Jan. 25, 1955 H. GLASSEN, JR 2,700,546

TARGET WITH ELECTRICAL INDICATOR

Filed Feb. 26, 1952

Fig. 1

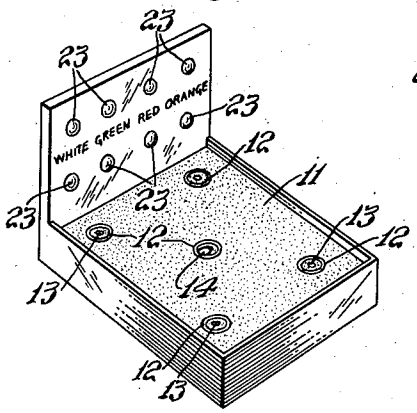


Fig. 2

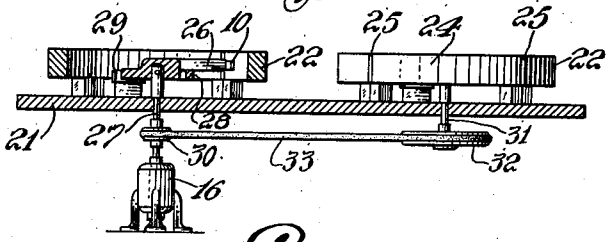


Fig. 3

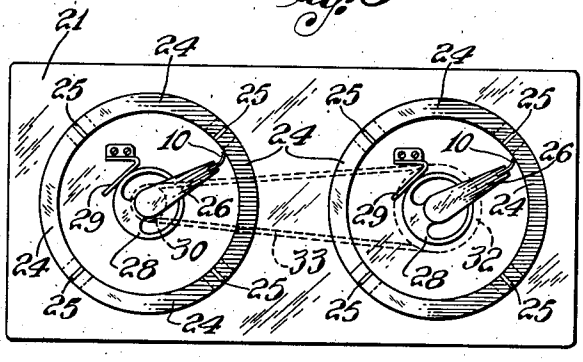
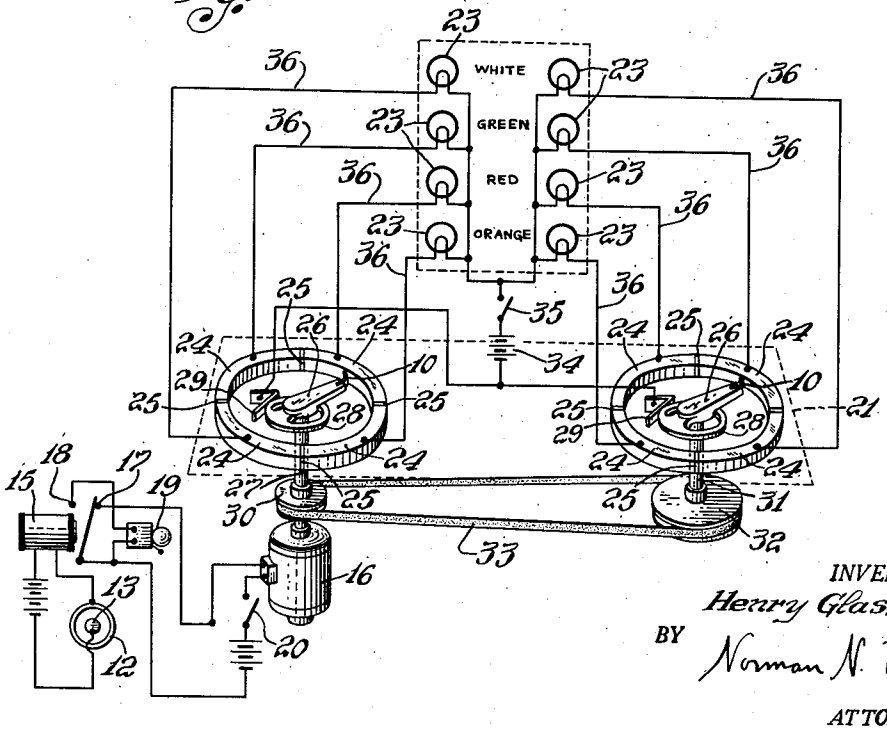


Fig. 4



INVENTOR.
Henry Glassen, Jr.
BY Norman N. Popper
ATTORNEY

United States Patent Office 2,700,546 Patented Jan. 25, 1955

2,700,546

TARGET WITH ELECTRICAL INDICATOR

Henry Glassen, Jr., Union Township, Union County, N. J.

Application February 26, 1952, Serial No. 273,454

2 Claims. (Cl. 273—102.2)

My invention relates generally to games of skill and specifically a mechanism for such a game.

It is among the objects of my invention to provide a means for operating two independent series of visible signals in succession and to cause the successive illumination to stop upon the performance of an act of skill coordinated in time with the coincidence of the two series of visible signals.

It is a further object of my invention to provide a game which requires the exercise of skill, judgment and timing in order to skillfully achieve the objects of the game.

It is a further object of my invention to provide a game of skill in which accuracy of placement, as an element in the game, must be coordinated with skillfull judgment of the time interval.

These objects and advantages, as well as other objects and advantages, may be achieved by the device illustrated in the appended drawings, in which:

Figure 1 is a view in perspective showing the playing surface or game board of my game of skill and the indicating lights;

Figure 2 is a side view of the rotary switches;

Figure 3 is a top view of the rotary switches; and

Figure 4 is a circuit diagram of my game.

Referring now to the drawings in detail, my game presents a playing board **11** having a plurality of contact rings **12** in the center of each of which is a contact spot **13**. A coin **14**, skillfully tossed, that lands upon and bridges the gap between a contact ring **12** and a contact spot **13**, will act to close a circuit and operate a relay **15**. The relay **15** opens the motor energizing circuit and causes the motor **16** to stop. Having broken with the contact **17** in so doing, the relay makes the contact **18** and causes a bell **19** to sound. The switch **20** opens the motor circuit when it is desired to stop the operation of the game for the relay **15** is normally closed as to the motor circuit.

Underneath the playing board **11**, a table **21** is provided to mount the rotary switches **22**. Since each switch is intended to operate in succession a series of four different colored lights **23**, the switches **22** are divided into four segments **24**, etc., and each of the segments is separated from the adjacent segment by an insulator **25**. It will be noted from Figures 2, 3 and 4 that there are two rotary switches, one controlling the one series of colored lights and the other controlling the other series of colored lights. A switch-arm **26** is mounted on the end of the motor shaft **27**. The switch-arm **26** has a contact ring **28** which in rotation makes continuous contact with the arm **29**. The end of the switch-arm **26** is provided with a flexible contact **10** that makes sweeping contact with each of the segments **24**. Mounted on the shaft **27** is a pulley **30**. The switch-arm **26** of the second rotary switch is mounted on a shaft **31** which in turn serves to mount a larger pulley **32**. The pulleys are connected together by a belt **33**. By reason of the disparate size of the pulleys **30** and **32**, it will be seen that one of the switches operates at a higher rate of speed than the other switch and consequently the lights of one series are constantly illuminated at a more rapid rate of speed than the lights of the other series. Thus, when the lights of each series are operated progressively, the one series will be illuminated successively more rapidly than the other series and although the lights may start out in phase, i. e., the same lights being illuminated in each series at the same

time, the lights will soon be operating out of phase, i. e., a different light will be illuminated in each series, until finally illumination progresses to the point where the lights are operated in phase again. A suitable source of power **34** is provided to illuminate the lights **23** and a switch **35** will serve to turn off the lights when the machine is not in operation. The power source **34** is connected to each of the lights in each series. The opposite leg of the light filaments in one series are connected by wires **36** each running to one of the segments **24** of the rotary switch. The contact arms **26** are connected to the power source. With the relay **15** in the position shown in Figure 4, the switch **20** is closed and the motor commences to operate the rotary switches **22**. The switch **35** is closed and series of lights commence to operate in succession independently of one another. The tossing of a coin **14** so that it lands on the contact ring **12** and the contact spot **13** will cause the relay to operate, thereby opening the motor circuit and closing the bell circuit. The bell **19** sounds and the motor **16** stops. If the person tossing the coin has timed his pitch properly in conjunction with the observable synchronization of the lights, the motor **16** will be stopped with the lights of the same color in each series illuminated. The achievement of this result may be said to be the object of the game of skill. The award for achieving this result may be appropriately larger than the award for merely having landed on the contact ring and contact button but only illuminating lights of different colors.

Assuming that the person has acquired such skill that he will unerringly be able to hit the contact ring **12** and contact button **13** with every pitch, the ease of his stopping the motor may be greatly increased by decreasing the disparity between the size of the pulley **30** and the pulley **32**. Thus if both of the pulleys are nearly of the same size, both series of lights, once they are in phase, (i. e. when both have the same light lighted at the same time), will remain in phase for a relatively long period of time. On the other hand, if the disparity between the size of the two pulleys is greatly increased, then the question of timing becomes a paramount factor and the difficulty of achieving the object of the game of skill is greatly increased because the skill in accuracy of tossing must be combined with a highly accurate sense of timing.

Although I have shown the lights **23** to be four in number, there may be a greater number. Likewise, instead of four segments **24**, there may be more, and even two, three or more segments **24** for each light **23**.

The foregoing description is merely intended to illustrate an embodiment of the invention. The component parts have been shown and described. They each may have substitutes which may perform a substantially similar function; such substitutes may be known as proper substitutes for the said components and may have actually been known or invented before the present invention; these substitutes are contemplated as being within the scope of the appended claims, although they are not specifically catalogued herein.

1. A game of skill comprising a first series of electrically illuminated signals each of different color than the other, a switch means for completing electrical circuits for successively illuminating the signals of the first series; a second series of electrically illuminated signals each of a different color than the other and corresponding in color and arrangement with the first series, a switch means for completing electrical circuits for successively illuminating the signals of the second series: an operating means for driving both of the aforesaid switch means at differing rates of speed; contacts disposed in spaced relation and adapted to be bridged by a coin cast across the contacts by a player, a means operably connected to the contacts and adapted to inactivate the operating means whereby the switch means are stopped and illuminate a single signal in each series.

2. A game of skill comprising a first series of electrically illuminated signals each of different color than the other, a switch means for completing electrical circuits for successively illuminating the signals of the first series; a second series of electrically illuminated signals

each of a different color than the other and corresponding in color and arrangement with the first series, a switch means for completing electrical circuits for successively illuminating the signals of the second series; said first and second series being disposed on a substantially vertical panel; an operating means for driving both of the aforesaid switch means at differing rates of speed; contacts disposed in spaced relation and adapted to be bridged by a coin cast across the contacts by a player; said contacts being disposed on a substantially horizontal panel; a means operably connected to the contacts and adapted to inactivate the operating means, whereby the switch means are stopped and illuminate a single signal in each series.

References Cited in the file of this patent

UNITED STATES PATENTS

689,365	McMullen	Dec. 17, 1901
1,557,255	Kiser	Oct. 13, 1925
1,646,095	Junker	Oct. 18, 1927
1,716,275	Junker	June 4, 1929
1,857,629	Epstein	May 10, 1932
2,460,770	Shirey	Feb. 1, 1949
2,562,787	Hitchings	July 31, 1951
2,586,121	Tilson	Feb. 19, 1952
2,587,381	Peterson	Feb. 26, 1952