US 20140124389A1

(19) United States

(12) Patent Application Publication

(10) Pub. No.: US 2014/0124389 A1

(43) Pub. Date: May 8, 2014

Borlenghi

(54) **APPARATUS FOR HOUSING A GPS DEVICE FOR LOCATING CHILDREN**

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(21) Appl. No.: **13/694,211**

(22) Filed: **Nov. 7, 2012**

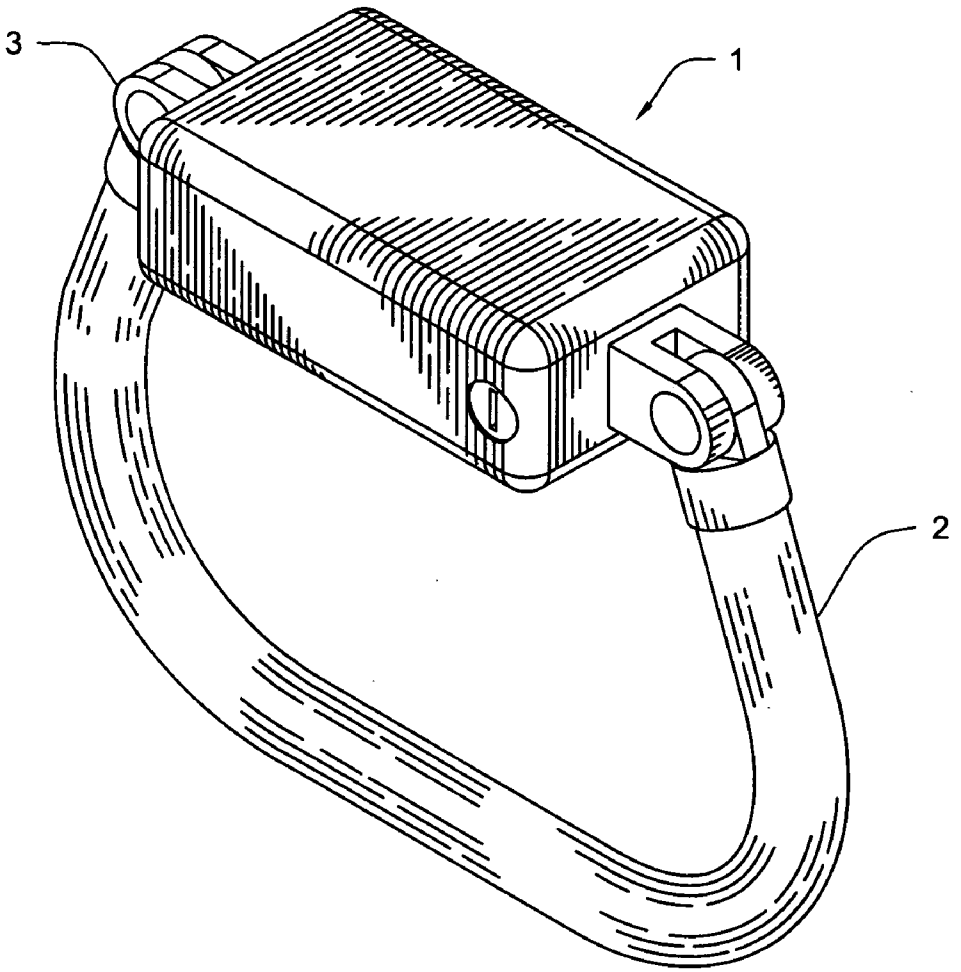
Publication Classification

(51) **Int. Cl.**
A45F 5/00 (2006.01)

(52) **U.S. Cl.**
CPC *A45F 5/00* (2013.01)
USPC **206/37**

(57) **ABSTRACT**

Apparatus for housing a GPS device to locate children compromising of a male and female end locking device with adjustable sizing, titanium cable band, titanium housing device, and specialized key for locking mechanism. The housing device will be locked around the child's wrist or ankle and can only be opened with a specialized key provided. Its intention is to house a small GPS locating device within the housing area.



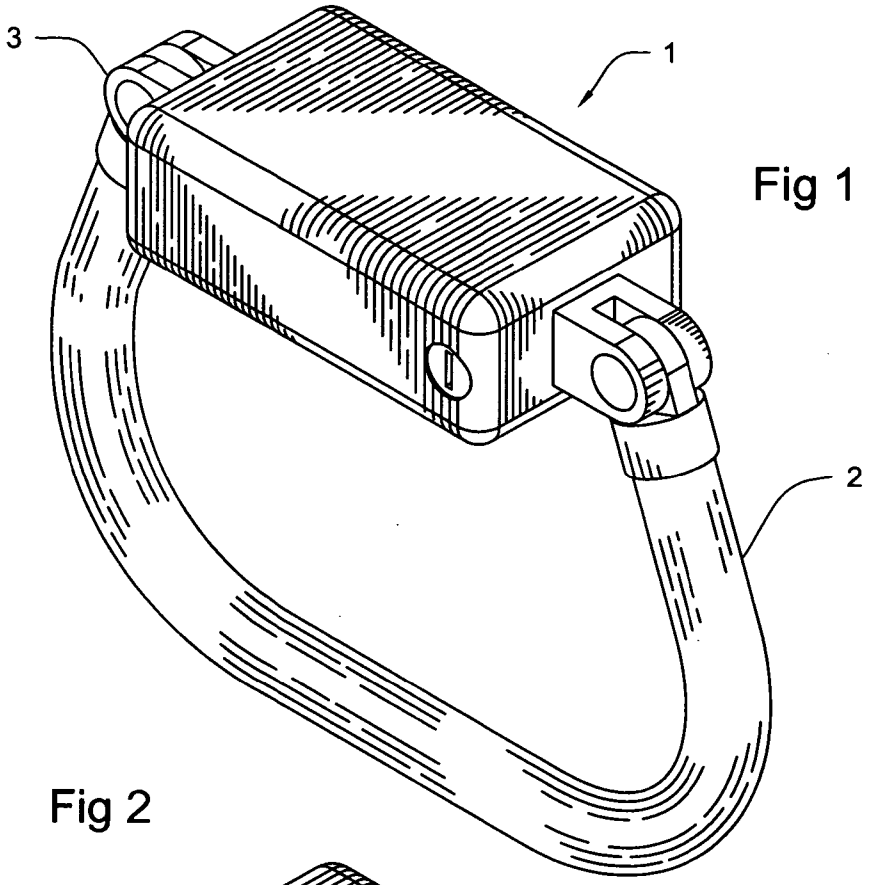
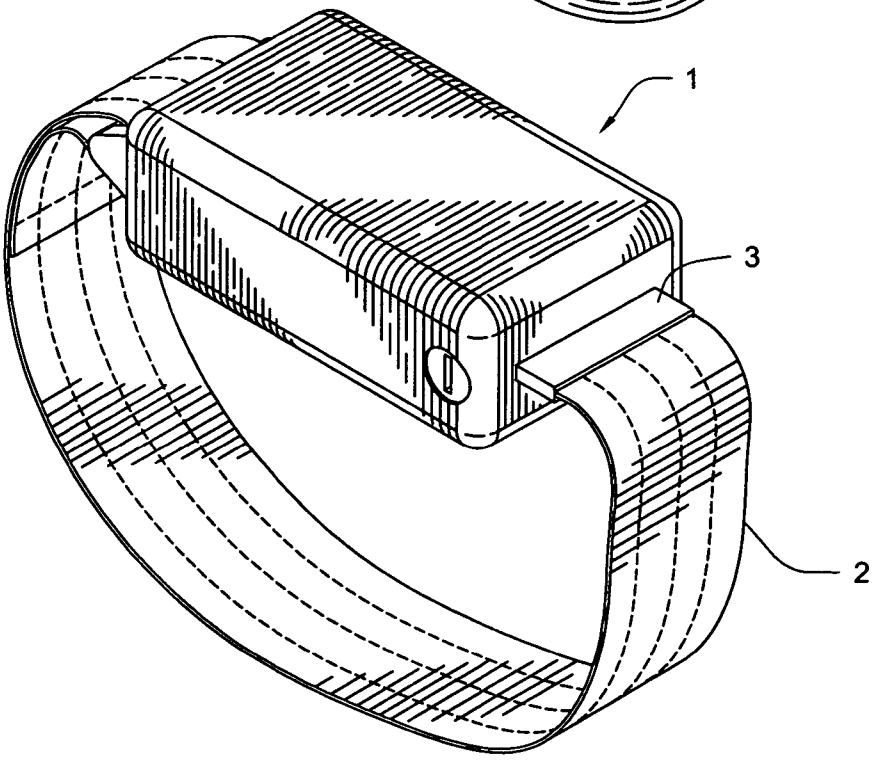
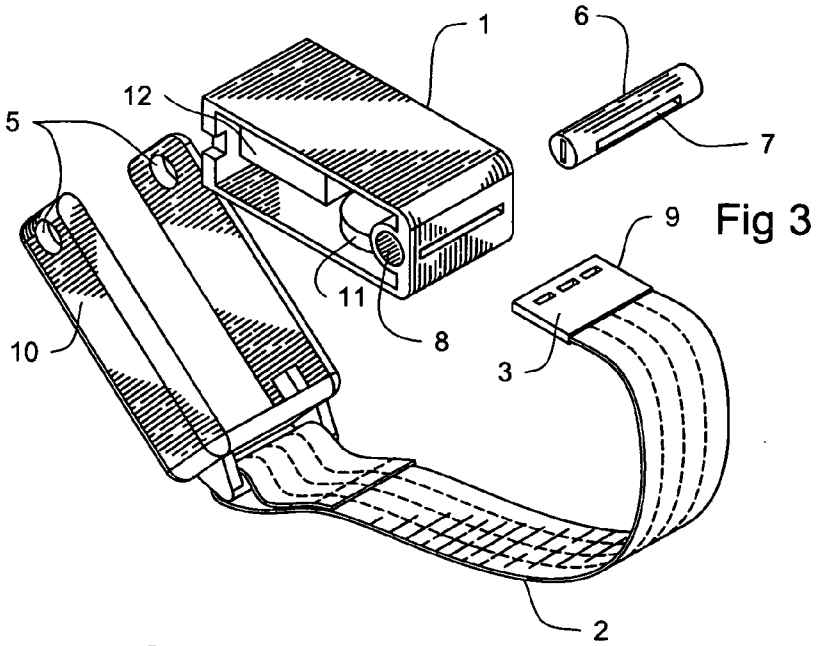


Fig 1

Fig 2





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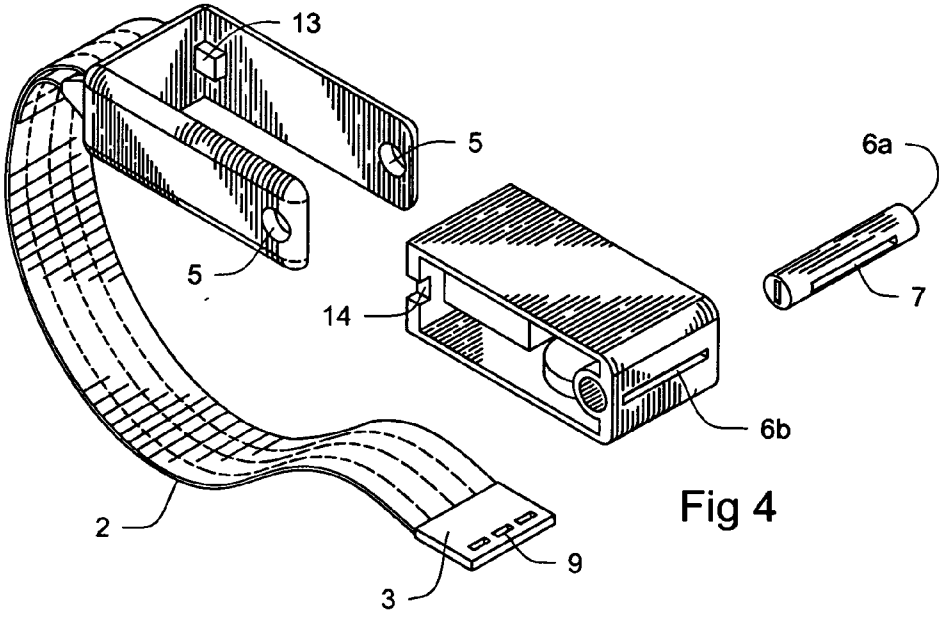

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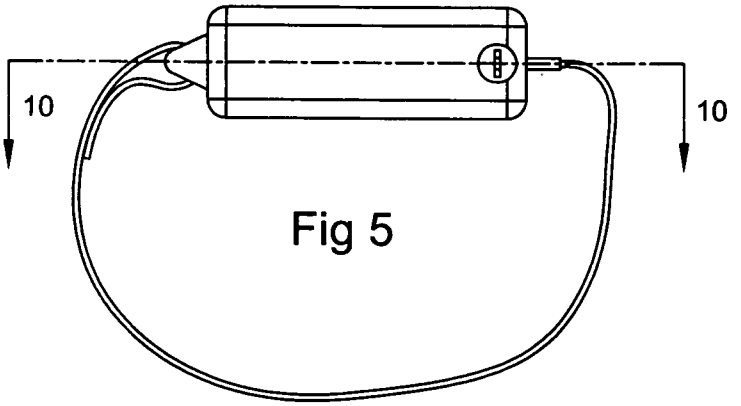

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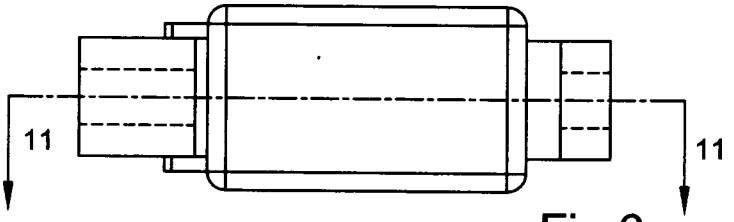

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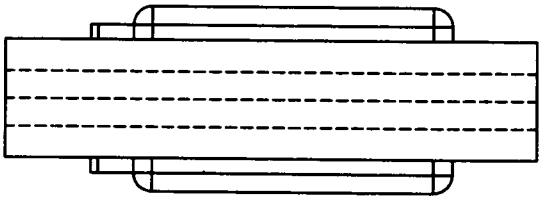

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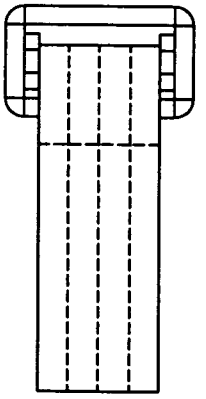

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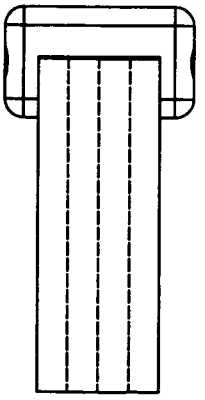

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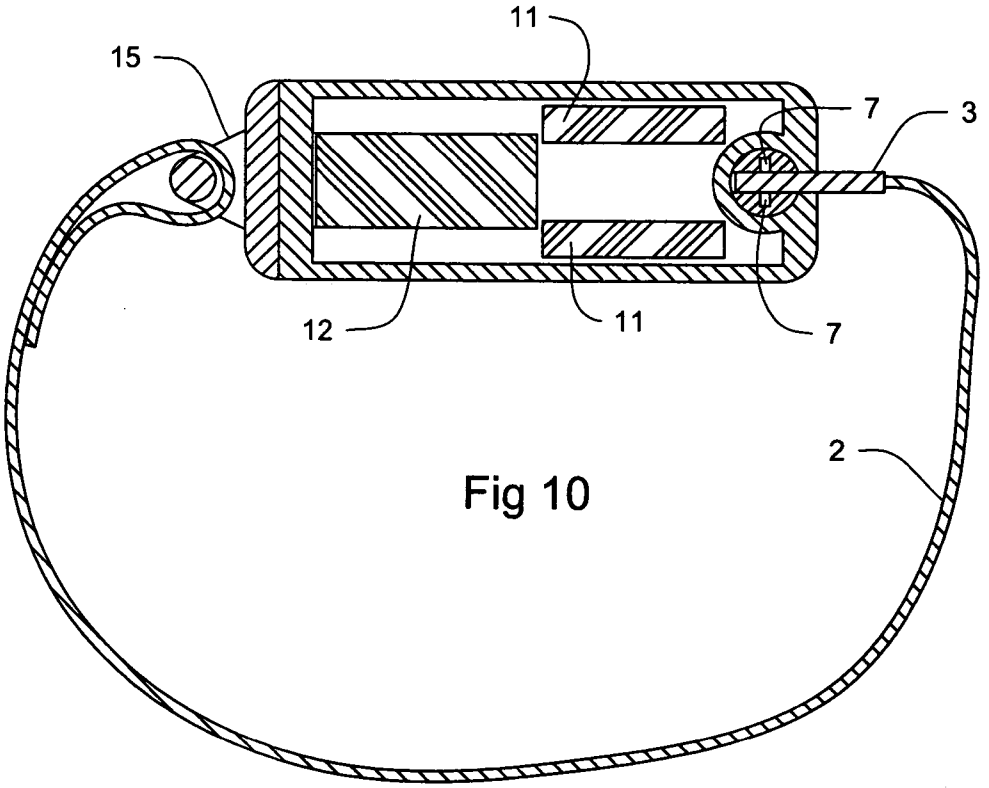
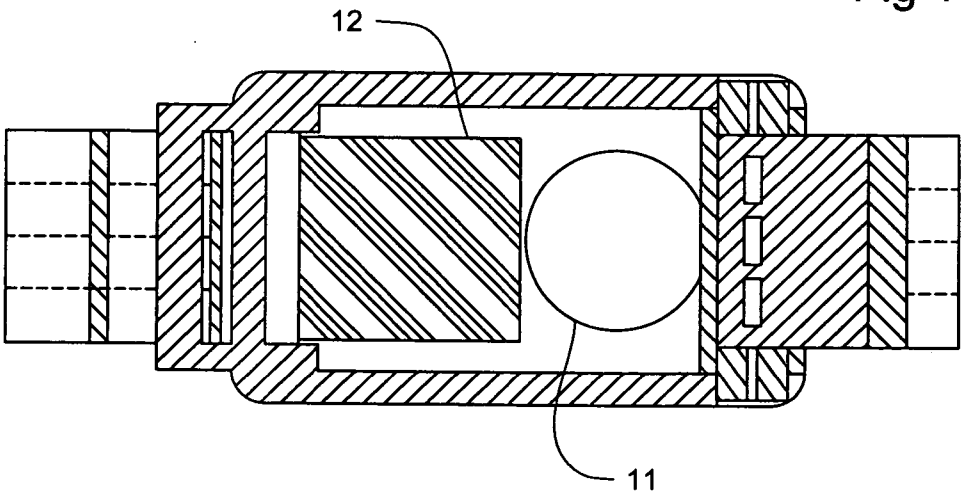
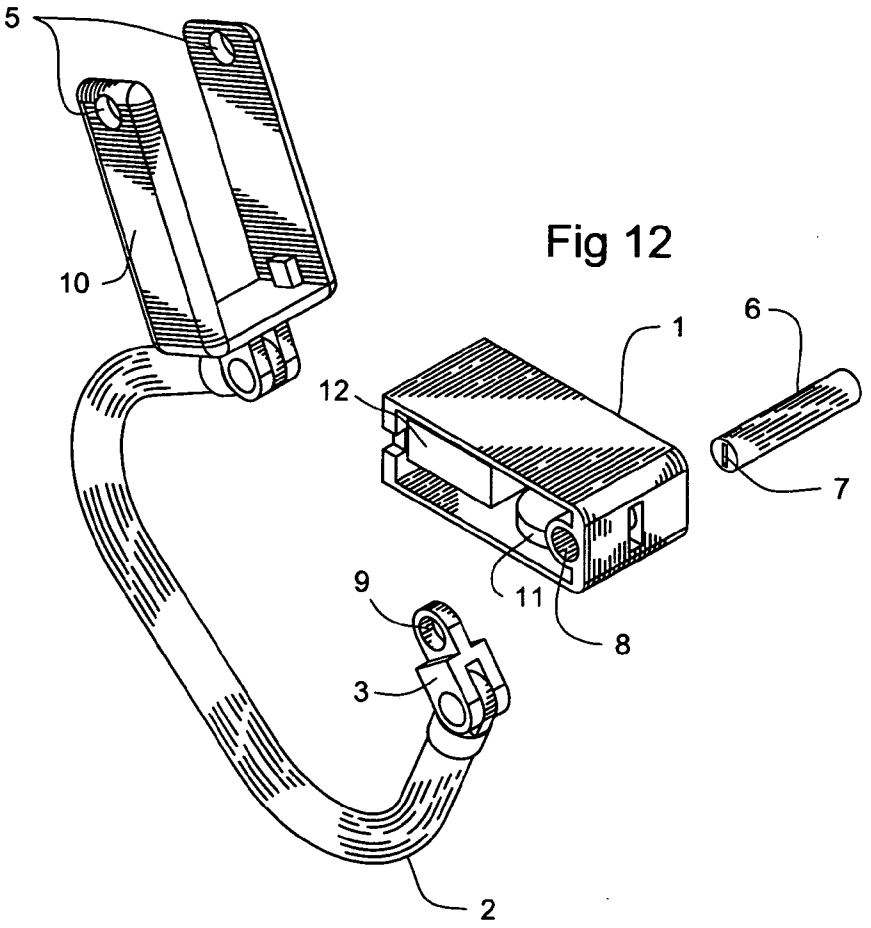


Fig 10

Fig 11





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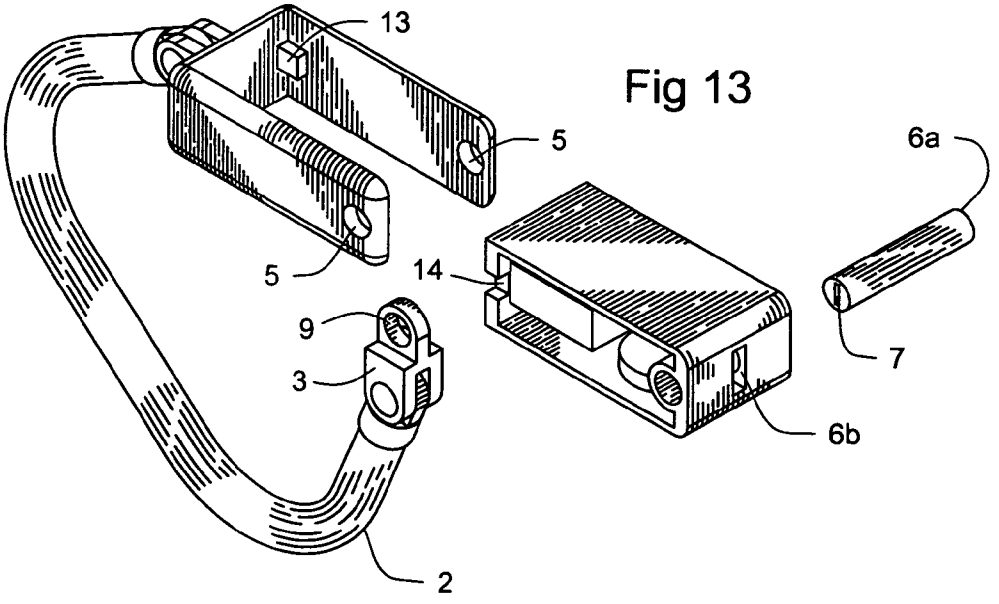

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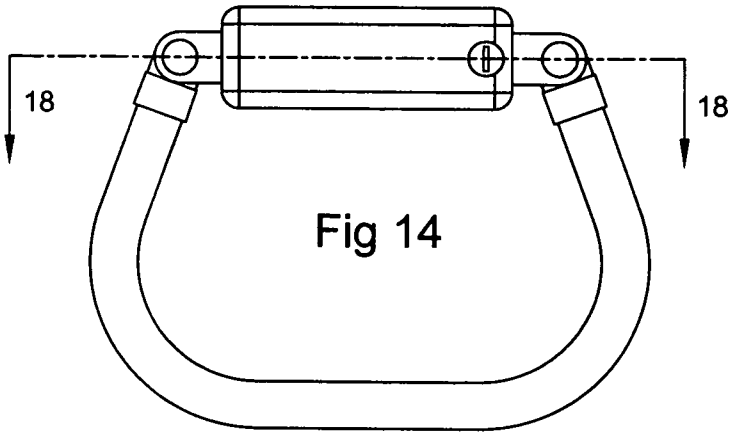

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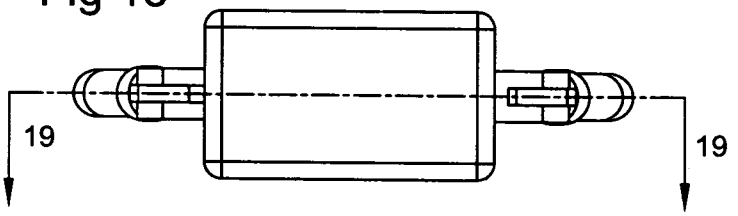
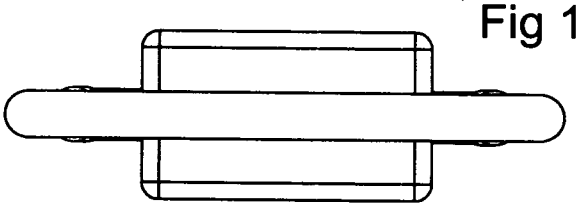


Fig 16



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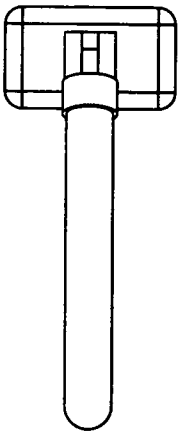

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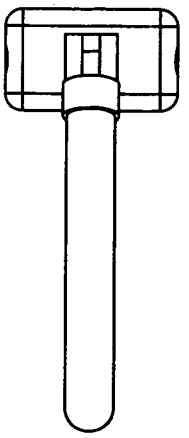


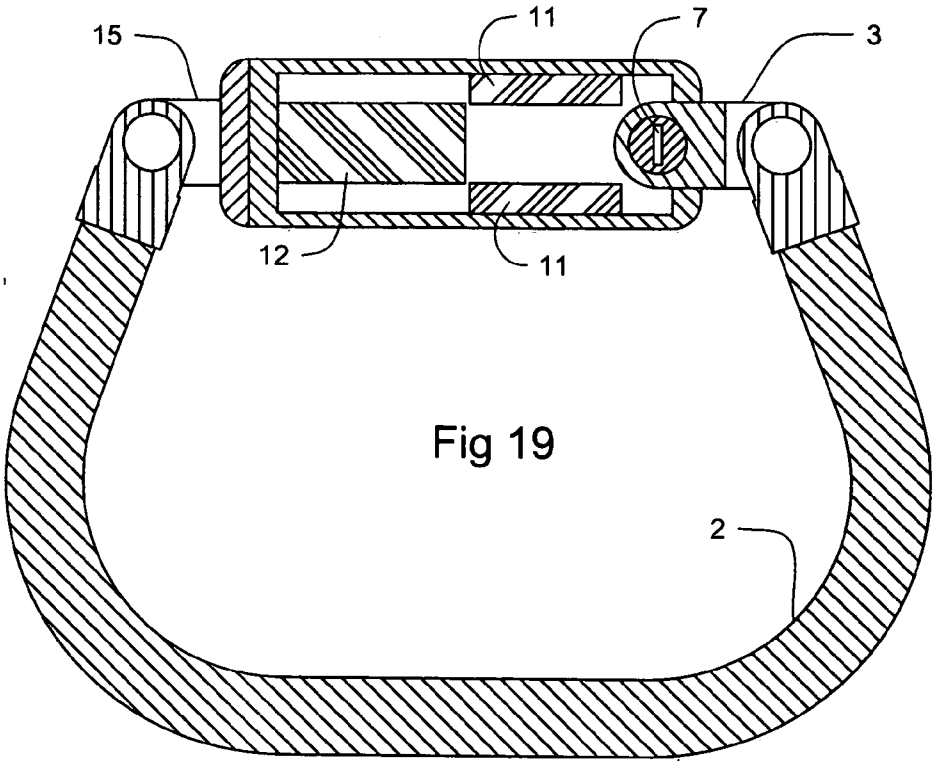
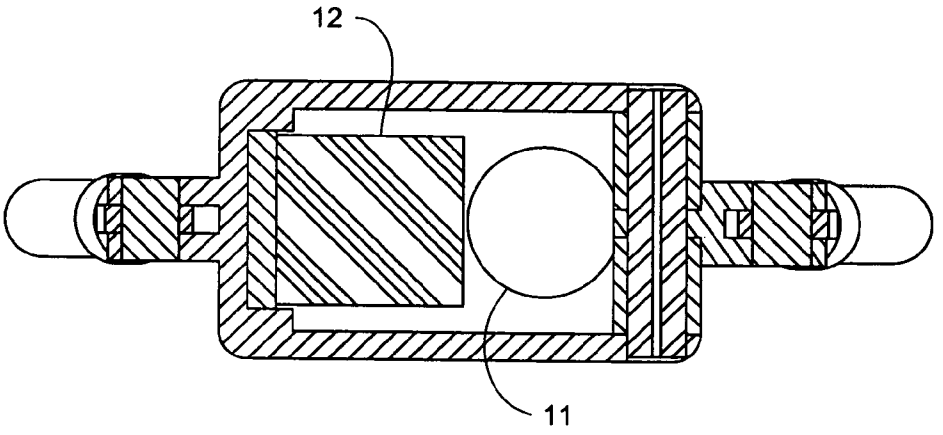


Fig 19

Fig 20



APPARATUS FOR HOUSING A GPS DEVICE FOR LOCATING CHILDREN

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] Not Applicable

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

[0002] Not Applicable

DESCRIPTION OF ATTACHED APPENDIX

[0003] Not Applicable

BACKGROUND OF THE INVENTION

[0004] This invention relates generally to the field of child protection and more specifically to an apparatus for housing a GPS device for locating children.

This invention relates generally to the field of housing units for small indestructable GPS tracking devices and more specifically to an apparatus made of titanium and high standard plastic for housing a GPS device to locate children.

[0005] In today's increasingly mobile society, it is desirable to monitor the location and movement of humans, paticularly children. Many children, especially young children, lack the understanding necessary to orient themselves and communicate sufficiently to find loved ones in the event that child become lost. Furthermore a lost child can easily become a victim to kidnapping or the clutches of a sexual predator.

[0006] The risk of abduction is one of the greatest risks to parents and/or child care providers. While technology exists for protection of car jacking and theft, the housing and even devices to place on children that are easily removed, those that offer a band with a locking device only unlocked with a dedicated key, or an indestructible, fire, and water proof design do not exist. Many children become lost and/or abducted while returning from school, playing at a friend's house, while engaged in extended outdoor activities such as hicking or camping or while at malls and the like.

[0007] The child find GPS locating device is virtually an indestructable bracelet or anklet housing unit which is designed to contain a GPS system to allow parents to effectively track their child with an external monitor linked to the GPS. It consists of a titanium cable with Titanium male and female ends to engage in a virtually impenatrable locking mechanism, released only by a specialized key provided. The Cable band shall have a soft rubber casing surrounding it available in a number of colors to satisfy children's fashion design selection.

[0008] The prior art includes security devices in which a lost or abducted child can be located by using a radio receiver that monitors the signal transmitted by a matching transmitter in possession of the lost or abducted child. U.S. Pat. No. 6,593,851 discloses a two-way, parent-child communication system which includes a parent unit and at least on child unit. The parent and child units are capable of both sending and receiving signals to and from the corresponding unit to cause any number of alers or messages to be communicated to the parent, child and/or guardian. Each unit may include a number of different alert mechanisms, including an audible alert, a visual alert, a vibratory alert or voice messages.

[0009] U.S. Pat. No. 6,243,039 discloses a system that tracks the current and historical locations of a GPS locator device carried by a person which provides widely available access to data referencing these locations, so that a parent can easily and frequently monitor the location of a child. Monitoring of a child's location may be conducted via a Web site, which provides graphical maps of location data, or via calling into a call center. The present invention also provides a means for a parent to trigger the automatic trasmission of the device's location, via a Web site or call placed to a call center agent.

[0010] U.S. Pat. No. 6,127,931 discloses a device for monitoring the movement of a person including a homing unit and a base unit. The homing unit includes a device for generating a homing signal and a transmitter for transmittng the homing signal at predetermined intervals. The base unit includes a receiver for receiving the homing signal, a processor for processing the homing signal to determine whether the homing unit is within a predetermined distance from the base unit and generating an alarm signal upon determining the homing unit is at a distance from the base unit greater than the predetermined distance.

[0011] U.S. Pat. No. 6,278,370 discloses a child locating and tracking apparatus which provides a means for the location of a chid that is lost, abducted or in general danger to be quickly located. The apparatus uses a small transmitter that is always carried by the child and as such, is always present when danger arises. The transmitter is easily disguised and hidden in the child's clothing or personal adornments such as shoes, coats, watches, earrings, bracelets, rings and the like. The appratus uses a system of world wide recievers such as those provided by local cellular telephone towers or by low earth orbiting satellites used for low power communication. When a child is lost or in danger, the child simply activates the transmitter which sends a signal to a central reporting station or stations where trained personel will contact the respective parents and/or care givers to determine if the child could possibly be in danger. If an affirmative decision is reached, the monitoring station personnel will then assist the local law enforcement officials in the respective area anywhere in the world where the alarm was received in locating the child and removing the child from harm's path.

[0012] U.S. Pat. No. 5,689,240 shows a system that transmits and receives signals comprimising a master unit and a remote unit, wherein a separation distance between the master unit and remote unit is continously monitored and an alarm is activated onthe master unit when no signal is received from the remote unit for at least a time longer than a preset interval. If the separation distance between the master and remote unit is exceeded for a time longer than a preset time interval, the remote unit activates an alarm attached to the remote unit. This invention uses a pin or key arrangement to deactivate without interfacing with the master unit

[0013] Lastly, U.S. Pat. No. 7,511,627 B2 is a child locator that enables a parent to locate a child includes a master unit for wear by a parent and a monitored unit for wear by a child. The master unit may actuate an on-board alarm when its processor determines that the monitored unit is beyond a first predetermined distance and may actuate an alarm on the monitored unit when the separation distance is beyond another distance. This patent is placed on the wrist of a child in the form of a watch with a watch band.

[0014] Each of these units deal with primarily a master and monitored unit. In addition most of the previous patents attach themselves to the child one way or another but never in a manner which the device cannot be removed without a key

to disengage a locking mechanism. In addition none of these units are made with bands which are made of titanium and contain a locking mechanism that can either be placed around a child's ankle or wrist. Furthermore, none of the previous patents identify the housing of the master, monitored unit or GPS device as being made of Titanium, or being fire proof or water proof.

BRIEF SUMMARY OF THE INVENTION

[0015] The primary object of the invention is to provide a means for housing a small GPS device to child's wrist or ankle by using a titanium band which cannot be damaged or removed without a key to unlock the locking mechanism.

[0016] Another object of the invention is to provide a means for housing a small GPS device where the housing unit is impermeable to water.

[0017] Another object of the invention is to provide a means to secure the housing area which holds the GPS device, to a child through a titanium band with a locking mechanism that cannot be opened unless the matching key is present.

[0018] A further object of the invention is that it provides a means to secure a GPS device to a titanium wrist band where the housing unit and wrist band are fire resistant.

[0019] Other objects and advantages of the present invention will become apparent from the following descriptions, taken in connection with the accompanying drawings, wherein, by way of illustration and example, an embodiment of the present invention is disclosed.

BRIEF DESCRIPTION OF THE DRAWINGS

[0020] The drawings constitute a part of this specification and include exemplary embodiments to the invention, which may be embodied in various forms. It is to be understood that in some instances various aspects of the invention may be shown exaggerated or enlarged to facilitate an understanding of the invention.

[0021] FIG. **1** is a perspective view of the invention with a chain type band.

[0022] FIG. **2** is a perspective view of the invention with a flat band.

[0023] FIG. **3** is an exploded view of the bottom side of the locking mechanishm of the flat band invention.

[0024] FIG. **4** is an exploded view of the top side of the locking mechanism of the flat band invention.

[0025] FIG. **5** is a side view of the flat band invention.

[0026] FIG. **6** is a top view of the flat band invention.

[0027] FIG. **7** is a bottom view of the flat band invention.

[0028] FIG. **8** is a perpective veiw of the front of the flat band invention.

[0029] FIG. **9** is a perspective view of the back of the flat band invention

[0030] FIG. **10** is a perspective view of an enlarged scale of the invention is in FIG. **5**.

[0031] FIG. **11** is a top view of the housing unit and locking mechanism of the chain type band invention.

[0032] FIG. **12** is an exploded view of the bottom side of the locking mechanishm of the chain type band invention.

[0033] FIG. **13** is an exploded view of the top side of the locking mechanism of the chain type band invention.

[0034] FIG. **14** is a side view of the chain type band invention.

[0035] FIG. **15** is a top view of the chain type band invention.

[0036] FIG. **16** is a bottom view of the chain type band invention.

[0037] FIG. **17** is a perpective veiw of the front of the chain type band invention.

[0038] FIG. **18** is a perspective view of the back of the chain type band invention

[0039] FIG. **19** is a perspective view of an enlarged scale of the chain type band invention is in FIG. **5**.

[0040] FIG. **20** is a top view of the housing unit and locking mechanism of the chain type band invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0041] In accordance with a preferred embodiment of the invention, there is disclosed In accordance with a preferred embodiment of the invention, there is disclosed.

[0042] Detailed descriptions of the preferred embodiment are provided herein. It is to be understood, however, that the present invention may be embodied in various forms. Therefore, specific details disclosed herein are not to be interpreted as limiting, but rather as a basis for the claims and as a representative basis for teaching one skilled in the art to employ the present invention in virtually any appropriately detailed system, structure or manner.

[0043] An apparatus for housing a GPS device for locating children according to the present invention will now be described in detail with reference to FIGS. **1** through **20** of the accompanying drawings more particularly a , an aparatus for housing a GPS device for locating children FIG. **1** according to the current invention includes a housing unit **1** and a flat band (FIG. **2**) **2** or chain band (FIG. **1**) **2** (made of titanium).

[0044] The Housing unit **1** (shown in FIGS. **3** and **4** for the flat band, and FIGS. **12** and **13** for the chain band) house a small "plastic steel" internal water and fire proof container **12** which holds the GPS device. The housing unit **1** also contains a storage unit **11** to house two lithium batteries to power the GPS unit.

[0045] The Housing unit **1** (shown in FIGS. **3** and **4** for the flat band, and FIGS. **12** and **13** for the chain band) contain a locking mechanism **6***a* and **6***b* that can only be opened with a special designed key. The locking mechanism is comprised of the male portion of the locking mechanism **6***a* and the female portion **6***b*. The male portion of the locking mechanism **6***a* is a cylinder shaped pin that contains a key insert **4** and a opening containing **3** teeth **7** that Latch on to the male insert **3** and its grooves **9**. The Male portion of the locking mechanism **6***a* slides and attaches itself through the female portion of the locking mechanism **6***b*, through the locking pin cavity **8** and cylindar pin size **5** contained in **10**.

[0046] The band portion of the invention (shown in FIGS. **3** and **4** for the flat band, and FIGS. **12** and **13** for the chain band) is compromised of a swivel hinge **10** containing two cylindar pin size holes **5**. The band portion also contains a male connector **3** with three grooves **9** that insert into the locking mechanism **6***a* and **6***b*.

[0047] The swivel hinge **10** contains studs **13** which slide into the housing unit **1** through groves **14** and is locked into place by the locking mechanism **6***a* and **6***b* after the male connector **3** slides through the female portion of the locking mechanism **6***b* and locks into place by the lock teeth **7** going through the locking grooves **9**.

[0048] Both locking mechanisms create a safe and stable environment for the child and parent as the band and housing

cannot be cut, or destroyed by fire, or water. This keeps the GPS device active and functioning which allows the parent to locate the missing child.

[0049] FIGS. **5**, **14** and **15** identify the size of the housing. FIGS. **7**, **8** identify the Flat Band and **16**, **17** and **18** identify the chain band (made of titanium).

[0050] It is understood that while certain forms of this invention have been illustrated and described, it is not limited thereto except insofar as such limitations are included in the claims and allowable functional equivalents thereof.

[0051] While the invention has been described in connection with a preferred embodiment, it is not intended to limit the scope of the invention to the particular form set forth, but on the contrary, it is intended to cover such alternatives, modifications, and equivalents as may be included within the spirit and scope of the invention as defined by the appended claims.

What is claimed is:

1. A apparatus for housing a GPS device for locating children comprising:

A Male and Female end locking device with adjustable sizing;

A band designed to secure around the child's wrist or ankle;

A Housing unit to hold the GPS tracking device; and

A Specialized key for locking mechanism;

2. A bracelet or anklet housing with locking mechanishm designed to hold within itself a preexisting GPS tracking system linked to an external monitor;

3. The device in claim **2** shall be constructed of a newly indestructible titanium cable and will have a male and female end made of Titanium steel. The male end shall enter the female end and be locked into position and released only by a specialized key provided;

4. The male end of the device in claim **1** shall contain a number of notches or grooves to slide into the female side in order to adjust for size. When locked into place the device will remain fixed and unremovable except for the use of its specialized key provided;

5. The device in claim **2** shall be water and fire resistent, especially in its locking mechanism of its male and female ends:

Wherein:

Said Locking mechanism shall be rectangular or oval shaped on the female side;

Said locking mechanism shall include its own unique specialized key to release the male and female ends of the locking mechanism;

6. The device in claim **2** shall have a rubber outer casing which surrounds the titanium cable band of the bracelet/anklet;

The outer rubber casing may be available in a number of color combinations;

the outer rubber casing may be transparent or solid colored and is fire proof.

* * * * *