WR. 7-02-3
The Writings of Prof. Bailey
Repulsion Energy,
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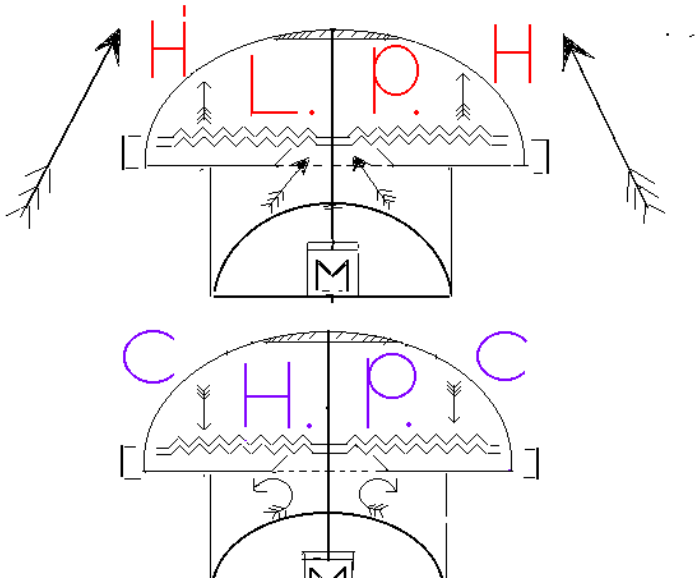
LETTER 7/02-3 "Thermal Resonant Device" **Pg. 01**
See Sketch jjb8

Kim, there is good reason to believe the Repulsine resonates between hot and cold.



It is physically impossible without a fuel source to drive a compressor without heat loss.

The "ONLY" way around this problem is for the Repulsine to "ABSORB HEAT" from the external environment one half of each operating cycle.

Therefore we "MUST" use a valve in the form of a wavy disc compressor to initiate the pressure cycles.

This follows in the spirit of the "PULSE JET" engine.

When the wavy valve plates are closed the internal Repulsine plenum chamber becomes very hot!

This happens do to the fact that the wavy disc plates have compressed air as they snap together.

The wavy disc plates act as "FLYWHEEL" and continue to heat the internal gas volume by friction and centrifugal acceleration.

At this time no further cold air can enter at the bottom of the Repulsine.

The outside of the Repulsine has become very hot from all of the internal energy loss from the wavy plates.

A very strong updraft is induced and the Repulsine becomes evacuated.

The Repulsine wavy disc plates "OPEN" as the internal pressure becomes well below external atmospheric pressure.

This causes a rapid influx of "COLD AIR" that fills the internal Repulsine shell.

The shell rapidly fills with a large volume of cold air and finally the internal pressure is "ABOVE" external atmospheric pressure and the wavy disc plates once more snap shut!

This begins a new heating cycle. The wind at the base inlet of the Repulsine shell above the motor rams and heats the bottom of the plenum chamber.

Once more the wavy disc plates dump energy into the swirling internal air mass and heat it. The exhaust begins to increase as the cold air expands and further spins up the wavy disc plates.

The external shell of the Repulsine rapidly reaches outside temperature and then becomes much hotter.

This is do to the environment reaching static equilibrium at first. Then the mechanical energy of the expanding cold air driving the exhaust turbine is added to the outside temperature and the Repulsine reaches a high temperature.

The simple calorimeter experiment is an example of this.

Paddles are spun by a falling weight and heat water in a closed chamber.

The closed wavy disc plates act in the same fashion, they convert the exhaust turbine energy into heat as they swirl the internal cold air mass.

The external environment responds to this heating by inducing a strong updraft. This begins to evacuate the Repulsine chamber.

Finally the Repulsine wavy disc plate's spring open do to the low internal plenum pressure and the cooling cycle begins again.

REMEMBER, A STANDARD CENTRIFUGAL COMPRESSOR DOES NOT RESONATE!

It is the open and closing action of the wavy disc plates in a resonant fashion that generates dual cycles of heating and cooling.

A standard centrifugal compressor simply gets "HOT" and begins to radiate heat into space around it on a typical jet engine.

A standard centrifugal compressor therefore "MUST" use a fuel source to compensate for this heat loss or the jet engine will soon shut down.

The Repulsine is "NEVER" in thermal equilibrium with its environment.

It resonates between a hot and cold condition.

This allows it to "ABSORB HEAT" from the environment every half cycle and compensate for its heat loss during its pressure cycle.

The resonation of the wavy disc plates is very "SIMPLE" to demonstrate.

Place a large clear plastic cut off water bottle (from 6 to 18 inches in diameter) over a wood or metal plate with a hole in the center.

Place a metal disc inside the chamber formed by the water bottle and base plate, over the intake hole.

A metal rod is fashioned onto the metal disc and spring mounted to exhaust hole of the clear plastic vacuum bell.

This restraining rod holds the metal resonation disc in place over the intake hole in the base plate.

Start the vacuum hose suction and a "LOUD RESONANCE" will be heard in the vacuum bell chamber.

The resonation disc will first lift and a strong Bernoulli will form beneath it.

This will pull the metal disc down and seal the base plate intake hole.

Once more static air pressure builds beneath the metal resonation disc.

The resonation continuous as long as suction is present in the vacuum bell.

It is very dramatic and sounds like the valve closing on a pulse jet engine.

This simple experiment demonstrates the high and low pressure cycle of the Repulsine engine.

There is not much more that can be demonstrated on the Repulsine operation without a rotating wavy disc version.

A rotating wavy disc Repulsine is "FAR MORE COMPLEX".

It has flywheel dynamics and an exhaust turbine to spin the wavy disc plates as the induced cold air mass expands from external heating.

It is believed that this simple resonant disc experiment will prepare the Repulsine researcher for the dynamic complexity of a rotating Repulsine wavy disc plate and exhaust turbine combination.

I will send a diagram of the simple resonation plate vacuum bell experiment in case my words are not clear enough to allow reproduction of this fundamental experiment.

P.S. The Repulsine is powered off of "COLD AIR". The cold air has great weight and causes the wavy disc plates to snap together with great force! The thermal energy comes directly from the environment.

END