The Oviform Orbitron

Vortex tubes, cyclone separators, spinning tops, gyroscopes, z-pinches, magnetrons (including cavity, coil-based, and other), RPM governors, and the plasma focus mechanism are all well-known. But until now, methods of applying all or most of these in one design have never been publicly published in an explicit way.

The present disclosure relates to an invention designed to couple rotation and axial angle to the discharge of a central magneto-electro-hydrodynamic vortex in an ionized working medium for the purposes of sustaining continued rotation and avoiding stalling.

The invention's simplex, multi-mechanismic mechanism consists in linking the axial angle of a freely rotating body, one with the capacity of shifting the axial angle like a top or gyroscope, to the output of a central vortex by means of the body's rotational mechanism. There are three prominent mechanisms involved here. First, the angular mechanism, which can be based on a body's tendency to minimize friction (as in the case of spinning eggs and tops), or on configurations where the whole gyroscopic mechanism (such as gimbals/gimbal-like mechanisms) is rotated in the dominant rotational direction of the body in question to facilitate rising or the opposite direction to facilitate the opposite motion, or on alignment with magnetic and/or electric fields and/or various fluidic flows, or on any advantageous combination thereof. Second, the rotational mechanism, which can be based on more or less ordinary gas turbine principles, on electromagnetic principles (roughly analogous to those employed in electric motors), on non-standard principles of fluidic induction, or on any combination of these or other rotational mechanisms suitable to the application. Third, the discharge mechanism, which is a form of plasma pinch, and which, unlike most designs of this kind, is an open system directly connected to the surroundings via the medium (such as air and/or water), by means of, for example, perforations or other openings, in such a way that the medium can freely flow into the design.

These three mechanisms are linked by the fruits of the plasma pinch, which actually drive rotation and vary their output in accordance with their source's angular relation to the invention's ideal axis, due to wall contact, so-called 'inertial forces,' field alignment/non-alignment, and other factors. These fruits of the pinch can include the triggering off of heat and cold (temperature separation phenomena and heating/cooling) in the medium, high velocity flows, and strong magnetic and electric fields, as well as other phenomena, any and all of which may be used to facilitate rotation by way of the well-known methods described above.

Geometrically, the invention can be characterized as an angular mechanism paired with a rotational mechanism by way of a central component having a form capable of inducing a plasma pinch. In most embodiments, the aforementioned freely in-flowing working medium is caused to move or rotate either axially or radially or orbitally or spirally or axially, radially, spirally and orbitally, either by the geometry of the central component or through electric and magnetic fields, or via both of these. Through various processes of charge motion, such as drift and the tendency to align with magnetic fields, or by way of the use of external field sources, a charge gradient is set up in (or superimposed on) the aforementioned rotational/orbital/spiral flow. This gradient can be from one side of the central component (or a section thereof) to another, or from the axis to the edges, from a central body to an outer one, or from one end to another (where these 'ends' are defined by way of the aforementioned fluidic motion which can be roughly envisioned as being somewhat akin to a cylinder or several such cylinders arranged in a concentric manner). This produces a scenario that can be characterized as being roughly analogous to a plasma pinch or focus superimposed on or 'crossed' with the kinds of fluidic processes that are associated with cyclone separators and vortex tubes.

The general form of the central component can be cylindrical, conical, hyperbolic, elliptical, or parabolic, or may be derived from other similar shapes, or from one or another ‘closed curves’ generated by taking sections through revolutions of these and similar primative curves (such as those that produce toroidal forms) and projecting the sections, with or without rotation onto a plane or by superimposing these bodies on one another and then projecting the result onto a plane, either with or without rotation, or it may have the form of some advantageous combination of these.

The various embodiments may include geometric flow reversal mechanisms such as central cone-shaped, phallic, seed-like, ellipsoid-like, or other forms, with or without guide-vanes, or suitable closed curves may be chosen to accomplish this goal.

To help trigger discharge (arc mode) in and/or through the flowing medium and/or to enhance and sustain the most advantageous forms of orbiting/spiraling/rotating fluidic motion, various secondary methods may be employed. These can include magnets, cavity magnetrons of various designs, coil combinations such as those that produce outputs 180° or π rad out of phase, various kinds of vacuum tubes, Diodes, Triodes, Tetrodes, Pentodes, Hexodes, Traveling-wave tubes, Klystrons, Cathode ray tubes, and the like (as well as other tubes) especially those designed to intentionally bring about thermal runaway, particularly of a similar kind to that in lithium ion batteries.

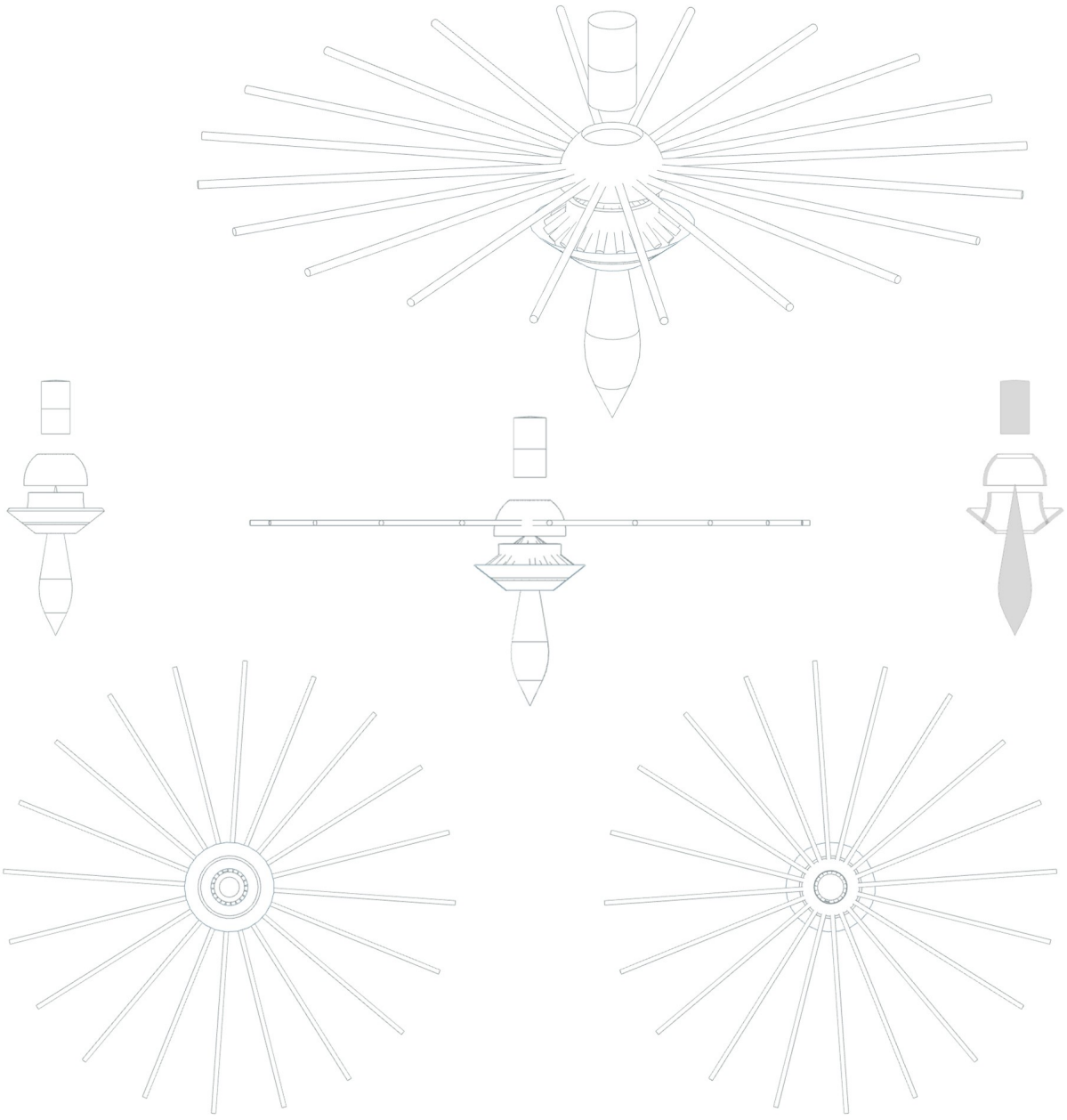
The invention can employ various means of enhancing torque and power output, such as designs that bring about so-called Low-Energy Nuclear Reactions (LENR), other Atomic Reactions (like fusion), and runaway electron reactions: Designs may advantageously apply knowledge of Structured Atomic models, and other potentially favorable models of atomic mechanisms to achieve these ends.

Should the invention produce jets of charged (or other) particles, coils, with or without switching mechanisms, or other means of deriving heat or energy from them may be employed. The invention, which in some embodiments may derive output energy directly from the working medium, may be so designed that these outputs, that is, the aforementioned charged (or other) particles, may also and/or simultaneously be recirculated.

The invention can and should incorporate materials or combinations of materials, which in virtue of their properties (magnetic, electric, thermoelectric, thermomagnetic, galvanic, and so on), enhance or support the salient processes central to the specific application, and may be so constructed that it converts the working medium into a battery with concentric components in which energy is stored in ions of various polarities and potentials.

The present invention may be of any size and designed and used to facilitate any advantageous application, e.g., power production, propulsion, fluid conveyance, desalination, chemical syntheses (including in the realms of food and beverage chemistry), and the production or refinement of fertilizers or other agricultural amendments.

Here is a depiction of one possible embodiment of the invention:



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