

July 4, 1939.

A. W. SWENSON  
AMUSEMENT APPARATUS  
Filed April 16, 1937

2,164,361

4 Sheets-Sheet 1

Fig. 1

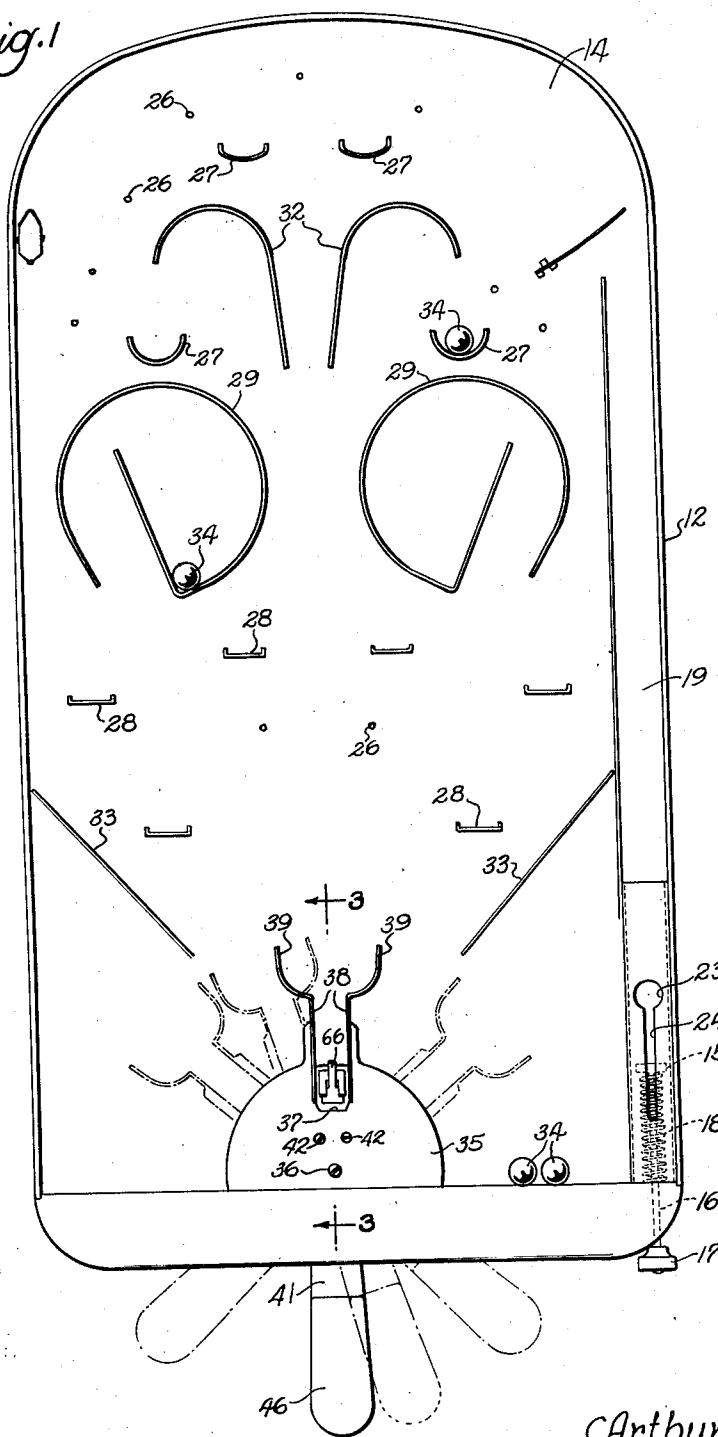
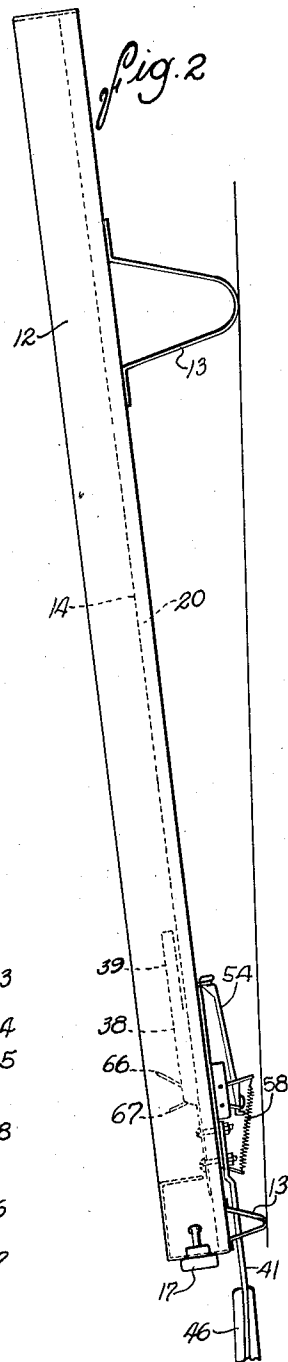


Fig. 2



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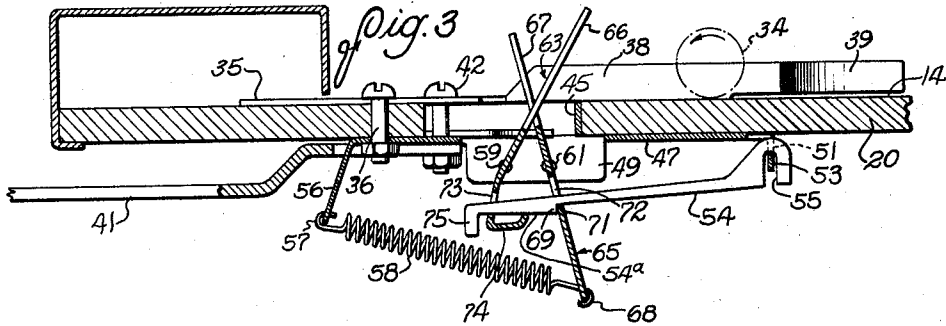
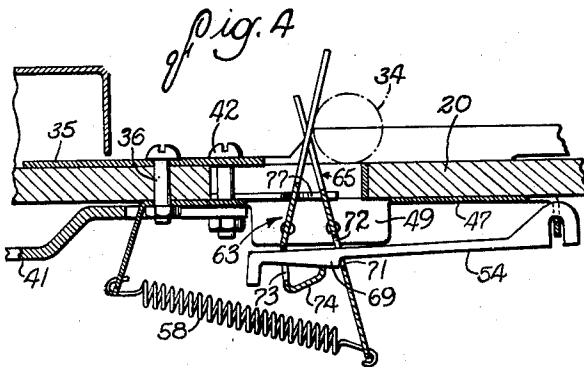
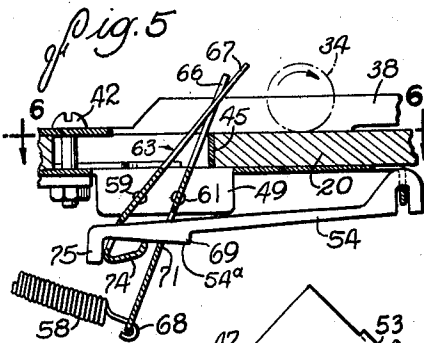
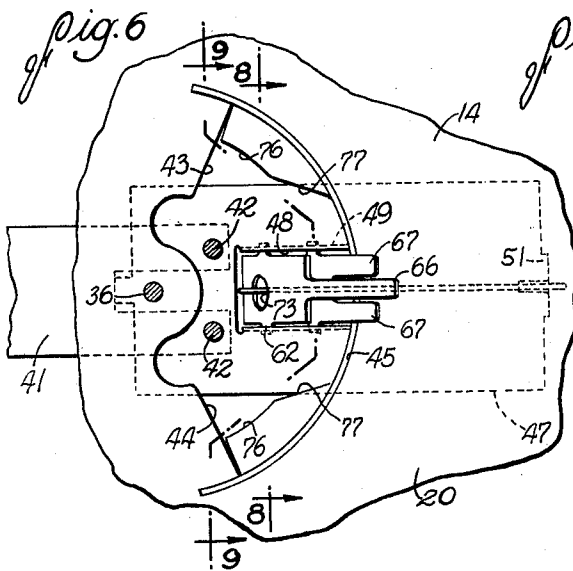
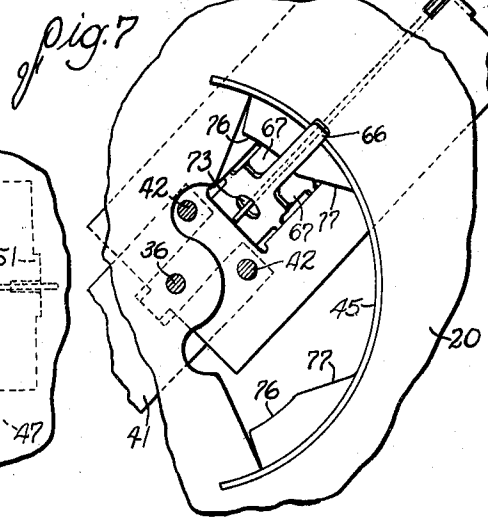
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4 Sheets-Sheet 2



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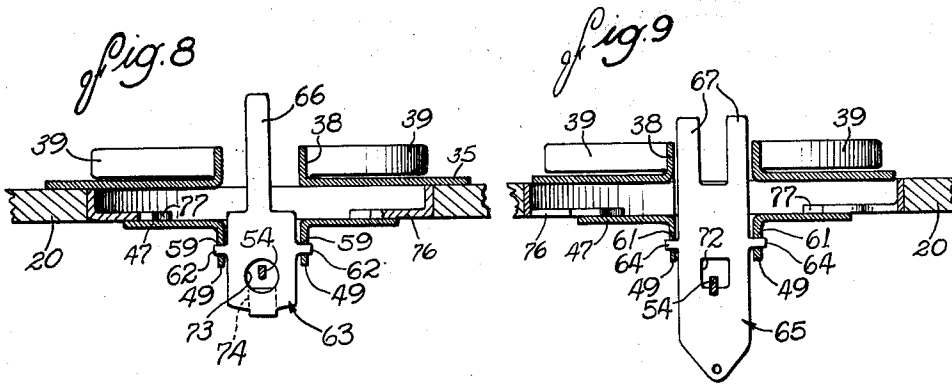
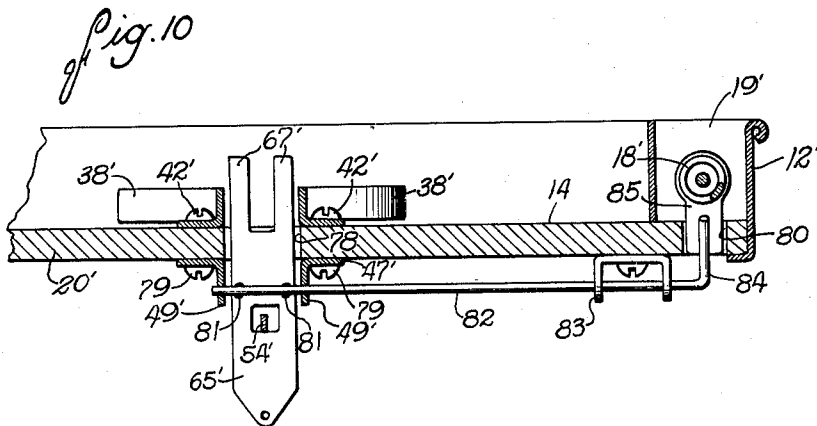
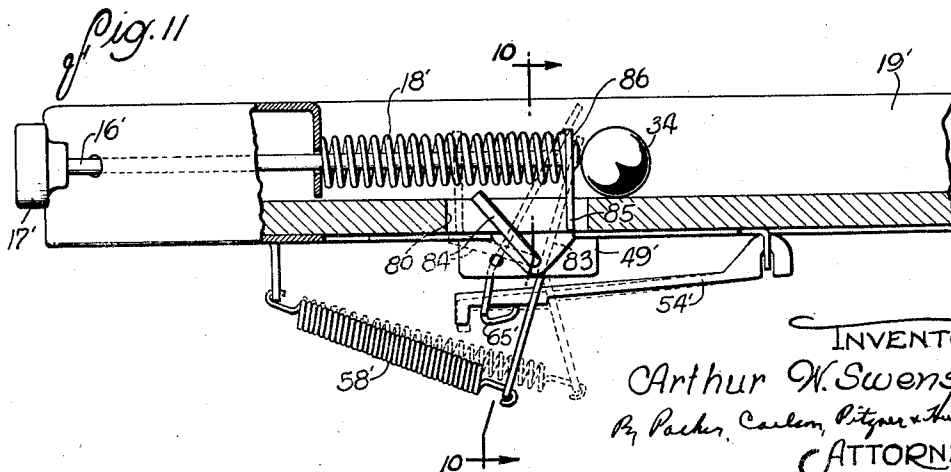
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AMUSEMENT APPARATUS

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4 Sheets-Sheet 3



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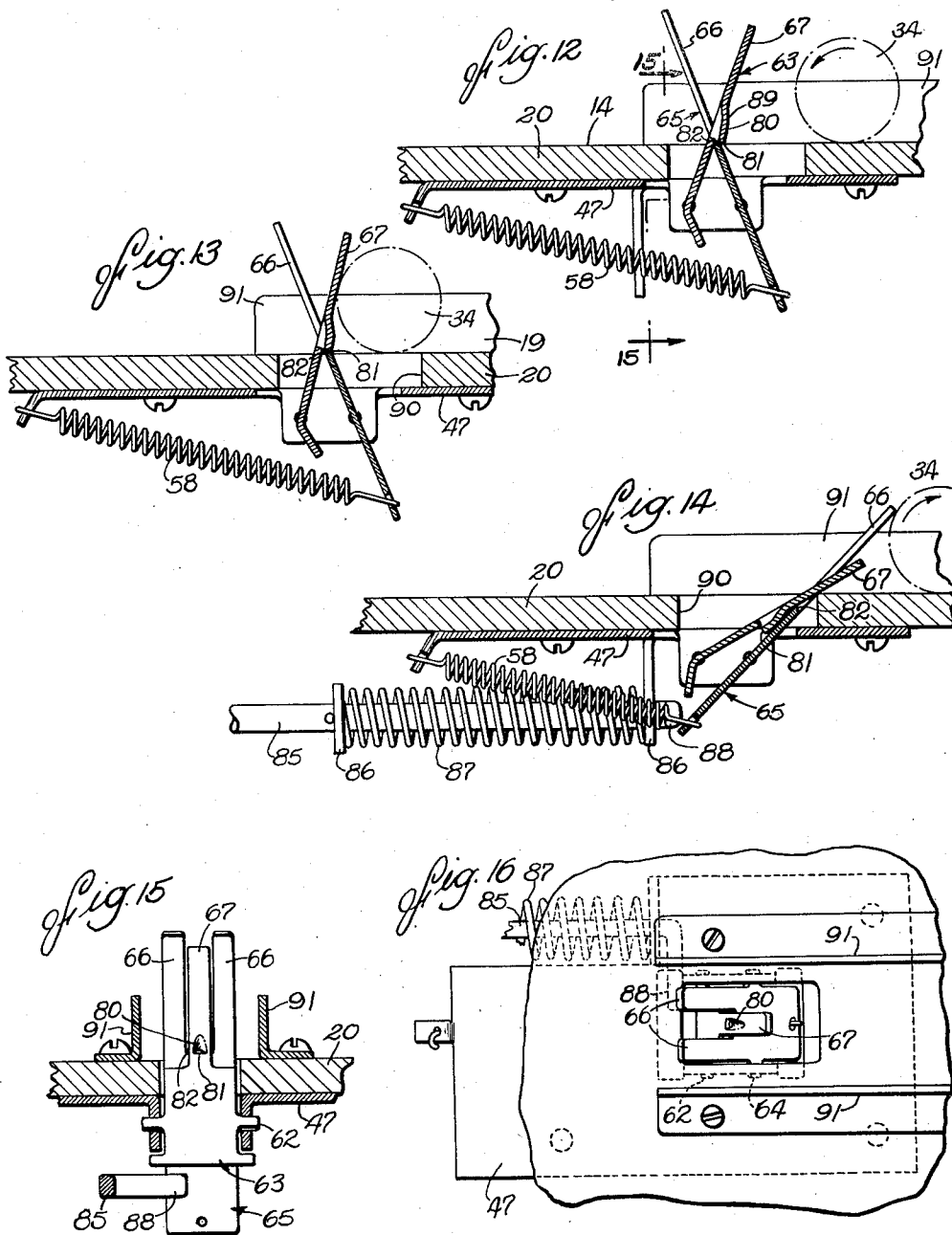
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AMUSEMENT APPARATUS

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4 Sheets-Sheet 4



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## UNITED STATES PATENT OFFICE

2,164,361

## AMUSEMENT APPARATUS

Arthur W. Swenson, Rockford, Ill.

Application April 16, 1937, Serial No. 137,219

20 Claims. (Cl. 273—121)

The invention pertains to a game of the bagatelle type having an inclined playing surface along which balls used in the play may gravitate, and has more particular reference to games utilizing devices commonly called "kickers" which may be employed in various ways for the purpose of propelling or shooting the balls over the playing surface in fixed or in selected directions.

One object of the present invention is to provide a novel kicker mechanism which is particularly adapted for use in small games or toys by virtue of its simple and inexpensive construction, its mechanical as distinguished from magnetic operation, and its sensitivity of response to contact by relatively light balls or marbles gravitating along the playing surface.

Another object is to provide a novel means for resetting of the kicker when the latter is used in game apparatus wherein provision is made for manually and selectively controlling the direction at which the ball is reprojected by the kicker.

A further object is to arrange the improved kicker in a novel manner relative to the guiding and deflective devices of the game apparatus.

The invention also resides in the novel construction of the kicker which facilitates resetting and which enables a kicker to be constructed as a structurally separate unit adapted for usage in a wide variety of toys.

Other objects and advantages of the invention will become apparent from the following detailed description taken in conjunction with the accompanying drawings, in which

Figure 1 is a plan view of a game apparatus embodying the novel features of the present invention.

Fig. 2 is a side elevation of the game apparatus shown in Fig. 1.

Fig. 3 is a fragmentary sectional view taken along the line 3—3 of Fig. 1 showing one form of mechanical kicker device in a shooting position just prior to engagement by a ball.

Fig. 4 is a view similar to that of Fig. 3 but showing the kicker mechanism at the instant of shooting the projectile.

Fig. 5 shows the kicker mechanism after it has been tripped.

Fig. 6 is a fragmentary plan section taken along the line 6—6 of Fig. 5.

Fig. 7 is a similar view showing the kicker mechanism while being reset.

Figs. 8 and 9 are respectively sectional views taken along the lines 8—8 and 9—9 of Fig. 6.

Figs. 10 and 11 are views of a modified form of kicker mechanism and kicker resetting mechanism, Fig. 10 being a vertical section taken along the line 10—10 of Fig. 11, and Fig. 11 being a fragmentary side elevational view of the modified game board with parts broken away to show the ball shooter.

Figs. 12, 13, and 14 are views similar to Figs. 3, 4, and 5 showing an improved form of kicker.

Fig. 15 is a section taken along the line 15—15 of Fig. 12.

Fig. 16 is a plan view with the parts positioned as in Fig. 12.

While the invention is susceptible of various modifications and alternative constructions, I have shown in the drawings and will herein describe in detail the preferred embodiment, but it is to be understood that I do not intend to limit the invention by such disclosure but aim to cover all modifications and alternative constructions falling within the spirit and scope of the invention as expressed in the appended claims.

The game illustrated in Figs. 1 and 2 includes a substantially rectangular frame 12 surrounding a board 20 which is mounted on legs 13 by which one end of the board is raised above the other so as to incline the playing surface 14 formed by the board. The game board is provided with the usual plunger 15 which has a stem 16 and an operating handle 17 urged forwardly by a coiled spring 18 surrounding the stem. By pulling the handle 17 rearwardly, the spring is compressed so that when the handle is released, the plunger moves forward under the spring action and propels a ball up along channel 19 provided on the upper portion of the playing surface. Scattered in any desired pattern about the playing surface may be a plurality of upstanding deflecting devices and pockets or targets herein shown as comprising pins 26, a plurality of pockets 27, 28, and 29, deflectors 32, and converging guide walls 33. Various other types and arrangements of targets and deflectors may be utilized as will be understood.

The projectiles 34 utilized in playing the game may be relatively light balls preferably glass or other marbles. Depending upon the force with which the ball is projected out of the channel 19, it may strike one of the pins 26 or the deflector 31, it may drop into one of the pockets 27, it may gravitate with or without striking one of the deflecting devices, or it may drop into a pocket down the board toward the lower end thereof and along any one of a large number of paths.

Near the lower end of the board is a manually shiftable catching device which may be moved by hand to catch a ball gravitating down differ-

ent parts of the playing surface. Associated with the catching device is a kicker mechanism for reprojecting a caught ball back up the surface of the board toward one of the pockets or targets at an angle selected by the player. Herein the kicker device operates wholly mechanically in projecting a ball and is adapted to be reset mechanically. Preferably, it is located in the opening between the lower ends of the guide walls 33 so that if the operator fails to catch a ball, the ball may gravitate past the catching device on either side thereof and roll to the bottom of the playing surface.

In the present instance, the ball catching device comprises a plate 35 resting upon the top surface of the board 20 and swingable about a pivot 36. The plate 35 is recessed as indicated at 37 and along the sides of the recess is bent to form a pair of upstanding parallel walls 38 terminating in extensions 39 which are curved and flared outwardly to form an opening several times as wide as the diameter of the balls 34. For a substantial distance preferably equal to several times the diameter of a ball, the walls 38 are spaced apart a distance only slightly greater than the ball diameter, thereby serving to guide a caught ball to the kicker mechanism while providing a short interval of time between the entry of the ball into the enlarged upper end of the ball-catching channel and the time the ball engages the kicker. The walls 38 also function to guide the reprojected ball in its upper movement. An arm 41 disposed beneath the board 20 is rigidly connected to the plate 35 by means of screws 42 which project through a slot in the board, the margins of which slot are generally designated 43, 44, and 45 (Fig. 6). The arm 41 projects outwardly beneath the lower end wall of the casing 12 and is provided with a handle 46 by which the plate 35 and the catching device thereon may be swung about the pivot 36.

When a ball gravitates down the playing surface without engaging in any pocket, it will roll or be deflected by the walls 33 toward the central opening defined by the lower ends of these walls. The player will swing the handle 46 to various positions as illustrated in Fig. 1 and endeavor to catch the ball. If he has successfully disposed the catching device in the path of the gravitating ball, the latter will roll into the mouth of the catching device between the portions 39 and will then pass down the channel formed by the relatively parallel sides 38 to the kicker device which is described hereinafter. As will be appreciated, the length of the passage or channel between the substantially parallel sides 38 relative to the diameter of the ball and its speed of movement down the channel provides a variable time interval during which the operator may swing the catching device about its pivot to aim or direct the guide channel toward a particular target before reprojecting of the ball takes place. Of course, the length of the outwardly flared portions 39 and their shape may slightly increase the time interval allowed for positioning the catching device before the kicker operates.

The kicker device with which the present invention is primarily concerned comprises generally a member 65 upstanding from the lower end of the channel of the catching device and urged in a direction upwardly along the channel by a spring 58. Normally the kicker member is latched or releasably held in cocked position (Fig. 3) and is adapted to be tripped in accurately timed relation to the movement of a ball toward

the member 60 that the energy stored in the spring will be imparted to the ball to reproject the latter backwardly up the playing surface.

Herein the kicker member 65 takes the form of a substantially flat plate of sheet metal formed on opposite sides and intermediate its ends with trunnions 64 which are received in apertures 61 in spaced flanges 49 struck downwardly from a flat supporting plate 47. The latter is disposed directly beneath the board 20 and is rigidly secured by the bolts 42 to the plate 35 and the handle 41 of the catching device so as to turn therewith about the pivot 36. The spring 58 is of the contractile type and is stretched between the lower end of the kicker lever 65 and a lug 56 bent downwardly from the lower end of the supporting plate 47. The spring thus tends to swing the kicker member so as to move its upper end upwardly along the playing surface.

In the form shown in Figs. 3 to 7, the latch for releasably holding the kicker member in cocked position is in the form of a structurally separate bar 54 extending through an aperture 72 in the member 65 and having a hooked end 55 supported by a lug 53 on the plate 47. The latch is thus supported to swing toward and away from the underside of the board 20 about a pivot 51. A shoulder 69 intermediate the ends of the latch is adapted to engage behind the lower edge 71 of the aperture 72 and normally hold the kicker member 65 in the cocked position shown in Fig. 1 wherein the upper end of the member is inclined away from a vertical position and toward the lower end of the playing surface. The latch tends to remain in active position by gravity, but when it is raised sufficiently to carry the shoulder 69 above the edge 71, the member 65 is released to the action of the spring 58.

Release of the latch in timed relation to the movement of the ball toward the kicker member is effected by a lever 63 having trunnions 62 near its lower end fulcrumed in the flanges 49 so that the lever is adapted to swing about an axis parallel to and spaced toward the lower end of the playing surface from the axis of the kicker member. The release lever is inclined in a direction opposite to the kicker lever and intersects the latter near the playing surface so that its upper end 66 projects above the surface and is disposed ahead of the upper end 67 of the kicker member. To permit of such intersection without reducing the effective width of the kicker member, the upper end of the latter is bifurcated (see Fig. 9) to form two arms 67 and the upper end 66 of the release lever is reduced to a width less than the spacing of these arms. Near its lower end, the lever 63 is formed with a guide aperture 73 through which the free end of the latch 54 projects. The extreme end is bent to form an arm 74 which bears against the lower edge 54<sup>a</sup> of the latch so as to act thereon as a cam in effecting release of the latch.

In reset or cocked position, the parts of the kicker mechanism above described are positioned as shown in Fig. 3. As a ball caught in the catching device rolls down the channel thereof, the face engages the release lever arm 66 at a distance spaced above the playing surface equal to the diameter of the ball. Owing to the inclination of the lever, and the substantial length of its upper end and the action of the lower end 74 as a cam on the surface 54<sup>a</sup>, the impact force applied by the ball acts with substantial mechanical advantage in overcoming the friction on the tripping shoulder 69. As a result, the impact

of even a light ball such as a glass marble gravitating down the playing surface is sufficient to lift the shoulder 69 above the edge 71 and thus release the latch when the spring 58 is under sufficient tension to effect projection of the ball the full length of the playing surface. In the releasing movement of the lever, the ball moves substantially into contact with the kicker arm 67 as shown in Fig. 4. Following release of the kicker, the energy stored in the spring 58 is imparted to the ball by the kicker arms 67, and the ball is projected upwardly along the channel between the guides 38 and out of the catching device as illustrated in Fig. 5. Movement of the kicker member may be limited by engagement with the wall 45 of the recess in the board 20 while the forward movement of the release lever is limited by engagement of its lower end with the end 75 of the latch 54.

The mechanical kicker thus provided is extremely sensitive to the impact of a ball gravitating down the small incline of the playing surface. That is to say, the spring 58 may be of sufficient strength to enable the ball to be projected back to the upper end of the playing surface and at any desired velocity without at the same time imposing so much friction on the latching surfaces as to prevent proper release of the kicker by the ball. It is possible, therefore, to employ glass marbles or other relatively light balls such as are commonly used in toy games of the present general type.

All of the parts of the kicker construction are, it will be observed, mounted on the supporting plate 47 and thus may be formed as a separate sub-assembly or unit which may be used in a wide variety of different games. Thus the kicker unit may be mounted in any desired location simply by fastening the supporting plate to the underside of the board 20 or to a movable carrier such as the plate 35 with the kicker and release arms 67 and 66 projecting upwardly through an opening in the board.

When the kicker above described is used in conjunction with a movable catching device, provision is made for resetting or cocking the kicker automatically as an incident to a certain movement of the catching device. To increase the skill and dexterity required in playing the game, such resetting is preferably effected in the movement of the catching device in either direction beyond the normal range in which a ball may be caught, that is to say, in the extreme position indicated in dot-dash outline in Fig. 1 with the mouth of the catcher beyond a position of alignment with the guide walls 33.

To reset the kicker in this manner, the arcuate wall 45 at the upper end of the board opening is formed at its ends with cam members 76 which project into the opening and have sloping cam surfaces 77. These cam members 76 are disposed in the path of movement of the kicker lever 65. As the supporting plate 47 is swung about the pivot 36 to one extreme position, one or the other of the beveled shoulders 77 will engage with an upper portion of the kicker lever as shown in Fig. 7 and move it backwardly about its pivot until the latch lever shoulder 69 passes to the rear of and drops behind the edge 71, the latch lever dropping to this position under the influence of gravity. Thus, by merely swinging the handle 46 to one of the extreme right or left dotted line positions shown in Fig. 1, the operator effects the re-setting or re-cocking of the kicker mechanism.

Provision for resetting of the kicker by movement of the catching device beyond the range in which it is effective in catching balls not only adds to the interest of playing the game but necessitates greater skill. This is for the reason that the player must be sure to reset the kicker after each release thereof in order to be able to take full advantage of the kicker action in increasing the score. Also resetting must be effected quickly in order to be prepared for recatching a ball that may miss all of the pockets in rolling backwardly after projection by the kicker.

In some games, it may be desirable to have a relatively stationary kicker mechanism either with or without a relatively stationary guide channel. In such case, however, a resetting or recocking mechanism different from that above described must be provided. Referring to Figs. 10 and 11, it will be observed that the board 20 may be provided with a pair of outwardly flared upstanding ribs or guide flanges 38' which are secured in fixed relation to one another and to the board 20' as by screws 42', adjacent to a slot 78 through which a kicker mechanism very similar to the kicker mechanism previously described may be disposed. In this case, however, the body 47 of the kicker mechanism is fixed as by screws 79 to the bottom of the board 20'. The kicker or projectile projecting lever 65' is firmly and non-rotatably secured in any suitable manner, as by spot-welds 81, to a rod 82 which passes through and pivots in down-turned flanges 49' thereby forming a pivot mounting for the kicker lever 65'.

The rod 82 extends transversely of the game board to a side of the casing 12' adjacent to which it may be pivotally supported in the arms of a bearing bracket 83. The outer end of the rod 82 is turned upwardly at right angles to the main portion thereof to provide an end 84 which projects through an aperture 80 into the path of movement of a depending portion 85 of a spring actuated projectile impelling plunger 86 disposed in a channel 19' corresponding to the channel 19 of the board previously described. The arrangement of the upwardly projecting end 84 of the rod 82 with respect to the depending portion 85 of the plunger 86 and with respect to the kicker lever 65' is such that when the spring pressed plunger 86 is in its forward position in the channel 19', to which position it is urged by a spring 18', the upwardly turned end 84 of the rod 82 is disposed in the dotted line position when the kicker mechanism is cocked. As soon as a ball or other projectile releases the kicker mechanism, the movement of the kicker lever 65' to the full line position shown in Fig. 11 moves the end 84 of rod 82 to the full line position shown in that figure. When an operator retracts the plunger 86 by a rearward pull on the handle 17 and stem 16, the downwardly extending projection 85 on the plunger moves rearwardly in the slot 80 and, after a predetermined movement, engages the projection 84 depressing it and rotating rod 82 in a counter-clockwise direction viewing Fig. 11, until projections 84 and 85 reach the dotted line positions at which time the latch lever 54' will have secured the kicker lever 65' in its cocked position with spring 58' in tension.

Instead of employing a structurally separate latching element for holding the kicker in cocked position, the latch may be formed by direct interengagement of the kicker 65 and the release lever 63. Such a simplified kicker unit is illus-

trated in Figs. 13 to 16. In this embodiment, the latching action is obtained by forming a lug 80 on the upwardly facing side of the release lever 63 having a downwardly facing shoulder 81 which overlies and engages the edge 82 at the end of the longitudinal slot between the kicker arms 66. In the present instance the lug 80 is produced by deforming the metal of the portion 66 of the release lever.

The operation of this form of kicker is the same as that of the form first described above. In the cocked position, the levers 63 and 65 tend to swing together by virtue of their intersecting relation and fulcruming thereof about spaced pivots. Thus the shoulder 81 hooks over the edge 82 as shown in Fig. 12 and resists the tendency of the edge to move upwardly and forwardly under the action of the spring 58. The kicker member is thus latched effectively. When the release arm 67 is struck by a gravitating ball, the resulting movement of the release lever carries the shoulder 81 upwardly and away from the edge 82 as illustrated in Fig. 13, the impact force of the ball thus being applied at a mechanical advantage such as to properly overcome the friction on the latching parts. The lever 63 is thus released and operated by the spring 58 to propel the ball upwardly, the parts coming to rest in the position shown in Fig. 14.

The improved form of kicker unit is arranged in an opening 90 in the board 20 at the lower end of a channel formed by guide walls 91. The supporting plate 47 of the kicker is secured to the underside of the board.

Resetting may be accomplished in the ways previously described or by manipulation of a plunger rod 85 slidable endwise in guides 86 and urged to inactive position by a spring 87. When the rod is pushed endwise and to the right as viewed in Figs. 14 and 16, the end 88 thereof engages the lower end of the kicker member 65 and swings it and the release lever 63 against the tension of the spring 58. In this movement, the edge 82 rides along the surface 89 of the lug 80 and finally moves in behind the shoulder 81 as the cocked position is reached. During retraction of the resetting rod, the release lever moves into latching position by gravity until the shoulder 81 comes into effective engagement with the edge 82.

I claim as my invention:

1. For use in games having an inclined playing surface, a mechanical kicker comprising, in combination, a support, a kicker lever pivoted on said support, a spring urging said lever in one direction, a latch pivoted on said support and engageable with said lever to hold the same in cocked position against the action of said spring, a member pivotally mounted on said support with one end disposed in advance of said kicker lever, and means connecting said member and said latch for releasing the latter to trip said lever upon movement of the member toward said lever.

2. For use in a game of the bagatelle type, a mechanical kicker comprising, in combination, a support, a kicker member mounted on said support for movement relative thereto, energy storing means acting on said member for effecting projection of a ball thereby, a gravity actuated latch engageable with said member to hold the same releasably in retracted position, and a ball engaging member positioned in advance of said first mentioned member when the latter is in cocked position and under the impact force of the ball to trip said latch.

3. For use in a game of the bagatelle type, a mechanical kicker comprising, in combination, a support, two members mounted on said support for movement past each other along a common path, energy storing means acting on one of said members and tending to urge the latter toward and beyond the other member, and latching means for holding said first member retracted behind the second member and releasable in response to movement of the second member toward the first member whereby to permit projection of the first member past the second member by said energy storing means.

4. For use in a game of the bagatelle type, a mechanical kicker comprising, in combination, a support, two levers pivoted on said support to swing in a common plane and intersecting each other so that their ends are spaced apart along said plane, spring means acting between said support and said one lever and tending to urge the end thereof toward and beyond the end of the second lever, and latching means for holding the first lever with its end retracted behind the second lever and releasable in response to movement of the end of the second lever relative to and toward the first lever.

5. For use in games having an inclined playing surface, a mechanical kicker comprising, in combination, a support, a kicker lever pivoted on said support and adapted to extend upwardly from said playing surface when the support is mounted rigid with and beneath said surface, a spring acting on said lever and urging the same in one direction, a release member pivotally mounted on said support with one end disposed in advance of said kicker lever, and latching means for holding said kicker lever in cocked position and operable to release the kicker lever in response to engagement by a ball rolling toward the kicker lever.

6. For use in a game of the bagatelle type, a mechanical kicker comprising, in combination, a support, a ball projecting member mounted on said support for movement relative thereto, energy storing means acting on said member for effecting projection of a ball thereby, means for latching said member in retracted position, and a ball-engaging member positioned in advance of said first mentioned member when the latter is in cocked position and operable to apply the impact force of the ball to said latching means with increased mechanical advantage whereby to release the latching means.

7. For use in a game of the bagatelle type, a mechanical kicker comprising, in combination, a support, a kicker member mounted on said support for movement relative thereto, energy storing means acting on said member for effecting projection of a ball thereby, means for latching said member in retracted position, and a ball-engaging member positioned in advance of said kicker member when the latter is in cocked position and operable in response to engagement by a ball rolling toward said kicker member to actuate said latching means and release said kicker member to the action of said energy storing means.

8. For use in a game of the bagatelle type, a mechanical kicker comprising, in combination, a support, a kicker member mounted on said support for movement relative thereto, energy storing means acting on said member for effecting projection of a ball thereby, means for latching said member in retracted position, and a ball-engaging member positioned in advance of said

kicker member when the latter is in cocked position and operable in response to engagement by a ball rolling toward said kicker member to actuate said latching means and release said kicker member to the action of said energy storing means, said latching means comprising two interengageable parts carried by the respective members.

9. For use in a game of the bagatelle type, a mechanical kicker comprising, in combination, a support, a kicker member mounted on said support for movement relative thereto, energy storing means acting on said member for effecting projection of a ball thereby, means for latching said member in retracted position, and a ball-engaging member positioned in advance of said kicker member when the latter is in cocked position and operable in response to engagement by a ball rolling toward said kicker member to actuate said latching means and release said kicker member to the action of said energy storing means, said latching means comprising a lug struck out from one of said members and engaging an edge portion of the other member.

10. For use in a game of the bagatelle type, a mechanical kicker comprising, in combination, a support, two levers pivoted on said support to swing in a common plane about spaced parallel axes and intersecting each other so that their ends are spaced apart along said planes, means normally on one lever to urge the end thereof toward and beyond the end of the second lever, and interengageable latching means formed on said levers at the point of intersection thereof and operable to hold the first lever retracted behind the second lever, said latching means being releasable in response to movement of the second lever relative to and toward the first lever.

11. For use in a game of the bagatelle type, a mechanical kicker comprising, in combination, a support, two levers pivoted on said support to swing in a common plane and intersecting each other so that their ends are spaced apart along said planes, one of said ends comprising two spaced arms disposed on opposite sides of the end of the other lever, spring means acting on one lever and tending to urge the end thereof toward and beyond the end of the second lever, and latching means for holding the first lever with its end retracted behind the end of the second lever and releasable in response to movement of the second lever relative to and toward the first lever.

12. In a game of the bagatelle type, the combination of an inclined playing surface, a kicker member disposed above said surface in the path of balls gravitating therealong and mounted for movement along the surface, energy storing means acting on said member and tending to project the same upwardly along said surface, means for releasably holding said member in cocked position, and means spaced in advance of said member a distance less than the range of movement thereof and operable by the impact of a ball rolling toward said member to release the member to the action of said energy storing means whereby to effect projection of the ball reversely along said surface.

13. In a game of the bagatelle type, the combination of an inclined playing surface, a kicker member disposed above said surface in the path of balls gravitating therealong, and mounted for movement upwardly along the surface, spring means acting on said member and tending to project the same upwardly along said surface, means

for releasably holding said member in cocked position, and means spaced in advance of said member a distance less than the range of movement thereof and operable by the impact of a ball composed of light material such as glass to release the member, said spring means storing sufficient energy to cause reverse movement of said ball to the extreme upper end of said playing surface.

14. For use in a game of the bagatelle type, a mechanical kicker comprising, in combination, a support, two members mounted on said support for movement past each other along a common path, energy storing means acting on one of said members and tending to urge the latter toward and beyond the other member, latching means for holding said first member retracted behind the second member and releasable in response to movement of the second member toward the first member, a second support movably mounting said first support, and means responsive to a predetermined movement between said supports to effect reengagement of said latching means to reset the kicker.

15. For use in a game of the bagatelle type, a mechanical kicker comprising, in combination, a support, two members mounted on said support for movement past each other along a common path, energy storing means acting on one of said members and tending to urge the latter toward and beyond the other member, latching means for holding said first member retracted behind the second member and releasable in response to movement of the second member toward the first member, means pivotally supporting said support for bodily movement of said members, and cam means operating in such bodily movement to reengage said latching means and thereby re-cock the kicker.

16. In a game of the bagatelle type, the combination of an inclined playing surface, a kicker member disposed above said surface in the path of balls gravitating therealong, energy storing means acting on said member and tending to project the same upwardly along said surface, means for releasably holding said member in cocked position, means spaced in advance of said member a distance less than the range of movement thereof and operable by the impact of a ball rolling toward said member to release the member to the action of said energy storing means, and a manually movable device operable upon movement to either of two positions in opposite directions from a normal idle position to effect re-cocking of said kicker member.

17. In a game apparatus of the character described, a manually operable catching device movable laterally of a playing surface for catching balls moving therealong, a mechanically operable kicker operatively associated with said catching device for effecting automatic reprojection of a caught ball along said surface, and means for resetting said kicker by movement of said catching device laterally of said surface beyond a ball-catching position.

18. In a game apparatus of the character described, a manually operable catching device movable laterally of a playing surface and operable within a predetermined range of movement to catch balls moving along said surface, a mechanically operable kicker operatively associated with said catching device for effecting automatic reprojection of a caught ball along the surface, and means for resetting said kicker by movement of

said catching device beyond said range of catching movement.

19. In an amusement apparatus having an inclined playing surface, means forming a ball catching pocket shiftable to different positions to catch balls gravitating down said surface in different paths, manually operable means for changing the position of said catching pocket, a ball released spring loaded and mechanically cocked kicker for automatically discharging a ball caught in said pocket, and means operative incidentally to a predetermined movement of said manually operable means for re-cocking said kicker.

20. In a game board of the character described having an inclined playing surface and a target, means for shooting a gravity movable projectile

at said target comprising, a manually directable projectile catching device near the lower end of said surface, a spring, a projectile ejecting device in cooperative association with said catching device and operated by said spring, means for releasably securing said device in set position with said spring in energy stored condition, means in the path of a projectile entering said catching device and operative upon engagement with a projectile for effecting the release of said spring from said securing means, and means operative upon a predetermined bodily movement of said catching device for re-securing said spring in energy stored condition.

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