(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 2 579 224 B1**

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention of the grant of the patent:
**19.03.2014 Bulletin 2014/12**

(51) Int Cl.:
***G07F 17/32*** *(2006.01)*

(21) Application number: **11382309.0**

(22) Date of filing: **04.10.2011**

(54) **Protection system for coin-operated machines**

Schutz-System für Münzautomaten

Système de protection pour les machines à sous

(84) Designated Contracting States:
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR**

(43) Date of publication of application:
**10.04.2013 Bulletin 2013/15**

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(56) References cited:
**US-A- 5 108 166**
**US-A- 5 402 476**
**US-A- 6 101 247**

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Printed by Jouve, 75001 PARIS (FR)

## Description

### OBJECT OF THE INVENTION

**[0001]** The present invention, as stated by the title, relates to a protection system for coin-operated machines, such as gaming machines or vending machines.

**[0002]** Coin-operated machines are understood as referring to all sorts of vending machines (such as cigarette, or change machines), videogame machines, public mobile chargers, for example, and any other type of coin-operated machine that has a front piece that can be broken to gain access inside the machine.

**[0003]** The protection system for coin-operated machines of the invention is characterised in that the protector is directly mounted on the machine itself, making it easy to mount, easy to fit and offering effective protection of simple installation and manufacture.

**[0004]** Therefore, the present invention relates to the field of protectors for coin-operated machines.

### BACKGROUND OF THE INVENTION

**[0005]** The state of the art is familiar with protective cabinets for coin-operated machines such as the one described in Spanish utility model number ES 1070960, wherein the protector basically consists of two bodies, a fixed body, and a moving body that moves in respect of the fixed body, either by covering the fixed body or becoming housed inside it.

**[0006]** The fixed body has four sides, two side panels, a back piece and a roof, and it also has a floor. The moving body has a top drawer that contains a shutter for lifting to make the machine available to the public, and for dropping to protect the amusement machine, by fixing the shutter to the ground or anywhere else.

**[0007]** While this method of protection may be effective, it is awkward and complicated, in its manufacture as well as in its daily use, and also requires a relatively large space for its installation.

**[0008]** There are other protection systems consisting of doors that are folded over the sides of a protective frame, which run along guide rails until they can be turned to be able to close the protective assembly.

**[0009]** These systems, while they achieved the pursued objective, are costly and also complex.

**[0010]** It is known in the state of the art the patent US5108166 A which discloses a vending machine security system for protecting vending machines from vandalism and theft of the goods or money contained therein. The security system includes a cage and a door rotatably attached to one side of the cage.

**[0011]** It is also known patent US5402476 A which discloses a two-part apparatus and method for protecting coin-operated telephones, providing a protective cover assembly for a coin-operated telephone having a coinbox-containing region which includes a protective cover plate dimensioned and configured for removable attachment adjacent the coinbox-containing region of the telephone, and a removable access plate associated with the protective cover plate for gaining access to the coinbox disposed within the coinbox-containing region of the telephone. The two-part construction eliminates the need for removal of the full protective cover assembly in order to gain access to the coinbox of the telephone.

**[0012]** And finally, in the patent US6101247 A is disclosed a pay telephone such as a coin operated telephone. The telephone housing has an openable hinged closure plate or so-called "flip lid", which carries on its exterior a face plate, and when opened, allows access to the interior of the telephone housing.

**[0013]** Therefore, the object of the present invention is to develop a protection system for coin-operated machines such as the one described below and that overcomes the aforesaid inconveniences, in other words, a protector which is easy to manufacture, easy to install, simple to handle and that offers good protection.

### DESCRIPTION OF THE INVENTION

**[0014]** The object of the invention is a protection system for coin-operated machines which comprises a protector made of a combination of metal and polycarbonate, which is to be mounted directly on the printed screen of the machine, since this is the part of the machine most likely to be broken into to gain access to prize money and note dispensers.

**[0015]** To date, coin-operated machines were robbed directly from the access door to the cash box. Now that the access is reinforced and closed with a security lock, it is common for the machines to be robbed through the luminous panel or printed screen or front piece of the machine, which is easier to break and provides access inside the machine. For this reason, the protector for amusement machines seeks to protect the front piece of coin-operated machines.

**[0016]** The protector is a metal frame having the same shape and dimensions as the front piece or printed screen of the machine to be protected, on top of which a polycarbonate panel is mounted that prevents access to the printed screen. The metal frame is fixed to the sides of the coin-operated machine to be protected.

**[0017]** To fix the metal frame to the machine the sides of the metal frame have on their upper end, on each side and in a perpendicular arrangement, emerging arms that are fixed to the sides of the machine, which we will refer to as upper arms. It also has other arms emerging from a middle point of the sides of the frame, which we will refer to as lower arms and which are fixed to the sides of the machine using locking or retaining means, such as a padlock or similar.

**[0018]** The fixing of the upper arms to the sides of the machine can be achieved by means of an articulated joint, which offers the benefit of not having to remove the protection every time the machine is to be made accessible, as instead it would be sufficient to lift the protector

and to make it turn in respect of the joint articulated to the sides of the machine to be protected.

**[0019]** Another way of fixing the upper arms to the sides of the machine would be by means of a pin, which would slot into a plate, fixed to the sides of the machine, provided with a cavity through which the pin could pass.

**[0020]** With a view to improving the robustness of the fastening of the amusement machine protector, an additional arm for reinforcing the fastening may be incorporated.

**[0021]** Said arm may be an arm having a part fixed to the side of the machine, and another part emerging telescopically from the fixed part, until it fastens to the front piece of the protector.

**[0022]** Another mode of embodiment of the additional reinforcement arm would be through an articulated arm, fixed at one end to one side of the machine to be protected by means of a plate, and which would be articulated until it made contact with the protector of the protector, being retained at its end.

**[0023]** Both arms for reinforcing the fastening of the protector to the machine to be protected could have at one end as a means of facilitating anchoring to the protector, a perforation through which a padlock, safety lock or similar could pass to retain the arm on the protector.

## DESCRIPTION OF THE DRAWINGS

**[0024]** To complement the description and help to better understand the characteristics of the invention, a series of drawings has been included following a preferred mode of embodiment thereof, forming an integral part of the description, and which by way of illustration but not limitation, show:

Figure 1 shows a lateral view of a potential mode of embodiment of the protection system for coin-operated machines of the invention.

Figure 2 shows a side view in which the protector is articulated to the upper arms, allowing it to be lifted.

Figure 3 shows a side view of a protector with several variations of its embodiment.

Figure 4 shows different types and positions to be adopted by the securing arms to reinforce the fastening of the system to the coin-operated machine.

## PREFERRED EMBODIMENT OF THE INVENTION

**[0025]** In the light of the aforesaid drawings, what follows is a description of a preferred mode of embodiment of the invention, which under no circumstances is limiting.

**[0026]** As observed from figure 1, the protection system for coin-operated machines, shown in a side view of its fastening to a machine to be protected, would have a protector having the general shape of a "U" in the form of a metal frame with the size and dimensions to cover the entire front panel of the machine, leaving a polycarbonate panel or other type of protective material fixed to said front panel.

**[0027]** From the sides of the frame, and from the area close to its top part, upper arms (2) emerge, one from each side, which are arranged perpendicular to the front plane of the protector. Said upper arms are fastened to the machine to be protected. In the case shown, they are fastened by means of an articulated joint (4).

**[0028]** Also from the sides, and from a middle point of the frame lower arms (3) emerge, presenting retaining means at their ends, which in collaboration with auxiliary means fastened to the sides of the machine, allow the protector to be fixed to the sides of the machine. In a potential mode of embodiment, the retaining means could be a padlock, safety lock or similar closing system (5).

**[0029]** In the represented embodiment, the protection system, embodied in the described protector, is fastened to two points on each side of the machine. Nonetheless, the fastening of the protector to the side of the machine may be carried out using additional arms for reinforced fastening, either fixed to the protector itself or to the machine itself.

**[0030]** In Figure 2 the protector is seen lifted in respect of the machine (13), following articulation in respect of the articular joint (4) of the ends of the upper arms (2) where they are fastened to the side of the machine.

**[0031]** In Figure 3, other modes of embodiment of several aspects of the protector can be observed. Thus, the upper arms (2) where they are fastened to the sides of the machine present a pin (6) that can be housed inside a cavity defined by a plate (7) fastened to the side of the machine.

**[0032]** In this drawing it is also possible to observe a complementary embodiment, such as the arrangement of an additional arm (8) for reinforced fastening, which is either joined in an articulated manner to the protector itself, or to the side of the machine. In the represented case, the joint between said additional arm (8) for reinforced fastening, is joined in an articulated manner to the side of the machine using a plate (9) secured to the machine, whereas the free end (11) of such additional arm (8) presents an opening (12), in such a way that once the free end is made to pass through an opening the protector would have in its front panel, the arm could be retained by passing retaining means, such as a padlock, safety lock or similar means, through said opening (12) in the free end (11).

**[0033]** Finally, in figure 4, another potential embodiment of the additional arm (8) for reinforced fastening can be seen, having a fixed part (14) secured to the side of the machine, and from said fixed part (14) a displaceable part (15) can be unfolded or slid lineally, provided for this purpose with a guide slot (16) made in this displaceable part. As in the previous case, on the free end (17) of the lineally displaceable part, an opening (18) is made, which would be used for passing retaining means such as a padlock through, once it has been made to pass through the front piece of the machine.

## Claims

1. Protection system for coin-operated machines which comprises a protector consisting of a metal frame on which panels made of polycarbonate or any other protective material are fastened, **characterized in that** from the sides of the frame, and from the area near its top part, upper arms (2) emerge, one on each side, which are arranged perpendicular to the front plane of the protector and fixed to the machine to be protected; from the sides and from a middle point of the frame lower arms (3) emerge, the ends of which present retaining means, which in collaboration with auxiliary means fixed to the sides of the machine, allow the protector to be secured to the sides of the machine.

2. Protection system for coin-operated machines according to claim 1, **characterised in that** the fastening of the upper arms (2) to the sides of the machine is achieved by means of an articulated joint (4).

3. Protection system for coin-operated machines according to claim 1, **characterised in that** the fastening of the upper arms (2) to the sides of the machine is achieved by means of a pin (6) presented by the upper arms (2) and which is made to fit into a cavity defined by a plate (7) secured to the side of the machine.

4. Protection system for coin-operated machines according to claim 1, **characterised in that** the retaining means of the lower arms (3) on the sides of the machine consist of a padlock or safety lock (5).

5. Protection system for coin-operated machines according to claim 1, **characterised in that** it has an additional arm (8) for reinforced fastening, which is either secured to the protector, or to the side of the machine, and which at its free ends has an opening for the fastening of retaining means.

6. Protection system for coin-operated machines according to claim 5, **characterised in that** the additional arm (8) for reinforced fastening is joined in an articulated manner to the side of the machine by means of a plate (9) fixed to the machine.

7. Protection system for coin-operated machines according to claim 5, **characterised in that** the additional arm (8) for reinforced fastening has a fixed part (14) secured to the side of the machine, and from said fixed part (14) a displaceable part (15) can be unfolded or slid lineally this displaceable part (15) being provided for this purpose a guiding slot (16).

## Patentansprüche

1. Schutzsystem für Münzautomaten mit einem Metallgestell als Schüzter, an wem Paneele aus Polycarbonate oder aus einem anderen Schutzmaterial befestigt sind, **dadurch gekennzeichnet, dass** aus den Seiten des Metallgestelles und aus der Fläche neben seinem obenen Teil Oberarme (2) herauskommen, einer aus jeder Seite, die senkrecht am Vorderteil des Schützers sind und an der Maschine für ihren Schutz gebunden sind; aus den Seiten und aus einem Mittelpunkt des Metallgestelles kommen Unterarme (3) heraus, deren Spitzen Sicherheitseinrichtungen haben, die zusammen mit anderen extra Einrichtungen an den Seiten der Maschine befestigt sind und dem Schützer die Befestigung an den Seiten der Maschine ermöglichen.

2. Schutzsystem für Münzautomaten nach Anspruch 1, **dadurch gekennzeichnet, dass** die Oberarme (2) an den Seiten der Maschine durch ein Gelenkstück (4) befestigt sind.

3. Schutzsystem für Münzautomaten nach Anspruch 1, **dadurch gekennzeichnet, dass** die Oberarme (2) an den Seiten der Maschine durch einen Bolzen (6) befestigt sind, der sich an den Oberarme (2) befindet und welcher um in eine Höhlung an einem Platte (7) hereinzupassen gemacht wurde und an der Seite der Maschine gesichert ist.

4. Schutzsystem für Münzautomaten nach Anspruch 1, **dadurch gekennzeichnet, dass** die Unterarme (3) an den Seiten der Maschine mittels eines Vorhängeschlosses oder eines Sicherheitsschlosses (5) befestigt sind.

5. Schutzsystem für Münzautomaten nach Anspruch 1, **dadurch gekennzeichnet, dass** es über einen zusätzlichen Arm (8) für verstärkende Befestigung verfügt, welcher entweder am Schützer oder an den Seiten der Maschine gesichert ist, und welcher an den freien Spitzen, eine Weite für Befestigung der Sicherheitseinrichtungen hat.

6. Schutzsystem für Münzautomaten nach Anspruch 5, **dadurch gekennzeichnet, dass** der zusätzliche Arm (8) für verstärkende Befestigung gelenkig an der Seite der Maschine durch eine Platte (9) an der Maschine verbunden ist.

7. Schutzsystem für Münzautomaten nach Anspruch 5, **dadurch gekennzeichnet, dass** der zusätzliche Arm (8) für verstärkende Befestigung einen festen Teil hat (14), welcher an der Seite der Maschine gesichert ist und aus diesem festen Teil (14) ein verschiebbarer Teil (15) entfalten werden kann oder dieser verschiebbare Teil (15) kann geralding mittels

einer Führungsschlitz (16), extra dafür gedacht, geschoben werden.

## Revendications

1. Système de protection pour machines fonctionnant avec des pièces, qui comprend un dispositif de protection constitué d'un cadre métallique sur lequel sont fixés des panneaux en polycarbonate ou tout autre matériau de protection, **caractérisé en ce qu'**à partir des côtés du cadre et de la zone proche de sa partie haute, émergent des bras (2) supérieurs, un de chaque côté, qui sont disposés perpendiculairement au plan avant du dispositif de protection et fixés à la machine à protéger ; à partir des côtés et d'un point central du cadre émergent des bras inférieurs (3), dont les extrémités présentent des moyens de retenue, qui, en collaboration avec des moyens auxiliaires fixés sur les côtés de la machine, permettent au dispositif de protection d'être fixé sur les côtés de la machine.

2. Système de protection pour machines fonctionnant avec des pièces selon la revendication 1, **caractérisé en ce que** la fixation des bras supérieurs (2) aux côtés de la machine est réalisée au moyen d'un joint articulé (4).

3. Système de protection pour machines fonctionnant avec des pièces selon la revendication 1, **caractérisé en ce que** la fixation des bras supérieurs (2) aux côtés de la machine est réalisée au moyen d'une broche (6) apportée par les bras supérieurs (2) et qui est faite pour s'ajuster à une cavité définie par une plaque (7) fixée sur le côté de la machine.

4. Système de protection pour machines fonctionnant avec des pièces selon la revendication 1, **caractérisé en ce que** les moyens de retenue des bras inférieurs (3) sur les côtés de la machine consistent en un cadenas ou un verrou de sécurité (5).

5. Système de protection pour machines fonctionnant avec des pièces selon la revendication 1, **caractérisé en ce qu'**il dispose d'un bras supplémentaire (8) pour un amarrage renforcé, qui est soit fixé sur le dispositif de protection, soit sur le côté de la machine, et qui à ses extrémités libres présente une ouverture pour la fixation de moyens de retenue

6. Système de protection pour machines fonctionnant avec des pièces selon la revendication 5, **caractérisé en ce que** le bras supplémentaire (8) pour un amarrage renforcé est relié de manière articulée au côté de la machine au moyen d'une plaque (9) fixée sur la machine.

7. Système de protection pour machines fonctionnant avec des pièces selon la revendication 5, **caractérisé en ce que** le bras supplémentaire (8) pour un amarrage renforcé dispose d'une partie fixe (14), fixée sur le côté de la machine et à partir de ladite partie fixe (14), une partie déplaçable (15) peut être dépliée ou glissée linéairement, cette partie mobile (15) disposant à cet effet d'une fente de guidage (16).

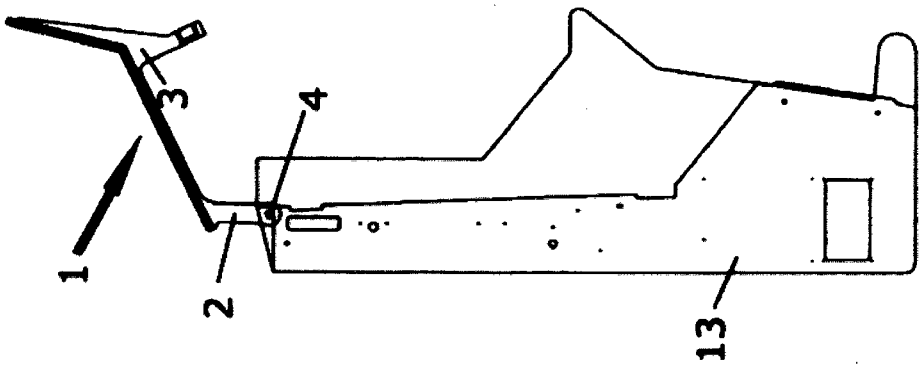



FIG.2

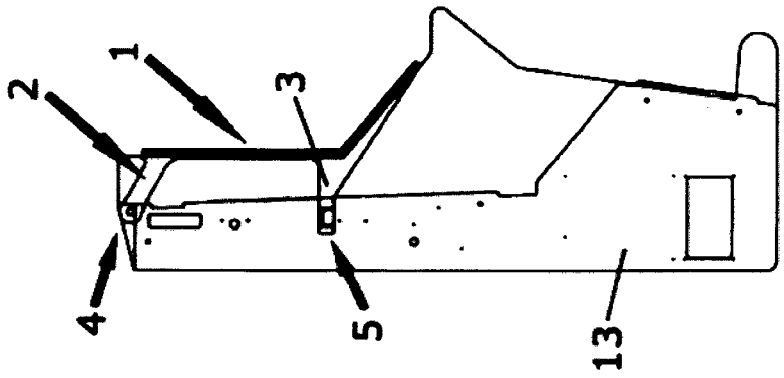



FIG.1

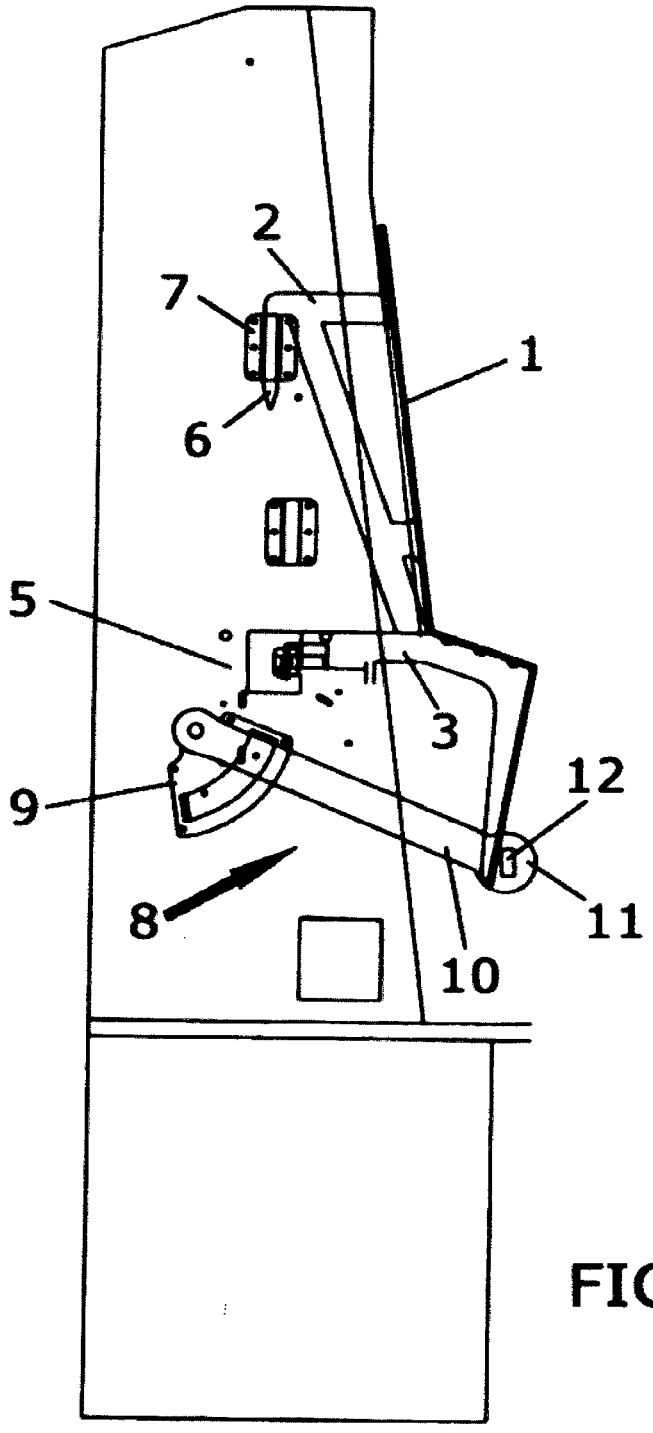



FIG.3

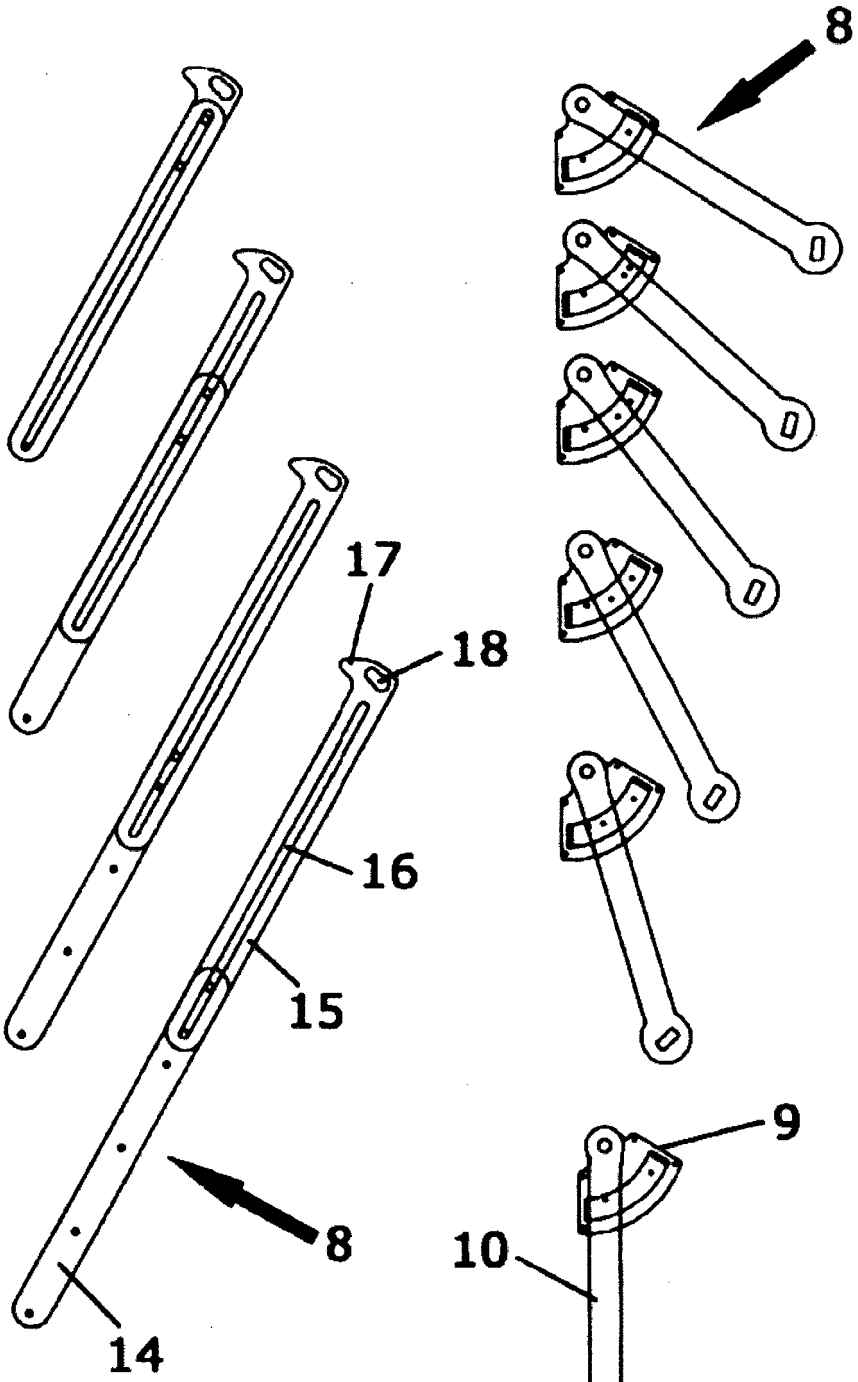



FIG.4

## REFERENCES CITED IN THE DESCRIPTION

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### Patent documents cited in the description


- ES 1070960 **[0005]**
- US 5108166 A **[0010]**
- US 5402476 A **[0011]**
- US 6101247 A **[0012]**