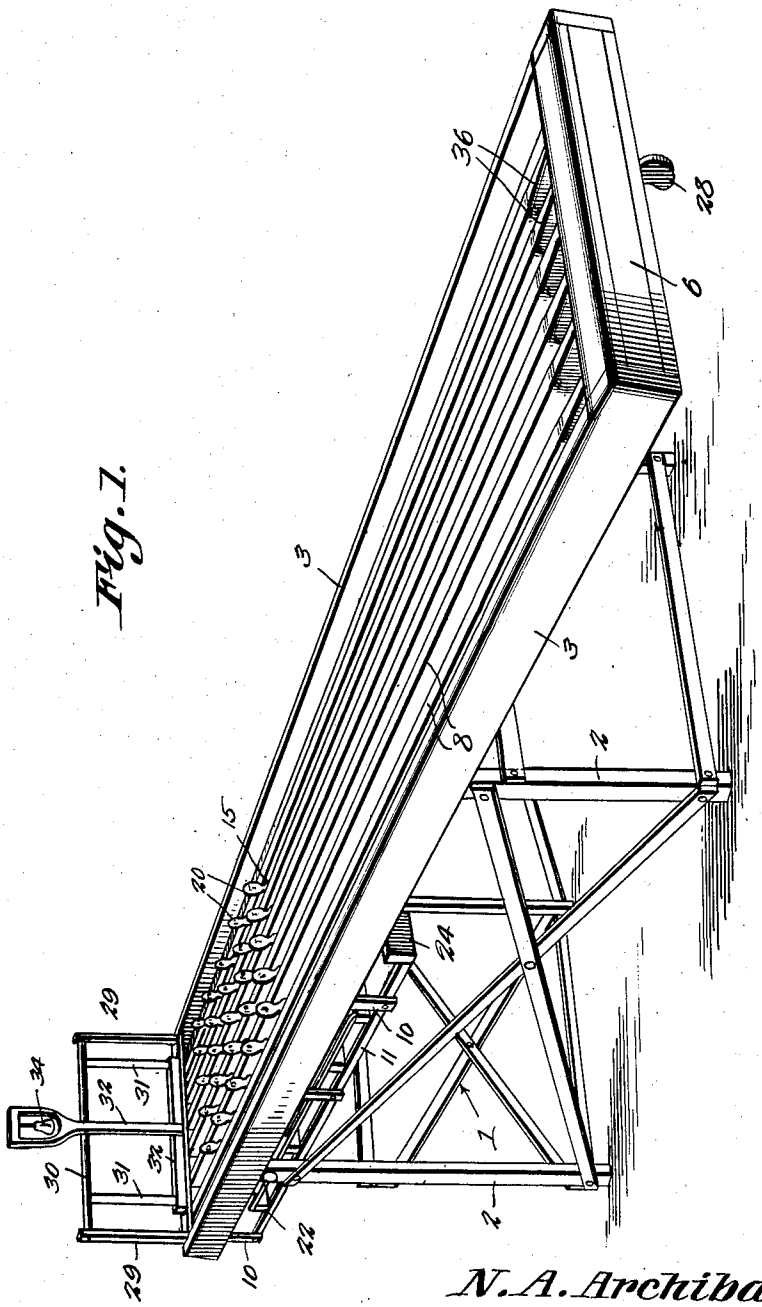
March 5, 1940. N. A. ARCHIBALD 2,192,283

GAME APPARATUS

Filed March 8, 1938 4 Sheets-Sheet 1

Fig. 1.



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GAME APPARATUS

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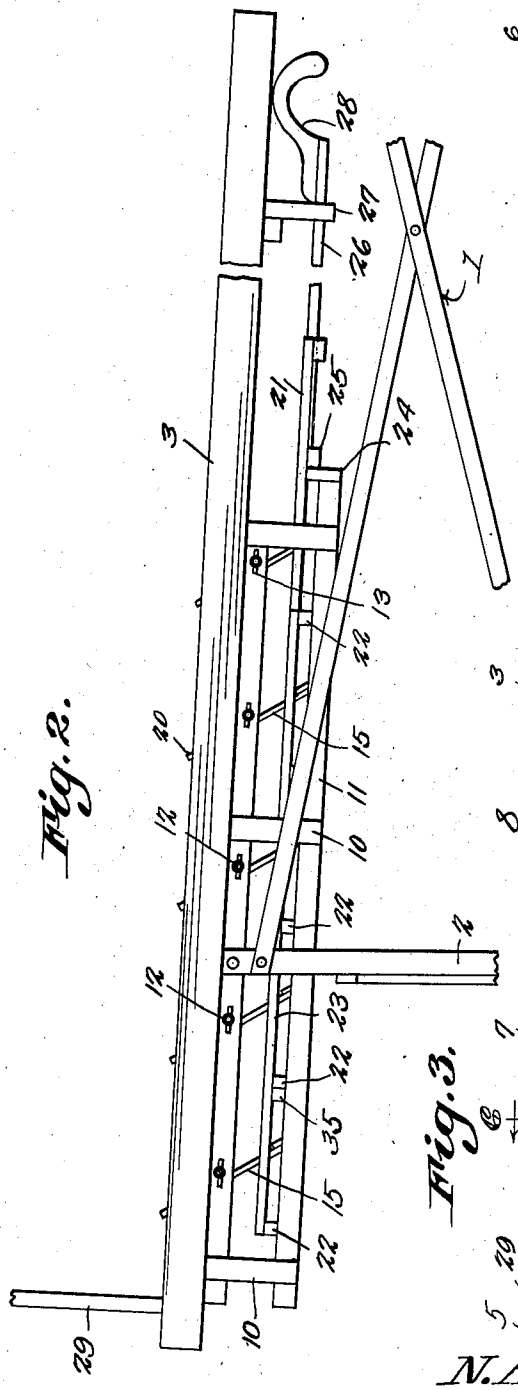


Fig. 2.

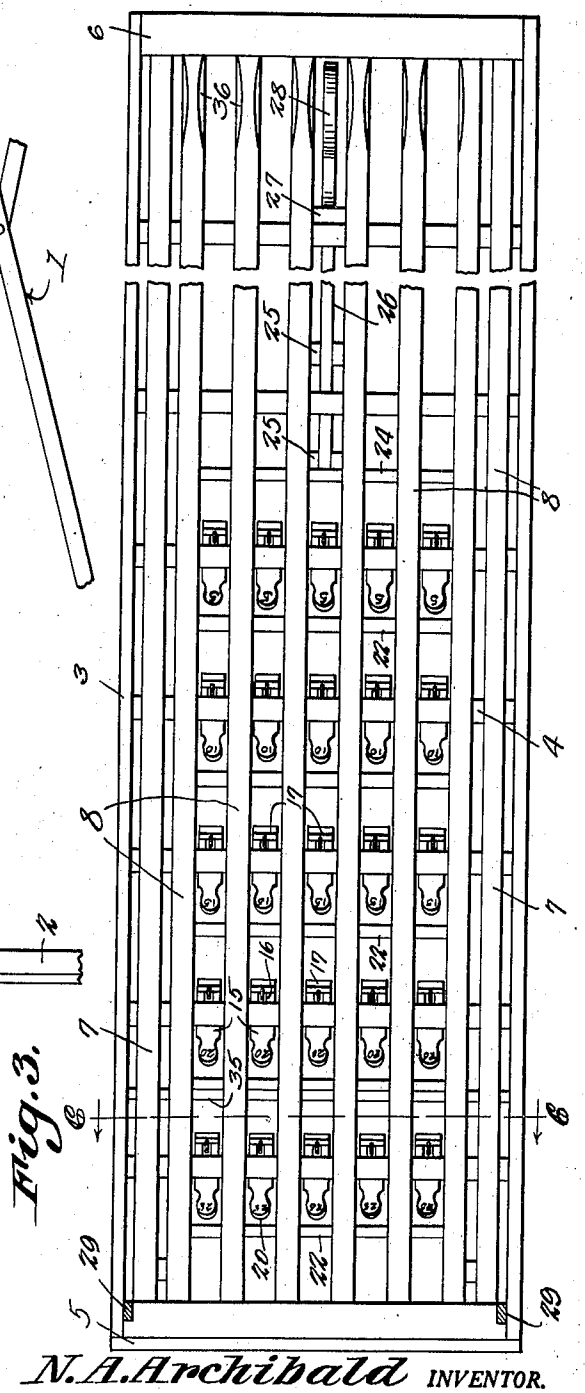


Fig. 3.

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March 5, 1940. N. A. ARCHIBALD 2,192,283

GAME APPARATUS

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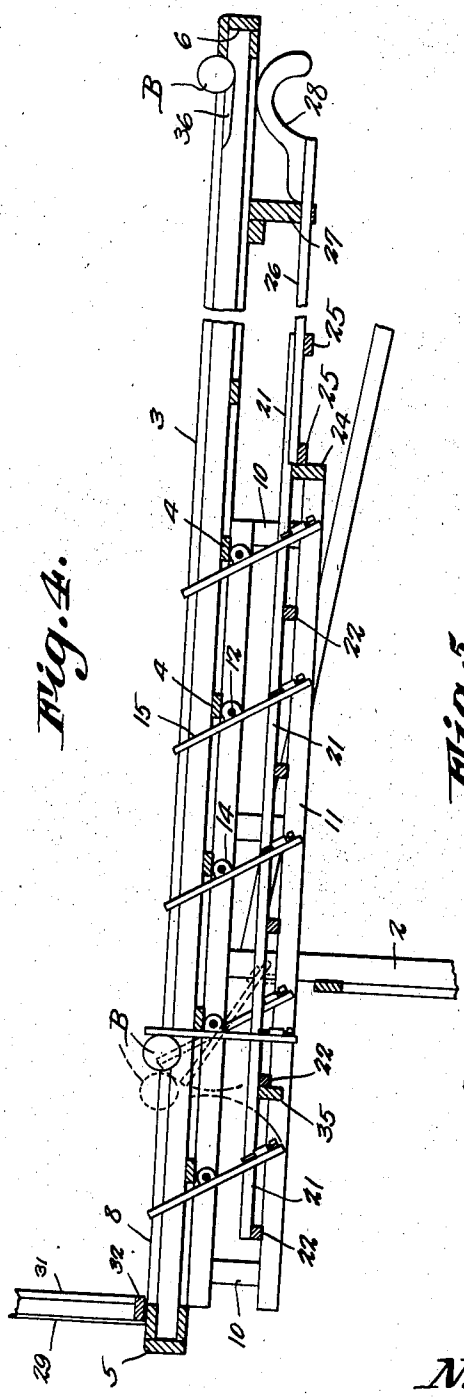


Fig. 4.

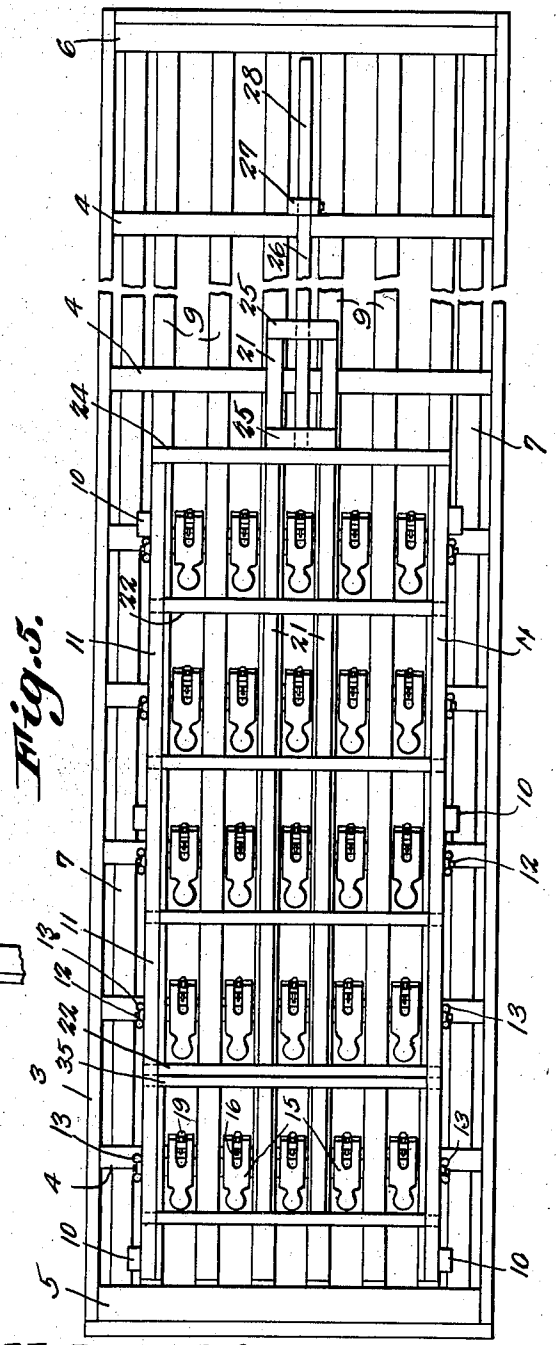


Fig. 5.

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March 5, 1940. N. A. ARCHIBALD 2,192,283

GAME APPARATUS

Filed March 8, 1938 4 Sheets-Sheet 4

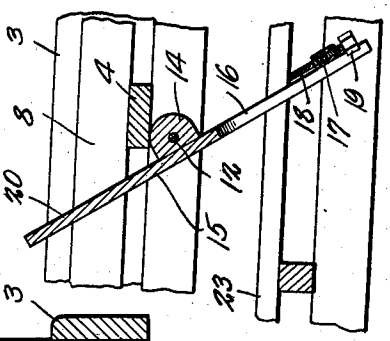


Fig. 7.

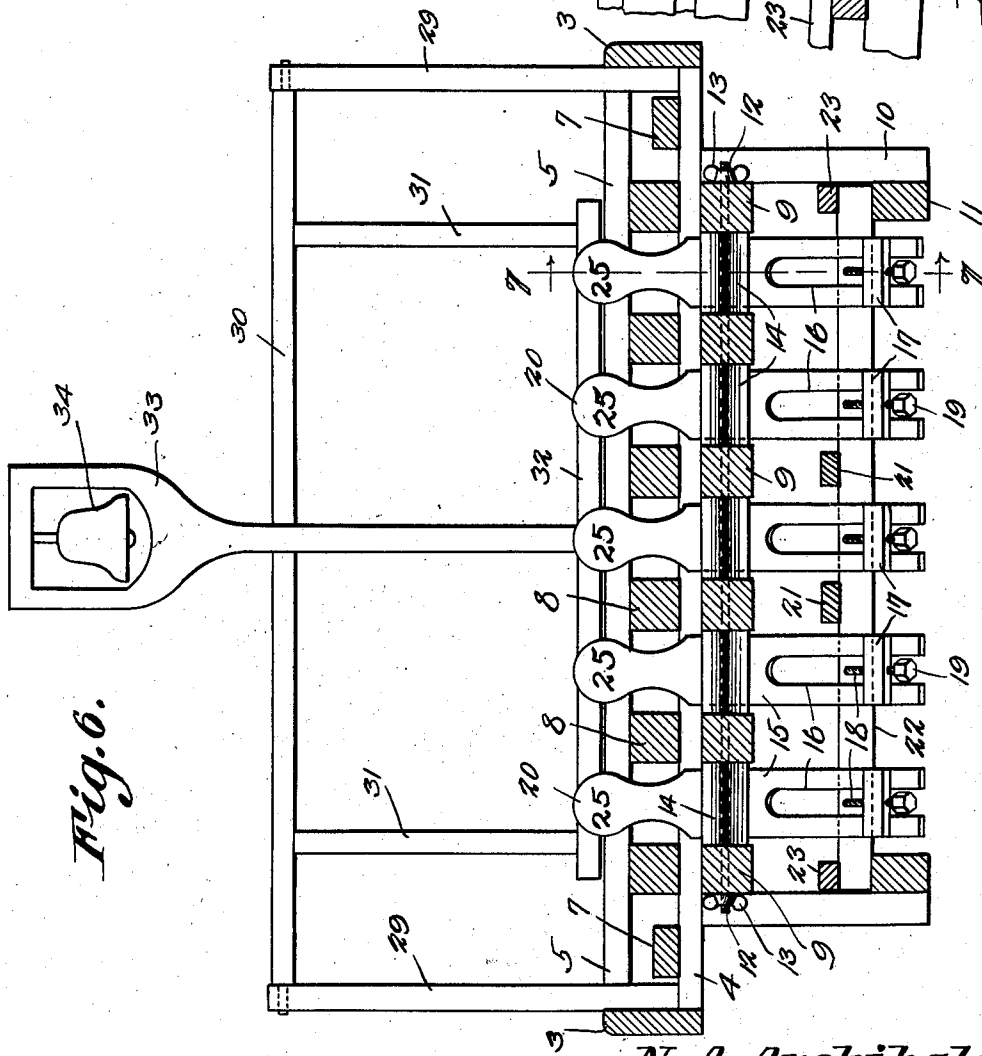


Fig. 6.

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Patented Mar. 5, 1940 2,192,283

UNITED STATES PATENT OFFICE

2,192,283

GAME APPARATUS

Nevin A. Archibald, Concord, N. C.

Application March 8, 1938, Serial No. 194,694

3 Claims. (Cl. 273—118)

This invention relates to game apparatus of that type wherein balls are projected by the players along runways for the purpose of striking suitably designated paddles.

An object of the present invention is to provide paddles arranged in parallel rows and which, after being knocked down by the balls, swing back to normal positions and thus serve to trap the balls on the runways, the resultant score being determined by totaling the numbers or other characters appearing on those paddles which have prevented return movement of the balls.

A further object of the invention is to provide a signal device located where it will be actuated by a ball if projected more than a predetermined distance beyond the paddle, the actuation of the signal device serving to nullify the score which otherwise would have been made on the play.

A still further object is to provide means for minutely counterbalancing the paddles so as to increase or reduce their sensitiveness or, in other words, the rapidity with which they return to ball trapping position after being hit.

Another object is to provide a simple and efficient means operable by the player at the front end of the game apparatus, for simultaneously shifting the paddles out of normal position, thereby to release any trapped balls so that they may return by gravity to forward or initial position within convenient reach of the players.

Another object is to so mount the paddles that they can be readily removed from the supporting structure should it be desirable to make replacements or adjustments.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein described, may be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:

Figure 1 is a perspective view of the game apparatus mounted in an inclined position upon a supporting structure.

Figure 2 is a side elevation of the body portion of the game apparatus, parts being broken away.

Figure 3 is a top plan view thereof, the supports for the signal device being shown in section.

Figure 4 is a central vertical longitudinal section through the body portion and adjacent parts.

Figure 5 is a bottom plan view of said body portion.

Figure 6 is an enlarged section on line 6—6 of Figure 3.

Figure 7 is a section on line 7—7 of Figure 6.

Referring to the figures by characters of reference 1 designates a suitable supporting structure which can be of any desired construction. In the present instance it is shown as a collapsible skeleton frame providing corner posts 2. With a supporting structure of this character the game apparatus can be held at any predetermined distance above the floor or other surface on which it is located. It is to be understood, however, that the supporting structure can be of any other desired construction and can even be so arranged as to comprise short legs or posts.

The body portion of the game apparatus includes a main frame 3 of any desired proportions, the sides of which are connected by transverse strips 4 regularly spaced and by end members 5 and 6. Gutter strips 7 are secured on the cross strips 4 near their ends and are located with their upper surfaces below the level of the top edges of the side frame 3. Interposed between the gutter strips and extending longitudinally of the frame 3 are parallel rails 8 regularly spaced apart and secured at their ends to the end members 5 and 6. These rails 8 constitute guides along which the balls used in playing the game are adapted to be propelled, the spaces between the guides being sufficiently wide to permit the lower portions of the balls to extend thereinto.

Secured to the lower sides of the cross strips 4 and directly beneath the rails 8 are regularly spaced parallel attaching strips or bars 9. Hangers 10 are secured to the side bars 9 and are connected, at their lower ends, by supporting guides 11 below and parallel with the side rails 8 and the side bars 9.

Extending transversely through the bars 9 are pivot rods 12. These rods are regularly spaced and both ends of each rod are screw threaded for engagement by wing nuts 13. Thus any rod can be removed by sliding it in either direction, simply by unscrewing one of the wing nuts.

As before stated the rods are regularly spaced. They are parallel with each other and are located adjacent to that end portion of the body 3 remote from the front cross strip 6. On each rod are mounted blocks 14 adapted to swing freely thereon and each block is extended forwardly from the intermediate portion of a paddle 15. The lower portion of each paddle is preferably forked as shown at 16 and has a cross strip 17 in which

is adjustably mounted the screw threaded stem 18 of a weight or counterbalance 19.

Blocks 14 are fitted between the bars 9 so as to be held thereby against lateral displacement and the paddles carried by the blocks are of slightly less width than the blocks so that they will thus be prevented from frictionally engaging the rails 8 or the bars 9. The upper portions of the paddles constitute heads and have been indicated at 20. As each rod 12 carries a row of paddles extending into all of the spaces between the rails 8, and as the lower ends of the paddles normally over-balance the upper portions or heads thereof, it will be apparent that under normal conditions these upper or head portions of the paddles are all extended above the rails 8 and between them, the said paddles aligning from side to side.

When the paddles are in their normal semi-prone positions the weighted lower ends thereof hold the upper or head portions of the paddles normally pressed forwardly toward the adjacent cross strips 4 so that they will hang balanced. Obviously by adjusting the weights 19 upwardly or downwardly toward or from the axes of movement of the paddles, the action of the paddles when hit by the balls used in playing the game, can be made more or less sensitive due to the reduction or the increase in the inertia.

The side supporting strips 11 constitute guides for resetting frame consisting of centrally located parallel strips 21 connected by transverse resetting bars 22, the ends of which bear downwardly upon and are adapted to slide along bars 11 and are joined by tie strips 23 of the resetting frame. The longitudinal strips 21 are extended beyond the stop strip 24 connecting the supporting rails 11 at their forward ends and these projecting portions of the strips 21 are in turn connected by short cross strips 25 one of which is adapted normally to bear backwardly against the stop strip 24 as shown in Fig. 4. To these cross strips 25 is attached an operating tongue 26 slidable in a guide 27 depending from one of the strips 4 and terminating in a handle 28. Normally the handle 28 and the tongue 26 are pressed backwardly so that the resetting strips 25 are spaced from the back faces of the depending portions of the paddles as shown particularly in Figure 4.

Extending upwardly from the back corners of the main frame 3 constituting the body are posts 29 supporting a cross bar 30 mounted for rotation. This bar has hangers 31 connected, at their lower ends, by a strike bar 32 which is positioned above but adjacent to the rear portions of the rails 8. The frame formed by bars 30 and 32 and hangers 31 serves to operate a signal device. In the drawings this signal device has been shown comprising an arm 33 carrying a bell 34. It is to be understood, however, that the frame can act as a means for operating any other kind of a signal. Normally the signal is inactive but when the bar 32 is hit by a ball and thrown backwardly out of normal position, the operation of the signal is affected.

For the purpose of reenforcing the supporting rails 11 and holding them properly spaced, a cross strip 35 is attached thereto and is also located where it will serve as a support for the strips 21 and 23 and as a stop for one of the resetting bars 22. This is shown in Fig. 4.

In the apparatus illustrated five rows of paddles have been shown and five paddles are located in each row. Each paddle of each row is extended upwardly from a channel formed by two of the guide rails 8 and obviously when a ball B is propelled along any one of these channels with sufficient momentum, it will successively engage and knock down those paddles in the different rows which extend above said channel.

As before stated all of the paddles in all of the rows are normally inclined upwardly uniformly. If there are five paddles in each row, five balls will be used by each player and these balls will be propelled by the player along the respective channels. In playing the game the object is to so propel each ball that it will ultimately reach a position between the strike bar 32 and the rear set of paddles 15 or, in other words, the set of paddles located nearest the strike bar. It is also designed to avoid hitting the strike bar and operating the signal. When a ball is properly placed in this way it will come against and depress all of the paddles extending upwardly into the path of the ball and clear all of them successively. Immediately after each paddle has been cleared by being knocked downwardly and backwardly by the ball, it will swing back to its normal upstanding position and if the ball has passed all of the paddles in the path thereof the last paddle will swing back into position so as to trap the ball and prevent it from returning to the player along the rails 8 which are inclined downwardly and forwardly away from the strike bar 32. Obviously considerable skill is required to place all of the balls in the area between the back paddles 15 and the strike bar 32 so that they will be trapped by said paddles and will not hit the strike bar. Generally some of the balls only pass one or more of the paddles in the path thereof and fail to reach the rearmost paddles. In that event the ball will be trapped by the last paddle depressed. In some cases, however, the paddle will not return quick enough to trap the ball and, therefore, the ball will be trapped by the next paddle nearest the player. After a ball has been propelled along each of the channels and has finally been trapped, the numbers or other designating carriers on those paddles which have trapped the balls are totaled to give the amount to be added to the score of the player. Should a player propel the ball with such force that it will come against the strike bar 32 and cause the signal to be operated, that particular play does not count in making up the score.

After all of the balls have thus been played and the total score entered, the handle 28 is pulled forwardly. This will cause the tongue 26 to slide the resetting frame forwardly so that the resetting bars 22 will come against the lower ends of all of the paddles and cause the upper ends of all of the paddles to swing rearwardly and downwardly. Those paddles which have trapped balls will thrust the balls rearwardly until their upper ends have been lowered below the level of the balls. The balls will all then be free to roll forwardly to the front end of the main frame 3 where they can be reached readily by the next player and the foregoing operation repeated. It is to be understood, of course, that it is necessary for the resetting frame to move back to normal position after the balls have been released as above described, in order that the various paddles will thus be free to swing without meeting any objections.

Attention is called to the fact that all of the paddles are so proportioned and located that they will swing clear of each other at all times.

The game apparatus can be made any size and, as before stated, can be mounted in any manner desired. It is not intended to limit the apparatus to any particular number of rows of paddles or to any particular number of channels for the balls.

As shown particularly in Figures 1 and 3, the forward ends of the rails 8 can be cut away along their upper edges, as indicated at 36, thus to provide seats for the balls B when they are in their forward or normal positions.

What is claimed is:

1. A game apparatus including an inclined body portion having parallel channels for guiding balls traveling longitudinally of the body portion, parallel rows of paddles mounted for oscillation in the body, one paddle of each row being located in each channel, said paddles being positioned for backward and downward movement when struck by a ball propelled along the channel in which the paddles are located, means for limiting the forward movement of the upper ends of the paddles thereby to trap and retain a ball located back of any one of the paddles, each paddle being positioned for elevation by a trapped ball to an upstanding position above the other paddles, and slidable means supported under the body for simultaneously swinging all of the paddles in one direction, thereby to thrust the retained trapped balls away from the paddles and lower the paddles sufficiently to release the balls for gravitation over the paddles.

2. Game apparatus including an inclined body having parallel ball guiding channels extending longitudinally thereof, parallel rows of normally inclined paddles mounted for oscillation within the body, each paddle containing a value-indicating character, for display when the paddle is in upstanding position, one paddle of each row being located in each channel and each paddle being positioned to swing independently of the other paddles, means for limiting the swinging movement of the paddles in one direction when brought to upstanding positions, the paddles in each channel being located for successive engagement and depression by a ball propelled along said channel toward the upper end thereof, each of said paddles being mounted to trap a ball and to be raised by the trapped ball, to an upstanding position above the other paddles and against its limiting means.

3. Game apparatus including an inclined body having parallel ball guiding channels extending longitudinally thereof, parallel rows of semi-prone, balanced paddles mounted for oscillation within the body, each paddle containing a value-indicating character for display when the paddle is in upstanding position, one paddle of each row being located in each channel and each paddle being positioned to swing independently of the other paddles, means for limiting the swinging movement of the paddles in one direction when brought to upstanding positions, the paddles in each channel being located for successive engagement and depression by a ball propelled along said channel toward the upper end thereof, each of said paddles being mounted to trap a ball against return movement and to be shifted by the trapped ball into upstanding position against its limiting means, and means under the control of a player at the lower end of the body for simultaneously shifting the upper end of all of the paddles toward the upper end of the body, thereby to lower the upper ends of the paddles below the level of balls located in any of the channels back of the paddles.

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