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DEVICE FOR THE SITUATION-DEPENDENT AUTHORISED ADMISSION OR  
ACCESS TO ANY CASING AND PROTECTION OF SAID CASING AGAINST MISUSE  
OF THE CONTENT

**DESCRIPTION**

5 Technical field

[0001] The present invention relates to a device for the situational authorised access to any enclosures and to the protection thereof against the misuse of contents, comprising at least one opening and locking mechanism and at least one locking and unlocking mechanism which can be actuated and/or released by means of the opening and locking  
10 mechanism. In the present case, all devices can be considered an opening and locking mechanism which allow or else prevent actuation and/or release of the locking and unlocking mechanism by using mechanical, electromechanical or other physical principles, for example by means of a matching key or a number combination. Any mechanical, electronic or electromagnetic devices which are suitable for operating the  
15 opening and locking mechanism according to the prior art can be considered as keys. In the following, the term enclosure shall be understood to mean all substantially rigid envelopes which are suitable for protecting contents in a protective manner, such as containers or rooms.

Prior art

20 [0002] It is known that any container can contain devices or objects which, although have to be protected against theft or access in a suitably deterring manner, have to be immediately removable by any person in the event of an emergency or in other situations. [0003] Until now, this conflict has been inadequately resolved since, for example, key systems do not guarantee access by any person and open systems comprising, for  
25 example, mechanical or electromechanical locking mechanisms do not provide protection and a barrier because the container can be restored to its intact outer original state in a non-destructive manner after intrusion, for example after illegal removal or modification of the container contents. As a result, the penalty is also limited under the law. There is no case of aggravated theft since the content of the container does not have any special  
30 protection against removal under the law according to Section 243, Clause 2 of StGB (German penal code). It is also important to note that service access is not inhibited by anti-theft measures.

[0004] FR 2 701 285 B3 discloses a door closing system for situational authorised access, comprising at least one opening and locking mechanism and at least one locking and  
35 unlocking mechanism which can be released and/or actuated by means of the opening

and locking mechanism and which can be actuated for authorised access by means of a key, wherein at least one barrier which can be surmounted by means of at least one manually actuatable mechanical and/or electromechanical shield or cover is provided in the access zone of a locking and unlocking mechanism on the enclosure, wherein indirect  
5 access to the locking and unlocking mechanism is created by the irreversible deformation/destruction of said barrier by means of a rod, and wherein the locking and unlocking mechanism consists of a spring-loaded locking element, displaceably arranged somehow or other, and the barrier consists of at least one breakable glass panel.

[0005] A device of the type in question for situational authorised access is likewise known  
10 from GB 2 205 894 A, wherein a locking and unlocking mechanism is actuated directly by means of a panel which can be broken by striking or pressing in.

[0006] A lock is known from DE 310 919 C, in which a pressure bolt is relieved by shattering a panel, and a blocking bolt is freed from its blocking position.

[0007] A disadvantage of the aforementioned devices is that they have a technically  
15 complicated design and the locking and unlocking mechanism cannot be directly and manually accessed.

Description of the invention

[0008] The aim of the present invention is to provide a device which ensures anyone can  
20 access enclosures, in particular containers, but at the same time provides anti-theft protection with an associated increase in the anti-theft barrier, without restricting service access to the enclosure. Since emergency situations are often the case here, the invention should also be advantageously easy to operate in stressful situations.

[0009] According to the invention, the above aim is solved by the features of claim 1.  
25 Advantageous embodiments of the device according to the invention are specified in the dependent claims.

[0010] According to the invention, the access zone to the locking and unlocking  
mechanism is fully unblocked by means of destroying the barrier, and the barrier is designed such that access to the locking and unlocking mechanism is enabled exclusively *after* the barrier is completely destroyed.

[0011] In a particularly advantageous embodiment of the invention, said barrier consists  
30 of a breakable glass panel, as already used in the case of emergency alarms for extremely simple access protection. After said panel has been broken, once the fragments have fallen into a catching device potentially provided, access to an (alarm) triggering mechanism is possible.

[0012] Non-time-critical access, such as for servicing, can take place, for example, using a key-operated lock, as well as all opening mechanisms, not requiring a barrier, wherein more rigorously protected opening mechanisms (standard mechanisms) are employed here against misuse. Advantageously, both types of access are to the same (or  
5 interconnected) locking and unlocking mechanism.

Brief description of the drawings

[0013] Further aims, features, advantages and possible applications of the device according to the invention arise from the following description of an exemplary embodiment with reference to the drawings.

10 [0014] Brief description of the drawings

[0015] Figure 1 shows a perspective view of the device according to the invention on an enclosure door 30.

[0016] Figure 2 shows a rear view of the device as in figure 1;

[0017] Figure 3 shows a perspective detailed view of the device as represented in figures  
15 1 and 2.

[0018] Figure 4 shows a side view of the device.

Performance of the invention

[0019] Figure 1 shows a perspective view of a particularly preferred embodiment of the device according to the invention on a foldable or tiltable enclosure door 30. In this  
20 embodiment, the locking and unlocking mechanism 2 consists of a locking element 2 which is arranged displaceably on a base plate 5 of the device provided on the rear side of the enclosure door 30 and which in the locked state projects beyond the enclosure door 30 and is held in this position by means of the springs 4. The enclosure door 30 is understood to mean any device that covers the enclosure, and door does not necessarily  
25 have to be arranged in an articulated manner and can, in the extreme case, also replace the enclosure.

[0020] The locking element 2 is actuated, in the case of authorised access, by the opening and locking mechanism 1 by means of a conventional key 1a. For this purpose, as can be seen from figures 2 and 3, recesses 2b, 2c, extending transversely and longitudinally,  
30 are provided in the locking element 2, into which a pin 1b provided on the rear side of the opening and locking mechanism 1 engages.

[0021] By means of turning the opening and locking mechanism 1 (anti-clockwise or clockwise), either the locking element 2 is closed by spring force (pin 1b in the longitudinally extending recess 2b) or pressed downwards counter to the spring force (pin

1b in the transversely extending recess 2c) and thus unlocks the locking and unlocking mechanism 2.

[0022] In the case of unauthorised access, the locking element 2 is unlocked after the barrier 3 has been destroyed by manually pulling or pressing the displaceable locking element 2, for example, on a grip element or the like provided on the locking element 2.

[0023] In the embodiment of the device according to the invention shown in figures 3 and 4, the opening and locking mechanism 1 and the locking element 2 are arranged on the device in such a manner that both during manual unlocking by pulling or pressing and during authorised unlocking of the displaceable locking element 2 by means of the opening and locking mechanism 1, the locking element 2 is displaced axially in one direction.

[0024] The exclusively axial displacement of the locking element 2 allows the device to be designed in a particularly flat manner. This is of fundamental and practical importance since a flat device thus also allows a particularly flat enclosure and therefore does not pose an obstruction when arranged in the region of escape routes, etc. The flatter the design of the device, the more advantageous this, therefore, is in respect of its arrangement and accessibility in critical, in particular narrow, access and escape zones.

[0025] The device further consists substantially of a flat locking element (2) as well as a flat base plate (5), wherein the locking element (2) is guided in a displaceable manner parallel to the base plate (5). Likewise, as shown in figure 4, the barrier 3 is arranged flat on the device and substantially parallel to the base plate 5 and to the locking element 2.

[0026] In the case of unauthorised access, the pin 1b in this embodiment — as shown in figure 3 — is in a position which is longitudinally or axially displaceable in the recess 2b so that the opening and locking mechanism 1 is not actuated by manual actuation of the locking element 2.

[0027] The special feature of this device consists, in particular, in that both in the case of access by manually breaking through the barrier 3 and access by means of the opening and locking mechanism 1, the locking element 2 is actuated such that it is not necessary to use separate locking and unlocking mechanisms in the process. This device is thus designed in a technically simple and cost-effective manner.

[0028] In an embodiment according to the invention, the barrier 3 is designed such that access to the locking and unlocking mechanism 2 or to the locking element 2 is made possible exclusively after the barrier 3 is fully destroyed, wherein the access zone 6 to the locking and unlocking mechanism 2 or to the locking element 2 is fully unblocked in this manner by destroying the barrier.

[0029] This also ensures that, if the barrier 3, preferably a panel, is destroyed for subsequent theft (improper removal) of an object, this constitutes burglary in certain countries and with certain insurance companies (here: breaking open a container in a room of a building). By definition, this would generally not be the case if a barrier 3 or a seal, designed in some manner for this purpose (e.g. groove, tear-off edge, break edge, break point, break-off edge, etc.), is pressed in (strictly speaking, there would be no breaking open). Because of the breaking of a panel in the form of a barrier 3, not specially prepared for this, the design is thus particularly advantageous with respect to classification with insurance companies in protecting against burglary. This advantage leads to clearer availability and thus to greater access frequency and an associated greater efficiency for emergency situations.

[0030] In the particularly preferred embodiment, advantage is also taken of a natural psychological barrier. Since a barrier 3 has to be destroyed to access the locking element 2, which is associated with a risk of injury to the user (injury from glass splinters, etc.), it can naturally be assumed that the barrier 3 will be surmounted by the user predominantly for intended purposes in which usage outweighs the risk of injury (e.g. by obtaining an article for use in an acute emergency situation such as, for example, a mobile medical device, a rescue means, a means for mitigating hazards). In addition, the user, when destroying a barrier 3 not specially prepared for this, as in the case of the particularly advantageous embodiment of glass, has to take into account the noise produced, which will catch other people's attention and thus increase the risk of discovery (noise of glass breaking is associated with cases of burglary, vandalism, accidents etc.) This acts as an additional barrier for a user intending improper use. In the case of a prepared barrier 3, such as a glass having a break point, the user does not expect such a noise to be produced. As a result of these properties of the device, the owner of the object to be kept as openly accessible as possible for emergency use is encouraged to place the object in a more ideal manner for access in the event of an emergency (and not to place it as securely and monitored as possible) and thus to significantly increase efficiency (e.g. survival rate, damage limitation).

[0031] In the particularly preferred embodiment, advantage is also taken of the fact that pulling on a lever / bolt in an emergency (e.g. emergency stop on a train, opening of emergency doors, etc.) and overcoming a barrier 3, such as glass in this case, is already very common for other emergency purposes, such as alarm options (e.g. fire alarm), and the combination leads to greater acceptance and to intuitive use in the event of an

emergency. Since time usually plays a decisive factor in an emergency situation, the invention can be considered particularly efficient and advantageous.

[0032] As can be seen from figures 3 and 4, the locking element 2 has a deformation 2d below the opening and locking mechanism 1 such that the locking element 2 at least  
5 protrudes from the base plate 5 at the point suitable for access. This design makes it possible for the user to grasp the locking element 2 more easily.

[0033] As shown in figure 1, the locking element 2 has a further recess 2a in the access zone 6, by means of which recess the locking element 2 can be manually pressed down, for example using one's fingers.

10 [0034] In a further preferred embodiment of the invention, the locking and unlocking device 2 simultaneously functions as a fastening device of the enclosure door 30. The unlocking/locking device 2 is arranged on the enclosure, for example, in such a manner that unlocking of the opening and locking mechanism 1 results in the enclosure door 30 being able to be removed from the enclosure.

15 [0035] An additional moral, de facto and legal barrier is created by a cover 3 of the opening and locking mechanism 1, in the form of a barrier 3, advantageously a break glass panel 3. The moral barrier lies in the fact that it has the same design used by emergency signal arms for protection. The de facto barrier lies in the fact that the material (in this case glass) has to be destroyed. This not only requires force but also caution, and  
20 also produces an acoustic signal of shattering for third persons to hear, which can also be supplemented with further signals of any type in the opening and locking mechanism 1 itself or in the enclosure opening. The legal barrier proceeds from Section 243 of StGB (German penal code). Furthermore, many insurance contracts in Germany include protection for such theft.

25 Example of application

[0036] Emergency devices, such as a fire extinguisher, for example, must be accessible to a first responder at any time and within seconds. At the same time, this emergency device has a high market value, which is why there is the risk of it being taken within seconds, but this would only be considered theft under Section 242 of StGB (German  
30 penal code) in the case of a simple weather-proof storage solution. By using the device according to the invention on a container suitable for storing an emergency device, unauthorised taking of emergency devices is substantially avoided because of said barrier.

[0037] The device according to the invention is not restricted in its design to the preferred embodiments specified above. Rather, a plurality of embodiments within the scope of the

invention defined by the patent claims are conceivable which make use of the disclosed solution even with a fundamentally different design.

List of reference symbols

- 1        Opening and locking mechanism
- 5    1a     Key
- 1b     Pin on 1
- 2        Locking and unlocking mechanism / locking element
- 2a     Additional recess on 2
- 2b; 2c   Recesses on 2
- 10   2d     Deformation on 2a
- 3        Barrier (glass panel)
- 4        Springs
- 5        Base plate of the device
- 6        Access zone
- 15   30     Enclosure door

**Anordning til situationsbetinget autoriseret adgang eller tilgang til vilkårlige huse  
samt deres beskyttelse mod misbrug af indholdet**

**PATENTKRAV**

1. Anordning til situationsbetinget autoriseret adgang eller tilgang til vilkårlige huse  
5 samt beskyttelse af disse mod misbrug af indholdet, hvilken anordning har mindst én  
åbnings-/lukningsmekanisme (1) samt mindst en af-/oplåsning (2), som kan låses op  
og/eller betjenes ved hjælp af åbnings-/lukningsmekanismen (1), der kan betjenes  
for autoriseret tilgang/adgang via åbnings-/lukningsmekanismen (1) ved hjælp af en  
10 nøgle (1a), hvor der i tilgangsområdet (6) for en eller flere af-/oplåsninger (2) på  
huset er tilvejebragt mindst én barriere (3), som kan overvindes ved hjælp af mindst  
én manuelt aktiverbar mekanisk og/eller elektromekanisk afskærmning eller  
afdækning, og gennem hvis irreversible deformation/ødelæggelse der skaffes tilgang  
til i hvert tilfælde én af-/oplåsning (2), som består af mindst én indslagbar - fortrinsvis  
15 transparent - rude, hvor barrieren (3) er dannet på en sådan måde, at tilgang til af-  
/oplåsningen (2) kun er mulig efter en fuldstændig ødelæggelse af barrieren (3), hvor  
tilgangsområdet (6) til af-/oplåsningen (2) frigives fuldstændigt gennem ødelæggelse  
af barrieren (3), og hvor af-/oplåsningen (2) består af et fjederbelastet og forskydeligt  
anbragt låseelement (2), som låses op efter ødelæggelse af barrieren (3) via manuel  
20 trækning eller trykning af låseelementet (2), hvor låseelement (2) har en deformation  
(2d) og/eller en udsparring (2a) på en sådan måde, at låseelementet nemt kan gribe  
ind i tilgangsområdet (6), hvor der i låseelementet (2) er tilvejebragt udsparringer til  
kraftoverførslen og hvor ved drejning af åbnings-/lukningsmekanismen (1)  
låseelementet (2) enten frigives eller trykkes mod enhver form for lukkende kraft,  
25 kendetegnet ved, at en på bagsiden af åbnings-/lukningsmekanismen (1)  
tilvejebragte tap (1b) griber ind i udsparringerne (2b, 2c), og hvor ved ikke-autoriseret  
adgang tappene (1b) befinder sig i en i udsparringen (2b) langsgående eller aksialt  
forskydelig position, således at åbnings-/lukningsmekanismen (1) ikke aktiveres via  
den manuelle betjening af låseelementet (2).
2. Anordning ifølge patentkrav 1,  
30 kendetegnet ved,  
at op-/aflåsningen (2) samtidigt fungerer som fastgørelse.
3. Anordning ifølge et af patentkravene 1 eller 2,  
kendetegnet ved,  
at åbnings-/lukkemekanismen (1) og låseelementet (2) er anbragt på anordningen  
35 på en sådan måde, at låseelementet (2) forskydes aksialt i en retning både ved

manuel oplåsning via trækning eller trykning og også ved autoriseret oplåsning af det forskydelige låseelement (2) ved hjælp af åbnings-/låsemekanismen (1).

4. Anordning ifølge et eller flere af de foregående krav 1 til 3,  
kendetegnet ved.
- 5 at anordningen i alt væsentligt består af et fladt formet låseelement (2) og en fladt formet grundplade (5), hvor låseelementet (2) er ført parallelt forskydeligt med grundpladen (5).
5. Anordning ifølge krav 4,  
kendetegnet ved.
- 10 at barrieren (3) er dannet fladt på anordningen og er anbragt i alt væsentligt parallelt med grundpladen (5) og med låseelementet (2).

Fig. 1

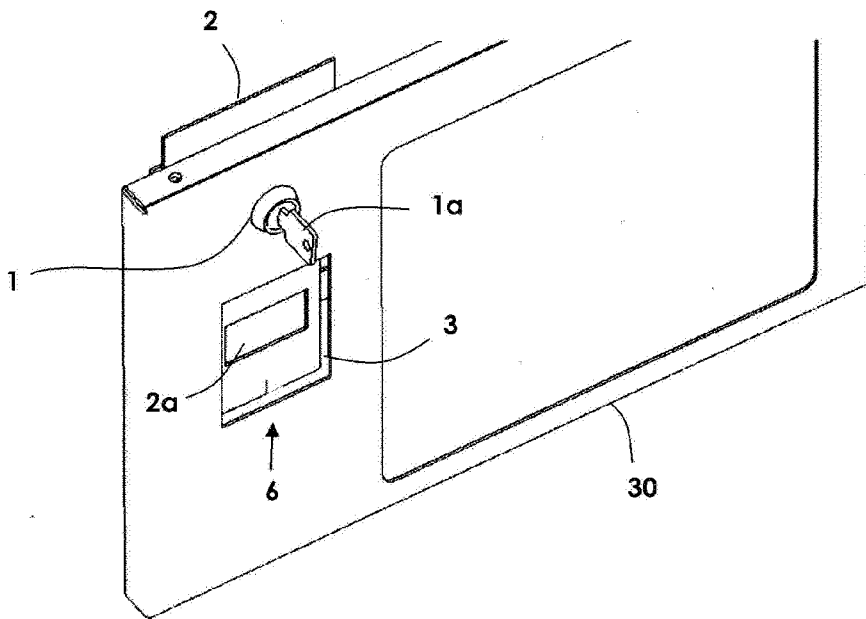


Fig. 2

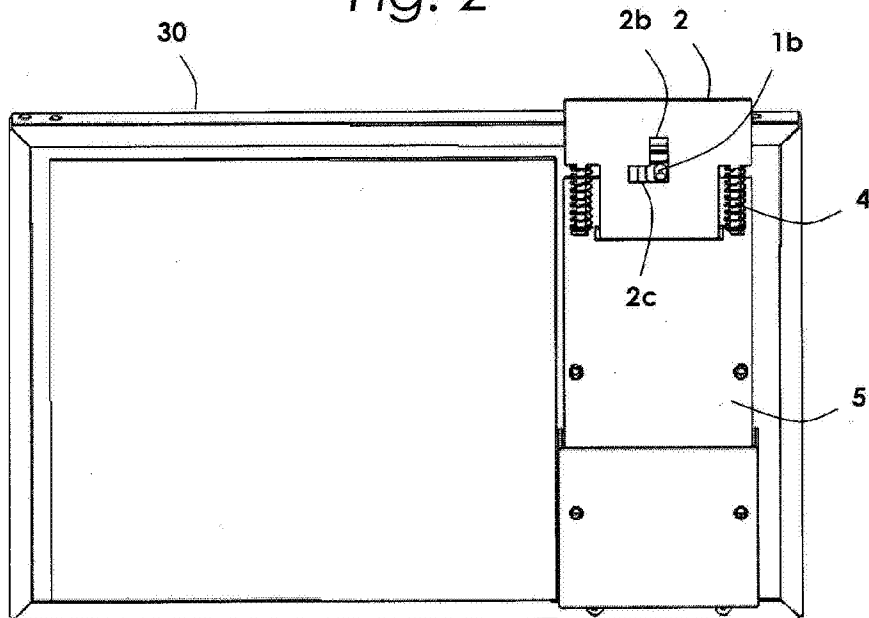


Fig. 3

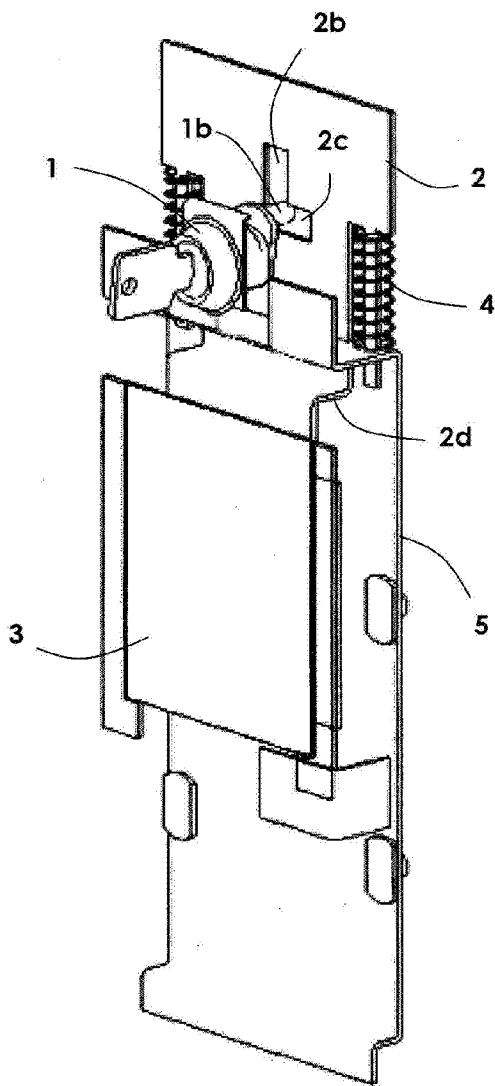


Fig. 4

