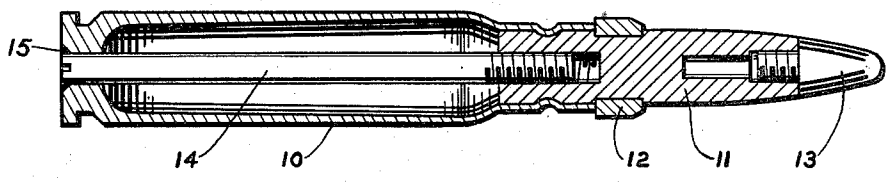
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DUMMY CARTRIDGE

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INVENTOR.
ALBIN N. BENSON

BY

W. E. Thibodeau, A. W. Dew and H. J. Forman
ATTORNEYS

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DUMMY CARTRIDGE

Albin N. Benson, Pipersville, Pa.

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The invention described herein may be manufactured and used by or for the Government for governmental purposes without the payment of any royalty thereon.

This invention relates to dummy ammunition for machine guns and has for an object to prolong the life of the former for repeated usage.

Manufacturers of machine guns and auxiliary machine gun parts find it necessary to try them out before shipment and such trials are usually made in part with dummy rather than with service ammunition. This dummy ammunition should be of the same size and same weight as the service ammunition in order that the trial may give the correct information. In operation of the larger sizes of machine guns such as the 20 mm. or the 30 mm., the sudden starting and stopping of the dummy ammunition has been found to impose flexural stress which distorts and loosens the simulated cartridge case retaining the dummy projectile and rendering the loosened dummy ammunition unfit for continued service.

According to this invention, an analysis of the stresses imposed upon such dummy ammunition has revealed the cause of the cartridge case becoming loose around the projectile and unfit for service. Specifically, it has been found that an axial reinforcing rod rigidly fixed with respect to the dummy projectile and also fixed with respect to the simulated cartridge case reduces the tendency for the latter to become distorted. More particularly, this reinforcing rod has been screw threaded into the dummy projectile and gripped by the simulated cartridge case at a convenient distance from the dummy projectile. In this way the dummy projectile and the reinforcing rod together function as a rigid lever and their attachment to the simulated cartridge case at a distance from their connection reduces the tendency for any flexural movement at their connection with the front end of the simulated cartridge case as a fulcrum.

The single figure of the drawing is a longitudinal cross section through a preferred embodiment of the present invention.

The usual cartridge case **10** is secured around the rear end portion of a dummy projectile **11**, made of steel and provided with the usual rotating band **12** of gilding metal. An aluminum alloy nose **13** is screw threaded into a forward end of the dummy projectile **11**.

The size of the recess behind the threaded connection of the nose is designed so as to adjust the weight and balance of the dummy projectile and make these characteristics similar to those of the service ammunition.

To reduce the likelihood of the forward end of the simulated cartridge case **10** from spreading and becoming loose from the dummy projectile, it has been discovered that a reinforcing rod **14** of brass is useful for that purpose. This rod **14** has its forward end screw-threaded into the rear end of the dummy projectile **11** and its rear end brazed within the rear wall of the cartridge case at **15**. Thus the rear wall of the cartridge case and the rod **14** prevent any tendency for the dummy projectile **11** to turn or twist about a forward end of the cartridge case **10** as a fulcrum and spread the forward end of the cartridge case. A brass rod has been found to be better able to withstand fatigue resulting from repeated use of the dummy ammunition in trying out a machine gun. The product of this invention is intended especially for the 20 millimeter size gun and cartridge but is not limited for only that size.

I claim:

1. In dummy ammunition for machine guns and comprising a simulated cartridge case, a dummy projectile held within a forward portion of said case, a base flange on said case, a stiff metal rod connected to and spacing said projectile and base flange, said rod being of substantially uniform diameter and threaded at its forward end into said dummy projectile, said cartridge case having therein a hole through which said rod may extend, a non-rotatable connection between said rod and base, said dummy projectile having a nose portion of aluminum adjustably secured to said dummy projectile there being a recess in said projectile behind said nose portion the size of said recess controlling the weight and balance of said ammunition.

2. Dummy ammunition according to claim 1, said stiff metal rod being of brass, wherein said ammunition may better withstand fatigue resulting from repeated use.

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