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Short Commentary

Artificial Heart Oxygenator of Blood, Energyically Autonomous

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ABSTRACT

The artificial heart of man, proposed in this patent deposit, closes the circle of sustainable energy based on the only physical principle possible in every remote corner of the Earth: the bypass of the force of gravity and of the elastic pressure of the air that it can be realized everywhere, even in the man's chest, using pumps with the double supply separated until to the impeller, which science, industrialists and world legislators pretend to ignore in order not to admit that they have wronged the entire industrial and economic development. Everything would have been simpler, cleaner and cheaper if this invention had taken place a hundred years earlier, as it could have been. The artificial human heart is the miniaturized version of the autoclave system, already reduced, to make it enter the wells' shirts, to purify the water producing energy. Entering the chest of the man to purify the blood producing the energy needed by the brain is not much different from expected for the wells. They serve two mini parallel autoclave systems that replace the right and left atria ventricles . The two pumps that feed them, with the double supply separated until o the impeller, allowing the balance of the hydrostatic thrust in suction and delivery, allow to get the blood coming from the systemic circulation in the mini autoclave on the right and the one coming from the lungs in that left, bypassing the compressed air pressure. This system works autonomously because the mini autoclave ejects at the same instant the quantity of blood equal to the one that enters, due to the principle of impenetrability of the bodies, through a mini pump used as a turbine connected to a direct current generator. The energy spent by the pump motor is about a tenth of the energy produced by the generator. This allows us to have enough energy available to produce the amount of compressed air necessary to the autoclave and the management of an electronic control unit that with a three-word voice command: "rest, normal, fast" manages the flow and the blood pressure according to the physical activity that it carries out. Although it is the air pressure that circulates the blood in the pump used as a turbine, since the circulation is one-way, apart from air solubilized in the blood with purifying effects, there is no other consumption of compressed air because it is exploited statically and not even electricity to produce it.

Keywords: Analgesia; Pain score; Strabismus

DESCRIPTION

In the introduction of any patent filing it is normal practice to cite the state of the art of the sector concerned. But in this case there is little to say because pressurized hydropower does not exist in world industrial, environmental and energy systems. This energy that could be born at the advent of the industrial era is still today boycotted by the world authorities and the multinationals, which, having failed to identify it, have damaged the environment, the world economy, human health due to the pollution that produced uselessly, because the current energies can not be justified even economically, both in fixed and mobile versions. As demonstrated by this invention, the possibility of advancing the state of the art in the treatment of cardiovascular diseases has also been prevented by the absence of this way of producing energy. It should be clear that if we can produce free purifying energy in the human body, we can also produce it in every corner of the Earth, including deserts, poles and space, bringing the necessary ingredients: water and air.

With the current state of the art, the artificial heart, with oxidation and the production of autonomous electric energy, can not be realized because the pumps do not exist with the separate double power supply until the impeller, the blood can not enter the autoclave in low pressure; autoclaves can not work one-way to exploit static pressure without expanding the air cushion. In fact, if the air cushion is expanded, the energy gain that allows autonomy can not exist. Each expansion of the air cushion would result in a subsequent compression with an equivalent or higher energy expenditure, falling back into current systems. Without the use of pumps with the double power supply separated to the impeller, the principle of Henry can not be exploited to oxidize the blood in a

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continuous flow that passes through the autoclave. In fact, today autoclaves are not used to produce energy. They are used with the expansion of the air cushion to mitigate the phenomena of various motion perturbations and to reduce the number of hourly starts of the pump motors of the hydraulic systems that overheat.

Above all, doctors who have never read the articles published by the undersigned at http://www.spawhe.eu and intention will ask themselves the following question: how is this phantom pump with the double power supply separate until to the impeller? They will be amazed if I say that it is exactly the same as other centrifugal pumps. Only the supply of the pump on the suction side changes, which in the larger pumps can be divided into four parts. In the smaller ones, as in the present case, in two parts. La cosa importante è il fatto che la divisione deve arrivare dentro e al centro della girante in rotazione, radente ai profili delle palette in rotazione. The important thing is the fact that the division must arrive inside and at the center of the rotating impeller, grazing the profiles of the rotating blades. Without this change, if we feed the pump as we currently power it, with a single flow in suction and delivery, the pump's performance does not change much, even worse, having introduced a useless loss of load. If instead, we feed the pump differently, as it must be used, with two different pressures, we can use half of the pump inlet section to recycle the blood contained in the autoclave to the pressure of the autoclave and the other half to enter into it recycle circuit the blood with less pressure coming from the systemic system or from the lungs. It is obvious that who determines the direction of the flow is the direction of rotation of the impeller and since the two flows go in the same direction, the flow with the upper hydrostatic pressure helps to enter the one with less pressure. It would obstruct it if the power split did not reach inside the impeller, grazing the rotating blades. In fact if we imagine the rotation in slow motion we can understand that by rotating, the half-impeller that receives the flow in low pressure, in the next moment, having changed position, also receives the flow in high pressure, and at the next instant again the flow in low pressure, in a continuous cycle. In addition, all centrifugal pumps in the center of the impeller create a vacuum in the tube that feeds them proportional to the square of the impeller rotation speed; otherwise, they would not work to lift the liquid. Dividing the supply pipe in two equal parts, the vacuum takes place even if we have greater suction load losses, but with immense advantages in the next phase of the impeller rotation, the fluid passage section expands, the speed decreases and the pressure increases. At the outlet of the pump impeller, we have the sum of the two flow rates and a single pressure. This is due to the Pascal principle. Someone more expert in hydraulics can assert that the flow coming from the side with less pressure is lower than that which is recycled internally to the autoclave. In fact, the side with greater static pressure has less pressure drop, but this fact does not really matter at the end of the operation. By increasing the pump rpm, we also reach the blood flow that the human body needs (5 - 15 L / min). The flow recycled internally to the autoclave has no external effects but improves the oxidation of the blood. By varying the revolutions of the pump, both the inlet and the recycled flow rate vary, but only the quantity of blood coming from the outside enters the pump inside the autoclave (2.1 - 2.2), which is not powered by any electrical energy, as it is used as a turbine. It is that which produces energy, expelling at the same time the amount of blood entered that is incompatible with the volumetric capacities of the small autoclave. But the expulsion takes place with the force of the small cushion of compressed air, and since it happens at the same instant of the water that enters, the air cushion cannot expand and cannot consume energy. It can only be produced by rotating the multi-stage pump impellers and the shaft connected to the generator (3.1 - 3.2). The liquid level excursion is regulated by the level sensors (10.1 -10.2). In fact, if the level is lowered, the revolutions of the motors increase (6.1 -6-2) which increase the flow rate of the pump which raises the level only with the blood coming from the outside. If the blood level increases the revolutions of the motors are lowered automatically. The system is managed by an electronic control unit.