Dec. 29, 1942. H. B. PALMER 2,306,898

TARGETS FOR RING TOSS GAMES

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FIG. 1.

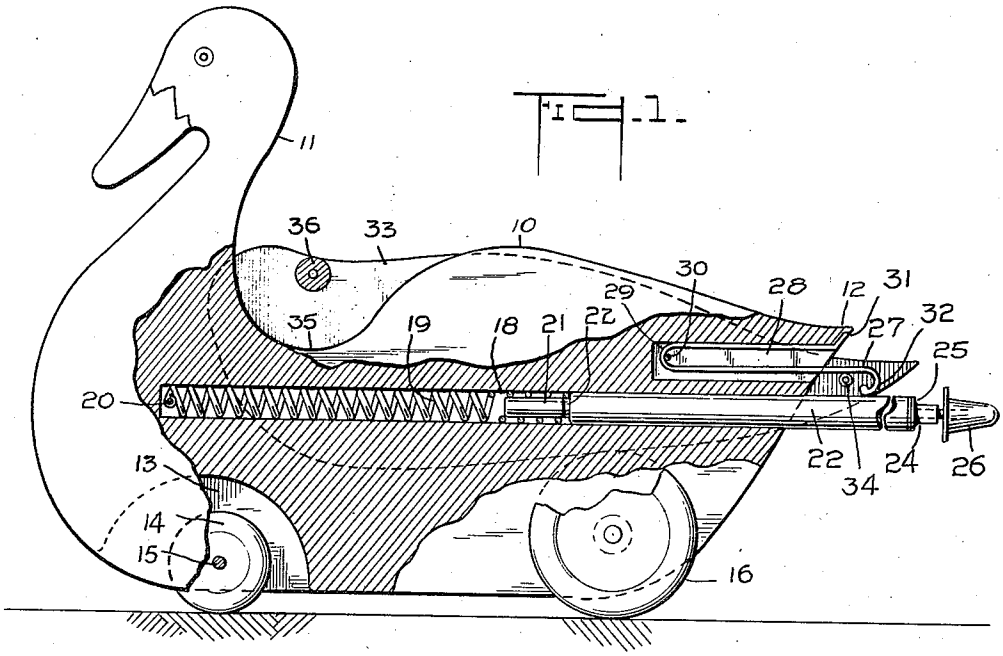


FIG. 2.

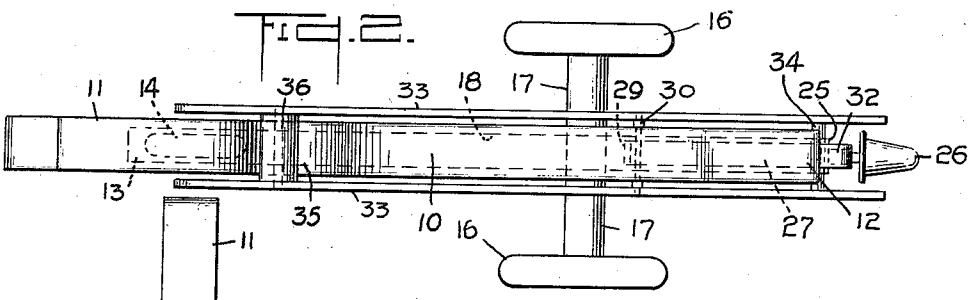


FIG. 3.

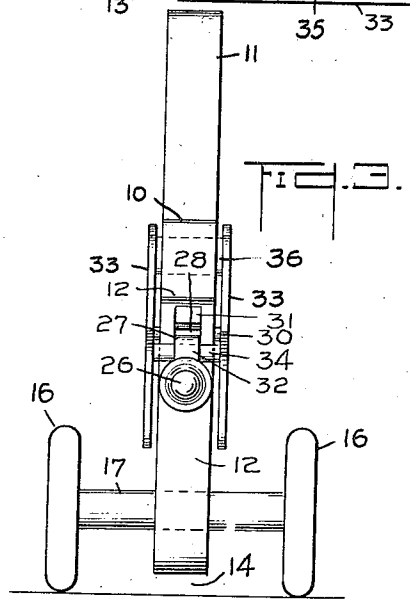
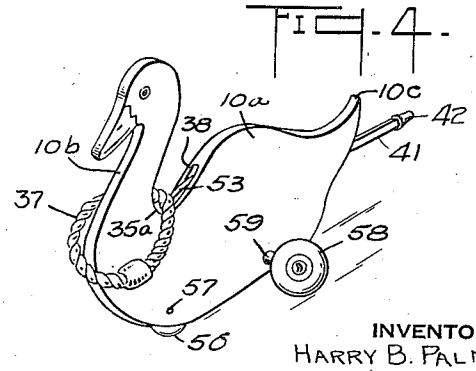


FIG. 4.



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FIG. 5.

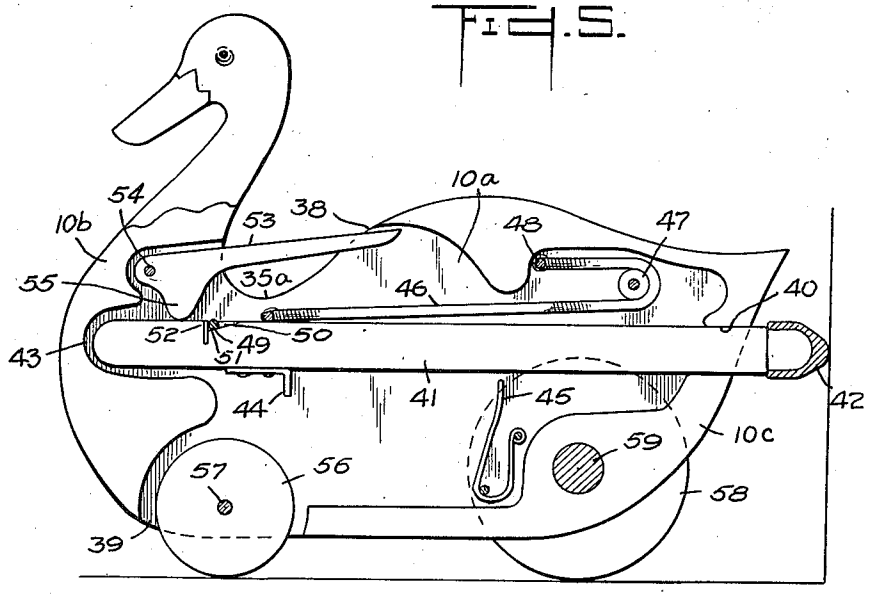


FIG. 6.

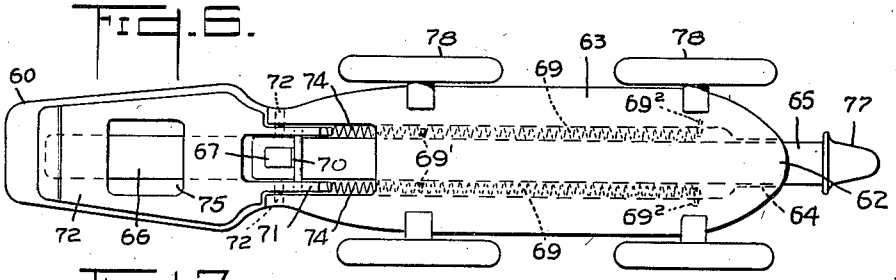
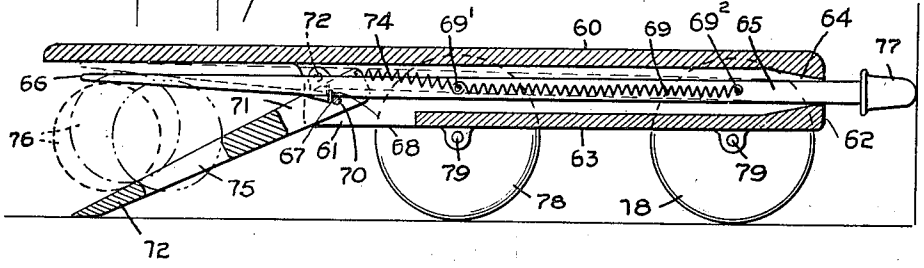


FIG. 7.



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TARGET FOR RING TOSS GAMES

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Application January 29, 1942, Serial No. 428,707

5 Claims. (Cl. 273—102.1)

This invention relates to a novel and improved target for a ring toss game and has reference particularly to a self-propelled target which moves forward when a hit is made by the player.

The primary object of my invention is to devise a target which will prove attractive, and which is provided with a kick-back attachment adapted to operate when a hit or ringer is made to project the target along its supporting surface.

I accomplish the object of my invention by means of a novel target several embodiments of which are hereinafter described, set forth in the appended claims and illustratively exemplified in the accompanying drawings, in which:

Figure 1 is a side elevational view of a target with parts shown broken away to disclose otherwise hidden mechanism;

Figure 2 is a top plan elevational view of the target showing the projector in cocked position;

Figure 3 is a rear elevational view of the same;

Figure 4 is a perspective view of a target of a modified construction showing the side wall removed to disclose the interior mechanism;

Figure 5 is a side elevational view of a target of the construction shown in Figure 4, one side wall of the target is shown removed and the projector is illustrated in its cocked position;

Figure 6 is an elevational view of the under side of a target having a still further modified construction;

Figure 7 is a substantially longitudinal section of the target taken on lines 7—7 of Figure 6.

Referring to the drawings, and particularly to Figures 1 to 3 and 6, 10 denotes a flat wood or composition target cut to the shape of a duck having a head portion 11 and tail portion 12. The under side of the target beneath the head 11 is cut out to form a recess 13 to receive a wheel 14 journalled on an axle 15 carried at its ends in the opposite walls of the recess 13. The lower sector of the wheel 14 projects below the under side of the target. The rear or tail portion 12 is supported on a pair of wheels 16 mounted on opposite ends of a spindle 17 mounted in and projecting from opposite sides of the target 10.

The target 10 is provided with a bore 18 which projects longitudinally of the duck from the tail 12 to a point well under the head 11, as illustrated in Figure 1. A long helical spring 19 is disposed in the inner end of the bore 18, the inner end of the spring 19 being attached to a pin 20 driven diametrically across the bore. The opposite or outer end of the spring 19 coils about the reduced inner end 21 of a projector spindle or bolt 22 axially movable in the bore 18. The end of the spring 19 is attached to the end 21 by being seated in an annular groove 23 arranged in the end 21 at the base thereof. In accordance with this arrangement, the bolt 22 is yieldably held against being projected entirely out of the bore. The outer end of the bolt 22 is provided with a metal ferrule 24 having an annular shoulder 25 and rubber tip 26.

The bolt 22 in operative position is retracted in the bore 18 against the tensioned spring 19 and is held in this position by means of spring catch 27, which is a U-shaped member disposed laterally of the tail portion 12 in an opening 28 in the latter just above the bore 18. The closed end 29 of the catch embraces a pin 30 disposed transversely of the opening adjacent its inner end. The free end 31 of the upper arm of the catch is seated against the tail portion 12 and the free end of the other or lower arm projects beyond the tail portion 12 and is formed into a downwardly directed hook 32, which hooks over the shoulder 25 in the retracted position of the bolt to hold it against the compressed spring 19.

In order to release the bolt 22 it is necessary to lift the hook 32 out of engagement with the shoulder 25 and this is accomplished by a trigger attachment comprising a pair of wing members 33 arranged one on each side of the target 10 and pivotally supported near their rearward ends on the pin 30, which projects transversely of the target and through the wings. The tips of the wings 33 project beyond the tail portion 12 and are attached together by a short bridge piece 34, which is disposed under the lower arm of the catch 27 just short of the hook 32, so that as the wing tips are raised, the bridge piece 34 will lift the hook 32 out of engagement with the shoulder 25 and free the bolt 22. The forward tips of the wings project along the back of the target and above the dip 35 in the latter just back of the head and neck 11, the tips being connected to opposite ends of a second bridge piece 36 which moves in an arc into the dip 35, the wings being yieldably supported in their upward position by means of the downward pressure of the lower arm of the catch 27 on the bridge piece 34.

In operation, the target 10 with the bolt 22 retracted is set upon the floor with the tip 26 against the upright wall or base board. Then from a suitable distance a ring 37 is tossed towards the head 11 and if the arm is sufficiently skillful, the ring will drop over the head and fall upon the inner tips of the wings 33. The weight of the ring causes the wings and bridge 36 to move downwardly into the dip 35 and the outer

tips and bridge 34 to rise. The trigger or catch spring 27 is tensioned as the lower arm and bridge 34 rise, and the hook 32 frees the shoulder 25 and bolt 22 with the result that the spring 19 expands and drives the target forward on its wheels. It is intended in accordance with the present invention that as the player makes a ringer the target will project forwardly and return the ring. The trigger arrangement is then reset and the target is ready for the next play.

Referring now to Figures 4 and 5, the body of the target 10*a* comprises two spaced side boards and head and front filler piece 10*b* and back, tail and bottom filler piece 10*c*. The side boards are cut in the shape of a duck and there is an opening 38 in the dip 35*a* rearwardly of the head between the front and back filler pieces 10*b*, 10*c*. There is another opening 39 in the bottom between the front and back filler pieces 10*b* and 10*c* and there is a third opening 40 in the tail piece filler 10*c*.

The opening 40 accommodates the outer end of a bolt 41, which in the present form comprises a flat bar having a rubber tip 42 at its outer end and which projects longitudinally of the body between the sides to a point well towards the front and into a recess 43 in the front filler piece 10*b*. The bolt 41 carries a stop bar 44 on its under side and well towards the inner end. The stop bar 44 engages a spring stop 45 arranged in the body 10*a* well towards the tail portion so as to prevent the bolt 41 from being projected entirely out of the body. The means used to project the bolt 41 comprises a coil spring or rubber band 46 attached at one end to the upper side of the bolt just over the stop bar 44, the other end of the spring being directly rearwardly and about an idler wheel 47 and then forwardly for a short distance to be fixed to a pin 48 in the body and projecting between the side walls. The bolt 41 is retracted into the body against the tension of the spring 46 and is cocked in position by means of a pin 49 projecting between the side walls and arranged to enter a notch 50 in the upper side of the bolt. The notch 50 is disposed inwardly of the inner end of the spring 46 and is provided with a downwardly inclined bottom wall 51 running towards the inner end of the bolt and terminating in an upright end 52, which rests against the pin 49. The spring arrangement 46 tends to pull upwardly on the inner end of the bolt to keep the end 52 of the notch in engagement with the pin 49. In order to free the bolt 41 the inner end thereof must be depressed until the notch is free of the pin. This operation is accomplished by means of a trigger 53 pivotally mounted at the forward end thereof on a pin 54 in the neck or head portion between the side walls. The trigger comprises a lever having a depending hump 55 on its under side to engage the upper side of the bolt 41 inwardly of the notch 50 and depress the bolt, the free end of the lever projecting rearwardly across the dip 35*a* behind the neck and head portion of the body and being exposed over the opening 38 into which it is depressed to trip the bolt when a ringer is registered.

The body is supported on a wheel 56 journalled on an axle 57 in the opening 39 and on a pair of wheels 58 mounted on a transverse axle 59 disposed in the tail portion of the bottom filler piece 10*c*.

The operation of the modification just described is the same as that of the embodiment illustrated in Figure 1.

Referring now to the third embodiment of my invention illustratively exemplified in Figure 7, the body is that of a reptile and comprises a flat upper plate 60 forming the back and head, depending side walls 61 projecting from the neck rearwardly to include the tail portion 62, and bottom or belly plate 63 projecting between the side walls 61. The tail portion 62 is provided with an opening 64 supporting one end of a projector rod 65 which projects forwardly in the space between the back, bottom and side walls of the target. The forward end of the rod 65 in retracted position is disposed under the head and forms the tongue 66 of the reptile. The under side of the tongue 66 is provided with a tooth 67 comprising an upright rear wall 68 and tapered forward portion. The rod and tongue member is yieldably urged towards the rear by means of the helical springs 69, one thereof being arranged on each side of the rod 65. The forward ends of the springs 69 are attached to pins 69′ on the sides of the rod at a point well forward of the mid portion thereof, while the rear ends of the springs are attached to pins 69^2 on the side walls 61 adjacent the tail portion 62.

The rod 65 is cocked in its retracted position against the tension of springs 69 by means of pin 70 projecting between the hinge ears 71 of the lower jaw 72 of the reptile. The ears 71 are spaced apart and disposed on opposite sides of the longitudinal center line of the space between the side walls as shown in Figure 6. Pins 73 form the axles about which the jaw swings to open and closed positions and are mounted in the opposite side walls 61. The pin 70 is offset from the axle 73 so as to allow it to be held against the wall 68 of the tooth 67, the jaw being urged in an upward direction by means of springs 74 arranged on opposite sides of the rod 65 and connected at their inner ends to the ears 71 inwardly of the axle 73 and at their opposite ends to the rod 65 at the same point which forms the attachment for the inner ends of the springs 69. Thus the tendency of the springs 74 is to close the jaw when the rod is projected rearwardly. The jaw 72 is provided with an opening 75 adjacent the tip, and in open position when the tongue is cocked, as shown in Figure 7, the jaw is in a downwardly inclined position to form a V-shaped space between it and the tongue. It is the purpose of the game to roll a ball or other playing piece 76 into the open jaws and in doing so to engage and lift the tongue and release the tooth from the pin 70. This allows the springs 69 to contract and propel the reptile along the rod 65, the tip 77 of which is abutting the base board or other upright abutment.

The reptile target is supported on two sets of wheels 78 mounted on axles 79 carried on the bottom plate 63 adjacent opposite ends thereof.

The operation of the reptile target is much the same as that of the previously described embodiments of the invention. In this form the ball 76 is returned towards the player between the tongue and lower jaw while in the other modifications the rings 37 are returned towards the player disposed about the necks of the targets.

It is to be understood that the shape and size of the target is unimportant since the projecting mechanisms of the present invention may be embodied in substantially any target design without departing from the spirit of the invention.

Having described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a target of the character described, a body representing a creature having a head and tail portion, and being provided with a bore running longitudinally of the body from the tail to a point short of the head, a rod movable in said bore and having one end projecting from the tail, a coiled spring disposed in the bore between the closed end thereof and the rod, a catch mounted in the body and disposed to engage the rod to hold it in retracted position in the bore and against the spring, and means pivotally mounted on said body to engage the catch and tilt same out of contact with the rod to allow its release and provided with a portion disposed adjacent the head to receive a playing piece and tilt the means to release the catch.

2. A target, as claimed in claim 1, in which said spring is secured at its opposite end respectively, to the body at the closed end of the bore and inner end of the rod, to prevent the latter from being projected entirely out of the bore.

3. A target, as claimed in claim 1, in which the last named means comprise wing shaped pieces pivotally mounted on a common axis at opposite sides of the body, a connecting piece between the wings to engage the catch and disengage it from the rod in the retracted position thereof.

4. A target, as claimed in claim 1, in which the catch comprises a U-shaped spring member having one of its free ends engaged by the pivotal means turned upon itself to form a hook engaging the rod, said U-shaped spring member being disposed in an opening in the body adjacent the bore and its closed end embracing the pivotally connecting means for the said last named means, the other arm of the hook being seated against the body, whereby tilting movement of the pivotal means will collapse the spring and lift the hook from engagement with the rod.

5. In a target of the character described, a flat bird shaped body having a tail portion and a head held upright, said body having a longitudinal bore opening out of the tail portion and a recess in the latter over the bore, a pair of wings on opposite sides of the body, a pivot projecting through the body and adjacent the closed inner end of the said recess upon which the wings are pivotally mounted, connecting pieces for the wings at opposite ends thereof, a rod movable in the said bore and projecting at one end beyond the tail, said projecting end having a resilient abutting tip and a shoulder inside the tip, a coiled spring in the bore between the inner ends of the latter and rod, said spring being attached to the body at the inner end of the bore and to the rod at its opposite end to prevent the rod from being projected entirely out of the bore, a flat spring member turned about on itself and inserted in the recess, the closed end of the spring member embracing the said pivot and the lower arm of the spring member having a hooked end projecting beyond the tail and resting on the rear connecting piece of the wings and against the shoulder of the rod to hold the same in retracted position, and wheels carried by the body to support the same.

HARRY B. PALMER.