

Title (en)  
SUB-CALIBRE PENETRATOR AND METHOD OF MAKING THE SAME

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Application  
**EP 84890215 A 19841114**

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Abstract (en)  
[origin: ES8606037A1] The invention relates to a penetrator (1, 11) made of heavy metal, such as, for instance, tungsten heavy metal or depleted uranium, for driving-cage projectiles which have the penetrator led by the driving cage in the gun barrel. The driving cage (6, 12) detaches itself from the penetrator after the launch. The penetrator (1, 11) shows lower strength and higher ductility in the middle portion (d) of its length than in its head portion (c) and, in its tail portion, it shows higher strength and lower ductility than in its middle portion (d) and lower strength and higher ductility than in its head portion (c). This shall decrease the risk of fracture when striking an armour. The varying strength values in the head portion (c), in the middle portion (d) and in the tail portion (e) are obtained by cold-hammering under varying degrees of deformation, by sintering from various powder mixtures or by varying partial heat-treatment in the various portions (head portion c, middle portion d and tail portion e), and these measures can be applied individually or in combination. At least one pilot core (14, 15) which is only loosely connected to the penetrator (1, 11) can also be fitted to the head portion.

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**F42B 12/06** (2013.01 - EP US); **F42B 14/061** (2013.01 - EP)

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