

Title (en)  
SMALL ARMS AMMUNITION, AND MANUFACTURING PROCESS THEREFOR

Publication  
**EP 0106411 B1 19870624 (DE)**

Application  
**EP 83201455 A 19831011**

Priority  
• CH 450883 A 19830818  
• US 43491182 A 19821018

Abstract (en)  
[origin: EP0106411A2] 1. Small arms ammunition, comprising an axially symmetrical projectile (3 to 7; 12), a cartridge case (1) with a powder charge (2) and a primer (11) disposed centrally with respect to the longitudinal axis thereof, the cartridge case being secured in a portion (7) between the flattened tip (12) of the projectile and its rear end (6), characterized in that the profile of the projectile (3 to 7; 12 to 14) is defined by a summation function  $r(x) = r_1(x_1) + r_2(x_2)$  in which the range of  $x_1$  [is defined] by  $x_1 = h/2(1 - \cos a) - s/2(1 + \cos a)$ , in which  $h$  is an assumed length of  $x_1$  for  $a = \pi$  up to a theoretical tip of the projectile (3 to 7; 12 to 14) and  $\arccos h-s/h+s = a = \pi$  and the associated values of  $r_1$  are given by  $r_1 = r_0 \sqrt{2/\pi} (a - 1/2 \sin 2a)$  in which  $\arccos h-s/h+s = a = \pi$ , and in which the range of  $x_2$  is defined by  $x_2 > h$  in which  $r_2 = \text{const.} = r_0$ , the theoretical tip of the projectile (3 to 7; 12) being remote by a distance  $(-s)$  from the zero point of a right-angled system of coordinates, the positive X-axis of which is an axis of symmetry and the Y-axis of which represents a direction of the radius  $r$  of the projectile and the actual tip (12) of the projectile (3 to 7; 12) is situated at the zero point of the system of coordinates (Fi. 2; Fig. 1).

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**F42B 11/02; B21D 51/54**

IPC 8 full level  
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Cited by  
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