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(54) Title: WEAPON SYSTEM WITH SHORT RECOIL IMPULSE AVERAGING OPERATING GROUP

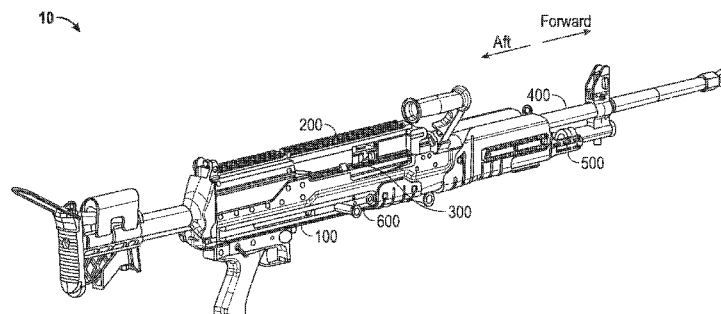


FIG. 1

(57) Abstract: A weapon system includes a receiver and an operating group with a barrel extension arranged to axially translate relative to the receiver. In the firing condition, the op-rod assembly and bolt assembly are driven by the drive spring such that the round is guided into the chamber and the op-rod assembly and bolt assembly are locked to the barrel extension and a forward momentum of the op-rod assembly is imparted to the operating group and the round is fired. A portion of an impulse stops the forward momentum of the operating group. In the recoil condition, the operating group is driven rearward by the remaining portion of the impulse, the gas accelerator imparts additional rearward momentum to the op-rod assembly and bolt assembly and stops rearward momentum of the barrel and barrel extension, and the op-rod assembly and the bolt assembly are stopped by the drive spring.