

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11)

EP 0 931 900 A1

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:
28.07.1999 Bulletin 1999/30

(51) Int Cl.⁶: **E05G 1/14**

(21) Application number: **99200101.6**

(22) Date of filing: **15.01.1999**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**
Designated Extension States:
AL LT LV MK RO SI

(72) Inventor: **Vyslouzil, Harald**
3110 Rotselaar (BE)

(74) Representative:
van Wermeskerken, Stephanie Christine
Octrooibureau LIOC B.V.,
P.O.Box 13363
3507 LJ Utrecht (NL)

(30) Priority: **15.01.1998 NL 1008033**

(71) Applicant: **IQ.Sec. N.V./S.A.**
1930 Zaventem (BE)

(54) Portable device for securing valuable objects

(57) A portable device for securing valuable objects comprises a closable volume (1) for receiving therein of the objects in addition to security means for permanently divesting the content of the device of its value in the case of undesired handling thereof. An activation of such se-

curity means is normally accompanied by a strong smoke or gas emission. In order to avoid this resulting in a risk of suffocation of persons in the vicinity of the device, the device according to the invention is provided with an accumulation volume (21) capable of adequately collecting the released gases.

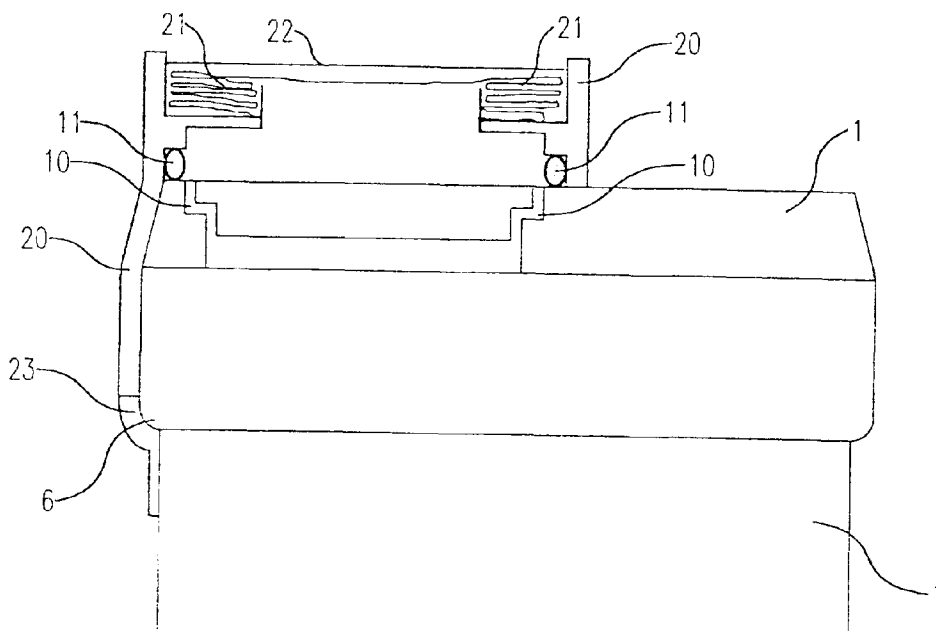


Fig.3

EP 0 931 900 A1

Description

[0001] The present invention relates to a portable device for securing valuable objects, in particular valuable documents such as shares, bonds, banknotes and other securities, comprising a closable compartment for receiving therein of the valuable objects and security means which are capable of acting on the contents of the compartment in the case of an undesired handling of the device in order to permanently damage objects present therein.

[0002] Such a device finds particular application in security transports, with which mainly banknotes or other securities are transported between or to banks, usually in considerable quantities. For protection purposes the transported goods are placed for transport in a device of the type stated in the preamble which can be closed adequately and driven in an armoured vehicle to a bank or other place of destination. In recent years however, such transports have proved to an increasing extent to be the target of hold-ups. The device is here frequently snatched from a money courier and subsequently opened in undisturbed manner by the thief making use of standard tools and assist means. In order to prevent, or at least discourage, such hold-ups the device of the type mentioned in the preamble has relatively sophisticated security means which, in the case of irregular use of the device, act on the content thereof act so as to permanently divest it of its value. This may for instance be a thermal action, whereby the content is wholly or partially burnt, or for instance a chemical action wherein the content is indelibly marked by for instance coloured smoke and is immediately recognizable as originating from a robbery.

[0003] Such security means usually come into operation as soon as the device is handled in an irregular manner, for instance in the case of forced entry to the compartment, but also, as the case arises, if a switch provided on the device for this purpose is activated or, on the contrary, released by the courier in the case of trouble, or when a certain preset period of time has elapsed. Although an effective deterrence for potential thieves is provided herewith and the haul of a robbery is in any case adequately destroyed, use of such security means may in some cases entail risk to the health of the courier himself as a result of smoke and other gases which are usually released in abundance when the security means are activated. Particularly if the robbery takes place in a relatively small, confined space such as a lift or an access sluice, such smoke and waste gases could result in the risk of suffocation of the money courier. The present invention has for its object to prevent, or at least considerably diminish, such an unintended and undesired side-effect of the device.

[0004] To achieve the intended objective a portable device for securing valuable objects according to the present invention has the feature that the device is provided with an accumulation volume intended for the col-

lection of gases released when the security means are activated, that the compartment comprises a defined gas discharge and that at least when the security means are activated the compartment and the accumulation volume are in open communication by means of the gas discharge.

[0005] Apart from the defined gas discharge, the compartment is at least practically gas-tight. Hereby is achieved that gases or smoke gases possibly released as a result of activation of the security means can escape solely via the gas discharge. Because according to the invention the accumulation volume is provided at that position, the escaping gases will be collected therein and are thus prevented from leaving the device. With the device according to the invention an activation of the security means will therefore never result in a health risk for the legitimate courier or guard, even if this person is in a confined space such as a lift or access sluice.

[0006] The accumulation volume is preferably adapted in terms of dimensions to the maximum quantity of gases which can be released when the security means are activated. In order to nevertheless keep the portable device manageable in terms of size, a particular embodiment of the device according to the invention has in this respect the feature that the accumulation volume is expandable. The accumulation volume herein has sufficiently small dimensions as not to, or hardly, affect the portable character of the device but sufficient expansion capacity to nevertheless collect all the gases released when the security means are activated. A further particular embodiment of the device according to the invention herein has the feature that the accumulation volume comprises a folded bag.

[0007] In a preferred embodiment the device according to the invention has the feature that the accumulation volume is accommodated in a separate cassette placed on the compartment at least at the location of the gas discharge. The separate cassette considerably facilitates mounting of an accumulation volume on a device, not only during the initial manufacture but in particular after the security means of a device have been activated. In the latter case only the old filled cassette has to be removed to make way for a new one. The device as such is thereby available again in a short time.

[0008] The invention will now be further elucidated with reference to an embodiment and an associated drawing. In the drawing:

- figure 1 shows a front view of an embodiment of a device according to the invention with a removed accumulation volume;
- figure 2 shows a cut-away view of the device of figure 1 having arranged thereon a cassette with an accumulation volume therein; and
- figure 3 shows partly in cross-section and partly in side view the device of figure 1 with a cassette mounted thereon.

The figures are purely schematic and not drawn to scale. Some dimensions in particular are shown highly exaggerated for the sake of clarity. Corresponding parts are designated as far as possible with the same reference numeral.

[0009] The device of figure 1 comprises a robust case 1 having therein a compartment for receiving valuable objects such as in particular banknotes and other securities. The compartment is accessible by means of a hermetically sealable access door 2. Situated in case 1 are security means such as are described in more detail in an earlier Netherlands patent application filed by applicant, no. 1005597, the content of which is deemed as interpolated herein. Control buttons 3 and a display 4 of a control panel 5 on the outside of case 1 serve for setting into operation and control of these security means.

[0010] The security means will automatically come into operation in the case of irregular use of case 1 and herein act on the content of case 1 such that the transported goods are permanently divested of their value. This may be because transported securities are burned locally, as in the case of the above stated earlier patent application of applicant, or for instance because coloured smoke is discharged over the goods to mark them indelibly as originating from a robbery. In both cases the content of case 1 no longer has any significant value for a potential robber, which may deter him from a robbery.

[0011] In order to prevent the pressure in the case rising unacceptably as a result of the released gases, a defined escape zone is provided along the edge of access door 2 in the form of an escape groove 10 extending all round. Owing to such a (smoke) gas discharge 10 released gases can leave case 1 sufficiently quickly at all times so that the danger of explosion of the case is avoided. However, should such an action take place in a narrow, confined space such as a lift or an access sluice, this could result under some conditions in the risk of suffocation of the courier or guard. In order to prevent this the device according to the invention is provided in this embodiment with a cassette 20, see figures 2 and 3, having therein a suitable accumulation volume 21 which is capable of collecting all the released gases.

[0012] Such a cassette 20 can be snapped in simple manner onto device 1, see figure 2, wherein a sealing ring 11 of natural or non-natural rubber or of another suitable material provides a gas-tight closure. Sealing ring 11 herein lies round the escape groove 10 so that the compartment and accumulation volume 21 are in open mutual communication inside the cassette, at least at the time of an activation of the security means.

[0013] The accumulation volume 21 in cassette 20 comprises a folded bag 21, see figure 3, which has sufficient expansion capacity to enable collection in itself of a maximal quantity of released gases. On an upper side the cassette 20 is covered with a temporary cover 22 which allows itself to be thrown off or torn open without problem by the expanding bag 21. Cassette 20 clamps on one end 23 round a protruding edge 6 of case

1 to ensure an adequate fixing.

[0014] The device according to the invention thus obviates any danger for its surroundings when the security means are activated therein, since both a possible pressure rise therein is prevented and released gases are adequately collected.

[0015] Although the invention has been further elucidated solely with reference to a single embodiment, it will be apparent to all that the invention is in no way limited to the given example. On the contrary, many other variations and embodiments are possible for the average skilled person without requiring him to go beyond the scope of the present invention.

Claims

1. Portable device for securing valuable objects, in particular valuable documents such as shares, bonds, banknotes and other securities, comprising a closable compartment for receiving therein of the valuable objects and security means which are capable of acting on the contents of the compartment in the case of an undesired handling of the device in order to permanently damage objects present therein, **characterized in that** the device is provided with an accumulation volume intended for the collection of gases released when the security means are activated, that the compartment comprises a defined gas discharge and that at least when the security means are activated the compartment and the accumulation volume are in open communication by means of the gas discharge.
2. Portable device as claimed in claim 1, **characterized in that** the accumulation volume is expandable.
3. Portable device as claimed in claim 1 or 2, **characterized in that** the accumulation volume comprises a folded bag.
4. Portable device as claimed in one or more of the foregoing claims, **characterized in that** the accumulation volume is accommodated in a separate cassette placed on the compartment at least at the location of the gas discharge.

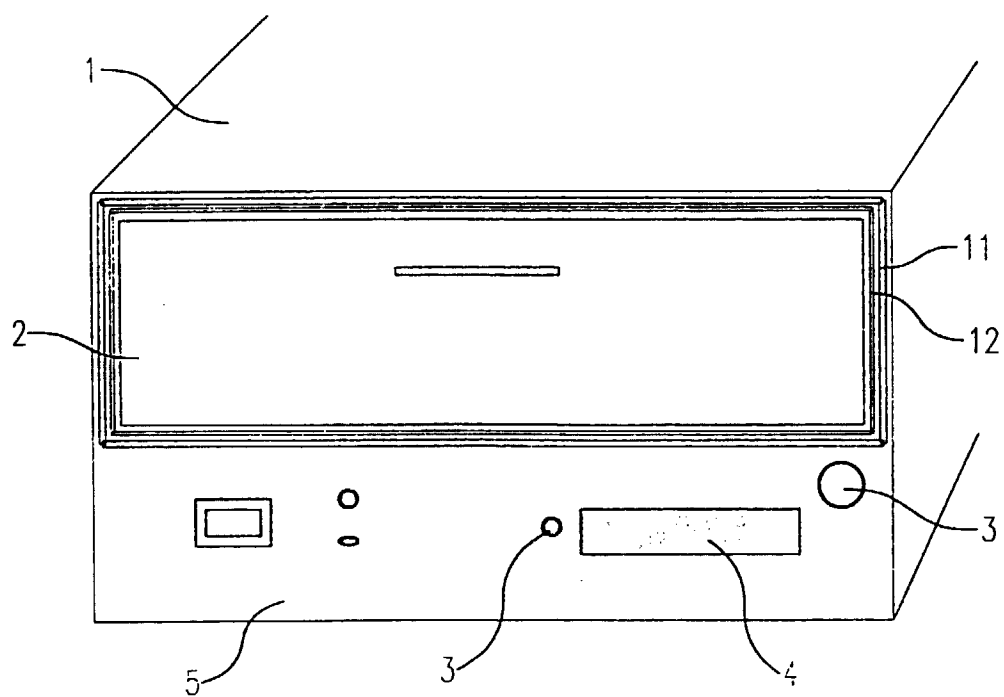


Fig.1

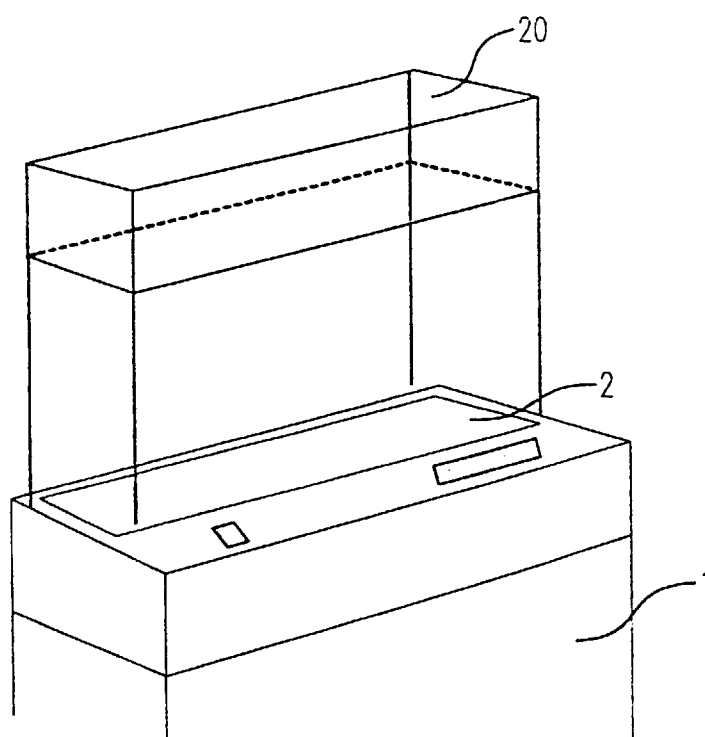


Fig.2

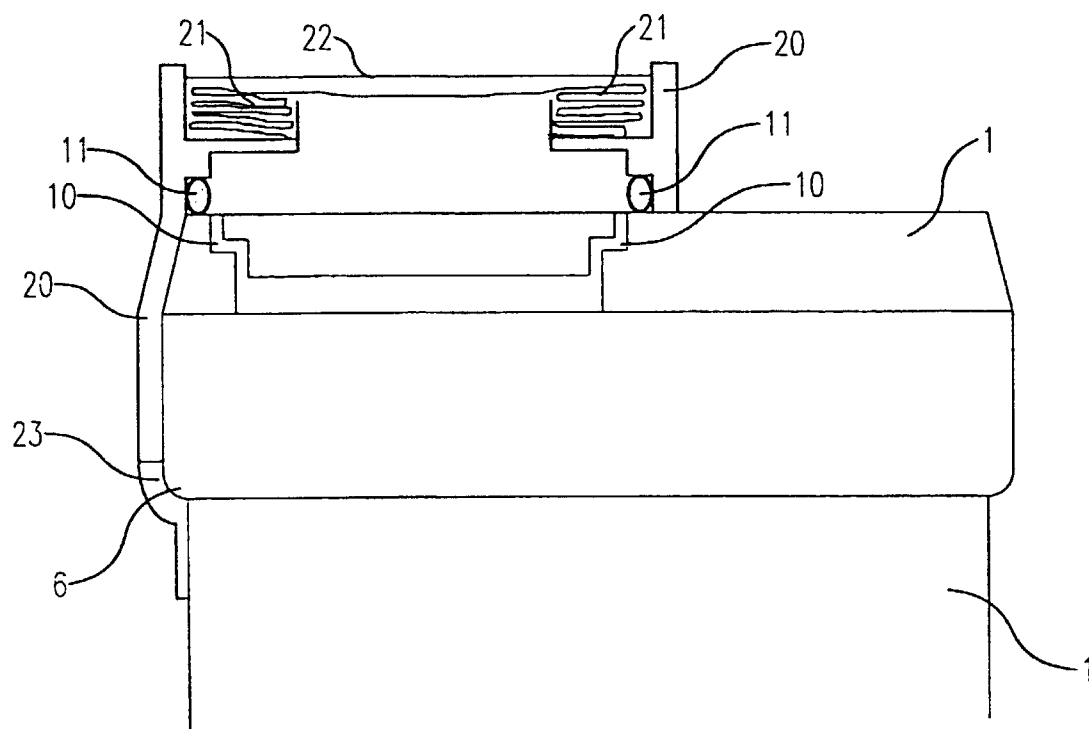


Fig.3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 99 20 0101

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
E	WO 98 10163 A (FN HERSTAL) 12 March 1998 * page 4, line 19 - line 29 * * page 5, line 16 - line 30 * * page 8, paragraph 1 * ---	1,4	E05G1/14
Y	US 4 236 463 A (WESTCOTT) 2 December 1980 * abstract * ---	1	
Y	US 3 650 226 A (CONROY ET AL) 21 March 1972 * column 2, line 15 - line 24 * * column 3, line 22 - line 42 * * column 5, line 3 - line 19; figures * -----	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			E05G A45C
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 19 April 1999	Examiner Van Kessel, J
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03 82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 99 20 0101

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

19-04-1999

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9810163 A	12-03-1998	BE 1010596 A AU 4106797 A	03-11-1998 26-03-1998
US 4236463 A	02-12-1980	NONE	
US 3650226 A	21-03-1972	NONE	