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PATENTED APR. 9, 1907.

W. E. SHAW.  
AMUSEMENT TARGET.  
APPLICATION FILED JUNE 6, 1906.

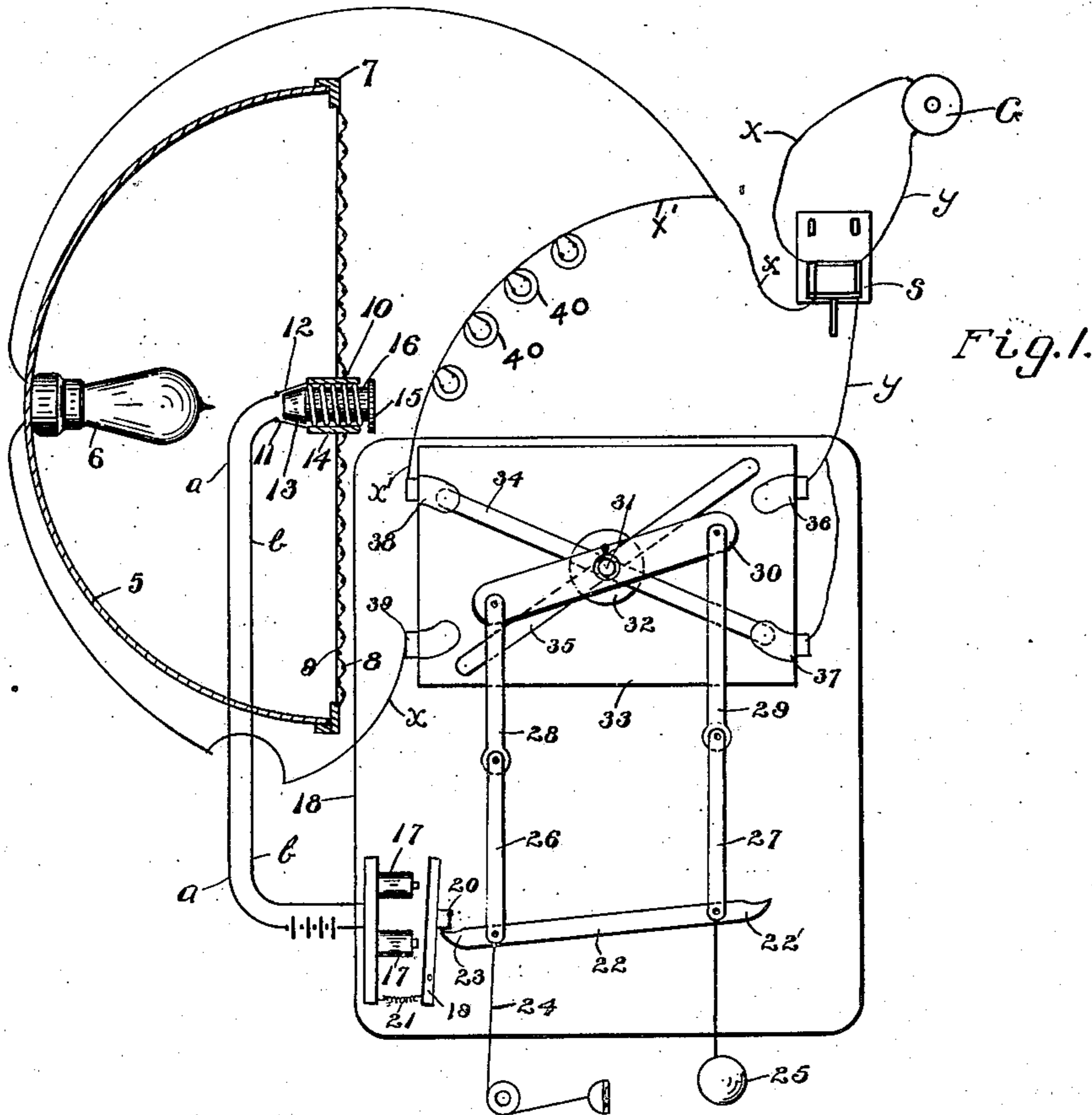
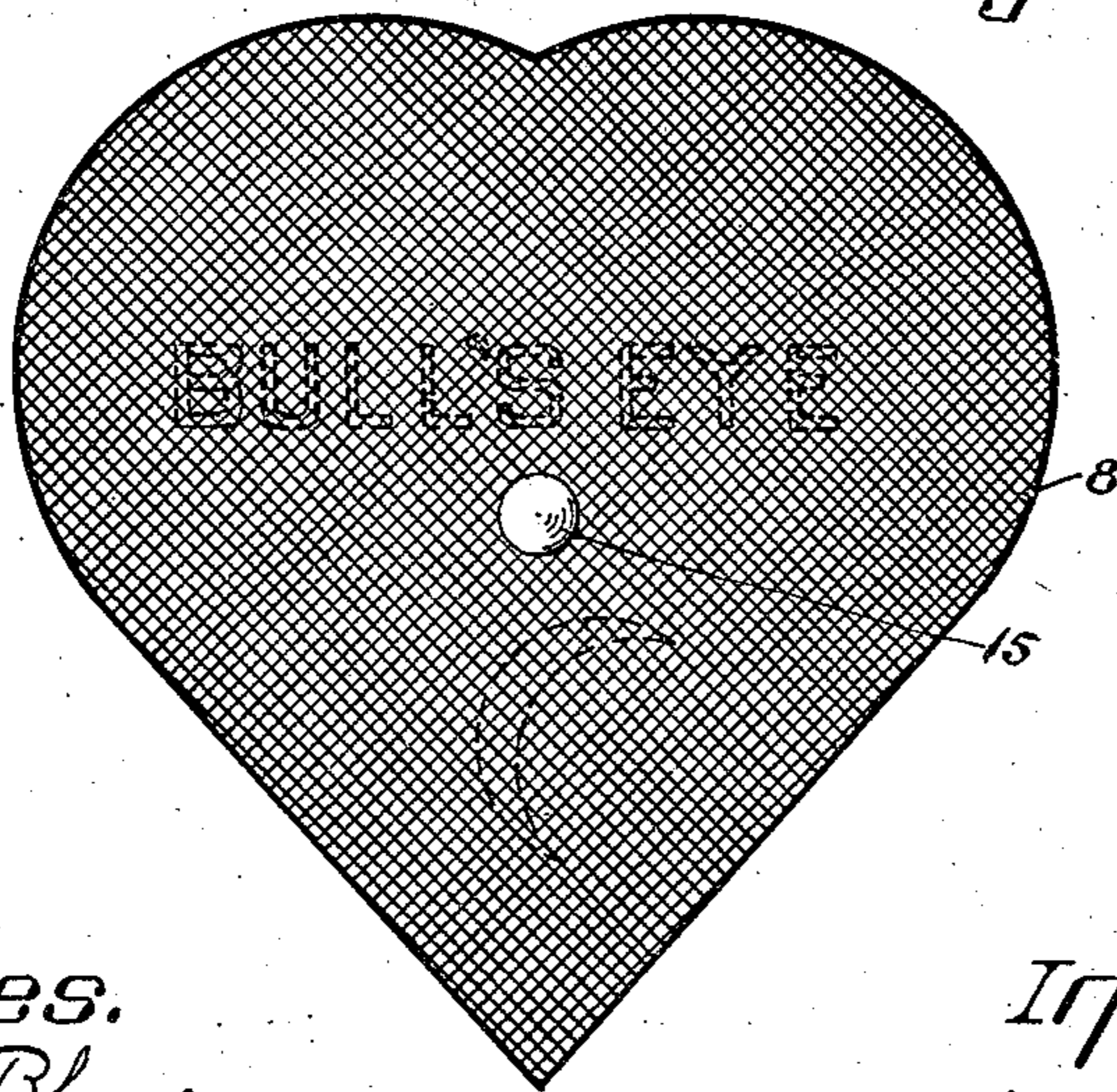


Fig. 1.

Fig. 2



Witnesses.  
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# UNITED STATES PATENT OFFICE.

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## AMUSEMENT-TARGET.

No. 850,063.

Specification of Letters Patent.

Patented April 9, 1907.

Application filed June 6, 1906. Serial No. 320,393.

*To all whom it may concern:*

Be it known that I, WILLIAM E. SHAW, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Amusement-Targets, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to improvements in amusement-targets.

One object of the invention is to so construct a target that electrical illumination of the target may be effected as a result of the impact of a projectile against a part of the target.

Another object of the invention is to so construct a target of this nature furnished with electrical exterior and interior illuminating means that the exterior circuit may be opened and the interior circuit closed by the action of a magnetically-actuated controller and an electric circuit having a circuit-closing device adapted to be operated by the impact of a projectile.

Other objects of the invention will appear from the following description.

The invention consists in the peculiar construction of the target.

The invention also consists in the peculiar construction of the target and the means for illuminating the interior thereof, together with the peculiar means for opening and closing the circuit thereof.

The invention also consists in a target furnished with interior and exterior electrical illuminating means and circuits and a switch for controlling said circuits.

The invention also consists in such other novel features of construction and combination of parts, as shall hereinafter be more fully described, and pointed out in the claims.

Figure 1 represents a vertical sectional view of the target with a view of the circuit-controlling devices and a diagrammatic view of the electrical circuits. Fig. 2 represents a front view of the improved target.

Similar numerals of reference designate corresponding parts throughout.

As shown in the drawings in its preferred form, 5 designates a concave reflector of any desired shape in cross-section and provided with the interior electrical illuminating

means 6. The front of the target is formed by a frame 7, mounted on the edge of the reflector 5 and having a front 8, formed of foraminous material, preferably of wire-cloth. Also secured to the frame 7 is a sheet 9, preferably of material impervious to light and having letters, words, or symbols cut out therefrom or rendered transparent in any suitable manner. Through an opening in this front extends the sleeve 10, having at its inner end the insulated electric terminals 11 and 12 of the electric circuit *a b*. Within the sleeve 10 is slidably mounted the circuit-closer 13, having the stem 14 and the disk 15, which is designed to represent the bull's-eye of the target, the spring 16 acting to press the disk 15, the stem 14, and the circuit-closer 13 outward, whereby the circuit *a b* is normally open between the terminals 11 and 12.

The circuit *a b* includes an electric battery and the coils of the magnet 17, located at a distance from the target and preferably mounted on the vertical support 18, on which is pivotally mounted the armature 19, having the projection 20 and connected at its lower end by the tension-spring 21 with some fixed part of the support, this spring exerting a strain on the lower part of the armature 19 to swing the upper portion thereof away from the magnets.

Pivotally mounted on the support 18 is the lever 22, having the notched end 23, adapted to engage beneath the projection 20 on the armature 19, whereby this end of the lever 22 is normally held in the depressed position. To this end of the lever 22 is secured the drawing wire or rope 24, which may lead to any convenient point, while to the end 22' of the lever 22 is secured the weight 25, which when the notched end 23 is released from the projection 20 of the armature draws downward the end 22' of said lever. The links 26 and 27 are pivotally connected with the end portions of the lever 22 and respectively with the connecting-rods 28 and 29, which are in turn pivotally connected with the operating-lever 30 of any suitable electric switch of which a simple form is herein shown. This lever 30 is secured to the shaft 31, rotatably mounted in the bearing 32 of the switch-plate 33, which plate is mounted on the support 18 and having the

circuit-closers 34 and 35 insulated from each other in any ordinary and well-known manner. The plate 33 is also furnished with the electric terminals 36 37 and 38 39.

- 5 The arms of the electric circuit  $x y$  extend from the generator G or other source of electric energy through an ordinary knife-switch S, the arm  $y$  of said circuit being connected with the terminals 36 and 37, while  
 10 the arm  $x$  extends to and through the lamp 6 within the target to the terminal 39. From the arm  $x$  a half-connection  $x'$  is made by a conductor leading through the exterior or room lights 40 40 to the terminal 38.
- 15 With the circuit-closer 34 in the position shown in the drawings the electric circuit  $x x' y$  is complete between the terminals 37 and 38, and electric current is supplied to the exterior or room lights 40 40, so that the  
 20 face 8 of the target is illuminated while the circuit  $x y$  is open between the terminals 36 and 39. If now the bulls-eye or disk 15 is pushed inward, as by the impact of a projectile, the circuit  $a b$  will be completed by the  
 25 contact of the circuit-closer 13 with terminals 11 and 12. The magnet 17 will be energized by the electric current and will attract the armature 19, thus disengaging the projection 20 from the end 23 of the lever 22 and  
 30 permitting the weight 25 to draw downward the end 22' of said lever 22. By means of the connections between the levers 22 and 30 the latter lever will be swung to rock the shaft 31 and to swing the circuit-closer 34 out  
 35 of contact with the terminals 37 and 38, the circuit-closer 35 being at the same time swung into contact with the terminals 36 and 39, whereby the circuit  $x y$  is completed between these terminals and electric current  
 40 is supplied to the interior lamp 6, while the exterior lamps 40 40 are cut out of circuit. The rays of light from the lamp 6 will illuminate the transparent portions of the sheet 9, and this illumination will appear to be particularly effective through the sudden extinguishing of the exterior or room lights.  
 45 In practice it is intended that the transparent lettering or symbols on the sheet 9 shall be of an entertaining or humorous nature.
- 50 While I prefer to utilize both the exterior and the interior illuminating means, it is evident that the exterior lighting-circuit may be omitted without departing from the spirit of this invention. It is also evident that the

action of the armature 19 may be utilized 55 for any suitable purpose other than that herein set forth.

I do not limit myself to the particular shape of the target herein shown, as it is evident that the face of the target may be of 60 any desired shape and that the compartment back of said face may be of any suitable shape and construction.

Having thus described my invention, I claim as new and desire to secure by Letters 65 Patent—

1. A target comprising a compartment having a foraminous face, an electric lamp mounted in the compartment, electrical circuits for supplying current to said lamp, controlling means for said circuit, an electric-circuit closer movably mounted in the face 70 of the target, an electric circuit having terminals adapted to be closed by said circuit-closer, a magnet in said latter circuit, and means normally held in the inoperative position by the armature of said magnet for operating the controller for the lighting-circuit.

2. A target comprising a face, a circuit-closer movably mounted on said face, an 80 electric circuit including terminals, adapted to be closed by said circuit-closer, and a magnet, an armature for said magnet, an electric circuit exterior to the target and including electrically-operated devices, a controller for 85 said exterior circuit, and actuating means for said controller normally held inoperative by said armature.

3. A target comprising a compartment having a foraminous face, interior and ex- 90 terior electrical illuminating means for the target including electrical circuits and a switch for connecting said circuits alternately with a source of electric energy, a magnetically-controlled actuator for said 95 switch, an electric circuit connected with said magnet and having terminals located adjacent the face of the target, and a circuit-closer for said terminals movably mounted on the face of the target and having a part 100 adapted to receive the impact of a projectile, as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM E. SHAW.

Witnesses.

HENRY J. MILLER,  
 PHYLLIS TONER.