(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
24 March 2011 (24.03.2011)

PCT

(10) International Publication Number
WO 2011/034512 A1

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

(21) International Application Number:
PCT/TR2010/000165

(22) International Filing Date:
12 August 2010 (12.08.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2009/07072 15 September 2009 (15.09.2009) TR

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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, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, 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))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(54) Title: REVERSE CURRENT SYSTEM FOR CONTROLLING SLIDING SPEED FOR SLIDES

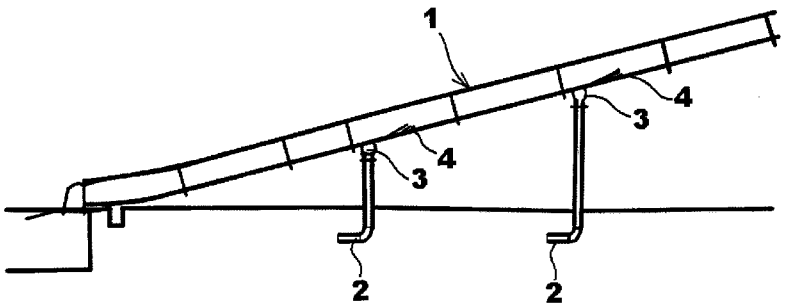

Figure-1

(57) Abstract: Our invention operates with the principle of reducing sliding speed in the desired area for the purpose of reducing termination speed in the areas where high speeds are reached in slide (1) during sliding by means of creating reverse flow of the water coming from pumping installation (2) from nozzle pumping inlet (5) in the reverse direction of sliding by means of the nozzle (3), by creating reverse flow (4).

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DESCRIPTION

REVERSE CURRENT SYSTEM FOR CONTROLLING SLIDING SPEED FOR SLIDES

Users increasingly require more speed in entertainment sector including water slides, and in parallel with this situation, popularity of the slides developed in this respect increases more and more. Designers and producers make the improvements in this direction as well. This trend also creates the issue ensuring slowing down and stopping sliding securely for the people.

Two basic methods are applied for the purpose of ensuring solution on this subject in the industry;

a) Slowing down the speed after the area where sliding is terminated and creating an area where adequate length for stopping is available. This could be a pool and also a canal full of water, damp artificial carpet or grass too. However the materials change, the method remains same.

b) Roughing surface of slide. By means of this operation, it is tried to reduce slipperiness and reduction of the speed is aimed. In this application, this could be achieved by roughening slide surface, and also by coating the surface with materials that prevent sliding.

Technical problems per each method in the usages included in current status of the industry we stated herein above are herein below;

a) Since the termination area in using this method should be kept as a pool or as another form as a large place, a large area is kept for this purpose, and area usage efficiency in the facility generally reduces. Besides, in the cases when there are pools, required slide cannot be set up because of the inadequacy of the pool size or great extension investment is required. And in the cases when the slide is set up, risk of hitting against the wall, collision and trauma is encountered as a result of reaching high sliding speed by the people sliding.

Since it reduced the speed safely in the area close to pool after reaching high speed in the slide, our invention eliminates the risks of security, reduces needs for extra size for required pool or other stopping area, and it provides opportunities for making setup in the pools too where fast slides cannot be set up in the current situations.

b) In case of using this method, it is possible that roughness applied to surface of slide, or the coating materials having roughness may lose its quality by the time. These surfaces erode by the time and lose their function for slowing down the sliding. They should be replaced periodically. When time of this replacement is not determined accurately and is not replaced on due time, users are exposed to risks when they don't met their functions properly. On the other hand, those rough surfaces make wearing effect on the equipment like boat, life buoy and similar ones, and they erode the subject equipment a bit more on each sliding activity and make them unusable by the time.

Since our invention does not depend on any type of surface roughness or surface contact principle, it meets its function any time without losing anything from its function or without causing any damages to the boats within its lifetime.

c) In addition to those stated herein above, our invention provides control over this feature too as well as slowing down the operation. By controlling rate of flow of the water which will be provided, it provides operating company means of control over this slowing down function according to the customer groups, according to the age group or according to the other criteria.

FIGURES:

Figure 1 – Main appearance of our invention,

Figure 2 – This is the assistant drawing for being able to see Nozzle Pressing Mouth (5) on the Nozzle (3).

OUR INVENTION IS GENERALLY FORMED OF FOLLOWING PARTS:

1- Slide
2- Pumping Installation
3- Nozzle

4- Reverse Current

5- Nozzle Pumping Inlet

Our invention, for the purpose of reducing termination speed, depends on the principle of creating a reverse current against the sliding direction in the slide (1) during sliding, in the areas where high speed is reached, and depends of reducing sliding speed regionally by means of this mechanism.

Our invention creates reverse currents in the slide (1) in the required places and at the required rate of flows by means of pumping installation (2) and nozzles (3), and termination speed is controlled by losing speed for the users coming by sliding on the boat or similar equipment in this reverse current (4) areas.

Our invention basically operates in such way that a nozzle (3) designed for fitting on the slide (1) forms reverse current (4) by means of pumping water with enough number of assemblies and pumping installation (2) that will be able to control the speed of the users who come to slide surface.

The nozzle (3) is made of a material which is resistive to corrosion and angle between nozzle inlet (5) and slide shows change according to slide bevel. Besides, nozzle (3) and nozzle pumping inlet (5) may be in different dimensions according to the slide (1) which will use the width and the required flow. The desired current (4) is provided in the reverse direction of sliding by the pump installation (2) and the nozzle (3) being connected under the slide. The pumping inlet (5) integrated onto the sliding surface such as not to prevent the sliding.

CLAIMS

1. The invention is related to a water sliding characterized by that in order to put the sliding speed under control and reduce the ending speed in the regions where the high speed is reached to during the sliding, a current (4) is caused by means of the pump installation (2), the nozzle (3), and the pumping inlet (5), which are connected to the water slide, in the reverse direction of the sliding.

2. A water sliding according to claim 1 characterized by comprising a reverse current (4) providing that the persons sliding on the water slider (1) loose their speeds by use of the nozzle pumping inlet (5) by taking the water oncoming from pump installation (2) through the nozzle (3).

3. A water sliding according to claim 2 characterized by that the desired current (4) is provided in the reverse direction of sliding by the pump installation (2) and the nozzle (3) being connected under the slide.

4. A water sliding according to claim 1 to 3 characterized by comprising a pumping inlet (5) integrated onto the sliding surface such as not to prevent the sliding.

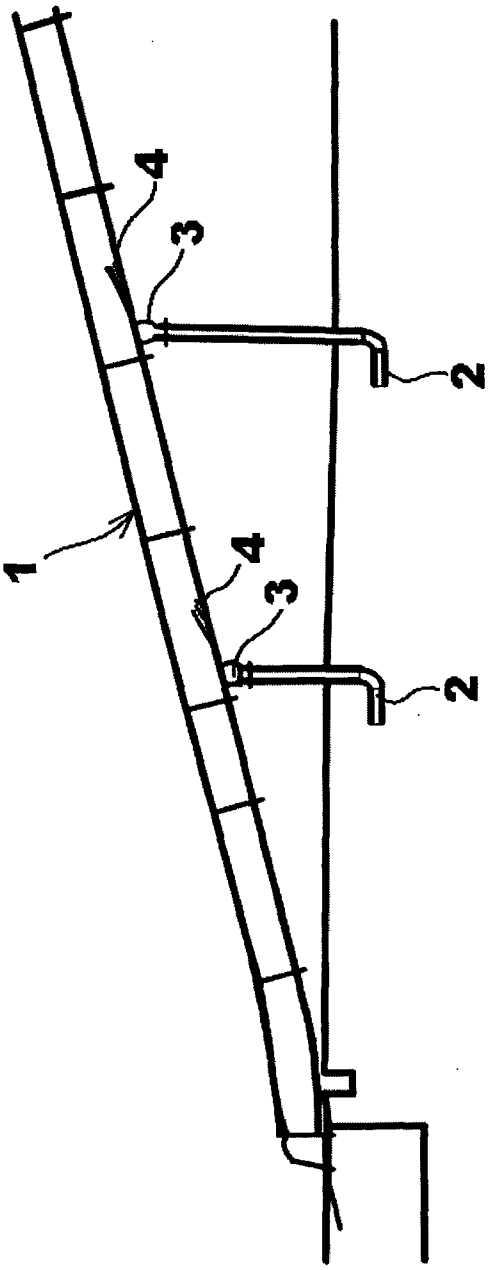

Figure-1

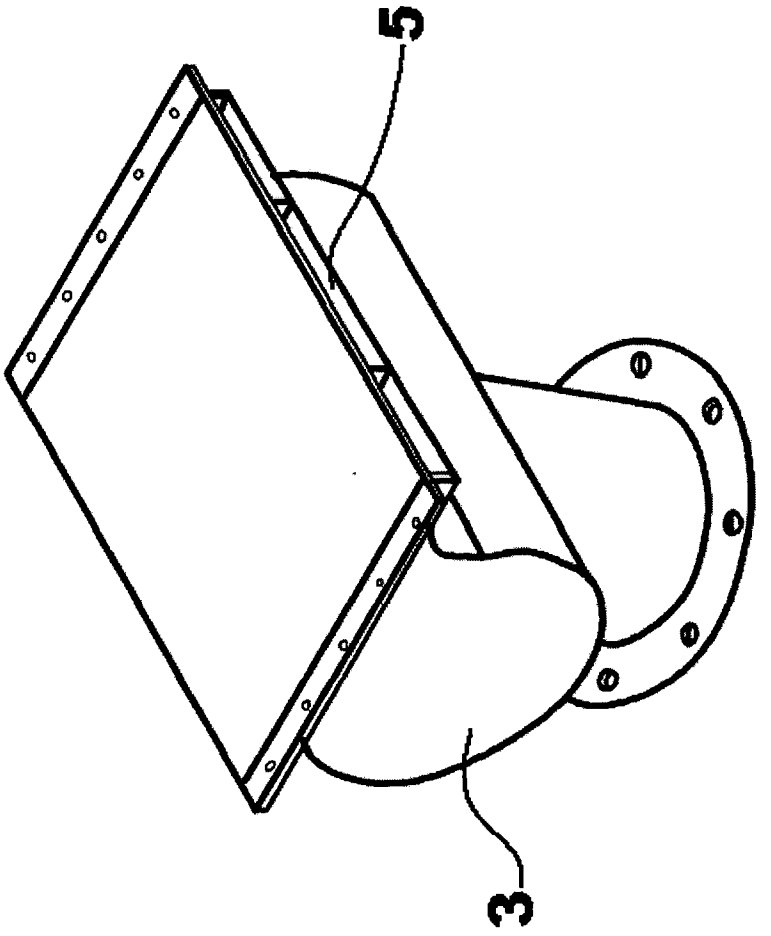

Figure-2

INTERNATIONAL SEARCH REPORT

International application No
PCT/TR2010/000165

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 5 738 590 A (LOCHTEFELD THOMAS J [US]) 14 April 1998 (1998-04-14) column 8, line 63 - column 11, line 22; figures 1-10	1-4
X	US 5 401 117 A (LOCHTEFELD THOMAS J [US]) 28 March 1995 (1995-03-28) claims 1-17; figures 1-32	1-4
X	US 2005/148398 A1 (LOCHTEFELD THOMAS J [US]) 7 July 2005 (2005-07-07) paragraph [0035] - paragraph [0040]; figures 1-5d	1-4

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

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"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
25 January 2011	03/02/2011

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/TR2010/000165

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5738590 A	14-04-1998	NONE	
US 5401117 A	28-03-1995	NONE	
US 2005148398 A1	07-07-2005	NONE	