A case for the safe transport of guns with associated holster, comprising a box-like body constituted by a bottom element and by a lid connected to the bottom element by means of hinge elements for moving the box-like body from an open configuration to a closed configuration and vice versa. The bottom element and the lid are provided with closure elements which can engage each other to keep the box-like body in the closed configuration; in the bottom element there is a housing compartment intended to contain a gun inserted in a respective holster; elements are further provided for the removable engagement of the holster with the box-like body so as to retain the holster in the housing compartment, the holster allowing, in association with the case, completely safe transport of the weapon in a closed compartment.
CASE FOR THE SAFE TRANSPORT OF GUNS WITH ASSOCIATED HOLSTER

[0001] The present invention relates to a case for the safe transport of guns with associated holster.

[0002] It is known that weapons such as guns or the like are generally transported by using adapted containers which, to facilitate handling operations, usually have a case-like shape that may be closed.

[0003] The reason for using a closed case is twofold: the first is to prevent access to the weapon by unauthorized individuals; the second is to ensure maximum protection to the person who transports the weapon itself.

[0004] In fact, regulations regarding the transport of weapons are particularly strict in establishing the requirements and the methods for carrying and safekeeping weapons in general, also for ensuring maximum safety both to the person who transports the weapon and to the people who happen to be nearby.

[0005] There are cases of various kinds, which can vary according to the dimensions of the gun to be accommodated; moreover, depending on the degree of safety that must be ensured, there are cases made of different materials, metal or plastic.

[0006] Generally, these cases of a known type are lined internally with expanded resins, which are pre-shaped to accommodate the gun and the associated accessories, or are provided with compartments.

[0007] These cases allow the accommodation of guns inside them, allowing completely safe transport of the weapon.

[0008] Another method for transporting a weapon is to insert it in a holster that hangs from the belt or from a strap under the armpit; this kind of transport, however, is allowed exclusively to members of police forces, to plainclothes policemen or in any case to people who have a corresponding authorization.

[0009] Differently from the closed holder, the holster allows the user to have immediate access to the gun in case of need to use it, allowing the extraction of said gun from the holster following the deactivation of retention means. These retention means present on the holster itself, such as for example strings or strips of fabric that can engage the holster by means of press-studs, prevent, by their activation, the unintentional extraction of the weapon by the user or by ill-intentioned individuals.

[0010] Holsters of the known type, however, have some problems, including the fact that they require rather a long time for extraction of the weapon, which may be fatal to the user in certain danger situations. In fact, the retention means associated with the holster require a step for deactivating them in which the hand of the user is remote from the grip of the weapon, delaying the subsequent step of gripping the stock of the weapon to extract it.

[0011] Moreover, the holster is not a suitable means for transporting a gun or for safekeeping in case of shipping, requiring the use of a closed case that protects the body of the gun when it is not under the control of the user.

[0012] These cases of the known type have the drawback of not allowing the simultaneous accommodation, inside them, of the gun and of the holster, requiring the user to transport separately the case that houses the weapon and the empty holster.

[0013] The aim of the present invention is to provide a case for transporting guns that is capable of solving the problems and obviating the drawbacks cited above, allowing the easy transport of a gun and its use, with high safety and reliability.

[0014] Within the scope of this aim, an object of the invention is to provide a case that makes a gun with the associated holster immediately available.

[0015] Another object of the invention is to allow an instantaneous extraction of the gun, allowing immediate gripping of the weapon.

[0016] A further object of the invention is to provide a case that is ergonomic and handy to use.

[0017] Yet another object of the invention is to propose a case that can be manufactured at competitive costs.

[0018] This aim and these and other objects that will become more apparent hereinafter are achieved by a case for the safe transport of guns with associated holster, comprising a box-like body constituted by a bottom element and by a lid connected to said bottom element by means of hinge elements for moving said box-like body from an open configuration to a closed configuration and vice versa, said bottom element and said lid being provided with closure means which can engage each other so as to keep said box-like body in said closed configuration, characterized in that in said bottom element there is a housing compartment adapted to contain a gun inserted in a respective holster, means being provided for the removable engagement of said holster with said box-like body to retain said holster in said housing compartment.

[0019] Further characteristics and advantages of the invention will become more apparent from the description of a preferred but not exclusive embodiment of the case according to the invention, illustrated by way of non-limiting example by means of the accompanying drawings, wherein:

[0020] FIG. 1 is a perspective view of the case according to the invention in the closed configuration;

[0021] FIG. 2 is a sectional view of FIG. 1, taken along the plane II-II, that illustrates a detail of the case relating to the closure means;

[0022] FIG. 3 is a perspective view of the case in the open configuration with a first embodiment of the holster shown in exploded view;

[0023] FIG. 4 is a perspective view of the case in its open configuration with the holster inserted in the housing compartment;

[0024] FIG. 5 is a perspective view of the holster;

[0025] FIG. 6 is a top plan view of the case in the open configuration that illustrates the gun, with the respective holster, inserted in the housing compartment;

[0026] FIG. 7 is a top plan view of the case in the open configuration, showing the gun, without the holster, inserted in the housing compartment;

[0027] FIG. 8 is a perspective view of a detail of the housing compartment of the first embodiment of the holster;

[0028] FIG. 9 is a perspective view of the holster hanging from a belt;

[0029] FIG. 10 is a perspective view of a detail of the first embodiment of the holster that illustrates means for retaining the gun in the holster;

[0030] FIG. 11 is a perspective view of the same detail of FIG. 10, shown from the inner side with the holster partially in cross-section;

[0031] FIG. 12 is a perspective view of a detail of a second embodiment of the holster, showing means for retaining the gun in the holster;
FIG. 13 is a perspective view of the same detail of FIG. 10, shown from the inner side with the holster partially in cross-section;

FIG. 14 is a perspective view of a variation of the case in the open configuration;

FIG. 15 is a perspective view of the case of FIG. 14 with the holster inserted in the housing compartment;

With reference to the cited figures, the case according to the invention, generally designated by the reference numeral 1, comprises a box-like body 2 constituted by a bottom element 3 and a lid 4.

The lid 4, at one of its sides, is connected to a side of the bottom element 3 by means of hinge elements 5 that allow the box-like body 2 to move from an open configuration to a closed configuration and vice versa.

Preferably, the box-like body 2 is made of molded synthetic material and the bottom element 3 is provided monolithically with the lid 4. The hinge elements 5 are preferably constituted by a strip of the same synthetic material, obtained directly during the molding of the box-like body 2, which connects one side of the lid 4 to one side of the bottom element 3 and has a central thinner region that allows the lid 4 to rotate about its side, from which said strip extends, with respect to the bottom element 3 for the passage of the box-like body 2 from the open configuration, illustrated in FIGS. 3, 4, 6, 7, to the closed configuration, illustrated in FIG. 1, and vice versa.

Closure means 6 are present on the bottom element 3 and on the lid 4 and can be mutually engaged to keep the box-like body 2 in the closed configuration.

More precisely, the closure means 6 are constituted by at least one protrusion 28, which protrudes externally from a lateral wall of the bottom element 3, and at least one wing 29 that extends on the external face of the corresponding lateral wall of the lid 4; the wing 29 is flexible and has an opening 30, the lower edge 31 of which can engage the lower side 32 of the protrusion 28, as shown in particular in FIG. 2. In the illustrated embodiment there are two protrusions 28 and two wings 29, which are mutually spaced along the sides of the bottom element 3 and of the lid 4 that are opposite with respect to the sides that are mutually connected by the hinge elements 5.

According to the invention, a housing compartment 7 is defined in the bottom element 3 and is adapted to contain a gun 8 inserted into a respective holster 9; the case 1 comprises, moreover, means 10 for the removable engagement of the holster 9 with the box-like body 2 so as to retain the holster 9 in the housing compartment 7.

The holster 9 comprises a holster body 16, inside which a seat 17 for the insertion of the gun 8 is defined. The holster body 16 has, laterally to the insertion seat 17, means 18 for fastening the holster 9 to a belt 19 of a user. The fastening means 18 of the holster 9 comprise a portion 20 of the holster body 16, which is U-shaped and can be fitted on a belt 19 starting from the upper side thereof; moreover, on the inner side of the U-shaped portion 20 there is at least one retention tooth 21, which can engage the lower side of the belt 19 so as to contrast the accidental extraction of the U-shaped portion 20, and therefore of the holster 9, from the belt 19.

In the embodiment shown in FIG. 9 there are two retention teeth 21 for firm anchoring of the holster 9 to the belt 19. Moreover, the holster body 16 extends substantially along an axis that is parallel to the fastening means 18, allowing to accommodate the gun 8 in the holster 9 with the barrel thereof substantially at right angles to the belt 19. In other embodiments, the holster body 16 and the fastening means 18 may be arranged along mutually inclined axes, allowing an accommodation of the gun 8 that is slightly inclined with respect to the position described above.

The holster 9 is provided with means 22 for retaining the gun 8 inside the insertion seat 17; said retention means 22 can be deactivated in order to allow the extraction of the gun 8 from the insertion seat 17.

In a first embodiment, illustrated in particular in FIGS. 8, 10 and 11, said retention means 22 comprise a locking element 23 which is associated with the holster body 16 at the region of the insertion seat 17 in which the protective bridge 24 of the trigger 41 of the gun 8 is designed to be arranged when said gun is inserted in the holster 9. The locking element 23 is designed to lie, when the gun 8 is correctly inserted in the holster 9, between the trigger 41 and the side of the protective bridge 24 that frontally faces the trigger 41.

The locking element 23 is associated with the holster body 16 so that it can rotate about an axis 23a that is substantially perpendicular to the direction of insertion 40 of the gun 8 in the insertion seat 17. The locking element 23 is connected to a manual actuation lever 26, which can make the locking element 23 assume alternatively, through its rotation about the axis 23a with respect to the holster body 16, a retention position or a release position of the gun 8.

In the retention position, a shoulder 25 for retaining the locking element 23 faces the inner side of the portion of the protective bridge 24 that frontally faces the trigger 41, preventing the extraction of the gun 8 from the holster 9; in the release position, instead, the retention shoulder 25 is shifted with respect to the inner side of the portion of the protective bridge 24 that frontally faces the trigger 41 so as to allow extraction of the gun 8 from the holster 9.

In a second embodiment shown in FIGS. 12 and 13, the retention means 22 comprise a raised protrusion 43 that lies on the inner wall of the holster body 16 and, more particularly, at the region of the insertion seat 17 in which the bridge 24 of the trigger 41 is designed to be placed when the gun 8 is inserted in the holster 9. The raised protrusion 43 has a base 45, which is directly in contact with the holster body 16, and a top 46, which is connected to the base 45 by means of at least one first lateral portion 44a and one second lateral portion 44b. Conveniently, the base 45 has greater dimensions than the top 46 so that the raised protrusion 43 has a substantially frustum-like shape. The portions 44a and 44b, substantially opposite to each other, have an inclined surface that is transverse with respect to the inner wall of the holster body 16 proximate to the base 45.

Raised protrusion 43 is designed to lie, with its own top 46, between the inner sides of the protective bridge 24, particularly with the first portion 44a in direct contact with the protective bridge 24 so as to lock the gun 8 when said gun is correctly inserted in the holster 9.

The engagement means 10 comprise means 11 for the mutual coupling of the holster 9 with the bottom element 3 and means 12 for locking the holster 9 with respect to the bottom element 3. These locking means 12 can be deactivated in order to allow the extraction of the holster 9 from the box-like body 2.

More particularly, the mutual coupling means 11 comprise preferably a sliding guide 13, which is formed in the bottom element 3 and can be engaged by the holster 9. The
sliding guide 13 is defined by three ribs 35a, 35b, 35c, which rise from the bottom wall 34 of the bottom element 3: two ribs 35a, 35b, which are substantially parallel to each other, and one transverse rib 35c that connects one end of the ribs 35a, 35b, defining a stroke limit for the sliding of the holster 9 along the two ribs 35a, 35b.

[0051] On the mutually facing faces of the two ribs 35a, 35b there are corresponding protrusions 36a, 36b that define a sort of dovetail guide for two opposite sides of the holster 9, which can slide between these protrusions 36a, 36b and the bottom wall 34 of the bottom element 3. The sliding guide 13 is completed by a central rib 37, which extends from the bottom wall between the ribs 35a and 35c and is parallel to them. The central rib 37 supports the holster 9 during its sliding along the side of the protrusions 36a, 36b that is directed toward the bottom wall 34. The locking means 12 comprise a locking tooth 14, which protrudes from the bottom wall 34 of the bottom element 3. The locking tooth 14 is elastically flexible with respect to the bottom wall 34 so as to be coupled by snap action, due to elastic reaction, to a respective locking seat 15, which is formed in the U-shaped portion 20 of the holster 9 and is aligned with the locking tooth 14 when the holster 9 reaches the stroke limit position during insertion along the sliding guide 13.

[0052] The locking tooth 14 is elastically flexible toward the bottom wall 34 by applying thereto a pressure toward the bottom wall 34 in order to disengage it from the locking seat 15 so as to allow the holster 9 to slide freely along the sliding guide 13.

[0053] In a variation of the case 1, shown in FIGS. 14 and 15, the locking means 12 comprise a protruding wing 47 that extends vertically from the bottom wall 34 along a transverse direction with respect to the ribs 35b and toward the inside of the housing compartment 7. The protruding wing 47 has a height that is slightly lower than the height of the rib 35b so as to facilitate the passage, over it, of the anchoring means 18 of the holster 9 for the engagement of the latter in the sliding guides 13.

[0054] The housing compartment 7 has further raised ribs 27 that protrude from the bottom wall 34 and delimit the housing compartment 7 so as to keep the gun 8 correctly arranged in said housing compartment 7 even in the absence of the holster 9.

[0055] Conveniently, the box-like body 2 is preferably constituted by a body made of thermoplastic synthetic material, of the type of polypropylene, which is full recyclable and is injection-molded monolithically, together with the hinge elements 5, the closure means 6 and the engagement means 10.

[0056] Moreover, the case 1 has a handle 38, which is contained in the profile of the case 1 itself and is provided with a hole 39 for insertion of a safety padlock.

[0057] For the sake of descriptive completeness it should be noted that on the inner face of the lid 4 and of the bottom wall 34 it is possible to provide raised ribs or wings 42 in order to delimit sections in which operation manuals or accessories of the gun 8 or other items can be stored. In other embodiments, not shown in the accompanying figures, it is possible to provide further raised ribs 27 or raised wings 42, different locking means 12 or mutual coupling means 11, without thereby abandoning the claimed protective scope.

[0058] The use of the case according to the invention is as follows.

[0059] In case of a need for transport, the user inserts the gun 8 in the holster 9; the gun 8 can be coupled to the holster 9 by the retention means 22.

[0060] At this point, the holster 9 is inserted into the case 1, making its U-shaped portion 20 slide under the protrusions 36a, 36b present on the mutually facing sides of the ribs 35a, 35b, until it reaches the stroke limit position. When this position is reached, the locking seat 15 provided on the U-shaped portion 20 of the holster 9 lines up with the locking tooth 14, which by elastic reaction is coupled thereto with a snap action. The case 1 can therefore be closed by engagement of the wings 29 with the protrusions 28. Under these conditions, the gun 8 can be transported with adequate safety.

[0061] The degree of safety may be increased further by inserting in the adapted hole 39 provided in the handle 38 of the case 1 a padlock with a key or with a combination.

[0062] If the gun 8 with the associated holster 9 must be removed from the case 1, the user applies a pressure to the locking tooth 14 so as to disengage it from the locking seat 15, as shown in FIG. 8.

[0063] In this manner, the holster 9 is no longer retained in its housing compartment 7 and can be extracted from the case 1.

[0064] In the variation of the case 1 shown in FIGS. 14 and 15, the holster 9 is inserted in said case 1, making the anchoring means 18 slide over the wing 47 and then below the protrusions 36a and 36b. During this insertion, the end portion of the fastening means 18, i.e., the U-shaped portion 20, tends to flex slightly, thanks to its elastic properties, so as to allow the complete insertion of the fastening means 18 in the sliding guides 13 until it reaches the stroke limit position. In the stroke limit position the U-shaped portion 20 returns to its initial position by adhering partially to the inner surface of the protruding wing 47, which creates an obstacle to the exit of the holster 9 from the housing accommodation 7. The wing 47, together with the sliding guides 13 and the bottom wall 34, allows the safe retention of the holster 9 in the housing compartment 7, preventing its exit even following impacts of the case 1 during transport. The holster 9 is extracted by slight compression of the U-shaped portion 20 so that it is deformed elastically so as to move beyond the protruding wing 47 and by subsequent movement of the holster 9 along a direction that is opposite to the insertion direction.

[0065] The holster 9 can be used by fitting its U-shaped portion 20 on the belt 19 of the user.

[0066] The gun 8 can be locked inside the holster 9 for preventing it from being extracted from the holster 9 accidentally or by people other than the user who carries the holster 9.

[0067] In the first illustrated embodiment, when the gun 8 is inserted in the holster 9, the locking element 23 is at the region occupied by the protective bridge 24 of the trigger 41 of the gun 8. By rotating the actuation lever 26 about the axis 23a, the user brings the locking element 23 into the retention position.

[0068] In this position, as shown in FIGS. 10 and 11, the retention shoulder 25 faces the inner side of the protective bridge 24 that frontally faces the trigger 41 of the gun 8, preventing the gun from being extractable from the holster 9.

[0069] When the user wishes to extract the gun 8, by means of the actuation lever 26, he turns the locking element 23, moving the retention shoulder 25 with respect to the side of the protective bridge 24 that is arranged frontally to the trigger 41, thus freeing the gun 8, which can be slid out of the
Conveniently, the user, by gripping the weapon, i.e., by arranging his thumb and part of the palm of his hand on the stock of the gun 8, can immediately extract the gun with a simple rotation of the actuation lever 26 with at least one finger opposite the thumb, making the extraction of the weapon straightforward and completely safe.

This swiftness of extraction is increased in the second embodiment, because the locking of the gun 8 inside the holster 9 occurs by means of the raised protrusion 43. In fact, the raised protrusion 43 prevents the undesired exit of the gun 8, opposing, with its own first portion 44a, the inner side of the protective bridge 24 that frontally faces the trigger 41.

When the user wishes to extract the gun 8, he grips said gun at the stock, pulling in the direction opposite to the direction of insertion 40. Accordingly, the protective bridge 24 strikes the first portion 44a of the raised protrusion 43, which initially prevents its extraction. When a greater force is applied, the protective bridge 24 starts to slide on the inclined part of the first portion 44a, pushing the raised protrusion 43 toward the outside of the holster body 16, which, by yielding elastically outward, allows movement beyond the top 46 by the protective bridge 24 and the subsequent extraction of the gun 8 from the holster 9.

The operation of inserting the gun 8 in the holster 9 occurs in a manner similar to the extraction operation, because in this case also the protective bridge 24 strikes the second portion 44b, which prevents its initial insertion. Following a greater force applied in the direction of insertion 40, the protective bridge 24 begins to slide on the inclined part of the second portion 44b, pushing the raised protrusion 43 toward the outside of the holster body 16, which, by yielding elastically outward, allows the protective bridge 24 to move beyond the top 46 and allows the subsequent insertion and locking of the gun 8 in the holster 9.

In practice it has been found that the case according to the invention fully achieves the intended aim and objects, since it allows safe transport of a gun with the corresponding holster.

Another advantage of the case according to the invention consists in the possibility of having a holster that can be extracted and used separately from the case.

Another advantage of the case according to the invention is that it allows immediate extraction of the gun from the holster.

Another advantage of the case according to the invention is that it can reduce shipping or handling costs by utilizing the ergonomic dimensions of the case and the possibility to stack more than one case.

Moreover, such a case and holster allow a triple use with a single product, making it possible to use a case to contain and protect a weapon during its transport, to use the case that contains the weapon and its corresponding holster, and to use the holster alone for the completely safe transport of the weapon worn by the user.

The invention thus conceived is susceptible of numerous modifications and variations, all of which are within the scope of the appended claims; all the details may furthermore be replaced with other technically equivalent elements.

In practice, the materials used, as long as they are compatible with the specific use, as well as the dimensions, may be any according to the requirements and the state of the art.

The disclosures in Italian Patent Application No. MN2011A000003 from which this application claims priority are incorporated herein by reference.

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.

A case for the safe transport of guns with associated holster, comprising:

- a box-like body constituted by a bottom element and by a lid connected to said bottom element by means of hinge elements for moving said box-like body from an open configuration to a closed configuration and vice versa;
- said bottom element and said lid being provided with closure means which can engage each other to keep said box-like body in said closed configuration, wherein in said bottom element there is a housing compartment adapted to contain a gun inserted in a respective holster, means being provided for the removable engagement of said holster with said box-like body to retain said holster in said housing compartment.

The case according to claim 14, wherein said removable engagement means comprise means for mutual coupling of said holster with said bottom element and means for locking said holster with respect to said bottom element, said locking means being able to be deactivated for the extraction of said holster from said box-like body.

The case according to claim 15, wherein said mutual coupling means comprise a sliding guide which is formed in said bottom element and can be engaged by said holster.

The case according to claim 15, wherein said locking means comprise a locking tooth, which is connected to said bottom element and can engage by snap action a locking seat formed correspondingly in said holster, said locking seat being aligned with said locking tooth in the position that corresponds to the stroke limit condition, in the sliding of said holster with respect to said bottom element along said sliding guide, at the end of its insertion in said housing compartment.

The case according to claim 14, wherein said holster comprises a holster body in which there is an insertion seat for the gun, said holster body having, laterally to said insertion seat, means for fastening to a belt.

The case according to claim 18, wherein said fastening means comprise a portion of said holster body which is U-shaped and can be fitted on a belt, on the inner side of said U-shaped portion at least one retention tooth being provided which contrasts the disengagement of said U-shaped portion from the belt.

The case according to claim 18, wherein said holster is provided with retention means for retaining the gun inside said insertion seat, said retention means being able to be deactivated on command to allow the extraction of the gun from said insertion seat.

The case according to claim 20, wherein said retention means comprise a locking element associated with said holster body in the region of said insertion seat that is designed to be occupied by the protective bridge of the trigger of the gun, said locking element being movable on command from a retention position, in which it faces with at least one retention shoulder the inner side of said protective bridge of the trigger,
to a release position, in which said retention shoulder is moved with respect to the inner side of said protective bridge of the trigger, and vice versa.

22. The case according to claim 21, wherein said retention means comprise a raised protrusion which is associated with said holster body and protrudes inside said insertion seat in a region designed to be occupied by the protective bridge of the trigger of the gun, said raised protrusion being able to be engaged inside the protective bridge of the trigger of the gun so as to retain the gun in said insertion seat and being elastically yielding for the insertion of the gun in said insertion seat and for the extraction of the gun from said insertion seat.

23. The case according to claim 21, wherein said raised protrusion has at least one first lateral portion and one second lateral portion, which are inclined and mutually opposite and extend from a base thereof in direct contact with said holster body, at its top, said holster body being elastically flexible outward for the elastic yielding of said raised protrusion when said gun is inserted in said holster and is extracted from said holster due to the thrust of said safety bridge respectively against said second portion and against said first portion with subsequent movement beyond said top.

24. The case according to claim 21, wherein said locking element is connected to an actuation lever that is arranged on the side of said holster body that is designed to be directed toward the body of the user, said locking element being rotatable, by the action of said actuation lever (26), with respect to said holster body about an axis that is substantially perpendicular to a direction of insertion of the gun in said insertion seat for moving from said retention position to said release position and vice versa.

25. The case according to claim 14, wherein said box-like body is constituted by a body made of synthetic material molded monolithically with said hinge elements and with said closure means.

26. The case according to claim 14, wherein said housing compartment is delimited by raised ribs adapted to keep the gun in said housing compartment even in the absence of said holster.

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