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(19) **United States**(12) **Patent Application Publication**  
**Avganim**(10) **Pub. No.: US 2013/0299540 A1**(43) **Pub. Date: Nov. 14, 2013**(54) **LOCKABLE CARRYING BAG STRAP**  
**BUCKLE****Publication Classification**(76) Inventor: **Meir Avganim**, Gealya (IL)(21) Appl. No.: **13/980,237**(22) PCT Filed: **Jan. 25, 2012**(86) PCT No.: **PCT/US12/22527**

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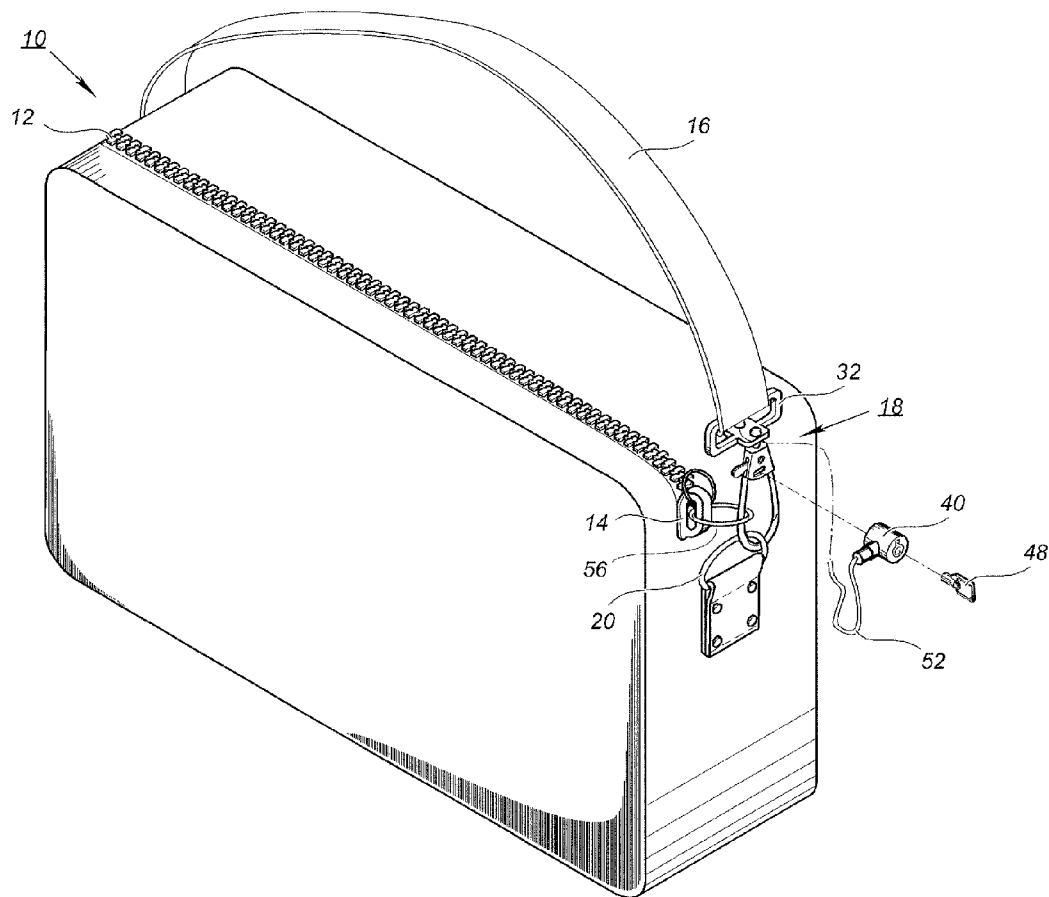
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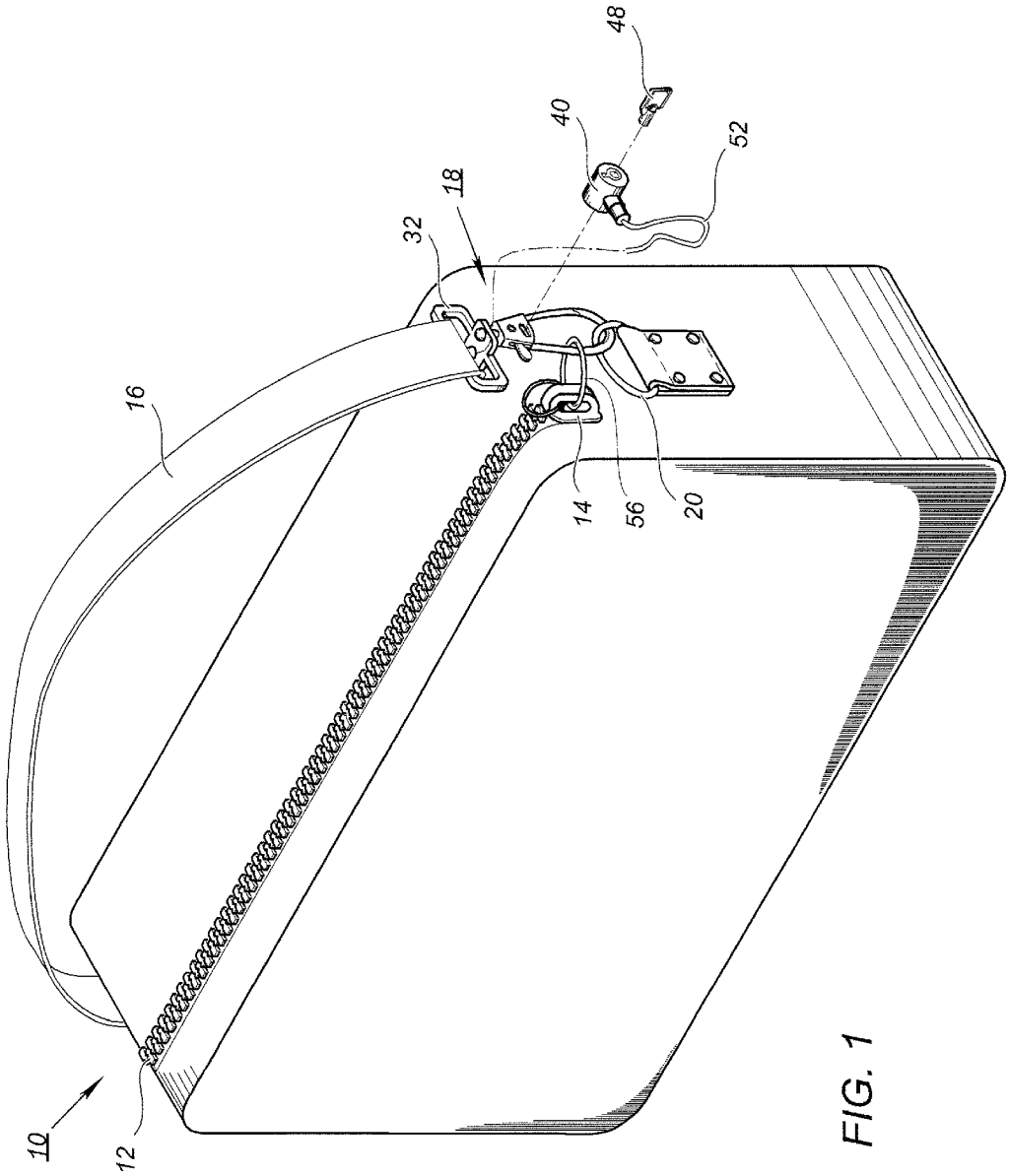
**ABSTRACT**

A carrying bag with a shoulder-strap and a zipper with at least one zipper-rider for closing/opening the bag, the shoulder-strap being provided with a carabiner-type buckle comprising a hook portion, gate-pin, and an elongated slot located adjacent the gate-pin, the elongated slot being configured to receive a lock tip of a lock which, when inserted inside the elongated slot, prevents actuation of the gate-pin and opening of the hook portion.

**Related U.S. Application Data**

(60) Provisional application No. 61/436,616, filed on Jan. 27, 2011.





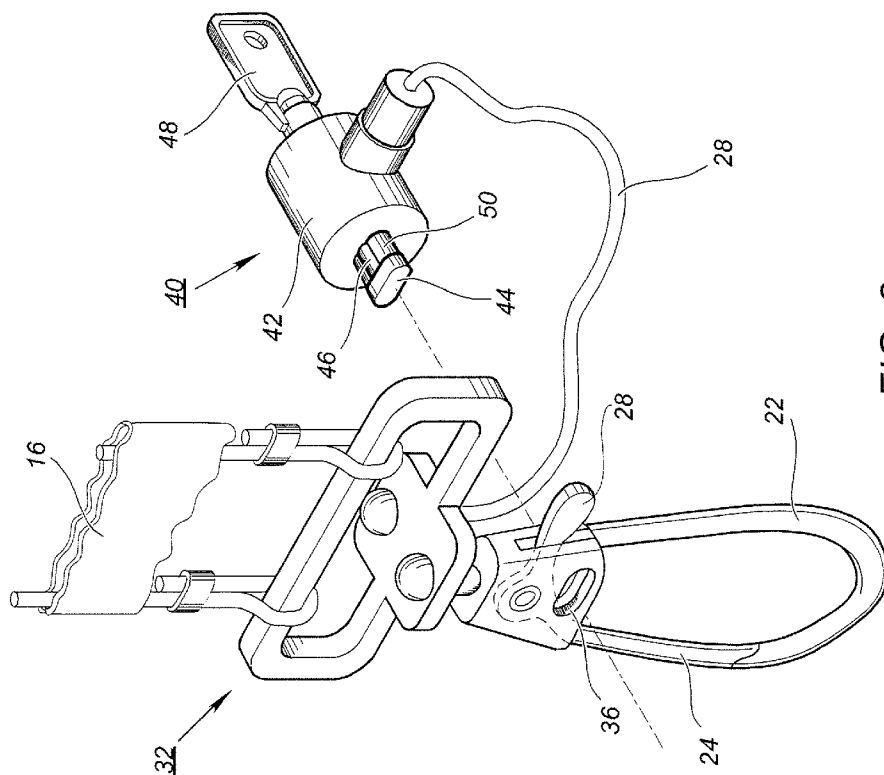


FIG. 3

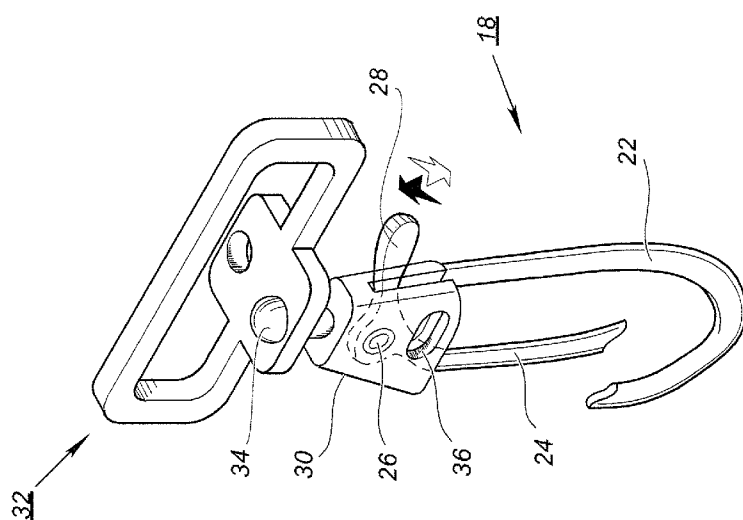


FIG. 2

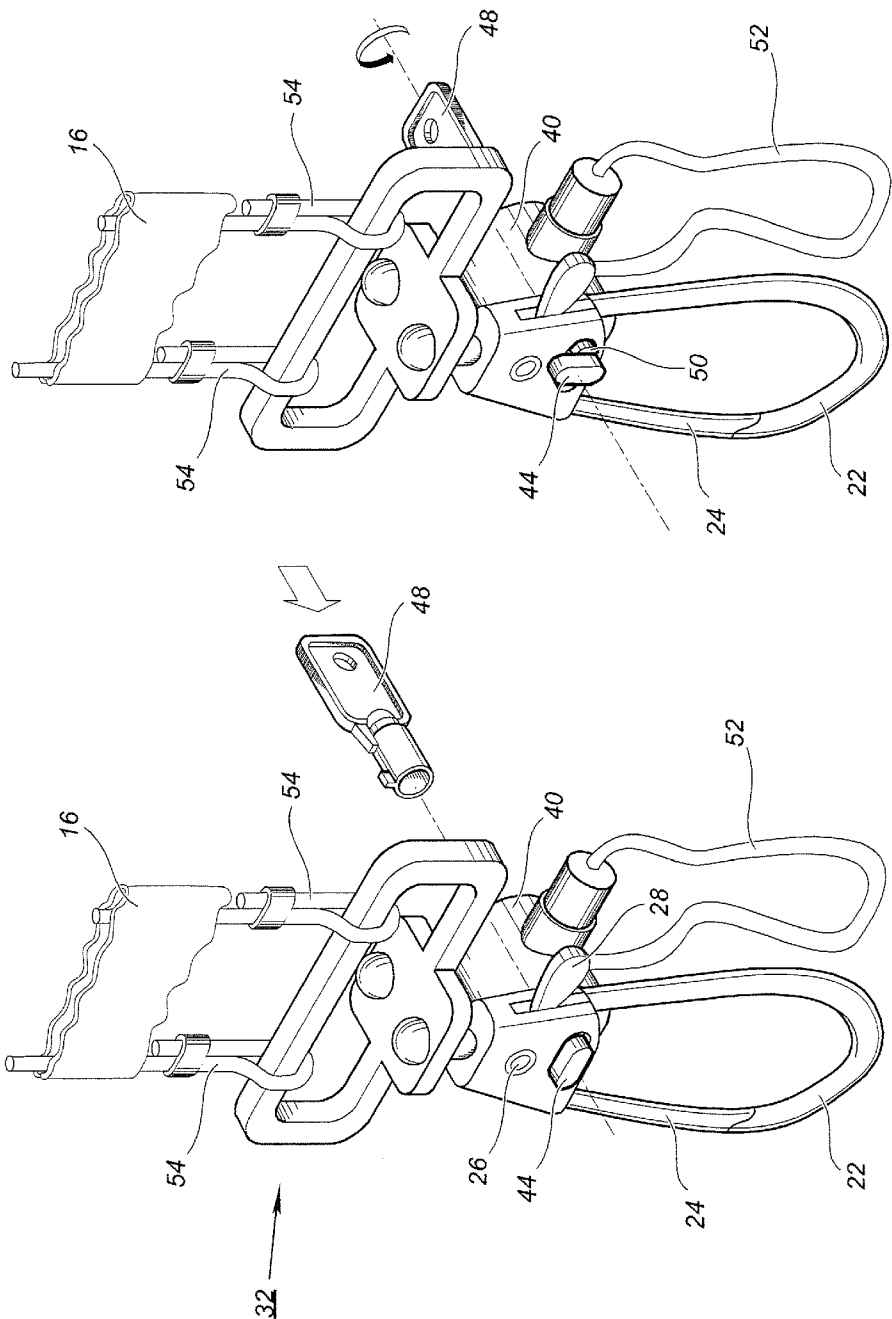
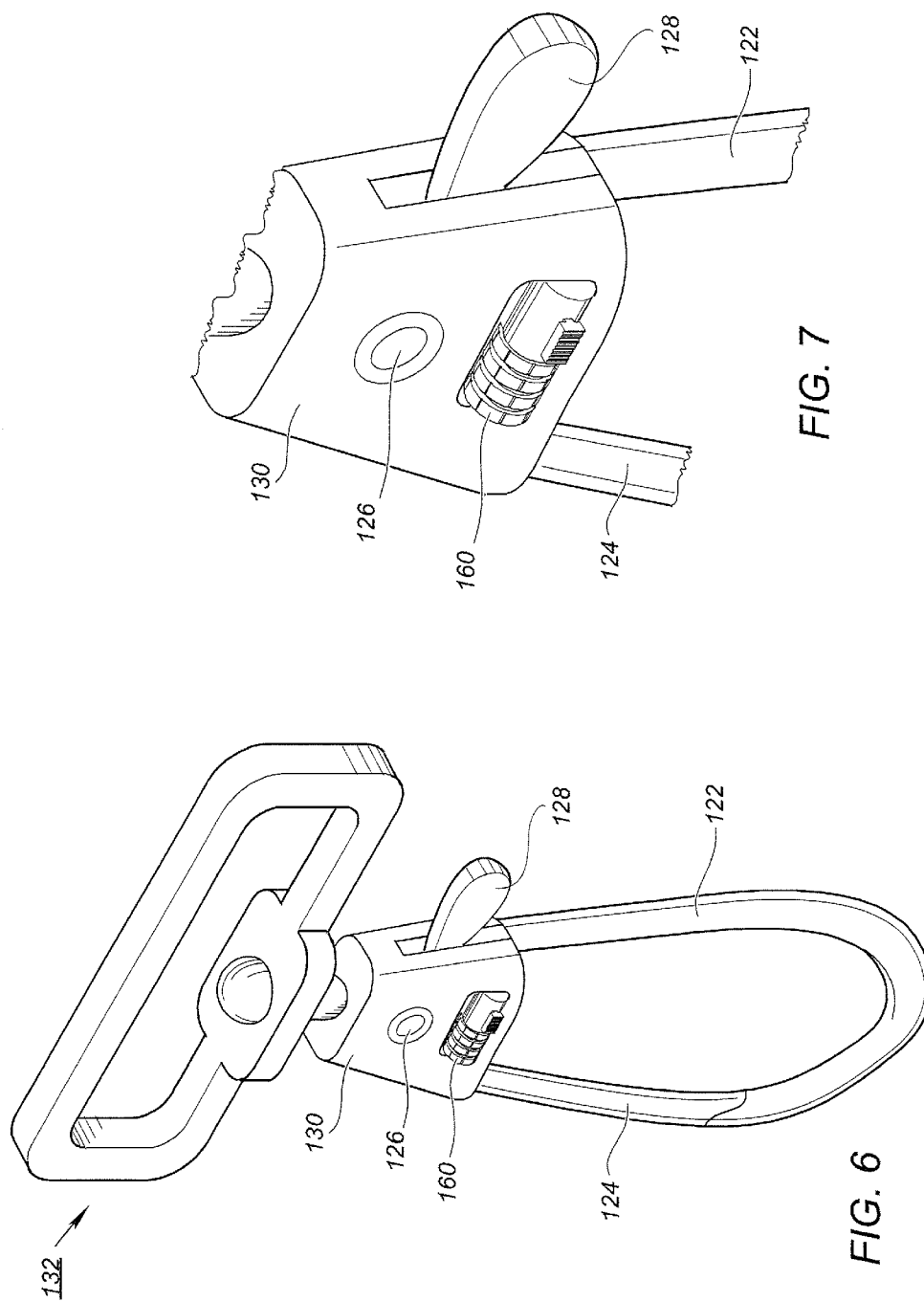


FIG. 4

FIG. 5



## LOCKABLE CARRYING BAG STRAP BUCKLE

### CROSS-REFERENCE TO RELATED APPLICATION

[0001] The present application claims the benefit of U.S. Provisional Patent Application No. 61/436,616 filed on Jan. 27, 2011; which is incorporated herein by reference in its entirety.

### BACKGROUND OF THE INVENTION

[0002] The present invention generally relates to strap buckles or hasps. The invention particularly pertains to carrying bags, such as for portable computers, equipped with a shoulder strap which is connectable/detachable to the bag by buckles of the known type comprising a spring-urged, pivotable gate-pin (also called "Carabiner hook").

### SUMMARY OF THE INVENTION

[0003] Straps with carabiner hooks are designed to be easily attached to a bag, suitcase or the like, simply by clicking over side rings provided for that purpose. While, on the one hand, this is considered a virtue, on the other hand, it renders the strap useless as a protective or security component.

[0004] In my International Patent Application No. PCT/IL2010/000194 (WO 2010/116350), I have tackled this problem in a certain way. The contents of said PCT/IL2010/000194 are incorporated by reference herein. This invention offers a different, more straightforward solution of converting the carry-strap into means for safeguarding the bag against stealing.

[0005] It is thus the prime object of the invention to provide a strap buckle which is lockable against its side harnessing ring.

[0006] It is a further object of the invention to use the buckle also to lock a zipper rider thereagainst.

[0007] Other features and advantages of the present invention will become apparent from the following description of the invention which refers to the accompanying drawings.

### BRIEF DESCRIPTION OF THE DRAWINGS

[0008] The invention is exemplified with reference to the attached drawings, wherein:

[0009] FIG. 1 is an overall, schematic, perspective view of a bag provided with a security buckle following the teachings of the present invention;

[0010] FIG. 2 is a more detailed perspective view of the buckle shown in the embodiment of FIG. 1;

[0011] FIG. 3 shows the buckle of FIG. 2 associated with a gate-pin lock according to a first embodiment of the present invention;

[0012] FIGS. 4 and 5 illustrate steps of locking the buckle of FIG. 3;

[0013] FIG. 6 depicts an alternative embodiment of the invention; and

[0014] FIG. 7 is an enlarged view of the buckle of FIG. 6.

### DETAILED DESCRIPTION OF EMBODIMENTS OF THE INVENTION

[0015] Referring to FIG. 1, 10 generally denotes a shoulder bag such as for carrying portable computers with a shoulder

strap 16. Carabiner-type buckle generally denoted 18 is used to harness the strap 16 to side ring 20.

[0016] As better seen in FIG. 2, the carabiner buckle is of a conventional structure, namely comprising a hook portion 22, and a gate-pin 24. The gate-pin 24 is pivotable about axle 26 against a butterfly or leaf spring (not shown). The gate-pin 24 has a tail portion 28 for manipulating the pin 24: pushing the tail portion 28 upwards (by a finger of the user) will cause the opening of the gate-pin 24 (rotating counter-clockwise). Once the tail 28 is returned, the gate-pin 24 will automatically turn back to the arrested position (FIGS. 1 and 3). Base portion 30 of the buckle 18 is connected to hasp 32, as by rivet 34.

[0017] An elongated slot 36 traverses the base portion 30 and is so located that it is flush with the underside of an upper portion of the gate-pin 24. Here is where the present invention comes in, as will be explained below in conjunction with FIGS. 3-5.

[0018] In FIG. 3, 40 generally denotes a security lock of the type which is also disclosed in my above-mentioned PCT application (and others) in the context of protecting portable computer against theft, using a dedicated slot formed in a side-wall thereof.

[0019] The lock 40 comprises a lock-body 42 housing a key mechanism (not shown). A T-shaped tip 44, mounted to stem 46 is operable by the key 48 to be rotated by 90° and locked in such position (see FIG. 5). Two stationary side post 50 are provided, one at each side of the stem 46, in order to avoid the release of lock body 42 once inserted through the passage 36 and the tip 44 turned by 90°.

[0020] Optionally, a stretch of cable 52 connects the lock body 42 to the hasp 32 in order to always keep the lock 40 within reach (in the inoperative stage of the device).

[0021] Also recommendable is to reinforce the strap 16, e.g., by one or two steel cables 54.

[0022] The operation of the device as so far described is self-evident once reference is made to FIGS. 4 and 5. Hence, upon the insertion of the tip 44 through the passage 36 and turning same by 90° using the key 48, the gate-pin 24 become immobilized, namely that pushing the tail portion 28 upwards (as depicted in FIG. 2) is prevented. The connection of the buckle 18 to the ring 20 is secured, and so is the connection of the zipper-rider 14 if ring 56 is used (FIG. 1).

[0023] In fact, the strap 16 can be wound around an immovable object (such as a table leg—not shown) and thereby to protect the bag 10 against snatching, all as described in my above mentioned PCT application.

[0024] According to the modified embodiment depicted in FIGS. 6 and 7, the gate-pin 124 immobilization means consists of a combination lock 160 fixedly nested within the buckle base portion 130. Details of structure and operation of a suitable combination lock can be learned from my International Patent Application No. PCT/IL2007/001635 and hence need not to be further elaborated in the present context.

[0025] Obviously, a plain key operated lock can be used in replacement of and the same way as the combination type lock 160.

[0026] Although the present invention has been described in relation to particular embodiments thereof, many other variations and modifications and other uses will become apparent to those skilled in the art. It is preferred, therefore, that the present invention be limited not by the specific disclosure herein, but only by the appended claims.

What is claimed is:

1. A carrying bag with a shoulder-strap and a zipper with at least one zipper-rider for closing/opening the bag, the shoulder-strap being provided with a carabiner-type buckle comprising a hook portion, gate-pin, and an elongated slot located adjacent the gate-pin, the elongated slot being configured to receive a lock tip of a lock which, when inserted inside the elongated slot, prevents actuation of the gate-pin and opening of the hook portion.

2. The carrying bag of claim 1, further including a lock comprising said lock tip.

3. The carrying bag of claim 2, wherein the lock tip comprises a T-shaped tip rotatable between locked and unlocked positions.

4. The carrying bag of claim 3, wherein the lock tip is rotatable by a key.

5. The carrying bag of claim 1, wherein said T-shaped tip is lockable by a combination lock.

6. The carrying bag of claim 1, wherein the shoulder strap is fixed and unopenably secured at one end thereof to a body portion of said carrying bag.

7. The carrying bag of claim 1, wherein the shoulder strap can be wound around an immovable object and locked by means of said lock so that it is tethered to the immovable object.

8. The carrying bag of claim 1, wherein said elongated slot measures about 3×7 mm.

9. The carrying bag of claim 2, including a stretch of cable connected to a body of said lock at one end and to the carrying bag at the other end to always keep the lock within reach.

10. The carrying bag of claim 1, wherein the strap is reinforced by at least one steel cable.

11. The carrying bag of claim 1, wherein said zipper rider is configured to be locked by said buckle in a closed position of said zipper.

12. The carrying bag of claim 2, wherein said bag is configured to enable said zipper to be locked by said buckle and said bag to be securely tethered to an immovable object by said strap.

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