

ABSTRACT: Disc shaped platform (#1) with a track made up of multiple A-shaped planes (#2) will rotate around a central point forced by the weight of water in buckets (#3) pushing against the inclined planes on the downward stroke. The water is then released, lightening the weight of the buckets and allowing them to be lifted by means of the back side of the A-shaped inclined plane back to the initial start point where water released from a torus-shaped tank (#4) triggered by the rising bucket refills the bucket at the apex, thus repeating the cycle. Two buckets will be mounted for every one apex on the track, thus the bucket on the power stroke will be producing power as the bucket directly adjacent to it is being lifted. The buckets will contact the track through a wheel at the end of each shaft. (#15).

The buckets are attached to the end of shafts (#5) with the other end of the shafts mounted to a hinge (#6) attached to a central hub (#7). This setup shall allow for only up-and-down travel of the buckets for accurate water delivery through hatches (#8) in the bottom of the tank. Additionally, a vertically oriented U track at the end of each shaft where a bearing on each shaft would ride to insure no sideways movement (#16) A vertical member on the top of the shaft above each bucket (#14) will effect the release of the water from the tank through the hatch as the bucket reaches it's apex. A lever on the rotating platform will effect water release as the buckets near the lowest point of travel through a door (drawing 2, (#13) in the bottom of each bucket. The water release just before the bucket reaches the lowest point on the track will add more force as the water hits the blades in the rotating platform, as the downward travel of the water will not be interrupted before it hits the blades.

The entire unit will be mounted on a stationary platform (drawing 1, (#10) placed on a bed of small round stone, which will not pack, making the unit quake resistant. Water from a source would be by flexible tube, also quake resistant. The stationary components shall be supported by a frame (drawing 1, (#11) and the rotating platform will be mounted on a central bearing at center of the unit on the stationary platform. A water distribution system (#12) consisting of a frame mounted tank and hatches delivering water evenly to the buckets. Water by flexible tube (#17) could be from a flowing source with the intake at a higher elevation than the point of delivery at the unit. No dam is needed. But the water source could be from a dam or pumped storage. Units could be added at existing hydro-power plants to increase output. Units could be used to set up mini-grids where practical. There are millions of miles of flowing water world wide available for use for hydro-power flux reducing the need for fossil fuel plants.

This presentation is from information on the patent application. Many details for protection but unnecessary for understanding the device are eliminated. The design on the patent papers is with as about as close to the lowest water head possible. The variations in design are endless. The diameter, the height, the amount of water, could be dictated by site conditions, and energy needs. With a high water head and a small foot print area space available, a number of units could be stacked reusing the water a number of times.

Notice of allowance from the U.S. patent office received 4/1/20. Patent to issue about 6/6/20. This is 18 months earlier than average. The value for effect on climate change can not be over estimated.





EXPLODED INDIVIDUAL COMPONENT VIEW (DWG1)

UNDERSIDE VIEW OF TOROIDAL WATER TANK