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(54) **LOCKABLE ELECTRO-OPTICAL HIGH VOLTAGE APPARATUS AND METHOD FOR SLAPPER DETONATORS**

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(52) U.S. Cl. **102/221; 102/201; 102/251; 102/247**

(58) Field of Search **102/201, 200, 102/247, 229, 226, 222, 232, 221, 251, 254**

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(57) **ABSTRACT**

A safe/arm apparatus includes a slider barrier having at least one notch formed therein, the slider barrier including an optically diffuse surface and an optically reflective surface; at least one mechanical lock removably disposed in the at least one notch; a linear actuator for moving the slider barrier from a safe position to an armed position; a battery; a laser diode connected to the battery, the laser diode emitting a light beam towards the optically diffuse surface when the slider barrier is in the safe position and towards the optically reflective surface when the slider barrier is in the armed position; a photodiode for receiving light reflected from the optically reflective surface; a transformer connected to the photodiode; and a capacitor connected to the transformer.

5 Claims, 4 Drawing Sheets

