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(54) SECURITY BAGS

SICHERHEITSBEUTEL

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Description

FIELD OF THE INVENTION

[0001] The invention pertains to security bags. In particular, the invention relates to a tamper evident bag and a tamper evident kit.

BACKGROUND OF THE INVENTION

[0002] Transporting valuable goods, including banknotes, confidential documents or even jewellery, from one destination to another, is a process which is often wrought with criminal activity. One such threat is observed during the transportation of cash from businesses to banks. Businesses hire security companies specialized in such transportation in order to ensure the safety of their cash. However, the value of cash inserted into a security bag does not always correlate with the value of cash received by the bank. In such cases, it becomes prudent to identify individuals who gained access to the content of the security bag. In many cases, chain of custody documentation is insufficient. Thus, it is necessary to identify suspects by identifying at which stage the security bag was tampered with, especially by means of visible tamper evidence.

[0003] Security bags are durable bags utilized to store and transport highly valuable goods or confidential documents. Security bags are designed to provide two forms of protection: tamper resistance and tamper evidence. Tamper resistance aims to provide a security bag which resists unauthorized entry by constructing the security bag so that it is difficult to open. Tamper evident security bags, on the other hand, provide protection in terms of indicating to an observer when the bag has had unauthorized entry. It should be noted that tamper proof security bags are implausible. Hence, a combination of tamper resistance and tamper evidence features presents the best possible deterrent for criminals.

[0004] Various security bags with associated securing devices have been described. Such devices are often secured by specialized adhesive tapes. However, such adhesive tapes have the disadvantage of not sufficiently indicating whether or not tampering has occurred at the sealed end of the security bag. Moreover, these security bags are expensive to manufacture and require intense concentration or attention in order to obtain an effective seal and later, to establish whether or not tampering has occurred. A tamper evident bag in accordance with the preamble of claim 1 is disclosed by GB 2 403 207 A.

[0005] The inventor is aware of such security bags and sealing devices, as well as their respective advantages and disadvantages. The invention aims to provide an improved alternative to existing security bags and devices, by providing a fully tamper evident, sealable security bag.

SUMMARY OF THE INVENTION

[0006] According to a first aspect of the invention, there is provided a tamper evident bag as specified in more detail in claim 1 which includes

a security bag having at least one opening, the security bag being provided with a bag indicator; and a seal, for securely closing the at least one opening of the security bag, the seal being provided with a seal indicator which is associated with the bag indicator, such that unauthorized access to the security bag is evident when the seal has been tampered with.

[0007] The bag indicator and seal indicator are in the form of visual indicators.

[0008] The association between the bag visual indicator and the seal visual indicator may be that the visual indicators are identical to each other, related to each other, associated with each other or the like.

[0009] The bag visual indicator and seal visual indicator may include any one or more of: a numerical code, an alphabetical code, a bar code, a colour code, a sequence, a hologram, an image, a symbol, a watermark, a pattern, a geometrical design, a shape, an optical diffraction or the like.

[0010] The bag visual indicator and seal visual indicator may be constructed from any one or more of laser printing, ink-jet printing, thermal transfer printing, impact ribbon printing, embossing, etching, lithography, flexography, screen-printing, gravure printing, hot stamping, magnetic printing, coded printing or the like.

[0011] The bag visual indicator and seal visual indicator may be visible under any one or more of the naked eye, infrared light, ultraviolet light or the like.

[0012] The security bag may be in the form of a rectangular body, shaped and dimensioned to accommodate various objects. The security bag may be in the form of an envelope, packet, messenger bag, courier bag or the like. The security bag may be disposable or non-disposable.

[0013] The at least one opening of the security bag may be elongated and may be in the form of a slit, window opening, aperture or the like, the at least one opening allowing the insertion of various objects into the security bag.

[0014] The security bag may be manufactured by any one or more of: vacuum forming, 3D printing, side welding, single or multiple extrusion, blown film extrusion or the like. In a preferred embodiment, the security bag may be co-extruded from two materials, each selected for properties of durability, colour, tear resistance, cut resistance or the like.

[0015] The security bag may be manufactured from any suitable material or combination of materials, such that the security bag includes properties of durability, tear resistance, cut resistance or the like. Suitable materials

include plastic, fabric, biodegradable materials or the like. The security bag may be manufactured to any appropriate thickness.

[0016] The bag visual indicator may include one or more of an external bag visual indicator, an internal bag visual indicator or the like. The internal bag visual indicator may be located inside the security bag and may be associated with the external bag visual indicator. In a preferred embodiment, the external bag visual indicator may be in the form of a plurality of external bag visual indicators. In this embodiment, the security bag may include an external bag visual indicator on an upper portion of the security bag, proximate the at least one opening and an associated external bag visual indicator on a lower portion of the security bag.

[0017] The seal may be integrated with the security bag, such that the seal forms part of the security bag.

[0018] The seal is in the form of an adhesive seal. The adhesive seal may include a substrate portion and an adhesive portion, the substrate portion being defined by an operatively outer face of the seal and the adhesive portion being defined by an operatively inner face of the seal, in use to be affixed to the security bag. The adhesive portion of the adhesive seal may be affixed over the at least one opening of the security bag in use, such that the adhesive seal prevents access to an interior of the security bag and thus, the contents thereof. It is to be appreciated that the seal visual indicator may be provided on one or both of the substrate portion and the adhesive portion.

[0019] The adhesive portion may be in the form of a material having adhesive properties, for sealing and securing the at least one opening. In particular, the material having adhesive properties may ensure proper bonding of the seal to the security bag, the adhesive curing within 2 minutes of affixing the seal over the at least one opening. The adhesive portion may in the form of an adhesive tape, label, sticker, film, foil, rubber-based seal or the like. The adhesive portion may further include a pressure sensitive adhesive.

[0020] The adhesive portion may include an adhesive which causes a visible adhesive residue on the security bag when the adhesive seal is removed.

[0021] The adhesive portion may include a solvent revealing layer, in use to reveal previous application of a solvent to the security bag. The solvent may include any one or more of saliva, water, an acidic solvent, an alkaline solvent or the like. In one embodiment, the solvent revealing layer may reveal the presence of the solvent by an observable change such as a colour change. In another embodiment, the solvent revealing layer may reveal the presence of the solvent by the adhesive portion not affixing to the security bag where the solvent was previously applied.

[0022] The substrate portion may include an interacting layer for interacting with adhesive. In particular, the interacting layer may interact with adhesive to produce an observable change such that placement of another

adhesive seal over an original adhesive seal is revealed. In use, the interacting layer may interact with adhesive when another adhesive seal is placed over the substrate portion of an original adhesive seal, normally to conceal a cut in the original adhesive seal.

[0023] The adhesive seal may be manufactured to be cut resistant. For example, the adhesive seal may be manufactured to include glass particles, glass fibers or any other cut resistant particles to prevent cutting of the seal.

[0024] The adhesive seal has at least one transparent portion. The adhesive seal is designed for being affixed over the at least one opening such that the transparent portion of the seal overlays an external bag visual indicator of the security bag such that the external bag visual indicator remains externally visible to an observer.

[0025] The adhesive seal may be provided with a backing strip for storage and transport purposes. The backing strip may prevent premature adhesion of the adhesive seal to undesired positions on the security bag and may be removed from the adhesive seal prior to use.

[0026] The security bag may include a secondary tamper evident means. The secondary tamper evident means may be in the form of a solvent closure, a hot melt adhesive strip, zipper locks or the like. In use, the secondary tamper evident means may produce an irreversible change to the security bag such that tampering is evident. The irreversible change may be in the form of swelling, dissolving, discolouration, distortion, perforation or the like. The secondary tamper evident means may be positioned proximate any one or more of the at least one opening and edges of the security bag. The security bag may further include sealed, tamper-evident edges.

[0027] The security bag may include external or internal printing. The external printing may provide instructions, a chain of custody section, writing panels or the like. The external printing may also include tamper evident security bag edge seal printing.

[0028] According to a second aspect of the invention, there is provided a tamper evident kit as defined in claim 13 which includes a security bag; and a corresponding seal separately.

[0029] The invention is now described, by way of non-limiting example, with reference to the accompanying figures.

FIGURE(S)

[0030] In the figure(s):

Figure 1 shows a tamper evident bag in accordance with one aspect of the invention; and

Figure 2 shows a tamper evident bag in accordance with a further aspect of the invention.

[0031] In the figures, like reference numerals denote like parts of the invention unless otherwise indicated.

EMBODIMENT OF THE INVENTION

[0032] In Figures 1 and 2, reference numeral (10) refers to a tamper evident bag. The tamper evident bag (10) is comprised of a security bag (12) and a separate seal (18). The security bag (12) has one opening (14) and is provided with a bag visual indicator (16). The seal (18) allows for securely closing the opening (14) of the security bag (12) and includes a seal visual indicator (20) which is associated with the bag visual indicator (16), such that visual indicators not associated with one another indicate seal (20) tampering and hence, possible unauthorized access.

[0033] As shown in the Figures, the bag visual indicator (16) is associated with an identical seal visual indicator (20). The visual indicators (16, 20) are in the form of an alphabetical and numerical code sequence, specifically "XYZ1234". The visual indicators (16, 20) have been formed by laser printing on to the security bag (12) and seal (18) respectively. The laser printed visual indicators (16, 20) are visible to the naked eye.

[0034] In this example, the security bag (12) is in the form of a rectangular body, shaped and dimensioned to accommodate approximately fifty R200 notes. The security bag (12) is in the form of a packet and is disposable, intended for one use only. The opening (14) of the security bag (12) is characterized by an elongated slit in a front panel of the security bag (12). The security bag (12) is manufactured by co-extruding two durable plastic materials, each plastic material being of a different colour.

[0035] As can be seen in the Figures, the bag visual indicator (16) is in the form of an external visual indicator and includes two bag visual indicators (16): a first bag visual indicator (16a) is positioned on an upper portion of the security bag (12) and a second bag visual indicator (16b), identical to the first bag visual indicator (16a), is positioned on a lower portion of the security bag (12).

[0036] The seal (18) is in the form of an adhesive tape and is provided separately. In the figures, no distinction between the adhesive portion and substrate portion is shown. The seal (18) has one portion which is transparent, forming a transparent strip along the length of the seal (18) which is flanked by an upper and lower opaque strip. The seal visual indicator (20) is comprised of three, separate, spaced-apart seal visual indicators (20), with one positioned in the upper opaque strip and two positioned in the lower opaque strip.

[0037] In Figure 2, the seal (18) is affixed over the opening (14) of the security bag (12), thereby preventing access to the contents of the security bag (12). The seal (18) is affixed over the opening (14) in such a way that the transparent strip of the seal (18) overlays the first bag visual indicator (16a), rendering the first bag visual indicator (16a) visible to an observer.

[0038] The adhesive seal (18) also includes a backing strip for storage and transport purposes (not shown). The backing strip prevents premature adhesion of the seal (18) to undesired positions on the security bag (12). The

backing strip is removed from the seal (18) prior to use.

[0039] The security bag (12) includes a secondary tamper evident means in the form of a solvent closure (not shown) encompassing the opening (14). This solvent closure results in an irreversible dissolving of the security bag (12) such that any attempt at tampering is evident to the observer.

[0040] As indicated by faint lines in Figures 1 and 2, the security bag (12) includes external printing. The external printing provides instructions for use, as well as writing panels for documenting a chain of custody of the tamper evident bag (10) or the like.

[0041] In use, the security bag (12), having an opening (14) and two bag visual indicators (16) is provided. The seal (18), having a seal visual indicator (20) identical to the bag visual indicators (16), is affixed to the security bag (12), such that the transparent strip of the seal (18) overlays the first bag visual indicator (16a), allowing the bag visual indicator (16a) to be visible to the observer. The association between the bag - (16) and seal visual indicators (20) renders evidence of unauthorized access if the visual indicators (16, 20) are not correctly associated, i.e. identical. In this way, the tamper evident bag (10) provides the observer with the ability to clearly detect when unauthorized entry has occurred via the associated visual indicators (16, 20).

[0042] The inventor believes that the invention, as described and illustrated, provides a tamper evident bag and a tamper evident kit which provide superior tamper evidence means.

Claims

1. A tamper evident bag (10), comprising:

a security bag (12) having at least one opening (14), the security bag (12) being provided with an external bag visual indicator (16); and an adhesive seal (18), for securely closing the at least one opening (14) of the security bag (12), the adhesive seal (18) being provided with a seal visual indicator (20) which is associated with the bag visual indicator (16),

characterised in that the adhesive seal (18) has at least one transparent portion, designed for being affixed over the at least one opening (14) such that the at least one transparent portion overlays the bag visual indicator (16) of the security bag (12) and that unauthorized access to the security bag (12) is evident when the adhesive seal (18) has been tampered with.

2. The tamper evident bag (10) as claimed in claim 1, in which the bag visual indicator (16) and the seal visual indicator (20) comprise one or more of a numerical code, an alphabetical code, a bar code, a colour code, a sequence, a hologram, an image, a

symbol, a watermark, a pattern, a geometrical design, a shape and an optical diffraction.

3. The tamper evident bag (10) as claimed in claim 1 or 2, in which the bag visual indicator (16) comprises an external bag visual indicator (16a) on an upper portion of the security bag, proximate the at least one opening (14), and an associated external bag visual indicator (16b) on a lower portion of the security bag (12). 5 10
4. The tamper evident bag (10) as claimed in any of claims 1 to 3, in which the adhesive seal (18) comprises a substrate portion and an adhesive portion, the substrate portion defined by an operatively outer face of the seal and the adhesive portion defined by an operatively inner face of the seal which is affixed over the at least one opening (14) of the security bag (12) in use, such that the adhesive seal (18) prevents access to an interior of the security bag (12). 15 20
5. The tamper evident bag (10) as claimed in claim 4, in which the adhesive portion ensures proper bonding of the adhesive seal (18) to the security bag (12), the adhesive portion curing within 2 minutes of affixing the adhesive seal (18) over the at least one opening (14). 25
6. The tamper evident bag (10) as claimed in claim 4 or 5, in which the adhesive portion comprises an adhesive which causes a visible adhesive residue on the security bag (12) when the adhesive seal (18) is removed. 30
7. The tamper evident bag (10) as claimed in any of claims 4 to 6, in which the adhesive portion comprises a solvent revealing layer, in use to reveal previous application of a solvent to the security bag (12), the solvent including any one or more of saliva, water, an acidic solvent and an alkaline solvent. 35 40
8. The tamper evident bag (10) as claimed in claim 7, in which the solvent revealing layer reveals the presence of the solvent by an observable change in the form any one of a colour change and by the adhesive portion not affixing to the security bag (12) where the solvent was previously applied. 45
9. The tamper evident bag (10) as claimed in any of claims 4 to 8, in which the substrate portion comprises an interacting layer which interacts with adhesive to produce an observable change such that placement of another adhesive seal over an original adhesive seal is revealed. 50
10. The tamper evident bag (10) as claimed in any of the preceding claims, in which the adhesive seal (18) is manufactured to be cut resistant by including

any one of glass particles, glass fibers and any other cut resistant particles.

11. The tamper evident bag (10) as claimed in any of the preceding claims, in which the security bag comprises a secondary tamper evident means in the form of any one or more of a solvent closure, a hot melt adhesive strip and zipper locks, the secondary tamper evident means producing an irreversible change to the security bag such that tampering is evident, the irreversible change being in the form of any one or more of swelling, dissolving, discolouration, distortion and perforation.
12. The tamper evident bag (10) as claimed in any of the preceding claims, in which the security bag comprises any one or more of external or internal printing to provide any one or more of instructions, instructions as to a sealing procedure of the security bag, a chain of custody section, writing panels and tamper evident security bag edge seal printing.
13. A tamper evident kit, comprising:
 - a security bag (12) having at least one opening (14), the security bag (12) provided with an external bag visual indicator (16); and
 - a separate adhesive seal (18) for securely closing the at least one opening (14) of the security bag (12), the separate adhesive seal (18) provided with a seal visual indicator (20) associated with the bag visual indicator (16),
 - characterised in that** the separate adhesive seal (18) has at least one transparent portion, designed for being affixed over the at least one opening (14) such that the at least one transparent portion overlays the bag visual indicator (16) of the security bag (12) in order to detect unauthorized access to the security bag (12) after closing.
14. The tamper evident kit as claimed in claim 13, in which the separate adhesive seal (18) forms part of a roll of multiple associated seals having perforation lines between the associated seals to allow ease of separation prior to use.
15. The tamper evident kit as claimed in claim 14, in which the associated seals comprise serial visual indicators or batch visual indicators.

Patentansprüche

- 55 1. Manipulationssicherer Beutel (10), der Folgendes aufweist:
 - einen Sicherheitsbeutel (12) mit wenigstens ei-

- ner Öffnung (14), wobei der Sicherheitsbeutel (12) mit einer äußeren visuellen Anzeige am Beutel (16) versehen ist; und einen Klebeverschluss (18) zum sicheren Verschließen der wenigstens einen Öffnung (14) des Sicherheitsbeutels (12), wobei der Klebeverschluss (18) mit einer visuellen Anzeige am Verschluss (20) versehen ist, die der visuellen Anzeige am Beutel (16) zugeordnet ist, **dadurch gekennzeichnet, dass** der Klebeverschluss (18) wenigstens einen transparenten Teil hat, der zur Befestigung auf der wenigstens einen Öffnung (14) bestimmt ist, so dass der wenigstens eine transparente Teil die visuelle Anzeige am Beutel (16) des Sicherheitsbeutels (12) überlagert, und dass unbefugtes Öffnen des Sicherheitsbeutels (12) offensichtlich ist, wenn der Klebeverschluss (18) manipuliert wurde.
2. Manipulationssicherer Beutel (10) nach Anspruch 1, bei dem die visuelle Anzeige am Beutel (16) und die visuelle Anzeige am Verschluss (20) ein oder mehr von einem numerischen Code, einem alphabetischen Code, einem Strichcode, einem Farbcode, einer Sequenz, einem Hologramm, einem Bild, einem Symbol, einem Wasserzeichen, einem Muster, einem geometrischen Design, einer Form und einer optischen Beugung aufweist.
 3. Manipulationssicherer Beutel (10) nach Anspruch 1 oder 2, bei dem die visuelle Anzeige am Beutel (16) eine äußere visuelle Anzeige am Beutel (16a) an einem oberen Teil des Sicherheitsbeutels, in der Nähe der wenigstens einen Öffnung (14) und eine zugeordnete äußere visuelle Anzeige am Beutel (16b) an einem unteren Teil des Sicherheitsbeutels (12) aufweist.
 4. Manipulationssicherer Beutel (10) nach einem der Ansprüche 1 bis 3, bei dem der Klebeverschluss (18) einen Trägerteil und einen Klebeteil aufweist, wobei der Trägerteil von einer funktionell äußeren Seite des Verschlusses definiert wird und der Klebeteil von einer funktionell inneren Seite des Verschlusses definiert wird, die im Gebrauch auf der wenigstens einen Öffnung (14) des Sicherheitsbeutels (12) befestigt ist, so dass der Klebeverschluss (18) Zugang zum Inneren des Sicherheitsbeutels (12) verhindert.
 5. Manipulationssicherer Beutel (10) nach Anspruch 4, bei dem der Klebeteil die richtige Haftung des Klebeverschlusses (18) am Sicherheitsbeutel (12) gewährleistet, wobei der Klebeteil innerhalb von 2 Minuten nach Befestigen des Klebeverschlusses (18) auf der wenigstens einen Öffnung (14) aushärtet.
 6. Manipulationssicherer Beutel (10) nach Anspruch 4 oder 5, bei dem der Klebeteil einen Klebstoff aufweist, der einen sichtbaren Klebstoffrückstand am Sicherheitsbeutel (12) verursacht, wenn der Klebeverschluss (18) entfernt wird.
 7. Manipulationssicherer Beutel (10) nach einem der Ansprüche 4 bis 6, bei dem der Klebeteil eine Lösungsmittel aufzeigende Schicht zum Aufzeigen einer vorhergehenden Aufbringung eines Lösungsmittels auf den Sicherheitsbeutel (12) im Gebrauch aufweist, wobei das Lösungsmittel ein oder mehr von Speichel, Wasser, einem säurehaltigen Lösungsmittel und einem alkalischen Lösungsmittel beinhaltet.
 8. Manipulationssicherer Beutel (10) nach Anspruch 7, bei dem die Lösungsmittel aufzeigende Schicht die Anwesenheit des Lösungsmittels durch eine erkennbare Änderung der Form von einem von einer Farbbänderung und dem Nichthaften des Klebstoffs dort am Sicherheitsbeutel (12), wo das Lösungsmittel zuvor aufgebracht wurde, aufzeigt.
 9. Manipulationssicherer Beutel (10) nach einem der Ansprüche 4 bis 8, bei dem der Trägerteil eine Wechselwirkungsschicht aufweist, die mit Klebstoff in Wechselwirkung steht, um eine erkennbare Änderung zu erzeugen, so dass die Anbringung eines weiteren Klebeverschlusses auf einem ursprünglichen Klebeverschluss aufgezeigt wird.
 10. Manipulationssicherer Beutel (10) nach einem der vorhergehenden Ansprüche, bei dem der Klebeverschluss (18) durch Zugabe von irgendeinem von Glasteilchen, Glasfasern und irgendwelchen anderen schnittfesten Teilchen schnittfest hergestellt wird.
 11. Manipulationssicherer Beutel (10) nach einem der vorhergehenden Ansprüche, bei dem der Sicherheitsbeutel ein sekundäres manipulationssicheres Mittel in der Form von ein oder mehr von einem Lösungsmittelverschluss, einem Heißklebestreifen und Reißverschlüssen aufweist, wobei das sekundäre manipulationssichere Mittel eine irreversible Änderung am Sicherheitsbeutel hervorruft, so dass eine Manipulation offensichtlich ist, wobei die irreversible Änderung die Form von ein oder mehr von Anschwellung, Auflösung, Verfärbung, Verzerrung und Perforation hat.
 12. Manipulationssicherer Beutel (10) nach einem der vorhergehenden Ansprüche, bei dem der Sicherheitsbeutel ein oder mehr von einem äußeren oder inneren Aufdruck zum Bereitstellen von ein oder mehr von Anweisungen, Anweisungen hinsichtlich eines Verschlussverfahrens des Sicherheitsbeutels, einem Produktketten- (Chain of Custody) -abschnitt, Schreibfeldern und einem manipulationssicheren

Sicherheitsbeutel-Verschlussrandaufdruck aufweist.

13. Manipulationssicherer Artikelsatz, der Folgendes aufweist:

einen Sicherheitsbeutel (12) mit wenigstens einer Öffnung (14), wobei der Sicherheitsbeutel (12) mit einer äußeren visuellen Anzeige am Beutel (16) versehen ist; und
einen separaten Klebeverschluss (18) zum sicheren Verschließen der wenigstens einen Öffnung (14) des Sicherheitsbeutels (12), wobei der separate Klebeverschluss (18) mit einer visuellen Anzeige am Verschluss (20) versehen ist, die der visuellen Anzeige am Beutel (16) zugeordnet ist,
dadurch gekennzeichnet, dass der separate Klebeverschluss (18) wenigstens einen transparenten Teil hat, der zur Befestigung auf der wenigstens einen Öffnung (14) bestimmt ist, so dass der wenigstens eine transparente Teil die visuelle Anzeige am Beutel (16) des Sicherheitsbeutels (12) überlagert, um ein unbefugtes Öffnen des Sicherheitsbeutels (12) nach dem Schließen zu erkennen.

14. Manipulationssicherer Satz nach Anspruch 13, bei dem der separate Klebeverschluss (18) Teil einer Rolle einer Vielzahl von zugeordneten Verschlüssen bildet, die Perforationslinien zwischen den zugeordneten Verschlüssen hat, um vor Gebrauch ein einfaches Abtrennen zuzulassen.

15. Manipulationssicherer Satz nach Anspruch 14, bei dem die zugeordneten Verschlüsse visuelle Serienanzeigen oder visuelle Losanzeigen aufweisen.

Revendications

1. Sac témoin d'effraction (10), comprenant :

un sac de sécurité (12) ayant au moins une ouverture (14), le sac de sécurité (12) étant pourvu d'un indicateur visuel de sac externe (16) ; et
un sceau adhésif (18), pour fermer de manière sécurisée la au moins une ouverture (14) du sac de sécurité (12), le sceau adhésif (18) étant pourvu d'un indicateur visuel de sceau (20) qui est associé à l'indicateur visuel de sac (16),
caractérisé en ce que le sceau adhésif (18) a au moins une partie transparente, conçue pour être fixée au-dessus de la au moins une ouverture (14) de telle sorte que la au moins une partie transparente recouvre l'indicateur visuel de sac (16) du sac de sécurité (12) et qu'un accès non

autorisé au sac de sécurité (12) est évident lorsque le sceau adhésif (18) a été trafiqué.

2. Sac témoin d'effraction (10) selon la revendication 1, dans lequel l'indicateur visuel de sac (16) et l'indicateur visuel de sceau (20) comprennent un ou plusieurs d'entre un code numérique, un code alphabétique, un code à barres, un code couleur, une séquence, un hologramme, une image, un symbole, un filigrane, un motif, un dessin géométrique, une forme et une diffraction optique.

3. Sac témoin d'effraction (10) selon la revendication 1 ou 2, dans lequel l'indicateur visuel de sac (16) comprend un indicateur visuel de sac externe (16a) sur une partie supérieure du sac de sécurité, à proximité de la au moins une ouverture (14), et un indicateur visuel de sac externe associé (16b) sur une partie inférieure du sac de sécurité (12).

4. Sac témoin d'effraction (10) selon l'une quelconque des revendications 1 à 3, dans lequel le sceau adhésif (18) comprend une partie de substrat et une partie adhésive, la partie de substrat étant définie par une face opérationnellement externe du sceau et la partie adhésive étant définie par une face opérationnellement interne du sceau qui est fixée au-dessus de la au moins une ouverture (14) du sac de sécurité (12) en emploi, de telle sorte que le sceau adhésif (18) empêche l'accès à un intérieur du sac de sécurité (12).

5. Sac témoin d'effraction (10) selon la revendication 4, dans lequel la partie adhésive garantit une adhésion correcte du sceau adhésif (18) au sac de sécurité (12), la partie adhésive durcissant en l'espace de 2 minutes à compter de la fixation du sceau adhésif (18) au-dessus de la au moins une ouverture (14).

6. Sac témoin d'effraction (10) selon la revendication 4 ou 5, dans lequel la partie adhésive comprend un adhésif qui cause un résidu adhésif visible sur le sac de sécurité (12) lorsque le sceau adhésif (18) est retiré.

7. Sac témoin d'effraction (10) selon l'une quelconque des revendications 4 à 6, dans lequel la partie adhésive comprend une couche révélatrice de solvant, pour révéler en emploi une application précédente d'un solvant au sac de sécurité (12), le solvant comprenant l'un quelconque ou plusieurs d'entre de la salive, de l'eau, un solvant acide et un solvant alcalin.

8. Sac témoin d'effraction (10) selon la revendication 7, dans lequel la couche révélatrice de solvant révèle la présence du solvant par un changement perceptible sous la forme de l'un quelconque d'entre un

changement de couleur et par la partie adhésive ne se fixant pas au sac de sécurité (12) là où le solvant a été précédemment appliqué.

9. Sac témoin d'effraction (10) selon l'une quelconque des revendications 4 à 8, dans lequel la partie de substrat comprend une couche d'interaction qui interagit avec l'adhésif pour produire un changement perceptible tel que le fait de placer un autre sceau adhésif au-dessus d'un sceau adhésif d'origine est révélé. 5
10. Sac témoin d'effraction (10) selon l'une quelconque des revendications précédentes, dans lequel le sceau adhésif (18) est fabriqué pour être résistant aux coupures en comprenant l'une quelconque d'entre des particules de verre, des fibres de verre et n'importe quelles autres particules résistantes aux coupures. 10
11. Sac témoin d'effraction (10) selon l'une quelconque des revendications précédentes, dans lequel le sac de sécurité comprend un moyen témoin d'effraction secondaire sous la forme de l'une quelconque d'entre une fermeture au solvant, une bande adhésive thermofusible et des fermetures éclair, le moyen témoin d'effraction secondaire produisant un changement irréversible sur le sac de sécurité de telle sorte que le fait d'avoir été trafiqué est évident, le changement irréversible étant sous la forme de l'un quelconque ou de plusieurs d'entre gonflement, dissolution, décoloration, déformation et perforation. 20
12. Sac témoin d'effraction (10) selon l'une quelconque des revendications précédentes, dans lequel le sac de sécurité comprend l'une quelconque ou plusieurs d'entre une impression externe ou interne pour fournir l'un quelconque ou plusieurs d'entre des instructions, des instructions concernant une procédure de scellement du sac de sécurité, une chaîne de section de garde, des panneaux d'inscription et une impression au scellement du bord du sac de sécurité témoin d'effraction. 25
13. Kit témoin d'effraction, comprenant : 30
- un sac de sécurité (12) ayant au moins une ouverture (14), le sac de sécurité (12) étant pourvu d'un indicateur visuel de sac externe (16) ; et 35
- un sceau adhésif séparé (18) pour fermer de manière sécurisée la au moins une ouverture (14) du sac de sécurité (12), le sceau adhésif séparé (18) étant pourvu d'un indicateur visuel de sceau (20) associé à l'indicateur visuel de sac (16) ; 40
- caractérisé en ce que** le sceau adhésif séparé (18) a au moins une partie transparente, conçue 45

pour être fixée au-dessus de la au moins une ouverture (14) de telle sorte que la au moins une partie transparente recouvre l'indicateur visuel de sac (16) du sac de sécurité (12) afin de détecter un accès non autorisé au sac de sécurité (12) après l'avoir fermé.

14. Kit témoin d'effraction selon la revendication 13, dans lequel le sceau adhésif séparé (18) fait partie d'un rouleau de multiples sceaux associés ayant des lignes de perforation entre les sceaux associés pour faciliter la séparation avant l'emploi. 50
15. Kit témoin d'effraction selon la revendication 14, dans lequel les sceaux associés comprennent des indicateurs visuels en série ou des indicateurs visuels en lot. 55

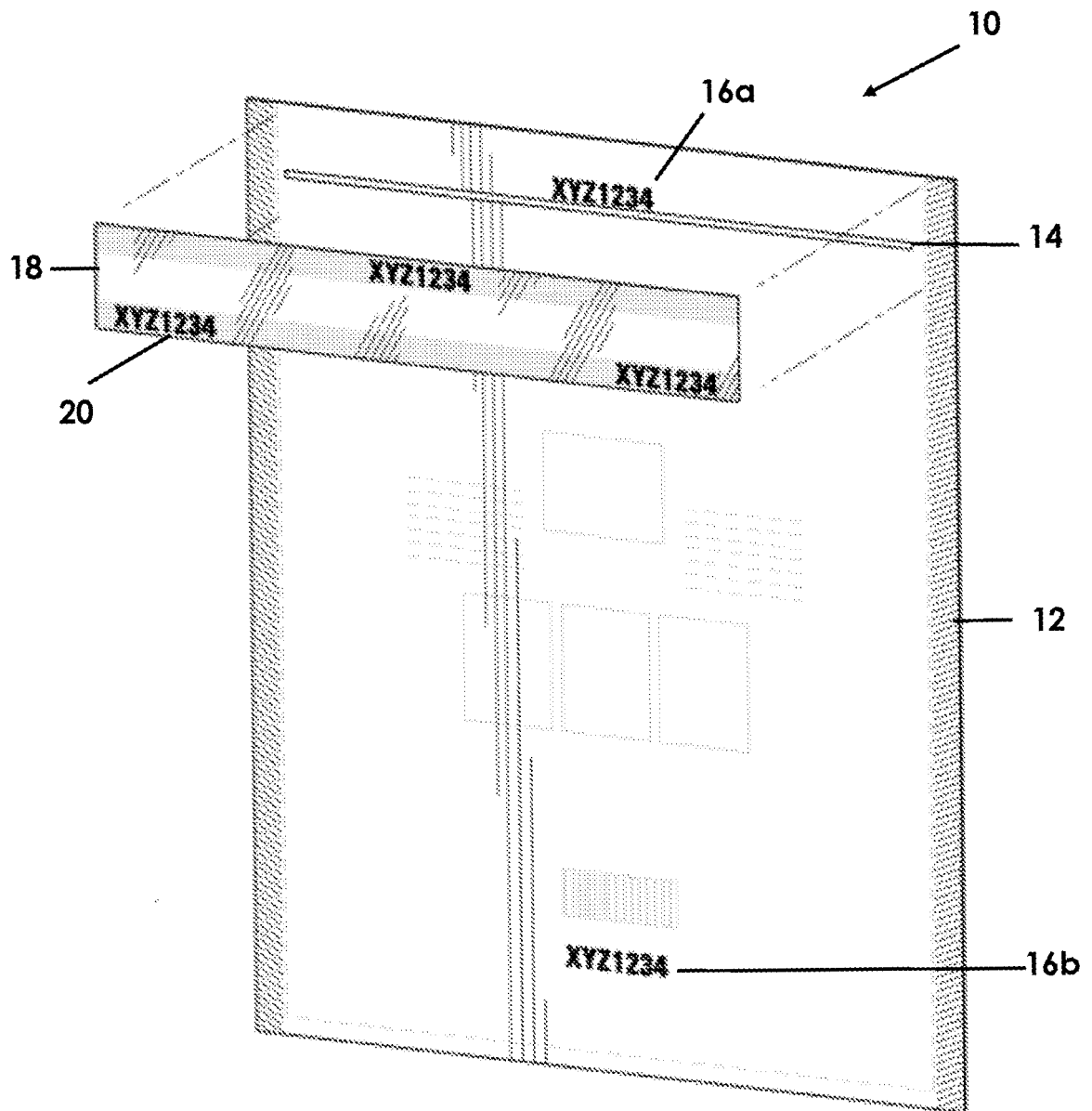


Figure 1

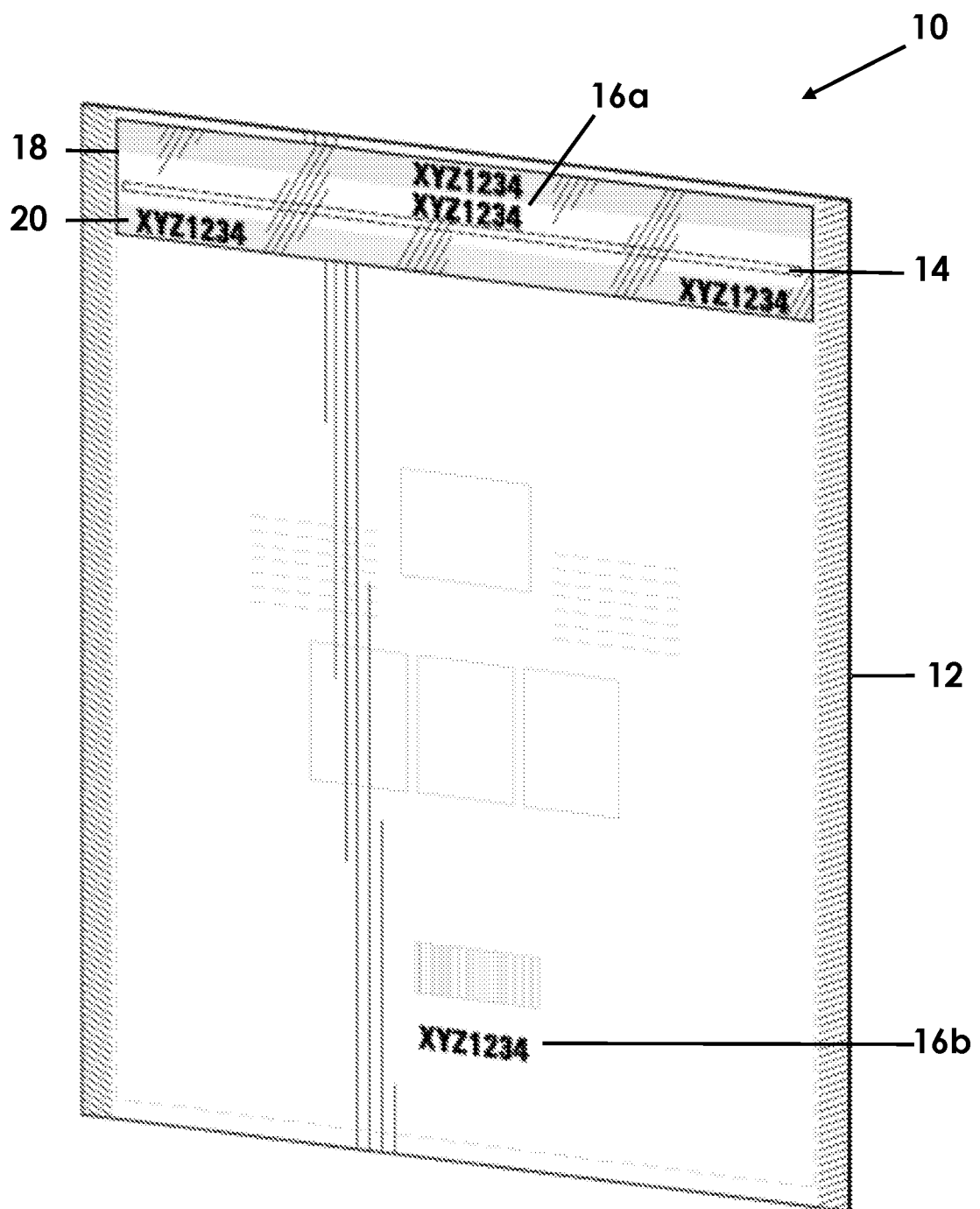


Figure 2

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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