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DYNAMIC PROTECTION AGAINST MEDIUM ROCKETS AND ARTILLERY SHELLS WITH SQ FUSES

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ABSTRACT

Dynamic protection for buildings against small and medium rockets (i.e. 122 mm “grad” rocket) and artillery shells is proposed. It can be used whenever projectiles can be shot at limited horizontal 90 degrees range. The protection comprises of three layers; the **external protection** layer is designed to detonate SQ (Super Quick) fuses on its face. If it is an artillery shell hit than due to the explosion only few local protection units will be badly damaged without any damage to the building. If it is a rocket hit, due to the explosion blast, the horizontal **intermediate sliding plate** will change dynamically its primary angle to 30 degrees vs. the internal plate. The possible remained part, mainly the rockets tail and engine, will slide at a proper angle between 0 to 30 degrees vs. the sliding plate. In this case there will be no penetration of the sliding plate. The eroded projectile reaches the **internal plate** at a proper sliding angle of 30 degrees. It is shown that the protection system is lighter than a similar passive system. The proposed protection system can be built from pre-fabricated units and can be put on roofs or along walls in order to upgrade protection.