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(54) Title: SAFE-AND-ARM FUZING METHOD FOR A PROJECTILE

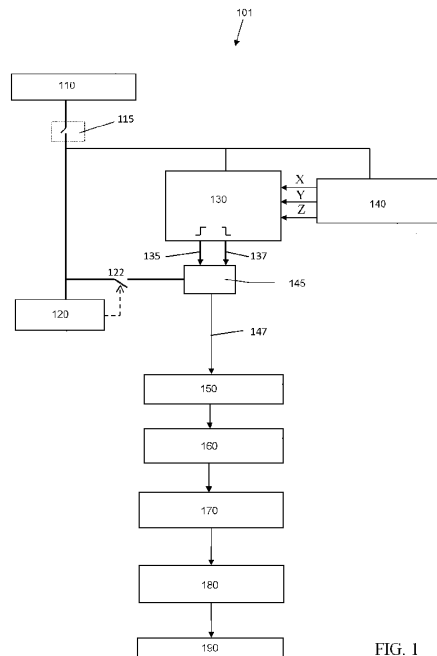


FIG. 1

(57) Abstract: The present invention describes a safe-and-arm fuze method to operate in a fuze (100) in a munition projectile (105). After being propelled from a gun barrel, the safe-and-arm fuze method determines that the projectile is in free flight; this determination is done electronically by an algorithm (200, 200a) operating in a microcontroller (130) by detecting decelerations (a_x) are decreasing continuously in the flight direction, as well as decreasing magnitudes in total deceleration in three orthogonal directions (a_T) and decelerating (a_{yz}) in a plane lateral to the flight direction. Upon final determination, the algorithm (200) employs an analog timer (120) to issue an arm trigger signal (147), whilst algorithm (200a) relies on an internal timer in the microcontroller. After issuing the arm trigger signal, a piston actuator (153) coupled to a slider (154) and associated locking pin (155), and a rotor member (156) provide additional mechanical safety sequence before fuze.

WO 2020/246939 A1

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