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(71) Applicant:
**Servizi Fiduciari-Sefi S.p.A.
20156 Milano (IT)**

(72) Inventor: **Carniel, Massimo
20090 Segrate, (Prov. of Milano) (IT)**

(74) Representative:
**Modiano, Guido, Dr.-Ing. et al
Modiano & Associati SpA
Via Meravigli, 16
20123 Milano (IT)**

(54) **Automatic management terminal, particularly for the valuables-transport service**

(57) A terminal for the automatic management of, in particular, the valuables-transport service, comprising a body (2) for containing a central unit (3) which is connected to a coupling element (5) which can be connected to a valuables-transport container to be checked. The body (2) is associable with a plate (11) which can be fixed to a fixed structure and is provided with at least one element (20,21) for coupling with the body (2) which has means for interrupting the connection between the central unit (3) and the coupling element (5) when the body (2) and the plate (11) are separated.

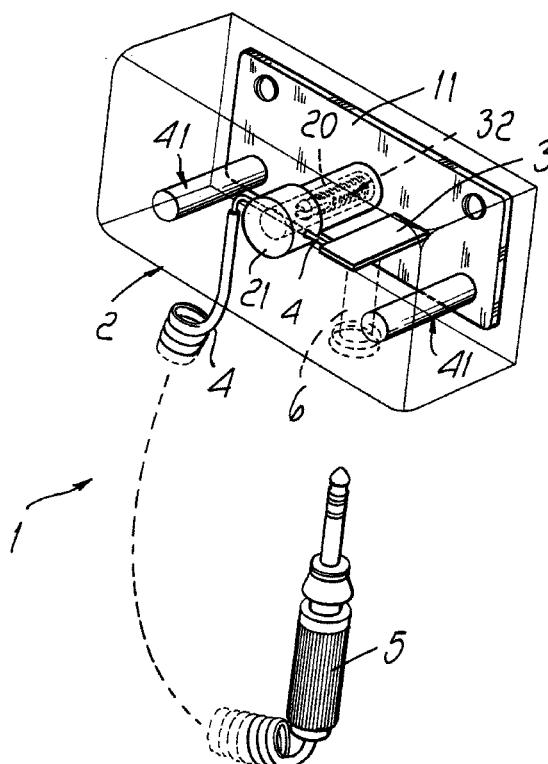


Fig. 1

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Description

[0001] The present invention relates to a terminal for automatic management of, in particular, valuables-transport service.

[0002] It is known that the valuables-transport service currently uses containers or strongboxes which can be opened freely only if an appropriate terminal verifies the required characteristics, such as for example the correct destination of the container.

[0003] The terminals currently in use are generally based on the use of electronic circuits which are subjected to an ordinary power supply, which suffers severe problems at installation time, but most of all are not adequately protected as regards unlawful removal of the terminal, which might allow unauthorized opening of the various containers.

[0004] The aim of the invention is to solve the above problems, by providing a terminal for automatic management of, in particular, the valuables-transport service, which can be stably connected to a fixed structure, does not require a specific electric power supply, and most of all can self-destruct if the terminal is removed unlawfully.

[0005] Within the scope of this aim, an object of the present invention is to provide a smart terminal with variable daily code without a power supply, which is capable of managing a plurality of valuables-transport containers independently with randomly-assigned encrypted codes.

[0006] A further object of the present invention is to provide a terminal which can be installed simply and is also capable of giving the greatest assurances of reliability and safety in use.

[0007] A still further object of the present invention is to provide a terminal which can be easily obtained starting from commonly commercially available elements and materials and is also advantageous from a merely economical point of view.

[0008] This aim, these objects and others which will become apparent hereinafter are achieved by a terminal for automatic management of, in particular, the valuables-transport service, according to the present invention, illustrated only by way of non-limitative example in the accompanying drawings, wherein:

Figure 1 is a schematic perspective view of the terminal, according to the present invention;

Figure 2 is an exploded view of the terminal before wall-mounting;

Figure 3 is a view of the terminal after wall-mounting;

Figure 4 is a schematic sectional view of the terminal after wallmounting;

Figure 5 is a sectional view of the terminal in case of unauthorized removal of the terminal from the fixed structure.

[0009] With reference to the above figures, the terminal for automatic management of, in particular, the valuables-transport service according to the invention, generally designated by the reference numeral 1, comprises a body 2 for containing a central unit 3.

[0010] Advantageously, the body 2 is constituted by a resin casting which embeds the central unit 3, which is advantageously of the smart type with variable daily code, requiring no power supply, and capable of managing thirty-two valuables-transport containers independently, with randomly allocated encrypted codes.

[0011] The central unit 3 is connected, by means of a connecting cable 4, to a coupling element 5 which can be connected to the valuables-transport bag or container that must be connected.

[0012] Advantageously, the body 2 defines internally a seat 6 for the coupling of the coupling element when it is not in use.

[0013] The body 2 defines, on the side that faces the wall, a recess 10 in which it is possible to insert a plate 11 which can be fixed to a fixed structure 12, constituted for example by a reinforced-concrete wall or the like; fixing is achieved by means of conventional metallic expanding screw anchors which rigidly couple the plate 11 to the fixed structure 12.

[0014] The particularity of the invention consists in that at least one element for coupling the body to the plate is provided which is constituted by a central bush 20 accommodated inside a bushing 21 which is embedded in the body 2.

[0015] The bush 20 and the bushing 21 have through holes, designated by the reference numerals 22 and 23 respectively, which can be mutually aligned and internally accommodate the connecting cable 4.

[0016] The bush 20 defines internally complementarily shaped fins 30 which engage fins 31 formed on a pin 32 which protrudes from the plate 11.

[0017] Moreover, lateral pins 40 with corresponding fins, again designated by the reference numeral 31, protrude from the plate 11 and enter lateral bushes 41 which are fixed inside the body 2 and are also provided with complementarily shaped fins which engage the fins 31.

[0018] The bush 20 is initially accommodated inside the bushing 21 and is retained by means of a layer of adhesive material which is interposed between the bottom of the bushing 21 and the axial end of the bush 20 in order to retain the bush 20 in position.

[0019] During installation, the body 2 is fixed to the plate by way of a pressing action which makes the pins 32 and 40 enter the bushes 20 and 41, providing a coupling which cannot be undone due to the engagement between the fins 31 and the complementarily shaped fins 30 formed on the bushes.

[0020] If an unauthorized attempt is made to remove the terminal, as shown in Figure 5, the forcing action that is applied may disengage the body 2 from the plate 11, but in this case the bush 20 remains fixed

to the pin 32, inevitably cutting the cable 4, since the axial sliding of the bush 20 with respect to the bushing 21 has a scissors-like effect in the region of the holes 22 and 23 which, by cutting the cable 4, renders the terminal absolutely unusable.

[0021] Accordingly, thanks to the presence of the tamper-resistant coupling element the removal of the terminal from the wall renders the terminal unusable and accordingly does not allow unauthorized opening of the valuables-transport containers.

[0022] From the above description it is thus evident that the present invention achieves the intended aim and objects, and in particular the fact is stressed that a highly compact terminal is provided which is easy to install and absolutely prevents any tampering.

[0023] The invention thus conceived is susceptible of numerous modifications and variations, all of which are within the scope of the inventive concept.

[0024] All the details may also be replaced with other technically equivalent elements.

[0025] In practice, the materials employed, as well as the contingent shapes and dimensions, may be any according to requirements.

[0026] The disclosures in Italian Patent Application No. MI99A000644 from which this application claims priority are incorporated herein by reference.

[0027] Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly, such reference signs do not have any limiting effect on the interpretation of each element identified by way of example by such reference signs.

Claims

1. A terminal for the automatic management of, in particular, valuables-transport service, characterized in that it comprises a body for containing a central unit which is connected to a coupling element which can be connected to the valuables-transport container to be checked, said body being associable with a plate which can be fixed to a fixed structure and is provided with at least one element for coupling to said body which has means for interrupting the connection between said central unit and said coupling element when said body and said plate are separated.
2. The terminal according to claim 1, characterized in that said body has, on the side that faces said fixed structure, a recess which is suitable to accommodate said plate.
3. The terminal according to claim 1, characterized in that said at least one coupling element comprises a central bush which can be accommodated in a bushing which is embedded in said body, said bush

and said bushing mutually forming said means for interrupting the connection between said central unit and said coupling element.

4. The terminal according to claim 1, characterized in that said connection interrupting means comprise through holes which are provided respectively in said bush and in said bushing and can be mutually aligned for the passage of a cable for connecting said central unit and said coupling element.
5. The terminal according to claim 3, characterized in that said bush defines internally complementarily shaped fins which can be coupled by pressing with fins provided on a pin which is correspondingly provided on said plate.
6. The terminal according to one or more of the preceding claims, characterized in that it comprises lateral pins with corresponding fins which protrude from said plate and can engage lateral bushes which are correspondingly fixed inside said body and are provided with complementarily shaped fins for engagement with said fins.
7. The terminal according to claim 3, characterized in that said bushing is detachably accommodated in said bush with a layer of adhesive material interposed.
8. The terminal according to claim 7, characterized in that said layer of adhesive material is interposed between the bottom of said bushing and the axial end of said bush.
9. The terminal according to claim 4, characterized in that the uncoupling of said body from said plate causes the cutting of said cable.

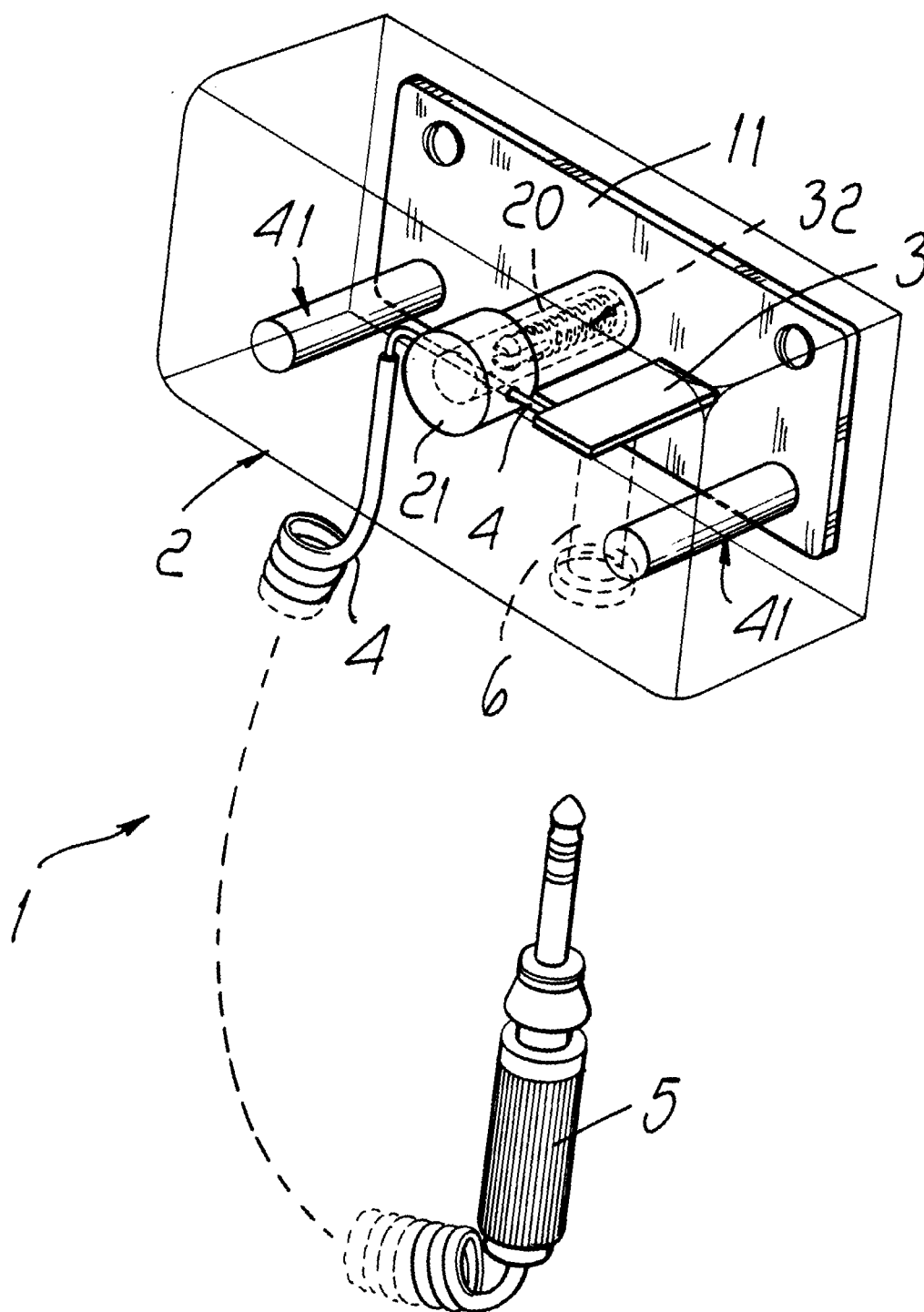


Fig. 1

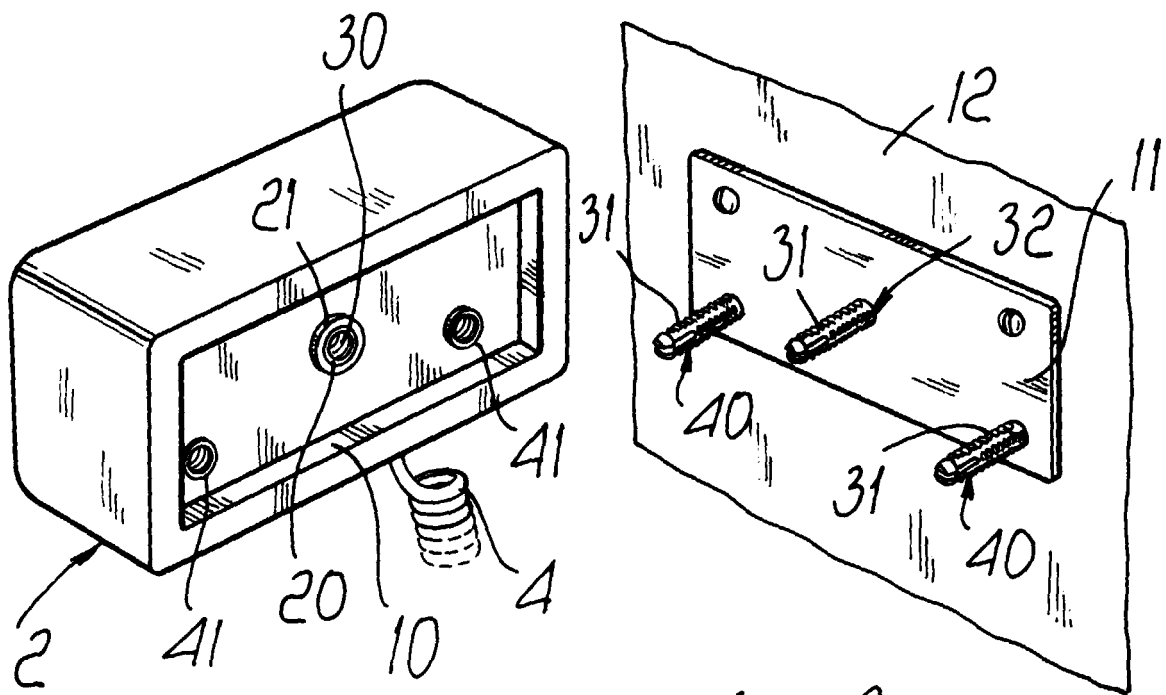


Fig. 2

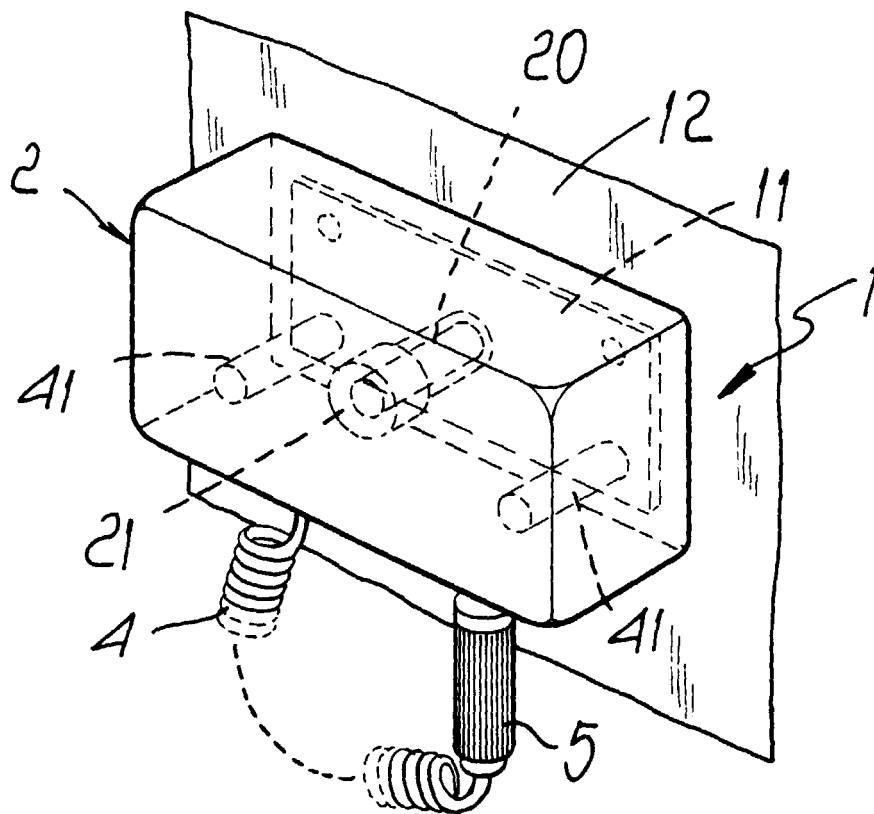


Fig. 3

