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(72) Inventors:
• **Donbaek, Leo
6510 Gram (DK)**
• **Donbaek, Tom
6510 Gram (DK)**

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(74) Representative: **Gregersen, Niels Henrik et al
Patrade A/S
Fredens Torv 3A
8000 Aarhus C (DK)**

(71) Applicant: **Ledon A/S
6510 Gram (DK)**

(54) **Free-standing tube slide**

(57) The invention concerns a free-standing tube slide (1) of the type where an entrance opening (7) is arranged in a front plate member of a support system, for example a tube shaped gallows (3) where a bottom

part of a first section (10) of the tube slide (1) is placed approximately horizontally which functions as a replacement for a built-up of platform placed in front of the tube slide (1).

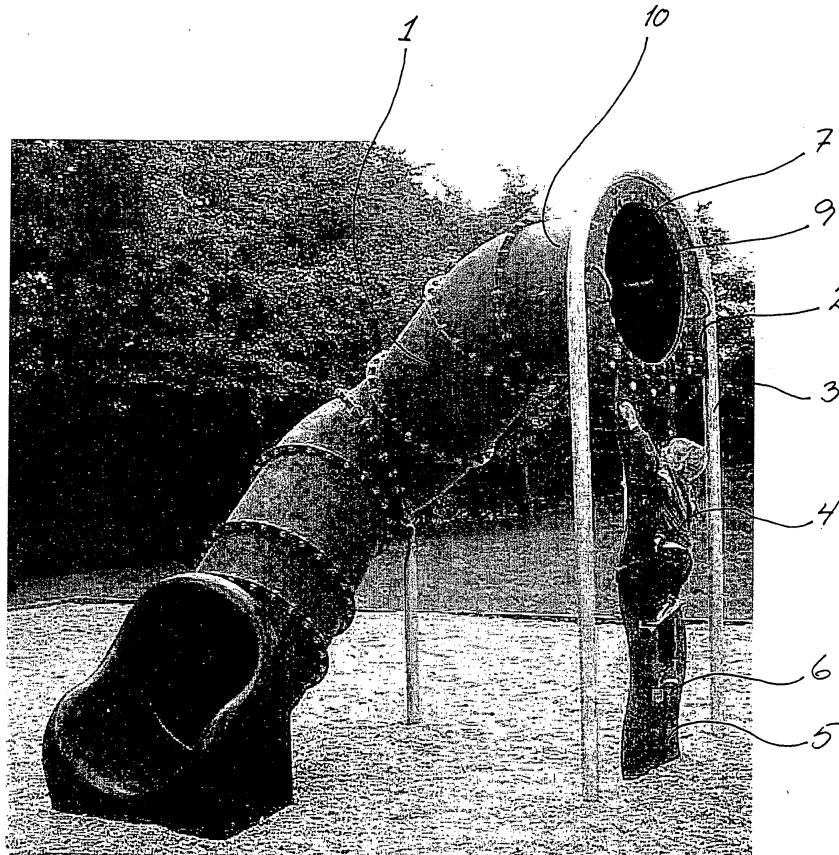


Fig 2.

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Description**Field of the Invention**

[0001] The present invention relates to a free-standing tube slide of the type where an entrance opening is arranged in a front plate member of a support system, for example a tube shaped gallows.

Background of the invention

[0002] When constructing playgrounds, different playground implements are used to create a varied and interesting playground for the children. It has appeared that the slide is one of the most popular playground implements. This has resulted in the fact that practically all playgrounds have at least one slide.

[0003] In principle, two different types of slides exist:

- an open slide, where the user sits in open surroundings during the entire ride down the slide.
- a tube slide, where the user sits in completely or partially closed surroundings during the entire ride down the slide and first shows up at the outlet of the slide.

[0004] In order to make it possible and fun to ride on a slide, it is required that from the entrance of the slide and to the outlet of the slide, there is a difference in levels.

[0005] When mounting tube slides, the authorities request that there must be a platform that the user can stand/sit on before riding down the slide. As the platform is placed approximately in the same height as the entrance to the tube slide, the authorities requests that there must be a guard rail all around the platform so that the user is protected from falling off the platform. Furthermore, there must be a safety surface all around the edge of the platform.

[0006] A slide in the form of a tube slide being part of playground systems with towers, platforms, climbing nets and similar playground implements, may easily be built in without too many extra expenses.

[0007] When dealing with free-standing tube slides, it is a great disadvantage having to arrange a platform with railing and a surrounding safety surface for each free-standing tube slide as the cost for a tube slide with a platform is considerably increased due to the fact that:

- a great deal of material for the production of the platform and the guard rails must be applied
- the safety surface area surrounding the tube slide is increased considerably as it is required that there is a safety surface around the entrance/outlet of the tube slide and around the sides of the platform.
- the time for mounting a free-standing tube slide is longer.

Purpose of the Invention

[0008] It is, therefore, the purpose of the invention to provide a free-standing tube slide without an actual platform, which is simple and cheap to manufacture, and for which at the same time the safety requirements of the authorities are met.

Brief Description of the Invention

[0009] This is achieved by an entrance of the type as introductory described, and it is characterised by at least a bottom part of the first section of the tube slide being placed approximately horizontally.

[0010] By the fact that the bottom part of the first section of the tube slide is placed approximately horizontally, this bottom part may be considered as a safe platform area where the child can be without danger of falling off the slide to the ground or inexpediently begin the ride down the slide. Hereby, said bottom part can replace a traditional platform with guard rails.

[0011] The length of the first section of the tube slide may be of different lengths, all depending on which other sections, the tube slide consists of. However, the length of the first section must comply with the minimum requirements on lengths of the authorities, so the horizontal part section is considered to be platform.

[0012] When a child climbs up to the slide, it is important that there is something to grab onto while the child is passing through the entrance in the front plate member and settling himself before riding down the slide. Therefore, there is inside and in a distance from said bottom part of said first section, a number of handholds being provided to be held onto. These handholds are situated in a side part or an outer top part of the first section of the tube slide, such that they are not in the way of the child on the way down the slide.

[0013] During the climb to the entrance opening of the tube slide, the child climbs up along the front plate member. Therefore, the said front plate member is provided with a number of handholds which makes it possible for the child to continue up and past the lower edge of the front plate member and through the entrance opening. These hand-grips may either be handholds or climbing rock holds, which may be mounted in different heights and lengths from the vertical centre line of the entrance opening.

[0014] In a preferred embodiment of the invention, the tube slide is provided with a tube-shaped gallows in which the front plate member is positioned in an upper arched part of said gallows. Typically, the front plate member has a shape completely or partly the same as that of the arched part of the gallows, which makes it possible that the front plate member may be attached to the gallows all along the common surface of contact.

[0015] In an alternative embodiment of the invention, instead of a gallows may be used a centrally placed pillar, on the upper end of which is mounted an upwards

facing loop in which the front plate member is attached.

[0016] Instead of an arched gallows, the front plate member may be placed in a gallows consisting of a number of profiles, as for example two side poles that are connected to a ridgepole. The front plate member is mounted on the upper part of the gallows, and may again completely or partially have the same shape as that of the gallows.

[0017] Alternatively, the front plate member may be placed between two poles, such that the front plate member and the pole are connected along the same common surface of contact. Upwardly, the edge of the front plate member will form the upper edge of the tube slide.

[0018] In order to ride on the slide, the child must climb up to the entrance opening where said front plate member downwards is connected to a climbing unit for example in the form of a climbing rope, a robe ladder, a net, a climbing wall or a ladder.

[0019] In one embodiment, the climbing unit is a climbing rope which may be provided with knots or blocks. The climbing rope is typically suspended in the front plate member under the entrance opening.

[0020] In another embodiment of the invention, the climbing unit is a robe ladder which is suspended in the front plate member. The robe ladder may hang freely or may be attached to a base or the like, which is attached to or under the safety surface.

[0021] In a further embodiment of the invention, the climbing unit is a net which is suspended in the front plate member, and which is stretched out between the tube-shaped legs of the gallows. The net may hang loose down towards the safety surface or may be secured to a base or the like, which is attached to or under or under the safety surface.

[0022] In yet a further embodiment of the invention, the climbing unit is a climbing wall, on which a number of handholds and/or climbing rock holds is provided such that the child must use the different mentioned units to get to the entrance opening. The climbing wall may be the front plate member which has been extended down to or near the safety surface. Alternatively, the climbing wall may be a plate member which in one end is attached to the front plate member, and in the other end, it is attached to a base, tube or the like, which is attached to or under the safety surface. Such a climbing wall may have different shapes which appeal to children, for example a climbing wall which zigzags or twists its way up towards the front plate member. To make it easier for the children to move up along the climbing wall, it may have a slight tilt such that the children may lean against the climbing wall while climbing towards the entrance opening.

[0023] In an alternative embodiment of the invention, the climbing unit is a fixed ladder which in one end is connected to the front plate member and, in the other end, is connected to a base, tube or the like, which is attached to or under the safety surface.

[0024] To give the children more experiences than just a slide ride, the mentioned gallows may be spatially shaped, which means that it has more than two legs. The front plate member is still placed between two of the legs of the gallows, while there between the other legs may be mounted other playground implements for example a net bottom, a climbing net, a climbing wall, swings or balance bars.

[0025] If the tube slide is part of a playground system, said gallows of the tube slide may contain a central support pillar, of which the upper end is connected to a number of arched gallows parts.

[0026] This entails that between each gallows leg and the central support pillar there is space to mount other playground implements, as for example a net bottom, a climbing net, a climbing wall, swings or balance bars. The front plate member with the entrance opening to the tube slide may be placed on top in the space between the central support pillar and an arched gallows part.

[0027] The gallows in which the tube slide is mounted in may be manufactured in different material and shape. Typically, a tube profile is used, and it is shaped in the wanted arches. Furthermore, the advantage of a tube profile is that there are no sharp edges that the children may hurt themselves on while playing on or around the tube slide. Alternatively, may be used profiles the edges of which have been planed to prevent the use of sharp and dangerous edges. The gallows may be manufactured from profiles of metal as for example galvanized steel. Alternatively, the gallows may be manufactured from hard plastic or wood.

Brief Description of the Drawing

[0028] In the following the invention will be explained in more details with reference to the accompanying drawings, in which:

Fig. 1 shows a picture of a first embodiment of the tube slide according to the invention,

Fig. 2 shows a picture of a second embodiment of the tube slide according to the invention, and

Fig. 3 shows a picture of a third embodiment of the tube slide according to the invention

Detailed Description of the Invention

[0029] In the three figures, the same and identical parts are indicated with the same reference numerals.

[0030] In Fig. 1, a tube slide 1 is shown with a front plate member 2, which is placed in the top of the arched part of the tube shaped gallows 3. The child 4 has climbed up on the climbing wall 5 by grabbing and treading on handholds and climbing rock holds. To be able to climb up to the entrance opening 7 of the tube slide 1, on the front plate member, handholds 8 are placed

which the child may use while climbing into the tube slide 1.

[0031] In Fig. 2, a tube slide 1 with a front plate member 2 is shown, and the front plate member is placed in the upper part of the arched part of the tube shaped gallows 3. The child 4 is on his/her way up a climbing wall 5 by means of handgrips/tread blocks 6. To be able to climb up to the entrance opening 7 of the tube slide 1, handholds 8 are placed on the front plate member which handholds 8 the child 4 may use while entering the tube slide 1. Inside in distance from the bottom of the first section 10 of the tube slide 1, a handhold 6 is provided which may be used to hold onto before the ride down through the tube slide 1. Furthermore, it is possible to see that the bottom of the first section 10 of the tube slide 1 is placed approximately horizontally.

[0032] In Fig. 3, a tube slide 1 with a front plate member 2 is shown, and the front plate member 2 is placed in the upper part of the arched part of the tube shaped gallows 3. To gain access to the entrance opening (not shown) in the front plate member 2, the front plate member is in the lower edge supplied with a rope ladder 11. On the picture, it is clear to see that the bottom of the first section 10 of the tube slide 1 is placed approximately horizontally and, thereby, creating an area, in which the child 4 can sit before the ride down through the tube slide 1.

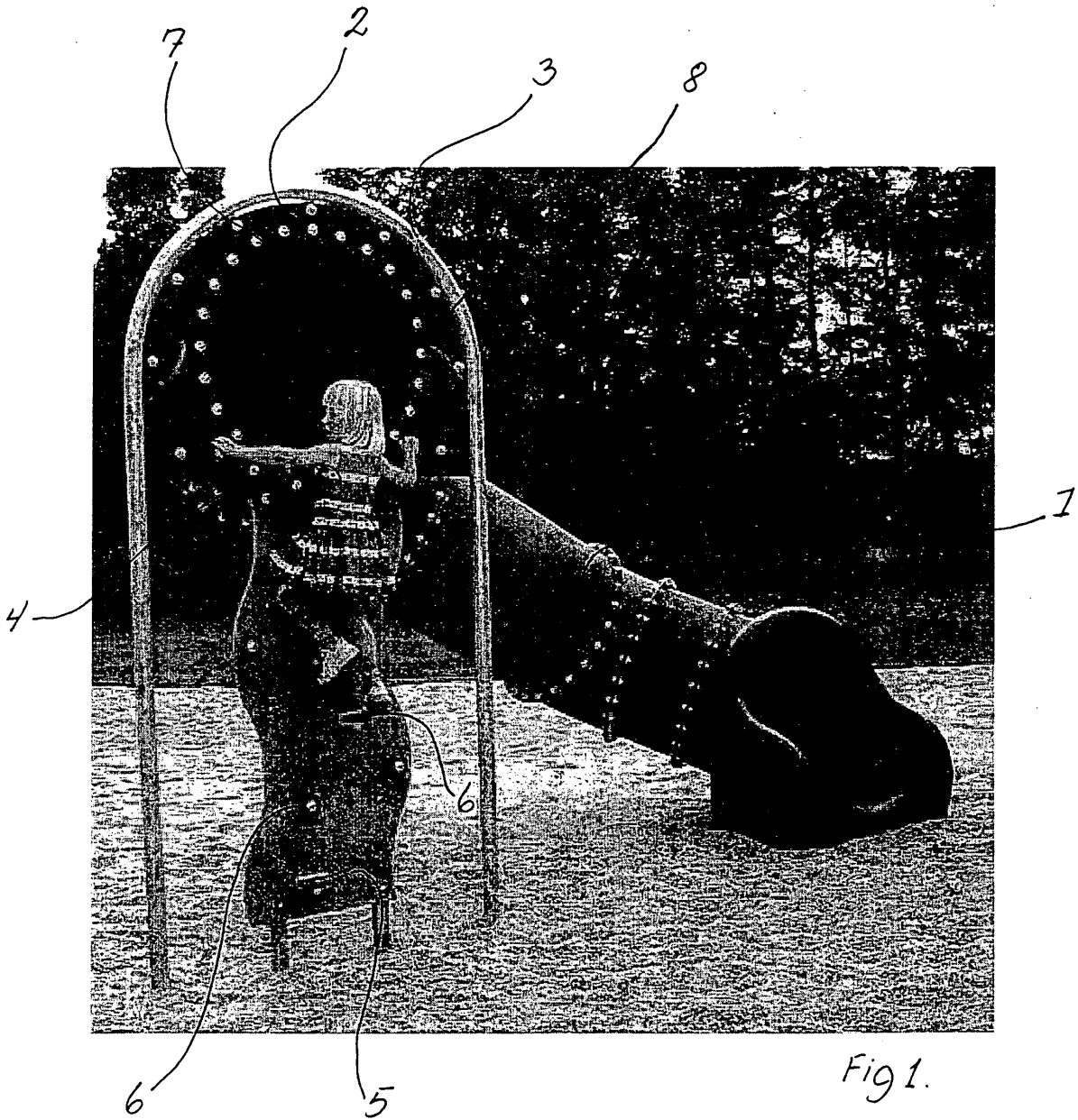
[0033] The invention is not limited to the embodiments shown and described above on the figures. Other embodiments can be imagined within the frames of the embodiment which is described in the claims.

Claims

1. A free-standing tube slide of the type where an entrance opening is arranged in a front plate member of a support system, for example a tube shaped gallows, **characterized in that** at least a bottom part of a first section of the tube slide is placed approximately horizontally.
2. A tube slide according to claim 1, **characterized in that** inside in a distance from said bottom part of the mentioned first section, a number of handholds are provided.
3. A tube slide according to claim 1, **characterized in that** said front plate member is provided with a number of handholds.
4. A tube slide according to claim 1 and with a tube shaped gallows at said entrance opening **characterized in that** the front plate member is placed at the top of an arched part of said gallows.
5. A tube slide according to claim 4 **characterized in that** said front plate member downwards is con-

nected to a climbing unit for example in the shape of a climbing rope, a robe ladder, a net, a climbing wall or a ladder.

6. A tube slide according to claim 1 **characterized in that** said gallows is spatially shaped which means that it has more than two legs.
7. A tube slide according to claims 1 and 6 **characterized in that** said gallows contains a central support pillar, the upper end of which is connected with a number of arched gallows parts.



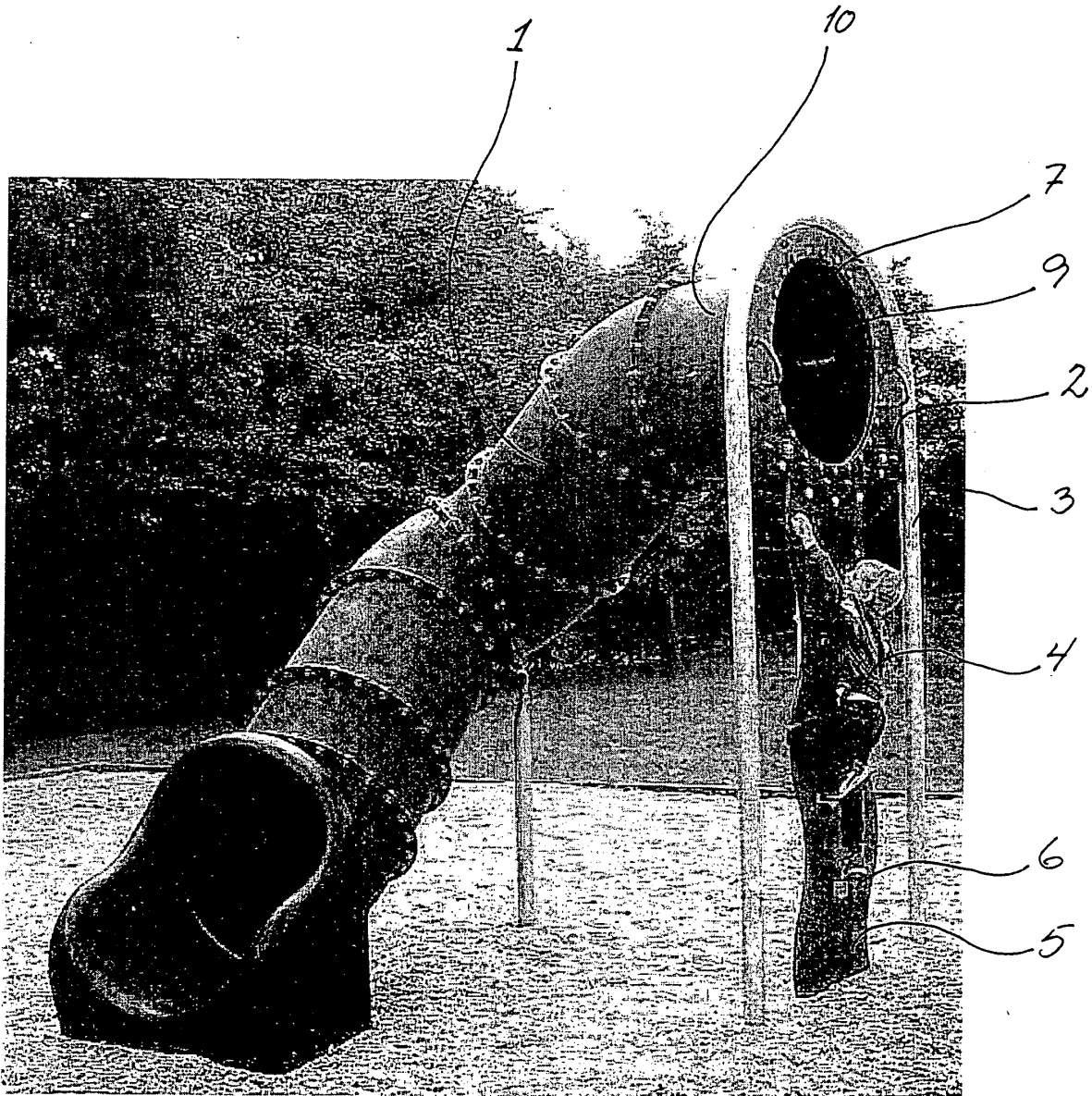


Fig 2.

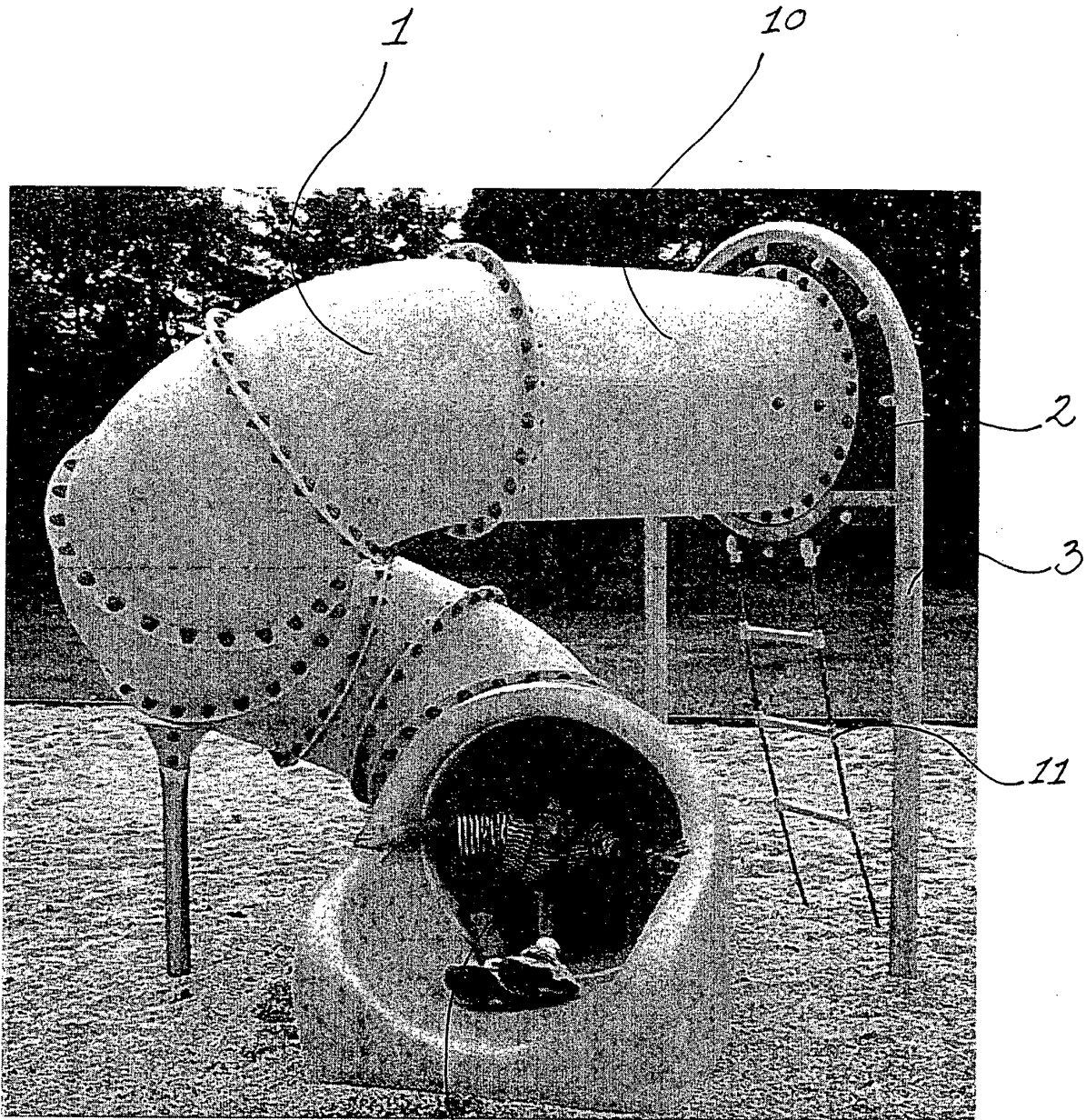


Fig 3.



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EUROPEAN SEARCH REPORT

Application Number
EP 03 02 1811

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	US 5 967 901 A (BRIGGS RICK A) 19 October 1999 (1999-10-19) * figures *	1	A63G21/00
A	--- US 5 735 748 A (MEYERS JANET D ET AL) 7 April 1998 (1998-04-07) * the whole document *	1	
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A	--- EP 0 605 922 A (BAZAR AGNES BV) 13 July 1994 (1994-07-13) * the whole document *	1	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
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Place of search	Date of completion of the search	Examiner	
MUNICH	12 November 2003	Turmo Peruga, R	
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ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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