Voltage Dynamics

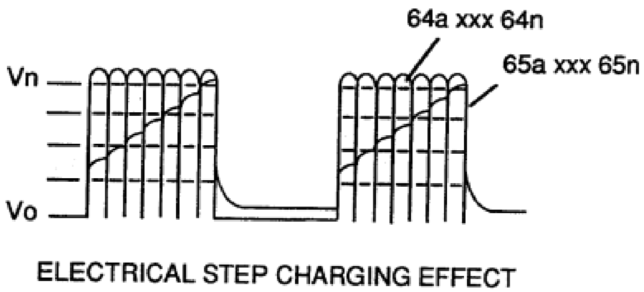


FIGURE 3-21: RESONANT CHARGING PULSE TRAIN

Voltage is "electrical pressure" or "electrical force" within **electrical circuit** (60) and is known as **voltage potential** (65a xxx 65n) of Figure (3-21).

The higher the voltage potential (Vo xxx Vn), the greater "**electrical attraction force**" (qq') or "**electrical repelling force**" (ww') of Figure (3-29) is applied to **electrical circuit** (60) of Figure (3-22).

> **Voltage potential** (65) is an "unaltered" or "unchanged" energy-state when "**electron movement**" or "**electron deflection**" is prevented or restricted within **electrical circuit** (190) of Figure (3-23).

Figure (3-22)

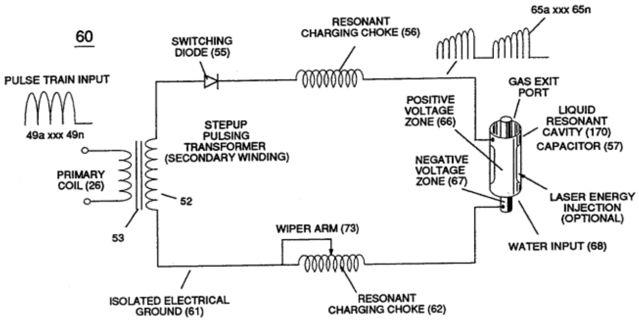
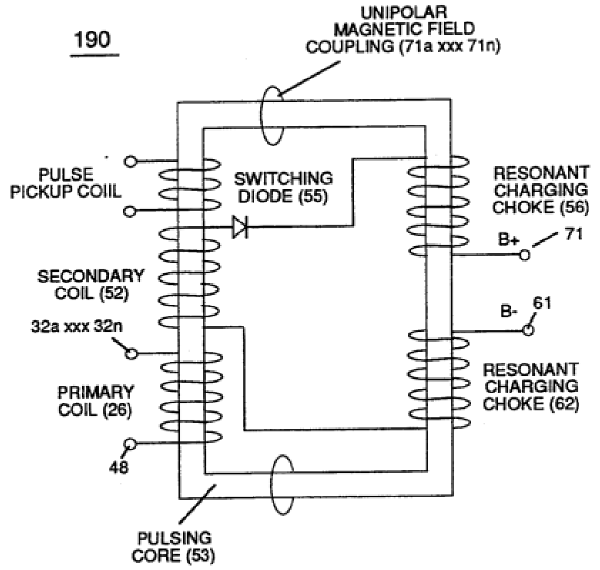


FIGURE 3-22: VOLTAGE INTENSIFIER CIRCUIT

Figure (3-23)



3-23 : PULSING CORE CONFIGURATION

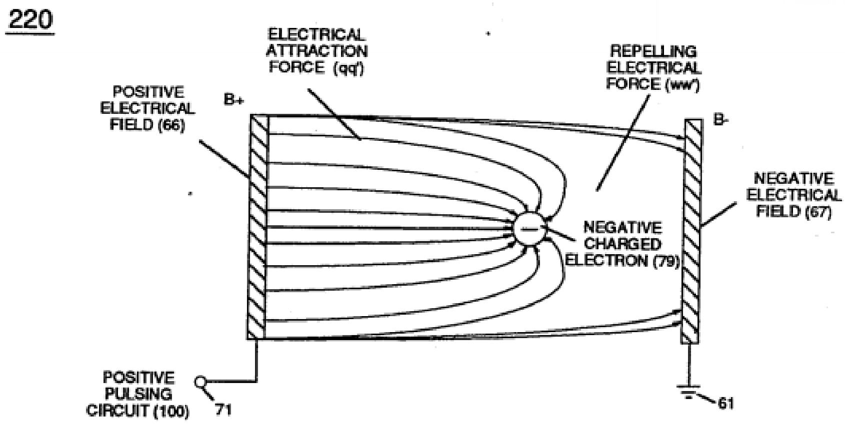


FIGURE 3-29: VOLTAGE DYNAMICS

Unlike voltage charges within **electrical circuit** (60) steps up "**electrical attraction force**" (qq'); whereas, **like electrical charges** within the same **electrical circuit** (60) encourages an "**repelling action**" (ww'), as illustrated in Figure (3-29).

In both cases, electrical charge deflection or movement is directly related to **applied voltage** (65).

These electrical "**forces**" are known as ''**voltage fields**" and can exhibit either a **positive** (66) or **negative** (67) electrical charge.

Likewise, **Ions** or **charged particles** (*atoms having missing or sharing electrons between unlike atoms*) within **electrical circuit** (60) having unlike electrical charges are attracted to each other.

Ions or **particle mass** having the same or like electrical charges will **move away** from one another, as illustrated in (220) of Figure (3-29).

Furthermore, electrical charged **ions** or **particles** can move toward stationary voltage fields or **voltage zones** (66/67) of opposite polarity, and, is given by **Newton's second law** (Eq 12)

(Eq 12)

$$A = \frac{F}{M}$$

Where, the **acceleration** (A) of a **particle mass** (M) acted on by a **net force** (F).

Whereby, net force (F) is the "electrical attraction force" (qq') between opposite electrically charged
entities (210) of Figure (3-27), and, is given by Coulomb's law (Eq 13)

(Eq 13)

$$F = \frac{q q'}{R^2}$$

Whereas, difference of potential between two charges is measured by the work necessary to bring the charges together, and is given by (Eq 14)

(Eq 14)

$$V = \frac{q}{e^R}$$

The potential at a point to a **charge** (q) at a **distance** (R) in a medium whose **dielectric constant** is (e).

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