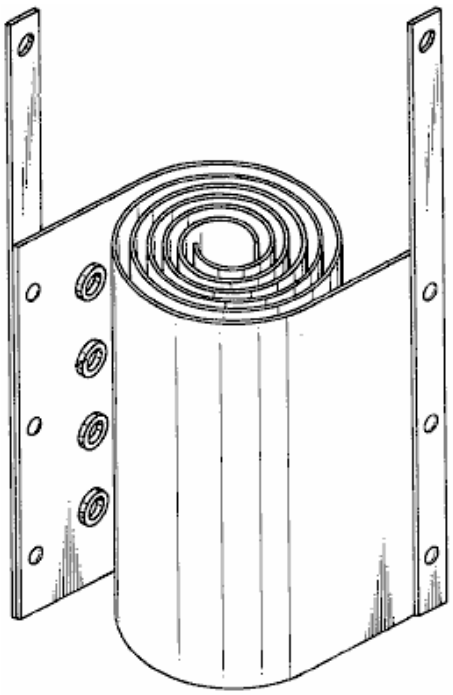
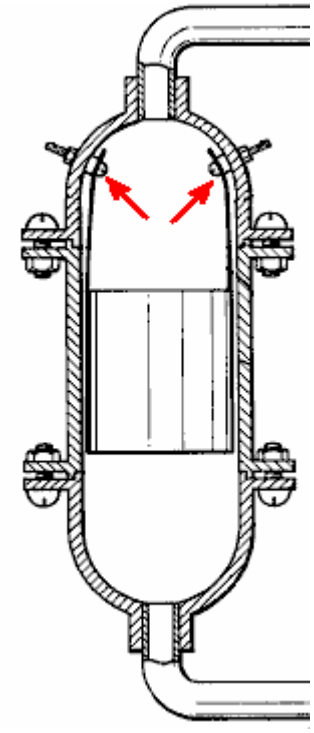
The Shigeta Hasebe Electrolyser

IN AUGUST 1978, SHIGETA HASEBE WAS GRANTED US PATENT 4,105,528 FOR AN ELECTROLYSER DESIGN. THE HHO PRODUCTION FROM HIS DC CELL WAS SEVEN LITRES OF HHO PER MINUTE FOR AN INPUT POWER OF JUST 84 WATTS, USING A SODIUM HYDROXIDE ELECTROLYTE.

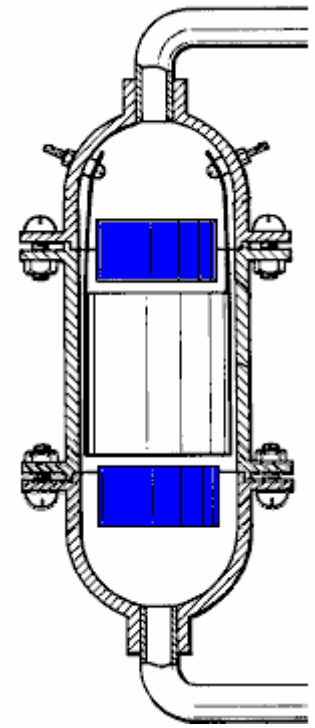
THE CELL CONSISTS OF TWO COILED ELECTRODES WITH SPACERS EVERY QUARTER TURN:



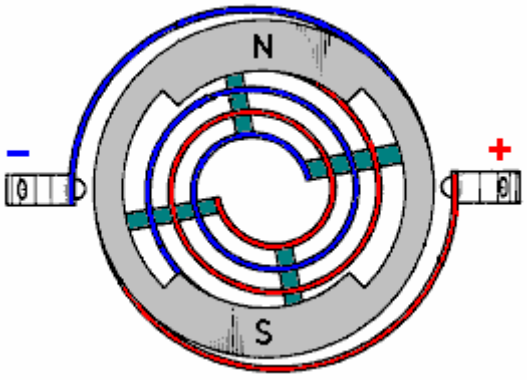
THESE ELECTRODES ARE SURPRISINGLY DIFFICULT TO MAKE BY HAND BUT THEY SHOULD BE VERY SIMPLE TO CONSTRUCT USING A 3-D PRINTER. THESE COILED ELECTRODES ARE THEN BOLTED TO A NON-CONDUCTING ENCLOSURE :



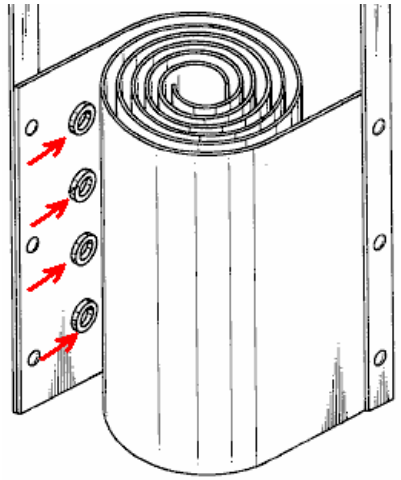
NEXT, TWO POWERFUL MAGNETS ARE MOUNTED IN THE CONTAINER, ONE ABOVE THE ELECTRODES AND ONE BELOW THEM :



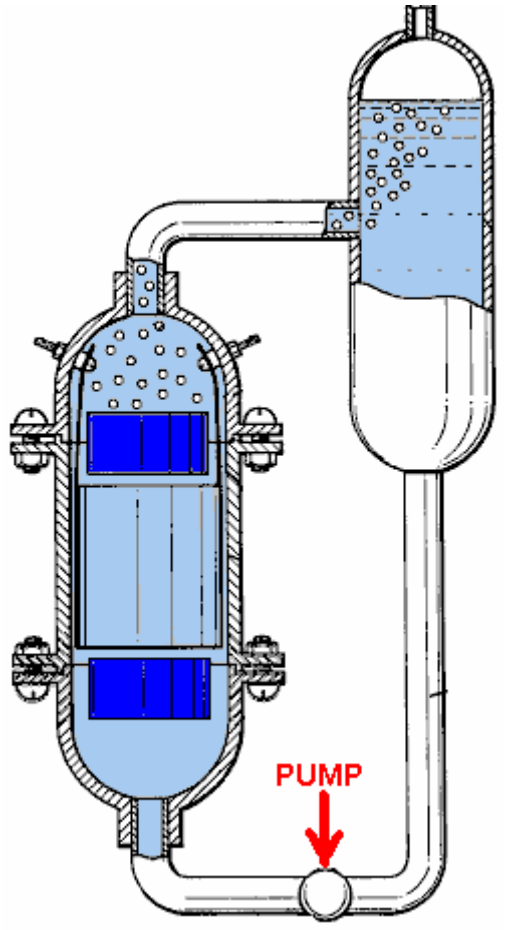
LOOKING DOWN ON THE MAGNETS AND ELECTRODES, THEY LOOK LIKE THIS :



THE MAGNETS ARE ARRANGED TO PRODUCE A MAGNETIC FIELD WHICH RUNS ACROSS THE AXIS OF THE ELECTROLYSER. THE SPACERS (SHOWN IN GREEN) ARE NOT CONTINUOUS BUT ARE QUITE SEPARATE, AND THEY ARE THERE TO CAUSE TURBULENCE AS WELL AS TO FORCE THE DESIRED ELECTRODE SPACING :

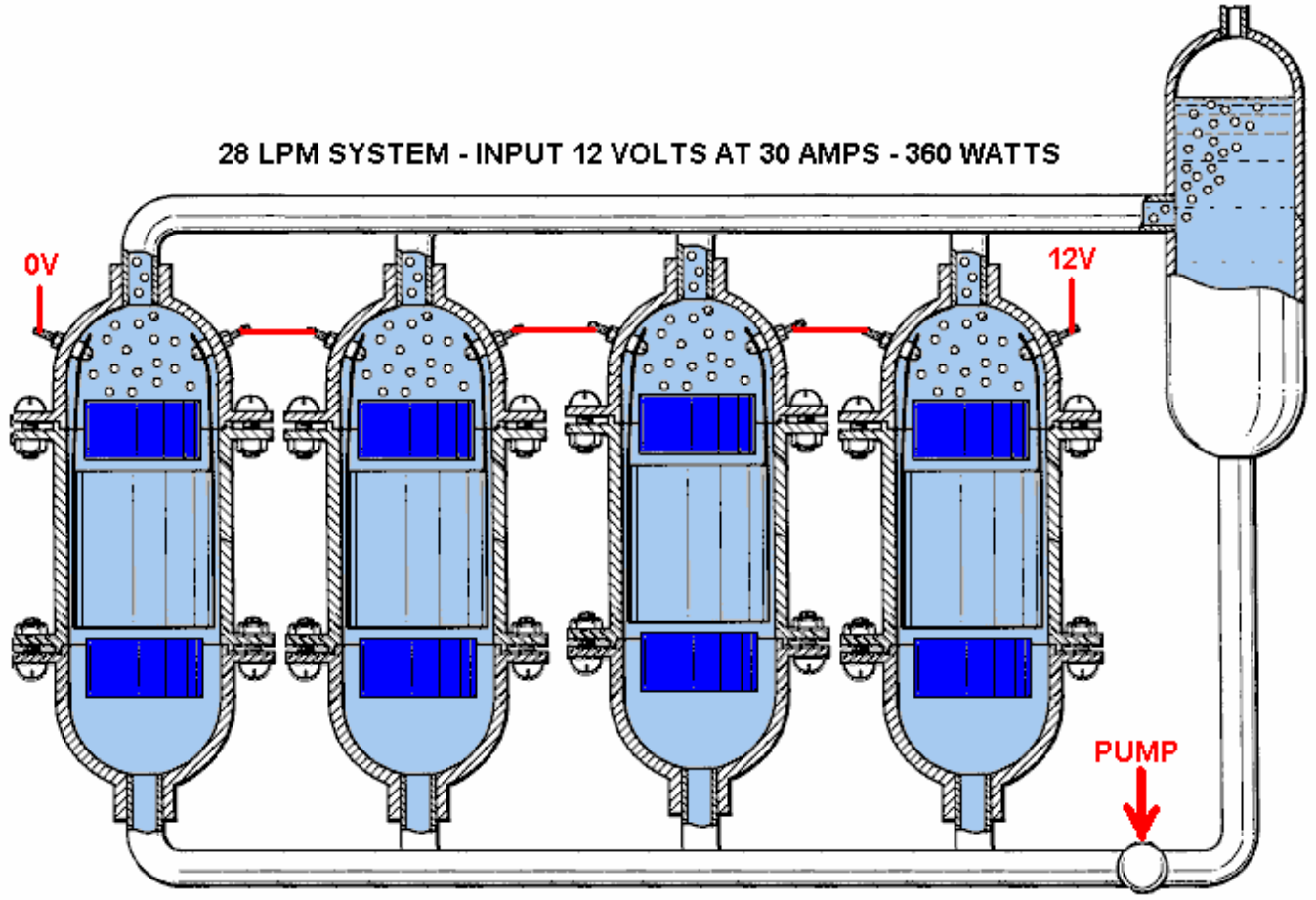


THE ELECTROLYSER IS CONNECTED DIRECTLY TO A RESERVOIR OF ELECTROLYTE AND A PUMP IS USED TO CIRCULATE THE ELECTROLYTE WHICH BRUSHES BUBBLES OFF THE ELECTRODES :



THE OUTPUT PIPE OF THE ELECTROLYSER IS CONNECTED TO THE SIDE OF THE ELECTROLYTE RESERVOIR AND THERE THE BUBBLES FLOAT UPWARDS AND EXIT THROUGH A BUBBLER WHILE THE REMAINING ELECTROLYTE GETS CIRCULATED AGAIN BY THE PUMP.

THE TEST RESULTS FROM THIS DESIGN WERE 7 LITRES OF HHO PER MINUTE FROM JUST 84 WATTS OF INPUT POWER. THE INPUT POWER WAS 30 AMPS FROM A 2.8 VOLT POWER SUPPLY. SO, IT SHOULD BE POSSIBLE TO RUN FOUR FROM A 12-VOLT SUPPLY – THAT BEING A COMMON OUTPUT FROM A TYPICAL GENERATOR, OR ALTERNATIVELY, TWO FROM A 6-VOLT SUPPLY IF THAT IS AVAILABLE :



AN ALTERNATIVE IS TO RUN JUST ONE USING A DC-DC STEP DOWN CONVERTER CIRCUIT AS A GENERATOR HAS A GREAT DEAL OF SPARE ELECTRICAL CAPACITY AND THE CONVERTERS ARE WIDELY AVAILABLE. A GENERATOR ONLY NEEDS ABOUT 5 LPM TO PROVIDE KILOWATTS OF EXCESS POWER TO RUN A HOUSEHOLD.

NOTES : **http://www.free-energy-info.com/Hasebe.pdf**

VIDEO : **https://youtu.be/v2g07YUv63g**