June 7, 1938. Y. CHAR 2,119,524

EXPLODING DART

Filed April 24, 1937

Fig. 1.

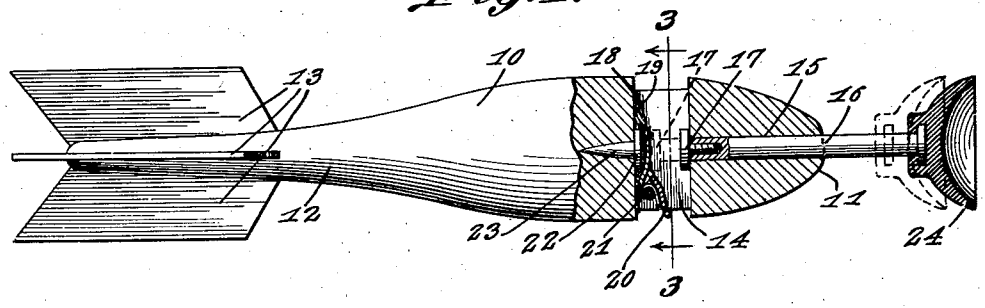


Fig. 2.

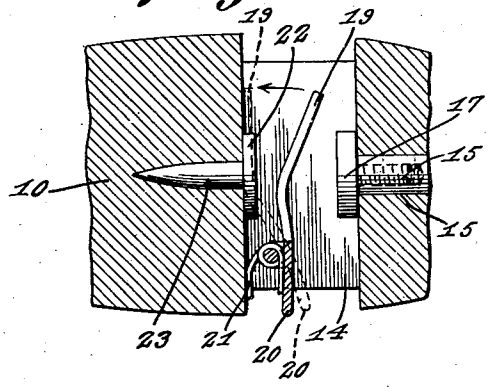


Fig. 3.

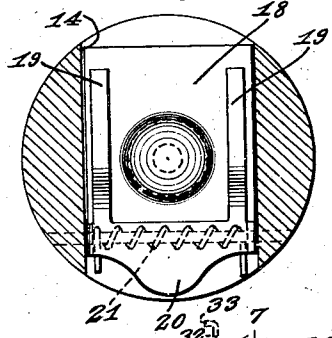


Fig. 4.

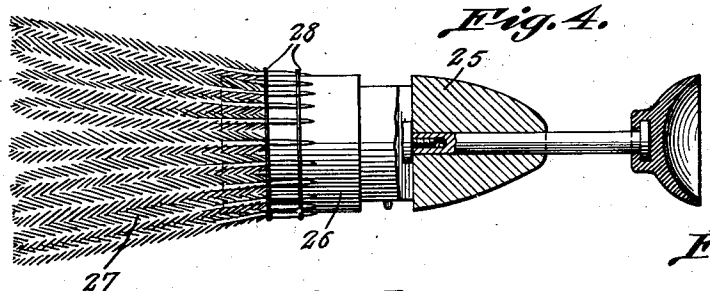


Fig. 5.

Fig. 6.

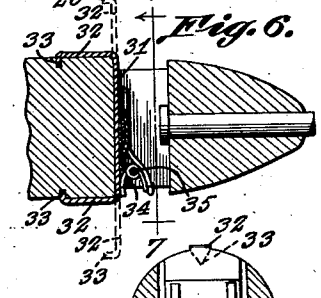
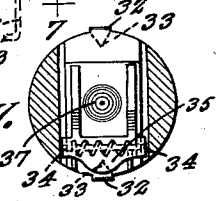


Fig. 7.



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ATTORNEYS

Patented June 7, 1938 2,119,524

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EXPLODING DART

Yew Char, Honolulu, Territory of Hawaii

Application April 24, 1937, Serial No. 138,841

3 Claims. (Cl. 46—176)

The invention relates to a detonating toy and more especially to a toy torpedo or exploding dart.

The primary object of the invention is the provision of an article of this character, wherein the same when thrown at a target or other point of contact detonating sound will be had in that an exploding cap or other explosive medium will be caused to explode resultant from the impact and in this manner creating amusement and excitement to a user thus rendering attractiveness to the toy.

Another object of the invention is the provision of an article of this character, wherein an aerial object in the nature of a dart will be caused to explode a charge of explosive when impact is had by the striking of the dart against an object to which the same may be thrown or directed thus assuring a detonating sound and at the same time the nose end of the article will be caused to stick to the target when striking the same thereby enabling one to determine accuracy in the throwing of such toy for the hitting of a target or the like.

A further object of the invention is the provision of an article of this character, wherein the explosive medium, such as a firing cap, can be conveniently and easily held in place for the exploding thereof in the use of the dart, the latter being of novel construction and affords interest and attractiveness in the handling thereof.

A still further object of the invention is the provision of an article of this character which is simple in construction, thoroughly reliable and efficient in its operation, neat and attractive in appearance, affording amusement in the use thereof, strong, durable, and inexpensive to manufacture.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawing, which discloses the preferred embodiment of the invention and pointed out in the claims hereunto appended.

In the accompanying drawing:

Figure 1 is a side elevation of the article constructed in accordance with the invention and partly in section.

Figure 2 is an enlarged fragmentary vertical longitudinal sectional view.

Figure 3 is a sectional view on the line 3—3 of Figure 1 looking in the direction of the arrows.

Figure 4 is a view similar to Figure 1 showing a modification.

Figure 5 is a side elevation partly in section of a modified form of firing pin.

Figure 6 is a fragmentary vertical longitudinal sectional view similar to Figure 2 showing a further modification.

Figure 7 is a sectional view on the line 7—7 of Figure 6 looking in the direction of the arrows.

Similar reference characters indicate corresponding parts throughout the several views in the drawing.

Referring to the drawing in detail, particularly Figures 1 to 3 inclusive, the article constituting the present invention is in the nature of a dart or an aerial toy and comprises a body 10 having a forwardly tapered and rounded nose end 11 and a gradually reduced reversely tapered rounded tail end 12, respectively, the said body between the ends being of circular contour. Fitting the tail end 12 are the tail wings 13, these arranged preferably as shown in Figure 1 of the drawing. Formed a determined distance rearwardly of the nose end 11 in the body 10 is a transverse opening forming a firing chamber 14 while slidable centrally through the body 10 forwardly of said chamber 14 in a bore 15 is a firing pin 16 having at its inner end a button-like striking head 17 which through impact on the throwing of the dart explodes a firing cap, wafer or the like 18, this being held in the chamber in the path of the striking head 17 by a clamp 19 of substantially U form having a finger grip 20 and such clamp is spring tensioned as at 21. The U form of the clamp 19 exposes the cap or wafer 18 in the path of the striking head 17 within the firing chamber 14 and stationarily holds such cap or wafer upon a stationary button-like bed 22 matching with the head 17, the bed 22 being formed with a prong 23 for the fastening of the same in place within the chamber 14 in the path of said head 17.

The firing pin 16 is of the required length and is frictionally held within the bore 15 so as to protrude outwardly of the nose end 11 of the body 10 while on the outer end of said pin is a vacuum cup 24 whereby on the striking of the pin upon a target or other object to be hit the cup 24 will hold the article or dart at the point of strike to the target while the impact of the strike will drive the pin 16 inwardly for the exploding of the cap or wafer 18 and in this manner having the said dart assure a detonating sound. The cap or wafer 18 is manually

placed within the firing chamber 14 and held in exploding position by the clamp 19.

In Figure 4 of the drawing there is shown a slight modification wherein the body 25 has an abrupt tail end 26 about which is fastened annularly exteriorly thereof by tie wires 28 a series of feathers 27, these constituting the tail of such dart.

In Figure 5 of the drawing there is shown a modified form of firing pin 29 having an outer pointed tip 30 for penetrating a target for the fastening of such pin therein when striking the said target. This pin 29 can be in substitute for the pin 16.

In Figures 6 and 7 of the drawing there is shown a further modification wherein a bed or plate 31 is substituted for the button-like bed 22 and is insertable in the transverse opening forming the firing chamber and has the bendable tongues 32 at opposite ends, these tongues being provided with biting spurs 33 which are driven into the body on the bending of the tongues from the dotted line position shown in Figure 6 to the full line position for the securing of the bed or plate 31 in place. Cut and struck outwardly from the bed or plate 31 are the ears 34 for the hinge or pivot pintle 35 swingingly mounting the clamp 36 which is spring pressed and carried by the bed or plate 31. In this manner the bed or plate 31 and the clamp 36 are a unit that can be readily and easily fitted in the body 10 at the opening therein constituting the firing chamber.

The bed or plate 31 has outstruck therefrom an impact bulge 37 affording a striking area for the firing cap or wafer for the successful firing of such cap or wafer by the firing pin as hereinbefore described.

What is claimed is:

1. An article of the kind described comprising a flying body having a firing chamber therein, a striking pin slidably fitting the body and movable into the firing chamber, a stationary bed for an explosive located in the path of movement of the striking pin and stationarily held in the chamber, and spring-pressed hand-operated means interiorly of the chamber for clamping an explosive upon said bed and exposing it in the path of movement of the striking pin and accessible from without the body.

2. An article of the kind described comprising a flying body having a firing chamber therein, a striking pin slidably fitting the body and movable into the firing chamber, a stationary bed for an explosive located in the path of movement of the striking pin and stationarily held in the chamber, spring-pressed hand-operated means interiorly of the chamber for clamping an explosive upon said bed and exposing it in the path of movement of the striking pin and accessible from without the body, and a hammer head on said pin and coacting with the bed for exploding the explosive when within the chamber.

3. An article of the kind described comprising a flying body having a firing chamber therein, a striking pin slidably fitting the body and movable into the firing chamber, a stationary bed for an explosive located in the path of movement of the striking pin and stationarily held in the chamber, spring-pressed hand-operated means interiorly of the chamber for clamping an explosive upon said bed and exposing it in the path of movement of the striking pin and accessible from without the body, a hammer head on said pin and coacting with the bed for exploding the explosive when within the chamber, and means on the pin for holding it engaged with a target when striking the same.

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