Resonant Cavity

N) Resonant Cavity:

PURPOSE: To enhance hydrogen gas production beyond voltage attenuation by way of compounding-action (particle impact)

Circuit Stage:

> Integrating dual-pulsing circuit (33) (34) (38) (39) (40) to voltage intensifier circuit (Figure 9) previously described), as shown in Figure 20C.

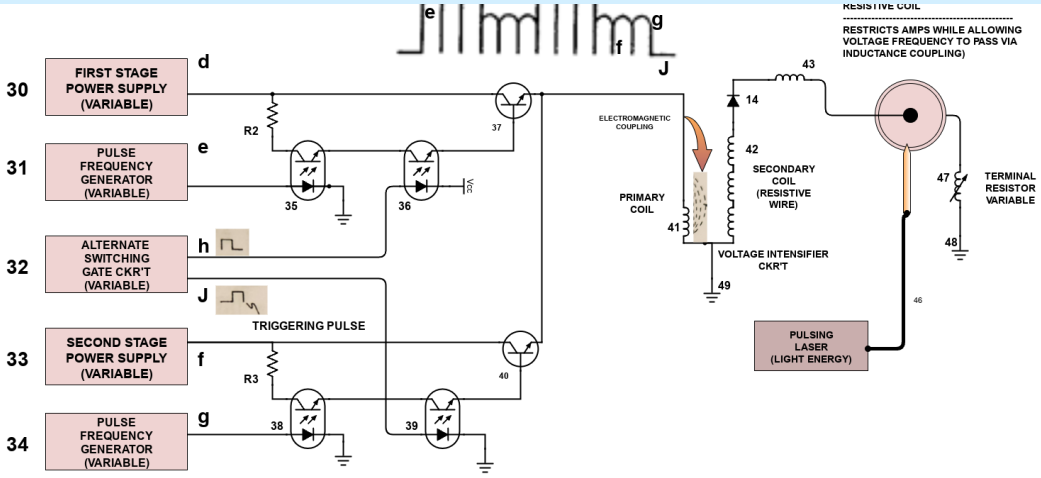


FIG. 20C: RESONANT CAVITY DUAL-VOLTAGE PULSING CIRCUIT

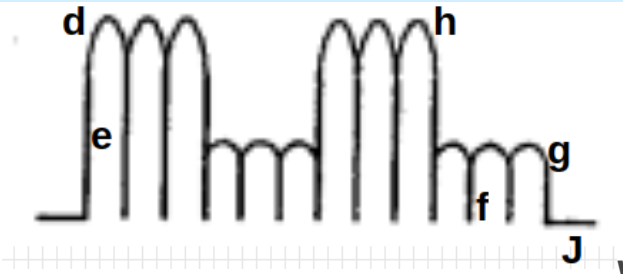
As shown in Figure 20C. **variable gate circuit** (32) is a two-state switch device which is directly linked to both **opto-coupler** (36) and **opto-coupler** (39).

As (H) near ground or low state (0 volts), **opto-coupler** (36) is triggered on. allowing **pulse voltage frequency** (d) as to (e) to form.

Once said **gate circuit** (32) changes state (low to high voltage or versa), trigger pulse (J) turns on **opto-coupler** (39) to form **voltage wave form** (f) as to (g).

Triggered pulse (H) is now terminated, switching off said **wave form** (d) (e).

Repeating said alternate gate switching produces **dual-voltage pulse-train** (51) of Figure (16).



Wave form (d) (e) and **wave form** (f) (g) now **pulse-duty** (52) which is varied from one duty-pulse one hundred duty-pulses (establishing **pulse-train** 51) via **gate circuit** (32) *(tenth and eleventh steps to voltage attenuation)*.

The reoccurring **duty-pulse** (52) is now attenuated to provide maximum gas-yield while minimizing amp flow.

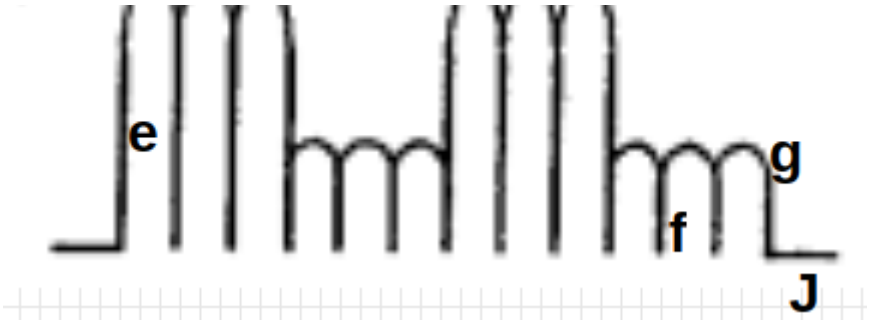
This is accomplished in several ways:

1. **Gated pulse** (H) as to **gated pulse** (J) is proportionally changed to "concentrate" or "expand" said applied voltages to said resonant cavity. Said **gated pulse train** (53, on time) as to (54, off time) is adjustable from 1% to 100% duty time. As **on-time** (53) increases, **off-time** (54) proportionally decreases, allowing more **voltage pulses** (53) to be applied to said resonant cavity (44). To reduce the number of **voltage pulses** (53), simply reverse the pulse-train adjustment of said **gate control circuit** (32).

Once the gated **pulse-train** (51) is set as to maximizing gas production, the **gated duty-cycle pulse** (52) is now varied from one duty-pulse per second duration (52a) to one hundred duty-pulses per second duration (52n) to help restrict amp flow.

2. Said **voltage amplitude** (d) is varied to increase gas-yield. After said **voltage amplitude** (d) is stepped up, applied voltage range to said **cavity** (44) is from less than one volt to 5,000 volts or more.

3. Said **voltage pulse frequency** (e) is now varied from **1 Hz** to **1 MHz** and more, increasing gas-yield still further.



Said **voltage amplitude** (f) is varied to sustain and compounding-action within said **resonant cavity** (44). Said **voltage amplitude** (f) is adjusted as to cavity-size. An increase in voltage amplitude (f) is required as cavity-size increases.

4. Once compounding-action is properly maintained, **voltage amplitude** (f) is adjusted "no" further to keep amp flow to a minimum (*twelfth step to voltage attenuation and eleventh step to amp restriction*).

Once step up, **voltage range** (f) is the same as **voltage range** (d), one volt to 5,000 volts or more.

Caution: Said **voltage amplitude** (d) should never be less than said **voltage amplitude** (f) in order to maintain said compounding action.

5. Said **voltage pulse frequency** (g) is now adjusted from 1 Hz to 1 MHz or more to reduce amp flow still further while maintaining said compounding-action.

6. Said **variable gate circuit** (55) of Figure 20D is now retrofitted to said **dual-pulsing circuit** 20C to extend gas production beyond the limits of a single resonant cavity, keeping power loading to a minimum while adding another gas control feature.

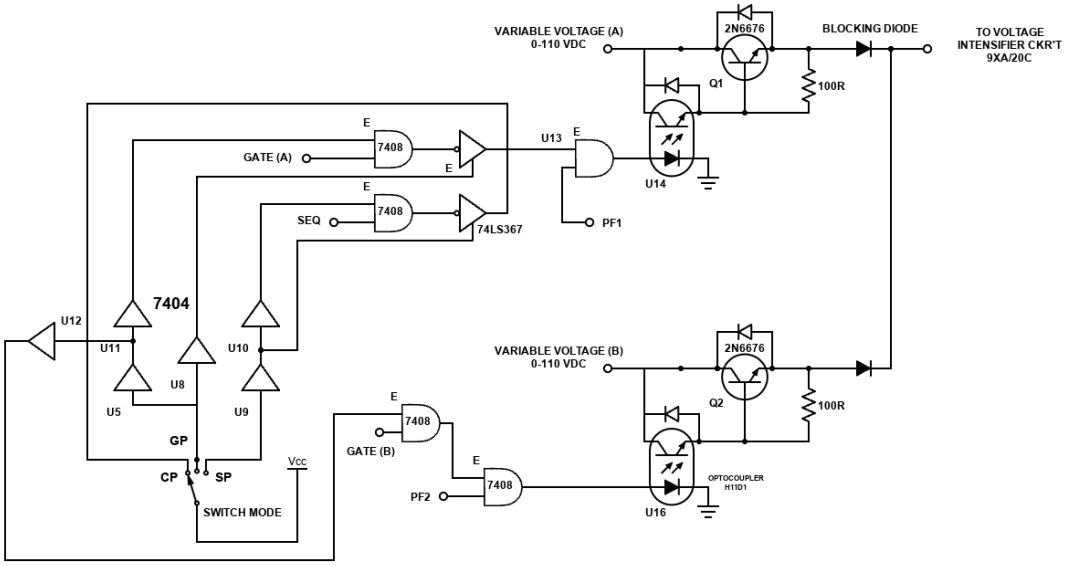


FIG. 20YD - GATE DRIVER CKR'T

7. As shown in Figure 20D, said resonant cavities are stacked exit port to inlet port to accelerate said compounding-action per stage.

8. **Pulse-train** (53) and **pulse-train** (54) can be of different pulse voltage frequency with different voltage amplitude adjustments, each pulse-train performing different functions. **Pulse-train** (53) regulates gas production on demand; whereas, **pulse-train** (54) maintains compounding action while restricting amp flow.

9. All above said voltage control features may be used separately, grouped together in sections, or adjusted in a systematic way to control said gas production on demand.

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