

Ernst,

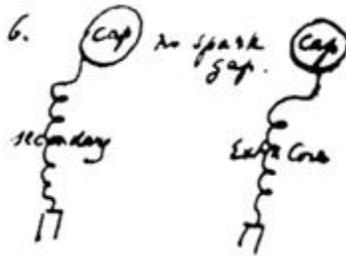
You wrote:

> Your understanding is not so much different from mine.

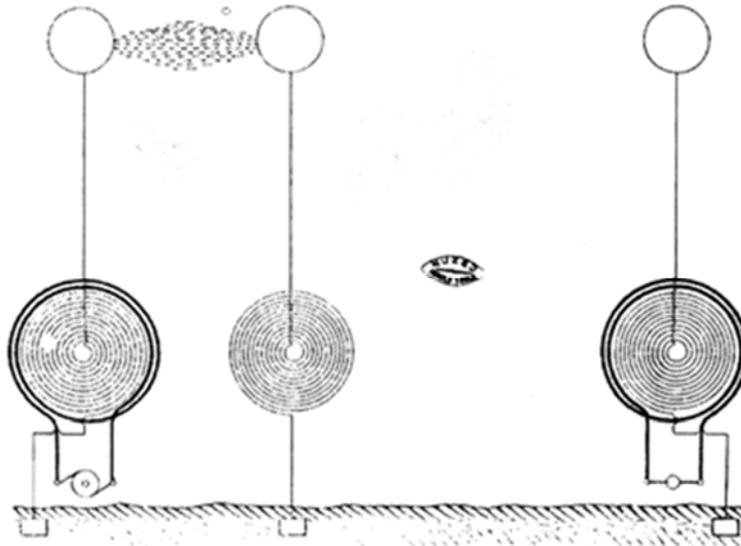
I agree. The point I am making is this. Your present transmitter is modelled after what I believe is a compromised design that was forced into existence by financial considerations related to the construction of Wardencllyffe. Some important engineering considerations were set aside for the sake of convenience. If sufficient funds had been available from the outset the completed facility would certainly have looked more like this rendering from the 1930s, with two separate towers.



This is the same design shown with slight variations at a number of places in the Colorado Springs Notes, most significantly on pages 191, 200, 197 and 170 (see also pages 161, 162, 174, 177 and 184).



And, once again, we have this diagram showing the exact same configuration.



> There is a difference in naming (what exactly is the “Magnifying Transmitter”); from reading your page I understand that you adhere to the general consensus that patent 1,119,732 describes a MT, whereas I do not.

This is more a matter of semantics than one of engineering. You limit the scope of your definition of “magnifying transmitter” to a single design embodiment. I freely subscribe to the notion that every single Tesla wireless system Tesla coil transmitter that has ever been assembled falls into this general category.

> **1904-03-05:**

> *The best design of which I know has been adopted, and the transmitter will emit a wave complex of total maximum activity of ten million horse-power, one per cent. of which is amply sufficient to "girdle the globe."*

> . . .

> With 100 HP a maximum activity of 10,000,000 HP can be created, and 1% of this is "Amplified sufficient to girdle the globe," meaning that 1 HP would do.

In 1904 Tesla wrote this about Wardenclyffe.

“Since a single plant of but one hundred horse-power can operate hundreds of millions of instruments, the system will have a virtually infinite working capacity, and it must needs

immensely facilitate and cheapen the transmission of intelligence. The first of these central plants would have been already completed had it not been for unforeseen delays which, fortunately, have nothing to do with its purely technical features. But this loss of time, while vexatious, may, after all, prove to be a blessing in disguise. The best design of which I know has been adopted, and the transmitter will emit a wave complex of total maximum activity of ten million horse-power, one per cent. of which is amply sufficient to "girdle the globe." ["The Transmission of Electrical Energy Without Wires," Nikola Tesla, *Electrical World and Engineer*, March 5, 1904.]

One percent of 10,000,000 H.P. is 10,000 H.P., which, according to Tesla, is "amply" that is to say, copiously, abundantly, profusely, plentifully and profusely "sufficient to girdle the globe."

And then, in 1916, we have the following statement from Tesla.

"Theoretically, it does not take much effort to maintain the earth in electrical vibration. I have, in fact, worked out a plant of 10,000 horse-power which would operate with no bigger loss than 1 percent of the whole power applied; that is, with the exception of the frictional energy that is consumed in the rotation of the engines and the heating of the conductors, I would not lose more than 1 percent. In other words, if I have a 10,000 horsepower plant, it would take only 100 horsepower [or about 75,000 watts] to keep the earth vibrating so long as there is no energy taken out at any other place." [NIKOLA TESLA ON HIS WORK WITH ALTERNATING CURRENTS AND THEIR APPLICATION TO WIRELESS TELEGRAPHY, TELEPHONY AND TRANSMISSION OF POWER, Leland I. Anderson, Editor, Twenty First Century Books, 1992, p. 140.]

100 H.P. is clearly 1% of 10,000 H.P., establishing a lower limit on the Wardencllyffe transmitter's power output—minus the transmitter's internal losses—that Tesla believed is required to achieve whole Earth resonance.

The primary purpose of the tower was to send the human voice and likeness around the globe through the instrumentality of the earth. [Nikola Tesla On His Work with Alternating Currents and Their Application to wireless Telegraphy, Telephony, and Transmission of Power, 21st Century Books, Leland I. Anderson, 2002, p. 205.]

The Wardencllyffe Tower was a single component of a commercial venture intended for global point-to-point wireless telecommunications and broadcasting.

The tower was so designed that I could apply to it any amount of power . . .

The Wardencllyffe plant was designed so as to handle a maximum transmitter power input to the final stage of at least 10,000 H.P.

. . . and I was planning to give a demonstration in the transmission of power which I have so perfected that power can be transmitted clear across the globe with a loss of not more than five per cent, and that plant was to serve as a practical demonstration. And then I was going to interest people in a larger project and the Niagara people had given me 10,000-horse power (7.5 megawatts). [Nikola Tesla On His Work with Alternating Currents and Their Application to

wireless Telegraphy, Telephony, and Transmission of Power, 21st Century Books, Leland I. Anderson, 2002, p. 205.]

The Wardencllyffe transmitter's power supply was a 200 kW Westinghouse generator, which made it suitable for small-scale demonstrations of electrical power transmission. With, say, 75 kW of spherical terrestrial surface wave transmission line loss, this leaves around 125 kW to work with. So, when demonstrating wireless power transfer a demonstration plant of this size might be capable of powering about 100 toaster ovens at any point on Mother Earth's surface.

As you seem to be discovering,

When the earth . . . is struck electrically, the charge oscillates, approximately, twelve times a second. By impressing upon it current waves of certain lengths, definitely related to its diameter, the globe is thrown into resonant vibration like a wire. . . . By proper use of such disturbances a wave may be made to travel over the earth's surface . . . and an electrical effect produced at any spot. . . . This mode of conveying electrical energy to a distance is not 'wireless' in the popular sense, but a transmission through a conductor . . . incomparably more perfect than any artificial one. . . . By impressing upon it numerous non-interfering vibrations, the flow of energy may be directed through any number of paths . . . perfectly distinct and separate like ever so many cables. Any apparatus, then, which can be operated through one or more wires . . . can likewise be worked . . . at distances without limit other than that imposed by the physical dimensions of the globe. . . .

It is intended to give practical demonstrations of these principles with the plant illustrated. . . . An inexpensive instrument, not bigger than a watch, will enable its bearer to hear anywhere, on sea or land, music or song, the speech of a political leader, the address of an eminent man of science, or the sermon of an eloquent clergyman, delivered in some other place, however distant. In the same manner any picture, character, drawing, or print can be transferred from one to another place. Millions of such instruments can be operated from but one plant of this kind. More important than all of this, however, will be the transmission of power, without wires, which will be shown on a scale large enough to carry conviction. — THE FUTURE OF THE WIRELESS ART, WIRELESS TELEGRAPHY & TELEPHONY, Walter W. Massie & Charles R. Underhill, 1908, pp. 67-71.

The unfinished Wardencllyffe Facility is the first of many planned installations that Tesla intended be constructed near population centers around the world. If The Plans had continued to be implemented without interruption the Long Island Prototype would have been followed by a second power plant, probably on the West Coast of Scotland near Glasgow. Each facility would have included a Magnifying Transmitter of the Wardencllyffe design, loosely based upon the apparatus assembled at the Colorado Springs Experimental Station in 1899. By 1923 Tesla was bankrupt and the World Wireless System Plans were placed on hold. The Opportunity now presents itself to complete The Work using modern materials and techniques.

Best regards,
Gary

CC:

Brian Adolf

George Burden

Harry Dellamano

Karel Fassotte

Richard Hull

Greg Leyh

Zvonimir Rudomino

Anne Sedee

Charles Van Neste

From: Ernst Willem van den Bergh [mailto:ewbergh@gmail.com]
Sent: Thursday, February 25, 2016 12:39 AM
To: Gary Peterson <g.peterson@tfcbooks.com>
Subject: Re: Earth resonance @ 11.77 Hz

Hi Gary,

Thanks for your kind response.

Attached pdf contains my reply. (only the black text are my words, the rest are quotes which you will most likely have read before)

Kind regards,
Ernst.

On 25/02/16 09:40, Gary Peterson wrote:
Ernst,

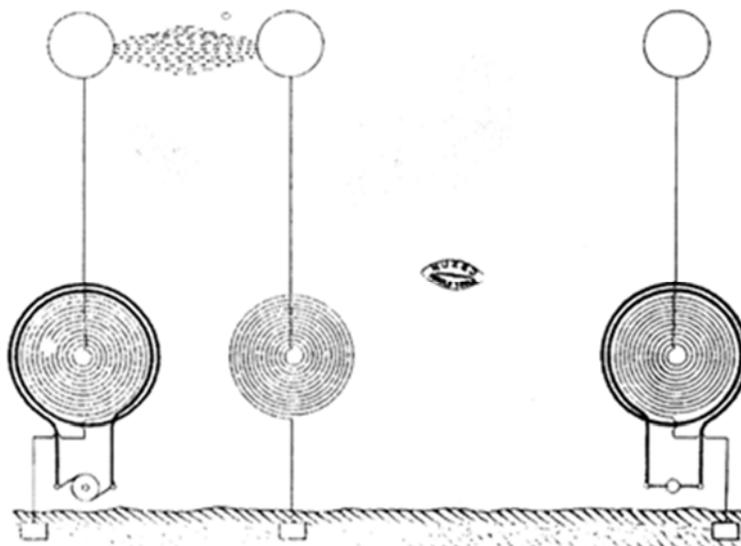
Thanks for writing me about your ongoing research. I look forward to hearing about any redesigned experiments you might perform in the future as a follow-up on your preliminary observations.

You wrote:

> I know you must be tired of hearing this but I am pretty sure I have found what it is (not patent 1119732) . . .

That's the first time I've heard of this notion. Please see www.teslaradio.com/pages/wireless.htm#CS_STATION and www.teslaradio.com/pages/wireless.htm#WARDENCLYFFE for y differing opinion on the matter.

About the optimum design for an earth resonance transmitter, it seems Tesla had a partiality for this one:



www.teslaradio.com/pages/wireless_files/image045.gif

I've had good results with this design myself, used in sub-earth-resonance power level Tesla wireless system propagation experiments.

Keep up the good work.

Best regards,
Gary

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www.google.com/profiles/peterson.gary1948
<https://en.wikipedia.org/wiki/User:GLPeterson>

From: Ernst Willem van den Bergh [<mailto:ewbergh@gmail.com>]
Sent: Monday, February 15, 2016 3:05 AM
To: Gary Peterson <g.peterson@tfcbooks.com>
Subject: Earth resonance @ 11.77 Hz

Hi Gary,

I vaguely remembered seeing your name in an email and I was right...
I wanted to show you [this](#), because I also saw you asking for it in a video ([Tesla conference 2011](#)).

I got your email address because I ordered the microfilm letters a year or so ago.
Perhaps you would also be glad to know that these are being transcribed so they are much more accessible and of course text-searchable. It may take a while but I'm sure we'll create something very valuable.
If you are interested I'll send you copies once it is completed.

If you look around in my youtube channel or [experiments](#) you will see that it focusses on Tesla's Magnifying Transmitter and that some time ago I thought I had uncovered its secrets. My ideas have matured since then and I have not yet published 'the real thing'.
I know you must be tired of hearing this but I am pretty sure I have found what it is (not patent 1119732) and how it works. We (my investors & I) will publish my results this summer. I promise you'll be thrilled!

I also saw you in "Tower to the People". I enjoyed the first half of that movie a lot, though I think M. Seifer mixes up a few facts. But on the whole it is a very good and valuable documentary!

Hope you will like the Earth resonance proof! (I have additional proof but that contains (c) material so I can not publish that, yet)

Kind regards,
Ernst.