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(54) Title: HYBRID PRIMER

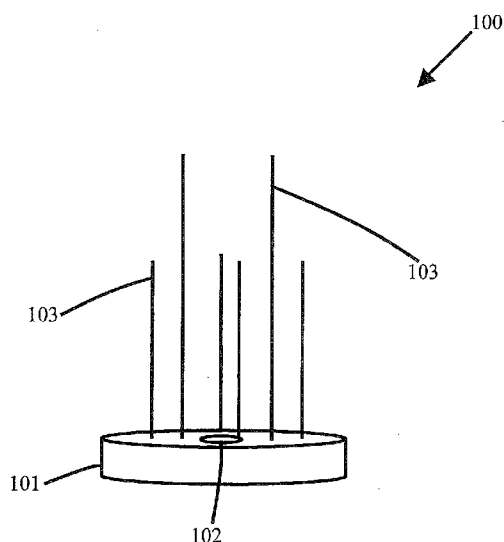


FIG. 1

(57) Abstract: A hybrid primer device comprising electric primer and chemical primer housed in a percussion cap. The electrical primer comprises single pin or plurality of electrode pin pair. Each electrode pair comprises of at least one anode and cathode pin which are insulated and arranged at predetermined distance from central axis. The length of each pair of anode and cathode pins varies to help create multiple trigger points across the length of the cartridge. The chemical primer provides ignition of propellant in absence of the electric power. Application of high voltage electric pulse across the electrodes generates electric arcs between the pairs at multiple points inside cartridge resulting in instantaneous combustion of the propellant creating a high pressure in the cartridge case which improves the projectile's performance. The electric arcs generated will continue even after the chemical primer is exhausted thus enabling primer to continuously burn the propellant ensuring complete combustion.