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(71) Applicant: **Jofemar, S.A.**
31350 Peralta (Navarra) (ES)

(72) Inventor: **GUINDULAIN BUSTO, Félix**
E-31350 Peralta (Navarra) (ES)

(74) Representative: **Pons Ariño, Angel**
Glorieta Ruben Dario 4
28010 Madrid (ES)

(54) **GAMING MACHINE WITH ROULETTE GAME**

(57) Gaming machine with roulette game, operated by inserting coins and, optionally, bills, said gaming machines having two associated games, the roulette wheel being actuated by a motor with dual direction of rotation, the roulette wheel body of which is defined by an inclined ball rolling surface and numbered compartments, the ball (13) rolling surface (12) being defined in the roulette wheel body (9), there being a plurality of recesses (15), it being possible to position at least one retractable plate (16) on the ball rolling space.

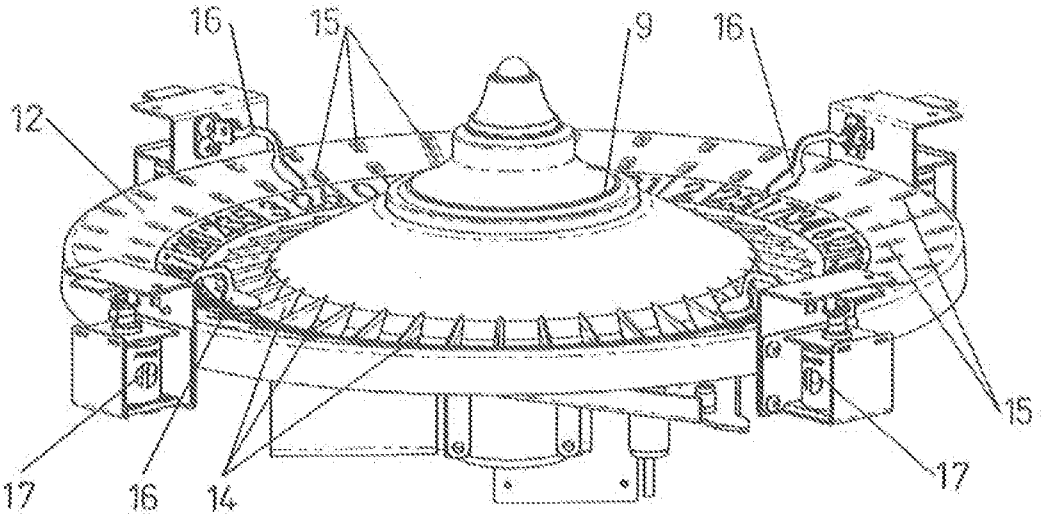


Fig. 2

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Description

OBJECT OF THE INVENTION

[0001] The following invention, as stated in the heading of this description, relates to a gaming machine with roulette game, of the type of gaming machines operated by inserting coins and, optionally, bills, the gaming machine having an electronic game of chance and an associated game of roulette, the roulette wheel being actuated by a motor with a dual direction of rotation and the roulette wheel body of which is defined by an inclined ball rolling surface and numbered compartments, in such a way that the invention consists of providing the inclined ball rolling surface of the roulette wheel body with a plurality of recesses and of incorporating, at least, one retractable plate, arm or trigger, on the ball rolling space, with a view to the ball having, at a given moment, as it loses speed, an irregular rolling surface as it passes over the recesses and hits against the plates.

[0002] This achieves the total and absolute randomness of the games, irrespective of potential deformations in the manufacture of the roulette wheel body and/or the installation of the roulette wheel body, and even of the potential irregular settling of the machine.

[0003] At the same time, the gaming roulette wheel is actuated by a motor provided with two directions of rotation and whose motor is operated by an intelligent control card, with a view to controlling the number of turns with the projection of the ball in the different games.

FIELD OF APPLICATION

[0004] This description relates to a gaming machine with a roulette game, being of the type of gaming machines that is operated by inserting coins and, optionally, bills, and wherein the gaming machines have two associated games.

BACKGROUND OF THE INVENTION

[0005] As is known, the market has a wide variety of gaming machines in such a way that in relation to type "B" gaming machines, in other words, those installed in bars, cafés and similar, the same can present very different game dynamics, in such a way that, in principle, the gaming machines used to have, only one electronic game, but with the passing of time, normally, gaming machines have moved onto having two associated electronic games.

[0006] On a separate note, gaming machines, as is known, have the corresponding mouth for inserting coins for leading them to the corresponding coin selector or validator and, optionally, a mouth for bills, as well as function buttons and a coin collection tray.

[0007] With regards to gaming machines installed in gaming parlours we can consider such machines to be "multiuser", in other words, where several players can play, which have a roulette game, in which case the ball is projected by air and the roulette has a single direction of rotation, a direction rotation opposite to that of the ball.

[0008] Considering gaming machines having a roulette game, the game develops by means of a roulette body that through its turning or by air launches a ball so that it ends up housing itself in the corresponding numbered compartment.

[0009] Thus, the roulette wheel body presents a smooth surface in the shape of a circular crown sloping inwards to where the numbered compartments have been defined, in such a way that in the face of minor manufacturing or installation defects a tendency occurs for the balls to become housed in a grouped set of numbers, for example five adjacent numbers, which is a serious inconvenience in the normal development of the game.

[0010] This inconvenience may be solved by the manufacture of a roulette wheel body with total and absolute precision, but this would represent a high cost not in accordance with the machine it is designed for and, also, despite its great precision during installation it may be left unbalanced, leaving the problem unsolved.

DESCRIPTION OF THE INVENTION

[0011] This description relates to a gaming machine with roulette game, being of the type of gaming machines that is operated by inserting coins and, optionally, bills, said gaming machines having two associated games, the roulette wheel being actuated by a motor with a dual direction of rotation and the roulette wheel body of which is defined by an inclined ball rolling surface and numbered compartments, in such a way that in the roulette wheel body that defines the ball rolling surface there are a plurality of recesses and on the ball rolling space it is possible to position at least one retractable plate or trigger.

[0012] In a practical embodiment of the invention on the ball rolling space it is possible to position four suspended plates or triggers actuated by corresponding coils.

[0013] In the initial projection of the ball, the plates are in their retracted elevated position and subsequently the plates are actuated descending and remaining in the ball rolling space hitting against them and being deviated towards the numbered compartments for housing the ball.

[0014] Thus, once the ball has been projected, after a while, the plates, which were in their resting retracted elevated position, are actuated and descend to remain positioned in the ball rolling space, the ball hitting, as it loses speed, against the recesses and said plates which will deviate it in a totally and absolutely random manner to the numbered compartments.

[0015] On a separate note, the motor of dual direction of rotation that projects the ball is controlled by an intelligent control card that determines, for each game, a variable number of turns in the projection of the ball until the

direction of rotation is changed.

[0016] Thus, the speed of projection of the ball will be variable making its course more random.

[0017] To complement the description made below, and with a view to facilitating a better understanding of the characteristics of the invention, a set of drawings is included with this description, which by way of illustration but not limitation, represent the most characteristic details of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0018]

Figure 1. Shows a view in perspective of a gaming machine having an upper front part with an electronic game and a roulette game with a touch screen for the development thereof, it being possible to observe that in the ball rolling surface of the roulette wheel there are a plurality of recesses, whereas its periphery has retractable plates.

Figure 2. Shows a view in perspective of the roulette wheel, it being possible to observe the recesses of the ball rolling surface, as well as the retractable plates actuated by coils in their working position on the ball rolling space.

Figure 3. Shows a top view of the roulette wheel, it being possible to observe the recesses in the ball rolling surface, as well as the retractable plates in their working position on the ball rolling space.

Figure 4. Shows a diametrical section view of the roulette wheel body, it being possible to observe the inclined ball rolling surface, provided with a plurality of recesses, as well as two retractable plates in their working position on the ball rolling space with a view to hitting against them when they are actuated.

Figure 5. Shows an elevation view of a retractable plate joined to the corresponding actuating coil.

Figure 6. Shows a diametrical section view of the body of the roulette, it being possible to observe the inclined ball rolling surface provided with a plurality of recesses, as well as two retractable plates in their working position and at rest on the ball rolling space with a view to hitting against them when they are actuated.

DESCRIPTION OF A PREFERRED EMBODIMENT

[0019] In the light of the described drawings and in accordance with the adopted numbering we can observe how the gaming machine 1 with prize has an upper front part 2 for development of an electronic game and a game of roulette 3, as well as a touch screen 4 for developing the game of roulette.

[0020] Likewise, the gaming machine 1 with prize will have the corresponding function buttons 5, as well as the mouth 6 for inserting coins, potentially a mouth for bills 7 and a coin collection tray 8, both for change as well as for those rejected by the selector or validator, and those related to the payment of prizes.

[0021] In this way, the gaming machine 1 with prize of type "B" has a roulette game 3 associated to an electronic game that develops in the upper front part 2 of the gaming machine 1 by means of the corresponding function buttons 5, whereas the roulette game 3 develops by means of the touch screen 4, a graphic function representation appearing thereon for its normal development.

[0022] On a separate note, the turning of the roulette wheel body 9 is produced by a motor 10 with a dual direction of rotation and which is controlled by an intelligent card 11 with a view to controlling the turning of the roulette wheel body 9 in which the inclined ball 13 rolling surface 12 and the compartments 14 for housing the ball 13 are defined, the inclination of the ball 13 rolling surface 12 tending towards the numbered compartments 14 for housing the ball.

[0023] In the roulette wheel body 9 that defines the ball 13 rolling surface 12 a plurality of recesses 15 have been made and in the ball 13 rolling space of the roulette wheel body 9 it is possible to position, suspended, at least one retractable plate, arm or trigger 16. In a preferred embodiment, it will incorporate four retractable plates 16, each one being actuated by the corresponding coil 17. Naturally, the retractable plates 16 can be actuated by another means, such as a motor.

[0024] In this way, in the initial projection of the ball the retractable plates 16 are in their retracted elevated position and subsequently the retractable plates 16 are actuated remaining in the rolling space of the ball 13 as it loses speed hitting against them and being deviated towards the numbered compartments 14 for housing the ball.

[0025] Once the game is over the retractable plates are retracted by lifting and the machine is left ready for the start of a new game.

[0026] With a view to having totally and absolutely random games, the motor 10 that projects the ball 13 with a dual direction of rotation is controlled by an intelligent card 11 that determines a variable number of turns, of the roulette wheel body 9, when the ball is projected until changing the direction of rotation.

[0027] At the same time, likewise, with a view to achieving the abovementioned randomness of the games the ball 13 rolling surface 12 of the roulette wheel body 9 is provided with a plurality of recesses 15, and, also, in collaboration with this is the fact that it incorporates retractable plates 16 that can be positioned on the ball rolling space in the roulette wheel body 9, as it loses speed, and that in hitting against them causes it to deviate and prevent it from having a possible tendency to fall in a specific grouped set of numbers.

[0028] The retractable plates 16 are triggered by the corresponding coil 17 in such a way that when its core is activated it makes the plate 16 turn and lift, leaving the rolling space of the ball 13 totally free.

[0029] Thus, the aim is to prevent in the case of a po-

tential deformation, albeit very small, in the manufacture or installation of the roulette wheel body where the ball rolls, the latter tending to fall in a grouped set of numbers, obtaining a total and absolute randomness in the games.

Claims

1. GAMING MACHINE WITH ROULETTE GAME, being of the type of gaming machines that is operated by inserting coins and, optionally, bills, said gaming machines having two associated games, the roulette wheel being actuated by a motor with dual direction of rotation, the roulette wheel body of which is defined by an inclined ball rolling surface and numbered compartments, the ball (13) rolling surface (12) being defined in the roulette wheel body (9), there being a plurality of recesses (15), it being possible to position at least one retractable plate (16) on the ball rolling space.

2. GAMING MACHINE WITH ROULETTE GAME, according to claim 1, **characterised** that in the ball (13) rolling surface the plurality of recesses (15) made in the rolling surface (12) of the roulette wheel body (9) cause, as it loses speed, a deviation and irregular advance of the ball.

3. GAMING MACHINE WITH ROULETTE GAME, according to claim 1, **characterised in that** on the ball (13) rolling space it is possible to position four suspended plates (16) that can be actuated by corresponding coils (17).

4. GAMING MACHINE WITH ROULETTE GAME, according to claims 1 and 3, **characterised in that** in the initial projection of the ball (13) the retractable plates (16) are in their retracted lifted position, and, subsequently, the retractable plates (16) are actuated by means of the corresponding coil (17), remaining in the ball rolling space hitting against them and being deviated towards the numbered compartments (14) for housing the ball in the prized number.

5. GAMING MACHINE WITH ROULETTE GAME, according to claim 1, **characterised in that** the motor (10) of dual direction of rotation and projection of the ball (13) is controlled by an intelligent card (11) that determines a variable number of turns in the projection of the ball, in each game, until changing the direction of rotation.

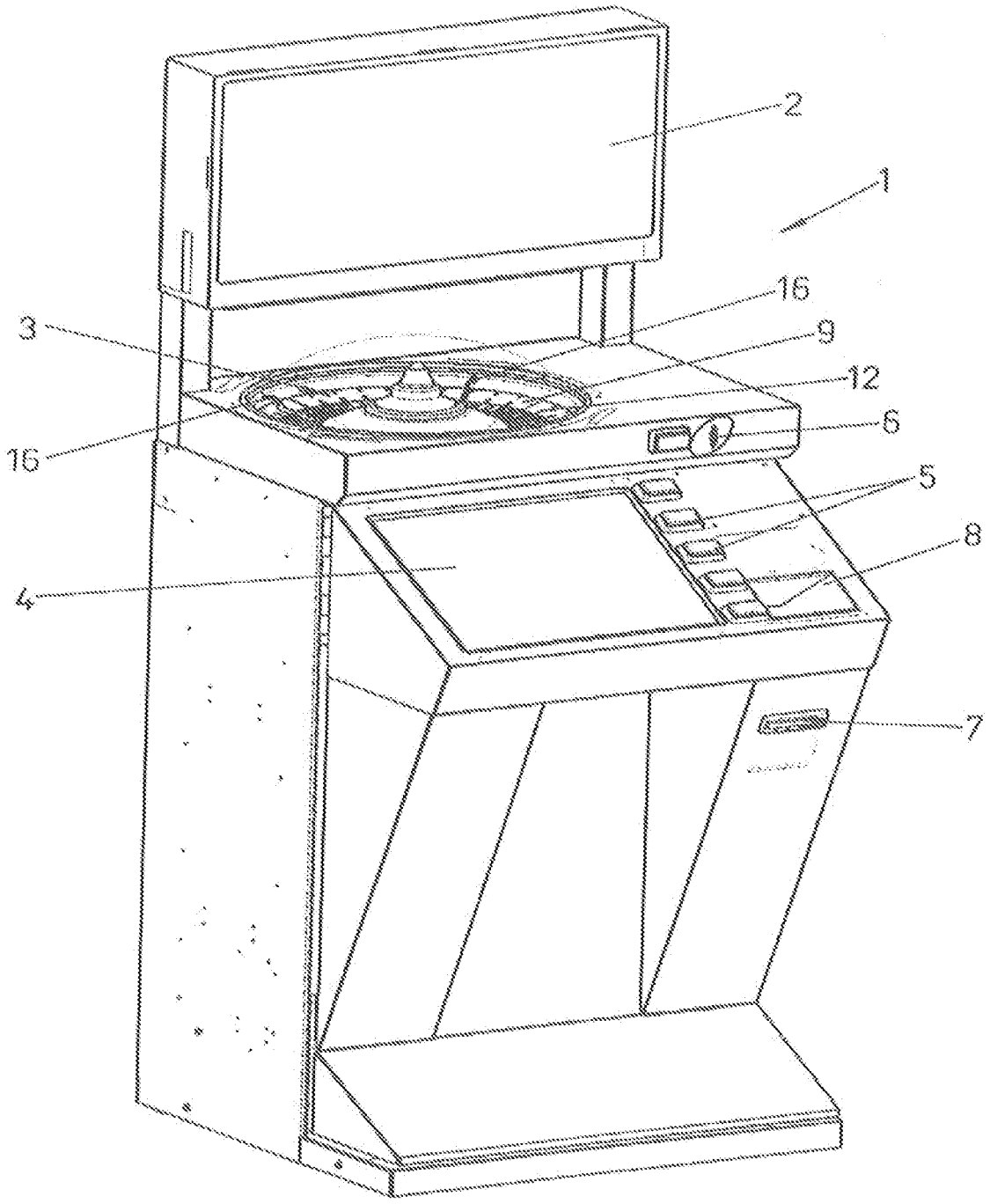


Fig. 1

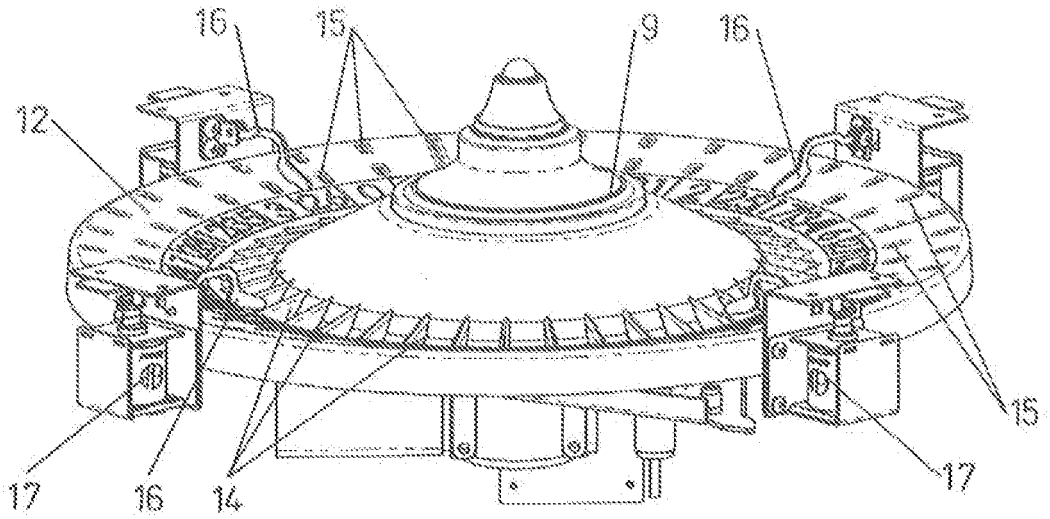


Fig. 2

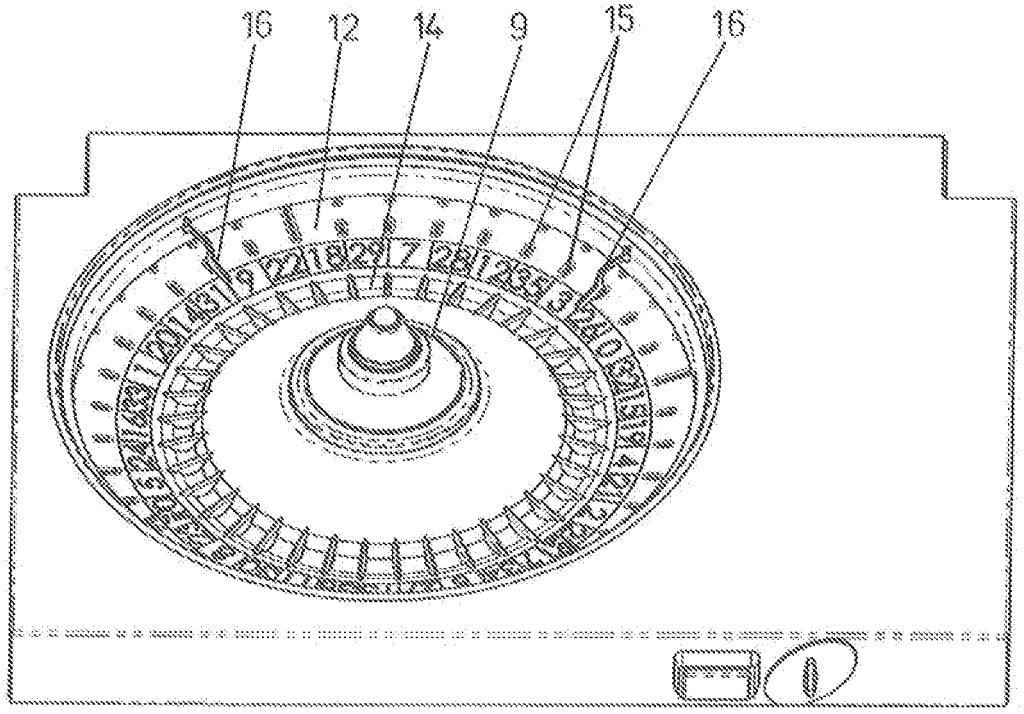


Fig. 3

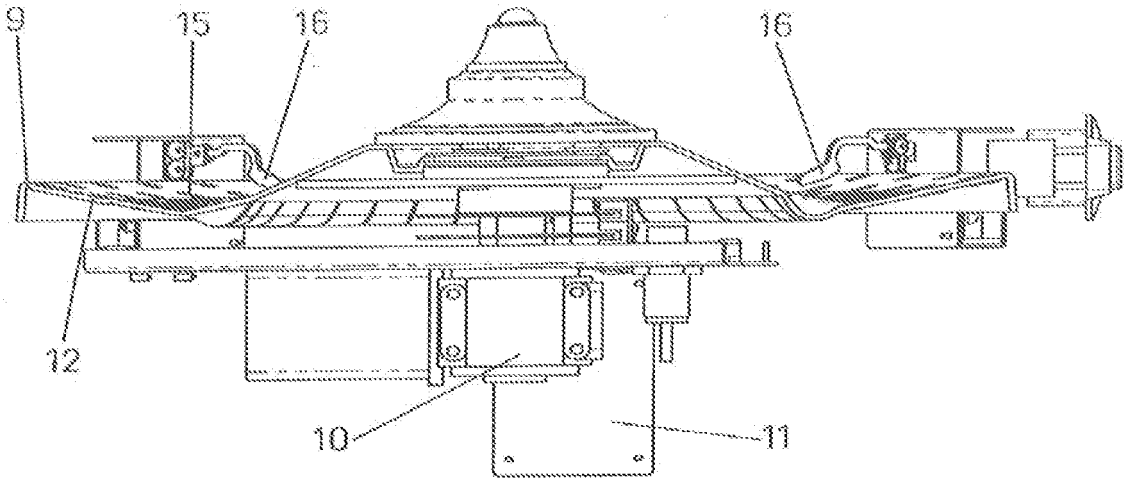


Fig. 4

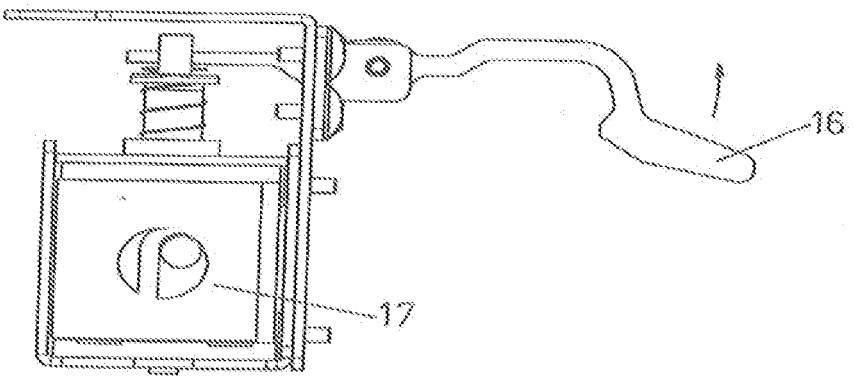


Fig. 5

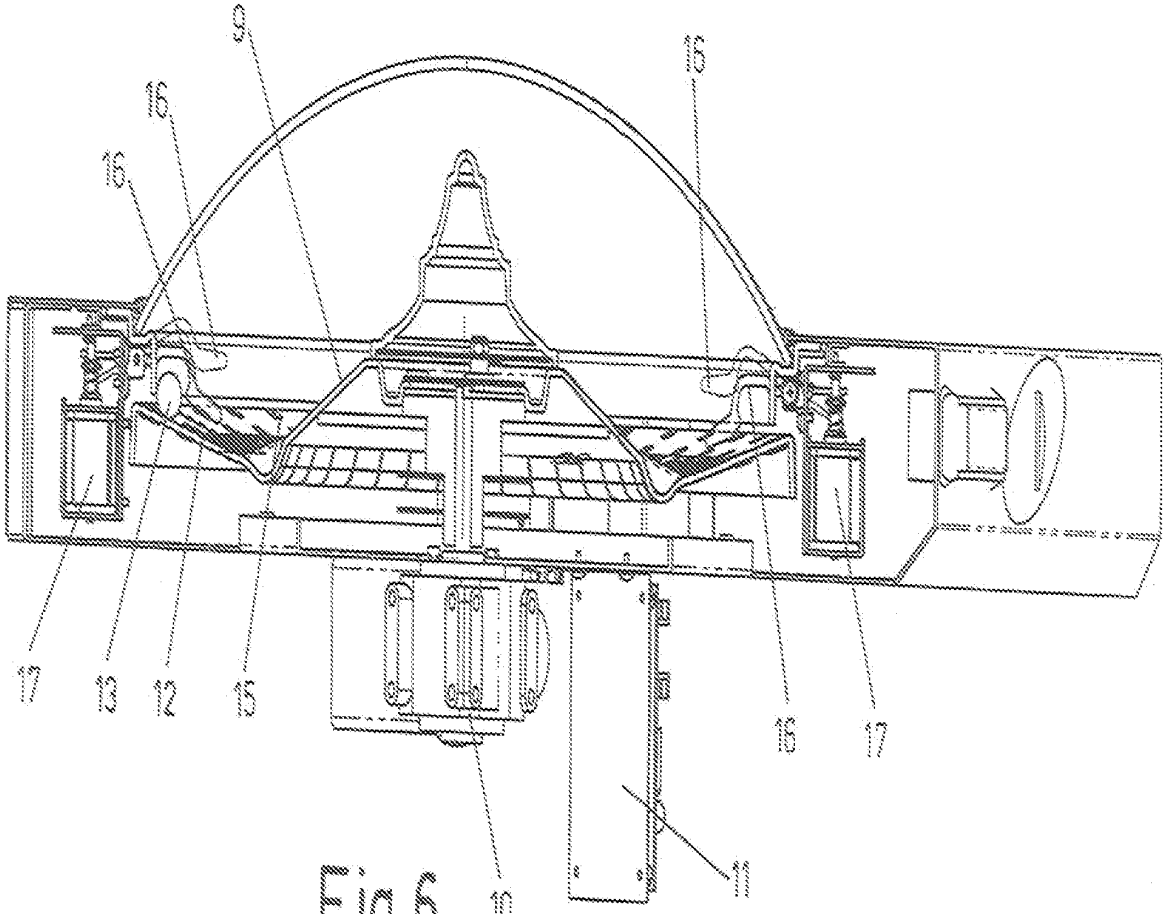


Fig.6

INFORME DE BÚSQUEDA INTERNACIONAL

Solicitud internacional Nº
PCT/ ES 2008/070202

A. CLASIFICACIÓN DEL OBJETO DE LA SOLICITUD

Ver hoja adicional
De acuerdo con la Clasificación Internacional de Patentes (CIP) o según la clasificación nacional y CIP.

B. SECTORES COMPRENDIDOS POR LA BÚSQUEDA

Documentación mínima buscada (sistema de clasificación seguido de los símbolos de clasificación)

Otra documentación consultada, además de la documentación mínima, en la medida en que tales documentos formen parte de los sectores comprendidos por la búsqueda

Bases de datos electrónicas consultadas durante la búsqueda internacional (nombre de la base de datos y, si es posible, términos de búsqueda utilizados)
INVENES,EPODOC

C. DOCUMENTOS CONSIDERADOS RELEVANTES

Categoría*	Documentos citados, con indicación, si procede, de las partes relevantes	Relevante para las reivindicaciones Nº
A	ES 2172911 T1 (NRC GROUP PLC) 01.10.2002, resumen; figura 4.	1,4
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A	WO 03051476 A126.06.2003, resumen; figuras 1,4.	1
A	NL 8204804 A (SPEELMAN, A.) 02.07.1984, resumen.	1

☐ En la continuación del Recuadro C se relacionan otros documentos ☒ Los documentos de familias de patentes se indican en el Anexo

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20 Febrero 2009 (20.02.2009)	**26 de Febrero de 2009 (26/02/2009)**
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INFORME DE BÚSQUEDA INTERNACIONAL

Información relativa a miembros de familias de patentes

Solicitud internacional Nº

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INFORME DE BÚSQUEDA INTERNACIONAL

Solicitud internacional Nº

PCT/ ES 2008/070202

CLASIFICACIÓN DEL OBJETO DE LA SOLICITUD

A63F 5/02 (2006.01)
G07F 17/32 (2006.01)

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