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2,636,739

AUTOMATIC SCORE REGISTERING BALL TARGET

Filed Aug. 27, 1951

2 SHEETS—SHEET 1

FIG. 1

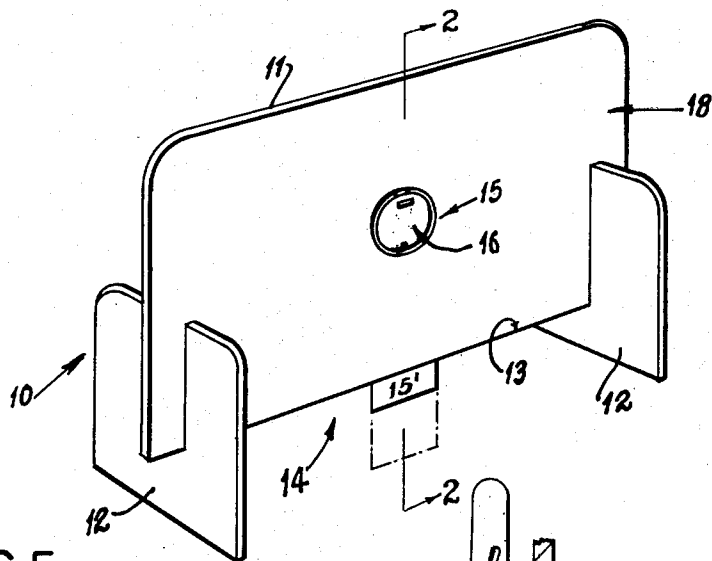


FIG. 5

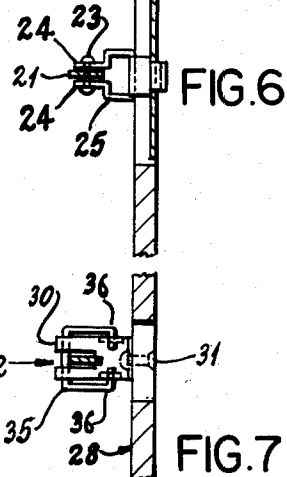
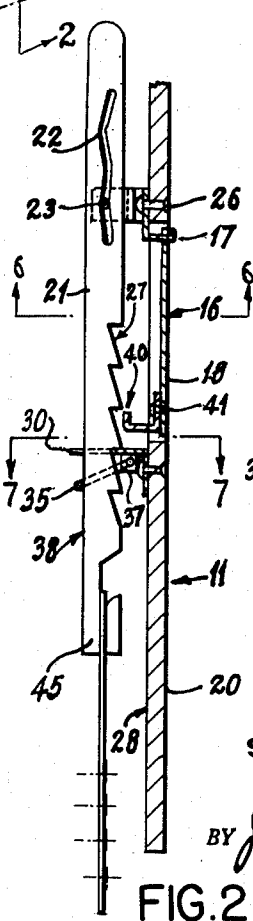
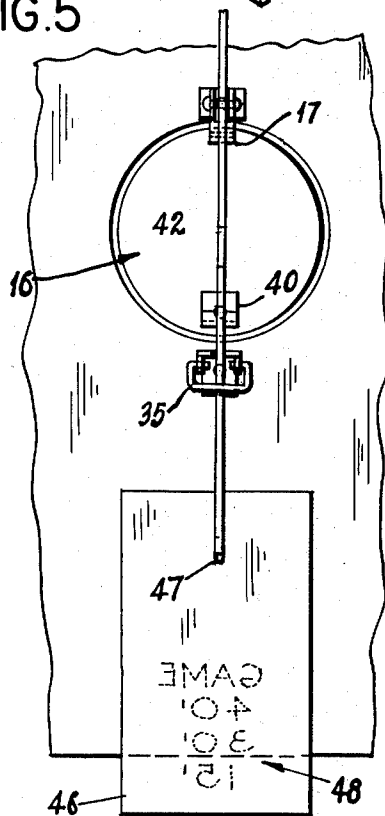


FIG. 7

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FIG. 4

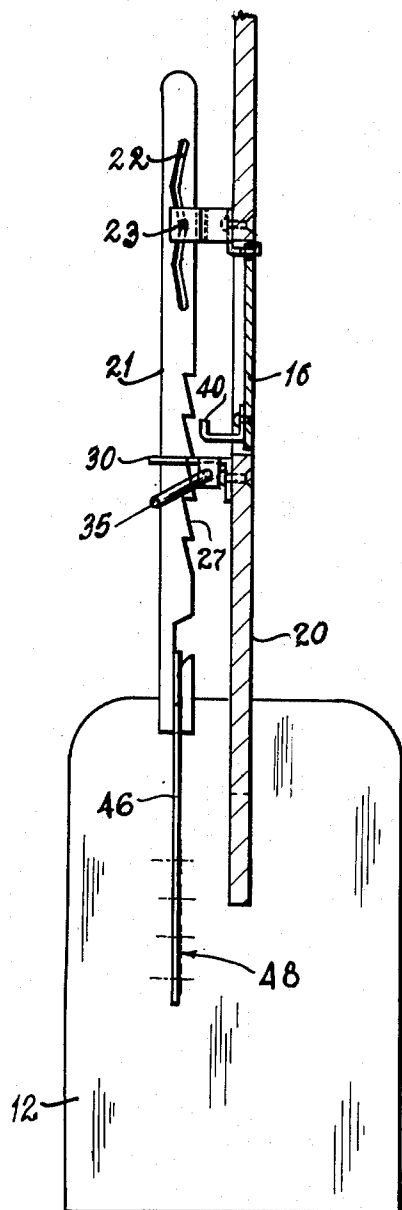
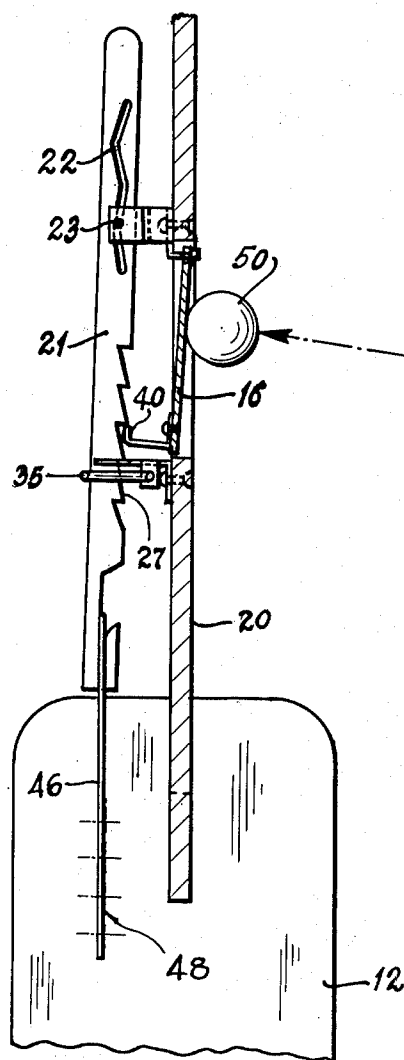


FIG. 3



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AUTOMATIC SCORE REGISTERING BALL
TARGET

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5 Claims. (Cl. 273-102.1)

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This invention relates to improvements in games of skill and more particularly to a game of the target type which utilizes rebounding balls as the missiles, and the main object of this invention is to provide a game apparatus which will provide amusement, exercise and which will require skill and accuracy.

An object of this invention resides in the construction of a portable game having means for automatically recording the number of times each player hits a pivotally mounted target, which operates a recorder mounted for intermittent reciprocations at the rear of a planar rebounding member.

Another object of this invention is to provide a vertically movable indicia carrier having a series of upright ratchet teeth, and to provide a bracket secured to the rear surface of the planar member, the bracket being designed to engage one of the ratchet teeth, the vertically movable carrier being pivotally mounted at its upper elevation so that the carrier is swung away from the bracket every time the target is struck and the carrier makes a one-step movement in a downward direction.

Another object of this invention is to secure indicia at the lower end of the carrier member, the indicia being visible at the front and lower edge portion of the planar member, the indicia being arranged in a vertical linear series with the lowest number at the lowest level of the indicia carrier, the arrangement being such that as a player operates the game device and strikes the target a number of times, the increased score or greater indicia number becomes visible to the observers.

With the above and other objects in view, the invention will be hereinafter more particularly described, and the combination and arrangement of parts will be shown in the accompanying drawings and pointed out in the claims which form part of this specification.

Reference will now be had to the drawings, wherein like numerals of reference designate corresponding parts throughout the several views, in which:

Figure 1 is a perspective view of the automatic score registering ball game.

Figure 2 is a cross-sectional view taken on line 2-2 in Figure 1 and showing the normal position of the target being struck by the ball.

Figure 3 is a view similar to that shown in Figure 2, and showing a ball at the moment of striking the target.

Figure 4 is a view similar to Figures 2 and 3

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and showing the target returned to normal upright position.

Figure 5 is a rear view of a fragmentary portion of the apparatus.

Figure 6 is a cross-sectional view taken on line 6-6 in Figure 2.

Figure 7 is a cross-sectional view taken on line 7-7 in Figure 2.

In the illustrated embodiment of the invention, the numeral 10 indicates a portable game of the target type, comprising a planar rebounding member 11 which is held in an upright vertical position by means of two end pieces or legs 12 which rest on a floor or table.

The lower surface 13 of the planar rebounding member 11 is raised a substantial distance from the floor or table to provide a vision aperture 14. At the central portion of the planar rebounding member 11 is a target aperture 15 in which a target 16 is supported on a suitable hinge 17 and adapted to move rearwardly when struck by a ball or the like. The front face 18 of the target 16 preferably lies in the same plane as the front face 20 of the planar rebounding member 11 when in its normal non-operating position.

An elongated indicia carrier 21 has a through slot 22 at one end. The slot 22 is preferably of wavy form and of a width to permit a pin 23 to pass therethrough at different positions along its length. The pin 23 is supported by passing through two arms 24 of a bracket 25 which is secured to the planar member 11 by a rivet 26.

The indicia carrier 21 has angular ratchet teeth 27 facing the rear face 28 of the planar member 11.

A bracket 30 is secured to the rear surface 28 of the planar member 11 by a rivet 31 below the target aperture 15. The bracket 30 has a slot 32 providing a guideway for the carrier 21, permitting downward movement of the carrier.

A loop-shaped member 35 has arms 36 pivotally mounted in upright lugs 37 extending downwardly from the bracket 30. The member 35 swings downwardly into contact with the rear edge 38 of the carrier 21 and acts as weight which urges the carrier to move toward the planar member and causes one of the ratchet teeth 27 to engage the bracket 30 (Figure 2).

The target 16 has an integral extension 40 secured by a rivet 41 to the rear surface 42 of the target. The extension 40 serves as a pawl for actuating the ratchet mechanism as will be described.

At the lower end portion of the elongated carrier 21 is a hook 45 serving to receive and support

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a planar indicia card 46 by means of an elongated aperture 47 in the card. Printed on the card 46 are suitable indicia numbers 48 indicating score values.

In operation, when a ball 50 strikes the target 16, the target is swung rearwards of the planar member and causes the extension 40 to strike the indicia carrier 21 and moves it so that the engaging tooth of the set of ratchet teeth 27 is thrown out of engagement with the bracket 30. This release of tooth engagement is accompanied by upward movement of the pivotal weight 35 (Figure 3).

The carrier 21 is then free to move in a downward direction but limited to only one tooth distance because of the pivotal weight 35 which swings the carrier toward the planar member and into re-engagement with the bracket 30. It is to be noted that the striking extension 40 and the target 16 are now in the normal out of the way position shown in Figure 4.

By "planar rebounding member" I mean to imply a non-pliable body having a substantially flat upright surface and adapted to cause rebound of a ball thrown thereagainst.

It is to be noted that I have made the slot 22 of a wavy form which causes a slowing up of the vertical downward movements of the indicia carrier 21. This slowing up provides a necessary time element for the weight 35 to swing the indicia carrier toward the rebounding member 14, so that the successive higher tooth engages the bracket 30 and the indicia carrier comes to a stop. This arrangement prevents skipping of a successive tooth and assures a correct score.

It is also to be noted that while I have shown a vision aperture below the lower edge of the planar rebounding member, that I may reverse the movements of the indicia carrier so that it will move upwardly or sideways, etc., but in all cases the successive score must appear to view from concealment.

In accordance with the patent statutes I have described and illustrated the preferred embodiment of my invention, but it will be understood that various changes and modifications can be made therein without departing from the spirit of the invention as defined by the appended claims:

I claim:

1. In a game apparatus of the class described, a rebounding member supported with its lower edge in raised position above a supporting surface, said rebounding member having a central aperture, a target member hingedly mounted in said aperture at its upper elevation and being swingable rearwardly of said rebounding member when struck at its front face, an indicia carrier having upright ratchet teeth and being pivotally mounted at its upper elevation rearwardly of said rebounding member, a bracket secured to the rear surface of said rebounding member and positioned to engage one of said teeth, said target having an extension rearwardly thereof adapted to swing said indicia carrier rearwardly and away from said bracket to permit one tooth movement in a downward direction of said indicia carrier, said indicia carrier being eccentrically loaded to cause it to swing toward said rebounding member and into engagement with said bracket after one tooth downward movement of said indicia member is completed.

2. In a game apparatus of the class described, a planar rebounding member mounted on a supporting surface, said planar rebounding member

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having a target aperture and a vision aperture, a target member hingedly mounted in said target aperture at its upper elevation and being swingable rearwardly of said planar member when struck at its front face, an elongated indicia carrier having upright ratchet teeth facing the rear face of said planar member and being pivotally mounted at its upper elevation rearwardly of said planar member, a slotted bracket secured to the rear surface of said planar member for joint pivotal and upright downward movement, a weight pivotally mounted on said rebounding planar member and contacting the rear edge of said indicia carrier to cause said carrier to engage one of said teeth, said target having an extension rearwardly thereof adapted to swing said carrier rearwardly and out of contact with said bracket to permit one tooth movement in a downward direction of said indicia carrier, said indicia carrier being swung by said weight toward said planar member and into engagement with said bracket after one tooth downward movement of said indicia member is completed, said indicia being visible through said vision aperture.

3. In a game apparatus of the class described, a planar rebounding member mounted on a supporting surface, said planar rebounding member having a target aperture and a vision aperture, a target member hingedly mounted in said target aperture at its upper elevation and being swingable rearwardly of said planar member when struck at its front face, an elongated indicia carrier having upright ratchet teeth and being pivotally mounted at its upper elevation rearwardly of said planar member, a slotted bracket secured to the rear surface of said planar member, a weight pivotally mounted on said rebounding planar member and contacting the rear edge of said indicia carrier to cause said carrier to engage one of said teeth, said target having an extension rearwardly thereof adapted to swing said carrier rearwardly and out of contact with said bracket to permit one tooth movement in a downward direction of said indicia carrier, said indicia carrier being swung by said weight toward said planar member and into engagement with said bracket after one tooth downward movement of said indicia member is completed, said indicia being visible through said vision aperture.

4. In a game apparatus of the class described, a planar rebounding member having means for mounting on a supporting surface, said planar rebounding member having a target aperture, a target member hingedly mounted in said target aperture and being swingable rearwardly of said planar member when struck at its front face, a slotted indicia carrier having teeth facing the rear face of said planar member and being pivotally mounted rearwardly of said planar member, a slotted bracket secured to the rear surface of said planar member below said target aperture, said bracket providing a guideway for said carrier and permitting downward movement of said carrier, a weight pivotally mounted on said rebounding planar member and contacting the rear edge of said carrier to cause a tooth of said carrier to engage said bracket, said target having an extension rearwardly thereof adapted to swing said carrier rearwardly and out of contact with said bracket to permit one tooth movement in a downward direction of said indicia carrier, said indicia carrier being swung by said weight toward said planar member and with another tooth

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into engagement with said bracket after one tooth downward movement of said indicia member is completed, said indicia being visible to an observer in increments.

5. In a game apparatus operated by rebounding balls, a planar rebounding member having a target aperture and means for mounting on a supporting surface, said planar rebounding member having a target member hingedly mounted thereon when struck at its front face, an indicia carrier having upright ratchet teeth and being pivotally mounted at its upper elevation rearwardly of said rebounding member, said indicia carrier having a planar indicia member supported at its lower end, said indicia member being movable in a generally vertical direction, a bracket secured to the rear surface of said rebounding member and positioned to engage one of said teeth, said target having an extension rearwardly thereof adapted to swing said indicia carrier rearwardly and away from said

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bracket to permit one tooth movement in a downward direction of said indicia carrier, said indicia carrier being eccentrically loaded to cause it to swing toward said rebounding member and into engagement with said bracket after one tooth downward movement of said indicia member is completed.

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