

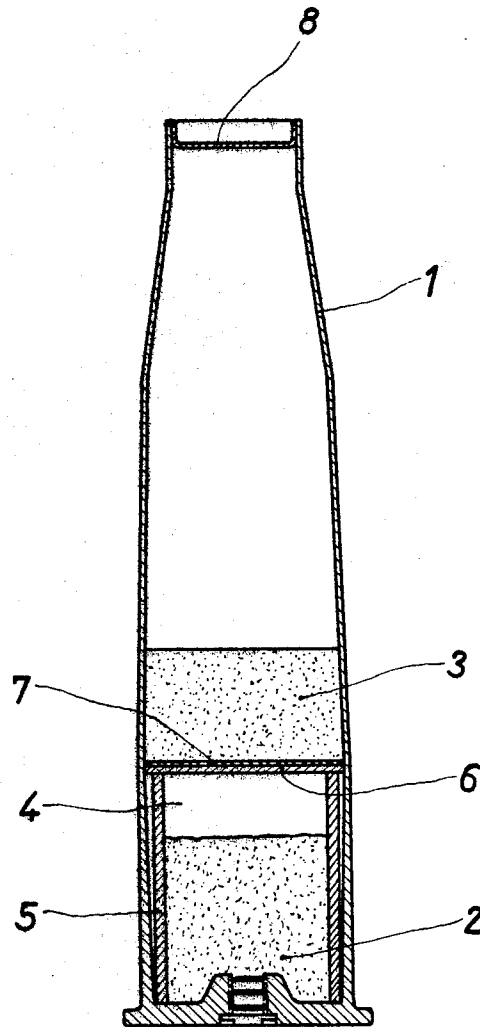
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BLANK CARTRIDGE

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BLANK CARTRIDGE

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1 Claim. (Cl. 102—39)

ABSTRACT OF THE DISCLOSURE

A blank cartridge having a cartridge case containing a powder charge and a tamping plug spaced from the charge and secured to the cartridge case. Also the cartridge case has a hollow container forming a combustion space between the charge and the plug and composed of a synthetic material of low inflammability which disintegrates when the cartridge is fired. A closure for the container is provided between the space in the hollow container and a disk is also provided adjacent the closure and the tamping plug.

The invention relates to blank cartridges for guns, consisting of a powder charge in a cartridge case and a tamping plug made of filler and binding agent which disintegrates on firing. The tamping plug is usually fixed to the wall of the cartridge case.

To achieve disintegration of the tamping plug without any residue and a noise effect of constant loudness similar to the sound of a live round it is very important inter alia that the space for combustion of the powder charge should be of constant size.

In accordance with the invention this is achieved by enclosing the combustion space within a hollow cylinder closed at its upper end and made of a synthetic material with a low inflammability which disintegrates on firing, for example foamed polystyrol.

The hot powder gases occurring on firing melt the hollow cylinder and the latter disintegrates practically without any residue without having any disadvantageous effects on the combustion of the powder. The manufacture of the blank cartridge is also considerably simplified as compared with existing techniques.

The invention is particularly advantageous when embodied in a blank cartridge in which the tamping plug consists of an unmoulded, paste-like mixture of filler, a synthetic resin and a self-hardening binding agent, this mixture being formed into a plug inside the cartridge case where it hardens without any further treatment and adheres to the wall of the cartridge case. The upper closed end of the hollow cylinder can then simultaneously form a backing for the tamping plug.

The invention can also be embodied with advantage in cartridge cases with an upper retracted collar—that is normal cartridges to be used in action. In this case the walls of the cylinder can be made in a simple manner from a rectangular sheet bent into a cylinder. The bent or loosely rolled sheet can be inserted through the collar of the car-

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tridge case into the latter. In the same way a disc for closing the hollow cylinder can be passed through the collar.

The advantage of the material proposed in the invention for the hollow cylinder are, in addition to the ease of disintegration and the small weight, that it is relatively pliable and elastic which is of added advantage in manufacturing the parts and producing the blank cartridge.

An embodiment of the invention will now be described in greater detail with reference to the accompanying drawing which is a longitudinal section of the embodiment.

Within a cartridge case 1 is a powder charge 2 with tamping plug 3 spaced above it. Between the powder charge 2 and the tamping plug 2 there is a combustion space 4 which is essential to build up a sufficiently high gas pressure for the noise effect and also to ensure that the tamping plug will disintegrate without residue when firing takes place. The combustion space is enclosed in a hollow cylinder 5 of polystyrol closed at its upper end by a lid 6. The hollow cylinder and its lid 6 can be made in one piece or the lid can lie on the rim of the cylinder wall—as shown—and be fixed to this. The curved wall of the cylinder consists of a rectangular sheet which, due to its pliability and elasticity, can easily be bent to form a cylinder and can be introduced into the cartridge case through the collar. In the same way the lid 6 can be introduced into the cartridge case. The lid 6, which in the case of large calibre cartridges is preferably reinforced by a thin cardboard disc 7, acts as backing for the tamping plug 3 which is placed on the lid in the form of an unmoulded paste mixture of filler, synthetic resin and hardening binding agent and lightly pressed into place.

The upper end of the cartridge case is closed by a U-shaped lid made of cardboard which is fixed to the cartridge case by means of an adhesive and sealed.

I claim:

1. A blank cartridge comprising in combination, a cartridge case containing a powder charge and a tamping plug spaced from the charge and secured to the said cartridge case, a hollow container forming a combustion space between said charge and said plug and composed of a synthetic material of low inflammability which disintegrates when said cartridge is fired, a closure for said container between said space and said plug, and a disc provided adjacent the closure and the tamping plug being inside said cartridge case formed from an unmolded paste mixture of a filler, a synthetic resin and a self-hardening binding agent and said closure acting as a backing for said tamping plug.

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