Free Energy! You've heard about it. You've wished you had some. I've told you that this column is going to explore it. So you may ask, "Where is it"? Where's all the free energy?

Well, I'm going to tell you. Since the BSRF laboratory is not funded it's up to all of us individually. All you experimenters who built ball-bearing motors, checked out the neutral-line on your magnets or dropped spinning balls, you and I are going to build a free energy machine in 1990. In this article and in the 5 that follow it this year, you and I are going to explore every detail of how to build a self-running device that gains all its energy from the natural environment.

This exploration will look very carefully at the laws of action and reaction, motion, conservation, efficiency, loss, friction, the problems encountered by past experimenters, theories, mathematical formulas and calculations as well as the art of taking accurate measurements. No laws will be broken and no stone will be left unturned.

There are two kinds of help we need the most. The first is people who will think and actually do original experiments, using the scientific method, and report them to us. The second is people who will honestly critique the reports for scientific accuracy. Hopefully, some skeptical, yet sympathetic scientists and engineers will fill this role for us.

On this stage, I present the project for the year. Since the device is a machine, it will have losses. So I have decided that our project should have minimum losses so that our energy gained from the environment may also be small. To accomplish this I have decided on a purely mechanical, hydraulic concept that has no electrical or magnetic forces in the primary energy cycle.

Without drawing out the suspense too much further, the device will be a self-actuating water turbine powered by gravitational and centrifugal forces.

**PRIMARY CONCEPT**

I first encountered this concept in issue #8 of ENERGY UNLIMITED magazine edited by Walter Baumgartner. The device is called "The Messias Machine" and is the invention of Al-Masih Daruish Al-Khooos, a Syrian man born in 1926.

The basic idea is pictured here in the top drawing. Water in an upper reservoir (A) falls in the gravity field through pipe (B) to turn turbine (C) and end up in the lower reservoir (D). The water is then returned to its former high potential by travelling up the inner surface of rotating cone (E) by the action of centrifugal force, moving from the lower reservoir (D) up to the upper reservoir (A) to start the cycle again.

No one has built a self-running device based on this concept that I know of. No patents were ever filed to my knowledge. The concept is in the public domain.

Since our project has obvious similarities to a classical perpetual motion machine, I have reproduced drawings of two of them, based on the endless water-wheel concept. Both drawings date back to 1618 and were the idea of an English physician named Robert Fludd. As you will notice, a waterwheel is used to convert the downward cycle of the water to mechanical motion in both designs. In the first drawing, the Archimede's screw is used on the upward cycle of the water, and in the second drawing, the water is raised in a tube containing a chain with wooden disks mounted on it. In both cases, mechanical work is required to raise the water against gravity since only gravity, friction and
mechanical efficiencies of the waterwheel are involved. Since gravity supplies all the energy gained in the fall of the water, simply reversing the process, minus frictional losses, represents no gain so that these systems cannot work.

In our design, gravity is used on the downward cycle to supply rotation of a turbine. Our return path, or upward cycle is what is of significance here. Rotation supplies us with a new force that we are going to harness. This force is centrifugal force. By rotating a conical surface, where the lower radius is shorter than the upper radius, we can harness centrifugal force to push the water back up along an inclined plane. This situation is fascinating to ponder. Since centrifugal forces increase with both the square of the speed of rotation and the radius, the force on the water at the top of the cone is even greater than at the bottom of the cone. This arrangement is capable of raising water to any height that is reasonably practicable. The only energy required to do this is the energy required to bring the rotating cone up to operating speed and that required to overcome the frictional losses to maintain that speed. Since the bulk of the energy is conserved in a flywheel action, and since mechanical force is not required to lift the water, the upward and downward flow of water should be able to mutually support each other to cause a continuous action.

"Energy" is defined as the ability to do work and "work" is defined as that which occurs when a "force" acts upon a "mass" to move it a certain "distance." The simplified formula for this is \( W = F \times D \) or Work equals Force times Distance. No one will argue that I can produce a positive work output harnessing the falling gravity potential of the water with my turbine. Also no one should argue that I can produce a positive work output harnessing the rising centrifugal potential of the water moving on my rotating cone from a shorter radius to a longer radius.

Thus, two natural forces can be harnessed to produce work in our device where the fundamental motion is conserved and all we have to do is overcome the friction. The one moving part, an integrated turbine and rotating cone can be suspended in powerful permanent magnet powered magnetic bearings to reduce the rolling friction to near zero. The only losses then would be air friction against the cone and water friction where the non-moving water meets the bottom of the rotating cone in the lower water reservoir. Since these water and air drag factors are pretty small, the main design parameters become: how high must the rotating cone be to produce a sufficient head of water to drive the turbine at operational speeds? Given some turbine efficiencies, the rest should be predictable by mathematical calculation.

To get things started, I bought an 8" plastic funnel at a kitchen supply store and attached a small shaft to it so I could rotate it with my hand drill. With the help of a friend, a motor speed control, a strobe type tachometer and a bucket of water, I was ready to start. Rotating the funnel with its bottom immersed in the bucket of water, demonstrated the following effects. At 210 RPM, water began spilling over the top of the plastic funnel. The article in ENERGY UNLIMITED suggested that the surface texture of the rotating cone might also make a difference. So with that in mind, I lined the inside surface of my funnel with wet newspaper. Sure enough, the new arrangement had water spilling out the top at 170 RPM.

Next, we checked some flow rates. At 170 RPM, the rotating cone delivered 6 oz. of water to the top in 1 minute. Next, we increased the speed 50% to 255 RPM. At the new speed, the rotating cone delivered 18 oz. of water to the top in 1 minute, a 300% increase.

OK, that's enough. Now it's time for you to get wet...I mean involved. Borderland hosts its First International Congress in June 1990, I'd love to see a working model there from one of our associates. Let's get busy!