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TOY GUN WITH DUMMY BULLET USING DEFORMABLE VEGETABLE MATTER

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Fig. 1.

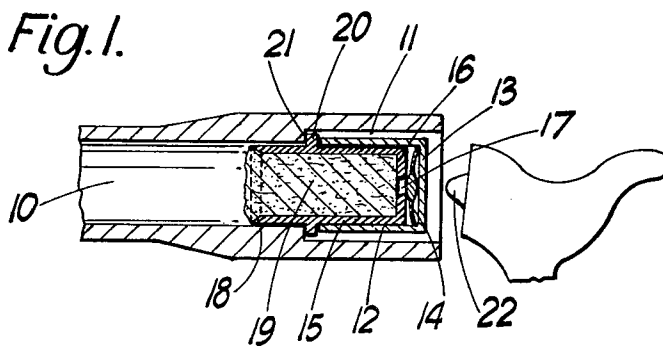
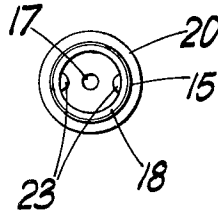


Fig. 2.



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1

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5 Claims. (Cl. 42—54)

This invention relates to toy guns for firing pellets of potato or like material and for the ammunition therefor.

According to one aspect of this invention, in ammunition for a toy gun comprising a cartridge case with a removable dummy bullet, the case being of generally cylindrical form and having a closed rear end and the bullet fitting into the cartridge case so that a detonator cap can be held between the rear end of the bullet and the closed rear end of the cartridge case, the bullet is of hollow construction with its front end open so as to be capable of containing a pellet of potato or the like and with the rear end having an aperture so that the gases from a detonated cap in the cartridge case can force the pellet forwardly out of the dummy bullet. With this construction, the ammunition is prepared for firing by putting the detonator cap into the cartridge case, loading the bullet with a pellet of potato or the like and then putting the bullet into the cartridge case over the detonator cap. This construction thus closely simulates real ammunition in having a separate bullet, detonator and cartridge case yet enables a potato pellet to be fired.

The invention also includes within its scope a toy gun in combination with ammunition of the kind comprising a cartridge case with a removable dummy bullet, the cartridge case being of generally cylindrical form and having a closed rear end and the bullet fitting into the cartridge case so that a detonator cap can be held between the rear end of the bullet and the closed rear end of the cartridge case, the gun and bullet being so formed that the bullet cannot be ejected forwardly from the cartridge case when the ammunition is loaded into the firing position, wherein the bullet is of hollow construction with its front end open so as to be capable of containing a pellet of potato or the like and with the rear end having an aperture so that the gases from a detonated cap in the cartridge case can force the pellet forwardly out of the bullet.

The dummy bullet is conveniently formed as a hollow cylinder closed at its rear end apart from a small aperture which conveniently is centrally situated in the rear end. The dummy bullet may be formed with a forwardly-facing shoulder, for example a shoulder about half-way along the length of the bullet, to abut against a projection or the like in the gun for preventing the ejection of the bullet when the cap is detonated. This shoulder may be made in the form of a flange to seat against the front end of the cartridge case, which cartridge case may be of conventional form, i.e. to say a circular section cylinder with its rear end closed. The front end of the dummy bullet preferably has a chamfered edge to form a forwardly directed cutting edge for facilitating insertion of the bullet into a potato or the like for cutting a pellet; thus the bullet can be pressed into the potato to load it with the required pellet.

Preferably the internal bore of the dummy bullet is formed with a number of longitudinally extending ribs. These ribs do not affect the operation in the firing of a pellet of potato or like material as, on pressing the bullet into the potato or the like for cutting the pellet, the pellet would be shaped with indentations corresponding to the ribs as it is forced into the potato. However, such ribs ensure that if a cylindrical or spherical object is put into the dummy bullet, due to the ribs, such an object cannot be a gas tight fit in the bullet. Thus, if such an object

2

were put into the dummy bullet, when the cap is detonated, the gases can escape freely. The bullet therefore cannot be used for firing spherical or cylindrical objects but only for firing pellets of relatively soft material such as potato which can be cut into an appropriately shaped pellet by forcing the bullet into the material.

In the following description reference will be made to the accompanying drawings in which:

FIGURE 1 is a cross section through a part of a toy gun and ammunition for the gun, the ammunition comprising a bullet in a cartridge case; and

FIGURE 2 is a front view of the bullet and cartridge case of FIGURE 1.

Referring to the drawings, there is shown part of a toy gun having a barrel 10 and a chamber 11 containing ammunition for the gun. This ammunition includes a cartridge case 12 which is of cylindrical form with a closed base 13. In this cartridge case there is placed a detonator cap 14 which seats on the base 13 of the cartridge case and is held in position by a dummy bullet 15 which is of generally cylindrical form. The bullet 15 has its rear end closed by a wall 16 having a central aperture 17. The front end of the bullet has a chamfered edge 18 to form a forwardly directed cutting edge so that the bullet may be forced into a potato or the like to cut off a pellet 19 which fills the interior of the bullet.

The bullet 15 has a flange 20 around its external surface just forward of the front end of the cartridge case 12 which flange 20 co-operates with an abutment 21 in the chamber wall to form a stop preventing the bullet from being ejected forwardly from the chamber. The abutment 21 is positioned so that, when the cartridge case and bullet are put in the chamber 11, the bullet in the cartridge case holds the detonator cap 14 tightly against the base 13 of the cartridge case.

The gun has a trigger-operated striker 22 which may be actuated in the known manner so as, on depressing a trigger, to be urged forwardly by a spring to strike against the rear end 13 of the cartridge case 12 so detonating the cap 14 in the cartridge case. The gases produced by the detonation of this cap 14 pass through the aforementioned aperture 17 and fire the pellet 19 forwardly through the barrel 10 of the gun. The flange 20 and abutment 21 prevent the bullet 15 from being forced forwardly. The bullet and cartridge case are thus retained in the gun and may be removed for reloading with a new detonator cap and a further pellet.

As is most clearly shown in FIGURE 2, the bullet 15 is provided on its internal surface with longitudinal extending ribs 23. Two such ribs are shown in FIGURE 2 merely by way of example and more ribs may be provided if desired. These ribs ensure that if a cylindrical or spherical object is put into the bullet 15, such an object cannot be a gas-tight fit and so will not be fired forwardly through the barrel of the gun when the cap is detonated, the gases escaping freely around the sides of the object. This ensures that the ammunition cannot be used for firing spherical or cylindrical objects but only for firing pellets of relatively soft material such as potato which can be cut into an appropriately shaped pellet by forcing the bullet into the material. It will be appreciated that if the bullet portion 15 is forced into a potato, the pellet will be shaped to fit tightly around the ribs 23.

I claim:

1. The combination of a toy gun with ammunition, the ammunition comprising a hollow cartridge case having a closed rear end, a detonator cap adapted to fit in said cartridge case adjacent the rear end thereof and a dummy bullet adapted to fit in said cartridge case with its rear end abutting against said detonator cap to hold said detonator cap against the closed rear end of the cartridge case, the dummy bullet being of hollow construction

3

with its front end open and having an aperture at its rear end, and having at least one longitudinally extending rib on its internal surface, and said gun having a chamber for containing said ammunition, a barrel providing a free opening leading from the open front end of the bullet, co-operating stop means in the chamber and on said dummy bullet to prevent forward movement of the dummy bullet through the barrel and a trigger-operated striker arranged to strike the rear end of the cartridge case, when the ammunition is in said chamber, to detonate said detonator cap so that the gases produced by the detonation will be expelled through said aperture into said dummy bullet to eject from the latter a filling of relatively soft and deformable vegetable matter, such as a potato slug, formed by forcing the open front end of said dummy bullet into the vegetable matter to cut a core thereof tightly fitting said dummy bullet.

2. The combination of a toy gun with ammunition, the ammunition comprising a hollow cartridge case having a closed rear end, a detonator cap adapted to fit in said cartridge case adjacent the rear end thereof and a dummy bullet adapted to fit in said cartridge case with its rear end abutting against said detonator cap to hold said detonator cap against the closed rear end of the cartridge case, the dummy bullet being of hollow construction with its front end open and having an aperture at its rear end, the front end of the dummy bullet having a chamfered edge to form a forwardly directed cutting edge, and said gun having a chamber for containing said ammunition, a barrel providing a free opening leading from the open front end of the bullet, co-operating stop means in the chamber and on said dummy bullet to prevent forward

4

movement of the dummy bullet through the barrel and a trigger-operated striker arranged to strike the rear end of the cartridge case, when the ammunition is in said chamber, to detonate said detonator cap so that the gases produced by the detonation will be expelled through said aperture into said dummy bullet to eject from the latter a filling of relatively soft and deformable vegetable material, such as a potato slug, formed by using said cutting edge to cut a core of vegetable matter tightly fitting said dummy bullet.

3. The combination of a toy gun with ammunition, as claimed in claim 2, in which said cartridge case is of generally cylindrical form.

4. The combination of a toy gun with ammunition, as claimed in claim 2, in which said dummy bullet has a uniform internal cross-section along its length.

5. The combination of a toy gun with ammunition, as claimed in claim 2, in which the dummy bullet has at least one longitudinally extending rib on its internal surface.

References Cited in the file of this patent

UNITED STATES PATENTS

2,482,436	Ream	Sept. 20, 1949
2,539,968	Payne	Jan. 30, 1951
2,841,907	Nichols	July 8, 1958
2,944,358	Weimer	July 12, 1960

FOREIGN PATENTS

164,655	Germany	Nov. 3, 1905
261,392	Germany	June 20, 1913
834,743	Great Britain	May 11, 1960