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## EUROPEAN PATENT APPLICATION

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### (54) Saving space mechanism in clothes wardrobes

(57) The invention is reported to a mechanism that is constituted by mobile and motionless parts that help in the saving of space in clothe wardrobes with the rotation of supports (3) of clothes at the closure of wardrobe. With this mechanism while when the clothes are stored in the wardrobe they are found in an angle with the central axis of suspension occupying less space and when this

opens the clothes are presented in front of us vertical as in usual wardrobes.

The manufacture in the one of utmost brings also a system for the storage of trousers (4) or for ties. It can be adapted in any wardrobe new and old and be connected with the doors so that it opens automatically with them or it opens autonomously.

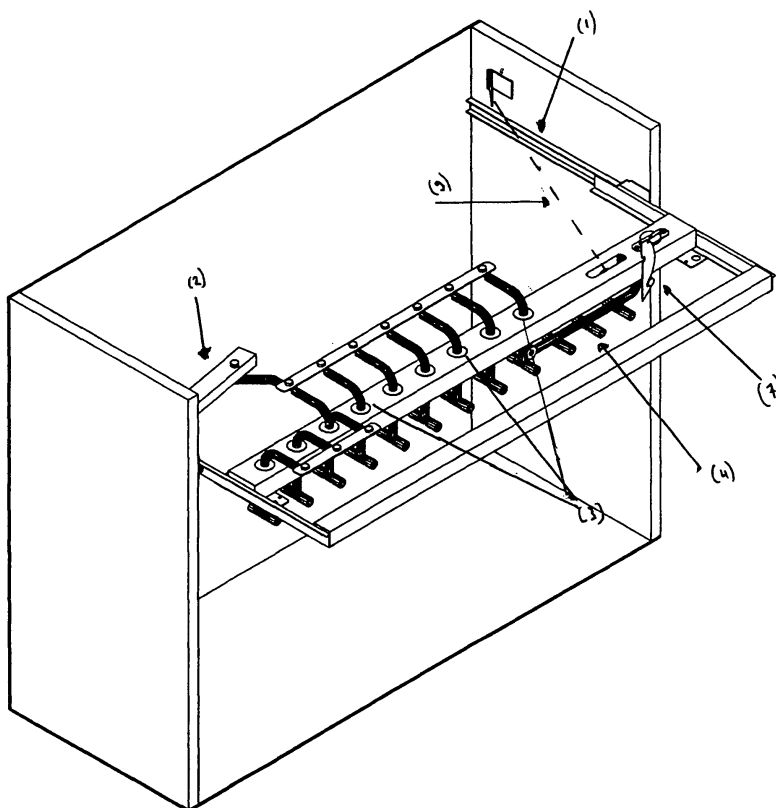


Figure 2.

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## Description

**[0001]** The invention is reported in mechanism that is constituted by mobile and not mobile parts that help in saving space in wardrobes of clothes with the rotation of supports of clothes at the closure of wardrobe.

**[0002]** The wardrobes are the furniture that we are fixture into the wall of our house or like independent furniture. Its basic aim of wardrobe is to store in this the clothes without them to be creased. The result of this is, that the dimensions of wardrobe are too large and sometimes the wardrobes are consuming precious space in our house.

**[0003]** The advantages of this invention are the reduction of indispensable dimensions that a wardrobe needs in order to store our clothes without creased. Simultaneously will be allowed also the manufacture of wardrobe with very small dimensions in order to serve and very small (seasonal residences) that up to now they did not have the possibility of having a wardrobe. The present manufacture with the invention of rotation of places where the hangers of clothes can be placed gives the possibility when the wardrobe is closed and the system comes to its initial place the supports becomes under an angle (as for the central axis of support of clothes) and the result is that the occupied space of clothes becomes less. Then when the wardrobe is open and the mechanism is been in his final place the clothes are placed vertical to the axis and they have the position that they usually have in our wardrobes. The all system as appears and in Figure 1 is supported in the constant department (side of wardrobe) via a mechanism that is based on rolls and they help in the slipping of mobile part as for constant part without it needs particular force (1) similar with these mechanisms that are used in order to they open and close the drawers. When the hole system which is part of hangers of supports moved towards (Figure 2 and Figure 4) (opening of wardrobe) a arm (2) force the system of supports (3) where the hangers of clothes put on them until they rotated and these are found absolute vertical when it opens completely. The supports of hangers have the shape of the Greek letter  $\Gamma$  as it appears and in Figure 1 and in Figure 3 (3) and is all together linked in a bar (5), in equal distances between them. The length of all system can become as long as it needs and bring anyone number of supports we wish and also the distances of supports can be very small for storage of small amount of clothes up to very big distances in order to store clothes with big dimensions (coat etc). Three first supports in order to take movement from the arm (2) and not to bother in the closure are connected with other bar that is found by front (8).

**[0004]** Simultaneously and in one part the appliance brings a number of supports (4) which in the closed place is been vertically and when the all system opens with a small rope (9) via a pulley, which is found above in the mobile part and in the place (6) as it appears in Figure 1 and Figure 3, it raises until it hangs in the hook (7) which also located in the mobile part. The total of these supports

is rotated with the remainder supports with result when hole system is closed it is automatically unhooked and also automatically as it returned in its initial vertical position.

5 The all system is ideal for the storage of trousers but also for ties.

For the manufacture of mechanism it can be used wood or metal in the mobile part while for the manufacture of supports could be used metal without excluding other materials.

10 **[0005]** The all system it can be connected with the door of wardrobe and open with this or to be autonomous and to be open whenever we needed to do that.

15 **[0006]** The mechanism can be placed at the during the manufacture of wardrobe but also in old wardrobes.

**Figure 1.** Shows the mechanism of saving space in wardrobes when it is closed (axonometric).

**Figure 2.** Shows the mechanism of saving space in wardrobes when it is open (axonometric).

**Figure 3.** Shows the mechanism of saving space in wardrobes when it is closed (ground plan).

**Figure 4.** Shows the mechanism of saving space in wardrobes when it is open (ground plan).

## Claims

1. The mechanism of saving space in wardrobes is constituted by a system of supports for hangers of clothes that can also be rotate with the help of the arm system and when it enters in the wardrobe the arm system to place them under an angle and not vertical as they are usually placed in the wardrobes with result that the clothes need less space. This mechanism is constituted by supports of hangers which shape is like Greek letter F (3) apart from one that is like T and it transports the movement from the arm (2) with different direction in the supports that are found before and after this. The supports that are found before the support which is like letter T take movement from the arm (2) in order not to bother in the closure from the bar that is found by front (8), all the rests is linked together in a bar (5), in equal distances between them. The mechanism of saving space in wardrobes is placed in the wardrobe via a mechanism that is based on rolls and helps in the slipping of mobile part as for constant without it needs particular force (1) similar with these mechanisms that are used in order to open and close the drawers.
2. The mechanism of saving space in wardrobes that are described in claim I can bring in the one utmost a additional number of supports (4) which in the closed place is found vertical, while at the duration that the all system opens a small rope (9) via a pulley that is found above in the mobile part (6) help it to raise until it hangs in the hook (7) that also is found

in the mobile part. The total of these supports is rotated with the other supports with result that when the all system is closed, automatically unhooked and also it returns in its initial vertical position.

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3. The mechanism of saving space in wardrobes of according to claim 1 can have length as long as big as it needs and it can brings anyone number of supports that we need. Also the distances of supports can be various from very small for the storage of few clothes in each support until very big for the comfortable storage of clothes with big dimensions (coat etc). 10
4. The mechanism of saving space in wardrobes according to claim 1 can bring as many supports of hangers as we need which can be locate in any distance we need depending on the type of clothes that we want to store. 15
5. The mechanism of saving space in wardrobes according to claim 1 and 3 can be connected with the doors of wardrobe and open and close automatically or we can open and close it whenever it needs. 20

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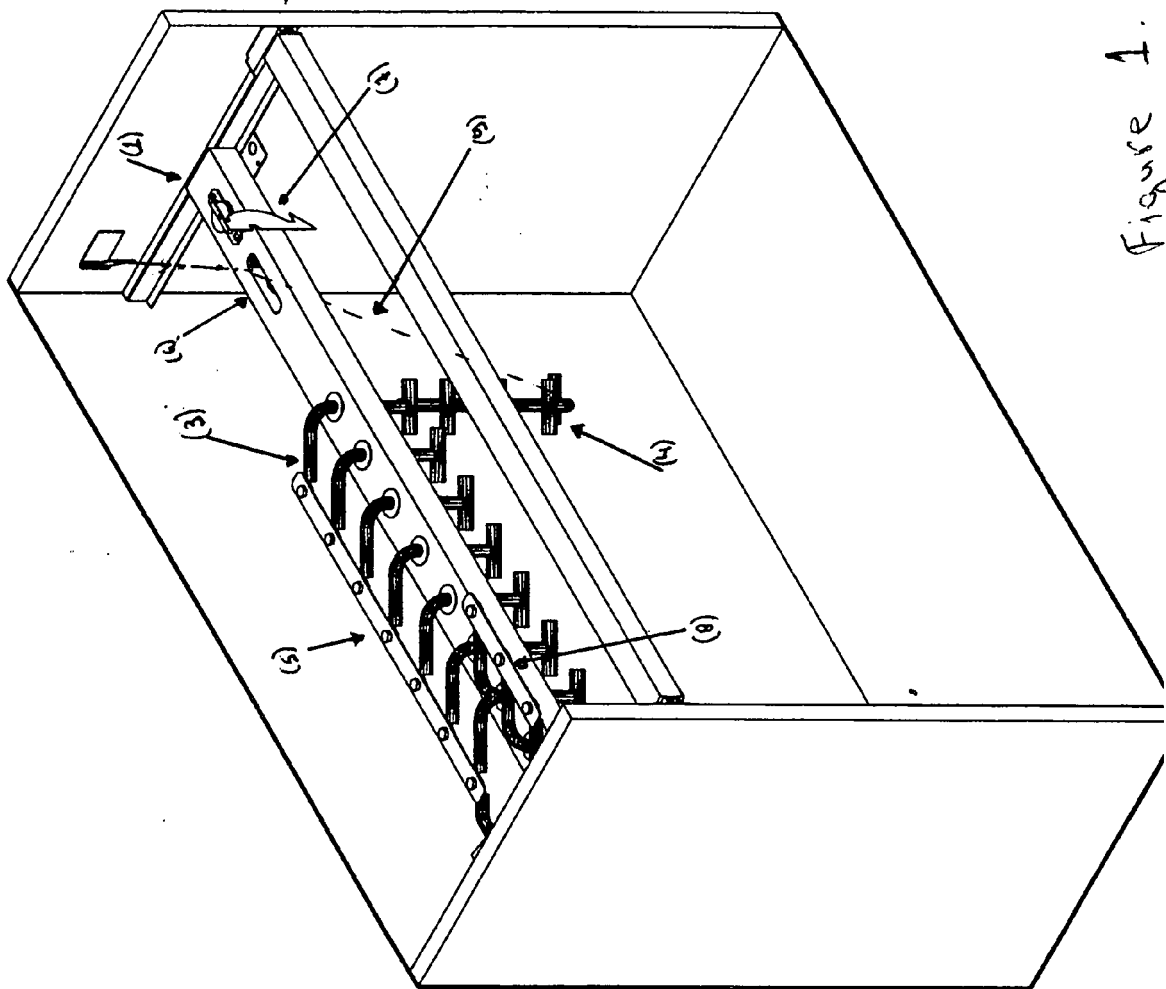


Figure 1.

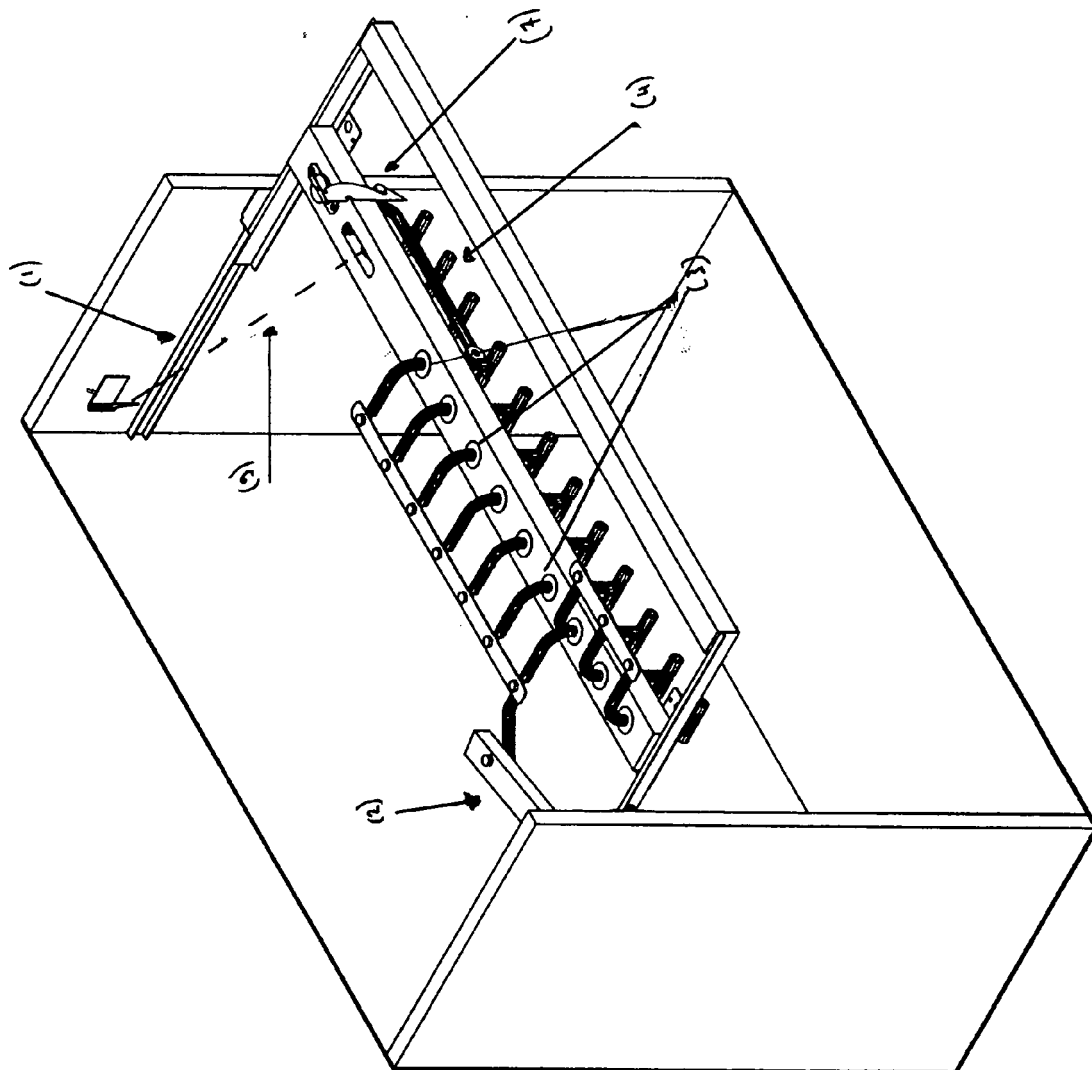


Figure 2.

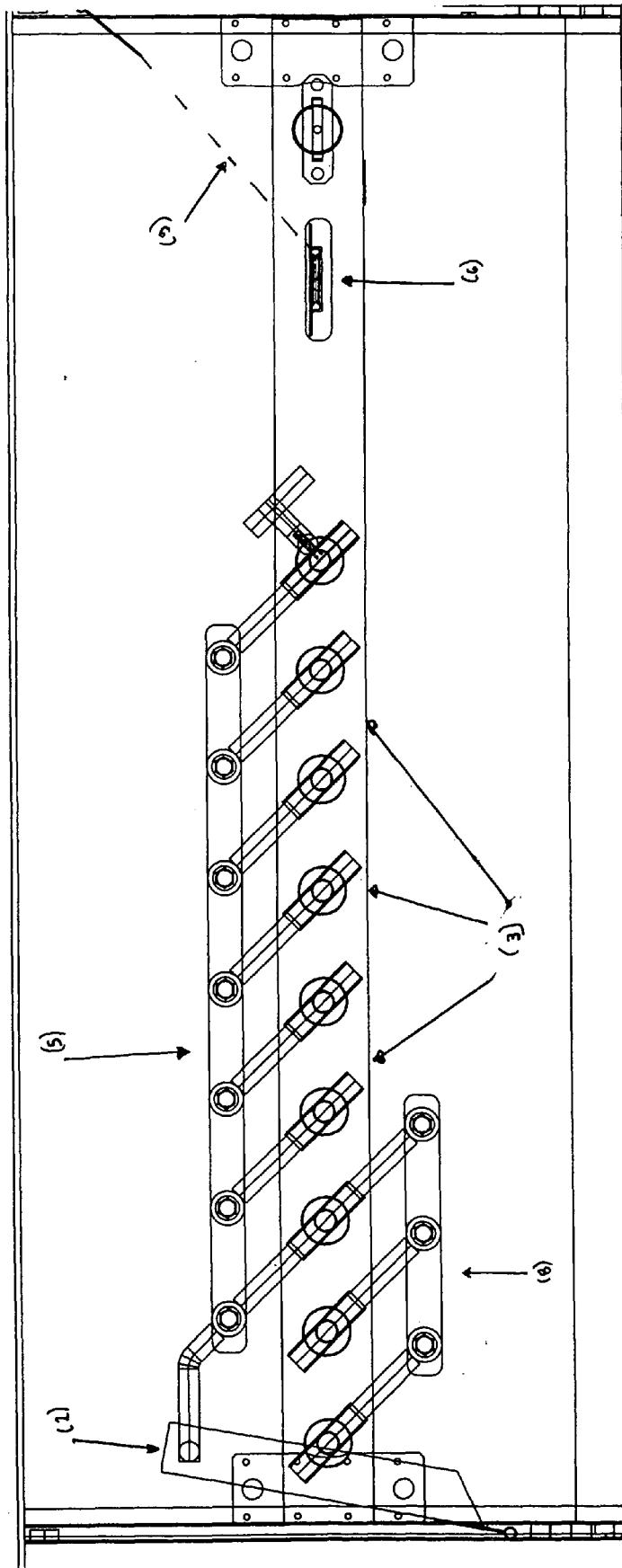


Figure 3.

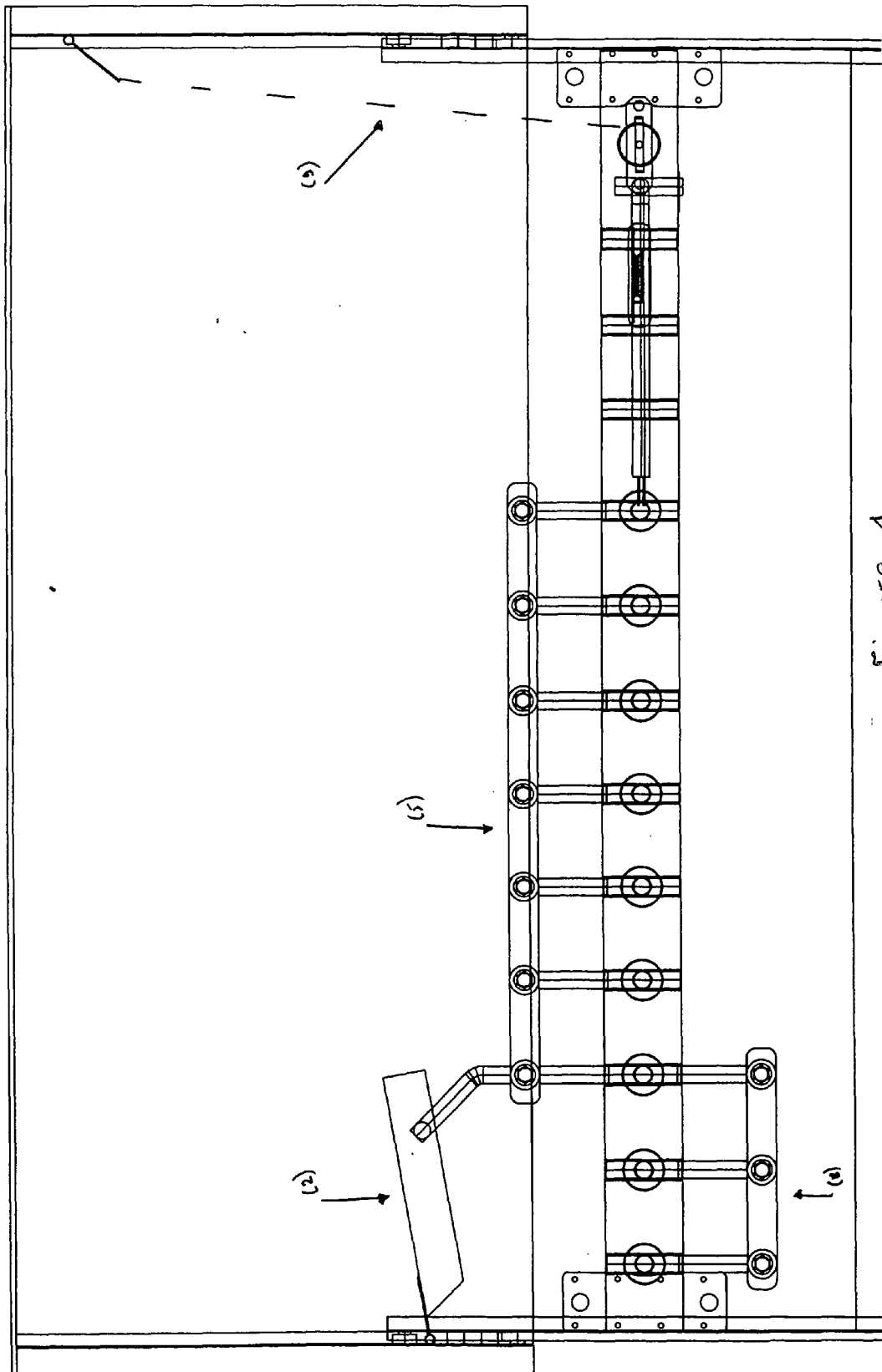


Figure 4.



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# EUROPEAN SEARCH REPORT

Application Number  
EP 05 38 6026

| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                 |                                                |                                            |
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| <p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone<br/>Y : particularly relevant if combined with another document of the same category<br/>A : technological background<br/>O : non-written disclosure<br/>P : intermediate document</p> <p>T : theory or principle underlying the invention<br/>E : earlier patent document, but published on, or after the filing date<br/>D : document cited in the application<br/>L : document cited for other reasons<br/>&amp; : member of the same patent family, corresponding document</p> |                                                                                                                                 |                                                |                                            |

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
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EP 05 38 6026

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