

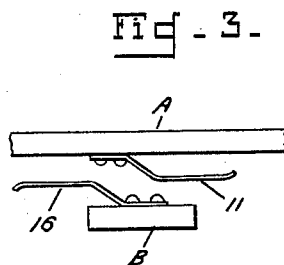
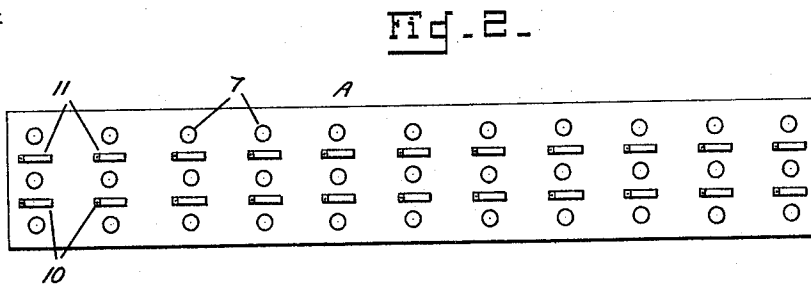
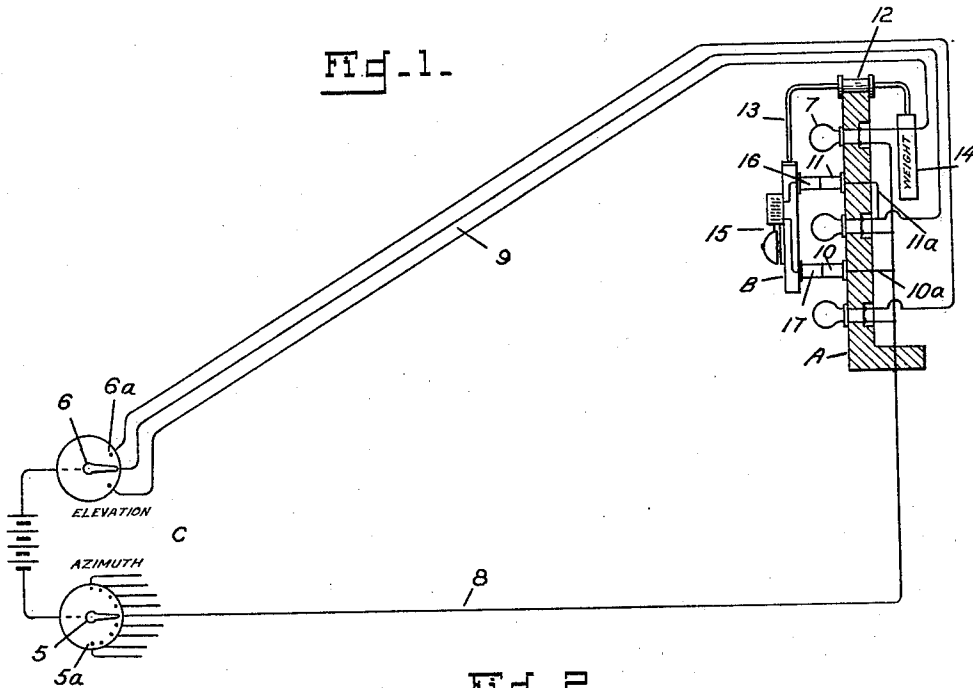
Nov. 29, 1932.

J. C. KARNES

1,889,202

AIM REGISTERING TARGET

Filed May 20, 1931



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AIM REGISTERING TARGET

Application filed May 20, 1931. Serial No. 538,789.

(GRANTED UNDER THE ACT OF MARCH 3, 1883, AS AMENDED APRIL 30, 1928; 370 O. G. 757)

The invention described herein may be manufactured and used by or for the Government for governmental purposes, without the payment to me of any royalty thereon.

This invention relates to an aim-registering target.

The purpose of the invention is to provide an aim-registering, annunciating target particularly applicable to the apparatus shown in my patent No. 1,803,064 of April 28, 1931.

In the patent the target moves across a series of lights which are illuminated in accordance with the pointing of a gun or director. In the present invention the electrical circuits for the lights are conveniently employed to actuate an audible signal when a hit is scored.

To these and other ends, the invention consists in the construction, arrangement and combination of elements described herein-after and pointed out in the claims forming a part of this specification.

A practical embodiment of the invention is illustrated in the accompanying drawing, wherein:

Fig. 1 is a more or less diagrammatic view of the training apparatus and showing the target in vertical section.

Fig. 2 is a view in front elevation of the indicator, and

Fig. 3 is a sectional view showing the relation between the contacts of the target and indicator.

Referring to the drawing by characters of reference.

The training apparatus consists generally of an indicator A representing a target course, a target B and a director C movable in azimuth and elevation which movements are respectively represented by the switches 5 and 6.

Lamps 7 arranged in rows on the indicator A are energized through the director C, each vertical row having a lead wire 8 connecting it with one of the contacts 5a of the azimuth switch 5 and each horizontal row having a lead wire 9 connecting it with one of the contacts 6a of the elevation switch 6. The indicator is also provided with contacts 10 and 11 between the intermediate and adjacent lamps

of each vertical row. The lower contact 10 is connected by a lead wire 10a to the lead wire 8 and the upper contact 11 is connected by a lead wire 11a to the lead wire 9 of the intermediate horizontal row of lamps.

The target B is supported on a carriage 12 by means of a bracket 13 and is balanced by a counterweight 14. The target carries an electric bell 15 whose contacts 16 and 17 have a rubbing engagement with the contacts 10 and 11 of the indicator. Accordingly the bell will be energized synchronously with the lamp in line with the target and as the target moves across the course an audible signal will indicate the correct pointing of the director C.

As in the patent the contacts 5a and 6a are preferably offset with relation to the corresponding lamps 7 so that the lateral and vertical lead to be given the director will be accurately represented as deflection from the line of sight. In tracking the target the flashes produced in the vicinity thereof are used as references to properly adjust relaying of the director.

While the indicator A represents a straight target course it is to be understood that departures from such a course may readily be provided.

I claim.

1. Apparatus for training in laying a gun including in combination, a plurality of illuminating indicators, a switch representing a gun and movable in azimuth and elevation, contacts offset with respect to the line of sight to the indicators an amount corresponding to lateral and vertical lead to be given a gun, an electrical circuit, a target movable across the indicators, and an audible signal carried by the target and energized synchronously with the indicator in line with the target.

2. Apparatus for training in laying a gun including in combination a movable target, a director, means under control of the director for illuminating points on and near the course of the target, and an audible signal carried by the target and energized synchronously with illumination of the target.

3. Apparatus for training in laying a gun including in combination a movable target,

a director, means under control of the director for illuminating points on and near the course of the target, and an audible signal energized synchronously with illumination of the target.

4. A practice apparatus including in combination a movable target, an indicating means, a pointing member, electrical connections between the pointing member and indicating means, and an audible signal energized synchronously with the indicating means.

5. A practice apparatus including in combination a movable target, a pointing member, electrical connections between the pointing member and target, and an audible signal carried by the target and energizable by the pointing member when the pointing member bears a predetermined positional relation to the target.

6. A practice apparatus including in combination a movable target, a pointing member, electrical connections between the pointing member and target, and an audible signal energizable by the pointing member when the pointing member bears a predetermined positional relation to the target.

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