May 8, 1956 H. J. BEETHOVEN 2,744,753

ROLLING BALL GAME

Filed Feb. 5, 1953 3 Sheets-Sheet 1

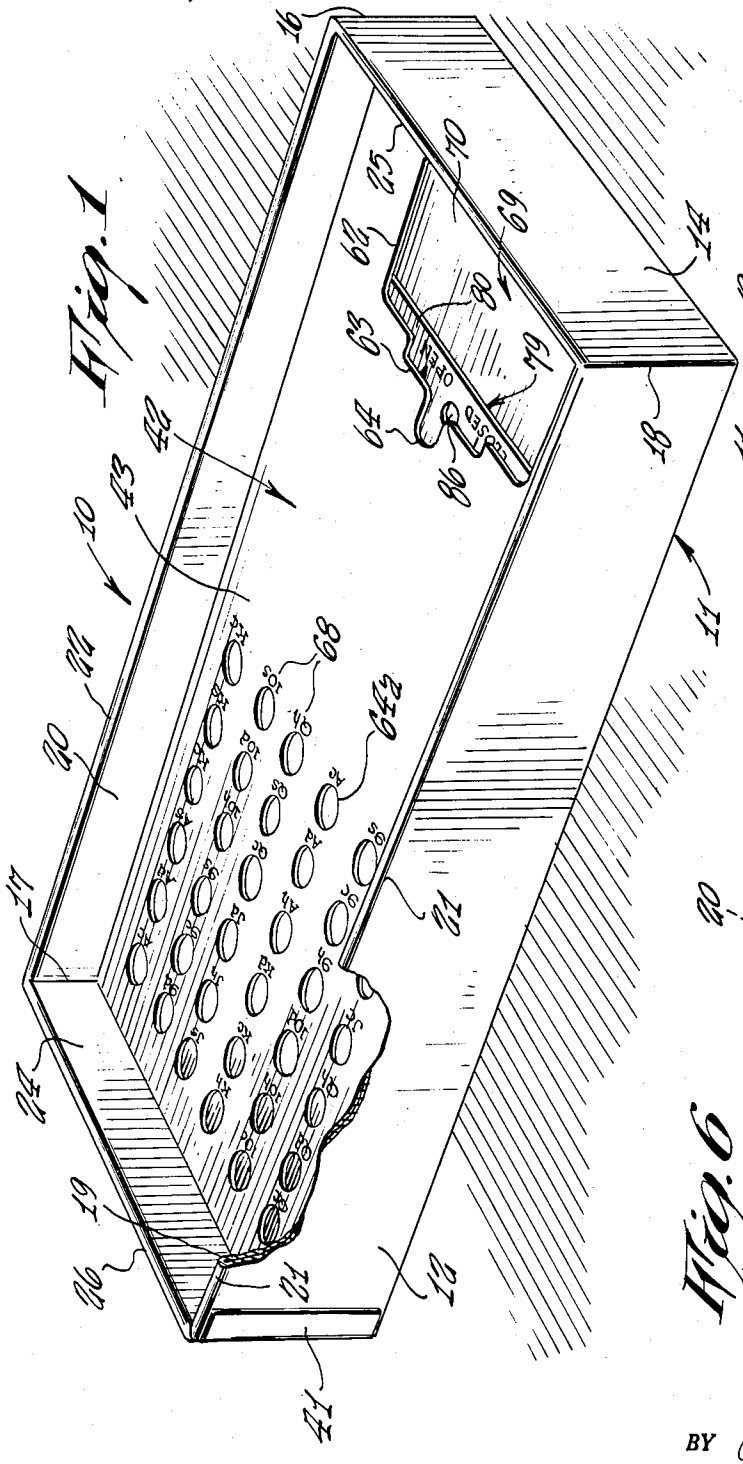


Fig. 1

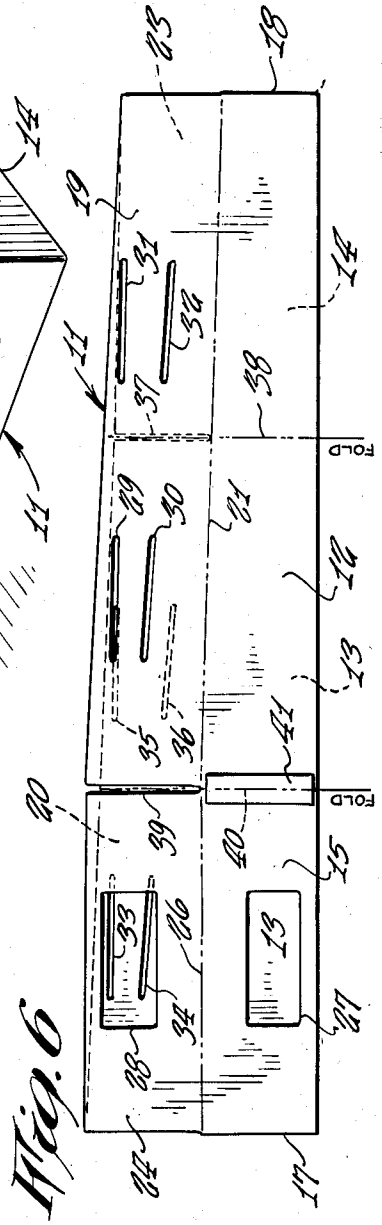


Fig. 6

HARRY J. BEETHOVEN
INVENTOR.

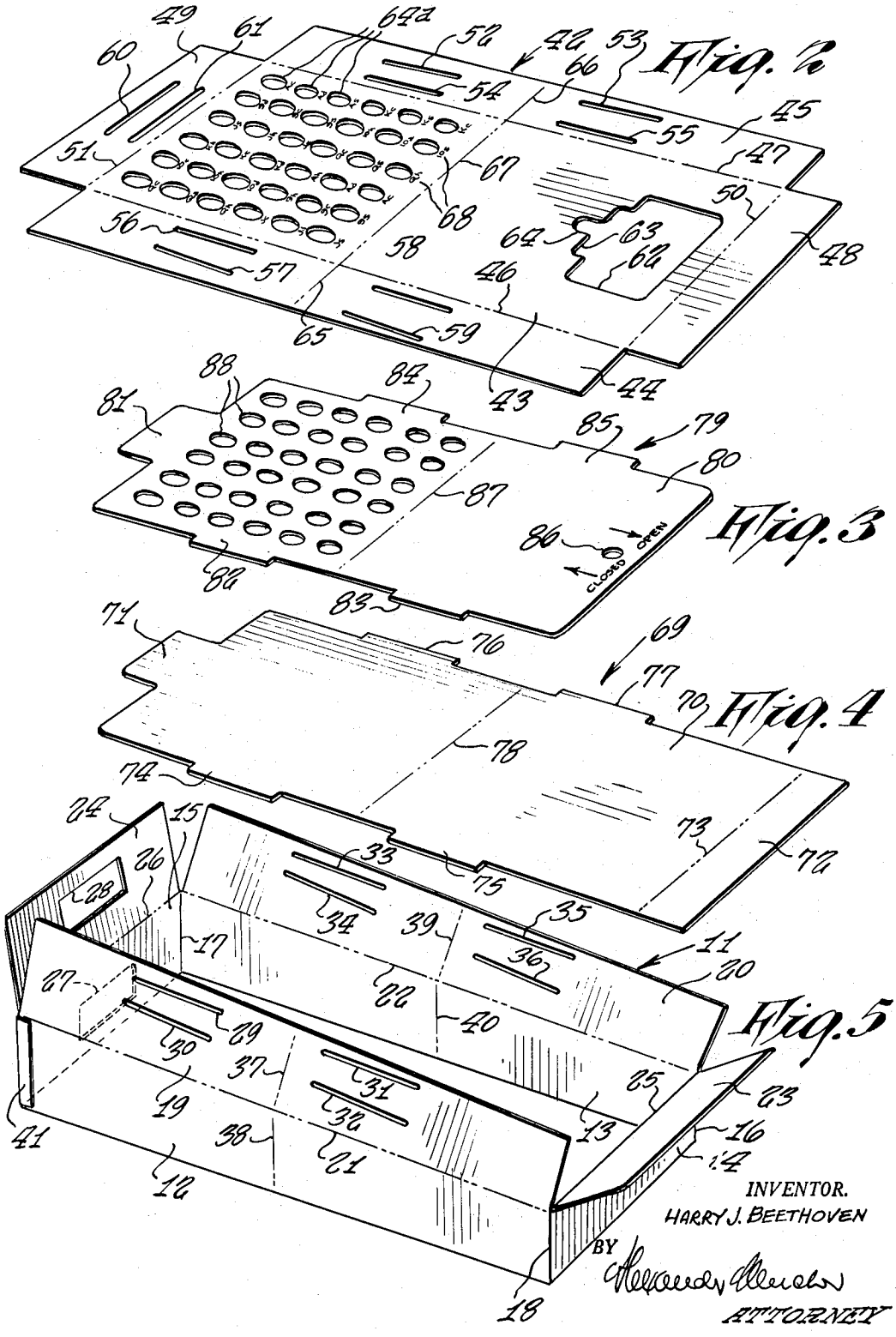
BY

ATTORNEY

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ROLLING BALL GAME

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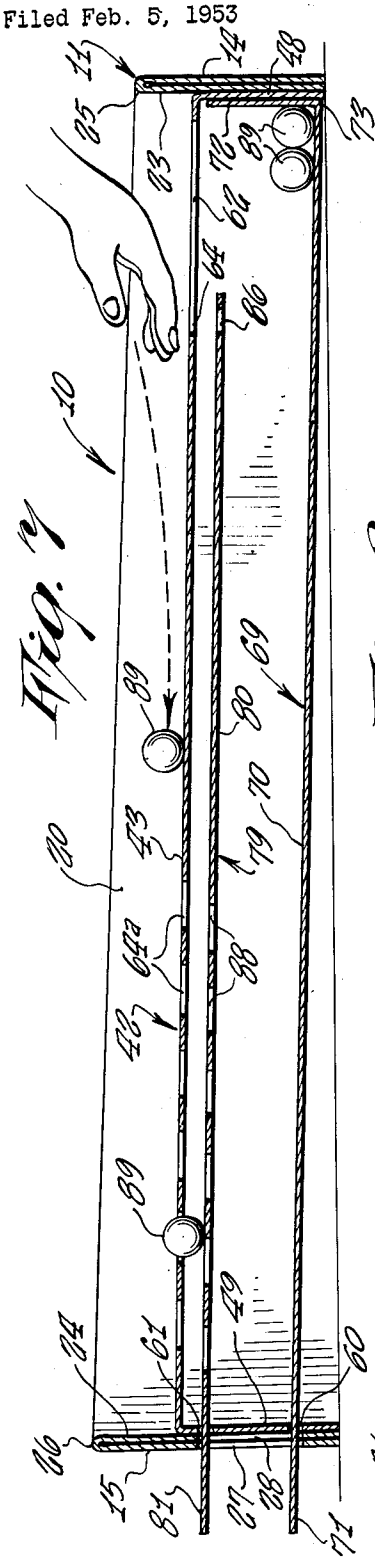


Fig. 7

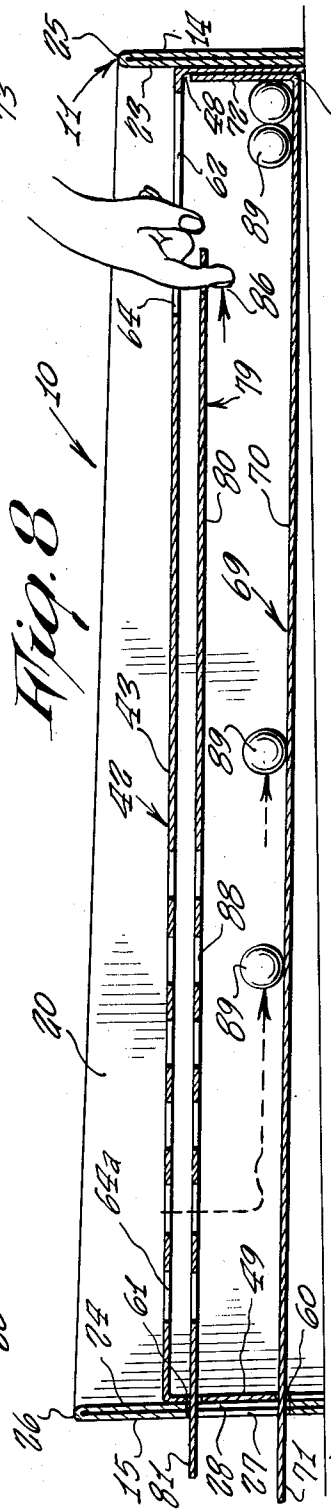


Fig. 8

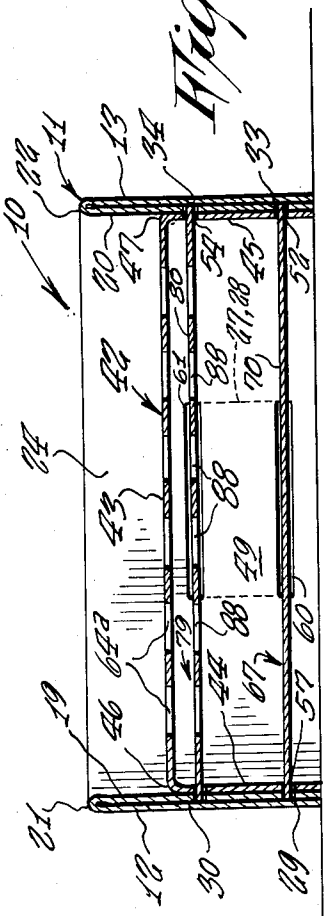


Fig. 9

HARRY J. BEETHOVEN
INVENTOR.

BY Howard Haverstock

ATTORNEY

United States Patent Office

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ROLLING BALL GAME

Harry J. Beethoven, Elmhurst, N. Y.

Application February 5, 1953, Serial No. 335,309

6 Claims. (Cl. 273—125)

This invention relates to games and more particularly to pin-ball games.

It is an object of the present invention to provide a pin-ball game which is formed entirely of corrugated cardboard and which may, therefore, be produced at a much lower cost than conventional pin-ball games made of wood and metal.

It is another object of the present invention to provide a pin-ball game of the above type which is formed entirely of four separate corrugated cardboard blanks, each appropriately cut and adapted to be readily and easily folded and assembled into operative relationship.

It is still another object of the present invention to provide a pin-ball game of the above type wherein each of the blanks are adapted to be folded back upon themselves in doubled-up relation, providing an extremely compact package for shipping and packaging.

It is still another object of the present invention to provide a pin-ball game of the above type wherein novel means are provided for returning the balls to the player at the end of the round or hand.

It is still another object of the present invention to provide a pin-ball game construction formed entirely of corrugated cardboard which may be adapted for any one of a plurality of games merely by varying the indicia carried by the openings at one end of the gaming surface.

Other objects of the present invention are to provide a pin-ball game bearing the above objects in mind which is of simple construction, inexpensive to manufacture, has a minimum number of parts, is easy to use and efficient in operation.

For other objects and for a better understanding of the invention, reference may be had to the following detailed description taken in connection with the accompanying drawing, in which:

Fig. 1 is a perspective view of a pin-ball game embodying the features of the present invention, with one of the sides shown partly broken away;

Fig. 2 is a perspective view of one of the corrugated blanks forming a part of the present invention;

Fig. 3 is a perspective view of another of the corrugated blanks forming a part of the present invention;

Fig. 4 is a perspective view of still another of the corrugated blanks forming a part of the present invention;

Fig. 5 is a perspective view of still another of the corrugated blanks forming a part of the present invention and shown partly assembled;

Fig. 6 is a top plan view of the partly assembled blank of Fig. 5, shown folded flat upon itself;

Fig. 7 is a longitudinal sectional view of the assembled game showing the manner of playing the same and the relative disposition of the parts during the game;

Fig. 8 is a view similar to Fig. 7 but showing the manner of releasing the balls after the game is over and the relative disposition of the parts at this point and

Fig. 9 is a transverse sectional view of the assembled game.

Referring more in detail to the drawing, in which similar

reference numerals identify corresponding parts throughout the several views, there is shown a game, referred to collectively as 10, and including a body 11, substantially as illustrated.

As shown in Fig. 5, the body 11 is formed from a corrugated blank including sides 12 and 13 and ends 14 and 15, the side 13 being connected at each end to ends 14 and 15 by means of fold lines 16 and 17, respectively, while the side 12 is connected at one end to end 14 by means of fold line 18.

The sides 12 and 13 along their upper edges are integrally formed with side flaps 19 and 20 along fold lines 21 and 22, while the ends 14 and 15 are integrally formed with end flaps 23 and 24 along fold lines 25 and 26.

The fold lines 21 and 22, it will be noted, diverge from the bottom edges of sides 12 and 13, making the back end 15 of greater height than the front end 14. Also, the flaps 19—24 are adapted to coincide with their respective sides and ends when folded inwardly along the fold lines 21, 22, 25 and 26, being of identical shape.

The end 15 is provided with a rectangular opening 27 adapted to align with a corresponding opening 28 provided in end flap 24 when the latter is folded inwardly along fold line 26 to coincide with end 15.

Side flap 19 is provided with converging slits 29 and 30, and 31 and 32, substantially as illustrated. It will be noted that the slits 29 and 31 are colinear, and that the slits 30 and 32 are also colinear. It will also be noted that the colinear slits 29 and 31 diverge away from the top edge of flap 19 toward back end 15, while the colinear slits 30 and 32 diverge away from fold line 21 toward back end 15.

The side flap 20 is also provided with converging slits 33 and 34, and 35 and 36, substantially as illustrated. The slits 33—36 are aligned transversely with slits 29—32, respectively, when the flaps 19 and 20 are folded inwardly to coincide with their respective sides 12 and 13.

The flap 19 and side 12 are provided at their midpoints with transverse, aligned fold lines 37 and 38, while the flap 20 and side 13 are similarly provided at their midpoints with transverse, aligned fold lines 39 and 40. Thus when the portion 11 is folded flat, as shown in Fig. 6, the fold lines 39 and 40 are aligned with one corner of the body 11, while the fold lines 37 and 38 are aligned with the fold line 16 in another corner of the body 11, permitting the latter to be folded along the fold lines 37 and 38, and 39 and 40 into thirds, as will be obvious.

A gummed paper strip 41 secures the adjacent ends of side 12 and end 15 together, as shown in Fig. 5.

As shown in Figs. 1 and 7–9, the flaps 19 and 20, and 23 and 24 are folded inwardly against their respective sides and ends, providing reinforcement for the four sides of body 11, and also providing tracks 33—35 and 29—31 transversely aligned near the bottom edges of sides 12 and 13, and tracks 34—36 and 30—32 transversely aligned below fold lines 21 and 22, and aligned openings 27 and 28, all for a purpose which will hereinafter become clear.

A top portion 42 is provided, and includes a rectangular gaming surface 43, substantially as illustrated in Fig. 2. The gaming surface 43 is provided with side flaps 44 and 45 integrally formed along fold lines 46 and 47, respectively, and with end flaps 48 and 49 integrally formed along fold lines 50 and 51, respectively. The surface 43 and flaps 44, 45, 48 and 49 are all formed from a unitary blank of corrugated cardboard.

The flaps 44, 45, 48 and 49 are folded downwardly at right angles to surface 43, and when so folded are adapted to fit snugly within the body portion 11, as shown in Figs. 1 and 7–9, with the flaps 44, 45, 48 and 49 coinciding with flaps 19, 20, 23 and 24, respectively. The flaps 44 and 45 are identical in size and shape as are the flaps 19 and 20, and are provided with slits 52—59

adapted to be aligned with the slits 33—36 and 29—32, respectively, while the flaps 48 and 49 are similar in shape as are the flaps 23 and 24, respectively. The flap 49 is provided with vertically spaced, parallel slits 60 and 61 adapted to be aligned with the top and bottom portions of openings 27 and 28, as shown in Figs. 7–9.

The surface 43 adjacent the flap 48 is provided with a large opening 62 having a first extension 63 and a second extension 64, for a purpose which will hereinafter become clear. The surface 43 adjacent the flap 49 is provided with a plurality of spaced openings 64*a*, substantially as illustrated and also for a purpose which will hereinafter become clear.

The flaps 44 and 45 and the surface 43 are provided at their midpoints with transversely aligned fold lines 65—67, respectively, permitting the top portion 42 to be folded in half for compactness in shipping and packaging.

The surface 43 below each opening 64*a* carries suitable indicia 68, shown in the drawing as abbreviations for varying cards in a deck of playing cards, for example, "Qh" is equivalent to the queen of hearts, while "9s" is equivalent to the nine of spades, and so on.

A bottom portion 69 is provided and consists of a rectangular surface 70 integrally formed at one end with a tongue 71 and at the other end with an end flap 72, the flap 72 being foldable upwardly at right angles to surface 70 along a fold line 73. Opposite sides of surface 70 are integrally formed with tongues 74—77, substantially as illustrated in Fig. 4. The surface 70 at its midpoint is provided with a transverse fold line 78 permitting it to be folded in half in a manner similar to top portion 42, providing a more compact unit for packaging and shipping.

It will be noted that when the flaps 44 and 45 of top portion 42 are folded downwardly into coinciding relation with the flaps 19 and 20, respectively, of body 11, that the lowermost, transversely aligned slits 29, 31 and 33, 35 of flaps 19 and 20 and the slits 57, 59 and 52, 53 of flaps 44 and 45 aligned therewith will be inclined downwardly from rear end 15 to front end 14.

Thus, when the flap 72 of bottom portion 69 is folded upwardly and the latter inserted upwardly between flaps 44, 45, 48 and 49 of top portion 42, as shown in Figs. 7–9, passing the tongue 71 through slit 61 of flap 49, and forcing the tongues 74—77 into slits 52—59 of flaps 44 and 45 and thence into slits 29—36 of flaps 19 and 20 aligned therewith, the surface 70 will slope downwardly from end 15 to end 14.

The relative heights of 49 and 48 of top portion 42 are such that the surface 43 also slopes downwardly from end 15 to end 14, although less than the surface 70, and in fact, parallel to the colinear slits 30, 32 and 34, 36 of flaps 19 and 20 of body portion 11.

An intermediate portion 79 is provided and consists of a rectangular surface 80 integrally formed at one end with a tongue 81 and along opposite sides with tongues 82—85, substantially as illustrated in Fig. 3. The surface 80 is provided at the end remote from tongue 81 with a central opening 86, and at its midpoint with a transverse fold line 87, permitting it to be folded in half for greater compactness when shipping and packaging. The surface 80 is also provided adjacent the tongue 81 with a plurality of spaced openings 88 of the same diameter and adapted to be aligned with the openings 64*a* in a manner to be described directly.

Prior to insertion of the bottom portion 69, the intermediate portion 79 is inserted upwardly between flaps 44, 45, 48 and 49, as shown in Figs. 7–9, with the tongue 81 passing outwardly through the slit 61 and the openings 27 and 28, and the tongues 82—84 being forced into slits 52—59 of flaps 44 and 45 and slits 29—36 of flaps 19 and 20. The tongues 82—84 are of less length than the slits 52—59 and 29—36, permitting the portion 79 to be moved longitudinally relative to top portion 42 by means of opening 86, as shown in Fig. 8. It will be noted that the portion 79 is parallel to the top portion 42, both portions sloping slightly upward from front to rear.

A plurality of balls 89 are provided, being of slightly less diameter than the openings 88 and 64*a*.

With the game assembled, and the portion 79 disposed relative to the top portion 42 as shown in Fig. 7, with the openings 88 staggered with respect to the openings 64*a*, the balls 89 are rolled rearwardly across the gaming surface 43 toward the openings 64*a*, the objective being to obtain the highest score or hand depending upon the indicia 68, which are of varying values. Thus the balls are rolled in an attempt to obtain the highest poker hand, as will be obvious. When all of the balls have been rolled, it will be noted that the balls 89 will be supported in the openings 64*a* by means of surface 80, as shown in Fig. 7. When the hand has been played, or in other words, when all of the balls have been rolled and the score computed from indicia 68, the surface 80 is moved by means of opening 86 until the openings 88 thereof are aligned with the openings 64*a*, as shown in Fig. 8, whereupon the balls 89 will drop through onto bottom portion 69. Due to the downward inclination of the latter toward the end 14, the balls 89 will roll forward until they come to rest against flap 72, where they may be retrieved by the next player through opening 62. The intermediate portion 79 is again moved into the position of Fig. 7, and the above sequence of operations are repeated.

While in the drawing, the indicia 68 have been descriptive of the various cards in a deck of playing cards, it will be obvious that they may be descriptive of scores in any other game, for example, baseball. In such a case, the indicia 68 would read "1h" for a one-base hit and "HR" for a home-run, and so on. Thus it will be apparent that the present invention is not to be limited to the particular game illustrated in the drawing.

In order to facilitate and determine the relationship between the intermediate portion 79 and top portion 42, the end of surface 80 may be provided with suitable marking, for example, the words "closed" and "open," with arrows pointing in opposite directions, substantially as illustrated in Fig. 3. These words would be visible to the observer at all times, due to the extended cut-out portion 63, while access to the opening 86 is provided at all times by extended cut-out portion 64.

It should now be apparent that there has been provided a pin-ball game which is formed entirely of corrugated cardboard and which may, therefore, be produced at a much lower cost than conventional pin-ball games made of wood and metal, the game being formed from four separate blanks, each appropriately cut and adapted to be readily and easily folded and assembled into operative relationship. It should also be apparent that there has been provided a game of the above type wherein each of the above blanks may be folded back upon themselves in doubled-up relation, providing an extremely compact package which may be shipped at a low cost, and wherein novel means are provided for returning the balls to the player at the end of the round or hand.

While various changes may be made in the detailed construction, it shall be understood that such changes shall be within the spirit and scope of the invention as defined by the appended claims.

I claim:

1. A pin-ball game having apertures through which a plurality of balls are adapted to drop comprising a body portion, a removable top portion containing said apertures, a slidable intermediate portion having registering apertures and a bottom portion removably engageable with said top portion, each of said body, top, intermediate and bottom portions being formed from a unitary blank of cardboard, said body portion blank comprising a pair of longitudinal side and front and rear end

walls connected along vertical fold lines and disposed in rectangular arrangement, side and end flaps integrally formed along the upper edges of said side and end walls along horizontal fold lines, said flaps being folded inwardly against their respective sides and ends, said side flaps having vertically spaced, longitudinal slits, said rear end wall flap having an opening, said top portion blank comprising a rectangular surface adapted to fit within said body portion, side and end flaps integrally formed along the sides and ends of said surface along horizontal fold lines, said top portion side and end flaps being folded downwardly and disposed adjacent said body portion side and end flaps, said top portion side flaps having vertically spaced, longitudinal slits aligned with said slits in said body portion side flaps, said rear end flap of said top portion having vertically spaced, horizontal slits aligned with the top and bottom of said opening in said body portion rear end wall, said intermediate portion blank comprising a rectangular surface adapted to fit within said body portion, side and end tongues integrally formed in the sides and ends of said intermediate surface, said end tongue passing through the uppermost of said slits in said top portion rear end flap and said openings in said body portion rear end and flap thereof, said side tongues being disposed within the uppermost of said slits in said top and body portion side flaps, said intermediate surface being of less length than said body portion and said side tongues being of less length than said slits whereby said intermediate portion may be moved longitudinally within said body portion, and said bottom portion blank comprising a rectangular surface adapted to fit within said body portion, a front end flap integrally formed in said surface along a horizontal fold line, side and a rear end tongue integrally formed in the sides and rear end of said surface, said front end flap being folded upwardly and disposed adjacent said front flap of said top portion, said rear end tongue passing through the lowermost of said slits in said top portion rear end flap and through the openings in said body portion rear end and flap thereof, said side tongues passing through the lowermost of said slits in said body and top portion side flaps.

2. A pin ball game according to claim 1, said body portion flaps and sides having aligned, vertical fold lines, said top portion rectangular surface and side flaps having aligned, transverse fold lines, said intermediate and bottom rectangular surfaces having transverse fold lines whereby said blanks may be folded back upon themselves for compactness when shipping.

3. A pin-ball game according to claim 1, said slits in said body and top portion side flaps converging toward said rear end flaps, said body portion side walls along their top edges being inclined downwardly toward said front wall thereof, said side wall flaps of said body portion being identical in size and shape with said side walls of said body portion and adapted to coincide therewith, said top portion side flaps being identical in size and shape with said body portion side wall flaps.

4. A pin-ball game according to claim 1, said top portion rectangular surface having an opening adjacent said front end flap adapted to receive a hand therethrough, said top portion rectangular surface at the other end thereof having a plurality of spaced, like-sized circular openings, said intermediate portion rectangular surface at its front end having a finger opening and at its rear end having a plurality of second spaced, like-sized openings adapted to be aligned with said openings in said top surface upon longitudinal movement of said intermediate portion.

5. A pin-ball game according to claim 4, said top portion having a narrow extension of said opening therein adjacent said front flap, said narrow extension being aligned with said finger opening in said intermediate portion.

6. A pin-ball game according to claim 1, said blanks being formed of corrugated cardboard.

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