mathematical modeling is evidence *per se* of utility. In the circumstances of this case, I disagree. Utility means useful for the purpose claimed in the patent: *Consolboard* at p. 525; *Wellcome* at para. 54. Here the specifications of the '787 Patent provides that the embodiment with the integrated front piece offset backwards procures the specific advantages claimed for the invention. Thus, what amounts to demonstrated utility would be evidence that establishes that the embodiment at issue does in fact work in a manner that gives rise to the advantages stated in the patent. It follows then that calculations to the effect that the embodiment should work in the manner claimed in the patent, or should give rise to the advantages, amounts to a prediction and not a demonstration of that utility.
  - [148] It seems to me that calculations and mathematical modeling are, by their very essence, a *prediction* of a given utility. I however recognize that there may be situations where a mathematical *prediction* of utility may be equivalent to a *demonstration* of utility, depending on the nature of the technology being mathematically modeled and the degree of reliability which experts would afford to such models for such purposes. I need not however address this issue in this case. [italics in original; underlining added]

In this case, we are of the view that the skilled person would not consider the equations presented in the description to be sufficiently reliable as to amount to a *demonstration* of utility. The skilled person would appreciate (as the Applicant admits, in the Applicant's November 1, 2013 letter) that the theory underlying the invention is not consistent with the laws of physics and thermodynamics. As a result, the degree of reliability that the skilled person would afford the equations would be insufficient for that person to conclude that the equations were equivalent to a demonstration of utility.

Was the required utility established by sound prediction as of the filing date?

- [44] As noted in the section on Legal Principles, the factual basis, the line of reasoning and the level of disclosure required for a sound prediction are to be assessed as a function of the knowledge that the skilled person would have to base that prediction on, and as a function of what that skilled person would understand as a logical line of reasoning leading to the utility of the invention.
- [45] Regarding the demonstration of a prototype and the demonstration before the Examiner and his supervisor, noted above, test results from these demonstrations, if any, would have post-dated the filing date of the application, and thus could not have been relied upon to support a prediction of utility on the filing date.
- [46] In this case, the person skilled in the art would not have considered that a machine that exploits centrifugal forces to generate energy and that generates more energy than is required to operate the machine had been established by sound prediction as of the filing date. The skilled person would have appreciated (and the Applicant admits) that the theory underlying the invention is not consistent with the known laws of physics and thermodynamics.

- In particular, as stated earlier at ¶27, on the filing date of the present application it was generally known and accepted by the skilled person that: Newton's laws of motion are applicable to everyday phenomena (excluding cases in which the speeds involved approach the speed of light, and cases dealing with atomic and subatomic particles); centrifugal forces are not real forces, but are fictitious forces invented to explain what appears to be happening to an object in an accelerated frame of reference; and the law of conservation of energy, which provides that the total energy of an isolated system is constant, is firmly established: energy can be transformed from one form to another, but cannot be created or destroyed.
- [48] Faced with the contradiction between the generally accepted laws of physics and thermodynamics and the admittedly "new and therefore non-conventional theory" (p. 3 of Applicant's November 1, 2013 letter) underlying the Applicant's invention, involving the concept of a "real" centrifugal force, enabling "an input of energy (from the Universe) in an apparatus using the principle of exploitation of centrifugal force as described in the present invention" (p. 3 of Applicant's November 1, 2013 letter), the skilled person would not have considered the prediction of utility based on the Applicant's theory to be sound on the filing date.

### **CONCLUSIONS**

- [49] In summary, we find that the Applicant has not established the required utility as of the filing date of the application, on the basis of either demonstration or sound prediction.
- [50] Accordingly, we find that the claims on file (claims 1-29) lack utility and do not comply with section 2 of the *Patent Act*.

#### RECOMMENDATION OF THE PANEL

[51] In view of the above, we recommend that the application be refused.

Paul Fitzner Marcel Brisebois Kevin Anderson

Member Member Member

### **DECISION OF THE COMMISSIONER**

- [52] I concur with the Patent Appeal Board's findings and its recommendation that the application be refused because the claims on file (claims 1-29) lack utility and do not comply with section 2 of the *Patent Act*.
- [53] Accordingly, I refuse to grant a patent on this application. Under section 41 of the *Patent Act*, the Applicant has six months within which to appeal my decision to the Federal Court of Canada.

Johanne Bélisle Commissioner of Patents Dated at Gatineau, Quebec, this 20th day of July, 2016