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THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. An apparatus for generating gases from water and for the controlled burning of the gases generated thereby comprising:

a housing having a chamber for containing natural water therein including entrapped non-combustible gasses;

a pair of similar non-oxidizing electrodes in said chamber and adapted to be connected to a source of rippling wave form direct current voltage in which the current flow is restricted to provide a force action on water in said chamber, which liberates the hydrogen atoms and oxygen atoms from said water as well as non-combustible gases dissolved in said water and thereby producing a mixture of hydrogen, oxygen and non-combustible gases;

a gas collection chamber in said housing for collecting and intermixing said released gases; and

a nozzle attached to the gas collection chamber of said housing including an inlet for receiving said mixture of hydrogen, oxygen and non-combustible gases;

said nozzle having a port of predetermined size and configuration for expelling said mixed gases at a rate so as to sustain a flame from the gases that are liberated from the water.

2. The apparatus of Claim 1 including means for separately introducing non-combustible gases to said gas collection chamber.



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- 3. The apparatus of Claim 2 including valve means for controlling the amount of non-combustible gases introduced into said chamber.
- 4. The apparatus of Claim 1 wherein said nozzle has a plurality of separate ports to thereby control the flame.
- 5. A method of producing a combustible gaseous mixture and sustaining controlled burning thereof comprising:
 - (a) providing a quantity of water in a water holding chamber having a pair of similar non-oxidizing electrodes therein;
 - (b) applying a rippling wave form electric potential across said electrodes without any change of polarity and limiting the current flow so as to liberate hydrogen atoms and oxygen atoms from the water molecules as well as non-combustible gases dissolved in the water and thereby provide combustible and non-combustible gases;
 - (c) collecting and intermixing said gases; and
 - (d) providing a nozzle having at least one port of predetermined size and configuration such that the gaseous mixture flows therethrough at a rate so as to sustain a flame.

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- 6. The method of Claim 5 including the step of burning said gaseous mixture at said nozzle port.
- 7. The method of Claims 5 or 6 including the step of adding further non-combustible gases to said intermixed gases to provide a combustible gas mixture with a selected burn rate.
- 8. The method of Claim 7 including the step of burning said gaseous mixture at said nozzle port.
- 9. The method of Claims 7 or 8 including the step of adding further non-combustible gases to said intermixed gases to provide a combustible gas mixture with a selected burn rate.

