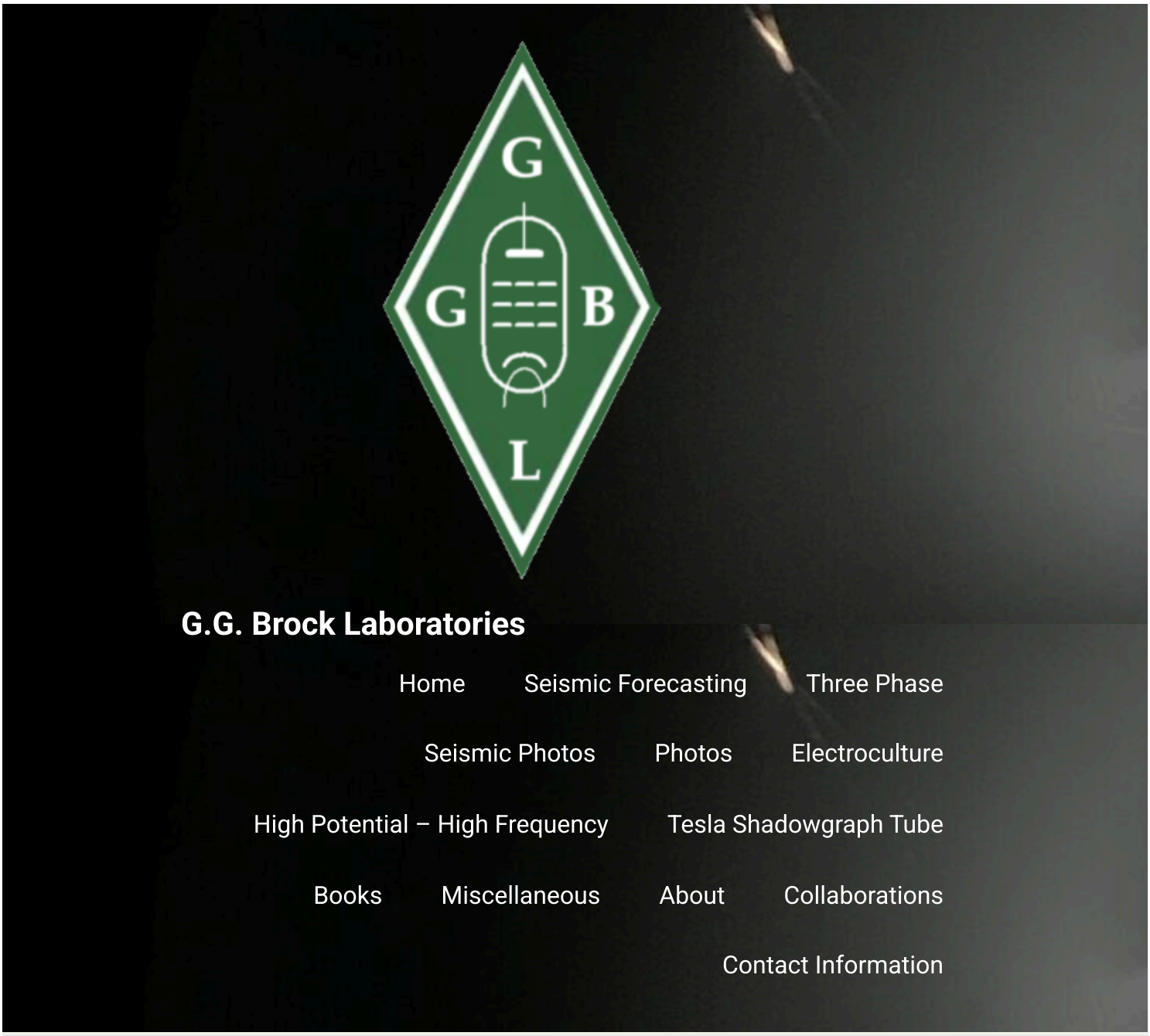

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Alexanderson Antenna Coil Scale Replica

Griffin Brock

The following images depict the first attempt of replicating a potential-shunt coil, as employed in the original Alexanderson Antenna transmission design. Such antenna configurations were employed in Bolinas California, with one example (**Grimeton SAQ**) still in operational status. The potential coil replicated, shown in figure 1, consists of an eight foot wide by 6 foot tall coil, consisting of ten individual winding layers. Each layer possesses supporting insulators for holding eight conductors in total per layer. The novel simplicity of a multiplicity of coil windings upon a single form, allows for the achievement of low frequency (L.F.) operation, whilst maintaining efficiency to a decent degree, as well as a lessening self-capacity, in contrast to vertically wound L.F. coils.

Fig. 1. – Potential coil

The scale replica of the potential coil, (figures 2-8), does not represent a scaled frequency of the original 130 kilocycles, but rather a final measured self-resonant frequency of 1080 kilocycles. It should be noted, that this frequency is irrespective to any external electrical loading, as initially determined via an RF signal generator and a series connected copper plate of low capacity. The determined proportional scale of the replicated coil is approximately 1:6. Hence, the coil's diameter is 14.25 inches, and its height being 10.5 inches. Thereby, the total length of coiled conductor becomes 2,716 inches, or

conversely, 226 feet. This approximates to a calculated quarter wavelength oscillation of 1087 kilocycles.

Fig. 2. – Initial construction of the potential coil, displaying the triangular insulator supports of HDPE material.

Fig.3. – Final windings

Fig. 4. – Top view of completed coil showing the potential ring affixed to the final windings.

Fig. 5. – Bottom view with the connecting copper strap visible.

Fig. 6. – Close-up-view of copper strap, with the coil's connecting terminal (right), and insulating spacing bar (left), positioned to ensure the copper strap is discontinuous.

Fig. 7. – Close inspection of the insulator supports.

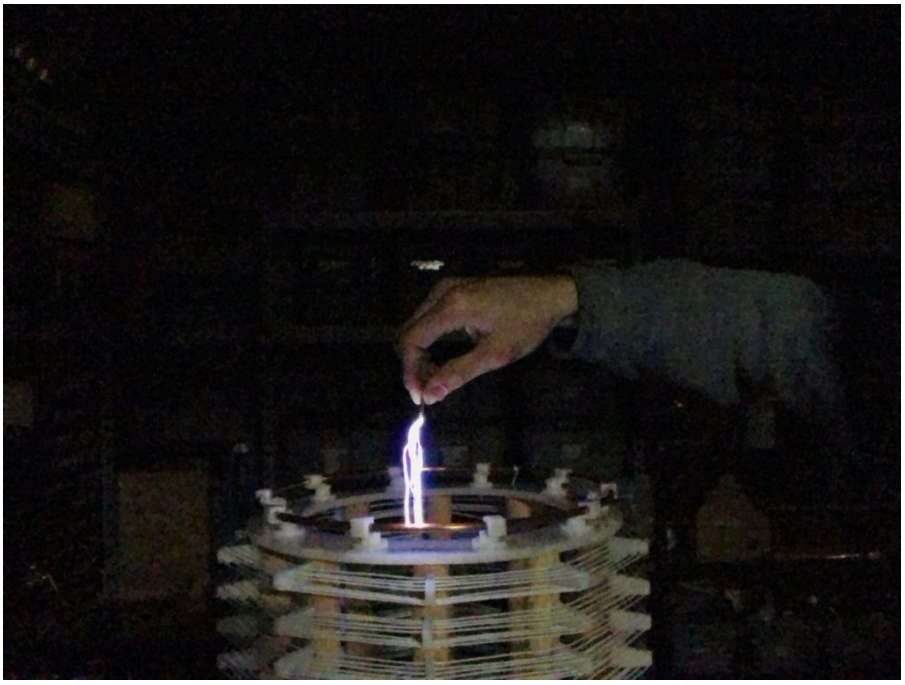

Fig. 8. – A four inch discharge of great tension, as magnified by the coil when connected to the output of an Engeln diathermy apparatus. It should be noted, that the output of the diathermy device operates at 3000 kilocycles, whereby the total wire length of the coil approximates a full wavelength of 3000 kilocycles, enabling strong resonant actions to occur.

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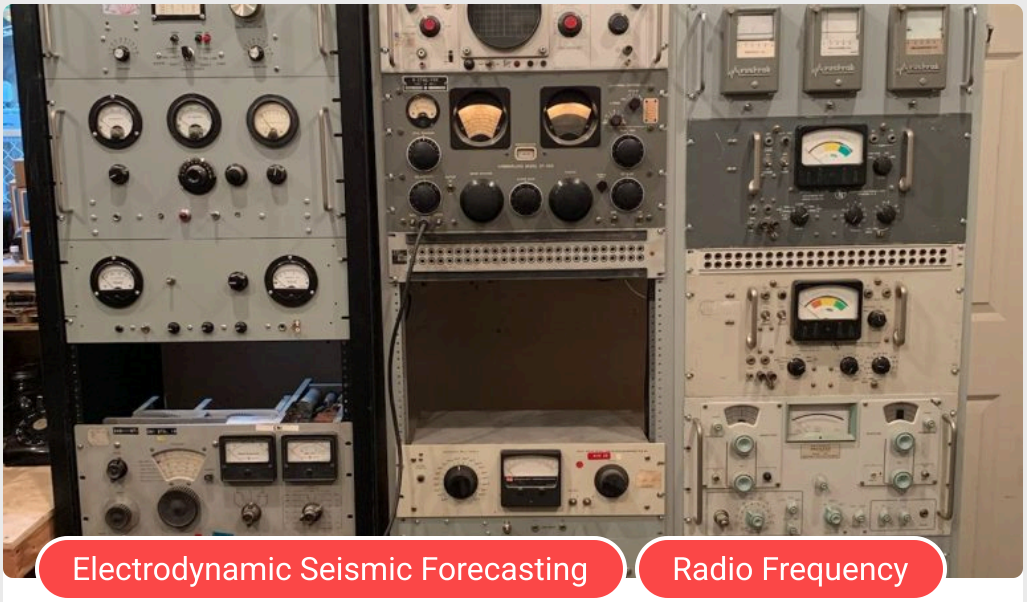

Electrodynamic Seismic Forecasting Radio Frequency

ULF Seismic & Audio Amplifier

The following section will cover documentation and related information on experimental efforts, concerning the development of an ultra low frequency vacuum tube amplifier, intended for Electrodynamic Seismic Forecasting and audio use. Such an amplifier greatly differs from conventional units, as its electrical […]

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Purpose & Reason

For the sake of expanding the electrical world, great investigation and researches have been presented here. These involve various

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concepts and ideas which have not seen significant light in recent times, but must be acknowledged.

G.G. Brock Labs is destined to pioneer and advance the high frequency works of Nikola Tesla as applied to commercial and industrial settings, as well as establishing concrete scientific understanding to esoteric technologies.

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