

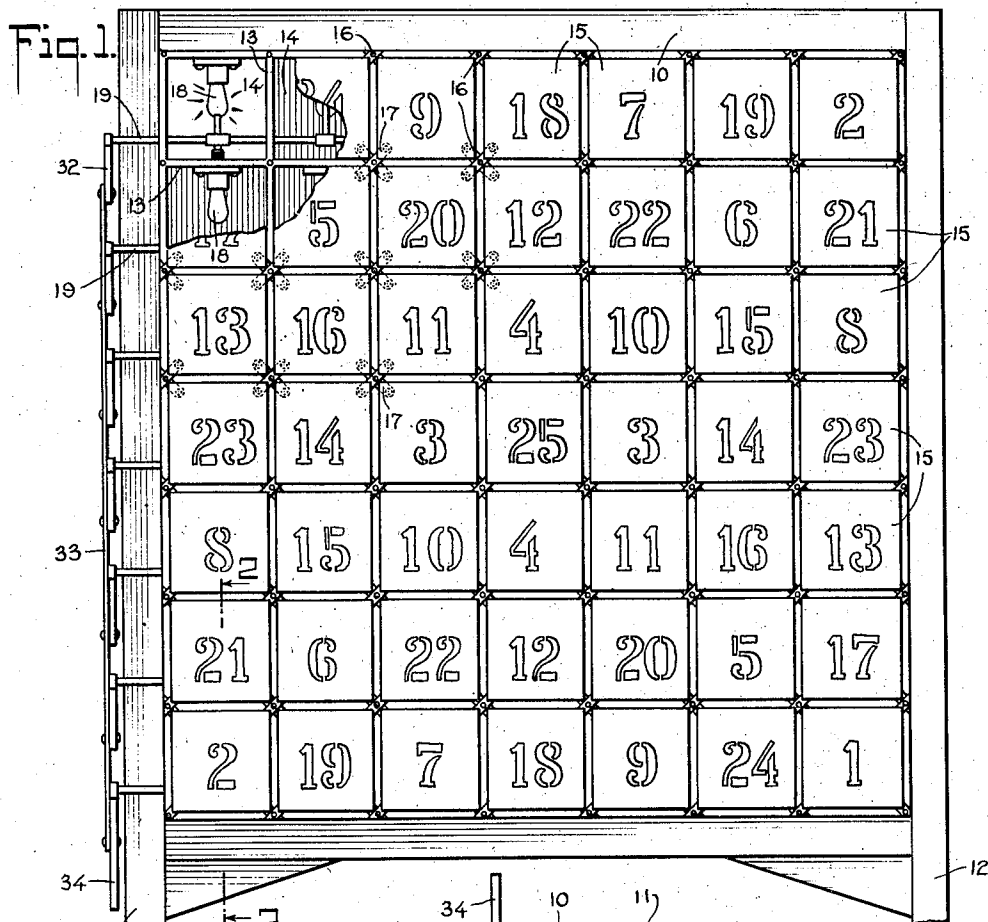
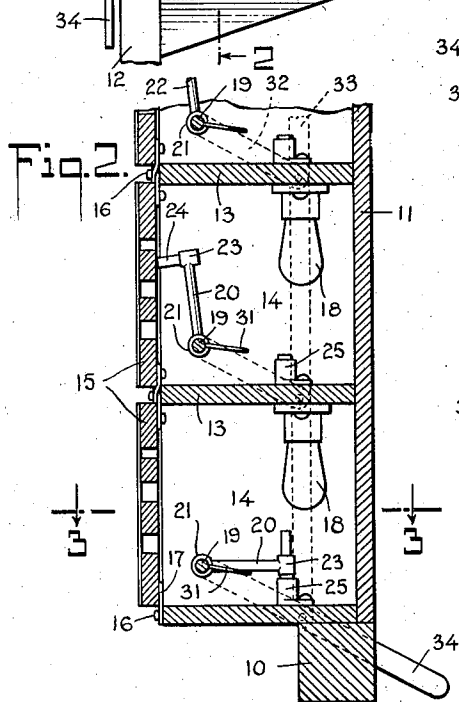
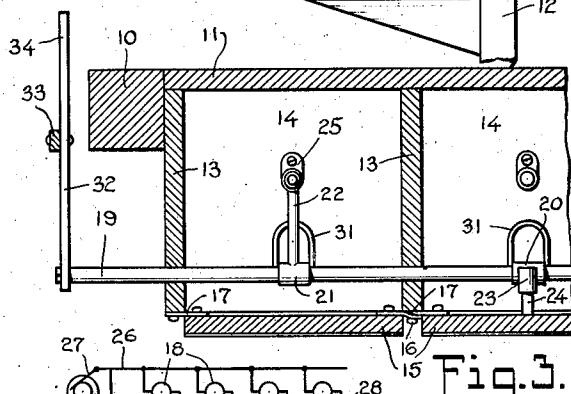
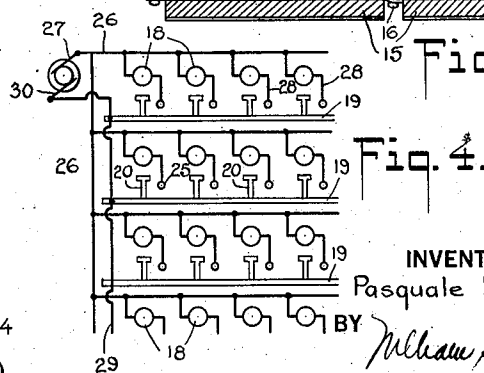
Jan. 12, 1926.

1,569,727

P. DONATO

GAME DEVICE

Filed Oct. 2, 1925



INVENTOR
Pasquale Donato
BY *William S. Glueck*
ATTORNEY

UNITED STATES PATENT OFFICE.

PASQUALE DONATO, OF NEW YORK, N. Y.

GAME DEVICE.

Application filed October 2, 1925. Serial No. 60,010.

To all whom it may concern:

Be it known that I, PASQUALE DONATO, a citizen of Italy, and a resident of the city, county, and State of New York, have invented new and useful Improvements in a Game Device, of which the following is a specification.

My present invention relates to games and has particular reference to game devices embodying a target to be struck by aimed projectile elements.

It is an object of the invention to provide a game device wherein projectile elements in the nature of balls may be aimed and thrown, or otherwise projected from a distance, by one or more players in an attempt to strike the target in a particular manner which will arbitrarily score a chosen number of "points".

It is a further object of the invention to provide a device of this character which will be inexpensive to manufacture, of a pleasing and attractive outward appearance, and of staunch and rigid construction capable of withstanding the wear and tear which a game of this character necessarily entails.

Another object of the invention is to provide indicating means in operative association with the device and of a character designed to function in a desired manner when the target is struck to indicate to the player or players from a distance, the results of their attempts.

A feature of the invention lies in providing a plurality of targets suitably supported in adjacent positions, preferably in superposed horizontal rows to present a composite vertical target plane to the player, and in providing indicia in association with each target to distinguish it from other targets. In a preferred embodiment, the targets are numbered according to a predetermined plan so that if desired the number of points scored by a player may be at once arbitrarily taken as the number of the target which was struck.

Another feature of the invention lies in

providing the indicating means in the form of electrically operated devices, preferably illuminating devices, and in providing an electric circuit for these devices which is so designed that the indicating means will be normally inoperative but will function according to a predetermined plan as the target or targets are struck.

In a preferred embodiment, the targets are mounted upon a supporting structure which provides a compartment in the back of each target, and an incandescent lamp is provided in association with each target, preferably within the compartment, whereby the functioning thereof will indicate, by illuminating the compartment, the particular target which was struck.

My preferred construction also contemplates operating means within each compartment and cooperating with both the target and the lamp circuit for causing the lamp to function when the target is struck. In a preferred embodiment, the operating means comprises switch elements in the form of movable hammer elements adapted to move when the targets are struck and thereby to close the normally unconnected or broken electrical circuit leading to each lamp.

Another feature of the invention lies in providing means for simultaneously returning all the switch elements to their normal positions, thereby disconnecting all the electrical circuits; and in a preferred embodiment I provide mechanical means operable by a hand lever or the like for moving all the hammer elements simultaneously back into their normal positions.

A further feature of the invention lies in providing means for supporting the targets resiliently upon the supporting structure to permit of momentary displacement of each; and in a preferred construction, the targets operate directly upon the movable switch elements during such displacement for initiating the operation of the indicating means.

For the attainment of the foregoing ob-

jects, and such other objects as may hereinafter appear or be pointed out, I have illustrated one form of device constructed in accordance with my invention, in the accompanying drawings, in which—

Fig. 1 is a front elevational view of the assembled device, a portion thereof being broken away to reveal normally hidden parts;

Fig. 2 is a cross-sectional view taken along the line 2—2 of Fig. 1, showing the mechanism within the compartments;

Fig. 3 is a cross-sectional plan view taken along the line 3—3 of Fig. 2; and

Fig. 4 is a diagrammatic representation of the electrical circuits.

Referring to the drawings, it will be seen that the supporting structure comprises a substantially rectangular framework 10 provided with a back 11 and suitable supports or legs 12. Within the frame work 10 are provided partitions 13 dividing the supporting structure into a plurality of adjacent compartments 14 having open ends lying in a plane parallel to the back 11. In a preferred form of the device, this plane is arranged vertically, but it will be evident that it may, if desired, be disposed along an incline, or even horizontally if desired, without materially altering the general construction and operation. Along this vertical plane, and over each open end of the compartment 14, I support a plurality of target elements 15. These elements comprise preferably flat substantially rectangular members of a thickness substantially equal to the thickness of the partitions 13, and preferably of an area very slightly greater than the area of the open ends of the partitions 14. The target elements 15 are resiliently supported upon the supporting structure by suitable means permitting momentary displacement of each target independently of the other targets in a rearward direction, that is, toward the compartments. In the preferred construction illustrated, I have shown a plurality of pins 16 carried at the intersections of the partitions 13, and upon each pin is supported a resilient element, preferably an elastic rubber strip 17, extending diagonally from the corner of one target 15 to the neighboring corner of the adjacent diagonal target. It will be obvious that each pin 16 (except the four pins at the corners of the entire device) carries two resilient elements 17, perpendicularly overlying each other at their junction with the pin 16. It will be apparent that each two overlying elements 17 constitute in effect four resilient supports, each extending from the partition to one of the four adjacent targets 15, and I provide these supports in the form of two overlying strips 17 merely for purposes of economy and facility of manufacture.

The elements 17 support the targets in positions outwardly away from the supporting structure at a distance equal to the thickness of the elements 17, and it will be obvious that each target when struck will be capable of momentary displacement inwardly toward the compartment independently of the other targets; and whereas it is not essential that the targets be of an area slightly larger than the openings of the compartments, nevertheless I prefer to construct them in this manner so that their inward displacement will be checked by the edges of the partitions 13. It will be obvious that the magnitude of the displacement will be very small, and will depend upon the thickness and yieldability of the elements 17; nevertheless this magnitude is sufficient, as will be made obvious hereafter, for the contemplated purpose.

The indicating means comprises preferably a plurality of electrical lamps 18 supported upon the upper walls of the compartments. In the preferred construction illustrated, I have marked the numerals upon the targets by perforating the latter, whereby functioning of the lamps 18 will cause the light to shine through these perforations in a manner which will be understood.

I shall now describe the means for causing the lamps 18 to function when their respective targets are struck. A plurality of superposed horizontal shafts 19 extend through the horizontal rows of compartments, being suitably journaled in the vertical partitions 13. Within each compartment, a hammer element 20 is rotatably mounted upon the shaft passing through that compartment. The hammer element comprises preferably a sleeve portion 21 embracing the shaft, a stem portion 22 projecting perpendicularly from the shaft, and a head portion 23 having one end thereof 24 constructed of noise-deadening material, such as cork; the end 24 being disposed toward the target when the stem 20 is substantially vertical above the shaft 19. Upon the base of each compartment is mounted a contact element 25 electrically connected by wiring to the lamp 18 within that compartment. It is so positioned with respect to the shaft 19, and the length of the stem 22 is so designed, that the head 23 will strike and rest upon the contact element 25 when the stem 22 is in a substantially horizontal position. The shaft 19 is also so positioned with respect to the target 15, and the end 24 of the hammer head is made of such a predetermined length, that the hammer element 20 will be normally supported in a substantially vertical position by the target 15. That is to say, the stem 22 will be normally inclined a very slight degree toward the target 15 so that striking of the target will jar the

hammer inwardly past the vertical dead-center position, thereby allowing the hammer to fall inwardly by its own weight into substantially horizontal position wherein the head 23 contacts with the element 25. The shafts 19 are all electrically connected with the electrical source of energy, and the lamps 18 are similarly all connected with the opposite terminal of the source of energy, and it will therefore be apparent that the establishing of contact between any head 23 and the corresponding contact 25 will complete a circuit through the corresponding lamp 18, thereby causing it to light up.

This electrical circuit arrangement is diagrammatically shown in Fig. 4, wherein the lamps 18 are represented by circles, the reference numeral 26 denoting the common electrical connection between all the lamps and one terminal 27 of the source of energy; the fixed contacts 25 being indicated by smaller circles, each electrically connected by means of a wire 28 with its corresponding lamp; the hammer elements 20 being indicated by T-shaped devices projecting from the shafts 19, and the reference numeral 29 denoting the common electrical connection between all the shafts 19 and the other terminal 30 of the source of energy.

For the purpose of returning the hammer elements 30 to their original substantially vertical positions and thereby again breaking all the electrical circuits, I provide U-shaped straps 31 carried by the shafts 19 adjacent to the hammer elements 20. More specifically, the arms of the straps 31 project through the shaft 19 on each side of each sleeve portion 21, thereby constituting pins for preventing axial displacement of the hammer elements 20. The curved portions of the straps 31 extend inwardly into the compartments 14 whereby they underlie the stems 22 when the hammers are in horizontal positions.

Each shaft 19 is provided at its projecting end with a connecting rod or link 32 extending diagonally rearwardly downward and pivotally connected to a common control bar 33 extending transversely of all the shafts 19. The lowermost link 32 is extended rearwardly beyond the bar 33 to provide a handle member 34. When it is desired to return the hammer elements to their normal positions the handle member 34 is moved upwardly; this causes the links 32 to assume substantially horizontal positions, and causes the shafts 19 to rotate sufficiently to cause the straps 31 to push the stem portions 22 ahead of them back into normal position, that is, back past the vertical dead-center position so that the hammers are again supported upon the rear faces of the targets 15. The handle member 34 is then lowered so that the straps 31 will be with-

drawn from the path of the substantially descending hammers.

For the purpose of illustrating more clearly the various positions assumed by the elements, the upper left-hand target of Fig. 1 is illustrated as having been struck whereby the hammer has been caused to contact with the element 25, thereby illuminating the lamp 18. In Fig. 2 the lowermost hammer is shown in contact with the element 25, as is the left-hand hammer element of Fig. 3; the other hammer elements of Figs. 2 and 3 are shown in their normal positions.

It will be obvious from what has gone before that a large variety of rules may be prescribed, as desired, but in a preferred method of play, it is contemplated aiming at the device with tennis balls projected in a well-known manner by means of a racket held in the hand of a player. It will be apparent that any number of players may participate, either simultaneously, or in sequence, the particular skill of each player determining which of the targets will be struck. In the preferred construction, the largest numeral is placed upon the central target, thereby constituting a "bull's eye" which will be struck by the player having the most skill and best aim.

Although I have illustrated and described various mechanical expedients, such as the hammer elements 20 and the elastic strips 17, nevertheless I do not mean to limit myself to these constructions. It will be obvious that many and various changes may be made by those skilled in the art without departing from the spirit of the invention, and the details herein described and illustrated for the purpose of explaining the nature of my invention are intended to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, and indicated its use, what I desire to claim and secure by Letters Patent is:

1. In a game device of the character described, a plurality of movable targets, indicating means associated with each thereof and operable by the target when struck, said means comprising a common shaft behind said targets and a movable hammer element rotatably mounted thereon behind each target, said hammer element being normally supported by the target in a position slightly beyond the upper vertical position whereby movement of the target will jar the hammer past the vertical dead-center position to permit it to fall of its own weight, and said hammer element comprising a sleeve, a stem carried thereby, and a head carried by the stem, one end of the head being provided with noise-deadening material.

2. In a game device of the character described, a plurality of aligned independent-

ly movable targets, indicating means associated with each thereof and operable by the target when struck, said means comprising a common shaft behind the targets and a plurality of movable hammer elements rotatably mounted thereon and normally supported by the targets in inoperative position, and means for simultaneously returning all of said hammer elements to normal position, said means comprising means for rotating the shaft, and a plurality of U-shaped straps carried by the shaft adjacent said hammer elements and adapted to engage the latter when the shaft is rotated.

In witness whereof, I have signed this specification.

PASQUALE DONATO.