

United States Patent

Tritenne

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[54] SKEET SHOOTING ARRANGEMENT

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2,344,957	3/1944	Anzalone.....	42/1 F
2,456,812	12/1948	Blacker.....	42/1 F
2,482,130	9/1949	Skinner.....	102/34.1
2,630,321	3/1953	Clyne.....	102/34.1
1,359,425	11/1920	Piersantelli.....	42/1 F
3,245,350	4/1966	Kelly.....	42/1 F

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[30] Foreign Application Priority Data

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[51] Int. Cl.....F42b 15/00, F41c 27/06

[58] Field of Search.....42/1 F; 102/34, 34.1, 37.1,
102/49.3, 49.7

[56] References Cited

UNITED STATES PATENTS

1,440,333 12/1922 Braunger.....42/1 F

[57] ABSTRACT

A skeet shooting assembly wherein the skeet has a hollow central channel with a cartridge therein. The ignition of the cartridge charge is accomplished by means of a fuse fired by an elongated fuse firing element, preferably of pistol-type which penetrates the central channel and engages the cartridge.

4 Claims, 3 Drawing Figures

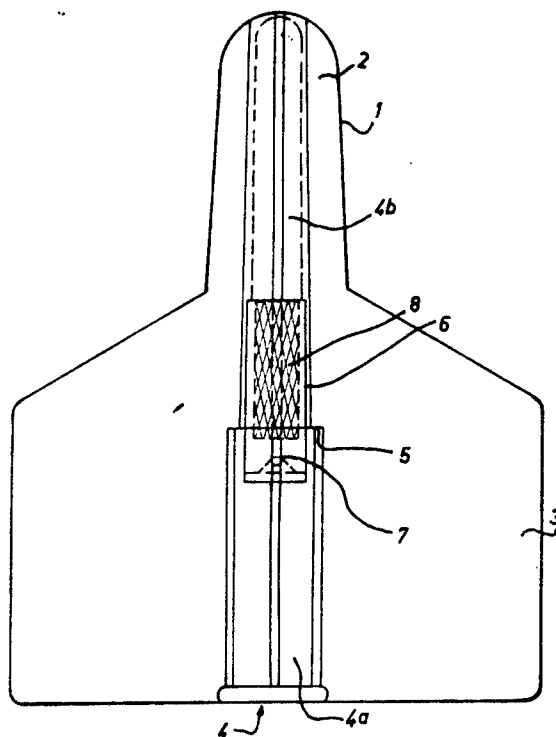


FIG.1

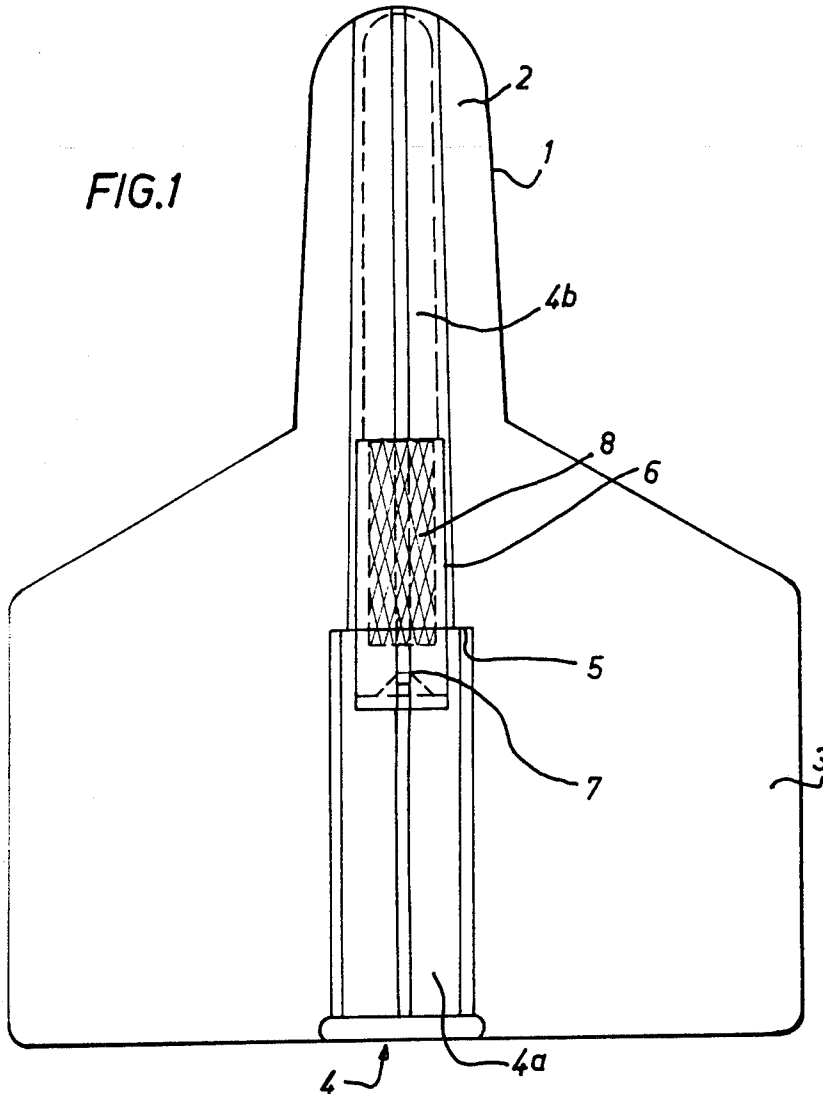
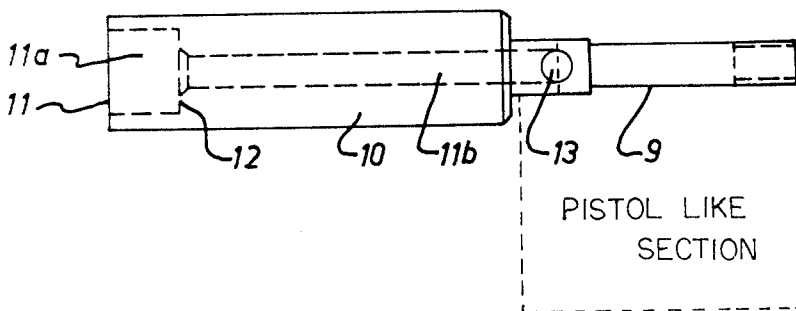
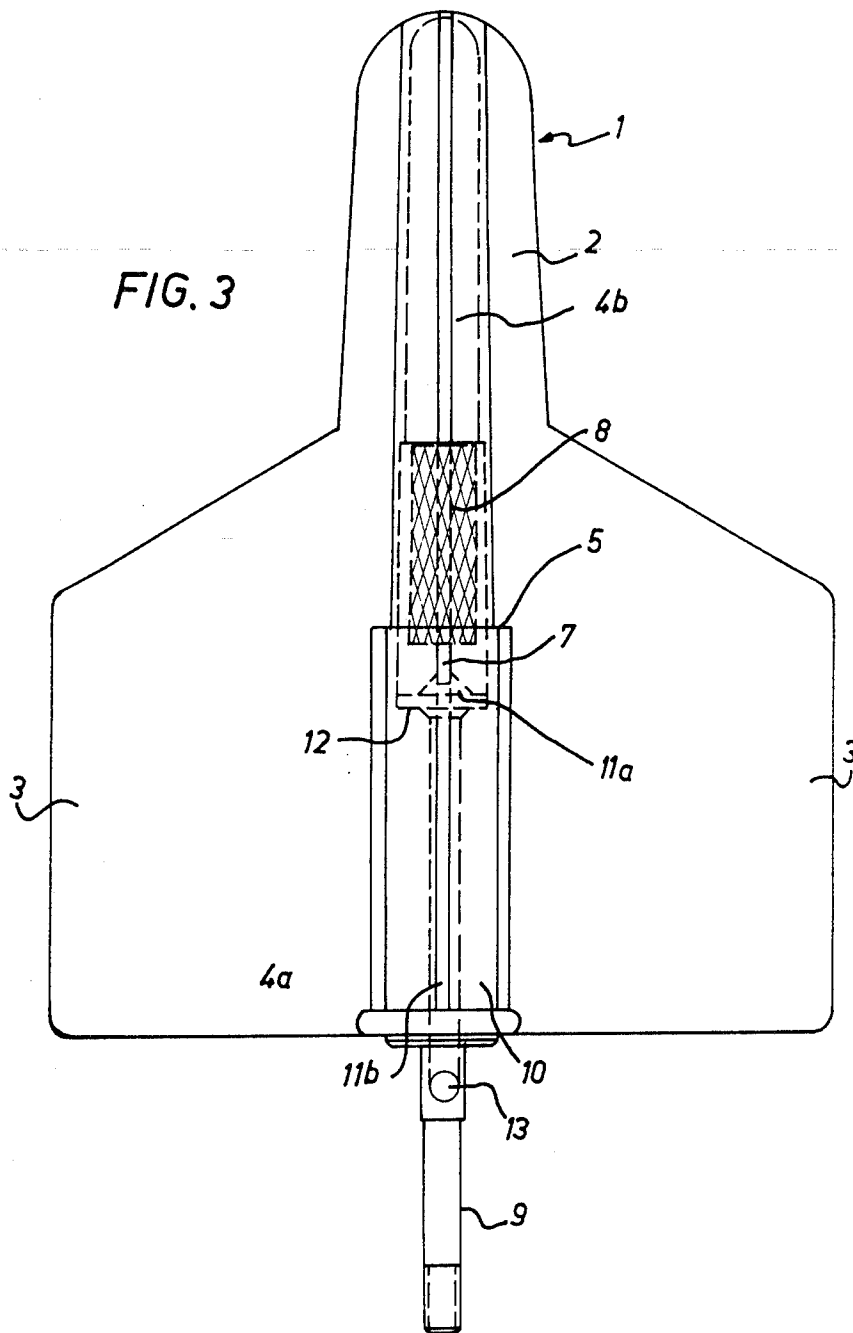


FIG.2



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Shade 4 to show
 line for
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SKEET SHOOTING ARRANGEMENT

BACKGROUND OF THE INVENTION

The present invention relates to an improvement in the propulsion of skeets for shooting clay pigeons, and more particularly to a skeet shooting arrangement wherein the skeet has a hollow center channel for coaxially holding therein a cartridge with a propulsive charge and to a skeet shooting assembly for carrying out the foregoing arrangement.

THE PRIOR ART

One such skeet and its mode of propulsion is described in French Pat. No. 1,403,044. According to this French patent, the propulsion is assured by the percussion of the cartridge through the penetration of the hollow center of the skeet by a mechanical element. By varying the nature of the charge, as for example, by the introduction of different explosives in the cartridge, with the firing of successive layers, there is obtained variations in the propulsion of the skeet which produces in its movements the flight irregularities of live game, independently of the configuration of the skeet. This mode of propulsion, which on one hand, permits the realization of a movement certainly more satisfactory than that which results from the mechanical propulsion of an inert skeet, presents on the other hand the inconvenience of requiring a rather heavy explosive charge, which raises the production costs of the skeet and also presents certain dangers.

The present invention proposes to remedy this inconvenience.

SUMMARY OF THE INVENTION

Generally speaking, according to the present concept, the invention contemplates that the ignition of the charge shall be caused by firing the fuse independently of the skeet, by a separate fuse firing element. The explosion of the fuse thus assures the firing of the charge, and the placing into motion of the skeet, because of the propulsion caused by the formed gases acting on the skeet. It also becomes possible to reduce the force of the charge, since the charge must merely provide for the launching of the skeet.

The firing of the charge can be obtained, for example by including in the cartridge one or several channels permitting the hot gas and the flames emitted by the firing of the fuse to reach the propellant components included in the cartridge.

The invention, as well as other objects and advantages thereof will be better understood from the following detailed description, when taken in conjunction with the accompanying drawing, in which:

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 presents a longitudinal sectional view of the skeet which can be propelled according to the inventive concept;

FIG. 2 presents a longitudinal sectional view of a fuse firing element used to assure the firing of the fuse; and,

FIG. 3 presents a longitudinal sectional view of the skeet engaged therein by the fuse firing element shown in FIG. 2.

The skeet designated herein for the whole device by 1, comprises a head 2 and wings 3. A hollow center channel 4 extends the total length of the skeet having at its midlength an abrupt change in diameter, defining two distinct zones, 4a and 4b. The change in diameter forms a circular shoulder 5. A removable cartridge 6, lodged in hollow zone 4b extends slightly into hollow zone 4a. The cartridge 6 comprises a fulminating material 7 disposed next to an explosive charge 8.

The element to fire the fuse, designated herein for a whole element as number 9, particularly includes a cannon 10, pierced by a longitudinal channel 11. The diameter of the channel increases abruptly towards the free end, defining two distinct channels, 11a and 11b, and the change in diameter forms an annular shoulder 12. The channel 11b which constitutes the firing chamber of the fuse includes an orifice 13 for the firing of the fuse.

As best shown in FIG. 3, the diameter of the channel 11a corresponds to that of the cartridge 6 in such a way that when the cannon 10 abuts on shoulder 5, a part of cartridge 6 enters the cannon. The entire assembly operates as follows: The components are disposed in accordance with FIG. 3, the fuse is fired through orifice 13 giving rise to a flame which burns fulminating material 7 and produces gases which, guided by channel 11b apply pressure against cartridge 6. Because it is subjected to this pressure, the skeet starts moving, first along a long guide ramp (not shown), then in free flight. Meanwhile, the fulminating material 7 is consumed and burns the propellant charge 8. The movement of the skeet is then assured by the combustion of this charge.

The skeet-shooter properly posted can at this time destroy the skeet by a proper shot, by a hunting rifle for example.

In carrying the present invention into practice, according to the present inventive concept, the firing of the charge can be obtained, for example by including in the cartridge one or several channels permitting the hot gas and the flames emitted by the firing of the fuse to reach the propellant components included in the cartridge. Also, according to a preferred embodiment, the fuse is fired by an element comprising, for example, a signal pistol type of mechanism, modified so that the pistol cannon can be engaged to the hollow center channel of the skeet. This arrangement allows for simple and rapid handling, as the pistol can be loaded with several fuses at one time.

The firing of the charge can advantageously be done by a wick, a cord, or a heat-responsive fulminating component included in the charge. Thus, the firing of the charge is delayed and the skeet, because of the propulsion produced by the gases caused by the explosion of the fuse, has already traveled several meters before the propulsion is assured for the combustion of the charge itself. Thus, the skeet first performs a uniform decelerating movement since the gas pressure decreases, then with a violent awakening of a subsequent movement of an indeterminate angle.

It is desirable to provide an elongated guide ramp (not shown) of some tens of centimeters to assure a proper flight of the skeet.

The charge can comprise, in a known manner, several propulsive components wherein the combustion will cause variations in the movement of the skeet.

It is to be observed, therefore, that the present invention provides for an apparatus for carrying out the foregoing propulsion arrangement, which comprises on one hand, the combination of a skeet having a hollow center having lodged therein a coaxial cartridge holding a propulsion charge, and, on the other hand, a modified signal pistol type of apparatus wherein the cannon is so adapted and disposed that it can engage the center channel of the skeet.

Also, it will be observed that as used herein, the word cartridge refers particularly to a cartridge of the cartouche type.

Although the invention has been particularly described, it is obvious that modifications and variations of the invention are possible.

What is claimed is:

1. In a self propelled flying target the combination comprising:

a generally elongated tubular body portion;

a plurality of wings attached to said body, said body including a first bore portion extending from a forward portion to approximately the mid point of said tubular body, a counterbore portion extending from the rear of said tubular body forwardly to the approximate mid point of said body coaxial with said first bore to define a circular shoulder within said bore at the point of intersection of said bore and said counterbore, a propellant cartridge disposed within said body, said cartridge including a propellant charge portion disposed within said bore and a fulminating portion disposed within said counterbore, launching means complementary to and selectively disposed within said counterbore, said launching means

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including a fuse, means connecting said fuse with said fulminating portion of said cartridge and means responsive to the actuation of said fuse to actuate said fulminating material to simultaneously propell said target from said launching means and actuate said propellant charge to effect further propulsion of said target.

2. The invention defined by claim 1 wherein said means interconnecting said fuse and said fulminating portion of said cartridge includes at least one channel through which flame from said fuse actuates said fulminating portion of said propellant cartridge.

3. The invention defined by claim 1 in which said launching

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means includes a pistol like component including a handle portion and a cannon portion, said cannon portion dimensioned to complement and extend within said counterbore and to define a firing chamber therewithin, said fulminating portion of said propellant cartridge at least partially disposed within said firing chamber when said target and said launching device are in assembled relation.

4. The invention defined by claim 3 wherein said firing chamber is defined by a bore of a diameter less than that of said cannon portion disposed within said counterbore of said target body.

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