June 5, 1951 W. L. BECKER 2,556,057

ELECTRIC TARGET

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Fig. 1.

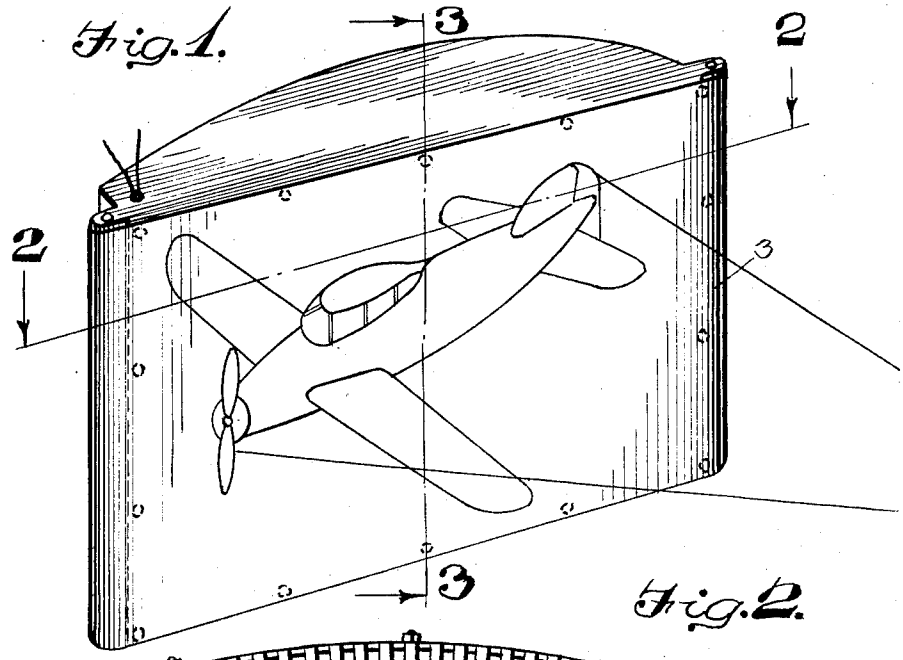


Fig. 2.

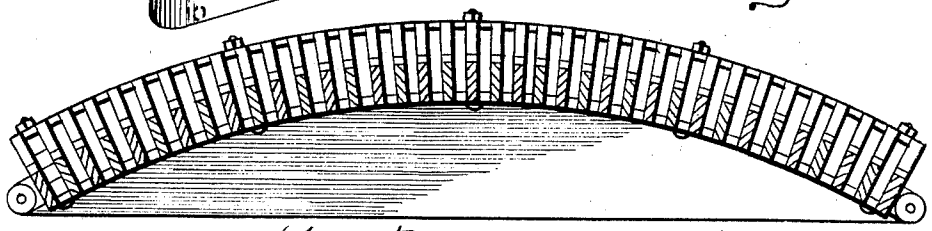


Fig. 3.

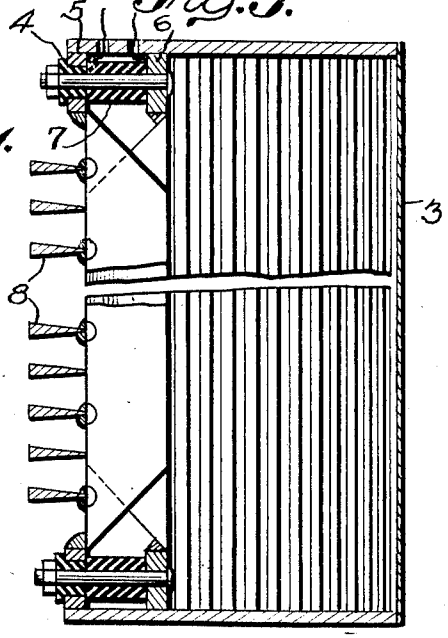


Fig. 4.

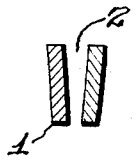
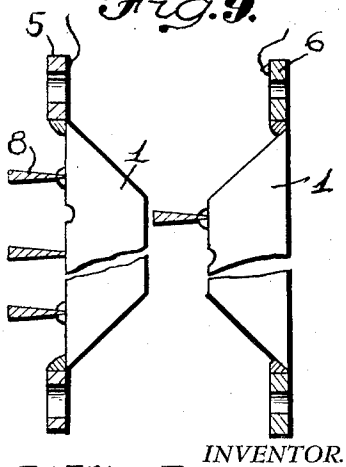


Fig. 9.



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Fig. 5.

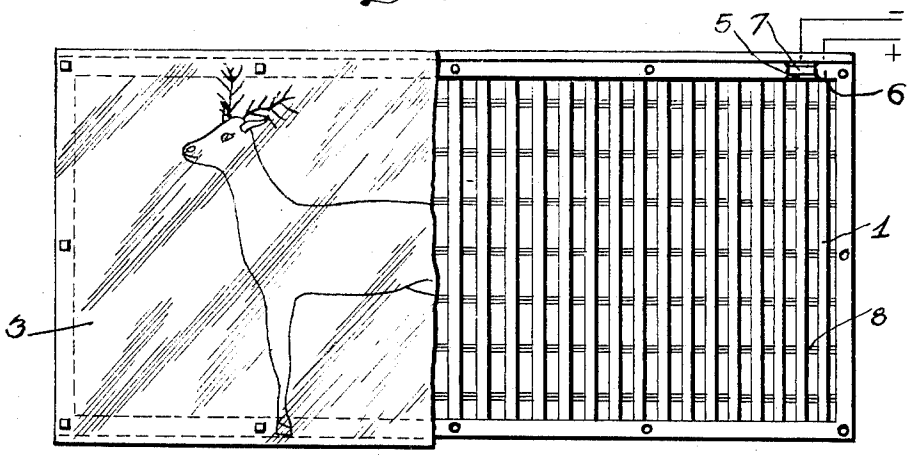


Fig. 6.

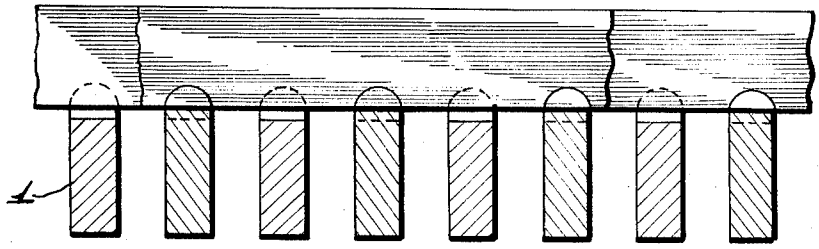


Fig. 7.

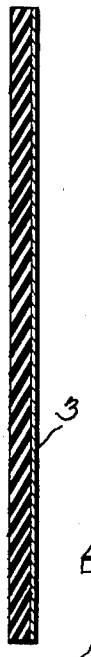
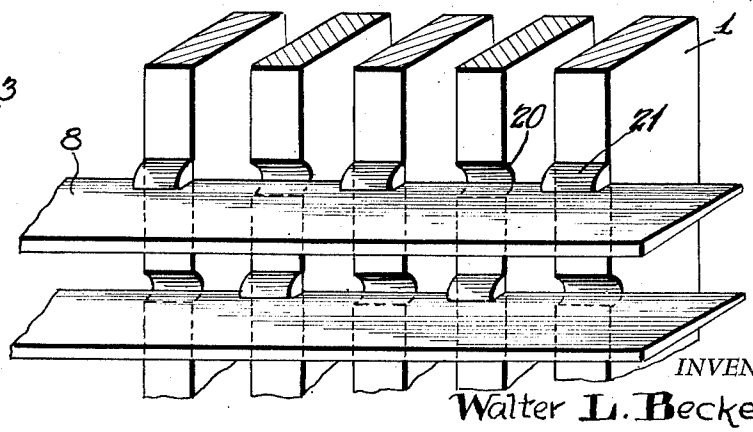


Fig. 8.



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ELECTRIC TARGET

Walter L. Becker, Tamms, Ill.

Application December 19, 1946, Serial No. 717,169

5 Claims. (Cl. 273—102.2)

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This invention relates to improvements in amusement devices, and more particularly to the provision of a device which is actuated by the firing of a bullet from a gun.

It is a custom at the present time to indulge in games and artifices which necessitates skill. Such pastimes not only are intriguing to the players but also have an educational value.

It it an object of this invention to provide a mechanical device, which has electrical principles, whereby the skill of a player is developed.

A further object of the invention is to provide a device in which a bullet is broken into small fragments upon impact.

A further object is to provide an electrical target at which bullets may be shot while the target is still in motion, the effect of the bullets being projected upon a screen, delineating the efficacy of the operator.

These and other objects are attained by the novel construction and arrangement of parts hereinafter described and illustrated by the accompanying drawings, forming a part hereof, and in which:

Fig. 1 is a plan view of a device embodying the invention.

Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1.

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 1.

Fig. 4 is a sectional view of bars used in the device.

Fig. 5 is an elevational view of the device.

Fig. 6 is a sectional view of a grill used in connection with the invention.

Fig. 7 is a cross section of a screen used in the device.

Fig. 8 is the perspective view of the bars.

Fig. 9 is a side view of the device, partly in section, showing details of bars used in the device.

Referring to the drawing, the device is shown to comprise a plurality of hard metal bars 1, which are arcuately assembled as shown in Fig. 2. The bars are spaced, the spacing being greater at the rear of the bars than at the front, as indicated by the numeral 2. (See Fig. 4.) The manner in which the bars are assembled as shown, causes bullets to strike the bars always at the same angle as related to the shooter.

Over the front of the bars is a screen of translucent and resilient material 3, upon which is projected an image, which may be still or in motion.

The electric target, herein described, indicates

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to the shooter the exact point of impact of the bullet, as the lead bullet passing between the bars 1 makes an electrical contact which is rapidly broken, creating an intensely brilliant flash or arc. As the lead bullets pass through the bars which are connected to a source of electrical current, the bullets are broken into a large number of small fragments, most of which, pass between the bars, and upon leaving the bars open the electric circuit to create an intense flash which indicates momentarily where the bullet has struck the target.

The bars are spaced as shown in Fig. 4, to allow for passage of the lead fragments. The bars are joined together at the top and sides by bolts 4, and frame bars 5 and 6, which are insulated from each other by an insulating bushing, the bars 5 and 6 being alternately welded to the vertical bars 1 as shown in Fig. 9. The bar 5 is connected to one terminal of a source of electric current and the bar 6 is connected to the other terminal of the source. Bar 5 is connected to alternate bars, and the bar 6 is connected in a similar manner, so that neither the bar 5, or the bar 6, is connected to two adjacent bars 1. This prevents the possibility of a short circuit and eliminates the necessity of providing insulation between the vertical bars 1.

Horizontal brace bars are provided as shown at 8, in Fig. 9. These braces 8 are preferably made of brass and wedge shaped as shown in the drawings, the front edge thereof being sharp, and welded to alternate bars 1, to prevent the possibility of a short circuit.

As stated above, the braces 8 do not engage adjacent bars 1, but contact every-other bar, as shown in Fig. 8.

The bars 5 and 6 are separated from each other by suitable insulating means, at spaced intervals, as indicated in Fig. 1 and Fig. 5.

In operation, a bullet fired at a projected image, passes through a screen and comes in contact with the bars 1, which are of such size and so spaced that the bullet is broken into small fragments, most of which pass between the bars, and create an intensely brilliant flash. This flash being in direct line with the point of aim, is seen through the screen and gives the illusion of occurring directly on the screen at the point where the bullet strikes. The bullets may be fired at any desired rate since each provides its own flash.

There are no moving parts or wires, and the construction is such that it may be used indefi-

nitely without apparent damage when used with the proper bullets.

The screen 3 is made of a translucent substance which is also resilient, such as rubber, one surface of which is coated with a pigment to receive and reflect projected images. The screen is different from the ordinary screen in that perforations made by bullets are self closing and it may be used indefinitely before requiring replacement.

The arrangement of the bars prevents the lodging of fragments between the bars to cause short circuits, and the frame between the bars is open at the bottom so that fragments can drop out.

The frame bars 5 and 6 are so arranged that bullets are prevented from coming in contact therewith, and thus preventing damaging of insulating materials.

Since it is known that a greater arc occurs by "breaking" a circuit, the above construction is that no insulation is used between the bars 4, and the lead fragments are enabled to form arcs at the front, in between and at the time of leaving the rear edges of the bars. This enables a multiple series of arcs which appear as one large flash, as far as the eye can determine.

The bars, as shown in Fig. 9, when assembled are side by side and spaced from each other with the front edges flush. In order that the brace bars 8 will not touch vertical adjacent bars 4, recesses are cut in alternate vertical bars as shown at 20, in Fig. 8, and lugs 21 project from the vertical bars 4, for attachment to the braces 8, so that a brace 8 does not contact adjacent bars 4.

The above description is to be considered as illustrative and not limitative of the invention of which modification can be made, without departing from the spirit and scope of the invention as set forth in the appended claims.

The invention having been described, what is claimed is:

1. In an electrical target device, a plurality of spaced vertical bars adapted to be abridged by a conductor, the bars being arranged to provide a curved target with the center of the curve being disposed inwardly of the outer ends of the target when in operative position, means for applying the opposite poles of an electrical current to alternately disposed bars and the current is supplied to the alternately disposed bars to provide two independent sets of bars that are supplied by independent circuits, a screen of flexible and resilient material in front of said bars, said screen being adapted to receive a projected image, and horizontally disposed bracing means for connecting the two independent sets of alternate bars so that there is no connection between said bars except when a conductor is placed between adjacent bars, and the bars being so spaced that a conductor the size of a rifle bullet will bridge the bars to provide the necessary electrical contact.

2. In an electrical target device, a plurality of spaced vertical bars adapted to be bridged by a conductor, the bars being so spaced that a conductor the size of a rifle bullet will bridge the bars to provide the necessary electrical contact frame bars connected to said bars and to the opposite poles of a source of electrical current, said frame bars being insulated from each other and having connection to alternate vertical bars so that no frame bar is connected to two adjacent vertical bars, and a screen of flexible and resilient material positioned in front of all of said bars.

3. The structure set forth in claim 2, further characterized by said vertical bars being arcuately arranged with the space between adjacent bars widening from the front of the bars to the rear.

4. A structure set forth in claim 2, further characterized by a plurality of brace bars connected to said vertical bars, said brace bars being horizontally arranged and each brace bar being connected to every other vertical bar.

5. A structure set forth in claim 2, further characterized by brace bars connected to the vertical bars by welding, said brace bars being horizontally arranged and wedged shaped, and connected to alternate vertical bars so that there is no normal electrical connection between adjacent vertical bars.

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