



(51) International Patent Classification:  
A63G 21/18 (2006.01)

(21) International Application Number:  
PCT/TR2010/000055

(22) International Filing Date:  
23 March 2010 (23.03.2010)

(25) Filing Language: English

(26) Publication Language: English

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(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,  
CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO,  
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,  
HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP,  
KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,  
ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI,  
NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD,  
SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR,  
TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ,  
TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,  
MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM,  
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,  
ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(54) Title: MULTILANE WATERSLIDE WITH A COMMON SLIDING AREA

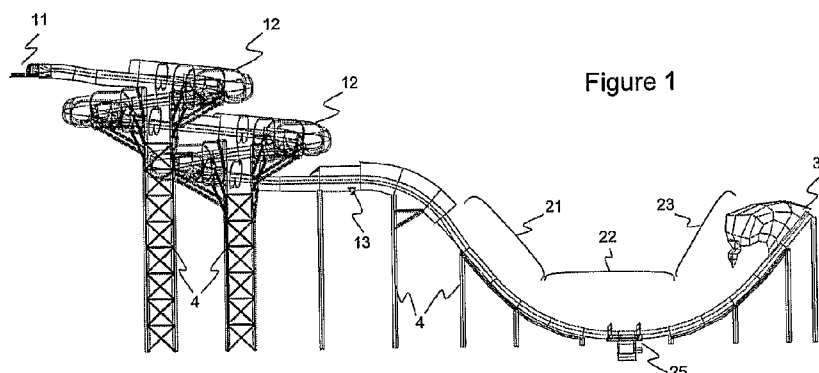


Figure 1

(57) Abstract: The invention is about a waterslide that is mainly used for the purpose of entertainment and sports and that offers a more than one lane sliding path to enable racing and of which the riding experience is through a vehicle which is called raft, tube or boat, takes the rider in various directions in line with its route and enables the rider to experience a back and forth swing movement while ensuring a safe sliding experience.

## MULTILANE WATERSLIDE WITH A COMMON SLIDING AREA

### DESCRIPTION

#### The Related Art

The invention relates to slides providing opportunity for use with or without water and used for entertainment of people in parks.

The invention particularly relates to a cobra head snake waterslide that is used for the purpose of entertainment and that offers lanes to enable racing and takes the rider in various directions in line with its route to offer more entertainment with increased functions.

#### Background of the Invention

The slides in playgrounds are manufactured in sizes specially designed for children. Thanks to developed technology and by use of this idea slides of bigger sizes for both adults and children have been manufactured. Then slides of big sizes have been moved from sandy playgrounds to waterparks. Then the sliding made for both entertainment and sports has been provided with falling of riders into pool and thus has been combined with swimming.

As seen, there are sliding embodiments offering use with or without water in sandy playgrounds or waterparks in the related art. Regarding the states of arts existing in the literature the followings can be given as example.

One of them is the patent publication numbered US 4196900. The said patent discloses improvements made on supports containing elbows reducing the costs of support feet carrying more slides.

Another example is the patent publication numbered GB 2224948. The said patent discloses a sliding allowing free fall of the rider which comprises one person entrance part and exit part on the bowl. However, as far it is understood from the figures and abstract part of the patent, more than one person cannot slide and the exit point of the bowl is opening to a pool. The bowl part of the sliding covers the pool completely. Such types of slides do not allow sliding and racing of more than one person at the

same time. Moreover, since the bowl covers the pool completely, the outdoor pool becomes an indoor pool.

The water slides provided in the parks having pools allow sliding of more than one person at the same time by means of riding a boat or without riding a boat because of its wide surface. The structure of such slides is changed by means of various members of various forms. However, the spiral water slides embodied in a manner allowing same distance where more than one rider slides separately without going into the lane of others and thus can race have not been seen. In addition, additional embodiments wherein the slope is decreased at the end of the lane and the race can continue with direction of the water have not been seen.

Furthermore, the riders to slide have to wait in queue until completion of ride of the person before them. This waiting continues until the sliding lane is free so as to not damage the rider in the front. In this case, the fact that the length of the slide is long makes the waiting time longer.

As a result, the said disadvantages regarding the existing embodiments have made necessary to make a development in the related art.

### **Brief Description of the Invention**

From the status of the related art, the purpose of the invention is to enable the riders to slide at equal distances and thus race as it comprises at least two sliding lanes of equal distance in sliding part developed to enable riders to experience more action and excitement and to race in the slides in waterparks.

A similar purpose of the invention is to provide several forward and backward swinging on the wide area by means of directing the rider usually on a boat in the water flowing direction as it comprises an area of less slope and wide plane in the form of a bowl-like structure starting from end of lane sliding part.

Another purpose of the invention is to encourage the riders to race and have entertainment by help of cobra snake form of the water sliding.

A further purpose of the invention is to prevent passing into the lane of other rider by a rider by help of a separator extension extending from middle section of the lane sliding part. Accordingly, passing into the lane of other rider by a rider is prevented by help of a separator extension extending from middle section of the wide surface of sliding area.

In order to achieve the above mentioned purposes, the invention is a slide enabling riders to race by sliding with or without water on raft or inflatable boats and it is characterized in that it comprises at least two sliding lanes, at least one separator extension located between the said sliding lanes in a certain manner and a height preventing passing of the rider to other lane, separate sliding start parts where the said sliding lanes start, and that the said sliding lanes are open type sliding continuing with each other and/or closed type sliding.

In a preferred embodiment of the invention, the invention is a sliding offering racing with or without water and it is characterized in that it comprises descending parts starting to get wider from end of sliding lanes, middle part having wider surface area than the said descending part and almost parallel to ground and elevating part of slope elevating after the said middle part and of surface area narrowing down.

In a preferred embodiment of the invention, the invention is a sliding enabling riders to race with or without water and it is characterized in that the complete structure of the said slide in the form of cobra comprises sliding lanes in the shape of snake tail providing sliding and acceleration of the rider/riders from a certain height, wide surface sliding area in the shape of snake neck connected to the said sliding lane from the end and decreasing the speed of the rider/riders and allowing forward and backward swinging and exit/returning part of the slide in the shape of snake head connected from the end of the wide surface sliding preventing the rider/riders falling by influence of speed and moment without stopping.

In a preferred embodiment of the invention, the said tail part of the snake comprises at least two sliding lanes of equal distance combined to each other side by side or separating from each other at a point and re-combining at a point.

In a preferred embodiment of the invention, it comprises separator extension between the said sliding lanes in order to prevent passing to other lane during racing.

In a preferred embodiment of the invention, the said snake tail part comprises at least one or at least two lane sliding area of the said sliding lanes.

In a preferred embodiment of the invention, the said snake tail part comprises slowing counter flow nozzle to slow down the speed of the riders.

In a preferred embodiment of the invention, the top of the sliding lanes making the said lane sliding part is open type slide and/or closed type slide.

In a preferred embodiment of the invention, the said top part open type slide comprises wall of external side parts for security purposes.

In a preferred embodiment of the invention, the said wide surface sliding area comprises descending part starting to get wider from end of the sliding lanes, middle part having wider surface area than the said descending part and close to parallel to the ground, and elevating part of the slope elevating after the said middle part and having surface area getting narrower.

In a preferred embodiment of the invention, the wide surface sliding area where the said separator extension of the lane sliding part continues also comprises separator extension.

In a preferred embodiment of the invention, the said slide comprises next sliding lane in a manner the said slide continues after the wide surface sliding area.

In a preferred embodiment of the invention, the said slide comprises at least two exit lanes providing exit from the slide on the said wide surface sliding area.

In a preferred embodiment of the invention, the said slide comprises at least two exit stairs providing exit from the slide on the said wide surface sliding area.

In a preferred embodiment of the invention, the said slide comprises cage system or flat structured carrying feet located at a certain height from ground to carry the said snake head, neck and tail parts the slide.

In a preferred embodiment of the invention, the said exit/returning part of the slide comprises lights, fog and visually structured effects part to add more entertainment and excitement to the sliding sport.

The structural and characteristics features of the invention and all advantages will be understood better in detailed descriptions with the figures given below and with reference to the figures, and therefore, the assessment should be made taking into account the said figures and detailed explanations.

### **Description of Figures**

In order to make the embodiment and additional members being subject of the present invention as well as the advantages clearer for better understanding, it should be assessed with reference to the following described figures.

Figure 1 shows a side view of water sliding in an illustrative embodiment of the invention.

Figure 1a shows a side view of water sliding in an alternative embodiment of the invention.

Figure 2 shows a perspective view of sliding in an illustrative embodiment of the invention from left front side without exit/returning part of the slide.

Figure 2a shows a perspective view of sliding in an alternative embodiment of the invention from left front side without exit/returning part of the slide.

Figure 3 shows a top view of water sliding in an illustrative embodiment of the invention.

Figure 3a shows a view of alternative embodiment of starting part of the sliding in an alternative embodiment of the invention.

Figure 4 shows a right front view of water sliding in an illustrative embodiment of the invention.

Figure 5a shows a view of open top type cross-section located on lane sliding part of the water sliding in an illustrative embodiment of the invention.

Figure 5b shows a view of close top type cross-section located on lane sliding part of the water sliding in an illustrative embodiment of the invention.

Figure 5c shows a view of open top type cross-section located on wide surface sliding area of the water sliding in an illustrative embodiment of the invention.

Figure 6 shows a view of slowing down counter flowing nozzle on lane sliding section of water sliding in an illustrative embodiment of the invention.

## **Reference Numbers**

- 1. Lane sliding part
- 11. Starting part of the slide
- 12. Turnstile
- 13. Slowing down counter flow nozzle
- 14-1. First sliding lane
- 14-2. Second sliding lane
- 14-3. Separator extension
- 14-4. Wall
- 15-1. Open type sliding/cross-section
- 15-2. Close type sliding/cross-section
- 2. Wide surface sliding area
- 21. Descending part
- 22. Middle part
- 22-1. Open type middle part/cross-section
- 23. Elevating part
- 24. Separator extension
- 25. Exit stair

**26. Water discharge grid****3. Exit/returning part of the slide****31. Effect part****32. Next sliding lane****33. Exit lane****4. Carrier Feet****Detailed Description of the Invention**

In this detailed description, the preferred embodiments of the water sliding consisting of lane sliding part (1), wide surface sliding area (2) and exit-turning parts of the slide (3) being subject of the invention have been described in a manner not forming any restrictive effect and only for purpose of better understanding of the matter.

Figure 1 shows a complete view from side of the water sliding. The part starting from starting part of the slide (11) of the sliding until descending part (21) being start of the wide surface sliding area (2) is the lane sliding part (1). As it can be seen from the figure, the lane sliding part (1) preferably contains two turnstiles (12) in spiral form. A slowing down counter flow nozzle (13) has been located towards end of the lane sliding part (1) in order to provide counter flowing and thereby slowing down of the speed (see figure 6).

As it can be seen from Figures 2 and 4 the lanes (14.1, 14.2) allowing to race of at least two rider or four riders as two partners start from starting part of the slide (11). The said first sliding lane (14.1) and second sliding lane (14.2) are separated from each other by means of a separator extension (14.3) extending from middle part in a line. The said form also continues as separator extension (24) on the wide surface sliding area (2).

Figure 3 shows a top view of the water sliding. As it can be seen from the figure, the wide surface sliding area (2) is in the form firstly widening after lane sliding part (1) and then narrowing from a certain point. It has been divided into two equal parts from the middle part by the said separator extension (24).



As it can be seen from figure 1, the wide surface sliding area (2) contains descending part (21) descending from end of the lane sliding part (1), middle part (22) extending parallel to ground after descending part (21) and elevating part (23) elevating after the middle part (22). Exit/returning part of the slide (3) has been constructed in the close form at the end of the said elevating part (23). Exit stair (25) is constructed in this part in order to provide exit preferably from middle part (22). Water discharge grid (26) extending along width of wide surface sliding area (2) has been located in order to provide water cycling from middle part (22) and discharge of extra water. Exit/returning part of the slide (3) is located at a certain height to carrying feet (4) after elevating part (23) at the end of wide surface sliding area (2). The said exit/returning part of the slide (3) is in the form of head of cobra snake and provides elevation of the riders up to that part and then returning.

Figure 5a shows a view of open top type cross-section (15.1) located on lane sliding part (1) of the water sliding. Since the invention preferably contains at least two sliding lanes (14.1, 14.2), two separate areas separated side by side by means of separator extension (14.3) as indicated in the figure. The walls (14.4) on the sides have been provided high in order to provide safety in addition to top open.

Figure 5b shows a view of close top type cross-section (15.2) located on lane sliding part (1) of the water sliding. Since the invention preferably contains at least two sliding lanes (14.1, 14.2), two close top separate areas separated side by side by means of separator extension (14.3) as indicated in the figure.

Thus one close (15.2) and one open (15.1) type sliding have been provided along lane sliding part (1). In an alternative embodiment of the invention completely close type sliding (15.2) or completely open type sliding (15.1) can be provided along lane sliding part (1).

Figure 5c shows a view of open top type middle part cross-section (22.1) located on wide surface sliding area (2) of water slide. In an alternative embodiment of the invention, close areas can also be provided on wide surface sliding area (2) like on lane sliding part (1).

The water sliding of cobra snake shape being subject of the invention is erected on carrier feet (4) connected from required areas from bottom. The said lane sliding part (1) is erected on carrier feet (4) of cage system type according to the area where it will be preferably used.

In the light of the figures, the detailed description of the invention is as follows. As known, preferably stairs (not shown in the figure) are used to go to start point of the sliding to start from a certain height. In this respect, the water sliding of the invention starts with a starting part of the slide (11). Main water inlet (not shown in the figure) providing water to the slide that is used for sliding is located on the starting part of the slide (11).

The riders go into the starting part of the slide (11). The riders sit on equipment such as preferably inflatable boat called boat or raft and start sliding on the water. The rider slides into the sliding from the turnstile (12) of decreasing slope and spiral from downward and along the sliding orbit.

However, in an alternative embodiment of the invention, the sliding may not contain any spiral orbited turnstile (12), instead of the said spiral turnstile (12) can be in form of smooth road fully in slope decreasing downward. In another alternative embodiment of the invention, the sliding lanes (14.1, 14.2) can be adjacent side by side and also separated from a point and re-combine at another point.

As also mentioned above, the sliding of the invention comprises two sliding lanes (14.1, 14.2) preferably side by side. Each lane (14.1, 14.2) is designed in a manner allowing use of it with inflatable boats capable to carry two riders at the same time. And this means that totally four riders can slide in the sliding with two sliding lanes (14.1, 14.2) at the same time. In addition, although the said two sliding lanes (14.1, 14.2) contain turnstile areas (12) for allowing racing, they are of equal distance. Thus the riders will also be able to race while sliding on the slide.

The turnstile (12) of the sliding can be made in the form of open type sliding (15.1) or close type sliding (15.2) or as shown in figure 2, two types in combination.

The riders continue to slide downward after passing the turnstiles (12). The riders are slowed down by counter flow nozzles (13) before reaching descending part (21) located in start of wide surface sliding area (2). Thus, they enter the wide surface sliding area (2) in a secure manner and at low speed, which provides extra safety. Each sliding lane (14.1, 14.2) has been designed in a manner containing slowing down counter flow nozzle (13). The flow rate of the water supplied from the said slowing down counter flow nozzle (13) is equal at both sliding lanes (14.1, 14.2). Thus fair racing conditions are ensured.

After the riders are slowed down by the said slowing down counter flow nozzles (13), they enter in the constantly decreasing slope descending part (21) of the wide surface sliding area (2) at decreased speed. However, they continue to slide on the wide surface sliding area (2) under the effect of pushing forces created by kinetic energy and momentum gained. They can pass from descending part (21) to middle part (22) from middle part (22) to elevating part (23) by effect of this speed.

As mentioned, the wide surface sliding area (2) comprises descending part (21), middle part (22) and elevating part (23). The riders make forward backward swinging in wide surface sliding area (2) as shown in figure 3. The kinetic energy and momentum of the riders provide performance of such action.

The wide surface sliding area (2) can be used jointly by the riders (up to 4 riders) sliding in both sliding lanes (14.1, 14.2) just as it is for lane sliding part (1). Since there is a separator extension (24) separating the areas where both sliding lanes (14.1, 14.2) end, it is possible. The race also continues in this part. The swinging length decreases upon decrease of speed. The riders whose speed has lost leave from exit stairs (25) located on both side edges of the middle part (22) and thus complete the entertainment and race.

However, in an alternative embodiment as seen in figure 1a, next sliding lane (32) can be provided in a manner continuing after exit/returning part of the slide (3). The rider can continue sliding on the continuing slide in this alternative embodiment. Effect part (31) that may contain various effects can be provided on the said exit-

returning part of the slide (3). The effects are fog, light and those visual effects in order to enhance the excitement and entertainment.

In an alternative embodiment of the invention as it can be seen in figure 2a, an exit lane (33) providing exit instead of exit stairs (25) shown in figure 2 located on both side edges of the middle part (22) has been provided. Figure 3a shows a view of alternative embodiment of starting part of the slide (11). As it can be seen from the figure, the said starting part of the slide (11) may not be separated from middle part by a separator extension (14.3) but instead be an integral part.

In an alternative embodiment of the invention, various effects such as smoke effect, light effect other than the effect part (31) can also be used at the desired parts on the sliding.

In an alternative embodiment of the invention, the sliding can be ended with a cobra head like close ending part as well as ended with a separate sliding to be added to the said wide surface sliding area (2) (see figure 1a). The riders may reach the pool or dry soft ground from this last slide.

In preferred embodiments of the invention, sliding apparatus providing sliding by wheels or sledge like slide members on dry surface can be used instead of inflatable boat moving on water so as to be convenient for use without water.

**CLAIMS**

1. The invention is a slide allowing sliding with or without water by raft or inflatable boats and allowing racing, and it is characterized in that it comprises at least two sliding lanes (14.1, 14.2), at least one separator extension (14.3) located between the said sliding lanes (14.1, 14.2) visible and at height preventing passing of the riders to opposite side.
2. A slide according to claim 1 and it is characterized in that it comprises separate starting parts of the slide (11) where the said sliding lanes (14.1, 14.2) start.
3. A slide according to claim 1 and it is characterized in that the said sliding lanes (14.1, 14.2) are open type sliding (15.1) and/or close type sliding (15.2) continuing together.
4. A slide according to claim 1 and it is characterized in that it comprises at least one turnstile (12) along the said sliding lanes (14.1, 14.2).
5. A slide according to claim 1 and/ or claim 4 it is characterized in that the said sliding lanes (14.1, 14.2) and the sliding lanes (14.1, 14.2) of the turnstile (12) are of equal distance in order to ensure a fair race.
6. A slide according to claim 1 and it is characterized in that the said top open type sliding parts (15.1) on the said sliding lanes (14.1, 14.2) comprises walls (14.4) of certain height on both external side edges.
7. A slide according to claim 1 and it is characterized in that it comprises at least one slowing down counter flow nozzle (13) in each sliding lane (14.1, 14.2) providing opposite direction flowing of water in order to decrease the speed towards end of the said sliding lanes (14.1, 14.2).

8. The invention is a slide offering racing with or without water and it is characterized in that it comprises descending part (21) starting to get wider from end of sliding lanes, middle part (22) which is having wider surface area than the said descending part (21) and almost parallel to ground, elevating part (23) of slope elevating after the said middle part (22) and of surface area narrowing down.
9. A slide according to claim 8 and it is characterized in that the height of the ending point of the said elevating part (23) from ground is at a lower level than the start point of the descending part (21).
10. A slide according to claims 8 and 9 and it is characterized in that the said descending part (21), middle part (22) and elevating part (23) contain a separator extension (24) in a continuing manner to prevent passing of the riders to opposite side.
11. The invention is a slide allowing racing and sliding with or without water and it is characterized in that the complete structure of the said slide in the form like a cobra snake comprises;
- lane sliding part (1) in the shape of the snake tail part providing rider/riders to speed up after a certain height through sliding,
  - wide surface sliding area (2) in the shape of snake neck part connected to the said lane sliding part (1) from the end and decreasing the speed of the rider/riders and allowing forward and backward swinging,
  - exit/returning part of the slide (3) in the shape of snake head part connected to the said wide surface sliding part (2) from the end and reaching the rider/riders by influence of speed and turning back from here.
12. A slide according to claim 11 and it is characterized in that the said lane sliding part (1) comprises at least two sliding lanes (14.1, 14.2) combined to each other side by side or separating from each other at a point and re-combining at a point.

13. A slide according to claims 11 and 12 and it is characterized in that it comprises separator extension (14.3) between the said sliding lanes (14.1, 14.2) in order to prevent passing during racing.
14. A slide according to claim 11 and it is characterized in that at least one or at least two of the said sliding lanes (14.1, 14.2) of the said lane sliding part (1) comprises turnstile (12).
15. A slide according to claim 11 and it is characterized in that the said lane sliding part (1) comprises slowing down counter flow nozzle (13) in order to slow down the speed of the riders.
16. A slide according to claim 11 and it is characterized in that the said sliding lanes (14.1, 14.2) forming the said lane sliding part (1) are top open type sliding (15.1) and/or close type sliding (15.2).
17. A slide according to claim 11 and it is characterized in that the said top open type sliding (15.1) contains wall (14.4) of external side parts for security purposes.
18. A slide according to claim 11 and it is characterized in that the said wide surface sliding area (2) comprises descending part (21) starting to get wider from end of sliding lanes (14.1, 14.2), middle part (22) having wider surface area than the said descending part (21) and almost parallel to ground and elevating part (23) of slope elevating after the said middle part (22) and of surface area narrowing down.
19. A slide according to claims 11 and 13 and it is characterized in that also the snake neck part comprises separator extension (24) so that the said separator extension (14.3) continues.
20. A slide according to claims 11 and 18 and it is characterized in that the said slide comprises next sliding lane (32) in a manner continuing after top part of the wide surface sliding area (2).

21. A slide according to claims 11 and 18 and it is characterized in that the said wide surface sliding area (2) comprises at least one exit lane (33) providing exit after sliding.
22. A slide according to claims 11 and 18 and it is characterized in that the said wide surface sliding area (2) comprises at least one exit stair (25) providing exit.
23. A slide according to claim 11 and it is characterized in that the said slide comprises cage system or flat structured carrying feet (4) located at certain height from ground to carry the said snake head, neck and tail parts (1, 2, 3) of the slide.
24. A slide according to claim 11 and it is characterized in that the said exit/returning part of the slide (3) comprises lights, fog and visually structured effects part (31) to add more entertainment and excitement to the sliding sport.



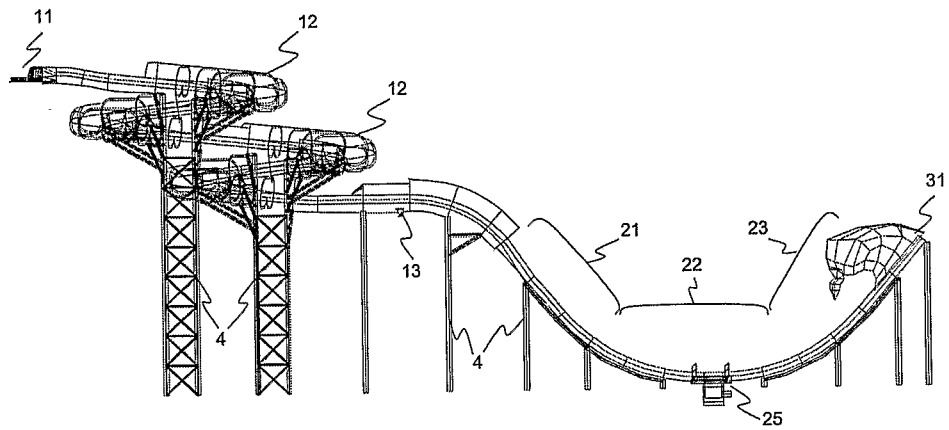


Figure 1

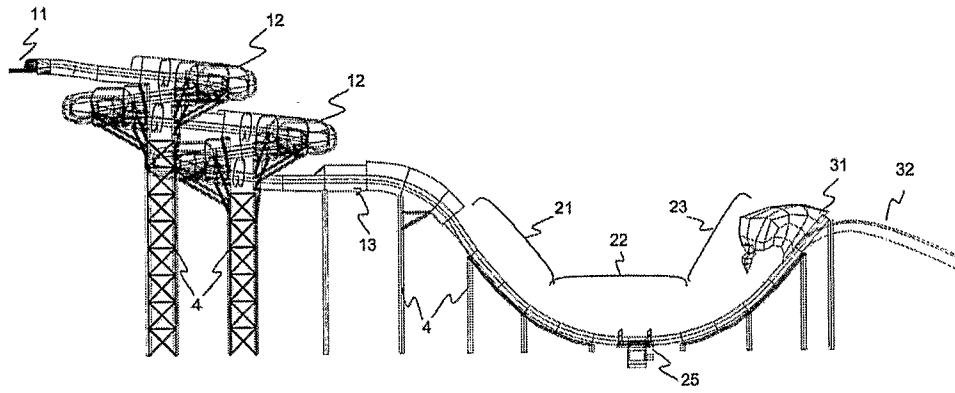


Figure 1a

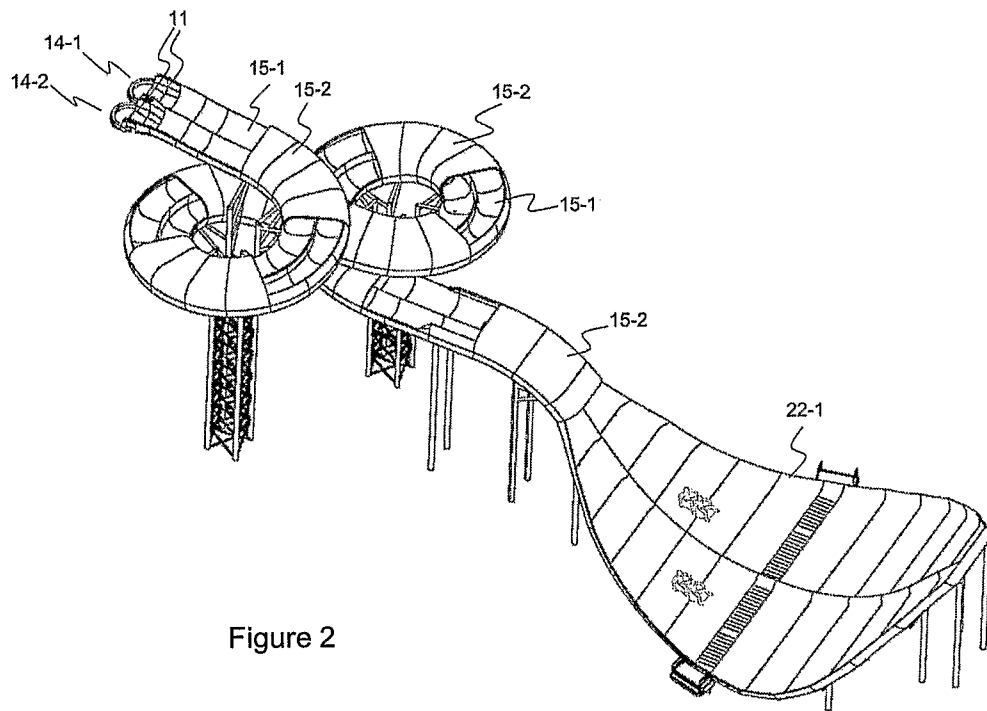


Figure 2

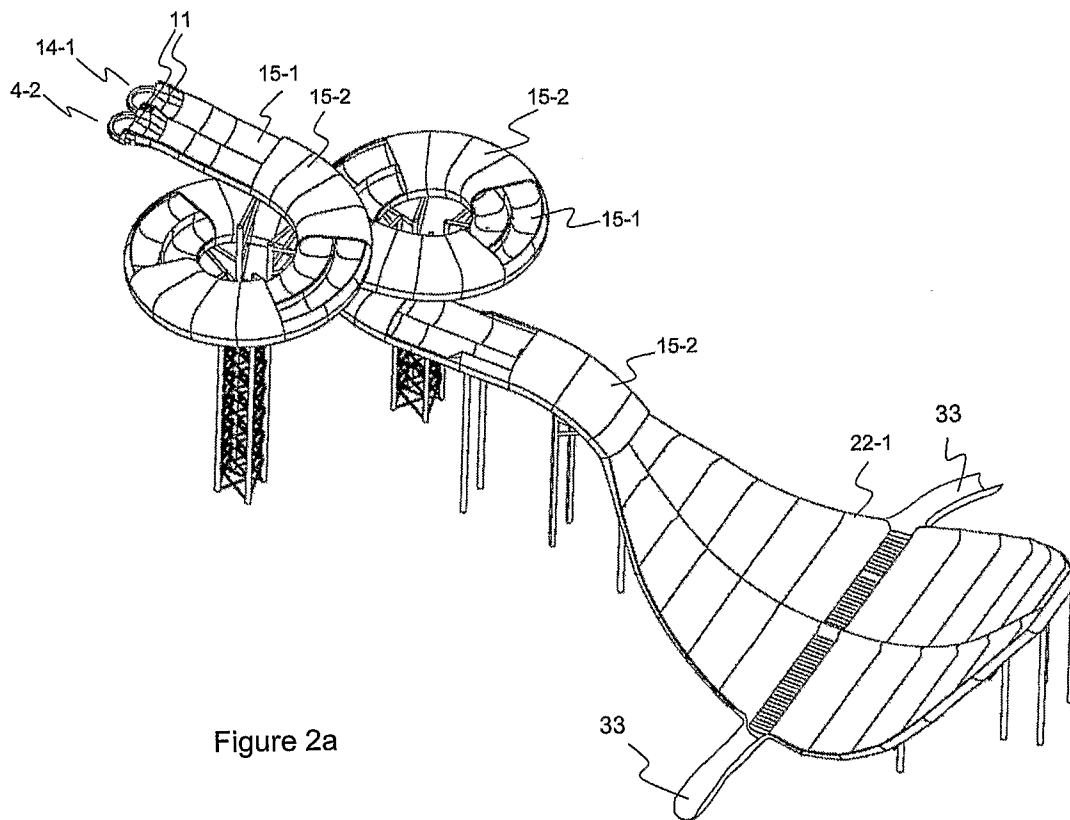
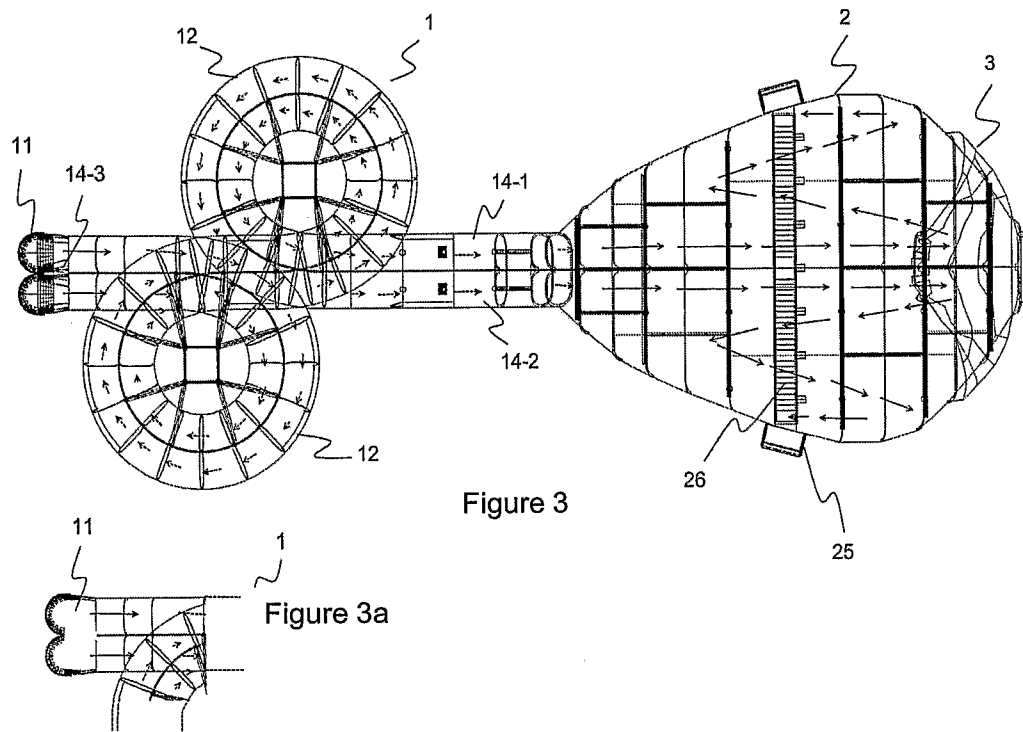


Figure 2a



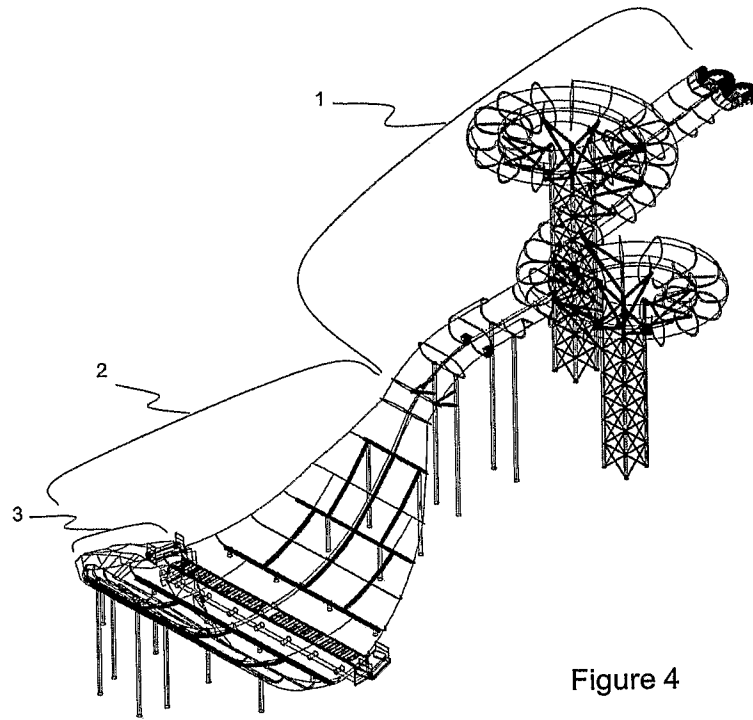


Figure 4

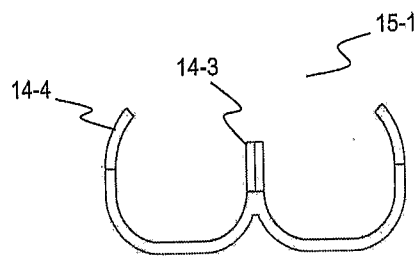


Figure 5a

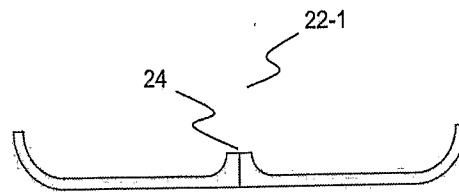


Figure 5c

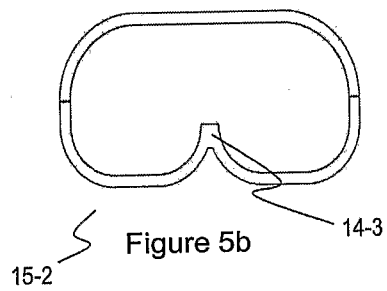


Figure 5b

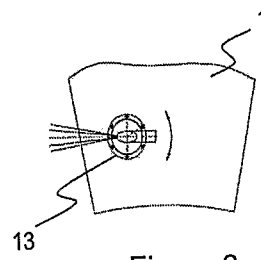


Figure 6

# INTERNATIONAL SEARCH REPORT

International application No

PCT/TR2010/000055

## A. CLASSIFICATION OF SUBJECT MATTER

INV. A63G21/18

ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A63G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2005/075180 A1 (DUBETA DAVID J [CA]) 7 April 2005 (2005-04-07)	1-6, 8-14, 16-24
Y	paragraph [0110] - paragraph [0140]; figures 1-23	7, 15
X	US 2009/239671 A1 (BRASSARD DANIEL P [CA] ET AL) 24 September 2009 (2009-09-24)	1-6
Y	claims 1-5; figures 1-17	7
Y	EP 1 829 592 A1 (HM ATTRACTIONS INC [CA]) 5 September 2007 (2007-09-05) paragraph [0005]; figures 1-10	7, 15



Further documents are listed in the continuation of Box C.



See patent family annex.

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2 November 2010

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10/11/2010

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/TR2010/000055

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2005075180	A1	07-04-2005	NONE
US 2009239671	A1	24-09-2009	NONE
EP 1829592	A1	05-09-2007	CA 2580220 A1 03-09-2007
		WO 2007098596 A1 07-09-2007	
		WO 2007098600 A1 07-09-2007	
		WO 2007098601 A1 07-09-2007	
		CN 101394908 A 25-03-2009	
		KR 20090005299 A 13-01-2009	