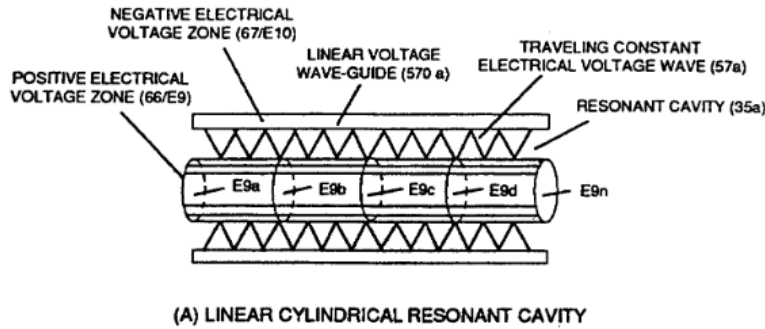


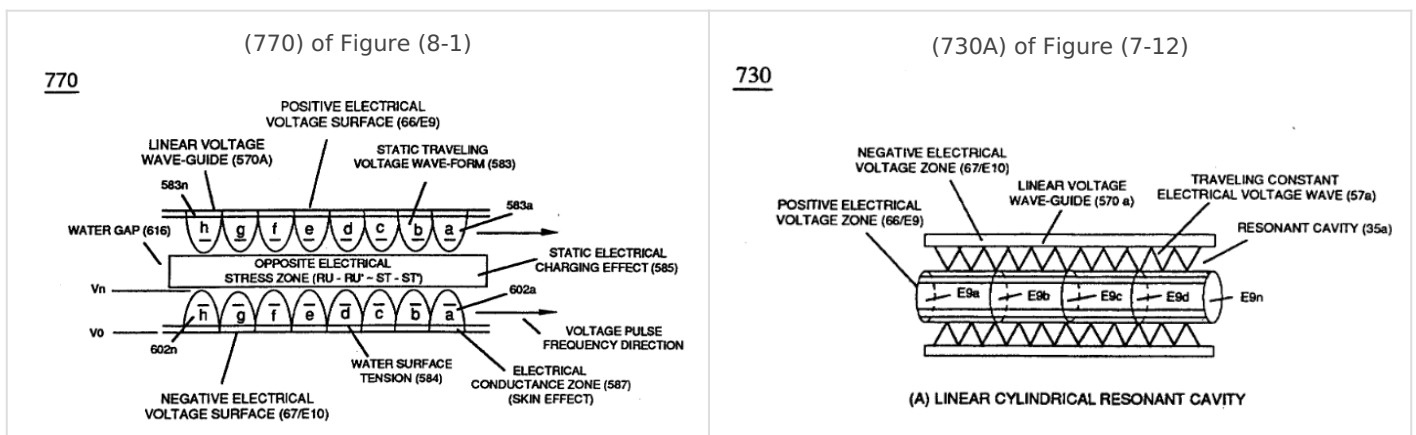
# 8-2 - Traveling Voltage Wave-Guides

730



The formation of tubular **Traveling**

**Voltage Wave-guide** (570a) of Figure (7-12) (WFC Memo 426) as to (770) of Figure (8-1) is physically formed when **positive electrical voltage surface** (66/E9) and **negative electrical voltage surface** (67/E10) are placed in parallel space relationship to form voltage surfaces (E9/E10) about an cylindrical axis of rotation having space-gap (35) there between and thus, fanning **Cylindrical Resonant Cavity** (730A) of Figure (7-12) as to (770A) of Figure (8-1) when **space-gap** (616) of Figure (720) exposes **injected water bath** (85) to unipolar pulse-oscillation of high voltage intensity of **opposite polarity** (67/66) as to (780) of Figure (8-2) which, in turn, propagates **opposite electrical attraction force** (RR' \_ 88') of Figure (7-4), as illustrated in (590) of Figure (6-2) as to (585) of Figure (8-1).



590

INLET CHECK VALVE

TRAVELING ELECTRICAL VOLTAGE WAVE (57)

VOLTAGE WAVE-GUIDE (570)

(Hf) VOLTAGE INSULATION MATERIAL CERAMIC OR QUARTZ

NOZZLE PORT (32)

POSITIVE ELECTRICAL VOLTAGE PROBE (66) E9

E9a

E9b

E9c

E9d

QUENCHING CIRCUIT

WATER DISTRIBUTION CAVITY

WATER FLOW (85)

NEGATIVE ELECTRICAL VOLTAGE ZONE (67) E10

ACTIVATION PROCESS (580)

RESONANT CAVITY ZONE (35)

THERMAL EXPLOSIVE ENERGY (GTNT) (16)

The diagram illustrates a programmable unipolar pulse-train. It features a series of periodic, rounded rectangular pulses. Key parameters and labels include:

- VOLTAGE PEAK POTENTIAL ( $V_{pp}$ )**: Indicated by a vertical double-headed arrow from the baseline to the peak of a pulse.
- PULSE WAVE FREQUENCY ( $Pwf$ )**: Indicated by a horizontal double-headed arrow between the peaks of two consecutive pulses.
- TRAILING EDGE ( $V_{pb}$ )**: Points to the downward slope of a pulse.
- LEADING EDGE ( $V_{pa}$ )**: Points to the upward slope of a pulse.
- VOLTAGE PULSE WAVE FORM ( $V_{pwf}$ )**: Points to the overall shape of the pulse train.
- +609n / - 611n**: Labels for the positive and negative voltage levels relative to the baseline.
- ELECTRICAL CONDUCTANCE ZONE (587) (SKIN EFFECT)**: Points to the area immediately beneath the leading and trailing edges of the pulses.
- VOLTAGE PULSE WIDTH ( $V_{pw}$ )**: Indicated by a horizontal double-headed arrow across the width of a single pulse.
- WATER SURFACE TENSION (584)**: Points to the baseline level of the water surface.
- VOLTAGE SURFACE (67 OR 66)**: Points to the level of the water surface during the positive voltage pulse.
- +609a / - 611a**: Labels for the positive and negative voltage levels at the water surface.
- VOLTAGE WAVE DIRECTION**: Indicated by a horizontal arrow pointing to the right.
- V0**: Points to the baseline level of the water surface.
- 64n, 64c, 64b, 64a**: Labels for different levels or states of the water surface.

... forming tubular voltage wave-guide (s) (570) of Figure (7-12) that, now, becomes the same physical configuration of **Water Gap** (616), as illustrated in (720) of Figure (7-11).

690

PROGRAMMABLE  
VARIABLE GATED  
PULSE FREQUENCY  
INPUT (65 a to 400 cps)

BLOTTING  
CODE

FL1

Cd1

RESONANT CHARGING  
CHOKE (56)

L1

Rs 1

614

Re1

RESONANT  
CAP (140 - 170)

Cp

Re

FL2

Cd2

RESONANT CHARGING  
CHOKE (62)

L2

Rs 2

615

Re2

PRIMARY  
COIL (58)

622

623

SECONDARY  
PICKUP COIL (52)

61

62

UNIPOLAR  
PULSING CORE (53)

MAGNETIC  
FIELD COUPLING (71)

FIGURE 7-8: VIC MATRIX CIRCUIT

(580) of Figure (6-1) (WFC memo 425)

The diagram illustrates a VIC coil assembly with the following components and labels:

- INPUT**: Indicated by a pulse waveform on the left with parameters  $40a \times 40b$ ,  $1-T_1$ , and  $T_2$ .
- BOBBIN CAVITY (500)**: The central cavity structure.
- SECONDARY PICKUP COIL (502)**: Located at the top of the bobbin cavity.
- SPRAL WRAP COILS (505a xxx 505b)**: Coils wrapped around the bobbin cavity.
- INDUCTANCE COUPLING (507a xxx 507b)**: Coupling between the top and middle sections.
- PULSATING MAGNETIC FIELD (71a xxx 72a)**: Indicated by a wavy line between the top and middle sections.
- MAGNETIC FLUX LINES (80a xxx 80b)**: Represented by horizontal lines between the top and middle sections.
- ELECTRICAL STEEL CORE (503)**: A core structure at the bottom of the top section.
- BOBBIN CAVITY (500)**: The central cavity structure in the middle section.
- INDUCTANCE COUPLING (507a xxx 507b)**: Coupling between the middle and bottom sections.
- DUAL RESONANT COILS (505c)**: Coils at the bottom of the middle section.
- BIFILAR SPIRAL WRAP COILS (505a xxx 505b)**: Coils at the bottom of the middle section.
- RESISTIVE PICKUP COIL (505)**: A coil at the bottom of the middle section.
- DUAL PRIMARY COIL (506)**: Coils at the bottom of the bottom section.
- 30 GA MAGNET WIRE (507a xxx 507b)**: Wire used for the coils.
- SPRAL WRAP COILS (505a xxx 505b)**: Coils at the bottom of the bottom section.
- OUTPUT**: Indicated by a pulse waveform on the right with parameters  $60a \times 60b$ .

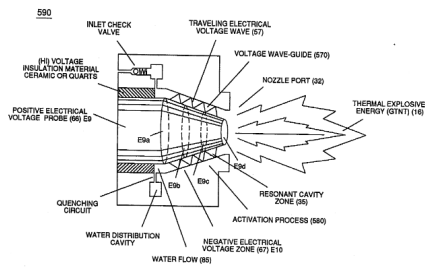
**FIGURE 6-1: (VIC) COIL ASSEMBLY**

The diagram illustrates a programmable unipolar pulse-train waveform. Key parameters and their effects are labeled:

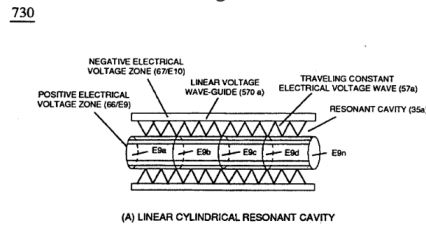
- PULSE WAVE PEAK POTENTIAL ( $V_{pp}$ )**: The maximum voltage of the pulse train.
- PULSE WAVE FREQUENCY ( $P_{wf}$ )**: The frequency of the pulse train.
- TRAILING EDGE ( $V_{pe}$ )**: The falling edge of the pulse.
- LEADING EDGE ( $V_{pe}$ )**: The rising edge of the pulse.
- VOLTAGE PULSE WAVE FORM ( $V_{pwf}$ )**: The overall shape of the pulse train.
- Electrical Conductance Zone (687) (SKIN EFFECT)**: The region where the pulse is applied, showing a skin effect.
- VOLTAGE PULSE WIDTH ( $V_{pw}$ )**: The duration of the pulse.
- WATER SURFACE TENSION (584)**: The surface tension of the water, which affects the pulse width.
- VOLTAGE SURFACE (67 OR 68)**: The surface where the pulse is applied.
- ELECTRICAL DIRECTION**: The direction of the electric field, indicated by an arrow pointing right.
- Frequency Range**: The pulse train is shown to have a frequency range of  $\sim 600n / \sim 611n$ .
- Amplitude Range**: The pulse train is shown to have an amplitude range of  $\sim 600n / \sim 611n$ .

(A) PROGRAMMABLE UNIPOLAR PULSE-TRAIN

(57) of Figure (6-2)



(570) of Figure (7-12)



(720) of Figure (7-11)

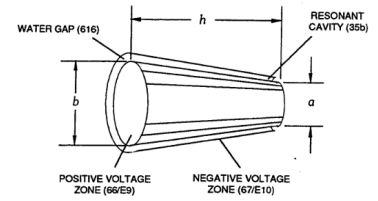


FIGURE 7-11: TAPERED VOLTAGE WAVE-GUIDE

The surface tension of water (584) adjacent to both voltage surfaces (E9 / E10) further aids the transmission of voltage potential (66/67) since **Electrical Charging Effect** (585) of Figure (7-4) does not change or alter the dielectric value of water (Re).

650

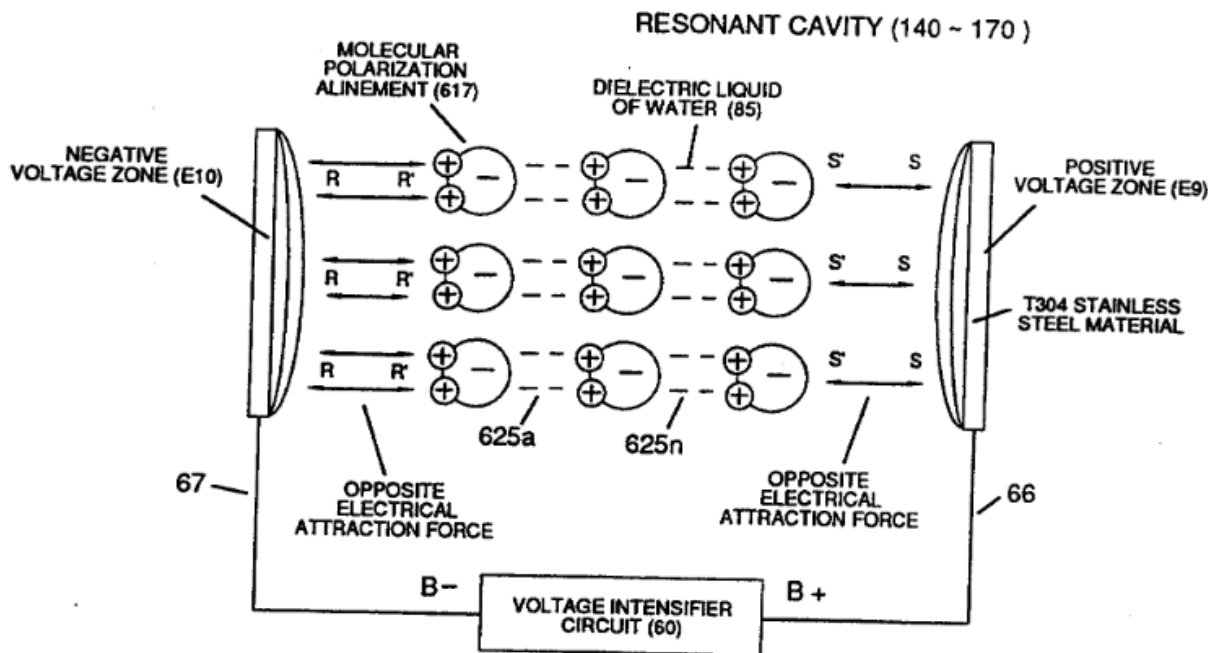


FIGURE 7-4: ELECTRICAL CHARGING EFFECT

Together, the **Voltage Coefficient of Water** ( $e/E_0$ ) of **Equation (Eq 21)** and the **Voltage Coefficient of the stainless steel** ( $s/s$ ) material fanning voltage surfaces (E9/E10), now, allows the establishment and performance of **Traveling Electrical Voltage Wave-Guide** (583/602) since electrical conductance zone (587) between electrical surface (S) (E9/E10) and the **dielectric surface tension of water** (584) acts and performs as a electrical conductor (*Skin Effect*)

$$C = \frac{0.2249 e A}{d E_o} \text{ Picofarads}$$

... since electrical transmission zone (587) is almost free of electron leakage

...since **Water Bath** (85) is a dielectric-liquid (typically 78.54Q) that does not like to transfer nor exchange electrons

... thereby, maintaining **voltage amplitude potential** ( $V_o$  - 64a - 64b - 64c -  $V_n$ ) of Figure (8-6) without experiencing amp arc-over across **Water-Gap** (616) in any appreciable amount

... allowing pulsating opposite electrical attraction forces ( $RR'$  /  $SS'$ ) to perform the work of "**Electrically Charging**" water bath (85) to bring-on and trigger **Hydrogen Fracturing Process** (90) of Figure (5-5), as illustrated in **Energy Pumping stage** (520) of Figure (5-3).

Figure (8-6)

820

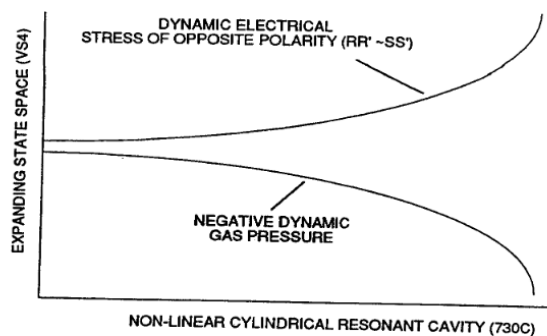


FIGURE 8-6: DIFFERENTIAL DYNAMIC VARIABLES

(90) of Figure (5-5)

90

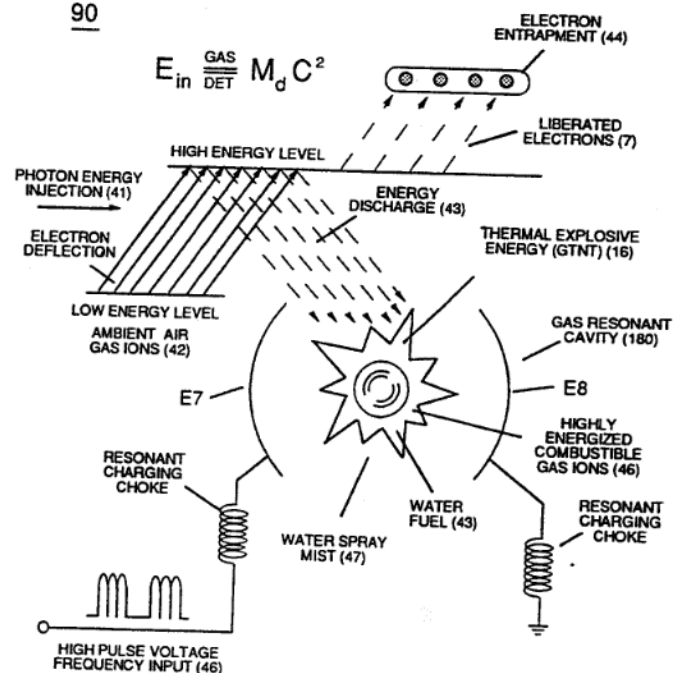


FIGURE 5-5: VOLTAGE IGNITION

(520) of Figure (5-3)

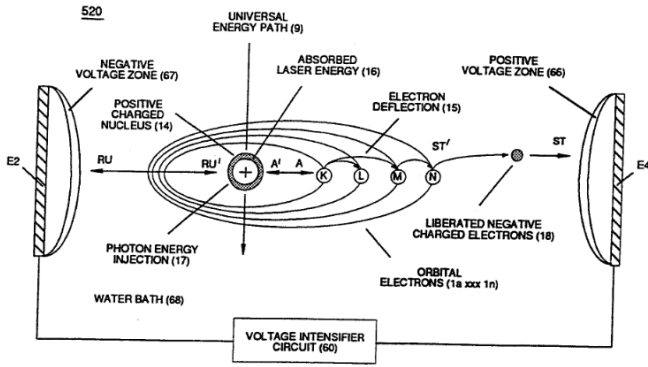


FIGURE 5-3: ENERGY PUMPING ACTION

**Voltage Intensifier Matrix Circuit (690)** of Figure (7-8) electrically connected with resistive liquid (85/Re) (forming **Resonant Water Gap "Cp"** of Figure 7-8) propagates the transmission of **Traveling Voltage Wave-Form (57)** of Figure (6-2) as to (770) of Figure(8-1) by the functional relationship of **Circuit Resistance Equation (Eq 9)** during programmable **Voltage Pulsing** operations (49a xxx 1'3 xxx 49n) of Figure (8-2).

(690) of Figure (7-8)

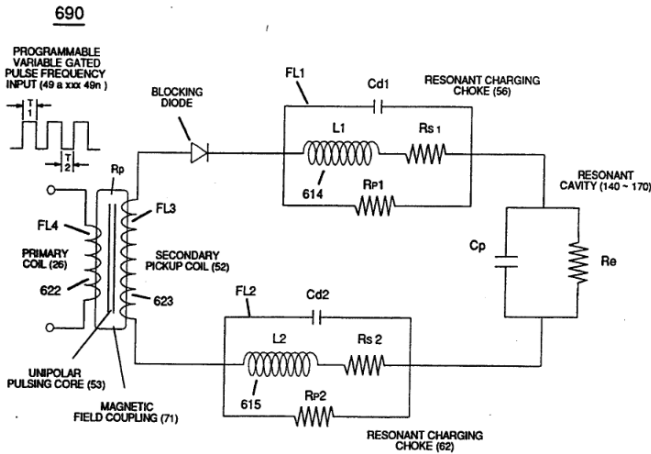
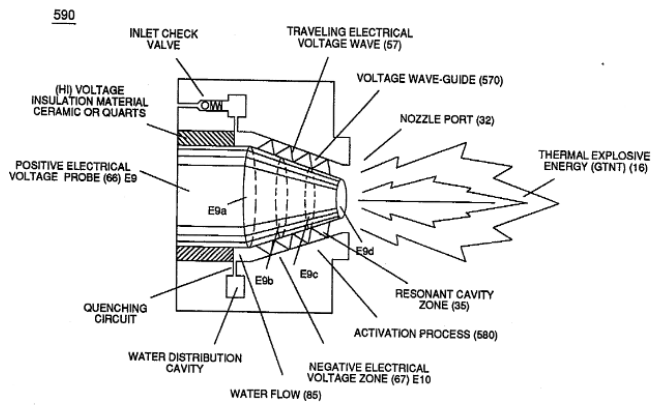


FIGURE 7-8: VIC MATRIX CIRCUIT

Circuit Resistance Equation (Eq 9)

$$Z = R_I + Z_2 + Z_3 + R_E$$

(57) of Figure (6-2)



(770) of Figure(8-1)

770

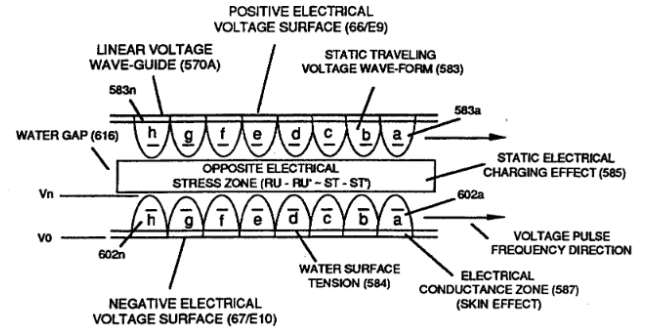
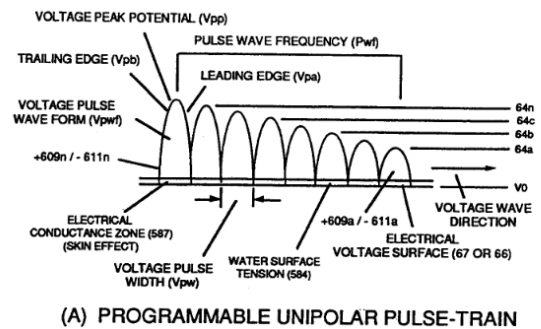


Figure (8-2)

780



Revision #13

Created 11 December 2023 00:51:48 by Chris Bake

Updated 22 December 2023 08:29:47 by Chris Bake