Translation of the German Patent DE3100233 A1

Author: Bernecker, Stefan, 8000 München, DE – 22/7/82

Title : Antigravitational gyroscope

The aim of the invention is the direct conversion of flow into lift in an entirely closed system. The main possible applications are in aviation and space flight. This problem is solved by discovery of the physical fact that for each elementary part of a body possessing volume the gravitation acts on this elementary part absolutely perpendicular to the centre of the earth, but that as a result the gravitational forces acting on the totality of parts of a body do not run parallel, since they intersect at one and the same point M and thereby stand at a certain (effective) angle α to one another (α drawing). An extremely rapidly rotating ring or disc would attain weightlessness from a circumferential speed of 12.4 km/sec (considering the peripherally rotating effective mass). With further acceleration in excess of 12.4 km/sec calculable lift is possible solely due to rotating masses.

Field of application :

The invention concerns a gyroscope that rotates synchronically in opposite directions in a closed space and whose masses accelerated to a correspondingly high extent generate an ascending force normally to gravity, as well as a propulsion force when the gyroscope system is inclined, the gyroscopes being understood as rails on which the entire vehicle is supported without friction by magnetic levitation supports. The system is useful, *inter alia*, in aviation and space flight, but fundamentally anywhere where gravitational forces are present.

Purpose :

Direct conversion of energy (electric current) into an ascending force, the unit that generates the ascending force representing a totally closed system.

Prior art and discussion of the prior art :

No system based on the same physical conditions is known to me.

All conventional flying machines are inefficient, environmentally harmful (because of combustion engines in the widest sense of the term) and vulnerable to external influences.

Problem addressed :

The invention addresses the problem of providing an environmentally safe and robust flying machine which dispenses with conventional energy carriers used in aviation.

Solution (and explanation of physical conditions) :

According to the invention, the problem is solved in that a calculable ascending force against the gravitational force is generated in a closed system in a vacuum by the rotation of masses which have a measurable extension and are accelerated to a sufficient extent, provided that these masses are retained in a defined orbit.

The operation of the system is based on the physical fact that the gravitational force acts on each elementary particle of a body having a volume in a direction that is absolutely normal to the centre of the Earth M but that the gravitational forces acting on the totality of the parts of a body are not parallel, since they intersect in one and the same point and therefore form a particular (effective) angle α in relation to each other. In other words, the gravitation lines graphically represent, as applied to an extended object, a cone instead of a cylinder, and in the case of a ring, for example, a cone envelope.

If a closed ring is imagined around the Earth, the gravitational force F acts on each point of said ring ; if the ring is accelerated to v_o = 7.9 km/s (escape velocity $\rightarrow$ satellite orbits), the ring *per se* achieves weightlessness, that is the centripetal acceleration $a_z = v^2_o/r$ equals the Earth's acceleration g = 9.81 m/s^2 ; and they are normal to each other ; if v_o is increased above 7.9 km/s, the ring will develop the tendency to move away from said orbit.

Since normally it would not be possible for the closed ring to escape tangentially away from the Earth, even if the escape velocity were exceeded, the ring would

wander in the direction of one of the poles, that is perpendicularly to the actual escape tangent.

If said ring rotating at speed v_o is further imagined to be condensed along the Earth surface from the equator to the poles, by reducing the radius r while keeping the same speed v_o and increasing angular speed or centripetal acceleration a_z, a ring would ultimately be obtained having a radius r_K of for example 0.5 m, a period of revolution of 0.003975 sec and a centripetal acceleration of 7900 m/s^2 /0.5 m = 124 820 000 ms^2.

It should be noted that when r is halved and hence a_z is doubled, the effective corresponding angle is not halved, efficiency deteriorates away from the equator (= 1) and equals about 0.666 at half the radius, 0.644 at one quarter of the radius, 0.633 at one tenth of the radius. Since the ring barely follows one fourth of an orbit, the ratio $\pi/2$ = 1.57 is obtained. Calculated otherwise, the ratio of the angle reduction 90°/0.0162 " = 20 000 000 by the ratio of the centripetal increase 124 820 000/9.8 = 12 736 735; 20 000 000/12 736 735 = 1.57; 1.57 $\cdot$ v_o (7900 m/s^2) = 12.4 km/s, would result in a centripetal acceleration equal to 307 520 000 m/s2, when r = 0.5.

On the basis of this discovery, the ascending force that can be achieved (and used) when v_o is increased can also be calculated.

For example, if v_o was increased tenfold to 124 km/s, a_z or the centrifugal force Z would be multipled by one hundred, that is with an effective mass of 1 kg an ascending force of 99 kg could be obtained.

The following relationship: $Z_K/Z_E = r_E/r_K$ exists between the centripetal force Z_{Erde} (Z_{Earth}) = 9.81 mkg/s^2 at the radius of the earth r_E = 6370 km and the centrifugal force Z_{K} ($Z_{gyroscope}$) = 124 820 000 mkg/s2 when the radius of the gyroscope (r_K) equals 0.5 m.

(See the drawing, in which r_k was scaled up and α represents the effective angle.)

Advantages obtained:

Electric current can be used for directly making an object weightless by generation of an ascending force in a totally closed system, the gyroscopes being the only moving parts worth mentioning.

Displacement in a vacuum and a horizontal and vertical electromagnetic support keep energy losses low and achieve high rotational speeds.

Once energy is initially supplied to accelerate the rotating masses by means of linear motors (no mechanical force transmission), the rotational speed (and hence ascending force) thus generated can be maintained by supplying small quantities only of additional energy.
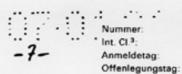
Claims:

Preamble:

Antigravitational gyroscope generating an ascending force by means of masses which are synchronically accelerated in opposite directions in a vacuum by linear motors and horizontally and vertically supported without friction by electromagnets.
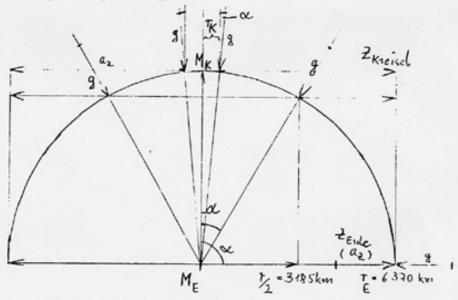
Characterising part:

Said gyroscope being characterised in that masses that rotate at extremely high speeds synchronically in opposite directions (in order to avoid gyroscope problems) are accelerated in a closed system and held by magnetic levitation devices. The rotating mass (gyroscope) generates the ascending force in that it is held captive in an orbit, so that the high centripetal force generated, which acts obliquely at an effective angle α to the gravitational force, creates an ascending force normally to Z. The entire system is supported by means of magnetic levitation supports only on these rotating rails.

Zeichnungen zu Antischwerkraft Kreisel

Drawing of the antigravitational gyroscope

$$\frac{\tau_{Erde}}{\tau_{Kreisel}} \cdot \frac{z_{Erde}}{z_{Kreisel}} = 1 \; ; \quad \frac{z_K}{z_E} = \frac{\tau_E}{\tau_K} \; ;$$

Translation: Erde = Terre
Kreisel = Gyroscope

5