

Nov. 29, 1927.

J. M. HILL

1,650,940

AUTOMATIC RECORDING TARGET

Filed Feb. 9, 1925

2 Sheets-Sheet 1

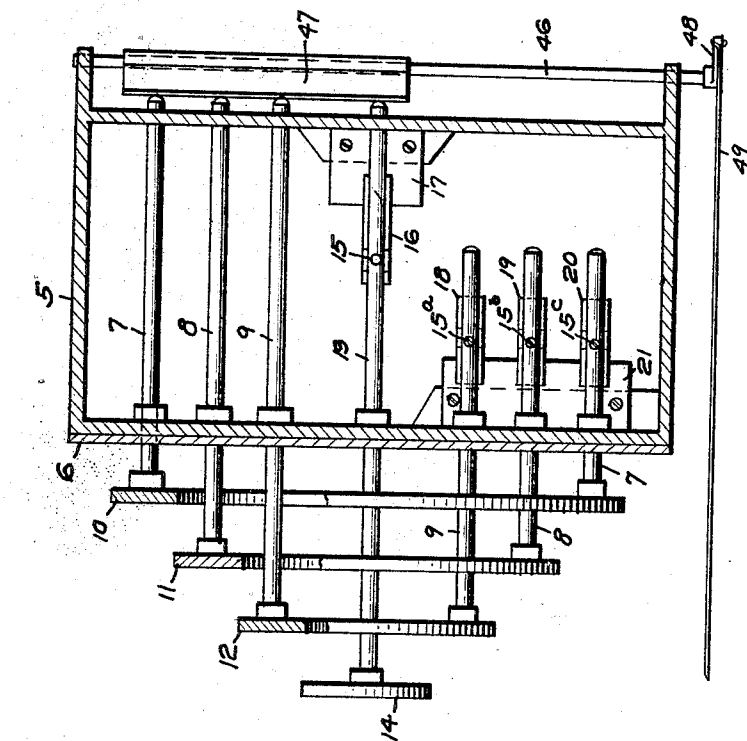


FIG. 2.

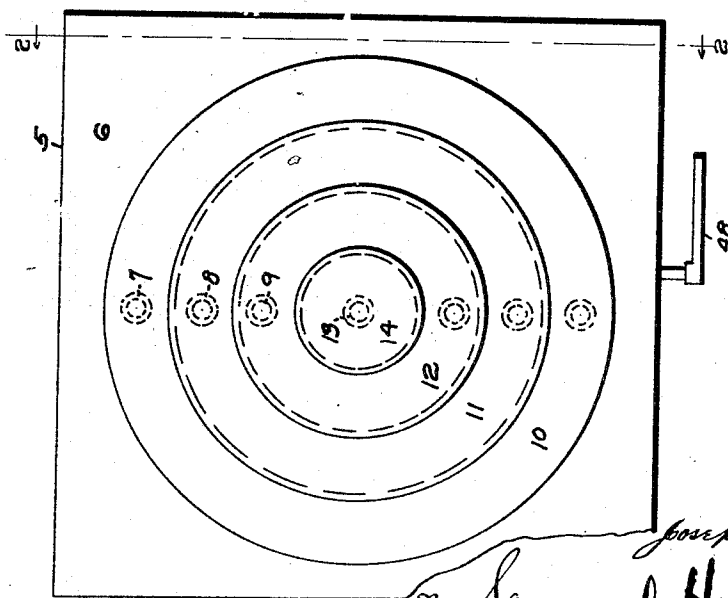


FIG. 1.

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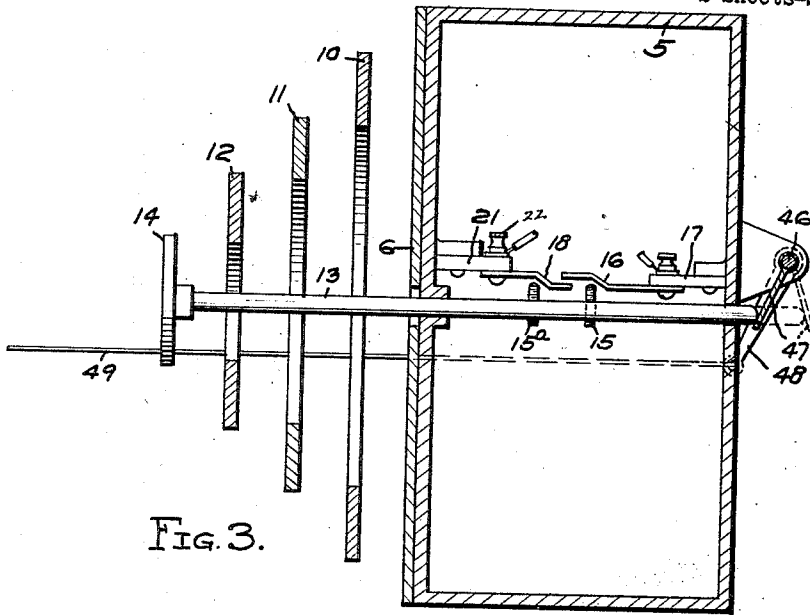


FIG. 3.

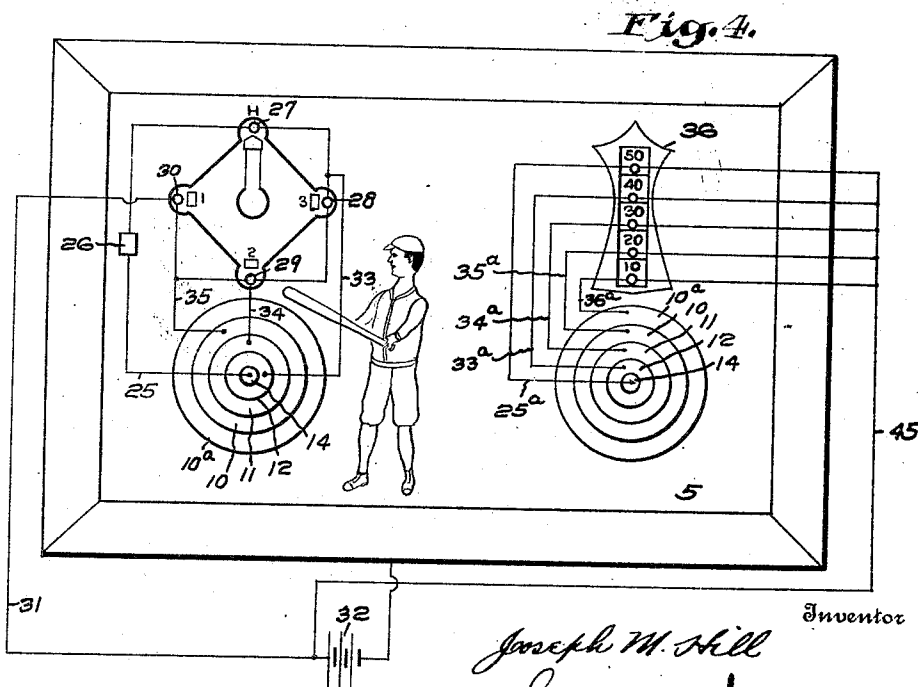


Fig. 4.

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AUTOMATIC RECORDING TARGET.

Application filed February 9, 1925. Serial No. 3,050.

This invention relates to an automatic recording target and it has for its object to provide an improved device of this character so constructed as to control a plurality of electric circuits in which suitable indicating or recording devices are included.

Further objects and advantages of the invention will be set forth in the detailed description which follows:

10 In the accompanying drawing:

Figure 1 is a front elevation of a target constructed in accordance with the invention.

15 Figure 2 is a vertical sectional view thereof.

Figure 3 is a horizontal sectional view with certain of the parts in elevation, and

20 Figure 4 is a diagrammatic view illustrating certain recording mechanisms adapted to be used in conjunction with the circuit making mechanisms of Figures 1 and 2.

Like numerals designate corresponding parts in all of the figures of the drawing.

25 Referring to the drawing, 5 designates a case which is preferably of metal and which is provided with a bullet proof, front face plate 6. Rods 7, 8 and 9 carry the ring like members 10, 11 and 12 of varying diameters and which are disposed in spaced or stepped relation to each other. An additional rod 30 13 carries a plate 14 constituting a bull's eye and the plate 14 in conjunction with the rings 12, 11 and 10 present a target like structure from the front. The rod 13 carries a pin or screw 15, which is adapted, when said rod is thrust inwardly by the impact of a bullet with the plate 14, to make contact with a spring contact strip 16, that is supported from an insulating block 17. One rod of 40 each of the pairs of rods 7, 8 and 9 is provided with one of the contact screws or pins 15^a, 15^b, 15^c, respectively, adapted to make contact with springs 18, 19 or 20 as the case may be, said springs being supported from an insulating block 21. The insulating blocks 17 and 21, (see Figure 3) carry contact screws or binding posts 22 that are associated with the several contact springs 16, 15^a, 15^b and 15^c. The wires that are attached to these binding posts lead through suitable indicating mechanisms hereinafter described, and then back to the frame 5. Since the metal rods 7, 8, 9 and 13 are in electrical communication with the rings 5, 55 it follows that a circuit will be completed through the indicating devices whenever the

contact screws 15, 15^a, 15^b or 15^c make contact with their respective contact springs. Thus, at the left hand side of Figure 4, I have diagrammatically illustrated how the circuit making mechanism of Figures 1 and 2 may be associated with electrical indicating devices arranged in the form of a base-ball diamond. If the bull's eye 14 be struck and thrust inwardly, in this case, a circuit 65 will be completed through conductor 25, bell 26, all of the lights 27, 28, 29 and 30 of the diamond and through a conductor 31 and battery 32 to the case 5. Since the case is in electrical connection with the rod 13, the circuit will be completed to the spring 16 by the movement of the rod 13. 70

If it be the ring 12 that is struck the circuit will be through a conductor 33, lights 28, 29 and 30 and then through the connections previously described. Thus it will be seen that in the case of a bull's eye or home run, all of the lights are lighted and the bell rings while if the second ring 12, is struck, a three base hit is indicated. If it is the ring 11 that is struck, a two base hit is indicated by the completion of a circuit through a conductor 34, lamps 29 and 30 and conductor 31 as previously indicated. If it is the ring 10 that is struck, then a single base hit is indicated through a conductor 35, only the single lamp 30 being illuminated. If ring 10^a is struck then no lamp is lighted and this may be counted a strike. 85

It is to be understood that I do not limit myself to the particular form which the recording mechanism may assume. At the right hand side of Figure 4, I have illustrated a structure in the nature of a vertical scale 36 and conductors 25^a, 33^a, 34^a, 35^a and 36^a complete the circuits through the respective sub-divisions thereof. All of the conductors named are connected to a common return conductor 45 which leads through the battery and to the case 5. 100

A common restoring member for restoring any or all of these rings and bull's eye plate to their initial position, consists of a vertical rock shaft 46 which carries a plate 47 of such length as to overlay the inner ends of all of the rods 7, 8, 9 and 13. The rock shaft 46 is provided with a crank 48 upon its lower end and this crank has a rod or wire 49 attached thereto so that the target may be restored to its initial position from a distance. 105

110 It is to be understood that the invention

is not limited to the precise construction set forth but that it includes within its purview whatever changes fairly come within either the terms or the spirit of the appended
5 claims.

Having described my invention, what I claim is:

1. A target of the character comprising a plurality of concentric rings and a bull's eye plate, rods by which said plate and rings are carried, spring contact strips disposed adjacent to said rods, and members carried by said rods and adapted to engage said spring contact strips, in combination with a restoring means for said rings and the bull's eye plate, consisting of a rock shaft and a plate carried thereby overlying the inner end of the rods of all of said rings and the rod of the bull's eye plate.

2. A device of the character described comprising a casing, a plurality of concentric rings disposed in advance thereof, a bull's eye plate disposed in advance of the outermost of said rings, a slidable rod by which the bull's eye plate is carried, a pair of slidable rods for each of the rings, a common return element overlying the inner ends of one of the rods of each ring and a circuit making element associated with the other rod of each of said rings.

3. A device of the character described comprising a casing, a plurality of contact-

ing rings of varying diameters disposed in advance thereof, a bull's eye plate disposed in advance of the outermost of said rings, a slidable rod by which said bull's eye plate is carried, a pair of rods slidably mounting the rings, a rock shaft, a plate carried by the rock shaft and overlying the inner ends of one of the rods in each ring, an insulated contact spring strip associated with the other rod of each ring and contact making members carried by said rods and adapted to engage said strips when said rods are thrust inwardly.

4. The combination with a target comprising a plurality of concentric contact making movable members, circuits associated with said members and adapted to be closed when said members are struck, a plurality of electric signals arranged in the form of a baseball diamond all of said signals being included in the circuit associated with the central or bull's eye member, three of said signals being included in the circuit associated with the next outer member, two of said signals being associated with the next outer member and one of said signals being included in the circuit associated with the next outer member.

In testimony whereof he affixes his signature.

JOSEPH M. HILL.