

A. E. MATTEUS.
SHELL.
APPLICATION FILED SEPT. 6, 1918.

1,297,216.

Patented Mar. 11, 1919.

Fig. 1.

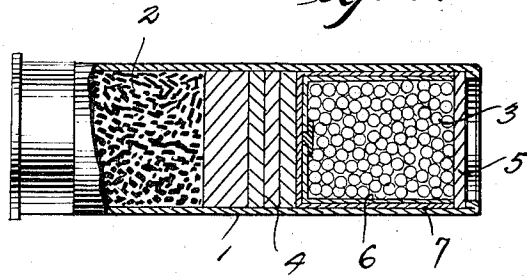


Fig. 2.

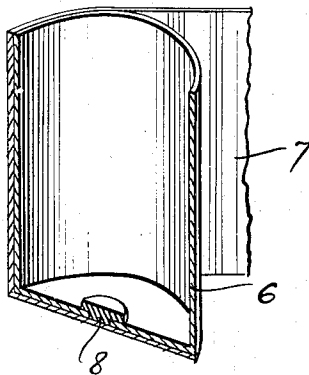
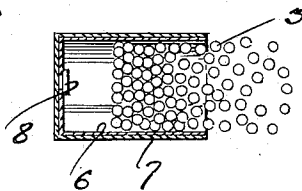


Fig. 3.



WITNESSES
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SHELL.

1,297,216.

Specification of Letters Patent.

Patented Mar. 11, 1919.

Application filed September 6, 1918. Serial No. 252,908.

To all whom it may concern:

Be it known that I, AUGUST E. MATTEUS, a subject of the King of Great Britain, residing at Gilby, in the Province of Alberta, Dominion of Canada, have invented certain new and useful Improvements in Shells, of which the following is a specification.

This invention relates to a projectile for shot guns such as used by sportsmen; the purpose being to provide a shell having a great range of penetration for a given amount of explosive and which will concentrate the shot or bullets and prevent the scattering of the same to such an extent as to prevent stopping the game by a well directed shot.

In the ordinary shell as generally provided for a fire arm used by sportsmen, the shot or bullets are practically liberated the instant they leave the muzzle of the gun and each shot or bullet is subjected to individual air resistance which retards the range thereof. Moreover, the shot or pellets begin to spread and scatter and as a result the space covered is too great and frequently the game is lost because only a few of the shot or bullets reach the mark and are insufficient to bring the game to earth.

In accordance with the present invention the shot or bullets are inclosed in a casing which travels with the shot or bullets in mass, but which casing gradually releases the shot or bullets as the missile travels after being projected from the gun or fire arm. As a result the shot or bullets have a longer range of travel and are concentrated and prevented from scattering beyond the useful zone so that the game is more surely brought to earth.

The drawing illustrates a preferred embodiment of the invention, however, it is to be understood that in adapting the same to meet different conditions, various changes in the form, proportion, and minor details of construction may be resorted to without departing from the nature of the invention as claimed hereinafter.

Figure 1 is a sectional view of a shell for a shot gun embodying the invention.

Fig. 2 is a perspective view of a portion of the casing, which receives the shot or bullets.

Fig. 3 is a central longitudinal section of the casing and shot showing the relation of the parts while the same are in flight.

Corresponding and like parts in the several views of the drawing are referred to in the following description and indicated in the several views of the drawing by like reference characters.

The projectile as a whole comprises a main shell or casing 1 which contains an explosive 2 at one end and the shot or bullets 3 at the opposite end, the explosive and shot being separated by interposed wads or elements 4 in a manner well understood.

In accordance with the present invention the shot or bullets 3 are inclosed within a casing 6 which may be of any construction or material, the purpose of the casing being to retain the shot or bullets 3 in a mass during the initial travel of the missile after leaving the muzzle of the gun. The casing 6 may be of any light and cheap material and is usually of metal. A jacket 7 envelops the casing 6 and is usually of paraffin so as to prevent injury to the bore of the gun and to facilitate the traveling of the missile when the gun is fired. The shot or bullets 3 are placed within the casing 6 and are retained therein in any manner as by means of the wad 5.

When a shell or projectile embodying the invention is fired, the casing 6 containing the shot or bullets 3 is projected and the casing and shot travel together, but at different relative speeds, this being due to the fact that the casing 6 is light and is subjected to greater air resistance than the inclosed shot or bullets. As the missile advances along the path of travel, the mass of shot or bullets 3 begin to leave the casing and before the missile reaches the limit of its travel the shot or bullets have completely left the casing 6. The differential travel of the casing 6 and the shot or bullets is governed in a great measure by the relative weight of the parts, hence the heavier the casing 6, the longer is its distance of travel with the inclosed shot or bullets. It is proposed, therefore, to vary the weight of the casing 6 and this is accomplished by adding weight 8 thereto, the same being preferably applied to the end of the casing. Obviously the relative weight may be determined by experiment and the amount of the weight 8 to be added after being determined will remain fixed for composite missiles or projectiles of a given size.

It should be remembered that in the or-

dinary shell, each shot or bullet 3 is subjected to air resistance and as a result the range or path of travel is not as great as would be the case if this resistance was modified. In accordance with the present invention the shot or bullets are confined, hence the resistance to the travel of the missile or projectile as a whole is far less than if each shot or bullet were exposed and subjected to resistance. It follows, therefore, that a shell constructed in accordance with the invention has a greater range or path of travel than a shell as ordinarily constructed and which permits the shot to scatter as they leave the muzzle of the gun.

The foregoing description and the drawings have reference to what may be considered the preferred, or approved, form of my invention. It is to be understood that I may make such changes in construction and arrangement and combination of parts, materials, dimensions, et cetera, as may prove expedient and fall within the scope of the appended claims.

Having thus fully described my inven-

tion, what I claim as new and desire to secure by Letters Patent, is:—

1. A composite muzzle comprising a casing, a weight added to the casing to govern its flight and shot or bullets inclosed within the casing and adapted to gradually leave the same when the missile is in flight.

2. A projectile, comprising a main casing, a supplemental casing within the main casing and separable therefrom and closed at its rear end and open at its front end, shot within the supplemental casing, a wad closing the front end of the supplemental casing to retain the shot therein and hold it in place within the main casing, and a weight attached to the rear end of the supplemental casing to govern its flight and the separation of the shot therefrom.

In testimony whereof I, A. E. MATTEUS, affix my signature in presence of two witnesses.

AUGUST E. MATTEUS.

Witnesses:

ANNA M. POSTI,
HUGO J. POSTI.