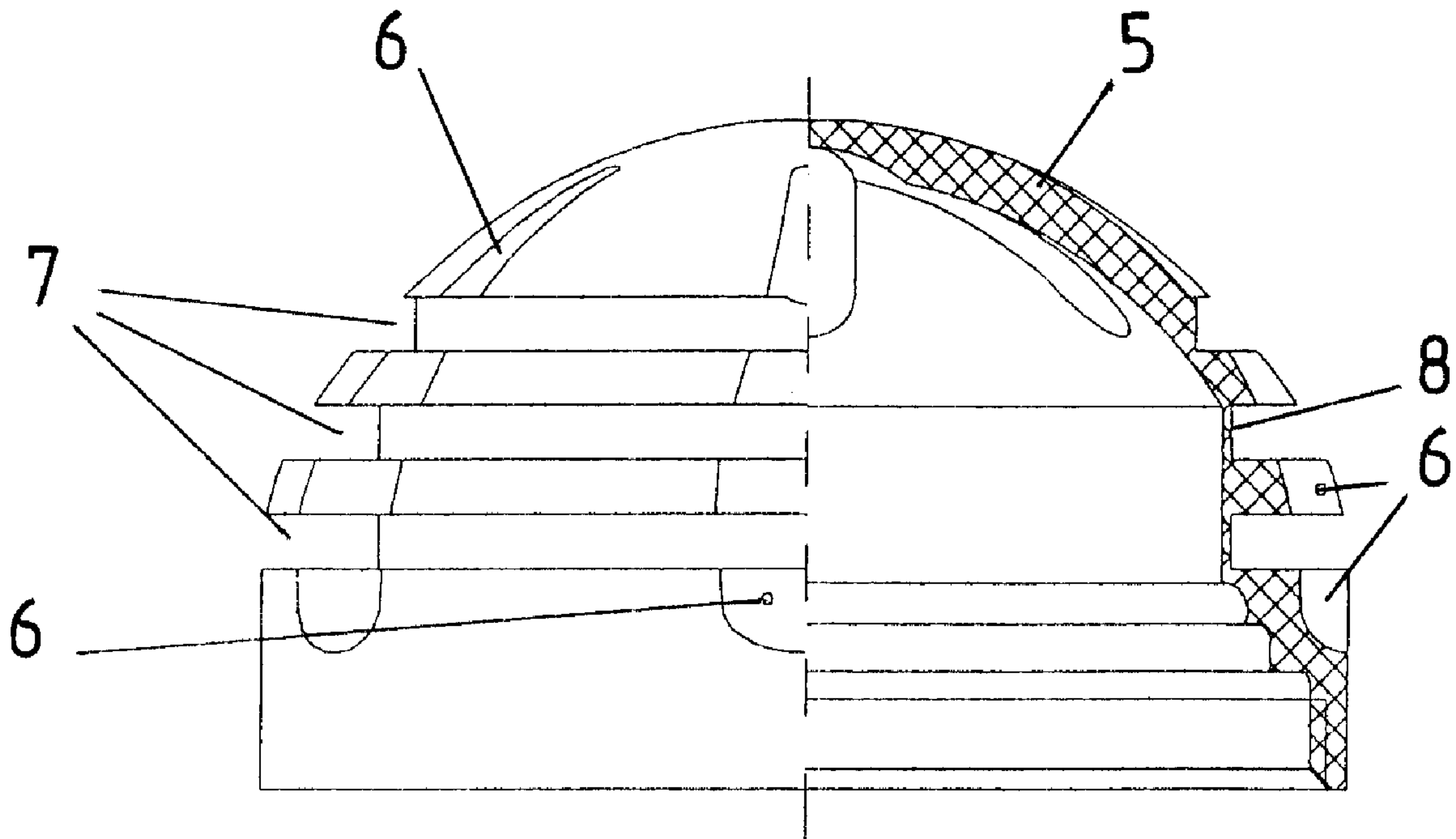




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(54) Titre : EMBOUT DE BALLE DE FUSIL
(54) Title: A SHELL CAP



(57) Abrégé/Abstract:

A shell cap of plastic material has longitudinal depressions (6) arranged in a radiating configuration and additional peripheral grooves (7).

Abstract

A shell cap of plastic material has longitudinal depressions (6) arranged in a radiating configuration and additional peripheral grooves (7).

(Figure 2)

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The invention concerns a shell cap of plastic material having a front convex region which goes into a cylindrical region and which is provided with depressions which are arranged in radiating form and which end in the
5 cylindrical region, wherein a peripheral groove crossing the depressions is formed at the transition between the convex and the cylindrical regions.

A bullet or shell cap of that kind is known for example from FR 2 762 385 A. The convex region of the shell
10 cap is comparatively stable as upon impact it causes deployment of the cylindrical region. It has now been found that, in soft target medium conditions, the impact impulse is too slight to cause that shell cap to burst in spite of the weakening depressions in the longitudinal direction and
15 the peripheral groove.

The object of the invention is to avoid those difficulties and that is attained in that at least one additional peripheral groove is provided in the convex region.

20 According to the present invention, there is provided a shell cap of plastic material having a front convex region which goes into a cylindrical region and which is provided with depressions which are arranged in radiating form and which end in the cylindrical region, wherein a
25 peripheral groove crossing the depressions is formed at the transition between the convex and the cylindrical regions, and at least one additional peripheral groove is provided in the convex region.

The peripheral grooves which cross the radiating
30 depressions in right-angled relationship subdivide a large region of the shell cap into areas, between which there are

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only thin-wall connecting strips. The increased number of desired-fracture locations here substantially improves the bursting characteristics of the shell cap. In addition the depressions and grooves facilitate penetration of the soft target medium between the non-weakened areas of the shell cap, so that the spin of the shell causes the generation of tangential forces which additionally assist in causing the shell cap to break open.

Preferably the peripheral grooves are deeper than the depressions arranged in a radiating form. The shell cap comprises for example a thermoplastic material, in particular a POM.

An embodiment of the invention is described in greater detail hereinafter with reference to the Figures in the accompanying drawing, without being limited thereto. In the drawing:

Figure 1 is a partial longitudinal section of a shell, and

Figure 2 is a partial longitudinal section of a shell cap.

A non-explosive bullet or shell, in particular of 40 mm type, has a shell body 1 in which a filling 3, for example dye or paint, which is released at the location of impact, is arranged, and which is closed by a shell cap 5 of plastic material. Figure 1 also shows a cartridge 2 as the firing device. The shell cap 5 is provided with three peripheral grooves 7, in the region of which the cap wall is of only a very small wall

thickness 8, and it is also provided with depressions 6 which are arranged in a radiating configuration and which cross the peripheral grooves 7 at a right angle and the depth of which is less than the depth of the peripheral grooves 7. The depressions 6 and the peripheral grooves 7 form a grid of desired-rupture locations, the grid being
5 laid over a substantial part of the shell cap 5. They improve the bursting certainty even upon impact in soft ground or the like.

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CLAIMS:

1. A shell cap of plastic material having a front convex region which goes into a cylindrical region and which is provided with depressions which are arranged in radiating
5 form and which end in the cylindrical region, wherein a peripheral groove crossing the depressions is formed at the transition between the convex and the cylindrical regions, and at least one additional peripheral groove is provided in the convex region.
- 10 2. A shell cap according to claim 1 wherein the peripheral grooves are deeper than the depressions arranged in a radiating configuration.
3. A shell cap according to claim 1 or claim 2 wherein there are two additional peripheral grooves.

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PATENT AGENTS

Fig. 1

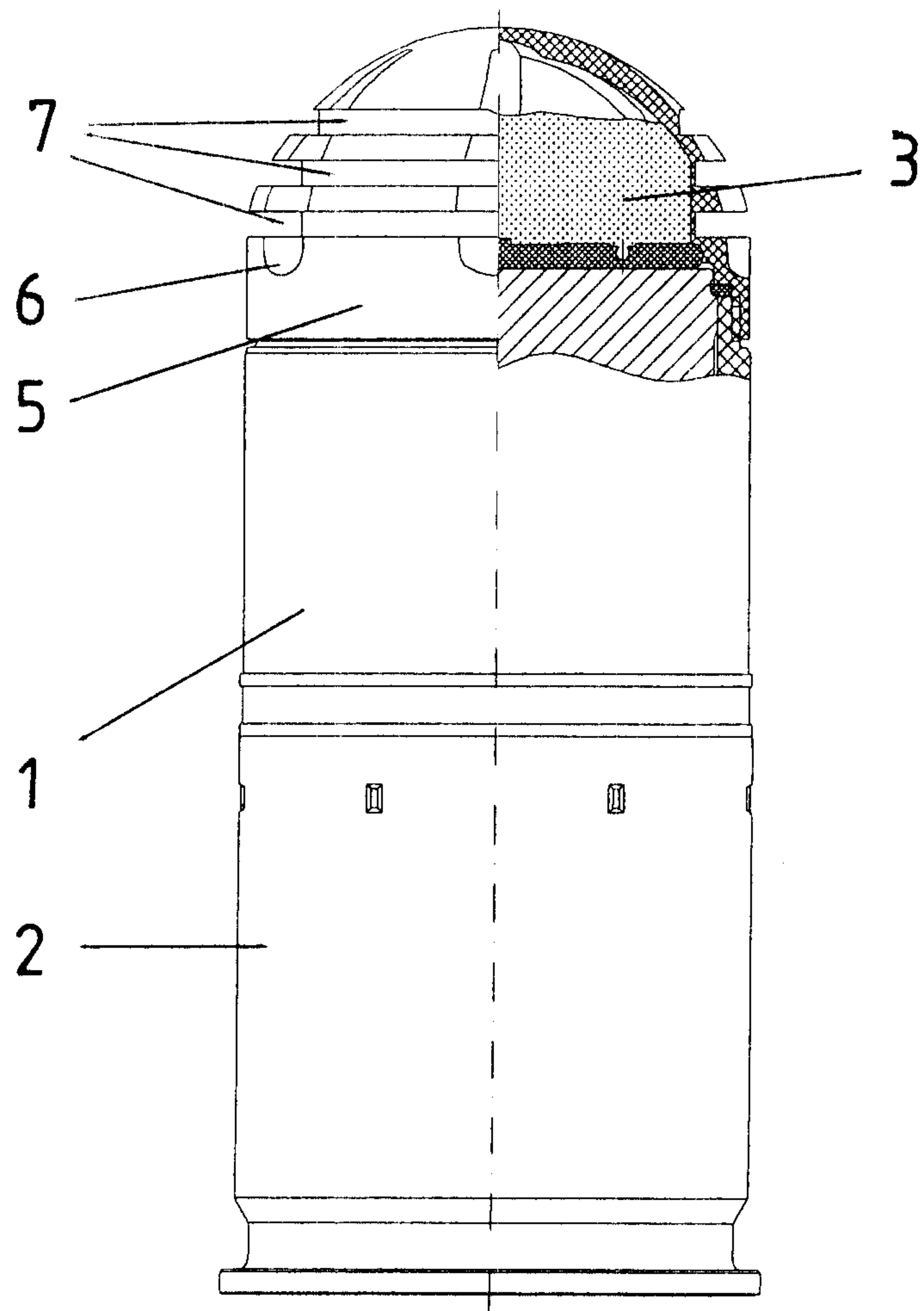


Fig. 2

