## Prospects of use of toroidal whirl of liquids and gases

The fundamental moment of this article is widely known work of the German scientist Victor Shauberger "ENERGY EVOLUTION".

The main opening of this remarkable scientist are the anti-gravitational and thermodynamic effects found by it in the twisted water flows. As the most indicative for further development of a subject of this article the "effects of a trout" and a design of the vortex engine described by V. Shauberger can serve. In the first case V. Shauberger made a scientific explanation of the phenomenon of lag of a trout in the falling twisted water flow and ability of a trout almost instantly to move up against the current. In the second case it showed how it is possible to use whirlwinds in the twisted water flows for obtaining vertical draft in aircraft.

Now, after that small introduction, it is possible to pass from whirl in water to toroidal whirl in liquids and gases. In this case, at formation of a toroidal whirlwind it is possible to observe the phenomenon of power "self-feed" of this whirlwind. At once after the birth, it begins "independent life", selecting thermal energy from environment and transforming it to kinetic energy for maintenance of own whirl. At the same time (on Shauberger) there is axial force of draft giving to a whirlwind acceleration in the axial direction. In this phenomenon conservation of energy isn't present any violation of the law. At compression and twisting of a stream inside the toroid occurs increase in speed and simultaneous decrease in temperature of a stream, at an exit from a toroid and its rounding on an external surface there is a reduction of speed of a stream and its heating due to selection of thermal energy from environment. That is while the whirlwind exists, it is engaged in force down temperature of environment and transformation of the selected thermal energy to own kinetic energy toroidalvortex rotation and the accelerated rectilinear movement in the axial direction. Now we will consider it the phenomena on examples.

Example 1. "Dolphins create rings"

https://www.youtube.com/watch?v=vVva8h7cDns

Here it is well visible as the created ring or a toroidal whirlwind powers itself, trying to exist as it is possible more long.

Example 2. "Rings of a smoke or toroidal whirlwinds" <u>https://www.youtube.com/watch?v=sH\_k3ntCP7s</u> <u>https://www.youtube.com/watch?v=D5JxOOsUkkc</u>

In these two episodes it is visible as rings, having received an initial impulse, begin the accelerated axial movement. Obviously there is an increase of kinetic energy of a toroidal ring in process of removal it from an exhaust outlet of a gun. Here too there is a selection of energy from environment and its transformation in in the axial force creating the accelerated movement of a whirlwind. Example 3. "Tornado" <u>https://www.youtube.com/watch?v=uhWHfCu-BLY</u> "Trunk" and the top dome of a tornado, similar to mushroom, is a visible central part of a huge toroidal whirlwind with a vertical central axis of rotation. A tornado it is very similar to the vortex engine of V. Shauberger in scale 1000:1 more. Human activity is resulted by global warming of climate on Earth and the nature itself found means how to rescue itself from an overheat. The tornado is ideal "febrifuge" for our planet. Unfortunately, selecting excess heat from environment, the tornado turns it into destructive kinetic energy of rotation of "trunk". Vertically directed anti-gravitational force arising in "trunk" forces synchronously turns both multiton bulldozers, and chicken down. And in this case V. Shauberger's opening are confirmed.

Example 4. "Ear candle» <u>https://www.youtube.com/watch?v=IRZ29oWV56w</u> In this clip it is well visible as the flame of a candle twists in the vertical direction. Up leave twirled on filched thermal streams of air. At the end of clip it is visible that ear sulfuric lumps (stoppers) rose by height about 5-8 cm from an internal ear. The system a candle-ear is closed from all directions except an exhaust outlet on which the flame burns. Even if inside there is a discharge, it is impossible to lift something in such system discharge as there is no the ascending air stream of sufficient power up. If to assume that sulfuric stoppers were involved inside and moved as liquid at its typesetting in a syringe under the influence of discharge, in the movie it is visible that these stoppers densely didn't block the section of a tube and were scattered lengthways on an internal wall of a tube chaotically. It is possible to explain this phenomenon only with emergence of vertical antigravitational force in the twisted thermal streams of a flame of a candle.

Example 5. "A rotor for the wind-driven electric generator" https://www.youtube.com/watch?v=dOnFZOh7FHk

In many countries and in Ukraine rotors for wind turbines which twist the running air stream in a spiral whirlwind are developed and made. Such rotors are made in Dnepropetrovsk by Chernov P. Y. and in Kiev by the Doctor of Engineering Onipko A.F.

In the enclosed clip it is visible that the rotor rotates at total absence of a wind. This testified of that, after primary push and twisting of air in a spiral, round a rotor is formed the toroidal closed vortex stream and transformation of thermal energy of air to rotary energy of a rotor begins. After these examples it is possible to offer some options of concrete application toroidal whirls in liquids and gases.

Modernization of the nuclear multipurpose submarine VIRGINIA (USA)would be the most impressive option. Fig.1

Fig.1

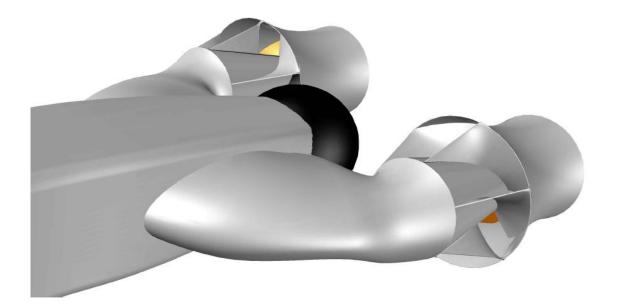


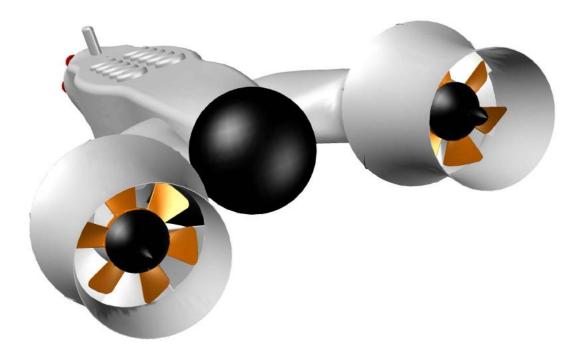
In nasal part of the submarine (Fig.2) it is necessary to install some small shapers of toroidal whirlwinds (are marked in the red color), and in tail part two powerful shapers for ensuring necessary draft. Forward shapers will cover all case of the submarine from a nose to tail part with small whirlwinds that has to reduce considerably front resistance, increase boat speed, reduce the power of engines, and also relieve a case design of horizontal and vertical wheels. On Fig.3 and 4 two back powerful shapers of the vortex water flows toroidal twisted are shown.





Fig.3





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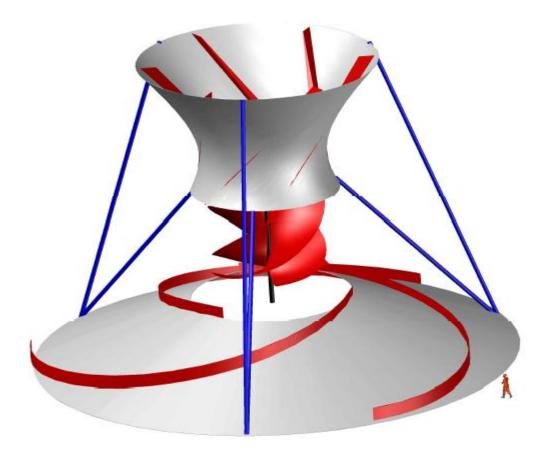
I will give one more option of application toroidal twisted whirlwinds. The idea of this option consists in creating a set of wind farms toroidal vortex type with the artificial "manual" or "house" tornadoes attached to them. These wind farms need to be established in territories where most often there are tornadoes bringing huge destructions and the numerous victims among the population. In other words, it is necessary to try to replace huge natural uncontrollable and very dangerous tornadoes with a set of the safe and attached to one place small tornadoes. As a result of such action, in this district the quantity of natural uncontrollable tornadoes has to decrease, and air temperature to decrease. And the most important that will receive local population instead of pernicious cataclysms a giga or terawatts of an environmentally friendly elektroenergy.

On Fig.5 the example a toroidal vortex wind farm is shown. The running stream of air will twist previously by the motionless spiral edges located at a surface of the earth and to go to rotor blades which form also promotes twisting of an air stream in the vertical axial direction. Final formation of an air spiral happens in the top hyperbolic deflector with internal twisting an air stream, edges.

In case of calm, for initial start of a rotor it is possible to use the electric drive or jet engines as blowers. After the rotor is untwisted, the electric drive or jet engines can be switched off.

Fig.4





On fig.6 it is shown how during the work of a wind farm the vortex closed air stream (artificial a tornado) will select thermal energy from heated external air and transform it to energy of rotation of a rotor. This energy will be transformed by generators to electric energy.



There is a wish to hope that the ideas stated in this article will be noticed by creative politicians, businessmen, engineers, scientists, and that they will be able to realize them in specific projects.

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