OPERATING PRINCIPLE OF AN ENGINE UTILIZING THE ENERGY OF ABSOLUTELY STATIONARY PARTICLES

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The operating principle of an engine based on utilizing collision impulses of absolutely stationary particles with bodies of galaxies receding from the epicenter of the Big Bang in accordance with Hubble's law is determined. A method for detecting radiation from absolutely stationary particles and an engine model converting the collision energy of absolutely stationary particles into mechanical work are proposed. This work may serve as a starting point for research that has never been conducted before.

In a series of works [1–8], a model of Euclidean space – Lorentz local time was proposed and developed, yielding results consistent with the postulates and experimental facts of quantum and relativistic mechanics. A further extension of these studies led to the hypothesis [9] regarding the existence of absolutely stationary particles (ASPs) that could be located at the epicenter of the Big Bang (BB). ASPs are particles for which the values of absolute and local time intervals coincide. According to the principles of the Special Theory of Relativity [10], these particles exhibit no spatial motion, in contrast to all observed astronomical objects belonging to galaxies receding in all directions from the BB epicenter.

If ASPs exist not only at the BB epicenter, then, by the relativity of motion, any observer located on bodies constituting galaxies will perceive the ASPs as moving toward the BB epicenter. Consequently, by identifying on the celestial sphere the region opposite to the BB epicenter, one may attempt to detect this ASP flux.

A possible detector design consists of a sealed cylinder filled with a gas at an optimal pressure, connected to a manometer. One end of the cylinder is

equipped with a diaphragm made of a material that is opaque to and/or reflective of ASPs. By pointing the diaphragm toward the above-mentioned region of the sky, mechanical impulses resulting from collisions between ASPs and the diaphragm can be registered, which would lead to an increase in gas pressure inside the cylinder. Deviating the detector away from that direction would reduce the frequency and magnitude of the impulses, eventually reaching zero when the angular deviation reaches $\pi/2$.

If detection yields positive results, a rotary vane device (a “rotor”) can be constructed to convert the impulse energy from ASP collisions into rotational motion. The rotor would comprise a semi-cylindrical housing together with an impeller, both fabricated from materials impermeable to the ASP flux.

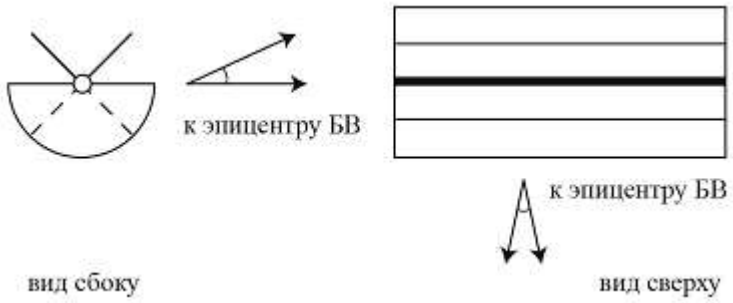

Fig. 1. Schematic drawing of the rotor with a semi-cylinder and an impeller

The impeller is mounted on a shaft located along the axis of the semi-cylinder. It may comprise two (or four) or three (or six) blades, counted along the diameter or the radius of the cylinder. The assembly must be mounted on a gyroscope to maintain orientation toward the epicenter of the Big Bang. In this configuration, while transverse deviations (top view in Fig. 1) may allow for some tolerance, axial deviations (side view in Fig. 1) are constrained by the cut-off plane of the semi-cylinder.

The material composition of the semi-cylinder, the blades, and the diaphragm remains unknown, as the nature of absolutely stationary particles (ASPs) has not yet been studied.

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