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(71) Applicant: **B.V. di Bersani e Valle S.N.C.**
12081 Beinette (CN) (IT)

(72) Inventor: **Valle, Andrea**
I-12012 Boves (CN) (IT)

(74) Representative: **Karaghiosoff, Giorgio Alessandro**
Studio Karaghiosoff e Frizzi S.r.l.
Via F. Baracca 1R 4° piano
17100 Savona (IT)

(54) **Security device, particularly for banknotes, with means for making banknotes unusable in case of robbery**

(57) Security device and method for carrying valuable objects, particularly for carrying banknotes or the like, which device comprises: a carrying case, a compartment housing said banknotes inside said carrying case, means for making said banknotes unusable in case of robbery, control means for said means making said banknotes unusable in case of robbery, activation and deactivation means for said control means, which can be operated such to make said control means operative or inoperative, wherein said means making said banknotes unusable are powered cutting means intended to cut each banknote into at least two pieces separated each other.

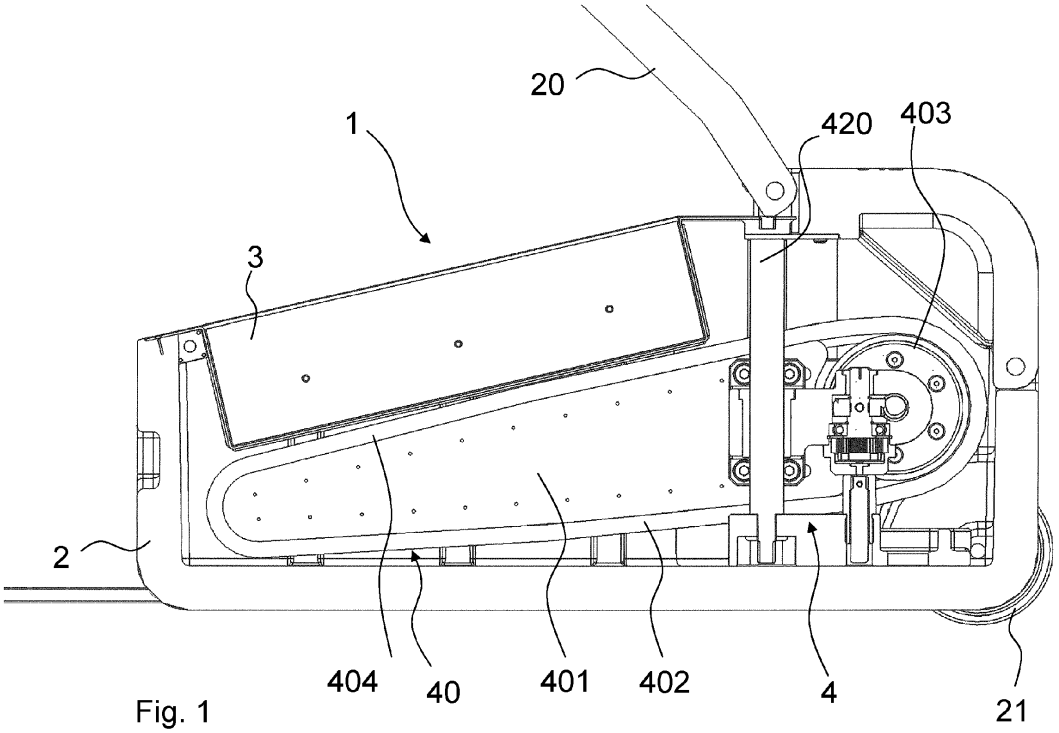

Fig. 1

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Description

[0001] The present invention relates to a security device, and to a method for carrying valuable objects, particularly for carrying banknotes or the like.

[0002] Such device comprises:

a carrying case,
a compartment housing said banknotes inside said carrying case,
means for making said banknotes unusable in case of robbery,
control means for said means making said banknotes unusable in case of robbery,
activation and deactivation means for said control means, which can be operated such to make said control means operative or inoperative.

[0003] This type of security systems for carrying banknotes provided with expedients for making the banknotes unusable in case of robbery or theft are known and widely used.

[0004] When transporting banknotes, for example between different banks or other financial institutions, the moment when banknotes are taken out from the armoured van for being carried into the bank of destination is the most critical one since it is subjected, at the greatest extent, to the risk of theft.

[0005] In order to make the theft unsuccessful and in order to create a deterrent for the theft itself, systems are used during the transport which hide devices among the banknotes that make the banknotes unusable according to different modes in case of robbery or theft.

[0006] The most used systems provide devices comprising an explosive charge and an ink tank, such that upon the explosion of the charge the ink irreparably stains the banknotes that are near the device, such that such stained banknotes cannot be spended and are easily traceable.

[0007] However this type of systems have some drawbacks.

[0008] Firstly their manufacturing and delivery incur in safety problems since explosive materials are involved.

[0009] Secondly it is not sure for all the banknotes to be reached by the ink or however to be stained such that it is not possible to spend them anymore.

[0010] Finally, in order to make the banknotes unusable the ink can stain the banknotes such to prevent the serial number on the banknotes from being recognized. This precludes the possibility of obtaining a refund by the central banks, it being possible to obtain such refund only by communicating the serial number or numbers, usually provided in the amount of two on the banknotes.

[0011] The present invention aims at overcoming the above mentioned drawbacks that may be found in the prior art by providing a device such as described hereinbefore, wherein said means for making said banknotes unusable further are powered cutting means intended to cut each one of said banknotes into at least two pieces separated each other.

[0012] Thus it is not necessary to use explosive material or other dangerous materials and the banknotes can be made unusable in a more controllable way with respect to what occurs by using the ink, therefore making it possible to recognize the serial number afterwards.

[0013] According to a preferred embodiment said carrying case is a briefcase or a trolley case, inside which banknotes and the powered cutting means are housed, in order to allow banknotes to be easily transported, even by one person.

[0014] In one embodiment the powered cutting means cut the banknotes into three pieces separated each other.

[0015] Thus the fact that the banknotes cannot be used is guaranteed, otherwise this could be theoretically possible with banknotes cut only into two pieces, by joining such two pieces with glue or adhesive tape or the like.

[0016] Banknotes are composed of a cut-to-size sheet having two longest sides, two shortest sides and a predetermined thickness.

[0017] In a further improvement the cuts are made in a direction perpendicular to the longest sides of the banknotes.

[0018] Since banknotes have to be cut into pieces separated each other, this direction is the one defining the cut whose length is as short as possible, it being parallel to the shortest sides, and therefore it allows the cut to be made in the shortest possible time.

[0019] In a preferred embodiment the powered cutting means make two cuts perpendicular to said longest sides of the banknotes, a first cut of which along the central axis of the banknote parallel to the shortest sides and a second cut at the side of the first cut, at a given distance therefrom and from the shortest side.

[0020] The advantage of obtaining the cuts in the shortest possible time and of dividing the banknote into three pieces and the advantage of always protecting a lateral serial number of the banknote are thus combined.

[0021] According to a further embodiment the cuts are made with a predetermined width and by transforming the material removed during the cutting action into chips, such that once the cut is made the edges of the cut are not complementary and cannot match each other anymore, making it impossible to form again the banknote starting from the pieces separated by the cut.

[0022] In an advantageous embodiment the powered cutting means comprise at least one chain saw composed of a guide bar about the rim thereof a chain cutting member runs which is driven by a drive pulley, the drive pulley of the chain saw being operated by a driving motor, preferably an electric motor, in combination with a power source.

[0023] Advantageously such power source can be a battery.

[0024] In a preferred embodiment the powered cutting means comprise at least two chain saws.

[0025] In a particularly advantageous configuration the

chain saws are parallel each other, said guide bars being parallel each other, which are oriented with their faces parallely to the cutting planes.

[0026] In a further embodiment the guide bars have an elongated shape such that they have a cutting arm, that is a portion of the chain cutting member intended to be operatively involved in the cutting, and a return arm, that is a portion intended to recover the chain cutting member in the direction of the drive pulley, which cutting arm being oriented towards the banknote housing compartment.

[0027] The banknotes are advantageously arranged in the housing compartment in a position stacked one on the other and they have one of the two longest edges in the direction of the cutting arms.

[0028] The banknotes can be oriented with the shortest sides perpendicularly to the cutting arms or can be inclined such to form acute angles with the cutting arm with respect to the perpendicular direction, such to further reduce the path necessary for the cutting arm to completely cut all the banknotes, the so called side cut.

[0029] The banknotes on the contrary can be oriented with the shortest sides parallely to the cutting arms, the so called front cut.

[0030] In a further embodiment there are provided powered means for moving the chain saws along the cutting plane and towards the banknotes, which powered movement means move at least the cutting arms or the chain saws towards the banknotes.

[0031] According to a further embodiment the powered movement means are composed of one or more translating guides and of a torque reduction unit, which is driven by the driving motor of the drive pulleys.

[0032] This arrangement advantageously allows only one motor to be provided, preferably an electric one and powered by a battery, for operating both the movement driving the chain cutting member about the guide bars in order to make the cut and the movement of the guide bars towards the banknotes such to proceed with cutting the banknotes for all their width till reducing them into pieces separated each other.

[0033] The movement of the guide bars can advantageously be a translating one, but can be also a rotational movement or any combination of translating and rotational movements can be used.

[0034] According to an embodiment the control means are composed of switching devices and/or switches that can be controlled or remotely controlled for connecting the driving motor to the power source.

[0035] The switching devices or switches can be remotely controlled, therefore a receiving unit being provided for the signals sent from the remote control, such signals being sent in any form, such as for example infrareds or radio waves.

[0036] For example in case of robbery during the transport of the trolley case from the armoured van to the bank it is possible to provide the guard inside the van to activate by a remote control the switch, thus causing the banknotes to be cut.

[0037] According to a further embodiment the control means are activated in case of tampering or attempted tampering against the carrying case, there being provided tampering detection means.

[0038] In a still further embodiment the control means are activated if the security device is moved further than a predetermined safety distance between the security device and a specific space location, there being provided wireless means for detecting the distance between the security device and a specific space location, such as a bank of destination or a security van.

[0039] In this case there is provided a fixed signal emitter in the specific space location, which defines a radiation area, outside which the signal is not received by the receiving unit of the security device, causing the powered chain saws to be operated.

[0040] As an alternative it is possible to provide a calculation unit that on the basis of the received signals defines the distance between the security device and the emitting location.

[0041] A further alternative provides the distance between the security device and the emitting location to be defined by using tracing systems of the GPS type.

[0042] According to a further embodiment the activation and deactivation means for the control means can be set by a remote control.

[0043] When coming out from a first bank or from the security van it is possible to provide the activation means 7 to be set in the on condition, while when entering the bank of destination to be set in the off condition, for example by a transponder system.

[0044] A further embodiment, that can be provided in combination or as an alternative to the above, the activation and deactivation means can be set for activating the control means at a specific time moment.

[0045] For example this allows to provide a maximum time for transporting the banknotes, by exceeding that the banknotes are cut if the activation and deactivation means have not been again set in the off condition, and that is if the banknotes have not reached the destination.

[0046] In a further embodiment the activation and deactivation means can be set by a mechanical or electronical key, such that for example they can be set in their off condition by an clerk of the bank of destination that is in possession of such key, before opening the trolley case.

[0047] The present invention relates also to a method for carrying valuable objects, as said hereinbefore.

[0048] Such method comprises the following steps:

a) arranging said banknotes into a compartment housing said banknotes provided into a carrying case;

b) setting the means activating and deactivating control means of means making said banknotes unusable under the on condition;

c) carrying said banknotes to the place of destination,

d) setting the means activating and deactivating con-

trol means of means making said banknotes unusable under the off condition,
and in case of attempted tampering or in case said carrying case is moved due to theft or robbery, it comprises the following step instead of step d):

d1) operating said means controlling said means making said banknotes unusable;
and wherein said means for making said banknotes unusable further are powered cutting means intended to cut each one of said banknotes into at least two pieces separated each other, particularly into three pieces separated each other.

[0049] In one embodiment the powered cutting means make one or more cuts perpendicular to said longest sides of the banknotes, particularly two cuts a first cut of which along the central axis of the banknote parallel to the shortest sides and a second cut situated at the side of the first cut, at a given distance therefrom and from the shortest side.

[0050] According to a further embodiment the powered cutting means make the cuts with a predetermined width and by transforming the material removed during the cutting action into chips, such that once the cut is made the edges of the cut are not complementary and cannot match each other anymore, making it impossible to form again the banknote starting from the pieces separated by the cut.

[0051] These and other characteristics and advantages of the present invention will be more clear from the following description of some embodiments shown in the annexed drawings wherein:

Fig.1 is a side sectional view of the device of the present invention with transparent walls for showing the internal details;
Fig.2 is an axonometric view of the device of the present invention, with transparent walls for showing the internal details;
Fig.3 is a top view of the device of the present invention;
Fig.4 is a general view of the device of the present invention;
Fig. 5 is a side view of the device of the present invention, with transparent walls for showing the internal details, wherein the powered cutting means are in the cutting position;
Fig. 6 is a detailed view of a section of the movement means;
Fig. 7 is a top view of a section of the movement means and of the powered cutting means;
Fig. 8 is a further embodiment of the device of the present invention;
Figs. 9, 10 and 11 diagramatically show the device of the present invention above all as regards the activation and deactivation means and as regards the control means.

[0052] Figures 1, 2 and 3 show different views of the device 1 of the present invention, with transparent wall to show the internal details, which device 1 comprises a carrying case 2, a banknote housing compartment 3, wherein banknotes 10 can be housed, powered cutting means 4 intended to cut each banknote 10 into at least two pieces separated each other.

[0053] The carrying case 2 in the embodiment shown in the figure is a trolley case, provided with wheels 21 for being easily transported by partially relieving the weight on the ground.

[0054] The trolley case is further provided with a lid 20 that can be opened for inserting the banknotes 10 into the housing compartment 3, the housing compartment 3 having an open side at said lid 20.

[0055] The powered cutting means 4 comprise two chain saws 40 and each one of such chain saws 40 is composed of a guide bar 401 about the rim thereof a chain cutting member 402 runs which is driven by a drive pulley 403, the two drive pulleys 403 of the two chain saws being operated by a driving motor 41, preferably an electric motor and powered by a power source such as an electric battery, not shown in the figure.

[0056] As it can be clearly seen even in figure 8, the chain saws 40 are parallel each other, said guide bars 401 being parallel each other, which are oriented with their faces parallely to the cutting planes.

[0057] The banknote housing compartment 3 in its walls has two through slits 30 configured in such a manner to allow the chain saws 40 to advance into the banknote housing compartment 3 when cutting the banknotes 10.

[0058] Such guide bars have an elongated shape such that they have a cutting arm 404, that is a portion of the chain cutting member 402 intended to be operatively involved in the cutting, and a return arm, that is a portion intended to recover the chain cutting member 402 in the direction of the drive pulley 403, which cutting arm 404 is oriented towards the banknote housing compartment 3.

[0059] The chain cutting member 402 runs along the perimetral rim of said guide bars 401.

[0060] The chain saws 40 are shown in the inoperative condition, that is in the position wherein the cutting arm 404 is arranged near the banknotes without touching them.

[0061] When the driving motor 41 is activated the chain saws 40 are driven, namely the chain cutting members 402 begin to quickly run about the cutting bars 401, and the powered movement means 41 translate the chain saws 40 towards the banknotes 10 housed in the banknote housing compartment 3.

[0062] Thus the cutting arm 404 begins to cut the banknotes 10, to a final position of the chain saws 40 where the banknotes 10 are completely cut.

[0063] The banknotes 10 are composed of a cut-to-

size sheet having two longest sides, two shortest sides and a predetermined thickness.

[0064] The banknotes 10 are arranged in the housing compartment 3 in a position stacked one on the other and they have one of the two longest edges in the direction of the cutting arms 404.

[0065] The banknotes 10 can be oriented with the shortest sides perpendicular to the cutting arms or can be inclined such to form acute angles with the cutting arm 404 with respect to the perpendicular direction, such to further reduce the path necessary for the cutting arm to completely cut all the banknotes, the so called side cut.

[0066] The banknotes 10 on the contrary can be oriented with the shortest sides parallel to the cutting arms, the so called front cut.

[0067] There are provided powered means 42 moving the chain saws 40 along the cutting plane and towards the banknotes 10, which are omitted for expository clarity in figure 1, which powered movement means 42 move the chain saws 40 towards the banknotes 10.

[0068] Such powered movement means 42 are composed of one or more translating guides 420 and of a torque reduction unit 421, which is driven by the driving motor 41 of the drive pulleys 403.

[0069] Therefore the chain saw 40 is translated along a translating guide 420 by a torque reduction unit 41.

[0070] The torque reduction unit 421 shown in the figures is a worm gear, but any type of gearmotor can be used for transmitting the motion and for converting it from a quick rotational motion to a relatively slow vertical translation motion, such as for example a threaded shaft and nut screw assembly, or a ball screw gear or the like.

[0071] The translating guides 420 shown in the figures are composed of a guide and a slide associated to the torque reduction unit 421, or the torque reduction unit can be the guide, for example with a threaded sleeve system that is moved on a threaded shaft, or a rack system or a ball guide.

[0072] As it is clearly shown above all in figure 3, the powered cutting means 4 cut the banknotes 10 into three pieces separated each other and the cuts are made in a direction perpendicular to the longest sides of the banknotes 10.

[0073] In the embodiment shown in the figures the cuts are made symmetrically to the central axis perpendicular to the longest sides of the banknote 10, but it is also possible to provide a first cut along such central axis of the banknote 10 and a second cut arranged at the side of the first cut.

[0074] The chain saws 40 make cuts having a specific width substantially equal to the width of the chain cutting member 402 and the material removed during the cutting action is transformed into chips, such that once the cut is made the edges of the cut are not complementary and cannot match each other anymore, making it impossible to form again the banknote starting from the pieces separated by the cut.

[0075] Figure 4 shows the device 1 with the lid 20 in the opened condition, it being hinged at one end such to rotate to a maximum opening position of 90°.

[0076] Figure 5 shows a view of the device 1 wherein the chain saws 40 are in a position intermediate between the inoperatinve position and the final position and therefore they are making the cut.

[0077] Figures 6 and 7 show an axonometric view and a top view respectively of the powered movement means 41 and of the powered cutting means 4.

[0078] There is provided a slide 423, with a "C" shape and delimiting a central recessed area, which is intended to translate on two translating guides 420, which guides are secured to a wall of the carrying case 3 by a base 422.

[0079] The driving motor 41 is fastened to one end of the slide 423 by a clamp 410, while the opposite end is provided with the worm torque reduction unit 421.

[0080] The shaft of the driving motor 41 secured to the first end of the slide 423 is integrally fastened in the portion closest to the driving motor 41 with the drive pulleys 403, which are placed in the central recessed area, while in the portion farthest from the driving motor 41 it has a threaded terminal 4211.

[0081] The torque reduction unit 421 is composed of such threaded terminal 4211 and of a gear 4212 connectable to a driving shaft 4213 composed of a threaded rod engaging in a threaded sleeve 4214, which driving shaft 4213 is rotatably connected to the slide 423 by a ball bearing 4217.

[0082] Thus when the driving motor 41 is activated the threaded terminal 4211 of the driving shaft rotates the gear 4212, which rotates the driving shaft 4213 since it is connected thereto, causing the driving shaft 4213 and so the overall slide 423, together with the driving motor 41 and the chain saws 40 to translate by means of the threaded sleeve 4214.

[0083] Figure 6 clearly further shows a mechanism intended to bring the chain saws 40 back in the initial position, by uncoupling the gear 4212 from the driving shaft 4213.

[0084] The driving shaft 4213 has a tubular terminal with at least one through seat for at least a movable pin, particularly in the example of the figure two radial pins, that can be moved radially towards the gear 4212 for coupling it to the driving shaft 4213.

[0085] Inside the tubular terminal of the driving shaft 4213 there is provided a control axial slider 4215, slidable against the action of a spring such that it is movable between two extreme positions, it being further provided with such a shape that it has at least two areas with a different diameter, a first area with a diameter substantially equal to the inner diameter of the tubular terminal of the driving shaft 4213 and a second area with a smaller diameter.

[0086] When the control axial slider is in such a position to have its area with the greatest diameter near the through seats of the movable pins 4216, it keeps such movable pins 4216 in a radially projecting position and therefore it guarantees the gear 4212 to be coupled to

the driving shaft 4213.

[0087] On the contrary when the control axial slider is in such a position to have its area with the smallest diameter near the through seats of the movable pins 4216, the movable pins go inside the tubular terminal of the driving shaft 4213 causing the gear 4212 to be uncoupled from the driving shaft 4213.

[0088] Figure 8 shows a further embodiment of the device of the present invention, wherein the chain saws 40 are arranged in such a manner not to cut the banknotes stacked into the housing compartment 3 by a side cut but by a front cut, that is the banknotes 10 are arranged with the shortest sides parallel to the cutting arms.

[0089] According to this further embodiment the housing compartment 3 can be withdrawable from the carrying case 2 such to be filled with the banknotes 10, by means also of two handles 31.

[0090] The carrying case is shaped such that when inserting the banknote housing compartment 3, it has already the through slits 30 in the correct position for allowing the chain saws 40 to properly perform the cut.

[0091] Figure 9 shows a diagram of the device of the present invention, wherein there are provided means for cutting the banknotes, particularly chain saws 40 driven by a driving motor 41, which driving motor is powered by a connection to a battery 5.

[0092] Such connection to the battery 5 is controlled by control means and by activation and deactivation means.

[0093] According to one embodiment the control means are composed of switching devices and/or switches that can be controlled or remotely controlled for connecting the driving motor to the power source.

[0094] The control means shown in figure 11 provide a switching device 6 that can be remotely controlled by a receiving unit 61, intended to receive the signals sent by a remote control 62, such signals being sent in any form, such as for example infrareds or radio waves.

[0095] For example in case of robbery during the transport of the trolley case from the armoured van to the bank it is possible to provide the guard inside the van to activate by the remote control 62 the switching device 6, thus connecting the driving motor 41 to the battery 5 for driving the chain saws 40, consequently cutting the banknotes 10.

[0096] The figure further shows one embodiment that can be provided as an alternative or in combination with the above, which provides a tampering detection system 63, by means of which it is possible to activate the switching device 6.

[0097] For example the tampering detection system 63 can comprise sensors placed near the lid 20 that detect the opening thereof, such as for example electric circuits some being arranged on the inner wall of the lid and some in the inner wall of the carrying case 2 such to create an electric contact with the lid in the closed position, and a break of the circuit detectable if the lid 20 is opened.

[0098] The tampering detection system, besides the other embodiments of the control means, can operate the cutting of the banknotes 10 only if the activation unit 7 is set in the on condition.

[0099] In a further embodiment, shown in figure 10, the switching device 6 is activated if the security device 1 is moved further than a predetermined safety distance between the security device 1 and a specific space location, such as a bank of destination or a security van.

[0100] Therefore there is provided a fixed signal emitter 62' in the specific space location, which defines a radiation area whose perimeter is denoted by 65, outside which the signal is not received by the receiving unit 61' of the security device 1, thus connecting the driving motor 41 to the battery 5 for operating the chain saws 40, consequently cutting the banknotes.

[0101] It is also possible to provide a distance calculation unit 64 that, on the basis of the received signals, calculates the distance between the security device 1 and the emitting location.

[0102] A further alternative provides the distance between the security device and the emitting location to be defined by using tracing systems of the GPS type.

[0103] Figure 11 schematically shows the security device of the present invention with a particular attention to the activation and deactivation means, which act for arming the security device 1, that is for putting the control means in such a condition that they can be activated.

[0104] The activation and deactivation means comprise an activation unit 7, which comprises switches and/or switching devices and it can be set by a remote control.

[0105] There is provided a receiving unit 71 which is arranged for receiving signals sent by wireless systems, in the form of radio waves, infrareds or the like.

[0106] It is possible to provide that when coming out from a first bank or from the security van the activation unit 7 is set in the on condition by a transponder system cooperating with the receiving unit 71.

[0107] Once the security device 1 reaches the bank of destination the activation unit 7 is set in the off condition, making impossible for the switching device 6 to drive the chain saws 40.

[0108] A further embodiment shown in the figure, that can be provided in combination or as an alternative to the above, provides that the activation unit 7 can be set for activating the switching device 6 at a specific time moment.

[0109] For example this allows to provide a maximum time for transporting the banknotes 10, by exceeding that the banknotes 10 are cut if the activation unit 7 has not been again set in the off condition, and that is if the banknotes 10 have not reached the destination.

[0110] The activation unit 7 can be further set by a mechanical or electronical key 73, such that for example it can be set in its off condition by a clerk of the bank of destination that is in possession of such key 73, before opening the trolley case.

[0111] From what described above it is clear that the invention is not limited to the embodiment described and illustrated herein by a mere non limitative example but it may be greatly changed and modified, as a whole and in its individual details, depending on the specific manufacturing and use requirements and benefits, especially as regards construction and within the scope of technical and functional equivalents, without departing from the guiding principle disclosed above and claimed below.

Claims

1. Security device (1), particularly for carrying banknotes (10) or the like, which device (1) comprises:

   a carrying case (2),
   a compartment housing said banknotes (3) inside said carrying case (2),
   means for making said banknotes (10) unusable in case of robbery,
   control means for said means making said banknotes (10) unusable in case of robbery,
   activation and deactivation means for said control means, which can be operated such to make said control means operative or inoperative,
   characterized in that
   said means making said banknotes (10) unusable are powered cutting means (4) intended to cut each banknote (10) into at least two pieces separated each other.

2. Security device (1) according to claim 1, **characterized in that** said carrying case (2) is a briefcase or a trolley.

3. Security device (1) according to one or more of the preceding claims, **characterized in that** said powered cutting means (4) cut said banknotes (10) into three pieces separated each other.

4. Security device (1) according to one or more of the preceding claims, **characterized in that** said powered cutting means (4) make one or more cuts in a direction perpendicular to the longest sides of the banknotes (10).

5. Security device (1) according to one or more of the preceding claims, **characterized in that** said powered cutting means (4) make two cuts perpendicular to the longest sides of the banknotes (10), a first cut of which along the central axis of the banknote (10) parallel to the shortest sides and a second cut at the side of the first cut, at a certain distance therefrom and from the shortest side.

6. Security device (1) according to one or more of the preceding claims, **characterized in that** said powered cutting means (4) make cuts having a specific width and the material removed during the cutting action is transformed into chips, such that once the cut is made the edges of the cut are not complementary and cannot match each other anymore, making it impossible to form again the banknote (10) starting from the pieces separated by the cut.

7. Security device (1) according to one or more of the preceding claims, **characterized in that** said powered cutting means (4) comprise at least one chain saw (40) composed of a guide bar (401) about the rim thereof a chain cutting member (402) runs which is driven by a drive pulley (403), the drive pulley (403) of the at least one chain saw (40) being operated by a driving motor (41), preferably an electric motor, in combination with a power source.

8. Security device (1) according to one or more of the preceding claims, **characterized in that** it is provided with at least two chain saws (40), which are parallel each other, said guide bars (401) being parallel each other.

9. Security device (1) according to one or more of the preceding claims, **characterized in that** said guide bars (401) have an elongated shape such to have a cutting arm (404), such cutting arm (404) being oriented towards said compartment (3) housing said banknotes.

10. Security device (1) according to one or more of the preceding claims, **characterized in that** there are provided powered means (42) for moving said chain saws (40) along the cutting plane and towards the banknotes (10), which powered movement means (42) move at least said chain saws (40) towards said banknotes (10).

11. Security device (1) according to one or more of the preceding claims, **characterized in that** said powered movement means (42) are composed of one or more translating guides (420) and of a torque reduction unit (421), which is driven by said driving motor (41) of the drive pulleys (403).

12. Security device (1) according to one or more of the preceding claims, **characterized in that** said control means are composed of switching devices and/or switches that can be controlled or remotely controlled for connecting said driving motor (41) to said power source.

13. Security device (1) according to one or more of the preceding claims, **characterized in that** said control means are operated in case of tampering or attempted tampering against said carrying case (2), tampering detection systems being provided.

14. Security device (1) according to one or more of the preceding claims, **characterized in that** said control means are operated when said security device (1) is moved further than a predetermined safety distance between said security device (1) and a specific space location, there being provided wireless means for detecting the distance between said security device (1) and a specific space location, such as a bank of destination or a security van.

15. Security device (1) according to one or more of the preceding claims, **characterized in that** said means for activating and deactivating said control means can be set by a remote control.

16. Security device (1) according to one or more of the preceding claims, **characterized in that** said activation and deactivation means can be set such to operate said control means at a specific moment.

17. Security device (1) according to one or more of the preceding claims, **characterized in that** said activation and deactivation means can be set by a mechanical or electronical key.

18. Method for carrying valuable objects, particularly banknotes (10), which method comprises the following steps:

a) arrange said banknotes (10) into a compartment (3) housing said banknotes provided into a carrying case (2);
b) setting the means activating and deactivating control means of means making said banknotes (10) unusable under the on condition;
c) carrying said banknotes (10) to the place of destination,
d) setting the means activating and deactivating control means of means making said banknotes (10) unusable under the off condition,
and in case of attempted tampering or in case said carrying case is moved due to theft or robbery, it comprises the following step instead of step d):

d1) operating said means controlling said means making said banknotes unusable;
characterized in that
said means for making said banknotes (10) unusable are powered cutting means (4) intended to cut each one of said banknotes (10) into at least two pieces separated each other, particularly into three pieces separated each other.

19. Method for carrying valuable objects according to claim 18, **characterized in that** said powered cutting means (4) make one or more cuts in a direction perpendicular to the longest sides of the banknotes (10), particularly two cuts a first cut of which along the central axis of the banknote (10) parallel to the shortest sides and a second cut at the side of the first cut, at a certain distance therefrom and from the shortest side.

20. Method for carrying valuable objects according to claim 18 or 19, **characterized in that** said powered cutting means (4) make cuts having a specific width and the material removed during the cutting action is transformed into chips, such that once the cut is made the edges of the cut are not complementary and cannot match each other anymore, making it impossible to form again the banknote (10) starting from the pieces separated by the cut.

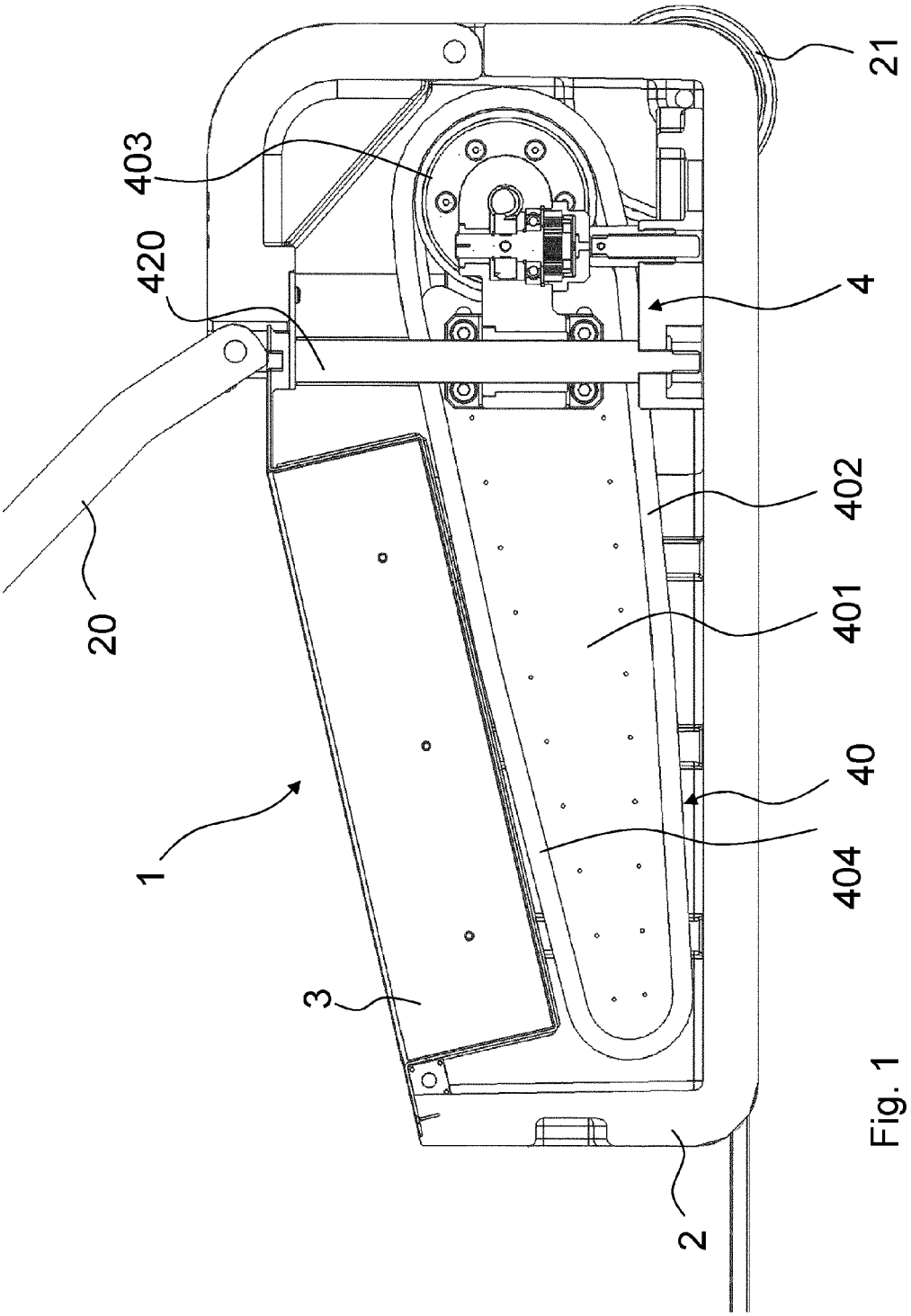

Fig. 1

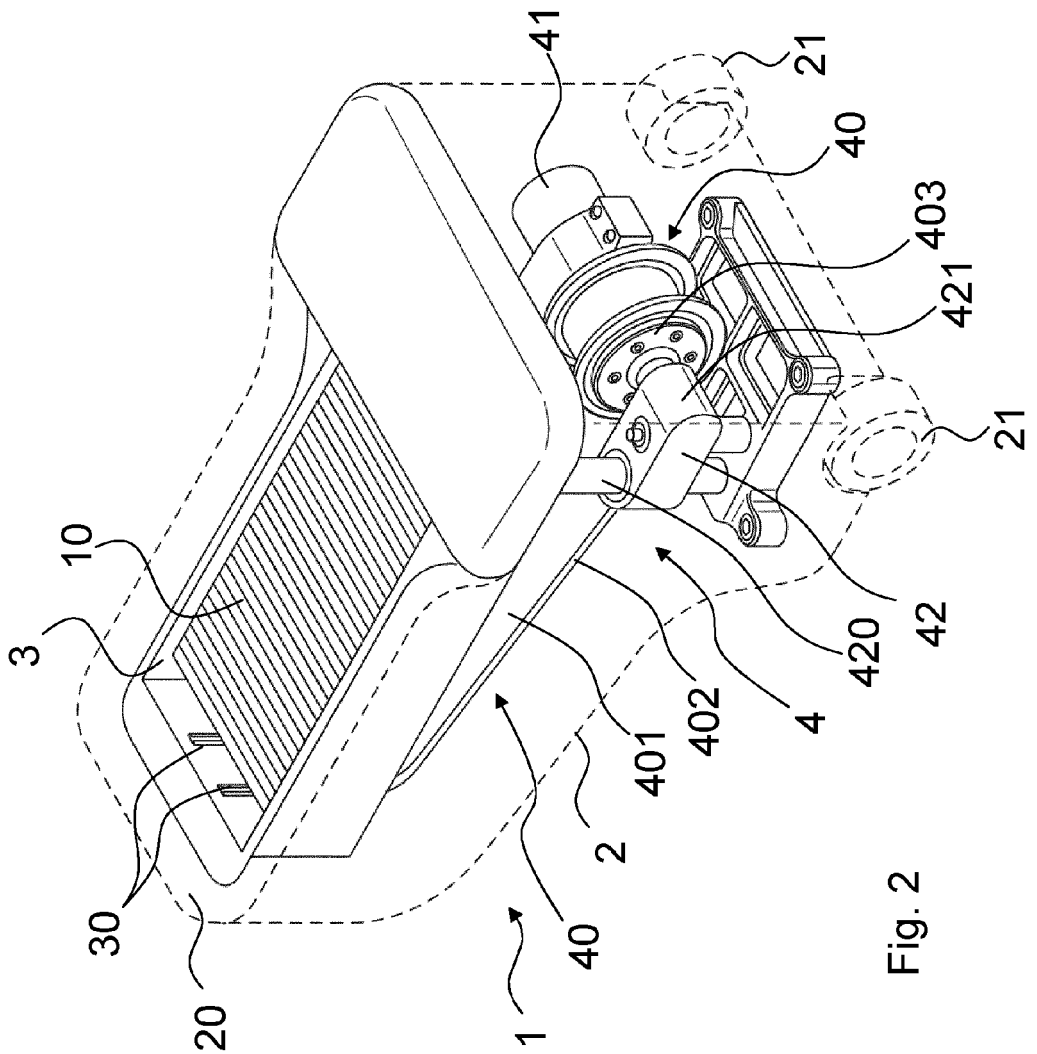

Fig. 2

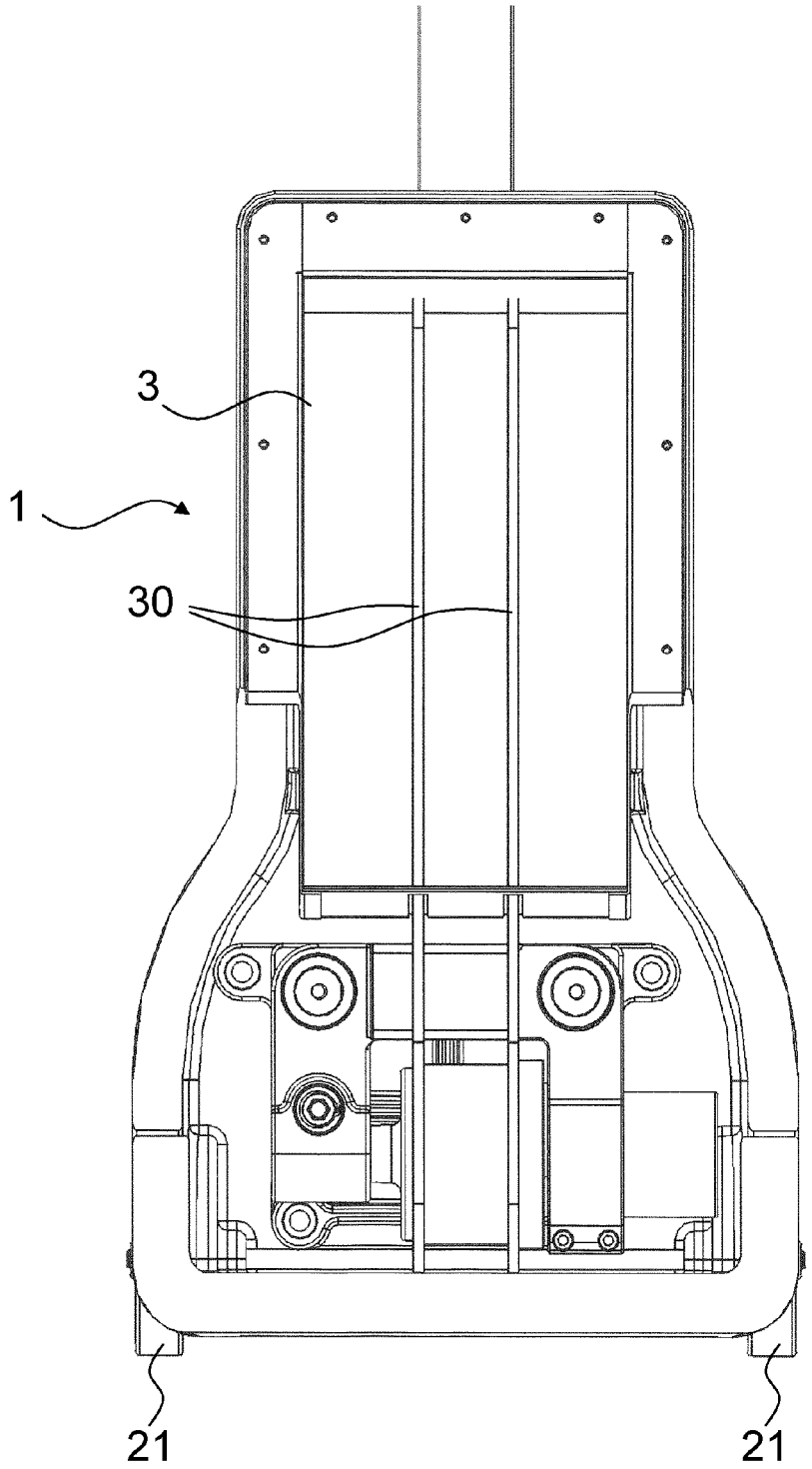

Fig.3

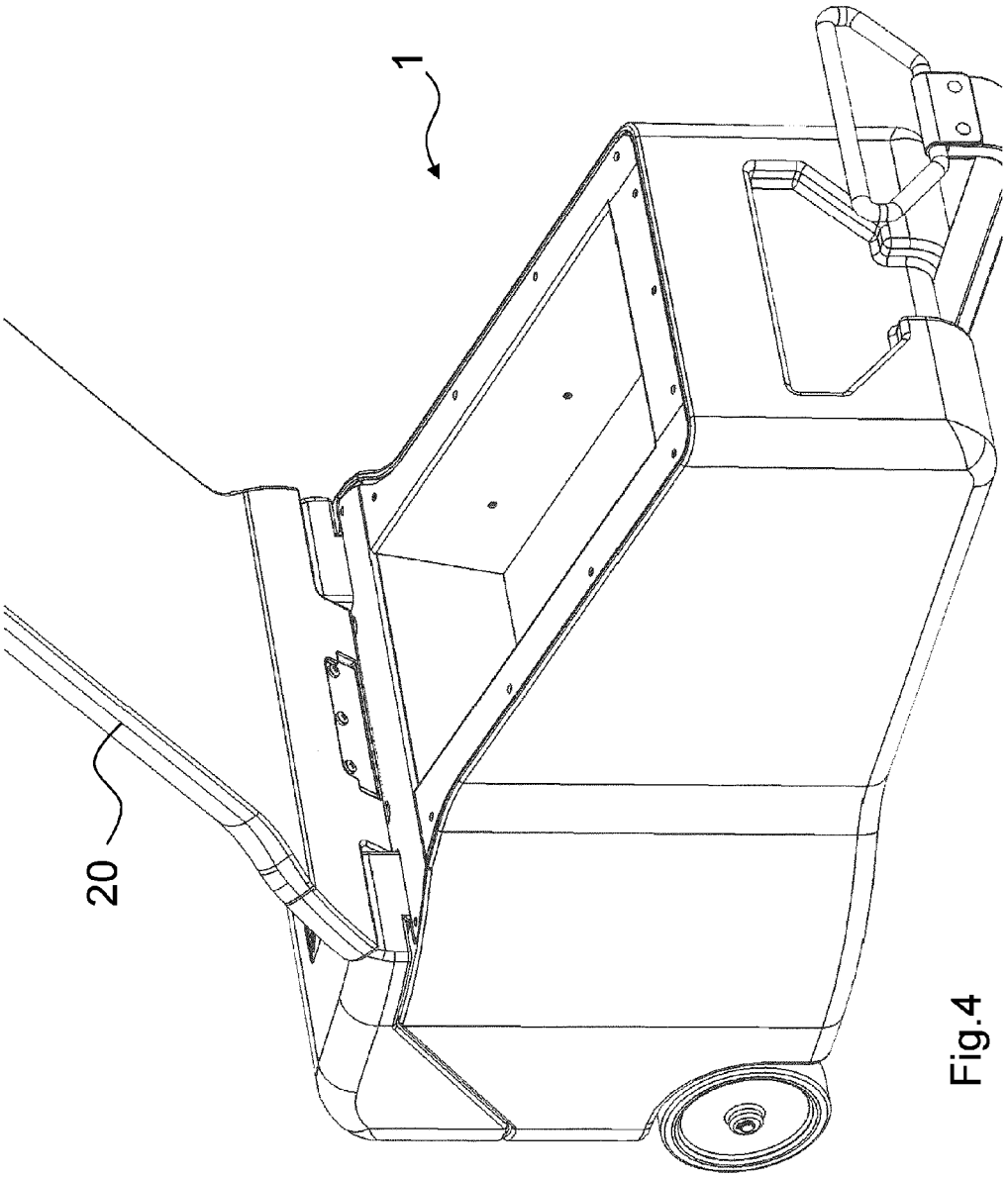

Fig.4

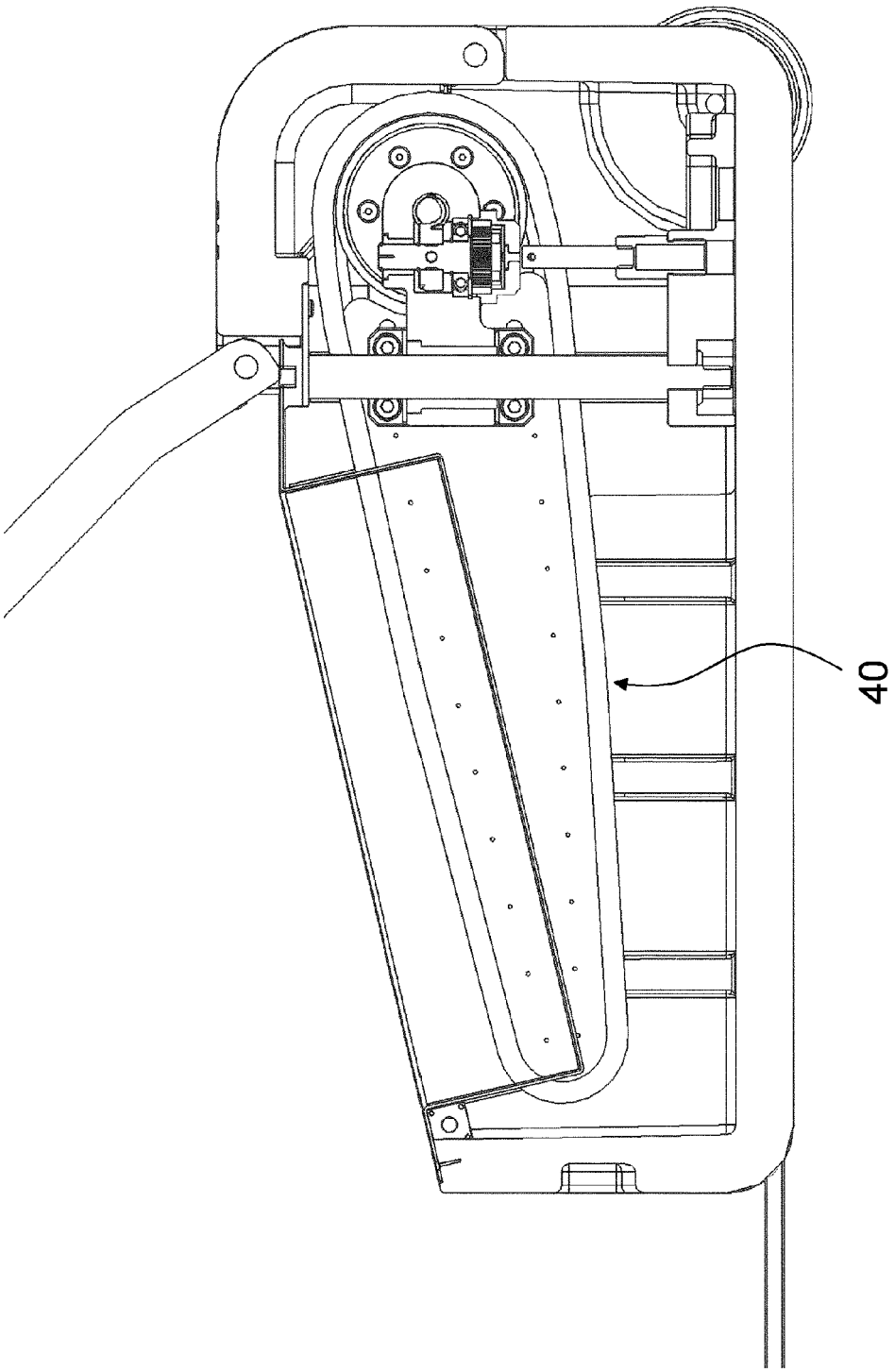

Fig.5

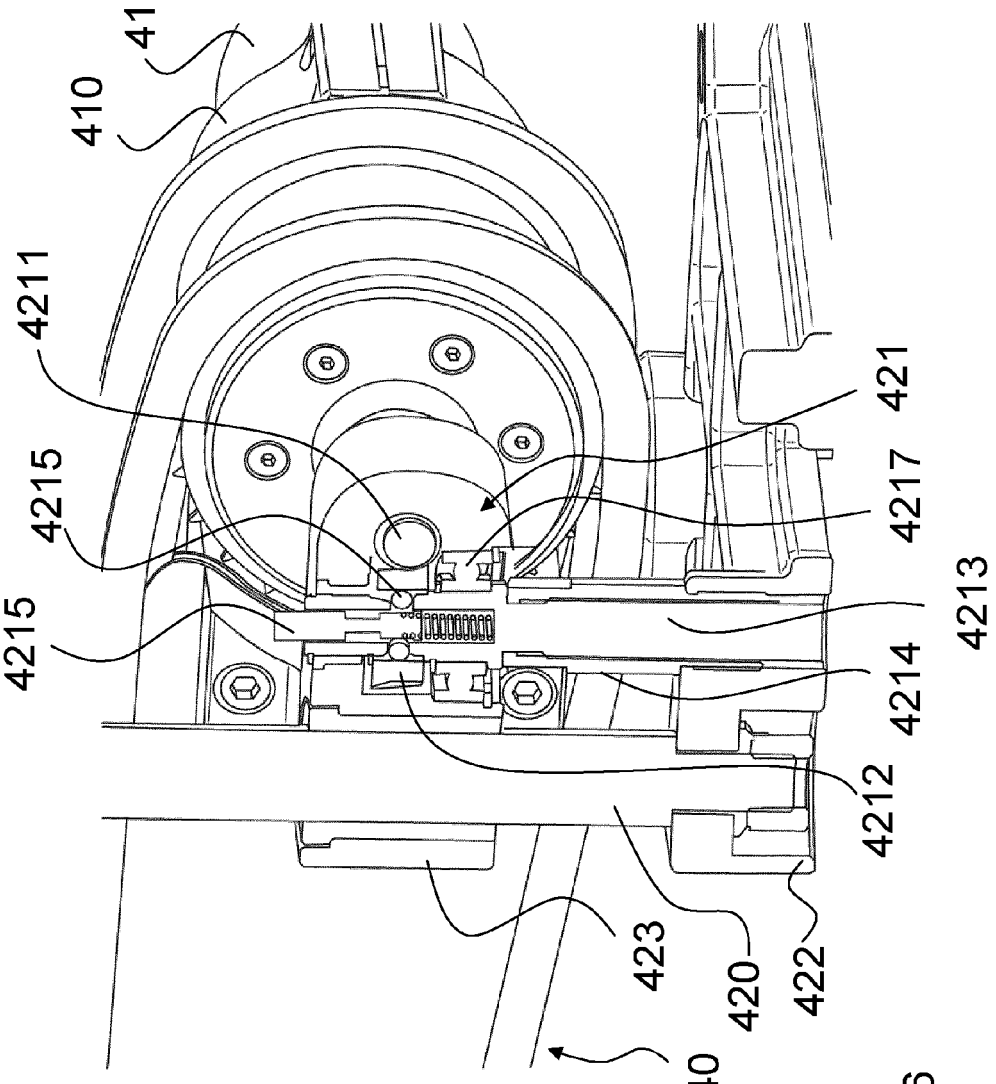

Fig.6

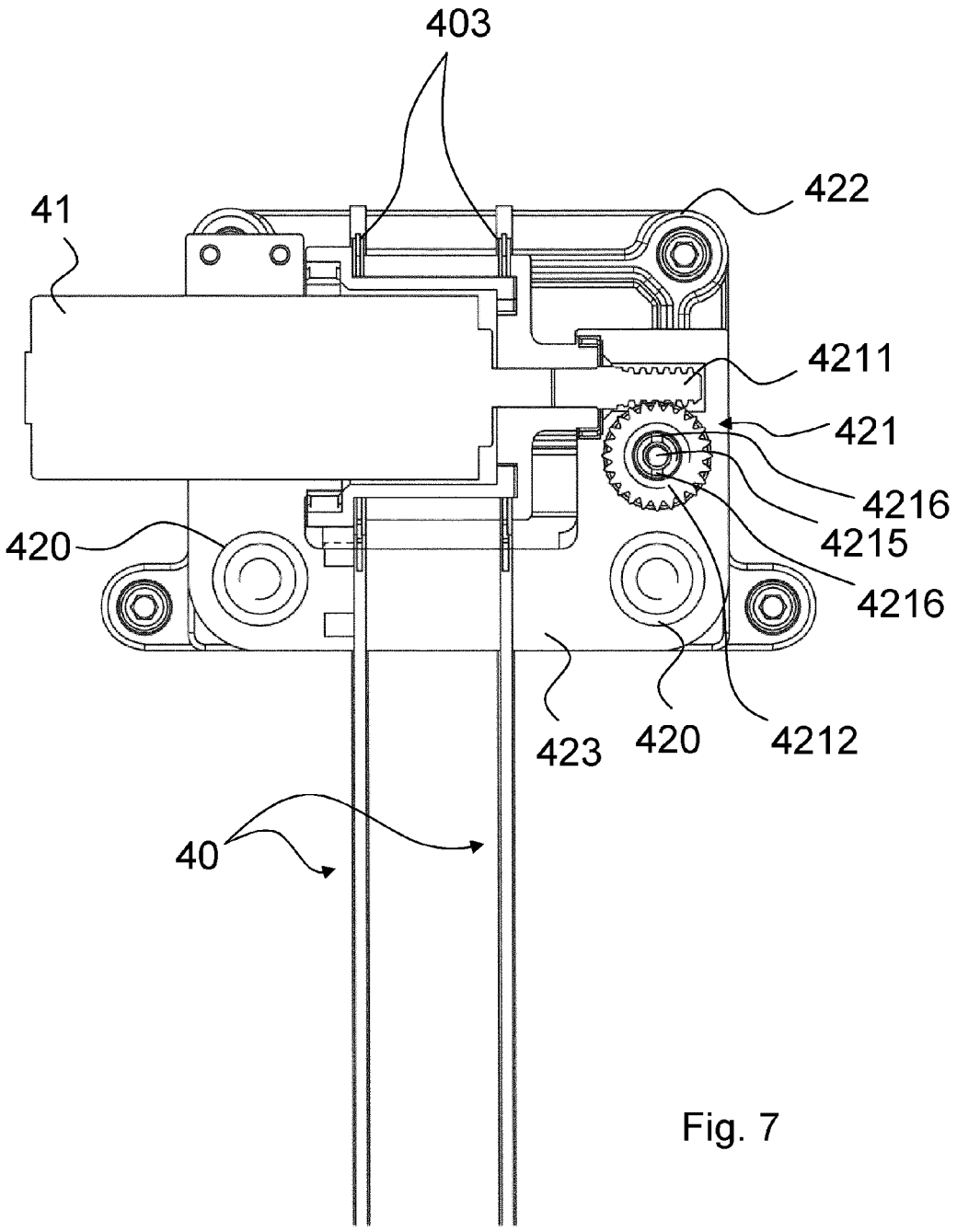

Fig. 7

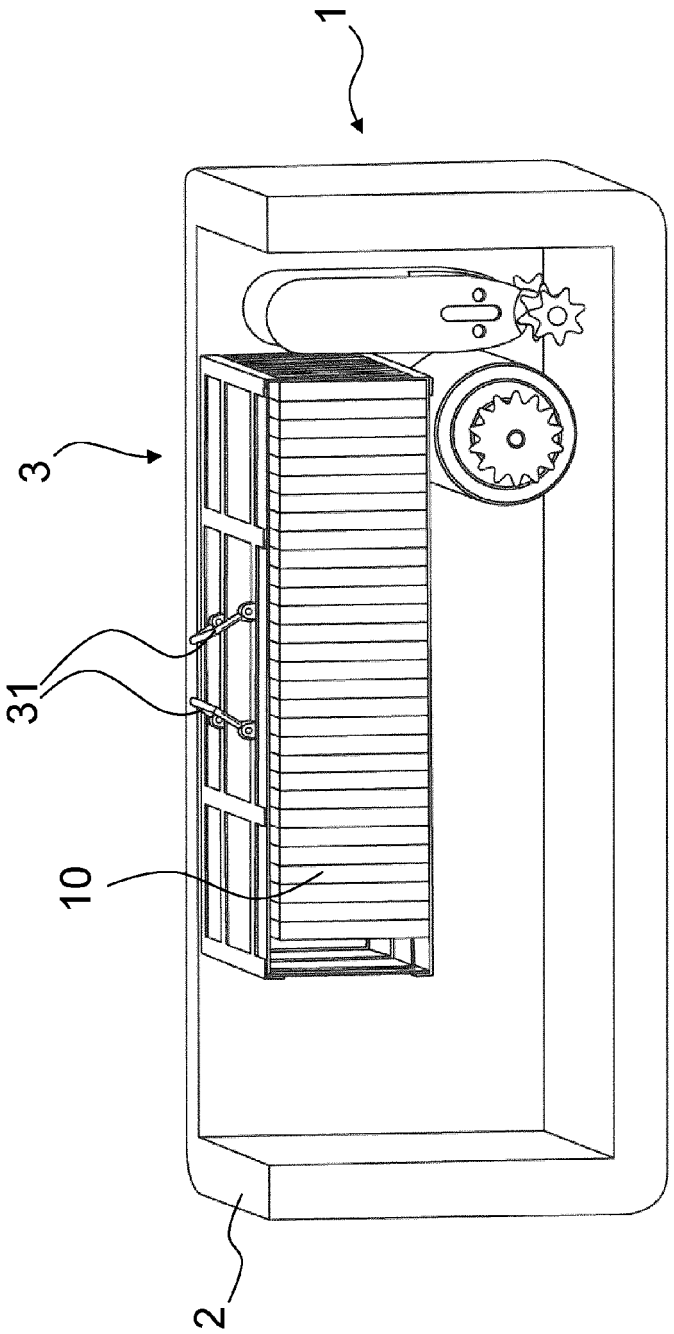

Fig.8

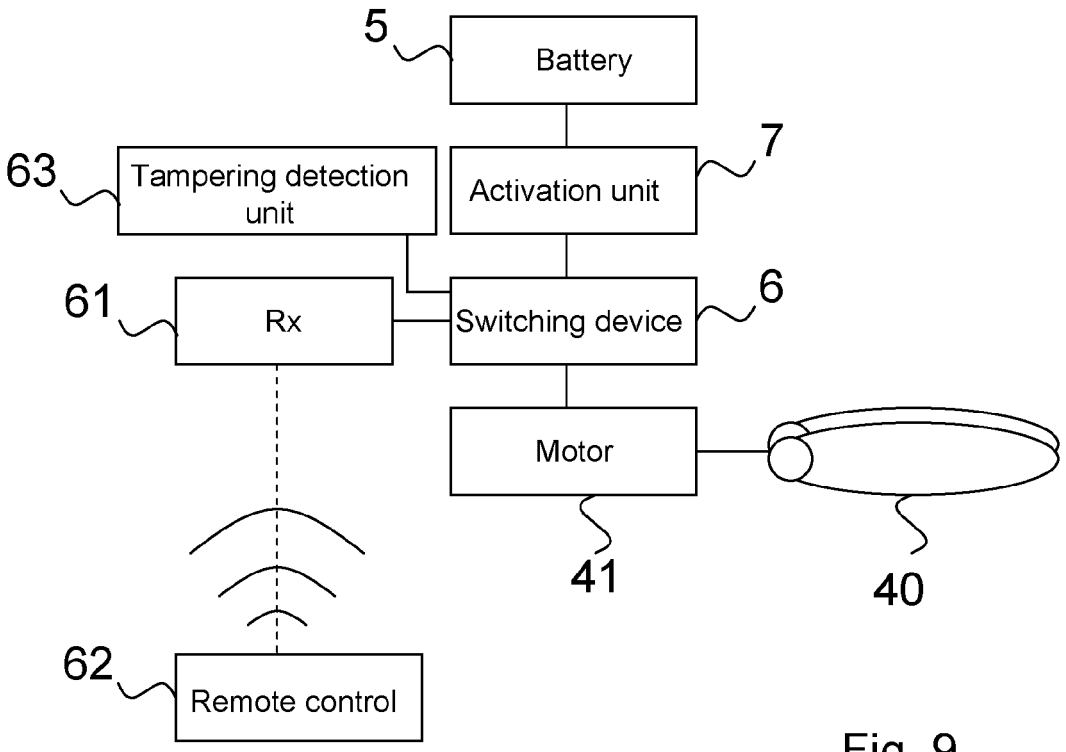
5
Battery
63
Tampering detection unit
Activation unit
7
61
Rx
Switching device
6
Motor
41
40
62
Remote control

Fig. 9

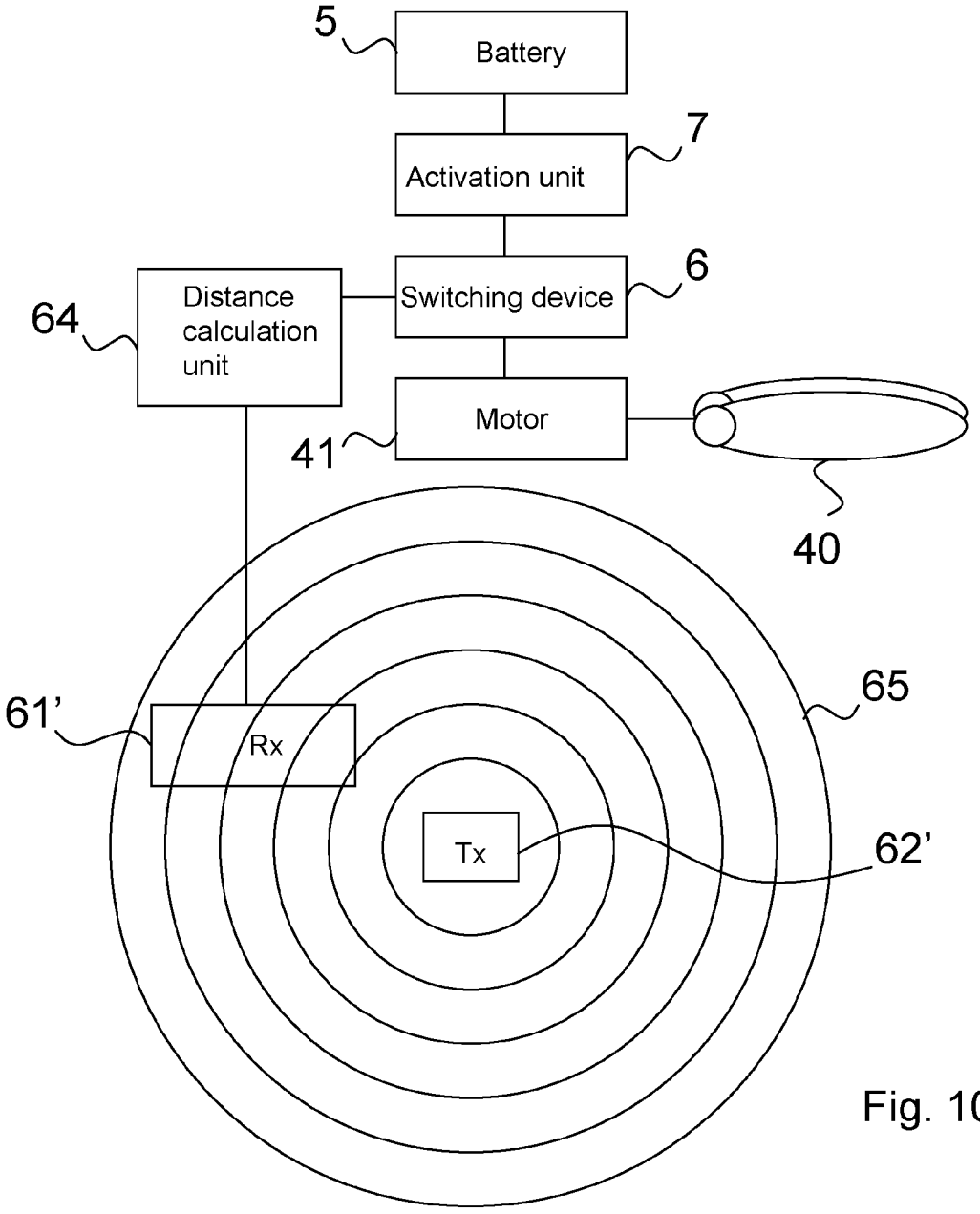
5
Battery
7
Activation unit
6
Switching device
64
Distance calculation unit
41
Motor
40
61'
Rx
65
Tx
62'

Fig. 10

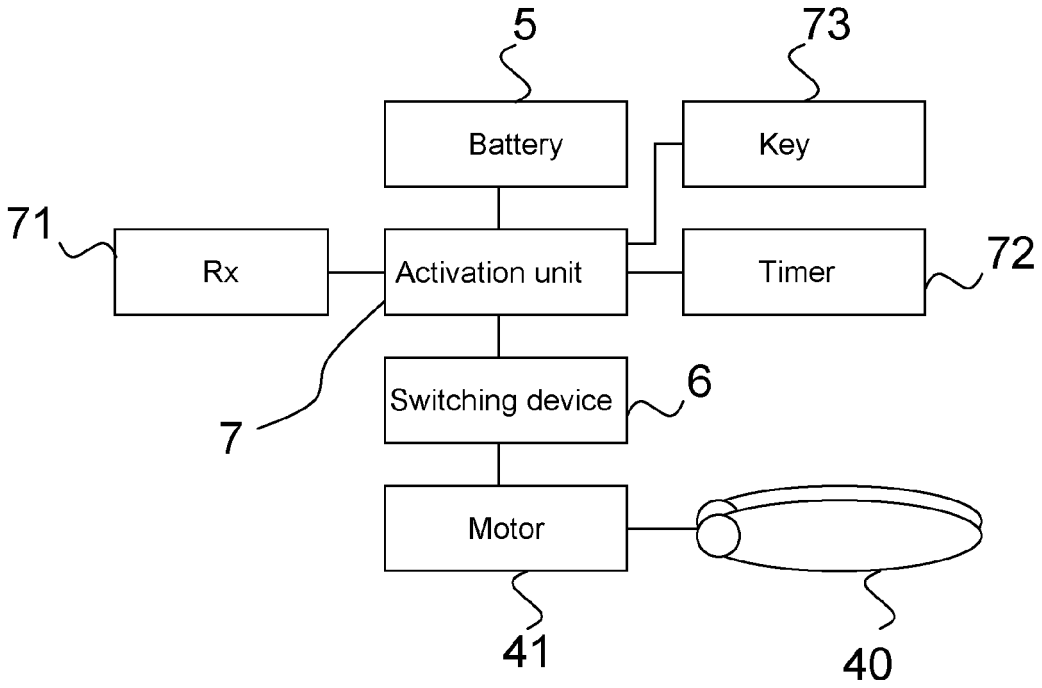
5
73
Battery
Key
71
Rx
Activation unit
Timer
72
7
Switching device
6
Motor
41
40

Fig. 11

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EUROPEAN SEARCH REPORT

Application Number
EP 11 18 9817

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E05F

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	1 February 2012	Klemke, Beate

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01-02-2012

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