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(71) Applicant: **SIMEOR S.r.l.**
Via Francesco Redi, 23/A
I-20129 Milano(IT)

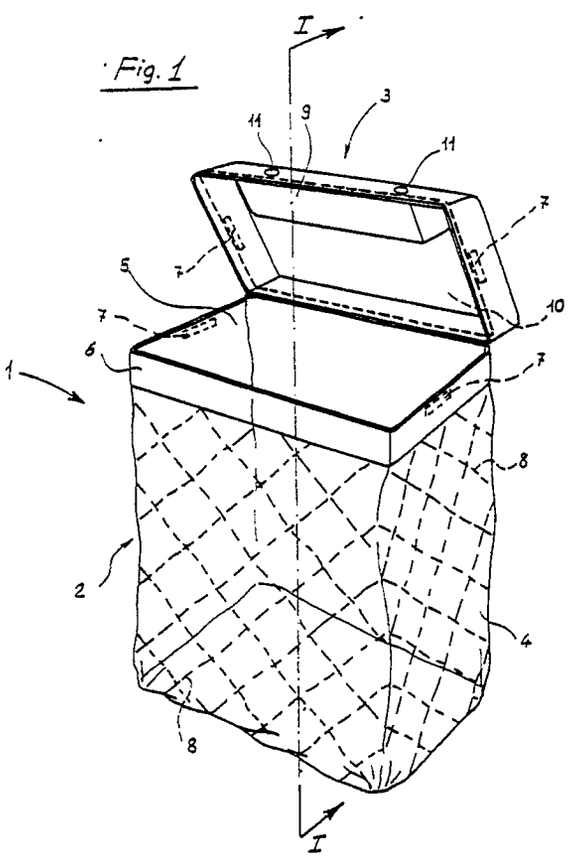
(72) Inventor: **Jorio, Robert R.**
c/o Simeor S.r.l., Via Francesco Redi, 23/A
I-20129 Milano(IT)

(74) Representative: **Cicogna, Franco**
Ufficio Internazionale Brevetti Dott.Prof. Franco Cicogna Via Visconti di Modrone, 14/A
I-20122 Milano(IT)

(54) Valuables holding safety bag.

(57) There is disclosed a safety bag for holding valuables comprising a rigid material cover (3) bearing on its outside a gripping handle (13) and, in its inside, an electronic control unit; a soft envelope (2) including an outer wall (4) of a soft or flexible material, at least an inner layer (12) made of a soft material having a high balistic resistance, and an inner coating (5) also made of a soft material, the mouth portion of the soft envelope (2) being defined by a rigid material frame (6) thereon there is pivoted the rigid cover (3), a conventional protecting net arrangement (8) being moreover provided between the first outer wall (4) and the inner coating (5).

Fig. 1



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BACKGROUND OF THE INVENTION

The present invention relates to a safety bag for holding valuables; in particular, the invention relates to a safety bag adapted to transport valuables articles, that is an envelope or bag including a cover having a gripping handle which, if it is snatched away from the hands of the user, energizes a conventional passive and active defense program.

By passive defense there is meant, for example, a particular resistance to breaking; by active defense, on the other hand, there is meant, for example, the emission of radio, acoustic signals and/or of fumes.

Conventional bags for transporting valuables are usually made of rigid envelopes including an electronic system adapted to provide conventional defense functions.

A first drawback of these conventional bags is that, since they are rigid, they will occupy always the same space, even in the case in which reduced volume articles are held herein.

Another drawback is the reduction of the volume available for holding the valuables articles, because of the space occupied by the electronic control unit held inside the bag.

Yet another drawback is that the transported articles are susceptible to impact against the central control unit arranged in the inside of the bag so as to possibly damage it.

SUMMARY OF THE INVENTION

Accordingly, the aim of the present invention is to provide such a valuables holding safety bag which has been specifically designed for obviating the above mentioned drawbacks.

According to the invention, the valuable holding safety bag, as it is claimed in the accompanying Claims, comprises a soft envelope, the mouth portion of which is defined by a rigid frame thereon there is pivoted a rigid mechanically resistant material cover, provided with a gripping handle, adapted to hold a conventional electronic control unit controlling the passive and active defense functions of the bag.

Said soft or flexible material envelope comprises an outer wall made of a fabric, plastic, leather or the like soft material layer, at least an inner layer also made of a high ballistic resistance soft material, preferably the material known by the trademark of KEVLAR H.T. of the Dupont De Nemours Company and an inner coating.

The walls of the soft envelope comprise, between the first outer wall and said inner coating, an anti-breaking protecting net arrangement including electrically conductive wires energized or power-supplied by a battery arranged near the mentioned electronic control unit and coupled to the latter so that, in the case of a possible breaking of a wall of the soft envelope, the breaking of a wire actuates the active defense functions.

A protecting net similar to the above disclosed net is also built-in in the inner wall of the bag cover.

Said cover and rigid frame moreover comprise electromagnetic switches adapted to actuate the active defense functions in the case of a forced opening of the cover.

Said active defense functions are enabled and disabled in a conventional way by operating on two different locks arranged on the cover and operated by corresponding keys.

The cover is closed on the bag frame by conventional locking devices.

The hollow of the mentioned cover is closed by a protecting panel so as to provide a closed chamber in which there is housed the mentioned electronic control unit. The latter can be of the type disclosed in the Swiss patent No. 624,284.

A first advantage of the subject safety bag is that the electronic control unit controlling the passive and active defense functions, being separated from said soft bag, is not subjected to any impacts by the articles held in the soft envelope, thereby providing a very reliable operation.

Since the electronic control unit is arranged in said chamber, the articles to be transported can be arranged in the full volume of the soft bag.

Yet another advantage derives from the use of the electromagnetic switches which, while being adapted to control possible forced openings of the cover, are not subjected to possible breakings as it occurs in conventional electromechanical devices used in conventional valuables safety bags.

Yet another advantage is that the soft envelope, which can be pressed as a bellows and folded on its cover as it is in an empty condition, will occupy different spaces depending on the volume of the articles held therein and a minimum space as it is to be transported or stored in an empty condition.

Yet another advantage is that the soft envelope can also be used as a shield in the case of an armed attack, owing to the provision in its inside of

the high ballistic resistance material and to the great size of the envelope itself. Moreover, the strong high ballistic resistance fabric layers therebetween the protecting net is preferably arranged, will prevent the wires of the mentioned net from being excessively bent thereby protecting them from possible damages or breakings.

In this connection it should be further pointed out that the aspect characteristics of the above disclosed bag provide a strong discouraging effect for possible ill disposed persons, so that the risk associated with the transport of valuables will be fully transferred to users not using the subject bag.

BRIEF DESCRIPTION OF THE DRAWINGS

The subject valuables bag will be disclosed in a more detailed way hereinafter with reference to the accompanying drawings showing a preferred embodiment thereof and in which:

Figure 1 is a perspective view of a safety bag according to the invention which is shown with its cover in an open condition; and

Figure 2 is a cross-sectional view taken along the line I-I of Figure 1.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Figure 1 shows a valuables safety bag 1 according to the invention the soft envelope 2 of which comprises a wall 4 made of a plastic fabric material, six ballistic KEVLAR H.T. layers, which are not shown in the figure, and an inner coating 5. The mouth portion of the soft envelope is defined by a rigid frame 6 thereon there is pivoted the rigid cover 3, the rigid frame and cover being made of a reinforced ABS plastic material.

The mentioned frame 6 and cover 3 respectively bear corresponding portions of six electromagnetic switches 7, not fully shown in the figure, adapted to actuate an active defense program in the case of a possible forced opening of the cover.

This figure also shows the antibreaking protecting net arrangement 8 built-in in the flexi ble or soft envelope 2, and which will be disclosed in a more detailed way with reference to figure 2.

Said cover 3 further comprises: on its outer top wall a handle, not shown in the figure, within its hollow a protecting panel 10 separating a conventional electronic control unit 9 from the soft envelope 2; on its front wall two locks 11 adapted to actuate a passive and active defence program.

Figure 2 shows again the components illustrated in figure 1, that is the soft envelope 2, cover 3, wall 4, inner coating 5, frame 6, electromagnetic switches 7, protecting net arrangement 8, electronic control unit 9 and protecting panel 10. This figure shows in more details the construction of the soft envelope 2 of which there are also illustrated the outer wall 4 made of a plastic fabric material, the assembly 12 of the six layers made of KEVLAR H.T. fabric and the inner coating 5 made of a strong cloth fabric. More specifically, the protecting net arrangement 8 is built-in in the assembly 12, being arranged between the third and fourth KEVLAR H.T. layers. This protecting net arrangement 8 will be electrically energized as the active defense program is energized by energizing the conductor wires 16, partially shown in the figure, coupling it to the power supply or battery 17.

In this connection it should be apparent that the wires forming the protecting net arrangement 8 will be sufficiently flexible so as to be bent as the walls of the soft envelope are bent, without being however subjected to breakings susceptible to interrupt their electric continuity.

The figure also shows the cover 3 pivoted on the frame 6, which cover bears on its top the handle 13 and, at its bottom, tooth members 14 engaging in suitable recesses 15.

On the bottom portions of the handle 13 there is arranged a conventional push-button, not shown in the figure which is to be pressed in the case of a breaking so as to actuate the active defense functions already actuated by closing the locks 11.

The preferable size of the above disclosed bag will be:a height of 60 cm and a width of 50 cm.

It should be apparent that the outer wall 4, the assembly 12 of KEVLAR H.T. fabric layers and inner coating 5 can comprise portions of a single assembly forming the walls of the soft envelope 2, instead of being separated portions as shown in the disclosed embodiment.

Moreover, the subject valuables bag can have a preferably rectangular cross-section; however it can also have any other suitable cross-section shape, such as a circular or square shape without departing from the invention scope.

While the invention has been disclosed and illustraded with reference to a preferred embodiment thereof, it should be apparent that the disclosed embodiment is susceptible to several modifications and variations all of which will come within the spirit and scope of the appended claims.

Claims

1. A valuables safety bag (1) including a conventional electronic control unit (9, 11) for controlling passive and/or active defense functions and a han-

dle (13) bearing a push-button controlling in part said electronic control unit (9, 11), characterized in that said bag further comprises: a rigid and mechanically strong material cover (3) supporting on its outside said handle (13) and including in its inside said electronic control unit (9) of said conventional electronic control system (9,11); a soft envelope (2) including an outer wall (4) of a soft material, at least an inner layer of a high ballistic resistance soft material (12) and an inner coating (5) of a soft material, the mouth portion of said soft envelope (2) being defined by a rigid and mechanically strong material frame (6) thereon there is pivoted said rigid cover (3); and a conventional protecting net arrangement (8) arranged between the first outer wall (4) and said inner coating (5).

2. A bag (1) according to Claim 1, characterized in that said protecting net arrangement (8) is arranged between two layers of said high ballistic resistance soft material (12).

3. A bag (1) according to Claim 1, charac terized in that a conventional protecting net arrangement (8) is also built-in in said cover (3).

4. A bag (1) according to the preceding Claims, characterized in that the materials making said soft envelope (2) and protecting net arrangement (8) are provided with a sufficient flexibility or resiliency to allow said soft envelope (2) to be pres sed and folded to reduce its volume without damaging said protecting net arrangement (8).

5. A bag (1) according to the preceding Claims, characterized in that the control of possible forced openings of said cover (3) is assured by at least an electromagnetic switch (7),

6. A bag (1) according to the preceding Claims, characterized in that said bag has a height and width so designed as to allow said bag (1) to be used as a shield against armed attacks.

Fig. 1

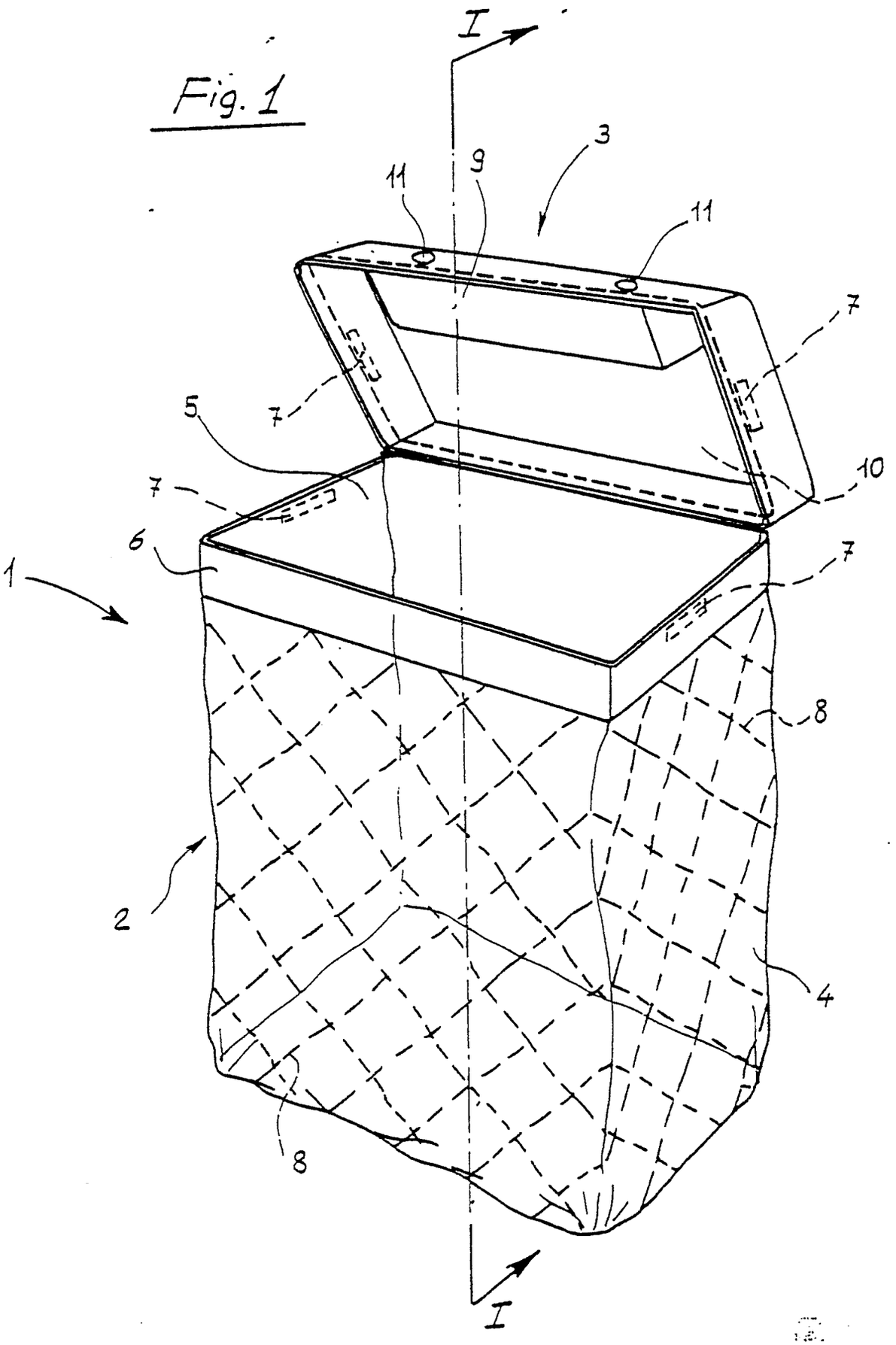

Fig.2