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**Datasheet for the decision
of 11 February 2015**

Case Number: T 1336/13 - 3.2.04

Application Number: 08875783.6

Publication Number: 2379883

IPC: F03G3/00, F03G7/10

Language of the proceedings: EN

Title of invention:

GRAVITY ENGINE

Applicant:

Lourgas, Georgios
Lourgas, Iason Marios Zafeiris

Headword:

Relevant legal provisions:

EPC Art. 83, 57

Keyword:

Sufficiency of disclosure - (no)
Industrial application - (no)

Decisions cited:

Catchword:



**Beschwerdekammern
Boards of Appeal
Chambres de recours**

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Case Number: T 1336/13 - 3.2.04

D E C I S I O N
of Technical Board of Appeal 3.2.04
of 11 February 2015

Appellant: Lourgas, Georgios
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Appellant: Lourgas, Iason Marios Zafeiris
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 18 March 2013
refusing European patent application
No. 08875783.6 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman C. Heath
Members: E. Frank
J. Wright

Summary of Facts and Submissions

- I. On 18 December 2008, Mr. Lourgas filed a PCT application, published as WO2010/070375 with the title "GRVAVITY ENGINE", being an engine with an ellipsoid shell and two or more rotating sliding arms with weights attached called "VARO"s.

- II. The application subsequently entered into the European phase and was accorded the application number EP08875783. Already the ISA Report considered that the application was insufficiently disclosed (Article 83 EPC) as it proposed to "take a part of energy in large quantities without an expense". According to the application page 13, lines 8 to 13, this energy or power input is gravity. Similarly the claim states that the engine gives mechanical deed, that is, "using only the power of physical gravity..." which allows the system to rotate "without burning [fuel]... by transforming the vertical direction of gravity to a rotating one...". It seems that no energy input is required to set the machine in continuous motion, whilst energy can be extracted from it.

- III. By decision of 18 March 2013, the application was refused. The decision found that the application did not disclose the invention in a manner sufficiently clear and complete for it to be carried out by the person skilled in the art, and that it therefore did not fulfil the requirements of Article 83 EPC. Furthermore, the division found that since the invention could not be carried out it was not susceptible to an industrial application as defined in Article 57 EPC, a requirement of patentability in accordance with Article 52(1) EPC. According to the

decision under appeal, the application failed to define the energy input needed to bring back the centre of gravity of the sliding arms into their initial position once these had reached their lowermost position. This finding was independent of the number of sliding arms actually used, or the shape of their trajectory, see grounds points 1.3, 1.5 and 1.6.

IV. With letter received on 29 April 2013, Mr. Lourgas gave notice of appeal, explained why the decision under appeal was incorrect, and paid the corresponding appeal fee. Consistent with what is written in the claim, third line and the description, for example page 13, lines 8 to 10, the appellant argued (appeal grounds page 4) that the invention did not defy the law of conservation of energy because the engine had an energy input in the form of gravity. Likewise in his grounds of appeal, page 2, point 1.1 the appellant argued that the perpetual motion engine "takes energy from the earth's gravitational field". Further, that the gravity engine worked because the ends of the sliding arms followed elliptical paths and because more than one sliding arm was attached to the central shaft. The appellant requested that the decision under appeal be "revised", yet did not request oral proceedings.

V. Claim 1 reads as follows:

The invention is referring to the construction of one engine giving mechanical rotating deed, using only the power of the physical gravity , without burning any solid, liquid or gas compustible.

The engine is transforming the vertical direction of the gravity to a rotating one and it is one double acting engine.

The operation of the engine is based to the invention and construction of one original engine shell; getting ellipsoid shape but not a geometrical ellipse. The way of drawing of the said ellipsoid section, is described on the page 7 (PLAN 02/12) of the presented description and consists one element of the gravity engine. The element has two covers at the both sides. One medium size engine maybe composed by 4 elements.

Inside the engine shell is located eccentric one main shaft (13) closer to 225° and longer to 045° .

At the present engine the rate is 1 to 3 but maybe differ from engine to engine.

Alongside the main shaft are shaped two cube-alike UNITS (RFFR), in a distance one to the other.

In the center of each UNIT, called sliding joint, (Plan 8), has been opened one parallelogram opening in which, two sliding arms (9) entered, locating in parallel way. During the engine operation the sliding arms (9) are reciprocating into the unit (RFFR) and simultaneous are rotating.

At the extremities of the sliding arms (9) two crotches (50) are shaped, inside of which two rolling wheels (4) are located.

At the sides of the crotches, 2 claw-stoppers (53) located, to be used on the priming of the engine. The said wheels (4) , during the operation, are touching in the inner surface of the engine shell.

As the unit (RFFR) is not located in the center of the ellipsoid, but eccentric, one part of the sliding arm (9) (the right one), is longer than the left one (Plan 02/12) and this is the cause creating high moments of rotation, when all the system is rotating. All the above described consists one element of the gravity engine.

The engine maybe consisted by 3,4,5,6,..., elements and all together are connected to the main shaft(13). The saidengine is a medium size engine.

By the years passing, maybe, more than one element to be included in one ellipsoid shell. That will reduce the length of the engine and becoming more comfortable. Anyhow, always we must keep in mind that the Gravity Engines, are engines of high volume and high weight. Regarding the way of drawing of the ellipsoid periphery, in details is as follow:

A- at the begining, as a base kept the part of the Periphery from 130° to 230° -PLAN 02/12-, getting longer the -S.A,- and appoint the willing length. The relation is 045° to COR = 3 Distances and 225° to COR = 1 Distance.

--- Draw lines every 10° , passing through the COR, similar to diameters in a cycle.

---Draw on a plasticmembranous material sheet, the shape of the Sliding Arm and mark the center line.

---Draw at the extremities of the S.A. two wheels for touching and rolling on the inner surface of the shell on the beam-55- Plan 06/12- Cut it around.

We hold the above mentioned plastic membranous and we lay the centerline of the S.A., on each "diameter" every 10° . We adjust so that the wheel-4- to touch always the arc 130° - 230° , and every 10° we mark a small arc left by the wheel. By repeating the above marking, one by one every 10° , is coming in sight a shape, delimited by the parts of arc.

--- We draw a curve in such away, so to touch on the culminations of the small arcs, left by the wheels of the S.A. tangents . We continue as follow.

B. - We get as a base the arc 180° - 270° - 360° and we repeat the above drawing.

C- We get as a base the arc 000° - 130° and we repeat the above drawing, always using the - S.A .-, Corrections

applied where was not alined and finally the ellipsoid shape appeared, indicating in the plans, as the LINE K-L.

That line is the inner surface of the Main Beam -55- on which the S.A. wheels -4- are rolling.

D.- The Gravity Engine consists of more than 2 Elements..

The Ellipsoid line K-L is the transversal section of the Element of the Engine,- Plan 5/12 -.

E.- The - S.A.- is designed in such away, so the extremities to terminate in two crotches 50. Between the sides of the crothces is located the wheel - 4 -,in order to roll in touch in the inner surface of the Ellipsoid Beams -M.B.-. There are two M.B. in each element because there are also rotating two Sliding Arms. Plan 6/12 Left & Right parts).

ALL THE ROTATING SYSTEM -PLAN 6 /12 - consists by:
2 Sliding Arms, Rotating, & simoultaneously reciprocating through the Sliding Joint- 9 - 2-2A .
2 Heads located at each extremity of the Sliding Arm.
1 Metallicweight called "VARO" specially shaped and it is located between the heads of the parallel Sliding Arms -10 -.

Each Head consists of :

2 Crotches extension of the S.A. -9-
1 Rolling Wheel 4
2 Claw stoppers -53-, using at the engine Priming.
1 Rolling Roller to protect from the side movements.
1 Plate & Axis holding the VARO .

Note: On the lower part of each Main Beam M.B. there is an excavation, inside of which, the geared Bar is located - "PLAN 4/12-. Also the claw stoppers are moving in.

It is understood that one Element cannot constitute one Engine, because each end of the sliding Arm progressed to a half only Rotation. That means that, at the

priming of the Engine, it needs help by the following elements in order the -W-1- PLAN 02/12 – from the 020° that stays now, to rotate clockwise till to arrive again on 200° about. That formation became the engine to be , a DOUBLE ACTING ENGINE.

- VI. In a communication dated 22 September 2014, the Board gave its preliminary opinion that the examining division was correct in refusing the application under Article 83 EPC. In particular, the Board failed to see the source of the energy input. The Board noted (point 2.1.5) that although it is possible for potential energy to be converted to kinetic energy when a part falls under the influence of gravity, in accordance with the law of conservation of energy, the same amount of energy will be required to restore that part to its original position.
- VII. In his reply of 4 November 2014, Mr. Lourgas argued that while the gravity engine did not produce energy, it converted the vertical direction of gravity to a rotating one. This was not unlike a stone falling to the earth, with the difference that there was no free fall, but a momentum of rotation.
- VIII. On 20 November 2014, Mr. Lourgas was contacted by telephone. He indicated that he did not wish to make further submissions, or request oral proceedings.
- IX. In a further letter of 26 January 2015 Mr Lourgas explained the environmental benefits of the gravity engine.

Reasons for the Decision

1. The appeal is admissible, but not well-founded.
2. The Board understands the appellant to request that the decision under appeal be set aside and a patent be granted based on the claims, description and drawings as originally filed.
3. The appellant has consistently argued that the only source of energy input for the gravity engine is gravity. When a moving part of the proposed engine is furthest from the ground it has the highest potential energy, when nearest to the ground the lowest potential energy. It is possible for potential energy to be converted to kinetic energy when a part falls under the influence of gravity. The appellant has given the example of a rock falling to the earth under the influence of gravity. However, in accordance with the law of conservation of energy, for a closed system, the same amount of energy will be required to restore that part to its original position, in other words to put the rock back or to move the sliding arm upwards to its starting position. Therefore although potential energy can be converted to kinetic energy and vice versa, the engine cannot create energy (to which the appellant agrees).

This means that although the downward force due to gravity may cause a sliding arm of the engine to move downwards, thereby converting potential energy into kinetic energy, the same force cannot then act on it to move it upwards producing yet more kinetic energy whilst also restoring its potential energy (to which the appellant does not agree). The Board holds that, since the engine is a closed system, such a situation

would be contrary to the law of conservation of energy. Put in simple words, it is not possible to have your cake and eat it. In the Board's opinion the division was therefore correct in arguing (decision grounds point 1.6) that it is impossible for the gravity engine described to produce an energy output.

4. Consistent with what is written in the claim, third line and the description, for example page 13, lines 8 to 10, the appellant has argued (appeal grounds page 4) that the invention does not defy the law of conservation of energy because the engine has an energy input in the form of gravity. The argument implies that gravity is an energy source. However, in accordance with conventional scientific opinion, the Board considers that gravity is an attraction force field between an object having mass and the earth and not a form of energy. Therefore gravity cannot input energy into the engine claimed, regardless of how the machine is constructed in detail. The appellant apparently draws a distinction between the falling rock and the movement of the sliding arms of his machine that follows the trajectory path of the inner surface. Yet regardless of the machine's construction or the paths followed by its constituent parts, the same amount of kinetic energy is needed to restore the sliding arms to their original position as was gained by the transformation of potential energy into kinetic energy by the arms moving downwards from that position. Therefore such a machine cannot produce a useful work output such as electrical energy (cf. application page 13, lines 8-15).

According to the appellant, the gravity engine works because the ends of the sliding arms follow elliptical paths and because more than one sliding arm is attached

to the central shaft. However, the appellant has not explained how the particular path followed by an arm contributes an energy source to the system. Nor has the appellant explained how having more than one arm inputs energy into the system. Since neither of these factors appear to contribute any energy, the Board is not convinced that these aspects of the design render the gravity engine workable.

Furthermore, the appellant has argued that the machine extracts energy from gravity by turning its vertical direction into a rotating one, in other words the machine turns the direction of the force due to gravity upwards (see application page 4, lines 1 to 4 and claim 1). The Board however considers that this is not possible, since it would imply that, under certain circumstances, objects having mass were not attracted (downwards) towards the earth but repelled (upwards) away from it, which, as far as the Board is aware, is contrary to all scientific and indeed everyday observations of how objects behave on earth.

5. In sum, the whole argumentation of Mr. Lourgas implies or presupposes that gravity is an energy source. As explained above, this is not the case. Therefore gravity does not input energy into the engine claimed. In the absence of any other energy source defined in the application the Board concludes that the engine claimed cannot function.

6. Considering the above, the Board is of the opinion that the examining division was correct in concluding that the invention is not disclosed in a manner sufficiently clear and complete for it to be carried out by a skilled person, (decision reasons 1.7), and for that reason is also not susceptible of an industrial

application and should therefore be excluded from patentability under Article 52(1) EPC with Article 57 EPC.

For the above reasons, the appeal has to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



G. Magouliotis

C. Heath

Decision electronically authenticated