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(54) APPARATUS FOR SECURE DISPLAY OF SMALL ELECTRONIC DEVICES HAVING AN ESSENTIAL SIGNAL OR POWER CORD

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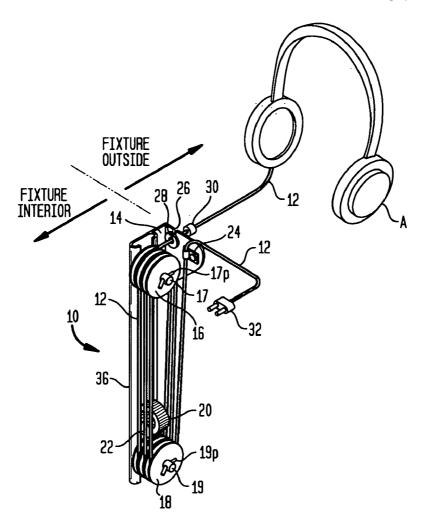
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(57) ABSTRACT

There is provided an apparatus for secure display of a portable electronic device wherein the device has an attached electrically conductive cable that is integral to the device and essential to the operation thereof, the device cable having a first end connected to the device and a second end, and an intermediate section, the apparatus comprising: device support means normally supporting the device and means for extending and retracting the device cable. The means for extending and retracting the cable includes pulley means having a first set of pulleys having a fixed position and a second set of linearly movable spring loaded pulleys. As the device is moved from the device support the second set of pulleys is urged towards the first set of pulleys thereby extending the device cable against the resistance of the spring loading, thereby creating retractive force for retraction of the cable. When the device is released the cable is retracted to the device support until halted by a cable stop. Headsets and earbud sets are examples of devices that are suitable for display on the apparatus.



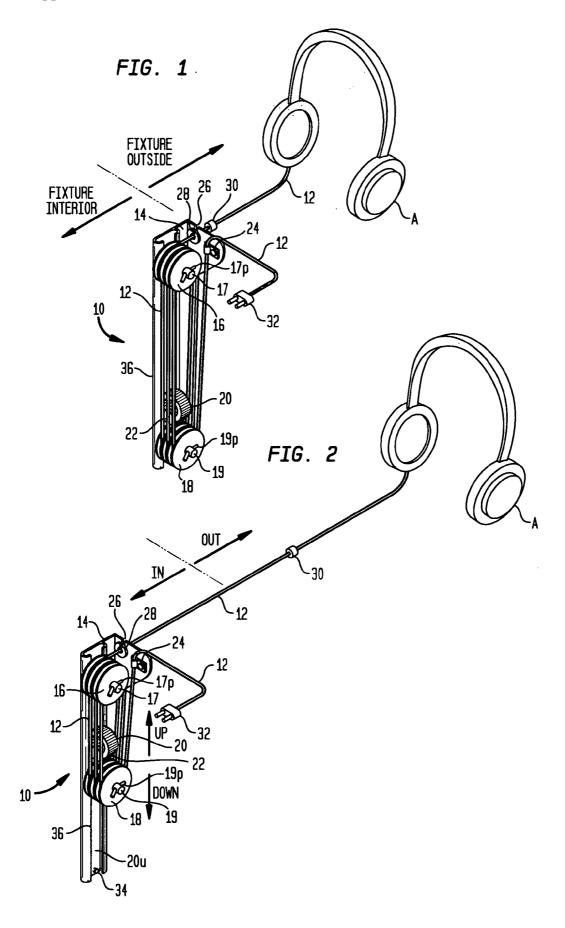
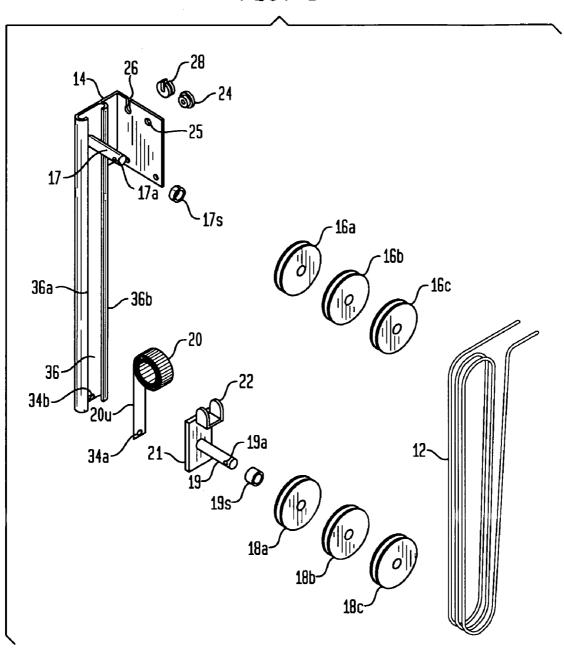
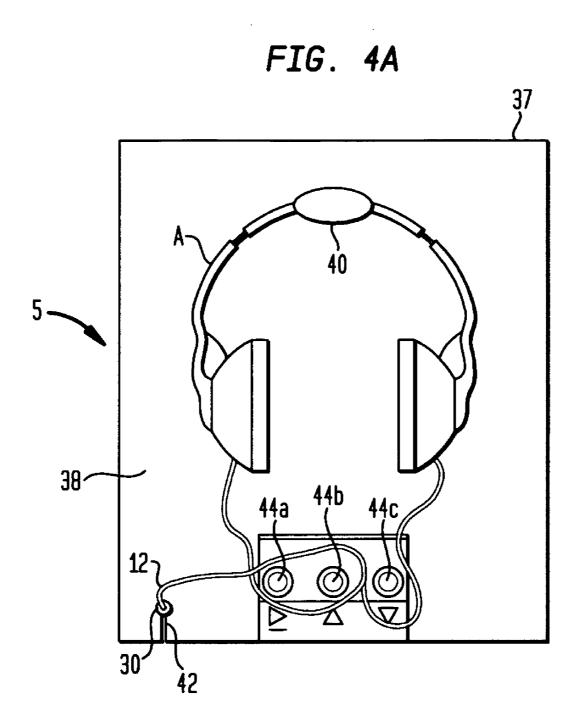
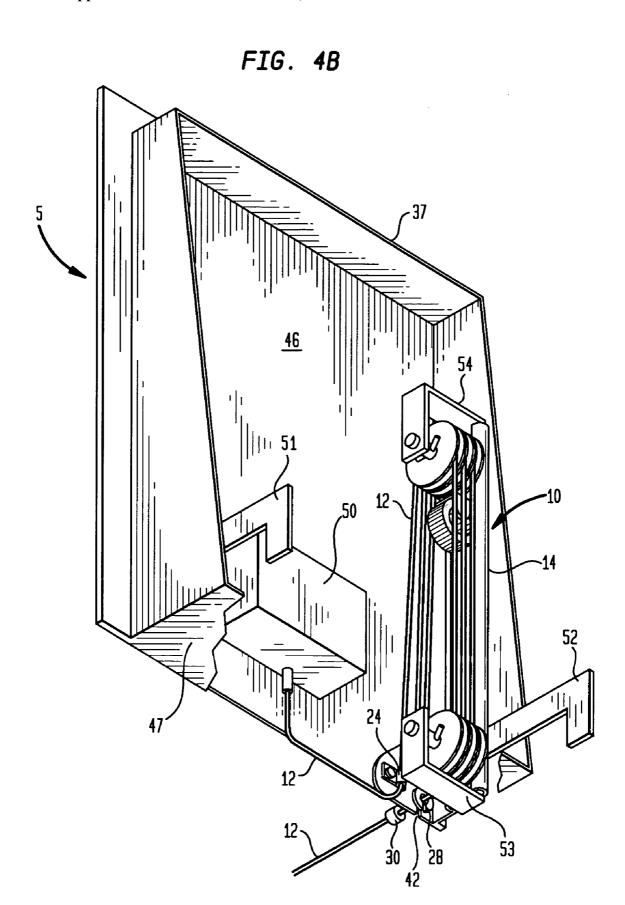


FIG. 3







APPARATUS FOR SECURE DISPLAY OF SMALL ELECTRONIC DEVICES HAVING AN ESSENTIAL SIGNAL OR POWER CORD

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to an apparatus for securely displaying, marketing and demonstrating small electronic devices having a signal or power cord that is an integral part of the device and essential to its operation, wherein the device is secured to the apparatus by means of the signal or power cord. The apparatus allows consumer devices such as headphones, and small appliances and that require a long wire connection, to be displayed neatly without drooping wires that are unsightly and also can become entangled.

[0003] 2. Description of Prior Art Including Information Disclosed Under 37 CFR 1.97 AND 1.98

[0004] The display and demonstration of consumer electronic devices is an essential part of the sales process in today's marketplace. An apparatus that provides for the secure display and demonstration of small battery powered hand held electronic devices such as cell phones is disclosed in U.S. Pat. No. 6,659,382 issued to Ryczek on Dec. 9, 2003. U.S. Pat. No. 6,659,382 discloses a device that securely holds a battery powered device such as a cell phone and secures it to a tether that is part of a display apparatus.

[0005] The small devices that are contemplated in the aforesaid reference are all battery powered and are always secured to the display apparatus by a specially designed security tether or cable which does not form a part of the device itself but is part of the display apparatus. These tethers are securely fastened to device securing means and are a basic element in permitting a potential customer to remove such a device a short distance from the display and examine it.

[0006] Other small consumer electronic devices such as headsets or earbud sets require a long wire connection that is an integral part of the device and essential to its operation because the long wire connection connects the device to a program source such as a music phone, MP3 player, portable CD player and the like. Such devices that require a long wire connection in order to function are often sold by allowing a potential customer to try out the features of such an item on display in a store. Small electrical appliances such as electrical clothes irons, clocks that require connection to house current and other small appliances having a power cord that is an integral part of the device and essential to its operation are often presented for sale on displays where a potential customer can handle them. Apart from the issue of discouraging pilferage of such items it is often difficult to maintain a neat attractive display for devices such as headphones or headsets having long wire connections since after repeated handling by potential customers during the course of the day these wires or cables tend to droop and become entangled creating an unsightly display. Use of a separate security cable and clamping device with such devices can produce an unsightly display and cause entanglement of the long wire signal/power connections integral to such devices with the security cable, thereby discouraging potential customers from examining these devices.

[0007] There is a need for a convenient means and method to discourage pilferage of such devices while on public display and available for examination.

[0008] There is a need for a convenient means to maintain the long wire connections integral to such devices in a neat attractive display that prevents entanglement while such devices are on public display and available for examination. [0009] There is a further need for any such means to be easily and conveniently usable by a potential customer that wishes to examine and try the item on display.

[0010] There is a further need to protect the long wire connections from damage, fraying or degradation when the device is not in use rendering said device unusable.

[0011] There is a still further need for such means to be easily and conveniently usable by store personnel who must from time-to-time change the device on display.

[0012] Because a potential customer is interested in a demonstration of the qualities of devices such as headphones or headsets there is also a need for the apparatus to provide convenient connection of the long wires or cables that are integral to the device to a signal source or a power source in addition to maintaining these wires in a neat presentable condition.

BRIEF SUMMARY OF THE INVENTION

[0013] It is an objective of the present invention to provide a an apparatus for securely displaying, marketing and demonstrating small electronic devices having a long wire connection that is a signal or power cord that is an integral part of the device.

[0014] It is a further objective of the present invention to provide an apparatus to maintain the long wire connections that are signal or power cables integral to such small electronic devices in a neat presentable manner while such a device is on public display and available for examination.

[0015] It is a still further objective of the present invention to provide an apparatus to prevent entanglement of the long wire connections that are signal or power cables integral to a small electronic device while such a device is on public display and available for examination.

[0016] It is also an objective of the present invention that such apparatus be easily and conveniently usable by a potential customer.

[0017] Another objective of the present invention is that the aforesaid apparatus be easily and conveniently usable by store personnel who must from time-to-time change the device on display.

[0018] Yet another objective of the present invention is to provide a method for securely displaying, marketing and demonstrating small electronic devices having a long wire connection that is a signal or power cord that is an integral part of the device.

[0019] Yet a further objective of the present invention is to provide a method to maintain the long wire connections that are signal or power cables integral to such small electronic devices in a neat presentable manner while such a device is on public display and available for examination.

[0020] Yet a still further objective of the present invention is to provide a method to prevent entanglement of the long wire connections that are signal or power cables integral to a small electronic device while such a device is on public display and available for examination.

[0021] According to the present invention for achieving the objects, there is provided an apparatus for secure display of a portable electronic device wherein the device has an attached electrically conductive cable that is integral to the device and essential to the operation thereof, the device cable having a first end connected to the device and a second end, and an intermediate section, the apparatus comprising: device sup-

port means normally supporting the device, means for extending and retracting the device cable, with the extending and retracting means attached to the device support means, means for securing a section of the device cable proximate to the second end thereof to the display apparatus, and the intermediate section being engaged by the cable extending and retracting means, wherein the cable is normally retracted and wherein the extending and retracting means allows the device cable to be extended, thereby permitting a potential customer to move the device to a location remote from the device support means to be examined, and wherein the extending and retracting means retract the device cable when the device is released by the potential customer.

[0022] In another aspect of the apparatus of the present invention the extending and retracting means comprise pulley means.

[0023] In yet another aspect of the apparatus of the present invention the extending and retracting means comprise a spring loaded pulley means.

[0024] In a further aspect of the apparatus of the present invention the extending and retracting means comprise a spring loaded pulley means, the pulley means comprises a first set of pulleys having a fixed position and a second set of linearly movable spring loaded pulleys.

[0025] In a still further aspect of the apparatus of the present invention the extending and retracting means comprise a spring loaded pulley means and the pulley means comprises a first set of pulleys having a fixed position and a second set of linearly movable spring loaded pulleys and the cable further comprises means to connect to a signal source.

[0026] In yet a further aspect of the apparatus of the present invention the extending and retracting means comprise a spring loaded pulley means, the pulley means comprises a first set of pulleys having a fixed position and a second set of linearly movable spring loaded pulleys and the cable further comprises means to connect to a power source.

[0027] In a still further aspect of the apparatus of the present invention the extending and retracting means comprise a spring loaded pulley means and the pulley means comprises a first set of pulleys having a fixed position and a second set of linearly movable spring loaded pulleys, the cable further comprises means to connect to a signal source and the signal source comprises media player means connected to the connection means.

[0028] In yet a further aspect of the apparatus of the present invention the extending and retracting means comprise a spring loaded pulley means, the pulley means comprises a first set of pulleys having a fixed position and a second set of linearly movable spring loaded pulleys, the cable further comprises means to connect to a power source and a power source connected to the connection means.

[0029] In another aspect of the apparatus of the present invention the cable further comprises means to halt retraction of the cable.

[0030] In another aspect of the apparatus of the present invention the cable further comprises means to halt retraction of the cable and the device support means further comprises means to receive the means to halt cable retraction.

[0031] In yet another aspect of the apparatus of the present invention the cable further comprises means to halt retraction of the cable, the device support means further comprises means to receive the means to halt cable retraction and the device support means further comprises means to receive the device.

[0032] In yet another aspect of the apparatus of the present invention the device is a headset having at least one earphone or ear bud.

[0033] In yet a still further aspect of the apparatus of the present invention the extending and retracting means comprise a spring loaded pulley means and the pulley means comprises a first set of pulleys having a fixed position and a second set of linearly movable spring loaded pulleys, the cable further comprises means to connect to a signal source, the signal source comprises media player means connected to the connection means and the device is selected from the group of devices consisting of headsets having at least one earbud.

[0034] According to the present invention for achieving the objects, other embodiments of the apparatus of the present invention are also provided. For example, there is provided a second embodiment of the apparatus for secure display of a portable electronic device wherein the device has an attached electrically conductive cable that is integral to the device and essential to the operation thereof, the device cable having a first end connected to the device and a second end, and an intermediate section, the apparatus comprising: device support means normally supporting the device, means for extending and retracting the device cable wherein the extending and retracting means comprises pulley means attached to the device support means, means for securing a section of the device cable proximate to the second end thereof to the apparatus, and the intermediate section being engaged by the pulley means, wherein the cable is normally retracted and wherein the pulley means allows the device cable to be extended, thereby permitting a potential customer to move the device to a location remote from the display support means to be examined, and wherein the pulley means retract the device cable when the device is released by the potential

[0035] In another aspect of a second embodiment of the apparatus of the present invention the pulley means comprise a spring loaded pulley means.

[0036] In a further aspect of a second embodiment of the apparatus of the present invention the pulley means comprises a first set of pulleys having a fixed position and a second set of linearly movable spring loaded pulleys.

[0037] In a still further aspect of a second embodiment of the apparatus of the present invention the cable further comprises means to connect to a signal source.

[0038] In yet a still further aspect of a second embodiment of the apparatus of the present invention the cable further comprises means to connect to a signal source and the signal source comprises media player means connected to the connection means.

[0039] In yet another aspect of a second embodiment of the apparatus of the present invention the cable further comprises means to connect to a power source.

[0040] In yet another aspect of a second embodiment of the apparatus of the present invention the cable further comprises means to connect to a power source and a power source connected to the connection means.

[0041] In a further aspect of a second embodiment of the apparatus of the present invention the cable further comprises means to halt retraction of the cable.

[0042] In a still further aspect of a second embodiment of the apparatus of the present invention the cable further comprises means to halt retraction of the cable and the device support means further comprises means to receive the means to halt cable retraction.

[0043] In yet a still further aspect of a second embodiment of the apparatus of the present invention the cable further comprises means to halt retraction of the cable and the device support means further comprises means to receive the means to halt cable retraction and means to receive the device.

[0044] In a further aspect of a second embodiment of the apparatus of the present invention the device support means further comprises means to receive the device.

[0045] In a further aspect of a second embodiment of the apparatus of the present invention the device is selected from the group of devices consisting of headsets having at least one earphone and earbud sets having at least one earbud.

[0046] In yet a still further aspect of a second embodiment of the apparatus of the present invention the cable further comprises means to halt retraction of the cable and the device support means further comprises means to receive the means to halt cable retraction and means to receive the device and the device is selected from the group of devices consisting of headsets having at least one earphone and earbud sets having at least one earbud.

[0047] According to the present invention for achieving the objects, other embodiments of the apparatus of the present invention are also provided. For example, there is provided a third embodiment of the apparatus for secure display of a portable electronic device wherein the device has an attached electrically conductive cable that is integral to the device and essential to the operation thereof, the device cable having a first end connected to the device and a second end, and an intermediate section, the apparatus comprising: device support means normally supporting the device, means for extending and retracting the device cable wherein the extending and retracting means comprises pulley means attached to the device support means, means for securing a section of the device cable proximate to the second end thereof to the apparatus, and media player means connected to the second end, the intermediate section being engaged by the pulley means, wherein the cable is normally retracted and wherein the pulley means allows the device cable to be extended, thereby permitting a potential customer to move the device to a location remote from the display support means to be examined, and wherein the pulley means retract the device cable when the device is released by the potential customer.

[0048] In another aspect of a third embodiment of the apparatus of the present invention the pulley means comprise a spring loaded pulley means.

[0049] In a further aspect of a third embodiment of the apparatus of the present invention the pulley means comprises a first set of pulleys having a fixed position and a second set of linearly movable spring loaded pulleys.

[0050] In yet a further aspect of a third embodiment of the apparatus of the present invention each pulley set has at least one pulley and the cable forms at least one loop encompassing and contacting the at least one pulley of each set thereby coupling the rotation of the pulleys, so that as the device is moved to the remote location the second set of pulleys is urged towards the first set of pulleys thereby extending the cable, with the urging resisted by the spring loading thereby creating retractive force for retraction of the cable.

[0051] In a further aspect of a third embodiment of the apparatus of the present invention the cable further comprises means to halt retraction of the cable.

[0052] In a still further aspect of a third embodiment of the apparatus of the present invention the cable further comprises means to halt retraction of the cable and the device support means further comprises means to receive the means to halt cable retraction.

[0053] In yet a still further aspect of a third embodiment of the apparatus of the present invention the cable further comprises means to halt retraction of the cable and the device support means further comprises means to receive the means to halt cable retraction and means to receive the device.

[0054] In a further aspect of a third embodiment of the apparatus of the present invention the device support means further comprises means to receive the device.

[0055] In a further aspect of a third embodiment of the apparatus of the present invention the device is selected from the group of devices consisting of headsets having at least one earphone and earbud sets having at least one earbud.

[0056] In a further aspect of a third embodiment of the apparatus of the present invention the device support means further comprises means to receive the device and the device is selected from the group of devices consisting of headsets having at least one earphone and earbud sets having at least one earbud.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF DRAWINGS

[0057] To these and to such other objects that may hereinafter appear, the present invention relates to signal and power cable recoiler apparatus for the commercial display and demonstration of small electronic devices having integral signal or power cables essential to the operation thereof as described in detail in the following specification and recited in the annexed claims, taken together with the accompanying drawings, in which like numerals refer to like parts and in which: [0058] FIG. 1 is an isometric view showing the assembled recoiler in fully retracted condition in use with a set of headphones:

[0059] FIG. 2 is an isometric view showing the assembled recoiler in partially extended condition in use with a set of headphones;

[0060] FIG. 3 is an exploded isometric view showing the disassembled recoiler components;

[0061] FIG. 4A is a view of the front of the device support showing a device resting on the device support; and

[0062] FIG. 4B is a perspective view of the back of the device support showing a recoiler and a media player mounted on the device support.

DETAILED DESCRIPTION OF THE INVENTION

[0063] FIGS. 1, 2, 3, 4A and 4B depict an embodiment of the display apparatus 5 of the present invention. As seen in FIG. 1 the apparatus 5 of the present invention comprises a signal and power cable recoiler apparatus 10 for the commercial display and demonstration of small electronic devices A having integral signal or power cables 12. In FIG. 1 device A is exemplified by, but not limited to, a headset. The invention includes pulley support means 14, a first set of pulleys 16 that are fixed to pulley support means 14 and a second set of pulleys 18 movably mounted on pulley support 14. Coiled band spring 20, located on spring bracket 22 is attached at one end to pulley support means 14. Clamping means 24 securely clamps a section of cable 12 distal from device A to pulley support 14 or alternatively to the back 46 of device support 37.

Slit opening 26 in pulley support 14, receives split ring grommet 28 through which cable 12 passes. A corresponding slit or slot opening 42 in device support means 37 (FIG. 4A) which may also be fitted with a split grommet allows cable 12 to conveniently pass through the front of device support 37. In one embodiment of device support means 37 having a base 37, slot 42 continues (not shown) through base 47 to facilitate winding cable 12 on cable recoiler apparatus 10 (FIG. 4B). Cable stop means 30 affixed to cable 12 is received or stopped by split grommet 28 stopping the retraction of cable 12. In practice, cable recoiler apparatus 10 is securely mounted on or affixed to device support 37 (FIG. 4B) usually via pulley system support 14 using fastening means known in the art. Also seen in FIG. 4B, which is a bottom perspective cutaway view through base 47 of the rear of display apparatus 5, are optional brackets 53 and 54 mounted on cable recoiler 10 and optional supports 51 and 52 mounted on device support 37. Device support 37 is in turn generally securely mounted or affixed to a display support thereby anchoring cable recoiler apparatus 10 and device A which is attached thereto. Cable 12 is generally secured by cable clamping means 24 securely attached to display apparatus 5 of the present invention. Pilferage of device A is thereby discouraged as it cannot be easily removed from cable recoiler apparatus 10 without severing cable 12 which is essential to the functioning of the device. Use of the apparatus of the present invention thereby provides a convenient method to discourage pilferage from a display of a device A having a signal or power cable integral to the device that is essential for its functioning.

[0064] As seen in FIGS. 4A and 4B when device A is a device such as a headset or earbud set that requires a signal feed for demonstration, signal connector 32 may be connected to a device such as a media player 50 that can provide audible media for demonstration of device A. Said media player 50 may be situated in device support 37 (FIG. 4B) or may be located outside device support 37 at a distance from cable recoiler apparatus 10. Means to receive device A such as a hook, projection 40 (FIG. 4A) or shelf may be attached to the outside or front 38 of device support 37. When media player 50 is mounted at the rear 46 of device support 37 (FIG. 4B), openings may be provided as needed in device support 37 for media player controls 44a, 44b and 44c (FIG. 4A).

[0065] A potential customer interested in examining a device A, such as a headset, may lift it from a drooping position at the front 38 of device support 37 or lift it from means to receive device A such as a hook or protrusion 40 (FIG. 4A) attached to the front 38 of device support 37 and withdraw it a sufficient distance from device support 37 to examine it or in the case of a headphone or earbud set place it over the ears.

[0066] FIG. 2 depicts the position of the second set of pulleys 18 and coiled band spring 20 when cable 12 is partially extended by withdrawing device A from its position at the front of apparatus 10. As seen in FIG. 2 extension of cable 12 causes movable pulley set 18 which is mounted on pulley carrier 21 (see FIG. 3) to move upward on track 36 which forms part of apparatus support 14, against the action of band spring 20, which uncoils as movable pulley set 18 moves upward, thereby generating a retractive force on cable 12. As seen in FIG. 2 spring fastener 34 secures the outside end of coiled band spring 20 to apparatus support 14. As coiled band spring 18 uncoils the uncoiled band spring 20u is held against pulley system support 14. When device A is released the recoiling action of coiled band spring 20, forces movable

pulley set 18 downward thereby retracting cable 12 and generally returning pulley set 18 and cable 12 to the position seen in FIG. 1. By adjusting the position of cable stop 30, which clamps onto cable 12, the amount of slack in cable 12 between cable stop 30 and device A can be regulated. As will be evident to those skilled in the art, the distance between pulley sets 16 and 18, as well as the size and number of pulleys in each set may be adjusted to accommodate the actual length of cable 12 encountered in practice so that a length of cable that is convenient for the purpose of examination and demonstration is extended from recoiler apparatus 10.

[0067] FIG. 3 is an isometric exploded view of the components of an embodiment of the apparatus of the instant invention. As seen in FIG. 3 pulley track 36 forms part of apparatus support means 14. Pulley track 36 is an elongated strip having rolled edges 36a and 36b that run the length of the strip. Pulley carrier 21, having coiled band spring 20 seated in spring bracket 22, with the uncoiled section of the spring 20u in contact with track 36 is dimensioned to fit under rolled edges 36a and 36b to allow free sliding motion while retaining pulley carrier 21 on track 36. Spring fastener 34, which may be a rivet, bolt or the like is inserted through whole 34a in the bottom of uncoiled spring section 20u and into hole 34b at the bottom of track 36 to secure spring 20 to track 36 so that coiled spring 20 seated in bracket 22 uncoils as pulley carrier 21 slides along track 36. As indicated in FIGS. 1-3 spring 20 is a coiled or rolled up band spring that resists the unrolling action. Other types of springs available in the art such as coiled wire springs or other types of metallic springs as well as springs formed from elastic materials including polymeric elastomers may be used as a component of the means to extend and retract cable 12 preferably in the form of a coil or roll providing that when said roll or coil is unrolled or uncoiled a retractive force resisting the unrolling or uncoiling action is produced that is sufficient to retract cable 12 attached to device A. Although the retractive force produced by the uncoiling or unrolling of spring 20, when device A is taken from device support 37 and moved to a location remote to the display for examination and trial, must be sufficient to return device A to the device support after it is released, the retractive force exerted by spring 20 is preferably less than the force required to cause disruption or damage of any physical or electrical connection between cable 12 and device A.

[0068] As shown in FIG. 3 spacer 19s and pulleys 18a, 18b and 18c fit on axle 19 and are held in place by insertion of cotter pin 19p (see FIGS. 1 and 2) or the like. Axle 17 is affixed near the top of track 36 between rolled edges 36a and 36b. As shown in FIG. 3 spacer 17s and pulleys 16a, 16b and 16c fit on axle 17 and are held in place by insertion of cotter pin 17p (see FIGS. 1 and 2) or the like. Opening 26 in pulley system support 14 is preferably a slotted opening which receives cable grommet 28 which is preferably a split cable grommet. Slotted opening 26 and split grommet 28 facilitate the string up of cable 12 in recoiler apparatus 10 by allowing cable 12 to be inserted through opening 26 regardless of the size of plugs or connectors at the end of cable 12. Cable clip or clamp 24 which secures a section of cable 12 distal from device A to apparatus support 14 may be affixed to pulley system support 14 through opening 25 by rivet, bolt or any secure fastening means known in the art. In other embodiments of the apparatus of the present invention pulley system support means 14 may have different configurations including faceplates, housings and the like or may be mounted on a separate faceplate or within a separate housing. In such configurations opening **26** and cable clamp **24** may be provided in the housing or faceplate in a manner similar to that illustrated herein or any other convenient manner.

[0069] Depending on the actual requirements of the display, the apparatus of the present invention may be used in a vertical configuration with the movable pulley set 18 at the bottom and the fixed pulley set 16 at the top or the reverse with the fixed pulley set 16 at the bottom and the movable pulley set 18 at the top, in a horizontal configuration, or any other convenient geometric arrangement as required for display of device A. The device support means 37 or any housing or facing used in conjunction with the display apparatus of the instant invention my also include media player means such as flash media players and the like, CD players, DVD players or any other device useful for transmitting an appropriate signal to device A through connector 32 and cable 12. Power outlets connected to an external power source or other power sources appropriate to meet the power requirements of device A may also be included in the apparatus support means or any housing or facing used in conjunction with the apparatus of the instant invention for transmitting power through connector 32 and cable 12 when cable 12 is a power cable.

[0070] While only a limited number of preferred embodiments of the present invention have been disclosed for purposes of illustration, it is obvious that many modifications and variations could be made thereto. It is intended to cover all of those modifications and variations which fall within the scope of the present invention, as defined by the following claims.

1. Apparatus for secure display of a portable electronic device wherein said device has an attached electrically conductive cable that is integral to said device and essential to the operation thereof, said device cable having a first end connected to said device and a second end, and an intermediate section, said apparatus comprising:

Device support means normally supporting said device, means for extending and retracting said device cable with said extending and retracting means attached to said device support means,

means for securing a section of said device cable proximate to said second end thereof to said display apparatus, and said intermediate section being engaged by said cable extending and retracting means, wherein said cable is normally retracted and wherein said extending and retracting means allows said device cable to be extended, thereby permitting a potential customer to move said device to a location remote from said device support means to be examined, and wherein said extending and retracting means retract said device cable when said device is released by said potential customer.

- 2. The apparatus of claim 1 wherein said extending and retracting means comprise pulley means.
- 3. The apparatus of claim 1 wherein said extending and retracting means comprise a spring loaded pulley means.
- **4**. The apparatus of claim **3** wherein said pulley means comprises a first set of pulleys having a fixed position and a second set of linearly movable spring loaded pulleys.
- 5. The apparatus of claim 4 wherein said cable further comprises means to connect to a signal source.
- **6**. The apparatus of claim **4** wherein said cable further comprises means to connect to a power source.
- 7. The apparatus of claim 5 wherein said signal source comprises media player means connected to said connection means.
- **8**. The apparatus of claim **6** further comprising a power source connected to say connection means.

- **9**. The apparatus of claim **1** wherein said cable further comprises means to halt retraction of said cable.
- 10. The apparatus of claim 9 wherein said device support means further comprises means to receive said means to halt cable retraction.
- 11. The apparatus of claim 10 wherein said device support means further comprises means to receive said device.
- 12. The apparatus of claim 1 wherein said device is selected from the group of devices consisting of headsets having at least one earphone and earbud sets having at least one earbud.
- 13. The apparatus of claim 7 wherein said device is selected from the group of devices consisting of headsets having at least one earphone and earbud sets having at least one earbud.
- 14. Apparatus for secure display of a portable electronic device wherein said device has an attached electrically conductive cable that is integral to said device and essential to the operation thereof, said device cable having a first end connected to said device and a second end, and an intermediate section, said apparatus comprising:

Device support means normally supporting said device, means for extending and retracting said device cable wherein said extending and retracting means comprises pulley means attached to said device support means,

means for securing a section of said device cable proximate to said second end thereof to said apparatus, and

said intermediate section being engaged by said pulley means, wherein said cable is normally retracted and wherein said pulley means allows said device cable to be extended, thereby permitting a potential customer to move said device to a location remote from said display support means to be examined, and wherein said pulley means retract said device cable when said device is released by said potential customer.

- 15. The apparatus of claim 14 wherein said pulley means comprise a spring loaded pulley means.
- 16. The apparatus of claim 14 wherein said pulley means comprises a first set of pulleys having a fixed position and a second set of linearly movable spring loaded pulleys.
- 17. The apparatus of claim 14 wherein said cable further comprises means to connect to a signal source.
- 18. The apparatus of claim 17 wherein said signal source comprises media player means connected to said connection means.
- 19. The apparatus of claim 14 wherein said cable further comprises means to connect to a power source.
- 20. The apparatus of claim 19 further comprising a power source connected to say connection means.
- 21. The apparatus of claim 14 wherein said cable further comprises means to halt retraction of said cable.
- 22. The apparatus of claim 21 wherein said device support means further comprises means to receive said means to halt cable retraction.
- 23. The apparatus of claim 22 wherein said device support means further comprises means to receive said device.
- 24. The apparatus of claim 14 wherein said device support means further comprises means to receive said device.
- 25. The apparatus of claim 14 wherein said device is selected from the group of devices consisting of headsets having at least one earphone and earbud sets having at least one earbud.
- 26. The apparatus of claim 23 wherein said device is selected from the group of devices consisting of headsets having at least one earphone and earbud sets having at least one earbud.

27. Apparatus for secure display of a portable electronic device wherein said device has an attached electrically conductive cable that is integral to said device and essential to the operation thereof, said device cable having a first end connected to said device and a second end, and an intermediate section, said apparatus comprising:

Device support means normally supporting said device, means for extending and retracting said device cable wherein said extending and retracting means comprises pulley means attached to said device support means,

means for securing a section of said device cable proximate to said second end thereof to said apparatus, and

Media player means connected to said second end, said intermediate section being engaged by said pulley means, wherein said cable is normally retracted and wherein said pulley means allows said device cable to be extended, thereby permitting a potential customer to move said device to a location remote from said display support means to be examined, and wherein said pulley means retract said device cable when said device is released by said potential customer.

- **28**. The apparatus of claim **27** wherein said pulley means comprise a spring loaded pulley means.
- 29. The apparatus of claim 27 wherein said pulley means comprises a first set of pulleys having a fixed position and a second set of linearly movable spring loaded pulleys disposed at a distance from said fixed pulley set.

- 30. The apparatus of claim 29 wherein each pulley set has at least one pulley and wherein said cable forms at least one loop encompassing and contacting said at least one pulley of each set thereby coupling the rotation of said pulleys, so that as said device is moved to said remote location said second set of pulleys is urged towards said first set of pulleys thereby extending said cable, with said urging resisted by said spring loading thereby creating retractive force for retraction of said cable.
- 31. The apparatus of claim 27 wherein said cable further comprises means to halt retraction of said cable.
- 32. The apparatus of claim 31 wherein said device support means further comprises means to receive said means to halt cable retraction.
- 33. The apparatus of claim 32 wherein said device support means further comprises means to receive said device.
- **34**. The apparatus of claim **27** wherein said device support means further comprises means to receive said device.
- **35**. The apparatus of claim **27** wherein said device is selected from the group of devices consisting of headsets having at least one earphone and earbud sets having at least one earbud.
- **36**. The apparatus of claim **34** wherein said device is selected from the group of devices consisting of headsets having at least one earphone and earbud sets having at least one earbud.

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