

Sept. 24, 1963

M. L. SLIMOVITZ

3,104,874

TARGET WITH BOWLING PINS AND INDICATOR

Filed July 6, 1960

3 Sheets-Sheet 1

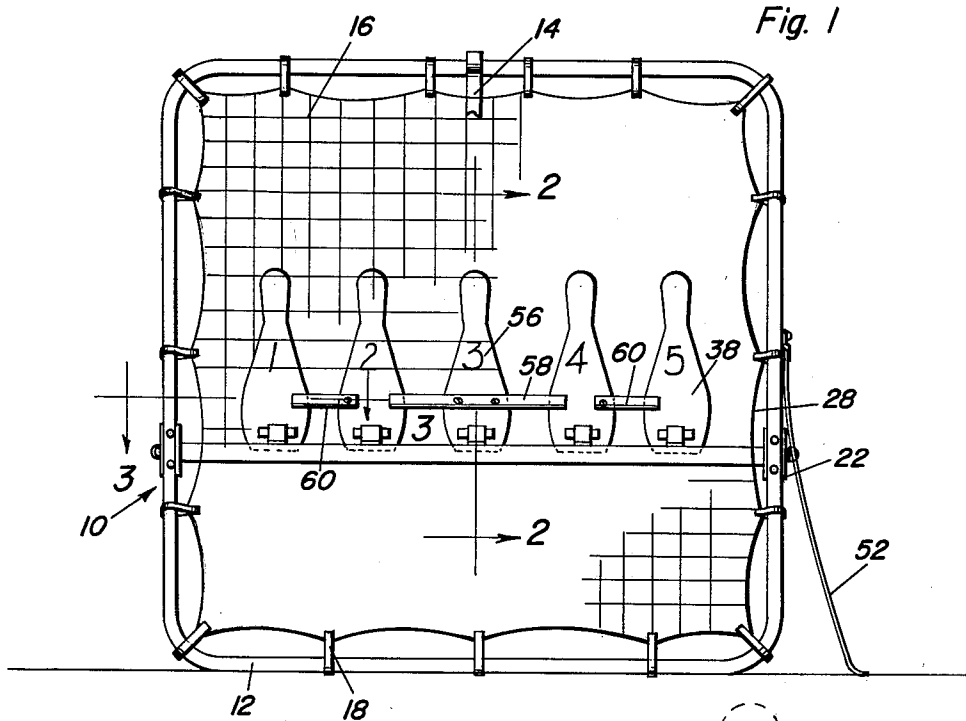


Fig. 1

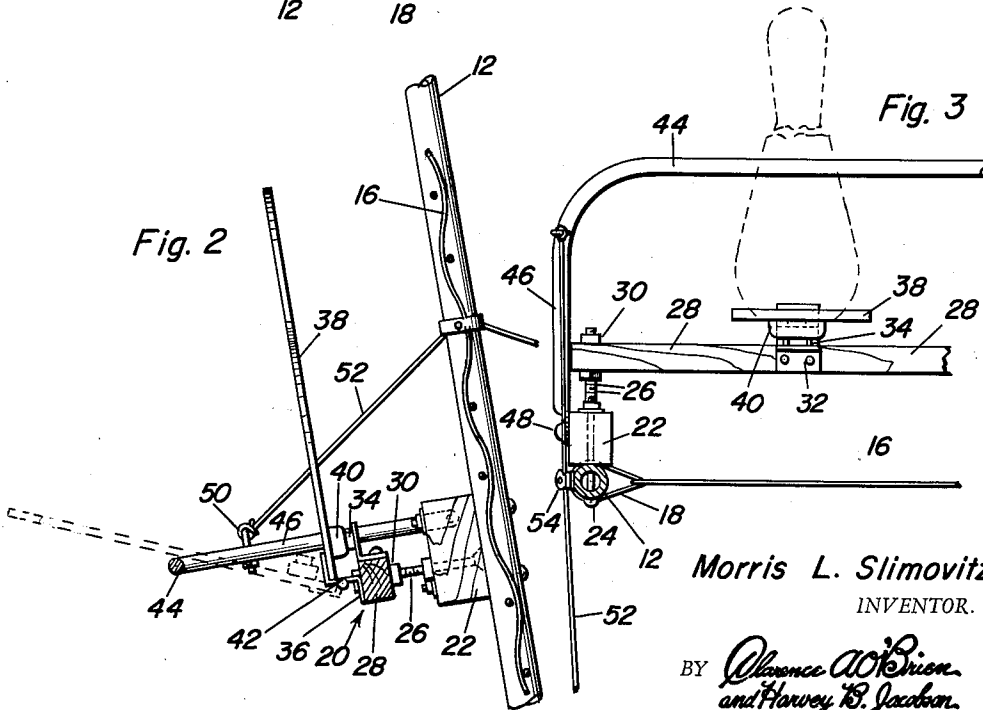


Fig. 2

Fig. 3

Morris L. Slimovitz
INVENTOR.

BY *Alvanee A. Olson*
and Harvey B. Jackson
Attorneys

Sept. 24, 1963

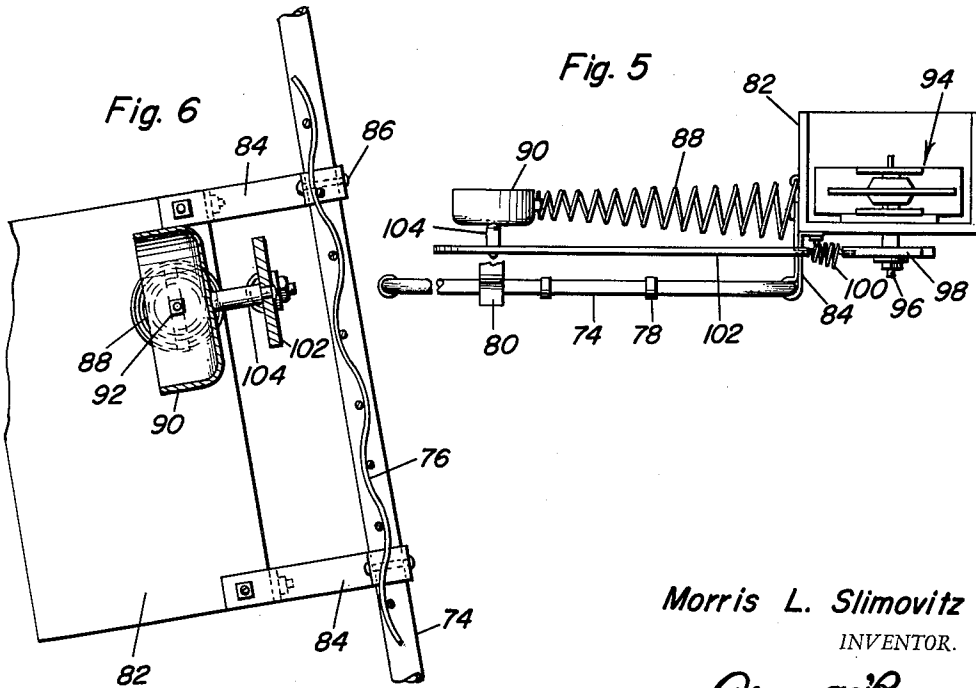
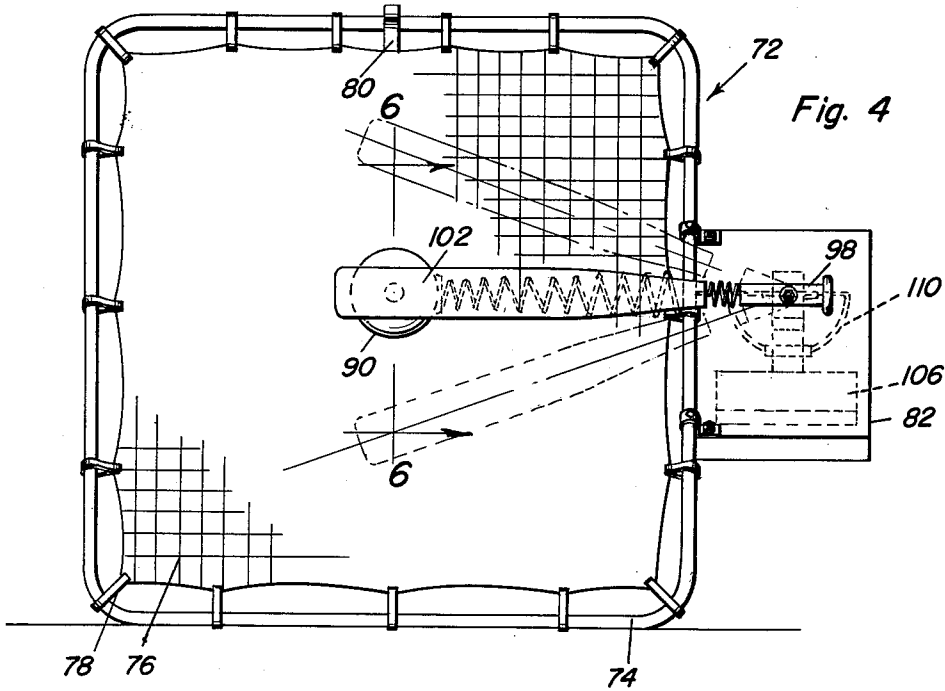
M. L. SLIMOVITZ

3,104,874

TARGET WITH BOWLING PINS AND INDICATOR

Filed July 6, 1960

3 Sheets-Sheet 2



Morris L. Slimovitz
INVENTOR.

BY *Oliver A. O'Brien*
and Harvey E. Jacobson
Attorneys

Sept. 24, 1963

M. L. SLIMOVITZ

3,104,874

TARGET WITH BOWLING PINS AND INDICATOR

Filed July 6, 1960

3 Sheets-Sheet 3

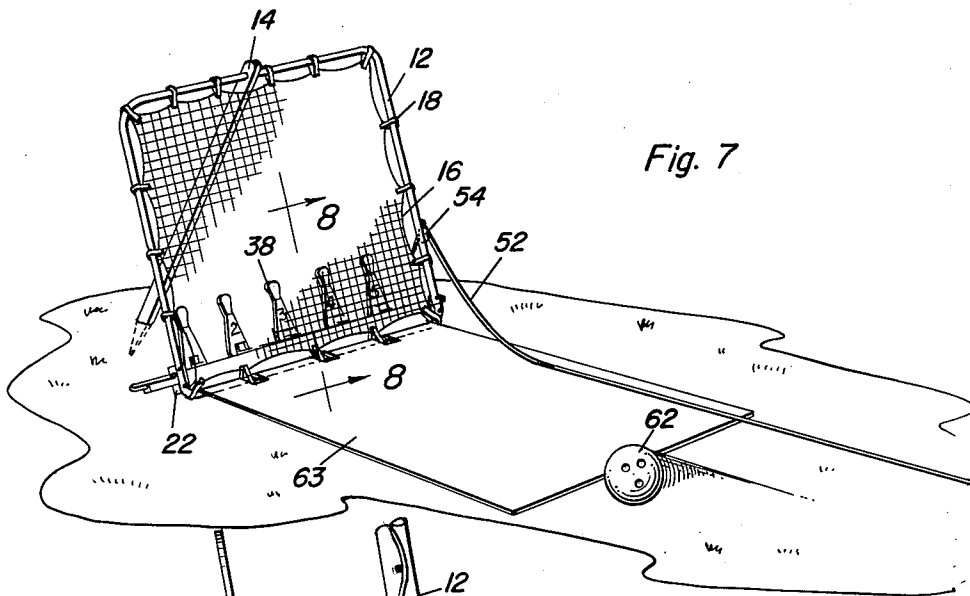


Fig. 7

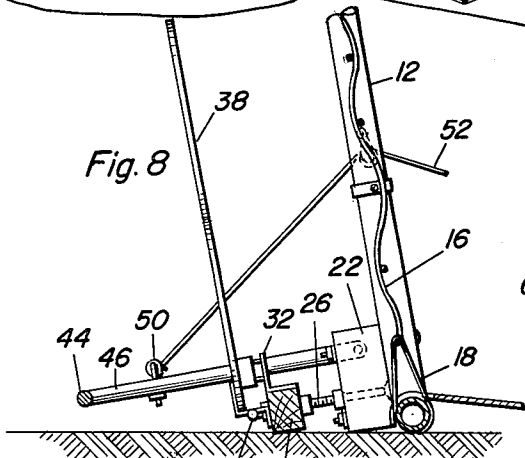


Fig. 8

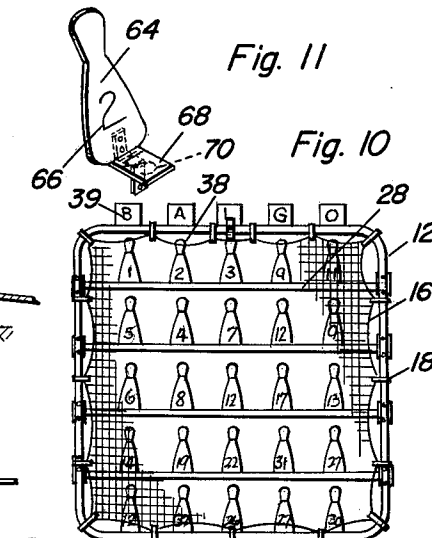


Fig. 11

Fig. 10

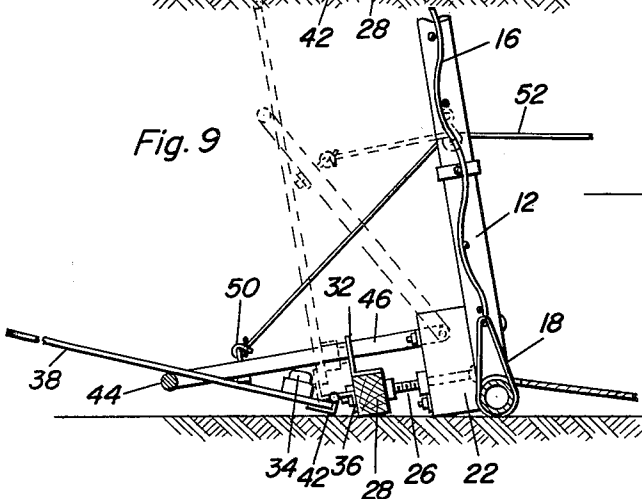


Fig. 9

Morris L. Slimovitz

INVENTOR.

BY *Almonce A. Brown*
and *Harvey B. Jacobson*
Attorneys

1

3,104,874

TARGET WITH BOWLING PINS AND INDICATOR

Morris L. Slimovitz, P.O. Box 308, Newbern, Tenn.

Filed July 6, 1960, Ser. No. 41,120

8 Claims. (Cl. 273-41)

The present invention generally relates to a target device and more particularly to a target device in which either a ball such as a baseball may be thrown or pitched towards the target or a ball such as a bowling ball may be rolled towards the target for registering a score thereon with the target including a structure which will return the ball back towards the point of launching.

The primary object of the present invention is to provide a target device incorporating a set of bowling pins therebehind which are engaged by a ball for pivotal movement to a knocked over position for registering a score.

Another object of the present invention is to provide a target device in accordance with the preceding object together with means for simultaneously returning all of the simulated bowling pins back to an upright position and novel means for retaining the simulated pins in upright position.

Still another feature of the present invention is to provide a target device of the character described in which the simulated bowling pins are interconnected in such a manner that when certain of the pins are knocked over, other of the pins will be also moved to a knocked over position thereby enabling all of the pins to be knocked over with a single accurately pitched or rolled ball.

Yet another object of the present invention is to provide a target device for attachment to a pitch back device which includes a movable target member together with sound producing means for emitting a sound when the target is hit in a particular manner.

Another very important feature of the present invention is to provide an attachment for a mesh type target which will return the ball towards the position from which it approached the target which attachment requires substantially no change or modification of the existing target, the attachment being adjustable in relation to the mesh material of the target for association therewith so that the ball may knock the target attachment over but will not interfere with the properties of the mesh material so that the mesh material will return the ball in the usual manner.

Other objects of the present invention will reside in its simplicity of construction, ease of attachment, efficiency in operation, entertainment qualities and its generally inexpensive manufacturing costs.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a front elevational view of the attachment of the present invention mounted on a pitch back target device thereby forming a target device with simulated bowling pins thereon which are knocked over to indicate a score;

FIGURE 2 is a detailed sectional view taken substantially upon a plane passing along section line 2-2 of FIGURE 1 illustrating further structural details of the attachment for the pitch back target;

FIGURE 3 is a detailed plan sectional view taken substantially upon a plane passing along section line 3-3 of FIGURE 1 illustrating further structural details of the target device;

FIGURE 4 is a front elevational view of another form of the invention illustrating the construction of a movable target;

2

FIGURE 5 is a top plan view of the construction of FIGURE 4 illustrating the relationship of the components of the attachment;

FIGURE 6 is a detailed sectional view taken substantially upon a plane passing along section line 6-6 of FIGURE 4 illustrating further structural details of this form of the invention;

FIGURE 7 is a perspective view of the target device of the present invention employed with a bowling ball for knocking over the simulated pins;

FIGURE 8 is a detailed sectional view taken substantially upon a plane passing along section line 8-8 of FIGURE 7 illustrating the structural details of the target device with the simulated bowling pins in upstanding position;

FIGURE 9 is a sectional view similar to FIGURE 8 but illustrating the simulated bowling pins in knocked over position;

FIGURE 10 is a front elevational view of another form of the invention in which a game may be played; and

FIGURE 11 is a perspective view of a simulated bowling pin employed in the present invention.

Referring now specifically to the drawings, the numeral 10 generally designates the target device of the present invention which is in the form of an attachment for an existent type of target generally known as a "pitch back." This type of target includes a peripheral rigid frame 12 preferably constructed of tubular metal or the like which may be of one piece construction or of knocked down construction. The tubular frame 12 is supported in a vertical or adjustably vertically inclined position by a rearwardly and downwardly inclined prop 14 having a pointed lower end for insertion into the ground surface. The lower end of the frame 12 may be anchored to the ground surface if desired thus enabling the angular orientation of the frame 12 to be orientated in relation to a vertical plane. Disposed within the interior of the peripheral frame 12 is a mesh or net 16 supported from the frame 12 by a plurality of resilient mounting straps 18. The frame, mesh and mounting straps 18 as well as the prop 14 are of conventional structure and are commercially available. Generally, the devices are used as practice devices for persons engaged in hitting or pitching baseballs, rolling bowling balls or the like in which event the ball will be returned by the pitch back device generally in the direction from which it approaches the target depending upon the angular position of the target in relation to a vertical plane and the angular relation between the path of movement of the ball and the surface of the target as the ball approaches the target.

The attachment constituting the essence of that form of the invention illustrated in FIGURES 1-3 is designated generally by the numeral 20 and includes a pair of mounting blocks 22 attached to the side rails of the frame 12 by fasteners such as bolts 24 or the like. One of the bolts 24 extends rearwardly in the form of a screw threaded extension 26 extending through and mounting an elongated transverse support member or bar 28. Mounted on the threaded member 26 is a pair of nuts 30 which engage opposite surfaces of the bar 28 thereby enabling the bar 28 to be moved inwardly and outwardly in relation to the plane of the frame 12. The threaded member 26 may be a separate bolt or it may be one of the mounting bolts 24 and in either event, it forms an adjustable mounting means for the bar 28 so that it may be moved inwardly and outwardly in relation to the frame 12 and mesh 16.

On the top surface of the bar or support member 28, there is provided a plurality of longitudinally spaced L-shaped brackets 32 each supporting a magnet 34 on the upstanding leg thereof. Extending rearwardly from and mounted on the rear surface of the support bar 28 is a plurality of longitudinally spaced brackets 36 for hingedly

supporting a simulated bowling pin 38. The bowling pin 38 is of planar construction and generally is in the form of a flat sheet of material such as wood or the like having an outline of a bowling pin including the reduced neck and the generally enlarged lower portion. The forward surface of the simulated bowling pin 38 is provided with a magnet or a metallic member 40 of ferrous material or the like which will be attracted to the magnet 34 thus retaining the bowling pins 38 in upstanding position in generally parallel relation to the plane of the frame 12. The magnet 34 and the member 40 of ferrous material may be reversed with it only being necessary that the magnet retain the bowling pin 38 in upright position. In actual practice, the bracket 32 may be just a plain L-shaped angle iron bracket of ferrous material and the magnet 34 may be carried in a magnet carrier 40 thus enabling the bracket 32 to be of conventional relatively inexpensive construction.

Due to the orientation of the mounting bracket 36 and the hinge pin connection 42 between the bracket 36 and the simulated bowling pin 38, gravity will cause the simulated bowling pin 38 to be disposed in a rearwardly extending position as shown in dotted line in FIGURE 2 once the pin is moved rearwardly so that the magnet 34 has been disconnected from the bracket 32. In order to return the bowling pins 38 to an upright position, there is provided an elongated generally U-shaped bar 44 having inturned end portions 46 hingedly attached to the mounting blocks 22 as by hinge members 48. The transverse bar 44 extends in a generally parallel relation to the rear surface of the frame 12 and will normally form a stop means for the simulated bowling pins 38 and will also return the bowling pins 38 simultaneously to an upright position when the bar 44 is swung upwardly in an arcuate manner about a transverse axis defined by the hinge pins or pivot pins 48. One end member 46 is provided with an eye 50 thereon connected to a flexible line 52 which may conveniently be a string or the like and the string 52 extends over a guide pulley 54 mounted on the frame 12 by any suitable fastening means. The pulley 54 is disposed vertically above the mounting blocks 22 so that the transverse bar 44 will be swung upwardly when the line 52 is moved longitudinally. The line 52 extends longitudinally towards the area from which a ball is to be thrown or rolled towards the target so that the person using the target may return the bowling pins to the upright position from a position remote from the target thus facilitating the use of the device.

Each of the simulated bowling pins 38 is provided with numerical indicia 56 on the front face thereof and the indicia is progressive or may be disposed in any suitable orientation. The central pin 38 is provided with a transversely extending bar 58 secured thereto and extending laterally therefrom on each side with the end of the bar 58 extending over the front surface of a portion of the next adjacent pin on each side of the central pins 38. Thus, if the central pin 38 is knocked over backward, the bar 58 will carry the two pins adjacent the center pin with it and thus knock these two pins over also. The intermediate pins are each also provided with an outwardly extending bar 60 rigidly attached thereto which has the terminal end thereof overlying the front surface of an outermost pin. Thus, if either of the intermediate pins are knocked over backwards, the corresponding outermost or end pins will also be knocked over. Thus, by striking and knocking over the center pin, all of the pins will be knocked over backwards thus registering a strike. However, if only one of the end pins is knocked over, only the end pin will be effected. If one of the intermediate pins is knocked over, the intermediate pin will carry the adjacent end pin with it thus knocking over two pins when an intermediate pin is knocked over backwards.

It is pointed out that the pins are orientated in spaced relation to the mesh material which will enable the mesh material to be stretched rearwardly so that it may project

the ball back towards the point of launching in the usual manner. However, the pins 38 are orientated in such a manner that as the ball moves the mesh material rearwardly, the ball also will engage the pin for knocking the pins over if it has been aimed directly. The adjustment of the pins in relation to the mesh material enables the pins to be accurately set for the particular mesh material with which it is associated and also enables adjustment for permitting variation in the speed or velocity of the balls being thrown or otherwise launched at the target device inasmuch as the velocity of the balls will be variable depending upon the person pitching or throwing the ball. Thus, the adjustment feature enables accurate positioning of the bowling pins in relation to the mesh material so that the mesh material will operate in the usual manner and so that the bowling pins will not affect the normal operation of the mesh material but will only be engaged by the ball after it has stretched the mesh material sufficiently to cause the mesh material to pitch the ball back when the mesh material returned to its normal position.

In that form of the invention illustrated in FIGURES 1-3, the simulated pins are disposed in elevated position above the bottom of the frame 12 and are generally disposed centrally of the area defined by the frame 12. This form of the invention is specifically adapted for use with baseballs in which event the baseballs are thrown towards the mesh material 16 in the usual manner with the balls being directed towards the simulated pins 38 whereby such pins will be knocked over when the balls engage the pins. Otherwise, the balls will be returned in the usual manner with no score being registered.

FIGURES 7-8 illustrate a similar form of the invention in which similar reference numerals are employed for identical parts. In this form of the invention, the transversely extending supporting bar 28 along with the mounting blocks 22 are mounted at or closely adjacent the bottom edge of the frame 12. This enables the device to be used with a bowling ball or simulated bowling ball 62 which may be rolled down a simulated alley provided on the ground surface or grass surface. In this form of the invention, the bowling ball 62 will more nearly simulate the action of a bowling ball in that it will engage certain of the pins 38 and cause them to be knocked over. The pins 38 are the same in this form of the invention as in FIGURES 1-3, and the remainder of the structure is orientated in the same manner. By using the bowling ball 62, a game of bowling may be played in the usual manner with the numerical indicia on the pins being employed for keeping score. If desired, the frame 12 and the associated pin structure and supporting structure therefor could be recessed in relation to the ground surface or provided with a ramp or platform designated by the numeral 63 so that the bowling ball would more easily have access to the pins. However, even with the device sitting on the ground surface, the bowling ball would engage and knock over the pins and be returned in the usual manner. The bowling ball may be of simulated light weight construction or may be of regulation size and shape for enabling a person to practice with a regulation bowling ball.

FIGURE 10 illustrates another form of the invention in which a multiplicity of the supporting bars 28 are employed along with the simulated bowling pins 38'. The bowling pins 38' are provided with the numerical indicia thereon and the bowling pins 38' may be of lesser size than the bowling pins 38. The bowling pins 38' may be supported in the same manner and retained in position by the same manner and the bowling pins may all be returned to an upright position by a string or may be orientated in the upright position in a manual manner. In this form of the invention, there are five supporting bars 28 thus forming five rows of bowling pins 38'. The bowling pins 38' are disposed in five vertical rows and five horizontal rows. Across the top of the

5

frame 12 are attached panels 39, each having alphabetical indicia appearing on the front surface thereof spelling out the word "Balgo." This is to provide indicia in which a game may be played similar to "Bingo." In other words, by knocking down all of the pins 38' in a horizontal row, a vertical row or in a diagonal row, the person knocking down this arrangement of simulated bowling pins 38' will be declared the winner. Thus, a game similar to bingo may be employed with the device orientated as illustrated in FIGURE 10.

FIGURE 11 illustrates a modified form of bowling pin designated by the reference numeral 64 having numerical indicia 56 on the front thereof and a forwardly extending plate 68 at the bottom thereof or adjacent the bottom thereof having numerical indicia 70 on the under-surface thereof corresponding to the numerical indicia 66. The numerical indicia 70 will be revealed when the bowling pin 64 is pivoted rearwardly about the hinge pin disposed below the plate 68. The plate 68 may be disposed above the retaining mechanism such as the magnets for retaining the pin in upright position. Thus, this will indicate the numerical value of the pins which have been knocked over, thus enabling easier computation of the score.

While the structure has been specifically described in conjunction with magnetic holding means for the pins, various types of releasable mechanisms may be employed such as friction blocks or the like which may be adjustable for varying the force required to knock the bowling pins over. Further, the orientation of the bowling pins may be varied and the rods or bars interconnecting the pins may be employed or omitted as desired. The various components may be constructed of any suitable material having strength qualities sufficient to withstand the impacts that would normally be imparted thereto by the balls thrown or rolled towards the targets. The entire assembly is readily and quickly attached to the frame of the "pitch back" device and such attachment may be effected by any suitable fastening means including the bolt arrangement as shown or various types of clamps or the like which require very little or no modification whatsoever to the frame of the pitch back device.

FIGURES 4-6 illustrate a modified form of the present invention generally designated by the numeral 72 which is in the form of an attachment for a "pitch back" device including a peripheral frame 74, a mesh material member 76 suspended from the frame 74 by a plurality of resilient straps 78. The pitch back device is supported by the prop 80 in the usual manner and this represents conventional pitch back structure which has also been employed in conjunction with the other forms of the invention.

Attached to one side of the frame 74 is a hollow casing or receptacle 82 supported by a pair of strap-like brackets 84 encircling the frame 74 for securing the receptacle 82 in position by employing suitable fasteners 86 or the like.

Attached to one surface of the receptacle 82 is an elongated coil spring 88 having a bell 90 mounted on the outer free end thereof. The bell 90 is of the usual cup-shaped configuration and is attached to the spring 88 by any suitable fastening device 92. The spring 88 is of the spiral tapering type having the other end thereof anchored to the receptacle 82 in any suitable manner. The spring 88 enables the bell 90 to move in any direction in relation to the frame 74 including backwardly away from the frame 74.

The interior of the receptacle 82 is provided with a motor generally designated by the numeral 94 having an oscillating output shaft 96 extending forwardly from the receptacle 92. The output shaft 96 is provided with a bracket 98 thereon having a coil spring 100 connected to one end thereof. The coil spring 100 is relatively short and has attached to its outer end an elongated arm 102 extending generally in parallel relation to the frame 74

6

but rearwardly thereof with the outer end of the arm 100 extending outwardly slightly beyond the bell 90. Thus, due to oscillation of the shaft 96, the elongated arm 100 will oscillate in a vertical plane with the spring insert 100 enabling relative movement between the arm 100 and the bracket member 98 both in a vertical and horizontal plane.

The outer end of the arm 102 is provided with a rearwardly extending projection 104 which normally is disposed immediately adjacent to but slightly spaced from the bell 100. If the arm 102 is struck while the projection 104 is passing across the front surface of the bell 90, a distinct sound will be made due to the contact between the projection 104 and the bell 90. The projection 104 may be of metallic construction or of any other suitable material. When this occurs, there will be a definite indication of the projection 104 engaging the bell 90 which can only occur when the arm 102 oscillates and brings the projection 104 in alignment with the bell 90. In this form of the invention, it is necessary to not only strike or hit a particular area but to strike the particular area during a particular time, that is, when the projection 104 is passing in front of the bell 90 so that it will engage the bell 90. Thus, this is not only requires accuracy in pitching a baseball towards the target but also timing by timing the point of engagement of the ball with the target so that it will be simultaneous with the time of passing of the projection 104 across the bell 90.

The motor 94 is of conventional construction and is operated by batteries such as flashlight batteries or the like received within a case 106 and includes an arcuate rod 110 rigid with the operating shaft and having a path of movement about the center of the shaft 96. This type of motor is commercially available and a detailed disclosure thereof is found in Patent No. 2,598,954.

Also, the shaft 96 is a threaded element so that adjustment of the arm 102 in relation to the rear surface of the frame 74 may be varied. This is also true of the connection between the receptacle 82 and the spring 88 thus enabling the spring 88 and the bell 90 to be also adjusted in relation to the frame 74. This will enable the sound producing target to be oriented a proper distance away from the net. When the baseball engages the net, it will move rearwardly with the net and, of course, will be pitched back by the net. The ball may engage the bell 90 directly in which event a relatively dull sound will be produced. However, if the ball engages the arm 102 and the projection 104 engages the bell, then a relatively sharp ringing action will occur. The motor 94 continuously oscillates the arm 102 at a predetermined rate of speed thus enabling the person using the device to properly time his throw, especially after some practice with the device. To further develop timing the player may desire to hit the bell without hitting the oscillating bat or may hit the bat without the bat hitting the bell.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. In combination with a target device including a peripheral frame, mesh material disposed inside of said frame, and resilient means supporting the mesh material on the frame whereby a ball directed onto the mesh material will be returned in the general direction from which it approached the frame, an attachment comprising a transverse support bar, means adjustably supporting the bar from the frame for adjustably spacing the bar behind the frame and mesh material, a plurality of simulated bowling pins pivotally mounted on said support bar for pivotal movement about a transverse horizontal axis from

an upstanding position generally parallel to the frame to a rearwardly extending generally horizontal position, means releasably retaining the pins in upstanding position whereby a projectile engaging the front of the pins through the mesh material will cause the pins to fall rearwardly, means returning the pins to an upstanding position, said last named means including a transverse member disposed rearwardly of the pins and engaging the pins for moving the pins simultaneously to an upstanding position.

2. The combination of claim 1 wherein said means for retaining the pins in upstanding position includes magnets and ferrous brackets carried by the pins and support bar respectively.

3. The combination of claim 2 wherein said member for returning the pins to an upstanding position includes an operating string connected thereto and extending to a remote position for operation by the person throwing balls at the target.

4. The combination of claim 2 wherein said bowling pins are arranged in a horizontal row with the central pin having projecting members overlying the front surfaces of adjacent pins whereby rearward movement of the central pin will cause rearward movement of the outer pins, the intermediate pins having an outwardly extending member overlying the front surface of the end pins whereby rearward pivotal movement of the intermediate pins will cause rearward pivotal movement of the end pins.

5. The structure as defined in claim 4 wherein each of said pins is provided with a forwardly projecting plate adjacent the bottom edge thereof, said plate having indicia on the undersurface thereof, said pin having indicia on the front surface thereof, said indicia being the same whereby the plate will be disposed in upstanding position when the pin is pivoted rearwardly thereby indicating the value of the pin knocked rearwardly.

6. The combination of claim 5 wherein said means adjustably supporting the support bar includes a threaded member extending rearwardly from the frame and extending through the support bar, and nut means engaged with the threaded member on the forward and rear surface thereof for moving the support bar in relation thereto.

7. A game device comprising a target having a peripheral frame, mesh material disposed inside of said frame and being resiliently supported therefrom whereby a ball directed onto the mesh material will be returned in the general direction from which it approached the frame, a transverse support bar, means supporting the bar from the frame and spacing the bar behind the frame and mesh material, a plurality of simulated bowling pins pivotally supported on said support bar for pivotal movement about a transverse axis, said bowling pins being retained in upstanding position in a releasable manner whereby engagement of the pins by a projectile initially engaging the mesh material will cause the pins to fall rearwardly, and means for returning the pins to an upstanding position for subsequent engagement by a projectile.

8. The structure as defined in claim 7 wherein said mesh material is capable of moving rearwardly toward the simulated pin when struck by a projectile thus forcing the pin rearwardly.

References Cited in the file of this patent

UNITED STATES PATENTS

1,969,139	Knapp	Aug. 7, 1934
2,141,958	Ruberti	Dec. 27, 1938
2,469,236	Long	May 3 1949
2,944,816	Dixon	July 12, 1960