

LIGHT WEIGHT MACHINE GUN

ABSTRACT OF THE DISCLOSURE

A light-weight machine gun is made by replacing selected components previously made of steel with interchangeable components made of coated titanium alloy. Several different coatings are used on the components depending on the performance requirements of the component as well as factors related to convenience. The back sight bracket, the side plates, bottom plate and cocking handle guide of the receiver, and the carrying handle rod of the carrying handle assembly, are made of titanium alloy coated with tungsten DLC; the front block, also made of titanium alloy, is coated with a first coating of chrome nitride for resistance to wear resistance and secondarily for high temperature resistance, followed by a second coating of chrome carbo-nitride to provide the appropriate appearance; and the titanium alloy carrying handle bracket of the carrying handle assembly is coated with boron carbide. Performance of the lighter machine gun is equivalent to the prior art carbon steel machine gun but with a weight reduction of over four pounds.

Fig. 1