June 11, 1940. E. L. BARRETT 2,204,397

AMUSEMENT DEVICE

Filed July 21, 1939 2 Sheets-Sheet 1

Fig. 1.

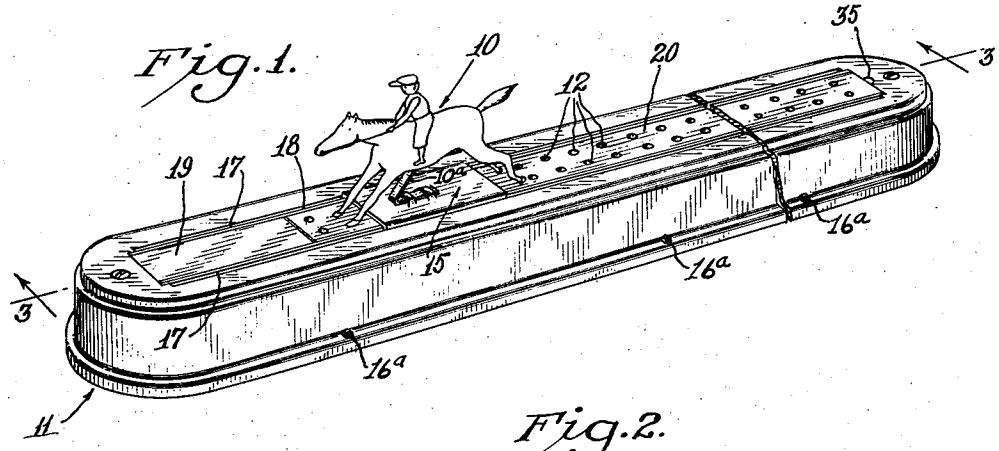


Fig. 2.

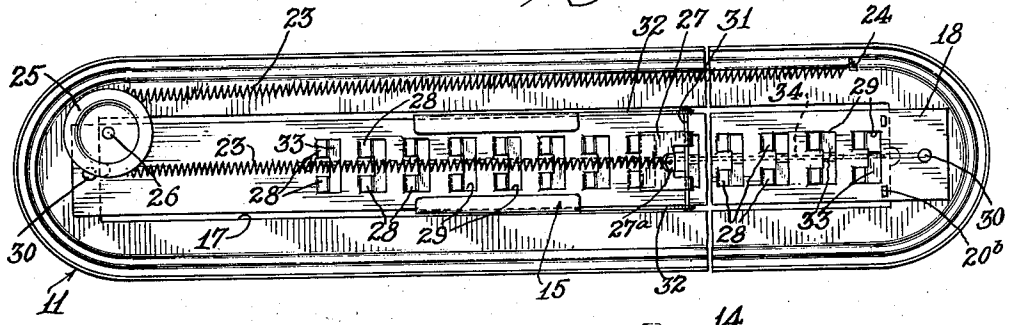


Fig. 3.

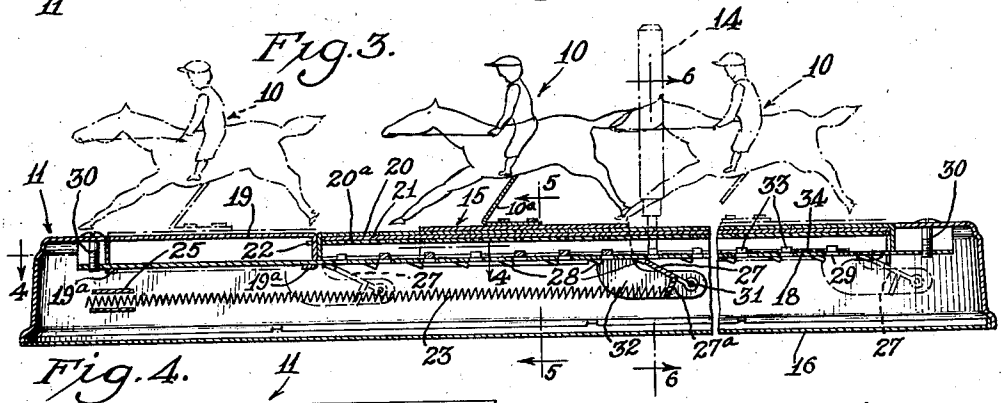
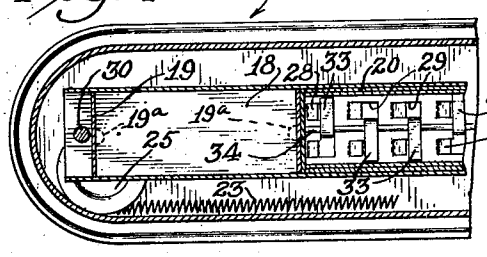


Fig. 4.



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AMUSEMENT DEVICE

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Fig. 5.

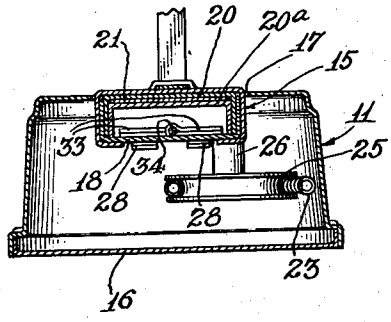


Fig. 6.

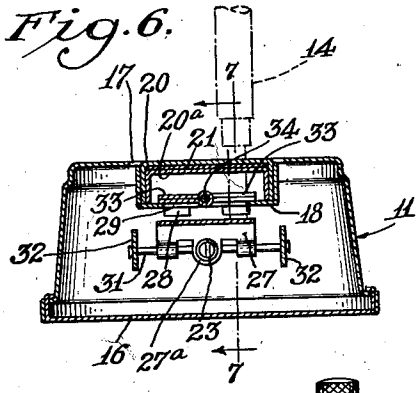


Fig. 7.

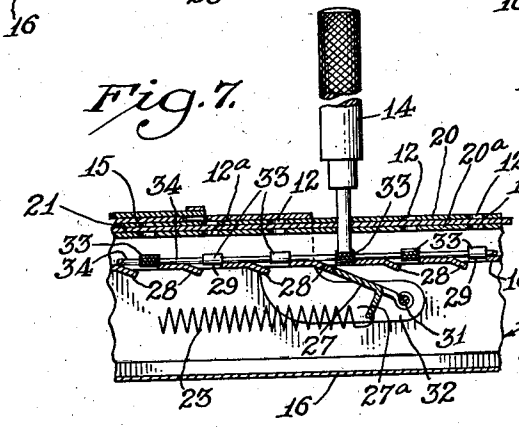


Fig. 7a.

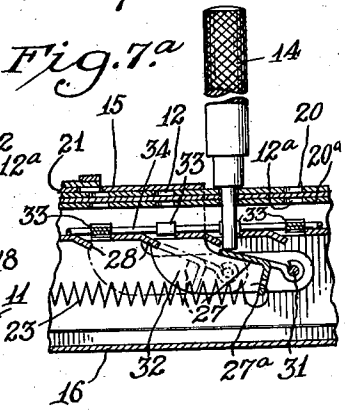
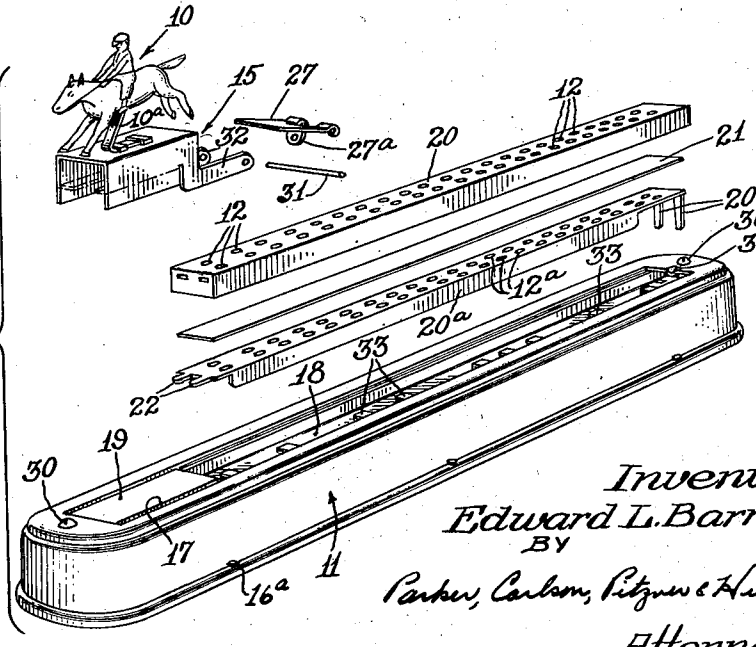


Fig. 8.



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Patented June 11, 1940 2,204,397

UNITED STATES PATENT OFFICE

2,204,397

AMUSEMENT DEVICE

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Application July 21, 1939, Serial No. 285,763

18 Claims. (Cl. 273—86)

The invention relates to amusement devices and has particularly to do with a novel simulated-racing game.

Generally stated, it is an object of the invention to provide a novel game of the type indicated embodying a game piece or racing figure movable automatically with a step-by-step motion in response to actuation by the player of optionally engageable means which can be preset so that only a selectable portion is effective to achieve the successive steps of game piece motion. The element of chance involved in obtaining the desired motion of the game piece serves to stimulate a high degree of interest and hilarity among the players.

More particularly, it is an object of the invention to provide such a game having one or all of the following attributes: (*a*) simplicity of construction with consequent low cost of production, (*b*) ruggedness of construction and consequent ability to withstand juvenile use and abuse, (*c*) simplicity of manipulation required by the players in using the game, (*d*) positive insurance against cheating by a player, (*e*) production of a permanent and indisputable record of each player's score, (*f*) manual resettability of the chance-selection device so that one player can, in effect, pit his skill against that of another in resetting the chance-selection mechanism which his opponent must operate.

Further objects and advantages of the invention will become apparent as the following description proceeds, taken in connection with the accompanying drawings in which

Figure 1 is a general perspective view of a game embodying the invention.

Fig. 2 is a bottom view of the game of Fig. 1.

Fig. 3 is a longitudinal sectional view of the game of Fig. 1 with the movable racing figure shown in various positions.

Fig. 4 is a fragmentary horizontal sectional view along the line 4—4 in Fig. 3.

Figs. 5 and 6 are enlarged transverse sectional views along the lines 5—5 and 6—6, respectively, in Fig. 3.

Figs. 7 and 7ª are fragmentary longitudinal sectional views along the line 7—7 in Fig. 6, showing respectively what are termed a "miss" and "hit" during operation of the game.

Fig. 8 is an exploded perspective view of the device of Fig. 1.

The invention has been shown herein as embodied in a game which simulates a horse race. The game device shown is small and portable in character so that it can be easily carried about and, in fact, held in the hand while in use. It will be apparent, however, that games embodying the invention may take a wide variety of forms. Accordingly, even though one particular embodiment of the invention has been shown and described in some detail, there is no intention to thereby limit the invention to such embodiment, but, on the other hand, the appended claims are intended to cover all modifications and alternative constructions falling within the spirit and scope of the invention.

In its illustrative form the game embodies a game piece or racing figure shown as a miniature horse and jockey 10 (Fig. 1) cast from lead and suitably decorated. In brief, the arrangement is such that the figure 10 moves from station to station along a base 11 with a step-by-step motion. Along the path of the figure 10 are arranged a series of sets of holes 12, here shown as two in number for each set, with one set corresponding to each successive position of the figure. To advance the racing figure 10 the player inserts a punch 14 (see Fig. 3) into one or the other of the holes 12 in the pair just to the rear of a carriage 15 (Fig. 1) on which the figure is mounted. A presettable mechanism, hereinafter described, located beneath the holes 12, prevents passage of the punch 14 through a desired one of the holes in each pair. If the player by chance selects the unobstructed hole the punch 14 enters it, or in other words he makes a "hit," and the mechanism is so arranged that as a consequence the figure 10 automatically advances one step. If, on the other hand, the player selects an obstructed hole he makes a "miss" and the figure 10 remains stationary. Consequently, the player must take a second turn and insert the punch into the other hole in the pair in order to advance the racing figure 10. The object of the game is, of course, to advance the figure 10 throughout its path of travel with a minimum number of punching operations by the player.

In competitive playing two or more of the games shown may be utilized, one for each player. At a given signal the players insert the punches 14 into a selected one of the holes in the pair to the rear of the carriage 15. The figures 10 either advance or remain stationary, depending upon whether the players make a "hit" or a "miss." The relative rate of progress of the horses or racing figures 10 along the trackway is thus determined by the luck of the players each time they insert the punch 14 into one of the holes 12.

To minimize cost of large scale production the base 11 is preferably fashioned as a sheet metal stamping (Figs. 3, 5 and 8). This base is hollow, being of an inverted trough shape and its open lower side is closed by a press-fitted sheet metal bottom plate 16 fixed in position by lugs 16a (Fig. 1). An elongated rectangular opening 17 in the top wall of the base 11 receives a trackway or guide upon which the figure-supporting carriage 15 is slidably mounted.

The trackway carrying the carriage 15 is shown (Figs. 1 to 4) in the form of a sheet metal plate 18 of channel shaped cross-section (Fig. 5) presenting upstanding side walls constituting rails on which the carriage 15 slides. The space between the rails is closed by a two-section sheet metal cover with one section fixed and the other removable. The fixed cover section embodies a sheet metal plate 19 having its top flush with the top surface of the base 11 and fixed in position by end tongues 19a engaged with the channel 18 (Fig. 3). The removable section of the cover is made up of two nested sheet metal channels 20 and 20a (Fig. 8) having registering holes 12 and 12a in them. Between these nested channels is inserted a removable strip of paper 21 for a purpose which will appear below. To hold the nested channels in place a pair of tongues 22 are formed on the left end of the channel 20a and arranged to enter registering holes in the closed end of the other channel 20 and in the end wall of the fixed cover plate 19.

At the right hand end of the channel 20a (as viewed in Fig. 8) depending integral ears 20b are formed to enter registering slots in the bottom of the fixed trackway channel 18 to locate the nested channels 20, 20a in place. These ears also form convenient finger grips for pulling the inner channel 20a out of the channel 20 when the two have been removed from the base 11.

The carriage 15, like most of the other parts of the game, is fashioned as a sheet metal stamping. It is generally channel shaped in form (see Fig. 8) and the lower edges of the side walls are bent around to give it a tubular cross section so dimensioned as to be telescoped about the trackway channel 18 on which it slides (see also Fig. 5). When the carriage 15 is slid along the trackway to a position in which it embraces the nested cover channels 20, 20a (shown in full lines in Fig. 3, for example) it locks them in position so that they cannot be lifted out of the trackway channel 18. When, however, the carriage 15 is located at the left hand end of the trackway it overlies only the fixed section 19 of the cover and is completely clear of the nested channels 20, 20a so that the latter can be removed for renewal of the paper strip 21 and other purposes set forth below. The figure 10 is removably secured to the carriage 15 by a sheet metal tongue 10a (Figs. 1 and 3) inserted through loops struck up from the top of the carriage.

To impart movement to the carriage 15 along the trackway 18 a long helical tension spring 23 is utilized (Fig. 2). This spring is anchored at one end to a tongue 24 struck out from the base 11 and is led about a pulley 25 journaled in the opposite end of the base on a pin 26 (Fig. 5). The other end of the tension spring is secured to a latch plate 27 (Fig. 3) mounted on the carriage 15. The spring 23 serves the dual function of biasing this latch member into engaged position and also urging the figure-supporting carriage 15 toward the left hand end of its path of travel (as viewed in Fig. 3). A long spring of substantially twice the length of the base 11 is utilized so as to minimize the changes in spring tension in different positions of carriage along its path of movement.

To arrest the motion of the carriage 15 after each step of its forward motion under the bias of the spring 23, a series of fixed abutments are provided. These abutments have been shown (Figs. 5 and 7) as ears 28 struck down from the bottom of the sheet metal trackway channel 18, and which is fixed to the base 11 by screws 30 (Fig. 3). Also formed in this channel 18 are apertures 29 at the rear of each of the abutments 28 and underlying the registering holes 12 and 12a in the nested cover channels 20 and 20a respectively. The alined holes 12, 12a and 29 give access to the latch plate 27 so that when the punch 14 is inserted through them the player can depress the latch and release it from the adjacent abutment so that the carriage can slide forward one step. At the end of this step the latch, of course, engages the next successive abutment. It will be noted that the latch plate 27 has portions underlying both of the holes 29 in each pair of such holes and these two portions of the latch plate constitute in effect separate means alternatively engageable by the player through the corresponding holes 29 to release the latch.

The latch mechanism comprises the sheet metal latch plate 27 heretofore noted (Fig. 8) of rectangular form having a depending ear 27a on it and to which the spring 23 is anchored. The latch plate is pivoted on a pin 31 between depending and rearwardly extending integral legs 32 fashioned on the side walls of the carriage 15. With the parts so arranged the spring 23 yieldably urges the nose of the latch plate 27 upward into position for engagement with the abutments 28 and also tends to pull the carriage 15 along the trackway. Accordingly, when the punch 14 is inserted through the registering holes 12, 12a and 29 into contact with the latch plate 27 it depresses the latch plate so as to free it from the abutment which it is engaging. As soon, however, as the carriage 15 moves forward a short distance the latch plate 27 clears the end of the punch 14 so that the spring 23 snaps the latch back up against the bottom of the trackway channel 18 and the nose of the latch engages the next succeeding abutment 28, thereby arresting the motion of the racing figure 10 after a corresponding step of advance.

What may be termed the presettable chance-selection mechanism in the game embodies a series of members for selectively blocking contact of the punch 14 with the latch 27 when the punch is inserted through a selected one of the holes 12 in each pair or set of such holes. As shown in Figs. 4 and 6, this mechanism comprises a series of rectangular sheet metal blocking leaves 33 pivoted on a longitudinally extending pin or rod 34, which is fixed to the trackway channel 18. The blocking leaves 33 embody simply strips of sheet metal doubled upon themselves about the pin 34. When the nested cover channels 20, 20a are removed so that the trackway channel 18 is exposed, the blocking leaves 33 can be swung to cover either one or the other of the holes 29 with which they are associated. The mechanism can be preset so that the successive holes covered by the blocking leaves 33 are staggered or otherwise arranged in an ex-

tremely large variety of patterns. It should be noted that when once the cover channels 20, 20a are replaced they overlie the blocking leaves 33 so closely that the latter cannot be swung over to an opposite position by shaking or tilting the device or otherwise. Only when the cover is removed can the position of these leaves be changed.

To hide from view the setting of the blocking leaves 33 the renewable paper strip 21 is inserted between the nested cover channels 20, 20a. With this paper strip in place the player is compelled to guess as to which hole 12 in each pair is blocked by and underlying one of the leaves 33. Upon the accuracy of his guesses depends, of course, the total number of punching operations required to advance the game piece 10 from one end of the trackway to the other. The paper strip 21 also serves the purpose of forming a permanent and indisputable record of the player's score. This, for the reason that each time the punch 14 is inserted into one of the holes 12 the paper strip 21 is pierced. Whenever the player makes a "hit" on his first try at any station there will be only one hole punched in the paper for that station. But if he makes a "miss" he will have to punch again in the other hole of the pair thus leaving two holes in the paper at that station.

After completing the playing of one game, that is, after moving the figure 10 to its final or extreme left hand position on the trackway, the device may be conditioned for playing the next game. For this purpose the nose of the punch 14 is inserted in a notch 35 (Fig. 1) at the right hand end of the cover channels 20, 20a and the latter are pried up out of the trackway channel 18. The two nested channels 20, 20a are then separated and a new strip of paper 21 put in place between them. Also, the blocking leaves 33 are reset in any desired pattern to make the playing of the next game as difficult as possible for the opponent. In resetting the leaves 33 they can be readily flipped over to close one or the other of the holes 29, located adjacent each of them. To simplify the resetting of these blocking leaves 33 they may be made of magnetizable material such as sheet steel and the punch 14 permanently magnetized. In such case the punch 14 can be readily used as a lifting magnet for shifting the leaves 23, thus avoiding the possibility of a player breaking his finger nails by trying to pry up the leaves 33 in moving them.

After the blocking leaves 33 have been preset as desired and a new strip of paper 21 inserted between the channels 20, 20a the nested channels are replaced in the device. For this latter purpose the tongues 22 on the lower channel 20a are inserted in the holes in the fixed cover 19 which receive them (Fig. 3) and then the channels are swung down into place within the trackway channel 18. In this latter position the cover channels 20, 20a, with the paper strip 21 sandwiched between them, effectually hide the blocking leaves 33. Finally the user grasps the figure 10 and pushes it up the trackway to its extreme right hand position in which it is held by engagement of the latch plate 27 with the end one of the abutment tongues 28 (Fig. 3). It should be noted that once the cover channels 20, 20a have been replaced and the figure 10 shifted so that the carriage 15 overlies these cover channels the latter cannot be removed to view or reset the blockade leaves 33 without returning the figure 10 to its final or left hand position. This latter operation, however, entails piercing the strip of paper 21 with the punch 14, thereby giving a definite indication that the game has been operated. Also to be noted is the fact that since the carriage 15 locks the cover channels 20, 20a against removal it also prevents resetting of the leaves 33 since their position can only be changed, as heretofore noted, when the cover is removed.

Having set up the game for playing, as described above, the player proceeds to utilize the punch 14 to move the figure 10 progressively or step by step along the trackway to its final position. In doing so the player must, at each successive station in the advance for the figure 10, determine which of the holes 12 in the next pair he should thrust the punch 14 into. If he chooses a hole in the pair which is not obstructed by an underlying leaf 33 the punch 14 can be thrust on down through the registering hole 29 in the trackway channel 18 until it contacts the latch plate 27 and disengages it from the corresponding abutment tongue 28 (Fig. 7a). This may be termed a "hit." Upon making such a "hit" the unlatched carriage 15 is automatically drawn forward by the spring 23 until the latch plate 27 engages the next succeeding abutment 28 at the next station and at which point forward motion of the carriage is again arrested. In the equally probable event, however, that the player thrusts the punch 14 into one of the holes 12 beneath which a blocking leaf 33 is located the further entry of the punch is blocked by the leaf 33 (Fig. 7) or, in other words, the player "misses" and, of course, the figure 10 remains at rest. Consequently, it is necessary for the player to take another "turn" to advance the figure 10 to its next station by thrusting the punch 14 into the other of the pair of holes presented for choice. This process is repeated at each successive step of advance of the figure 10 until the latter finally reaches its final or extreme left hand position.

Upon completing such a playing of the game the paper strip 21 can be removed as described above and retained by the player as a permanent record of his score. In this connection it will be noted that the punch 14 always pierces the paper strip in the event of either a "hit" or a "miss" so that a hole appears in it for every punching operation performed by the player.

I claim as my invention:

1. In a simulated racing game the combination of a movable racing figure, means including a trackway supporting said figure for movement along a predetermined path with a step-by-step motion, means continuously biasing said figure for motion along said path in one direction, releasable latch means for arresting the motion of the figure along said path after each of a series of steps of its advance along the same, said latch means presenting after each step a plurality of portions optionally engageable by the player to release the same, presettable means at each step for preventing engagement by the player of desired ones of said optionally engageable portions of said latch means, and means for hiding from view the said last named means after it has been preset.

2. In a simulated racing game the combination of a base having an elongated trackway thereon, a racing figure mounted for sliding movement along said trackway, a spring yieldably biasing said figure toward one end of the trackway, a series of fixed abutments arranged in spaced rela-

tion along said trackway, a spring biased latch carried by said figure and engageable with successive abutments to arrest the motion of the figure after corresponding steps of advance, a plate overlying the path of movement of the latch and having a plurality of apertures therein arranged with a set of at least two such apertures registering with the latch when it is engaged with each successive detent, said latch being arranged for engagement by the player through each aperture to release the latch when the latter is in registry with the aperture, presettable means beneath said plate for blocking at least one aperture in each of said sets, and a renewable strip of paper beneath said apertured plate and overlying said last named means to hide the latter.

3. An amusement device of the type described comprising, in combination, an elongated sheet metal plate of channel shaped cross section presenting upwardly extending side walls constituting parallel rails, a sheet metal carriage adapted to carry a game piece and of inverted channel shape telescoped over said plate for sliding movement along said rails, projecting tongues struck out from said plate and forming abutments at spaced points along it, a releasable latch on said carriage engageable with successive ones of said abutments, means for releasing said latch, and selectable means for preventing a release of the latch by said releasing means.

4. An amusement device of the type described comprising, in combination, an elongated sheet metal plate having projecting tongues struck out from it and forming abutments at spaced points along it, means for supporting a game piece for movement along said plate, a releasable latch carried by said last named means engageable with successive ones of said abutments, means for releasing said latch, and selectable means for preventing release of said latch by said releasing means.

5. In an amusement device of the type described the combination of a portable and hollow sheet metal structure presenting a top surface having a series of sets of holes in it, a game piece, means supporting said game piece for step-by-step movement along the top of said structure in steps corresponding to the successive sets of holes, an actuating means hidden within said structure for moving said game piece with such step-by-step motion in response to the insertion of a punching tool through one of said holes and into operative relation with said actuating means, and selectively settable means also hidden within said structure for preventing the insertion of such a punching tool through at least one selected hole in each set into operative relation with said actuating means.

6. In an amusement device of the type described the combination of a portable and hollow sheet metal structure presenting a top surface having a series of holes in it, a game piece, means supporting said piece for step-by-step movement along the top of said structure in steps corresponding to the successive holes, and an actuating means hidden within said structure for moving said game piece with such a step-by-step motion in response to the insertion of a punching tool through one of said holes and into operative relation with said actuating means.

7. An amusement device of the type described comprising, in combination, a trackway fashioned in the form of a sheet metal plate of channel shaped cross section presenting upstanding side walls constituting a pair of parallel rails, a sheet metal carriage of inverted channel shaped configuration telescoped over said plate and slidable along said rails, means engageable by a player at successive points in an advance of the carriage toward its final position for causing it to move to a succeeding position along the trackway, optionally settable means for preventing engagement of said last named means, a cover for said settable means including a pair of nested sheet metal channels having registering holes therein through which said engageable means may be engaged by a player and adapted to receive a removable strip of paper between them to close said holes, said nested channels being removably positioned between said trackway rails and being of sufficiently lesser length than said trackway that said carriage can be moved to a position in the trackway in which it clears the nested channels for the removal of the latter, said carriage having projections thereon underlying said trackway channel to hold the carriage in position thereon and thereby prevent removal of said nested cover channels when said carriage is in a position to overlie the latter.

8. An amusement device of the type described comprising, in combination, a trackway embodying a pair of spaced parallel rails, a carriage slidable along said rails to a final position thereon, means engageable by a player at successive points in an advance of the carriage toward its final position for causing it to move to a succeeding position along the trackway, optionally settable means for preventing effective actuation of said last named means, a movable cover for said settable means, and means cooperating with said carriage for locking said cover against removal except when said carriage is in its final position.

9. An amusement device of the type described comprising, in combination, a trackway embodying a pair of spaced parallel rails, a carriage slidable along said rails, means engageable by a player at successive points in the advance of the carriage for causing it to move to a succeeding point along the trackway, optionally settable means arranged between said rails at spaced points along the trackway for preventing engagement of said last named means, and an apertured removable sheet metal cover plate positioned between the rails and overlying said settable means, and a removable strip of paper underlying the apertures in said cover plate to hide said settable means from view until the paper is pierced.

10. An amusement device of the type described comprising, in combination, a trackway, a carriage slidable along said trackway, means engageable by a player at successive points in the advance of the carriage for causing it to move to a succeeding point along the trackway, optionally settable means arranged along said trackway for preventing engagement of said last named means, and a removable cover plate overlying said settable means.

11. In an amusement device the combination of a movable game piece, means supporting said game piece for movement to a succession of stations, means optionally engageable by the player to cause the game piece to advance from one station to a succeeding station, and presettable means for preventing effectual actuation by the player of a portion of said last named means.

12. In an amusement device the combination of a movable game piece, means supporting said game piece for movement to a succession of stations, a plurality of means optionally engageable by the player to cause the game piece to advance

from one station to a succeeding station, presettable means for preventing effectual actuation by the player of a portion of said last named means, and means on said game piece for automatically locking said presettable means against resetting except when said game piece is located at the final station in its path of travel.

13. An amusement device of the type described comprising, in combination, a trackway fashioned in the form of a sheet metal plate of channel shaped cross section presenting upstanding side walls constituting a pair of parallel rails, a sheet metal carriage of inverted channel shaped configuration telescoped over said trackway channel and slidable along said rails, a spring yieldably urging said carriage for movement in one direction along said rails, a series of tongues struck out from the bottom of said trackway channel to form abutments at spaced points along it, a releasable latch on said carriage engageable with successive abutments to arrest the carriage at corresponding points along the trackway, a pair of nested sheet metal cover channels removably positioned between said rails, said channels having apertures therein through which said latch may be engaged by a player to release the same, selectively settable means located in said trackway channel beneath certain cover channels for preventing entry through selected ones of said holes to said latch, and a removable strip of paper between said nested cover channels hiding from view said settable means.

14. An amusement device of the type described comprising, in combination, an elongated guide, a carriage slidable along said guide, a series of fixed abutments arranged at spaced points along said guide, a releasable latch on said carriage engageable with successive ones of said abutments, and means including a single tension spring for not only yieldably urging said latch into abutment engaging position but for also biasing said carriage for movement in one direction along said guide.

15. An amusement device of the type described comprising, in combination, a portable hollow sheet metal base of elongated form, a guide extending longitudinally along the top of said base, a carriage slidable along said guide, a plurality of spaced abutments arranged within said hollow base at spaced points along said guide, a latch on said carriage engageable with said abutments, a pulley mounted within said hollow base adjacent one end thereof, and means for not only yieldably urging said latch into abutment engaging position but for also biasing said carriage for movement toward said one end of said base, said last named means including an elongated helical tension spring having one end anchored to the base adjacent the end thereof opposite said pulley and with the remainder of the spring doubled upon itself about the pulley and arranged with the other spring end attached to said latch.

16. In a device of the character described the combination of a metal plate presenting an elongated horizontal portion having a series of pairs of holes therein arranged at spaced points along it with the holes in each pair transversely alined across the plate, a carriage guiding means above said plate supporting said carriage for movement in a path along said plate, means biasing said carriage for movement in one direction along said guide means, a series of fixed abutments beneath said plate arranged with one of said abutments located adjacent each pair of holes in said plate, a latch on said carriage and located beneath said plate for engagement with successive abutments and arranged to be contacted through either hole in a pair to disengage the same from the adjacent abutment, a shaft extending longitudinally of said plate along the center line of the pairs of holes, and a plurality of blocking leaves pivoted on said shaft and adapted to be swung to close one or the other of the holes in each of said pairs, each of said blocking leaves being fashioned on a strip of sheet metal doubled upon itself about said shaft.

17. In a device of the character described the combination of a metal plate presenting an elongated horizontal portion having a series of pair of holes therein arranged at spaced points along it with the holes in each pair transversely alined across the plate, a carriage, guiding means above said plate supporting said carriage for movement in a path along said plate, means biasing said carriage for movement in one direction along said guide means, a series of fixed abutments beneath said plate arranged with one of said abutments located adjacent each pair of holes in said plate, a latch on said carriage and located beneath said plate for engagement with successive abutments and arranged to be contacted through either hole in a pair to disengage the same from the adjacent abutment, a shaft extending longitudinally of said plate along the center line of the pairs of holes, a plurality of blocking leaves pivoted on said shaft and adapted to be swung to close one or the other of the holes in each of said pairs, each of said blocking leaves being fashioned of magnetizable metal, and a permanent magnet for lifting said leaves to shift their positions.

18. In a device of the character described the combination of a metal plate presenting an elongated horizontal portion having a series of sets of holes therein arranged at spaced points along it with the holes in each set transversely alined across the plate, a carriage, guide means above said plate supporting said carriage for movement in a path along said plate, means biasing said carriage for movement in one direction along said guide means, a series of fixed abutments beneath said plate arranged with an abutment located adjacent each of said sets of holes, a latch on said carriage located beneath said plate for engagement with successive abutments and arranged to be contacted by the player through any hole in a set to disengage the same from the adjacent abutment, and means for selectively closing at least one hole in each of said sets.

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