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PROJECTILE.

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Fig. 1.

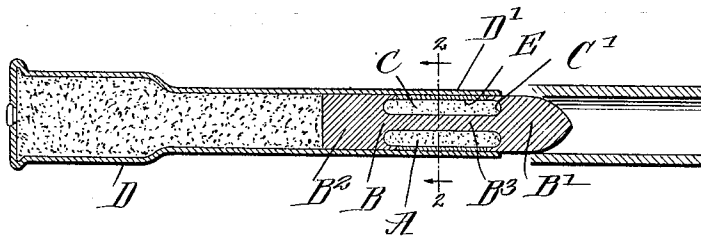
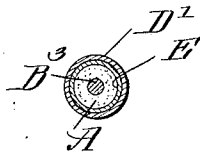


Fig. 2.



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PROJECTILE.

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To all whom it may concern:

Be it known that we, JOSEPH FRANCIS O'BYRNE and THOMAS A. FLOOD, both citizens of the United States, and residing, respectively, at Contact, in the county of Elko and State of Nevada, and Salt Lake City, in the county of Salt Lake and State of Utah, have invented certain new and useful Improvements in Projectiles, of which the following is a specification.

This invention is an improvement in projectiles and consists in certain novel constructions and combinations of parts as will be hereinafter described and claimed.

In the drawing Figure 1 is a longitudinal section of a projectile in the form of a cartridge embodying our invention and Fig. 2 is a cross sectional view on about the line 2-2 of Fig. 1.

This invention is in the nature of a projectile in the form of a bullet or missile as the case may be, especially designed for use in catching wild animals and has for an object to provide a projectile carrying a narcotic whose anesthetic effect will so affect the animal as to render the capture and control of the same easy.

In the construction shown, I provide a projectile with an opening or recess to receive an opiate, or other narcotic or anesthetic substance and the said recess is shown as opening laterally and it is illustrated in Fig. 2 as annular in form so an annular body of the substance may be used and I also illustrate a soluble cover or envelop which may be of gelatin as more fully described hereinafter.

In the construction shown the projectile is in the form of a bullet B connected with a cartridge D which may be of the ordinary construction and the bullet B has a point B', a butt B² and an axial shank B³ connecting the point and butt, the projectile being recessed between the point and butt forming as shown in Fig. 2 an annular recess in which the substance may be placed and the ends of said recess C are undercut at C' to aid in retaining the substance when applied as presently described. The substance or charge A to act as a narcotic may be apomorphine hydrochlorate, or morphine and scopolamin, or the equivalent of scopolamin, hyoscin, or morphine sulfate, or the hydrochlorate or in fact any of the alkaloids or other substances which will tend to produce

sleep or stupor when taken up by the tissues. In the case of the larger animals like the elephant and rhinoceros with thick skins, the body of the projectile may be of lead, steel or the like or other heavy metal while with smaller thin skinned animals some soluble material or such substances as magnesium may be employed as the metal magnesium will ordinarily be absorbed by the animal tissues in from two to four weeks after entering the same and will leave no trace. This is desirable as it avoids extracting the projectile while in the case of the larger animals it will be necessary to extract the bullet as a steel bullet or steel jacketed bullet will have to be used owing to the fact that magnesium will not penetrate due to its low specific gravity.

The cover E is of some soluble substance, preferably gelatin and is in the form of a cylindrical casing fitting between the point and butt of the projectile and coinciding in its external circumference with that of said point and butt and forms an inclosure or envelop retaining the substance A until it has entered the animal.

In operation the animal is shot in some fleshy part with a powder charge or other force sufficient to just penetrate the skin or for a short distance into the tissues and when in the tissues the gelatin cover will melt or dissolve in from ten to fifteen minutes, more or less, and the blood will absorb the substance A and the animal will in from twenty to forty minutes come into the influence of the substance when it can be easily captured and tied up. The drug material A may be used in the dry form, or if desired in the shape in which it comes for hypodermic injections and when constructed as shown in Figs. 1 and 2 the drug charge is cylindrical or tubular in shape.

The gelatin is employed for strength and to avoid climatic changes in the drug. If quick action is desired, the gelatin can be knocked off or otherwise removed when the drug will begin to act as soon as the animal is hit by the projectile.

It will be understood that in practice the powder charge and the drug charge may be calculated for the animals or birds on which it is designed to use the projectile and for birds the projectile may be made rounder and shorter for small rifles.

It is found in practice that in the ma-

jority of cases where the projectile is of lead, the gelatin will be broken off by the impact when the animal is struck in such manner as to secure a quick action of the drug charge.

5 It will be noticed that the cartridge shell extends at D' over the latera' opening in the projectile and over the charge and the gelatin cover therefor, when such gelatin cover is employed. By extending the cartridge shell over the narcotic charge the drug is protected from the weather by the shell and is also so incased as to prevent mechanical injury or displacement thereof.

10 It will be understood that the gelatin cover may or may not be employed, as while it increases the safety and certainty of operation, it is not really necessary when the drug is protected by the extension of the cartridge shell as shown and above described. When the gelatin cover is omitted some suitable binder may be incorporated with or used otherwise with the drug as ordinarily the drug would not be strong enough to stand the shock of leaving the rifle unless held in some way to the projectile.

We claim:

1. A projectile having a recess or opening, a narcotic therein and a gelatin like cover for said recess or opening.
2. A projectile having a point, a butt, a connection between the point and the butt and a narcotic between the point and butt and alongside the connection and a gelatin-like cylinder inclosing the narcotic.
3. A projectile of material adapted to be absorbed by animal tissue and having a point and butt and a central connection between the same and a narcotic between the

point and butt and encircling the connection.

4. A projectile having an annular recess, a narcotic therein and a gelatin like cylinder inclosing the narcotic.

5. A projectile having a point or butt and a connection between the same of reduced diameter whereby an annular recess is provided surrounding the connection, the ends of the said recess being undercut and a narcotic held in said recess.

6. A projectile of magnesium having a recess or opening and a narcotic therein substantially as described.

7. A projectile of magnesium having a point, a butt spaced therefrom and a relatively smaller connecting portion between the point and butt and a narcotic carried between the point and butt.

8. A projectile of magnesium having a point or butt, a relatively smaller connecting portion between the same and concentric therewith, a narcotic surrounding said connecting portion between the point and butt and a gelatin cover for the narcotic.

9. A projectile of magnesium having a laterally opening recess, a narcotic therein and a soluble closure extending over the said recess.

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