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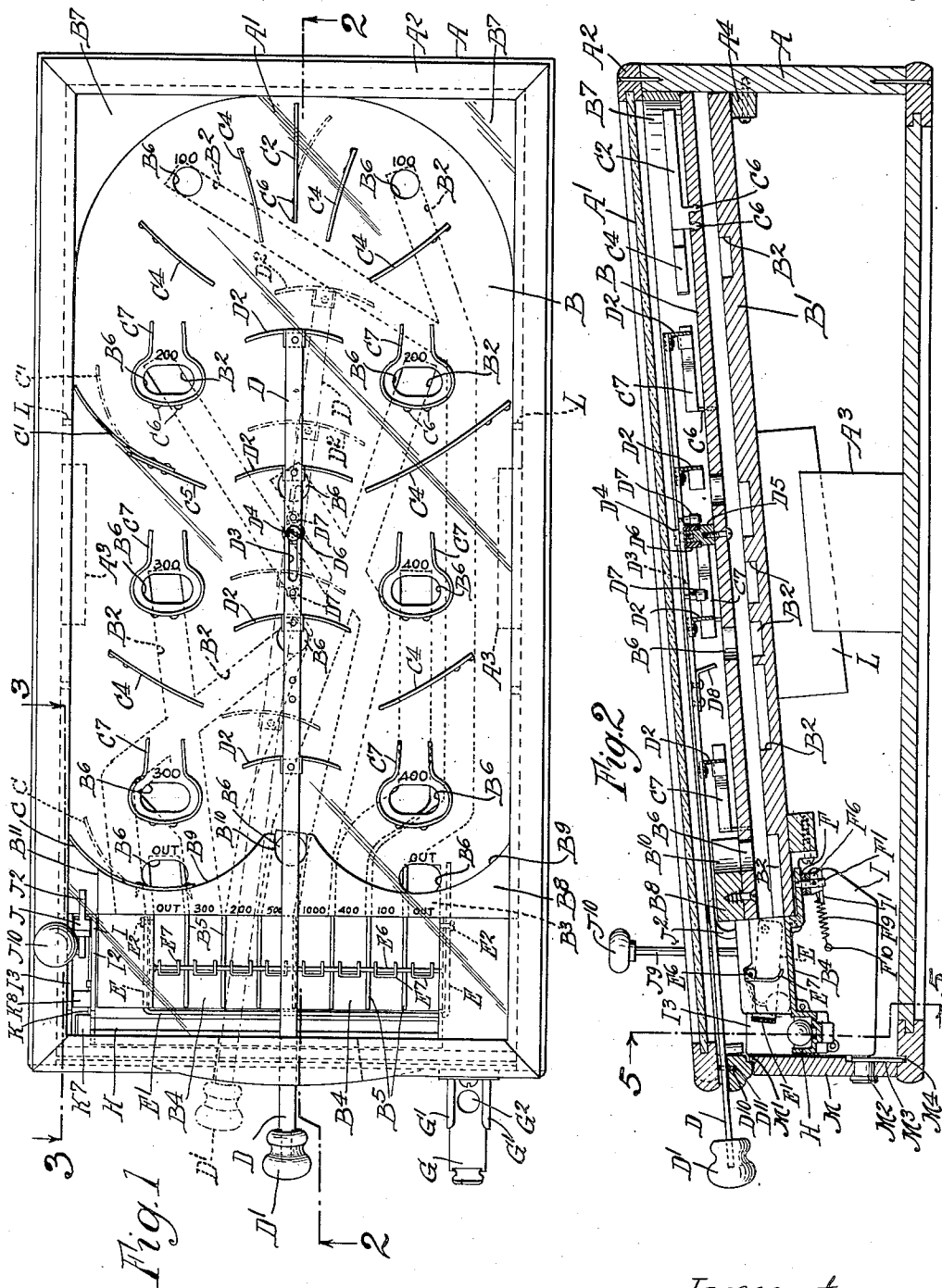
D. C. ROCKOLA

1,942,880

GAME DEVICE

Filed July 21, 1932

4 Sheets-Sheet 1



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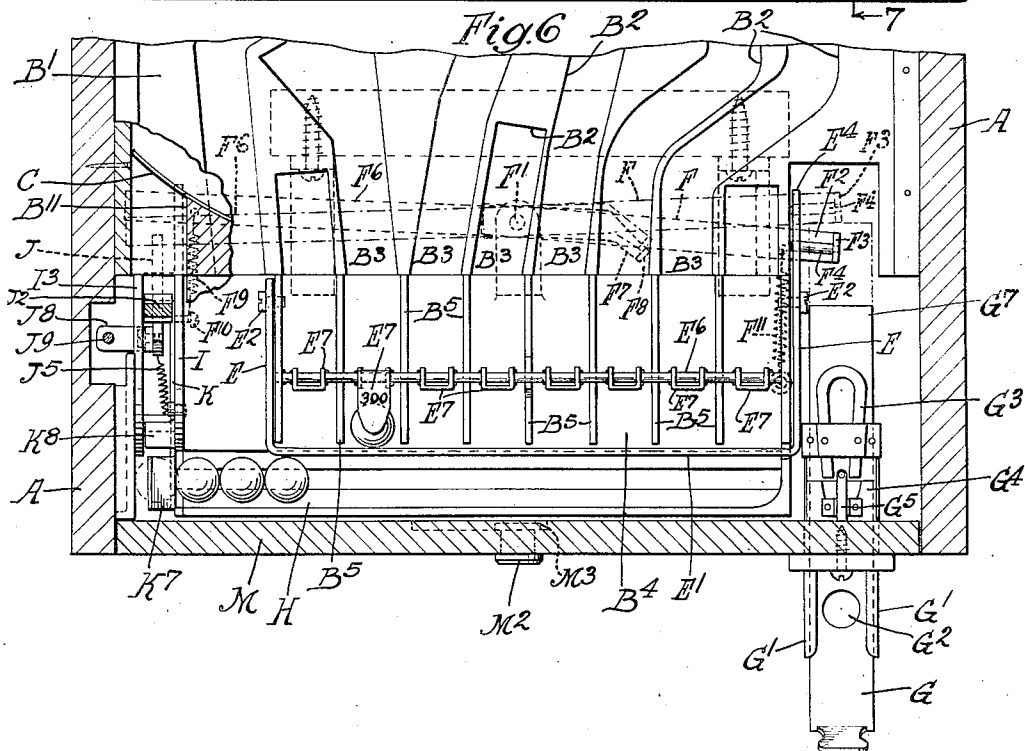
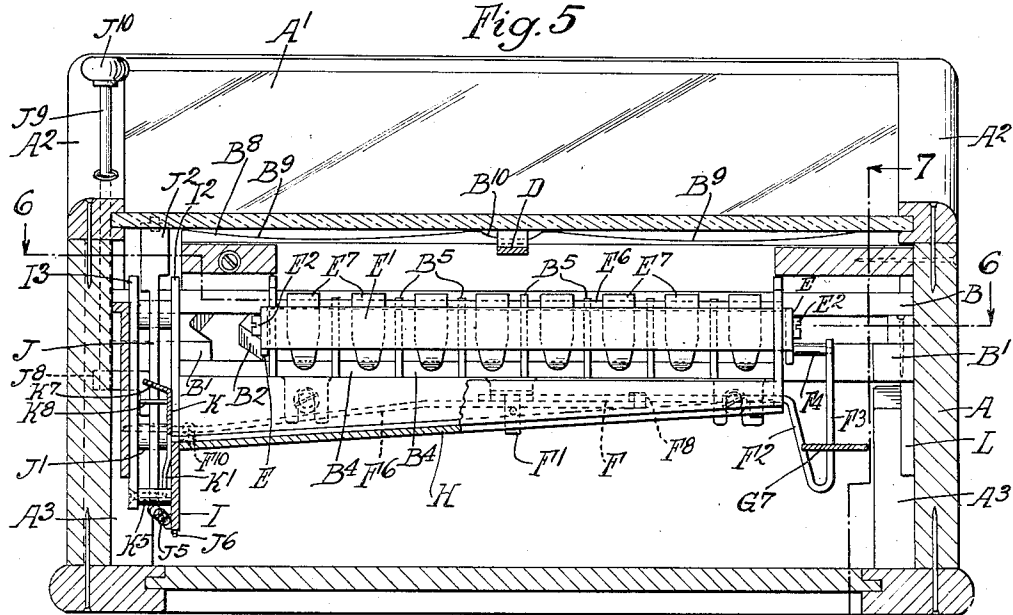
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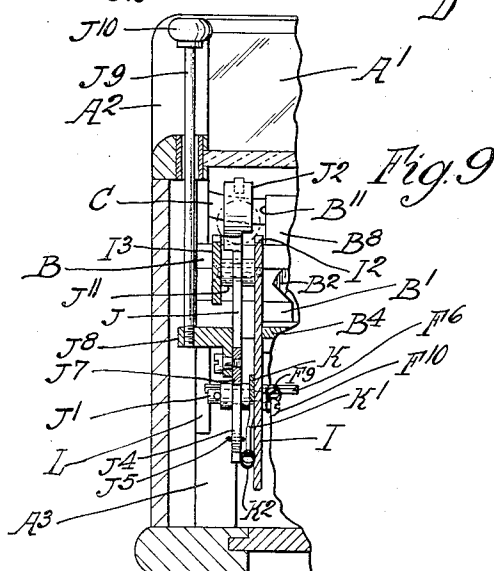
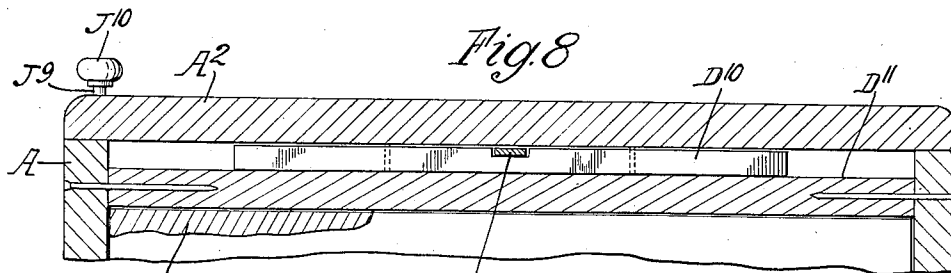
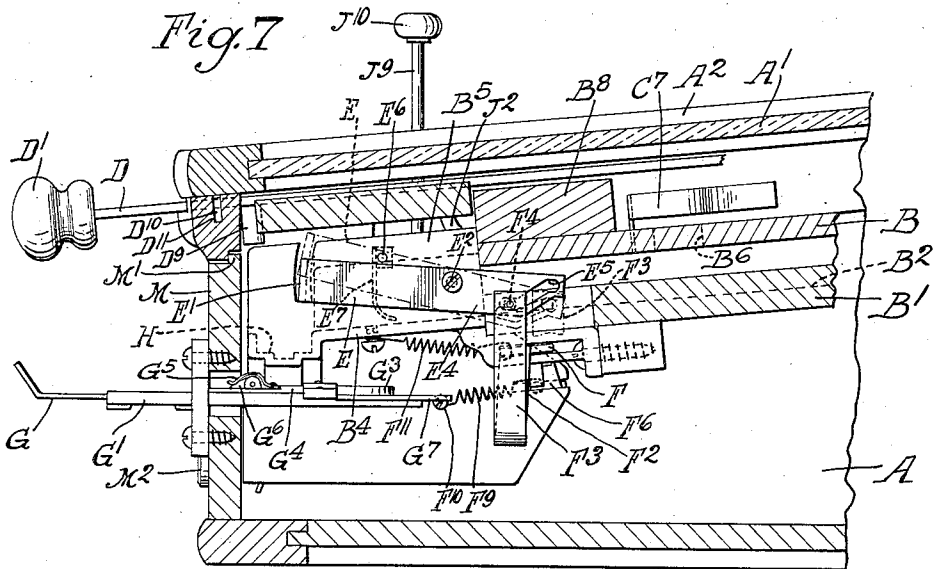
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4 Sheets-Sheet 4



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UNITED STATES PATENT OFFICE

1,942,880

GAME DEVICE

David C. Rockola, Chicago, Ill.

Application July 21, 1932. Serial No. 623,715

3 Claims. (Cl. 273-121)

This invention relates to a game and particularly to a game of the type in which a counter, such as a ball, disc or other generally analogous object, is moved, released or projected upon a playing surface across which it is generally free to move and in combination with which a player controlled guiding and striking element may be used so that the player may learn to control and to guide the movement of the counter.

One object is to provide in connection with a game device of the general type mentioned, a unitary means for engaging and projecting the counter onto the playing field. Another object is to provide a unitary means for releasing the counters after they have been played and for moving them again to the position of play.

Another object is to provide a unitary means for raising a counter from a point below the level of the playing field to that level and for projecting it upon the playing field. Another object is to provide means to lock the counter projecting mechanism from movement during the time that the counter release mechanism is in the release position.

Other objects will appear from time to time in the specification and claims.

The invention is illustrated more or less diagrammatically in the accompanying drawings, wherein:—

Figure 1 is a plan view of a game device;

Figure 2 is a longitudinal vertical cross section taken at line 2—2 of Figure 1;

Figure 3 is a longitudinal vertical sectional detail taken at line 3—3 of Figure 1;

Figure 4 is a view similar to Figure 3, showing the parts in another position of adjustment, in which the counter engaging member has been moved to the position to engage or pick up a counter;

Figure 5 is a transverse vertical cross section taken at line 5—5 of Figure 2, on an enlarged scale;

Figure 6 is a horizontal longitudinal sectional detail taken at line 6—6 of Figure 5;

Figure 7 is a section at line 7—7 of Figure 5;

Figure 8 is a transverse vertical sectional detail taken at line 8—8 of Figure 4;

Figure 9 is a transverse vertical sectional detail at line 9—9 of Figure 3.

Like parts are designated by like characters throughout the specification and drawings.

The device of this invention is housed in a casing which is indicated generally by the letter A. As shown it is more or less in the shape of a rectangular box having sides and a bottom, and

enclosed at the top with glass or other transparent cover A¹ which may be carried in a removable lid or frame A² which is fastened to the box or housing A in any suitable manner. Positioned on the inside of the housing A are one or more spacing and supporting members A³ arranged to support the playing field portion which will be described below. A⁴ is a spacing and supporting member mounted on the housing A.

The playing field constitutes an assembly having an upper and a lower level. The upper level is indicated at B and the lower level at B¹. There is formed in the lower level B¹ a plurality of guiding slots, channels or passages B², which are of different lengths and shapes but which all terminate in a series of generally parallel portions as indicated at B³. Positioned adjacent the member B¹ and in continuation of and in communication with the portions B³, is a member B⁴ formed into a plurality of preferably parallel pockets by the dividing or spacing members B⁵. The upper level B forms the actual playing field. It has a plurality of holes or openings B⁶ through it, which may be of different sizes and shapes. These openings may be positioned at any suitable position throughout the surface of the field. Each is positioned above one of the guide slots B² so that a counter falling through any one of the openings B⁶ will be received in a guide slot B² and by it guided to the portion B⁴ and into a pocket. Curved, fixed guiding members B⁷ B⁷ may be mounted upon or mounted adjacent the playing field B. As shown such guiding portions are mounted at the right hand of Figure 1. Another guiding portion B⁸ may be mounted at the opposite end of the playing field. As shown in the particular form of the invention illustrated herewith, the member B⁸ is formed into a pair of symmetrically curved portions B⁹ which have between them a reduced curved portion B¹⁰ within which one of the holes B⁶ is positioned. The member B⁸ is also cut away, preferably at one side, as at B¹¹, to provide a passage through which a counter may be introduced, as will be described below.

There may be provided upon the playing field B a plurality of baffles, either yielding, in the form of spring members, or fixed, or partially yielding and partially fixed. As illustrated in Figure 1, a yielding spring member C is mounted on the member B⁸ and extends wholly or partially across the passage B¹¹ so that it must be deflected as indicated in dotted lines in Figure 1 to permit the introduction of the counter. This baffle C thus lies in the first portion of the normal path

of entrance of the counter. Farther along on the field and in the normal path of the counter is another spring baffle C¹ which normally extends into the path of the counter and toward or against the wall of the frame and may be deflected as indicated in dotted lines in Figure 1 by the counter as it moves along the side of the field. C² is another spring baffle which may be mounted generally along the center line of the field and having one end adjacent the boundary of the field so that a counter in moving along the boundary and past the baffle C² must be deflected as indicated in dotted lines in Figure 1. A number of other baffles C⁴ C⁴ may be positioned elsewhere about the field and they may be of any suitable size or construction. As illustrated herewith they are generally all about the same size or shape and are placed symmetrically on the field. A portion C⁵ is joined to the baffle C¹ and in effect forms a continuation of it so that the composite baffle C¹ C⁵ is substantially the same in size and shape as the corresponding baffle C⁴ placed opposite it on the other side of the field. The baffles shown herein are all formed of spring material. They might be formed otherwise of any desired material and of any desired shape. They might be entirely unyielding. A convenient means for attaching the baffles to the field is shown particularly in Figure 2. As there shown the baffle C² is provided with a pair of lugs C⁶. These are preferably pointed as shown and given a shape more or less similar to that of an arrow head. In being placed in position originally in the board they may be driven directly into it, or holes of suitable size may be bored and the pointed lugs driven into these holes. By reason of the arrow head shape, they tend to retain their position in the board and to prevent accidental displacement. Other baffles may be placed on the board and as shown more or less U-shaped baffles C⁷ are placed in some cases about the several holes B⁶. Some of the holes do not have such baffles about them in the form of the invention shown herewith. Each of the baffles C⁴ and C⁷ preferably has made integrally with it lugs C⁶ such as those described in connection with the baffle C², by means of which they are attached to the board.

Mounted within the housing and above the field B and beneath the glass A¹ is a guiding and impelling member comprising preferably a shaft or rod D having a handle D¹ and carrying a plurality of baffle guiding members D². These members may be of spring material and are fastened to the shaft D and extend from it in a direction to bring them into the path of the counter as it moves over the field. The shaft D is slotted as at D³ and engages a screw D⁴ which is mounted in a pin or upwardly projecting member D⁵ which is carried in and supported by the field B. The pin D⁵ may be reduced adjacent its upper end as shown in Figure 2, and a cushioning member D⁶ surrounds it, which member may be of rubber or other similar material. Projecting downwardly from the shaft D is a pair of baffles or stops D⁷ arranged to contact the pin D⁵ or the rubber D⁶ upon it, to limit the sliding movement of the shaft D with respect to the pin. A short and preferably rigid baffle D⁸ may be mounted on the under side of the shaft D. D⁹ is a stop member which may be mounted on the shaft D to extend downwardly below it to limit its outward movement with respect to the housing. The shaft D adjacent its outer end passes through a shutter member D¹⁰ which is mounted

in a groove D¹¹ in one of the members of the frame A. The shutter is shorter than the groove and thus may move along it to permit swinging movement of the shaft D as indicated in dotted lines in Figure 1. The slot D³ in the shaft permits the shaft to be moved in and out.

The portion B⁴ B⁵ above described which is shown generally in plan in Figure 1, and in greater detail in plan in Figure 6, provides means for receiving the balls or counters after they have completed their movement over the playing field and have run through one of the openings and thence through the guide passages B³. The pockets formed by the dividing members B⁵ may be numbered or marked in any suitable way to permit scoring. During a given game or period of play, it is desirable to retain the counters in the pockets in which they fall. For this purpose a pivoted, generally U-shaped member E is provided. It comprises two branches E and a connecting cross member E¹ which latter lies across the open ends of the pockets and retains the counters as indicated for example in Figures 2 and 6. The members E are pivoted as at E² and may be supported as shown on suitable abutments which in reality in the present case are two of the dividing members B⁵. One of the portions E may be extended as at E⁴ and provided with an inclined or angularly disposed slot E⁵ which is shown in Figure 7, which co-operates in raising or swinging the member E, E¹ from the full line position of Figure 7 to the dotted line position of that figure, in which it releases the counters. To provide an additional scoring or counting feature, a shaft or rod E⁶ may be positioned to extend laterally across the member B⁴ as indicated generally in Figures 1, 2 and 7. Rotatably mounted on this shaft E⁶ may be a plurality of flaps or markers E⁷, preferably one for each of the pockets, formed in the member B⁴ by the dividing members B⁵. These flaps may carry numbers, letters, words or any suitable marking, so that when a counter has moved into the pocket it will contact the flap and raise it as shown in dotted lines in Figure 2, and thus display the marking on the flap. The flaps may for example carry letters so that together they make up a word, and thus when all are raised they spell out a complete word. Ordinarily, during play, the retainer E, E¹ is left in the position shown in full lines in Figure 7. In that position, as counters run down into the pockets they are retained as shown for example in Figure 6, and thus the score may be tallied when the game is completed.

As a means for operating the retainer there is provided a double lever construction comprising one lever F which is pivoted as at F¹. It is downwardly bent as at F² and upwardly bent at F³. It carries a pin F⁴ which extends into the inclined slot E⁵ of the member E⁴. A co-operating lever F⁶ is also pivoted at F¹, is provided with a laterally bent portion F⁷ which is upturned as at F⁸ so that in some positions it engages the first mentioned lever F. A spring F⁹ is fastened at one end adjacent the outer end of the lever F⁶ and at its other end it is secured to a fixed abutment, for example, to a screw F¹⁰, so that it tends normally to hold the lever in one position. A spring F¹¹ holds the lever F in position.

The device is coin controlled or coin operated. The particular construction of the coin control forms no part of the present invention and is not illustrated in detail. In general it comprises a

slide G mounted to move in guides G¹ fixed on the housing A. The slide has a depression or opening G² formed in it for the reception of a coin or token. Various forms of safety devices may be used to prevent the use of fraudulent tokens, for example, a magnet G³ is shown which serves to discard magnetically responsive coins or tokens and other forms of safety devices and fraud prevention devices may be used. To prevent effective operation of the slide when no coin is in place, there is mounted over the slide a housing member G⁴ upon which is mounted a downwardly facing spring G⁵ bearing upon a pivoted pawl G⁶ which will fit into the opening G² when the slide is moved to bring the said opening under the pawl. The pawl will then serve as a stop to further movement of the slide. If a coin is in position in the opening G² the pawl merely rides over it and does not act as a stop. The slide may then be moved further until its inner end G⁷ contacts the depending portion F⁸ of the lever F and moves it rearwardly so that the pin F⁴ which it carries travels in the inclined slot E⁹ and raises the lever assembly E, E¹ into the dotted line position shown in Figure 7.

Thus all of the balls or counters are released and may fall into the trough-like guiding portion H, which is preferably inclined downwardly at one end as for example to the left as shown in Figure 5, so that the counters move to the position from which they may be again used in the operation of the game. It will be understood that any other form of coin controlled or coin operated mechanism might be used.

The means for picking up and projecting a ball or counter onto the playing field will now be described. I is a supporting member fixed with relation to the rest of the mechanism and furnishing a support for the ball or counter pick-up and projecting mechanism. It is slotted at I¹ and the lever F⁶ is positioned and moves within this slot. It is preferably curved along one edge as at I² to provide a guiding portion along which the counters may be raised. A corresponding and cooperating curved guide member I³ is mounted adjacent the plate I and opposite its curved edge.

J is an impelling or projecting member pivotally mounted at J¹. It is provided with a curved head portion J² and with a relatively shorter extension J³ which may be generally arcuate in shape. The extension J³ has formed in it an eye J⁴ within which one end of a spring J⁵ is positioned. At its other end the spring is fastened to a fixed abutment J⁶. The spring thus tends normally to hold the member J² in the upright position shown in Figure 3. J⁷ is an enlargement formed on the member J above the pivot J¹ as shown in Figure 3. This enlargement has pivotally mounted upon it a rod receiving member J⁸ in which the lower end of a rod or plunger J⁹ is seated. The rod J⁹ may carry at its upper end a head J¹⁰. A player pressing down upon the head J¹⁰ with the rod, will move the impeller from the position shown in Figure 3 to that shown in Figure 4. J¹¹ is a cushioned stop for impeller J.

Pivoted also upon the pivot J¹ is a pick-up and guiding lever K. This lever has an angularly disposed portion K¹ within which one end of a spring K² is positioned. At its opposite end the spring K² is fastened on a fixed abutment as at K³. K⁴ is a stop positioned in the path of the lever K and serving to limit its upward move-

ment. In Figure 3 the lever K has been raised and is in contact with the stop K⁴ which prevents its further upward movement. K⁵ is a stop against which the lever K strikes in its lower movement. It is shown in this position in Figure 4. The stop K⁵ may be in the form of a stud, bolt or screw fastening together the members I and I³. The lever K may be notched on its under surface as at K⁶ to fit over the stop K⁵. Formed adjacent the outer end of the lever K is an inclined or laterally bent portion K⁷ which serves upon contacting a ball or counter, as the lever K moves upwardly, to move the said counter to the right, as shown in Figure 6. Adjacent the portion K⁷ is a laterally bent portion K⁸ which extends into the path of the impeller J. As the impeller is moved downwardly when the plunger J⁹ is depressed, it strikes the laterally bent portion K⁸ of the lever K. The lever K having been held in the position shown in full and in dotted lines in Figure 3, further downward movement of the lever J carries the two levers to the position shown in Figure 4, the lever K having first acted as a stop or partition member at the end of the trough H to limit the left hand motion of the balls or counters along the trough H, as shown in Figure 6. As it is moved downward from the position shown in Figure 3, the lever K moves below the trough and therefore out of the path of the counters, and permits them to roll into the position shown in dotted lines in Figure 6, in which one of the counters can move onto the curved portion J² of the impeller lever J and it is ready to be moved or projected by the impeller in its return movement.

The device as a whole is so constructed that it comprises generally the framework or housing A with the mechanism of the game removably mounted in it. The game board, comprising the upper surface B and the lower surface B¹, the ball receiving pockets, the numbering or counting mechanism, the impelling assembly as a whole, is preferably formed as one unit assembly, so that it can be removed from or inserted into the housing as a unit. The plunger J⁹ is removed when the unit is to be inserted into the housing. The playing assembly may have extending downwardly from it, preferably on each side, a pair of inclined wedge members L, which are wedged against the supports A³ mounted on the inside of the frame or housing A. The inner or upper end of the board assembly rests upon the supporting member A⁴ which is within the housing A.

At the opposite end the housing is closed by a removable door member M. It is provided at its upper end with a flange M¹ to engage a portion of the frame member as shown generally in Figures 2, 3 and 4. A keyed control lock M² is mounted in the door and controls a latch member M³ which may be inserted within and withdrawn from a slot or depression M⁴ in a portion of the housing A as shown in Figure 2. By this construction the door may be unlocked and removed to permit removal of coins and to permit removal of the playing assembly or for any other purpose. Any form of coin drawer or coin receiver may be provided and this may or may not be supported upon the door.

It will be realized that whereas I have herewith shown and described a practical operative device, nevertheless many changes might be made in the size, shape, number and disposition of parts without departing from the spirit of my invention, and I wish, therefore, that my show-

ing be taken as in a sense diagrammatic. In particular the shape and arrangement of the board, the baffles, the holes and the shape and arrangement of the player controlled guiding member, may all be almost infinitely varied. Either the stop D⁹ or the stops D⁷ D⁷ might be omitted or they may both be used. It is sufficient, however, if means are provided for furnishing some kind of a stop for the sliding movement of the member D.

The use and operation of this invention are as follows:

The game, in the form shown herewith, is primarily designed to be played with a number of balls and to be coin controlled and to permit and require the use of skill on the part of the player in controlling the balls.

Assuming that the balls are in the position shown in Figure 6, some of the balls are in the feed trough H and others are in one of the pockets. A player inserts a coin in the depression G² of the slide G and pushes in the slide. The inner end of the slide contacts the lever F³ and moves it to raise the ball retaining assembly E, E¹ to the dotted line position of Figure 7, thus releasing any balls which may be in the pockets so that they all move into the feed trough H. When the lever F is moved rearwardly by the movement of the slide, it moves away from the upwardly projecting portion F³ and the bent end F⁷ of the lever F⁶ and the spring F³ thus is free to move the lever F⁶ into the lower dotted line position of Figure 6. The lever F⁶ moves in the slot I¹ of the plate I. At this time the lever J and its associated parts occupies the position shown in Figure 3 and the movement of the slide freeing the spring F⁹ permits the latter to move the lever F⁶ into the path of the arcuate portion J³ of the lever J and thus to prevent full depression of the lever J, its associated parts, or the plunger. Consequently at the beginning of a game, when the keeper E¹ has been raised to allow the balls to move out of the pockets, the impeller with all of its associated parts, is locked against movement. Consequently it is impossible for a player to hold the device in effect open with a single coin and to play. The coin must be discharged and the slide G withdrawn to the open position before the lever F⁶ is forced sufficiently out of the slot I¹ to permit movement of the impeller J and its associated parts. When this movement has taken place and the slide has been withdrawn, the balls are in position for use and the impeller may be actuated. To do this, the plunger J⁹ is depressed and carries with it the lever J, tensioning the spring J⁵. After the lever J has moved sufficiently downward it contacts the portion K⁸ of the lever K and carries the latter downward to the position shown in Figure 4. In that position, the lever K and the portion K⁷ of that lever, have moved out of the path of the balls in the trough H, so that the balls may roll laterally downward and one of the balls occupies the position shown in dotted lines in Figure 6, over the impeller and particularly over the impeller portion J². The plunger may now be allowed to return to its original position, either slowly or rapidly, the speed with which it is allowed to return controlling the force imparted to the ball and consequently controlling the speed with which the ball is introduced to or projected upon the playing field.

At its initial movement, the ball immediately after leaving the impeller deflects the spring C and moves along the left side of the playing field

as the latter is illustrated in Figure 1. If sufficient force has been given to the ball it continues to move, strikes and deflects the baffle C¹, follows the curved portion B⁷ and strikes and deflects the baffle C². It may then follow the curved edge of the playing field and striking one of the baffles C⁴, be deflected toward the center of the field. If the ball is not given sufficient force to move along the path just described, it will, as soon as its initial momentum is exhausted, start to roll down the field, which is normally at an incline to the horizontal as shown in Figure 2. It will then contact one or another of the various baffles and if left alone would roll down the field, striking one baffle or another and would fall into one of the openings B⁶. The openings are given different markings or values which, together constitute the score of the game. Any value or marking may be assigned to the various holes and the pockets to which balls are conducted from them by the channels B². In the particular form of the invention shown herewith, one of the channels B² leads not to a pocket but directly to a passage which communicates with the trough H so that if a ball moves along this path, while it counts nothing, the player may use it again.

During its movement downward along the playing field, the ball may be guided and impelled by the player, using the shaft D and the various baffles and guiding members upon it. By reason of the slot D³ the guiding assembly may be moved up and down along the field by the player and it may also be swung through a fairly extended arc so that as the ball moves downward across the field, the player may guide it and by a sharp movement of the guiding assembly may actually strike it and the ball having reached the lowest baffle D², may be worked backward clear to the top of the board again, and it may be guided by a sufficiently skillful player into any one of the pockets. The game thus provides a combination, with a counter which moves, through a part of its total path at least, under the influence of gravity, player means for positively guiding, controlling and impelling the counter, and the game is thus in effect not a game of chance but a game of skill.

I claim:

1. In combination in a counter game device, a member defining a playing field, a counter collector on a level different from that of the field, a retainer adapted to prevent movement of the counters from the collector and means for moving it to free the counters, a feed trough adjacent the collector, a unitary moving and projecting lever adapted to move a counter from the trough to the level of the playing field and to project it thereupon, a movably mounted stop, means for normally retaining the stop in position to prevent movement of the counters from the trough, means for moving the projector and means for causing the stop to move in response to movement of the projector.

2. In combination in a counter game device, a member defining a playing field, a counter collector on a level different from that of the field, a retainer adapted to prevent movement of the counters from the collector and means for moving it to free the counters, a feed trough adjacent the collector, a unitary moving and projecting lever adapted to move a counter from the trough to the level of the playing field and to project it thereupon, a movably mounted stop positioned adjacent the trough and adjacent the

projecting lever, means for normally retaining the stop in position to prevent movement of the counters from the trough, means for moving the projector and means for causing the stop to move in response to movement of the projector

3. In combination in a counter game device, a member defining a playing field, a counter collector on a level different from that of the field, a retainer adapted to prevent movement of the counters from the collector and means for moving it to free the counters, a feed trough adjacent the collector, a unitary moving and projecting lever adapted to move a counter from the trough to the level of the playing field and to project it thereupon, a movably mounted stop positioned adjacent the trough and adjacent the projecting lever, yielding means for normally retaining the stop in position to prevent movement of the counters from the trough, means for moving the projector and means for causing the stop to move in response to movement of the projector, means for moving the counter retainer to free the counters for movement to the trough, and automatic locking means operated in response to movement of the retainer to lock the projector against movement during the time that the retainer is in a position to permit movement of the counters from the collector.

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