

[54] GAME BALL

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[58] Field of Search 273/58, 138, 128, 136 GA, 273/65 E, 102.1 C, 127, 106, 1: 46/17, 201, 1, 211, 221, 196; 124/16

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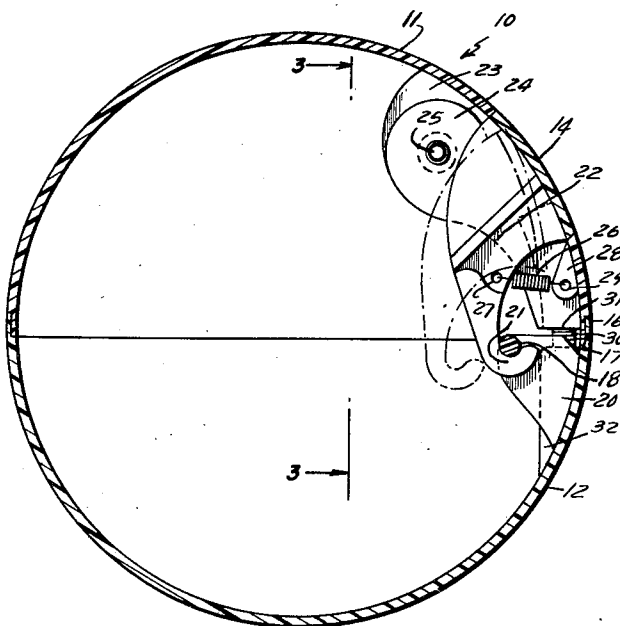
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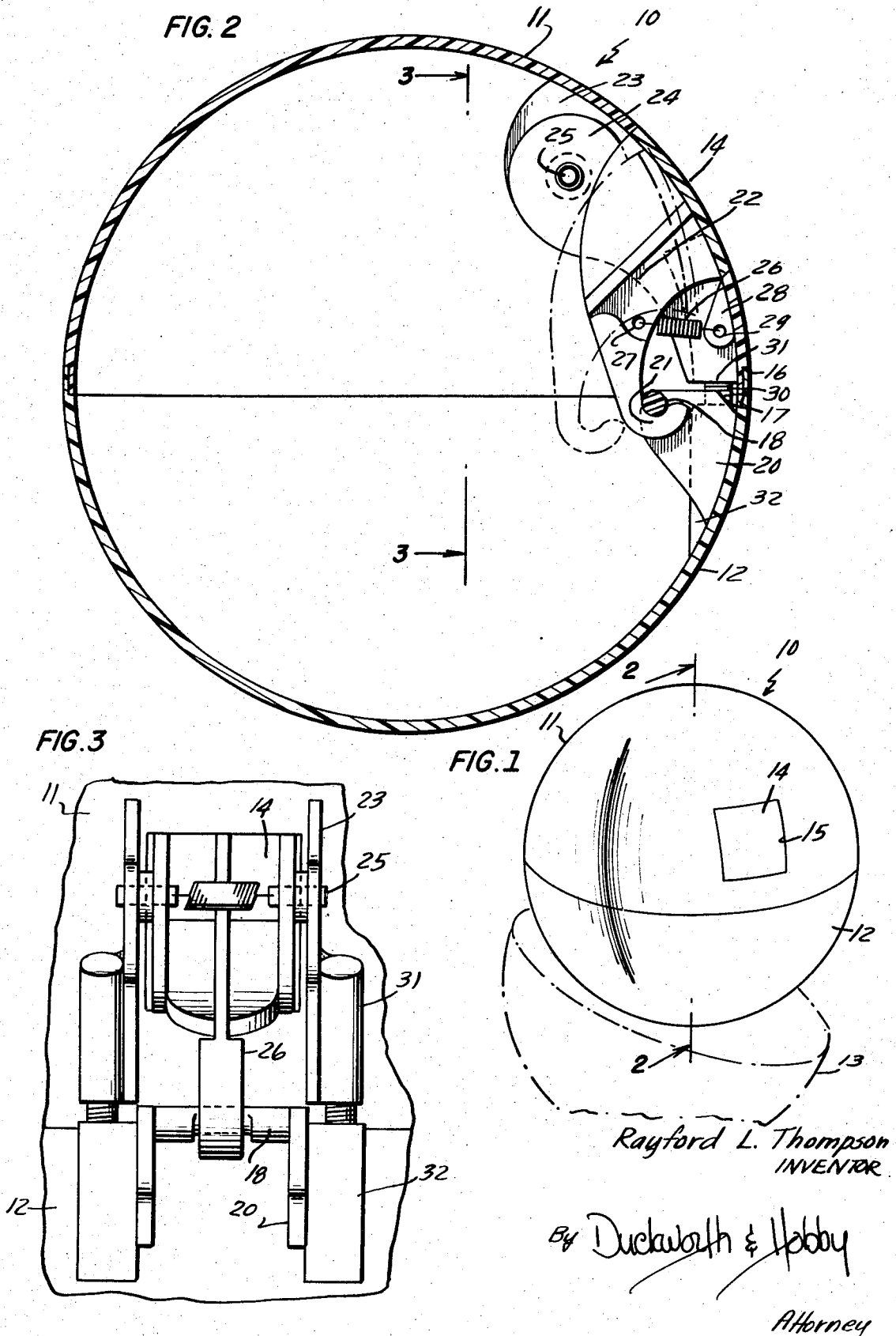
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[57] ABSTRACT

A split-ball apparatus having a pair of ball halves connected together to form a ball which ball is adapted to be separated into its halves upon contact being made with a predetermined surface area of one of the ball halves. The ball halves are connected together by a latching system having a hook and catch bar with the hook connected over the bar when the ball halves are together but which are separated by hitting a sensitive area of one of the ball halves to drive the hook off the bar. Resilient springs bias the two ball halves away from each other so that when the hook is driven off the catch bar, the ball separates into two halves. Various ball games can be played where the object of the game is to avoid hitting the sensitive area on the surface of the ball to prevent the ball from separating, or alternatively, to hit the sensitive area to make the ball separate.

6 Claims, 3 Drawing Figures





GAME BALL

BACKGROUND OF THE INVENTION

The present invention relates to ball games and especially to a ball for use in ball games which is adapted to split into two separate halves upon contact with the sensitive portion on the surface of one of the ball halves.

In the past it has been taught to provide various actuating means within balls to make the ball flash upon contact with predetermined areas or to intermittently and selectively illuminate portions of a ball upon contact with those areas. In one such device, a toy ball when rolled on the floor or turned over by hand will result in intermittently flashing lights in different zones within the ball and near its outer skin, while another such device will energize intermittently in response to the movement of the ball. It has also been suggested to provide a toy ball which when dropped on a surface will rebound to a height far greater than that from which it is dropped by the activation of a preloaded mechanism having a latch which is adapted for automatic release upon impact of the toy with the surface.

Finally, the prior art has suggested hingeing a pair of ball portions together and providing means to force portions to open on the hinge when released by plungers extending from the ball.

The present invention advantageously provides a split ball game adapted to totally separate two halves of the ball when a sensitive area is contacted on the surface of the ball. The sensitive area may or may not, as desired, be concealed and with a flexible exterior will simply be a portion of the surface of the ball, whereas with a rigid exterior the sensitive area will provide a smooth surface but which may be identified by the separations between the sensitive area and the remainder of the ball.

Another object of the present invention is to provide a split ball for use in a game having biasing means for separating two halves and latching means for simple, economical latching of the two ball halves together.

SUMMARY OF THE INVENTION

The present invention relates to a ball or toy ball apparatus having a pair of ball halves adapted to be separably connected together to form a ball of generally spherical shape. A latch means is provided for latching the halves of the ball together with a latch attached to one half and rotatably connected for hooking on a catch on the other half. A resilient spring is adapted for placement between the halves to force the ball apart when the latch is released, and a portion of the hook is interconnected to a sensitive area on the surface of one half of the ball for actuating the hook to release the latch to let the ball separate into two halves.

BRIEF DESCRIPTION OF THE DRAWINGS

Other objects, features and advantages of this invention will be apparent from a study of the written description and the drawings in which

FIG. 1 illustrates a ball in accordance with the present invention adapted to separate into two halves;

FIG. 2 is a sectional view taken along line 2—2 of FIG. 1; and

FIG. 3 is a sectional view taken along line 3—3 of FIG. 2.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to FIG. 1, there can be seen a ball 10 having an upper half 11 and a lower half 12, and illustrating in dotted lines 13 how the lower half 12 can be separated from the upper half 11 upon contact with a sensitive area 14. The sensitive area in a solid ball would be identified as a separate portion of the ball 11 but would be by the parts fitting together at 15 and in a flexible type exterior there would be no indication on the exterior of the ball where the sensitive area was located. If it were desired by a party to identify this area in a particular game, it could be identified with a different color paint or could even be lighted up if the sensitive area 14 were of proper material having a simple flashlight in it located behind the sensitive area.

The ball is well suited to play a great variety of games with or without a bat, such as by tossing the ball in the air between participants and endeavoring to avoid hitting the sensitive spot, and when the sensitive spot was contacted, it would actuate the mechanism for separating the ball into two halves. Alternatively, the object of the game could be to hit the sensitive area to separate the halves of the ball. It will of course be clear that a great variety of games could be devised for use with such a toy providing great pleasure for children and adults alike.

FIG. 2 illustrates more clearly the operation of the ball 10 and has an upper portion 11, and a lower portion 12, with a sensitive area 14 along the surface. The upper portion has a ledge 16 adapted for interconnection with the ledge 17 on the lower portion 12 so that the two halves interconnect by the notched or ledged surfaces 16 and 17 to provide a generally smooth surface at the connection between the two halves of the ball. The lower half of the ball 12 has a catch bar 18 attached to a bracket 20 which bracket 20 is attached to the bottom portion of the ball 12. The upper portion 11 of the ball 10 has a hook 21 formed in a bracket 22 which is connected to the interior of the sensitive area 14 of ball 10 and is rotatably connected to brackets 23. Brackets 23 are attached to the interior of the ball half 11. Brackets 23 are in turn connected to those portions of the bracket 24 by pins 25 which brackets 24 are connected to the hooked arm portion 22, which is spring loaded by spring 26 connecting to a hole 27 on bracket 22 and also to a spring connector member 28 having a hole 29 which portion 28 is attached to the interior of the ball half 11. Hitting the sensitive portion 14 will force the hooked portion 21 against the spring 26 to release the hook 21 from the barred catch 18 releasing the latch mechanism and releasing the two halves 11 and 12 to separate. A spring 30 has been compressed between a pair of surfaces 31 and 32 and may be attached to one or the other ball halves 11 and 12 respectively to force the two ball halves to separate upon contact with sensitive area 14. A pair of these springs on either side of the latch mechanism has been found sufficient to separate the ball in playing the game in accordance with the present invention.

FIG. 3 illustrates the mechanism from a different view in having the springs 30 compressed between the members 31 and 32 and having the sensitive area 14 located on the ball half 11, a bar catch 18 attached to brackets 20 attached to ball half 12. The hook mechanism 26 is connected to the bar catch 18 and

rotates on a pair of pins 25 connected to the brackets 23 which are in turn connected to the interior of the ball half 11 allowing the hook 26 to rotate against the spring 26 of FIG. 2. On soft or flexible balls, the sensitive portion 14 would be attached to the inner surface of the ball half 11, so that the contact with the flexible ball on the exterior of ball half 11 at this point will push the sensitive portion 14 to release the hook 26 from the latch 18. On hard surface type balls, the sensitive portion 14 will extend through the surface of ball half 11 to form a smooth surface along the exterior of the ball but which is separate from the exterior of the ball and adapted to be pushed in slightly. Once released, the springs 30 will pressure the ball to separate.

It should also be clear that a single latch is adapted to hold the ball together because of the pair of ledges 16 and 17 interconnecting the circumference of the ball halves together and without such interconnection more than one latch would normally be required which plurality of latches would have to be activated simultaneously or by some means for connecting the balls where they could not be totally separated.

The present invention is anticipated as covering flexible or hard surface balls for playing any game desired in which the object of the game is separation of the two balls or to avoid the separation of the two halves of the ball, and this invention is not to be construed as limited to the particular forms disclosed herein since these are to be regarded as illustrative rather than restrictive.

I claim:

- 1. A split ball apparatus comprising in combination
 - a. a pair of ball portions connected together to form a ball and separable upon contact with a predetermined area of one of said ball portions;
 - b. latch means for holding said pair of ball portions together and having a catch member attached to

one said ball portion and a hook member movably connected to the other said ball portion so that said hook member engages said catch member when said ball portions are together;

- c. resilient means for separating said ball portions when said hook member is disengaged from said catch member and said resilient means being connected to one said ball portion and operative to bias one said ball portion away from the second said ball portion when said portions are latched together by said latch means;
- d. said other ball portion having a sensitive area on its surface coupled to said latch means for unlatching said hook member from said catch member upon contact by a predetermined force against said sensitive area, and thereby separating said pair of ball portions by the pressure from said resilient means; and
- e. each said pair of ball portions having an annular ledge for interconnecting said ball portions together.

2. The apparatus in accordance with claim 1 in which said resilient means includes at least one coil spring.

3. The apparatus according to claim 2 in which said ball portions are semi-spherical shaped.

4. The apparatus according to claim 3 in which said ball portions have flexible surfaces.

5. The apparatus according to claim 3 in which said sensitive area of said other ball portion is a separate area fitted into a matching opening in the surface of said other ball portion.

6. The apparatus according to claim 5 in which said latch means catch member is a bar catch and said hook member is hook shaped and rotatable on a pin and spring biased onto said bar catch when said ball portions are connected.

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