

Experimental Proof Of New Method Of Electricity Generation

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Abstract—In continuation to my published paper (1) on New Method of Electricity Generation, the following experiment was done. This was to check my idea of continuous sucking of water by the Torricelli's Vacuum when implemented in my model.

Keywords—Torricelli's Vacuum, vacuum metal container, feed bucket, vacuum pipe, water drain pipe, stop cock.

Abbreviations:

VC = Vacuum Container, GL = Ground Level FB = Feed Bucket, V = Volume, W = Water, Av. = Average

Experimental Part:

According to my model presented in this paper (Fig.1), a vacuum overhead tank is needed. I fabricated a small tank as shown in (Fig.2). This was placed at 3rd floor roof of my residence and was connected at the top nozzle in the container to a feed bucket (Fig.3) through a 12.7 mm diameter vacuum flexible plastic pipe. Another same plastic pipe was connected to the bottom nozzle and this pipe was brought down to ground floor to drain water. Requisite number of stop cocks was placed in the pipe lines.

Operation of the system:

Step 1: Water was manually filled in the Metal Container, Drain pipe and Vacuum Pipe through the filling point as shown in Fig.-4. Before filling the Vacuum Pipe, Stop cock at the junction of Feed Bucket was closed.

Step 2: Then Feed bucket was filled with water.

Step 3: After that the Stop cock at the end of the drain pipe on the ground floor was opened, water started draining from the Metal Vacuum Container on 3rd floor roof through the drain pipe as shown in Fig.-5&6. When 8.0 Lit water drained out, the Stop cock at the Feed Bucket was opened. Immediately water started flowing from the Feed Bucket to Metal Container since sufficient vacuum was created in the Metal Container. This process was continued for 15 minutes. During this time, water was manually poured continuously in the Feed Bucket to keep the system continuous and the same water was drained at the ground floor through the drain pipe. The results are shown in Table-1, 2 & 3.

Results:

Table – 1

Instrument Details	Vacuum Container	
	Volume, Lit	Dimensions, cm
	34	Height = 47 Diameter = 31

Table – 2

Position of instruments	Vacuum Container & Feed Bucket	
	Height of VC from GL, meter	Height between FB & VC, meter
	11.88	4.27

Table – 3

Experimental Results	Water flow rate calculation						
	W collected min	V of W collected, Lit	Av. V, Lit	Collecti on time, sec	Av. Time, sec	Flow rate, Lit/sec	Av. Flow rate, Lit/sec
	5	6	6.55	25.20	29.04	0.238	0.227
	+5	7.1		32.89		0.216	

+5 = next 5 minutes

Conclusion:

The above experiment clearly proves my idea of using Torricelli's Vacuum to continuous lift water from an optimum height between 11.88 meter and ground level. Average Volume of water flowed out at ground floor was 13.53 Lit per minute. This mass flow rate can be increased to a usable flow rate by proper calculation of the critical parts of the model. Using this mass flow usable electricity can be generated which is mentioned in my earlier paper (1).

Reference:

1. Madhu Sudan Modak, "Ecofriendly New Method Of Electricity Generation", Journal of Multidisciplinary Engineering Science Studies (JMESS), Vol. 1, Issue 1, November – 2015

