Title: A WATCH DISPLAY MODULE

Abstract: A display module (2) that allows secure exhibition of an item, particularly a watch (5), while permitting user interaction, includes a base (4) and a holder (6). The holder (6) is disposed in the base (4), and includes at least one flexible end (20). The flexible end (20) allows the holder to hold items of various sizes. A movable arm (34) is attached to the holder such that the arm (34) engages with the base (4) for providing a variety of positions of the holder (6) relative to the base (4). The holder (6) or movable arm (34) further includes a locking portion (32) that locks the holder (6) in a variety of positions relative to the base (4). A cabinet allows containment of a plurality of bases (4) for the display of many items.

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.
A WATCH DISPLAY MODULE

II. BACKGROUND OF THE INVENTION:

1. Field of the Invention

This invention generally relates to a display module for luxury items, and more particularly relates to a watch display module that allows secure exhibition of the watch while permitting user interaction with the watch.

2. Description of Related Art

Display cases are used in a variety of places to display items for sale, particularly when the item is small and valuable, and to protect the item from being stolen. Luxury items in particular, for example jewelry and watches, are particularly prone to such misappropriation.

Wrist watch displays or boxes constructed to allow the enclosure and display of the watch or the like are well known in the art. Such watch boxes typically include a cover and a base which has essentially the same configuration as the cover. The base usually nests within the cover, exposing an access area of the base to establish the display made for the watch box. The cover may be mounted over the base in order to form a fully enclosed package so that the access portion of the base is hidden. This position is desirable for storage and shipping purposes.

Such a wrist watch box assembly further includes a wristwatch holder retained within the base. When the assembly is in the display position, the
wrist watch holder may be seen by the observer. When the assembly is in the enclosed position, the watch holder is inaccessible and hidden from view. Such wrist watch box assemblies have some usefulness in the industry. However, they are still not completely satisfactory in commercial use because of several limitations. If the wrist watch holder is permanently fixed within the base, it may then be difficult to remove the watch in order for a sales person to show the watch to a customer. If the wrist watch holder is not fixed to the base, then the watch may be easily taken from the interior of the base by an unscrupulous person. This situation creates security problems especially for expensive watches. In addition, assemblies that have common sized wrist watch holders do not securely hold the wristwatch because of the varying sizes of the wristwatches. Assemblies that have many different size wrist watch holders for the varying sizes of wristwatches decreases economic efficiency and increases overall costs by requiring a massive inventory of the holders in various sizes.

Wristwatch box assemblies and displays have been developed that attempt to overcome security and lack of customer interaction issues for luxury watches. Such wrist watch assemblies and displays are described in U.S. Patent 4,830,181 filed June 30, 1988, and U.S. Patent 4,579,399 filed August 20, 1984, for example, which are incorporated by reference herein. The '181 patent discloses a package for displaying or enclosing an article such as a wristwatch. The package includes an article holder removable from the base for allowing the watch to be taken out of the package and shown to a potential customer. However, this wrist watch assembly still has several disadvantages. The wrist
watch holder has only one size, therefore a sizable holder inventory must be
carried or watches of various sizes will slip off the wrist watch holder. In addition,
even if the watch was secured in the wristwatch holder, the package is still small
enough for a theft to take the entire package with the enclosed watch. The '399
patent discloses a display device for jewelry that includes a support stand and a
plurality of interchangeable modules. The stand includes fasteners to temporarily
attach the modules to a receiving surface. A window unit having a transparent
front window is provided along with the fasteners for temporarily attaching the
window unit to the support surface. The disadvantage with the assembly in the
'399 patent is that the item is still difficult to obtain the item from the display to
show the item to a potential customer.

Despite these advances in luxury item display design, it has been
found that displays still experience security issues. The displays in the art that
attempt to increase the security of the item do so at the cost of interfering with
customer interaction and the sales people attempting to show the item for sale.
Thus, there still remains a need in the art to provide a display that allows secure
exhibition of an item, particularly a watch, while permitting user interaction.

III. SUMMARY OF THE INVENTION:

The present invention avoids many of disadvantages of
previous display assemblies. In accordance with one embodiment of the
invention, a display module includes a base having an arcuate portion for showing
indicia. A holder is disposed in the base and has a convex portion with at least
one flexible end for allowing secure exhibition of an item while allowing user
interaction with the item. A movable arm is attached to the holder such that the arm has sliding engagement with the base. The movable arm allows an easy access to the watch for showing to a potential customer or for changing the display. In addition, the movable arm or holder includes a locking portion that locks the holder in a variety of positions relative to the base. This feature also assists in allowing the display module to securely hold a variety of item sizes. The locking portion, depending on the embodiment, includes at least one aperture on the movable arm and a pin, which is inserted into the aperture. In another embodiment, the locking portion includes a screw-type fastener to resist movement of the movable arm.

The flexible end on the holder also allows watches of various sizes to be held by the same holder. In one embodiment, the flexible end has a spring-loaded segment attached to the holder to allow the holder to alter its size according to the size of the watch that it is holding. The flexible end of the holder may further include ribs for preventing the watch from being rotated around the holder thereby preventing theft.

In another embodiment, a central area of the holder may include a security feature such as an alarm if the watch is detached from the holder by unauthorized personnel. A cabinet can also be included with the display module. The base is attached to the cabinet by a fastener. The cabinet further includes a magnetic lock for activating the locking portion. Depending on the implementation, the display module can lock simultaneously a plurality of locking portions to secure several display modules. Similarly, the display module can
lock selectively a plurality of locking portions for allowing individual modules to
lock at different times. This feature allows an individual item to be unlocked and
shown while the remainder of the items in the cabinet remains secured.

These aspects and other objects, features, and advantages of the
present invention is described in the following Detailed Description which is to be
read in conjunction with the accompanying drawings.

IV. BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view depicting elements of the display
module in accordance with one embodiment of the invention.

FIG. 2 is an exploded view of the display module in FIG. 1.

FIG. 3 is a side view of the display module in FIG. 1.

FIG. 4 is an enlarged partial view of an alternate feature of FIG. 4.

FIG. 5 is a top view of the base in FIG. 1.

FIG. 6 is a rear view of the base in FIG. 1.

FIG. 7 is a front view of the base in FIG. 1.

FIG. 8 is a side view of an alternate embodiment of the display
module in FIG. 1

FIG. 9 is a perspective view of the display module in FIG. 1 with a
cabinet.

FIG. 10 is an alternate embodiment of the cabinet in FIG. 9.

FIG. 11 is a partial rear exploded view of the cabinet in FIG. 10.
V. DETAILED DESCRIPTION

A display module for allowing secure exhibition of an item while permitting user interaction in accordance with the present invention is identified generally by the numeral 2 in Fig. 1. The display module 2 includes a base 4 and a holder 6. The display module is preferably used with other display modules in a cabinet to display several items. However, the present invention is not limited to such an embodiment, and may include the display of a single item using only one module.

The advantage of using several modules is that several different items may be displayed at the same time in a cabinet. The modules allow easy replacement of the items without the need to remove the entire module from the cabinet. This feature is accomplished by the use of a movable arm 34. The movable arm is connected to the holder 6 that allows the item to be removed from the display module. The display module can be used for holding a variety of items that include, but are not limited to, jewelry, watches, chains, bracelets, rings, lockets, key chains, and small items that require security while being displayed.

The importance of securely holding the item while allowing interaction with the item is illustrated in the example of selling a luxury item such as an expensive watch. In the case of a watch, the sales person wants to have minimal interference in obtaining the watch to display to a potential customer. The present invention accomplishes this feature and takes the displaying an
additional step by allowing customer contact with the luxury item without the sales
person present, but still maintaining the security or secure hold on the luxury item.

The present invention accomplishes these objectives by having the display module 2 with the following configurations. The holder 6 securely holds an item 5, illustrated in Fig. 1 as a watch, and is disposed in base 4. The holder can be positioned in a variety of positions relative to the base. In one implementation, the movable arm 34 allows the holder to have these variable positions. The variety of positions obtained by the holder also allows a common holder to facilitate items of various sizes. Therefore, economic efficiency and cost savings can be realized by not having to inventory holders of various sizes for items of different sizes.

A recess area 8 defined by base 4 allows the holder to bring the item 5 close to the base. In the case of a watch, the latch on the back can not be accessed by a potential theft when the holder is locked in place with the latch of the watch within recess area 8. The holder preferably does not rest within the recess area 8 so that the band of the watch is not compressed by the holder. This compression could potentially damage the watchband.

The movable arm further includes a locking portion 32. In one implementation, locking portion 32 includes at least one aperture 52. The aperture 52 allows the engagement of a pin 50 from the cabinet to lock the movable arm in place. By having many apertures along the length of the movable arm 34, various positions of holder 6 can be obtained in a secure manner. The movable arm also includes an end stop 42. End stop 42 functions by not allowing
the holder 6 to be completely taken out of display module 2. The flat edge of end
stop 42 contacts the back end of base 4 when an attempt is made to pull the
holder fully out of the display module 2.

Base 4 further includes an arcuate portion 10. Arcuate portion 10 is
below the holder and the item 5, but does not necessarily have to be in such a
position. The function of arcuate portion 10 is to display indicia 12. Indicia 12 is
typically marketing artwork or other similar types of artwork that accent the display
of item 5. The base 4 further includes detents 13, which allow the insertion of
several different types of indicia in the display module 2. Preferably, the detents
are grooves or tabs as shown in Figs. 1 and 2. However, the present invention is
not limited to such detents, and may include other types of fastening means such
as adhesives, screws, and the like. Base 4 also includes a flange 15. Flange 15
is used to rest against the front face of a cabinet such that the display module 2
protrudes outwardly from the cabinet. This outward position of the display module
further allows the potential customer to interact with the item 5. Such positioning
is later discussed in reference to Figs 9 and 10 where the cabinet is discussed in
more detail.

Fig. 2 illustrates an exploded view of the display module 2 in Fig. 1.
Shown in Fig. 2 is the item 5. Again, item 5 is preferably a watch, but can be any
other type of luxury item or item that needs security during exhibition. The item
can be latched or secured over holder 6 in many different manners. For example,
in the case of a watch, the watch may be slipped over holder 6 or latched around
the holder.
Holder 6 is preferably in the shape of a c-clamp as shown in Fig. 2, but is not limited to such a configuration. Holder 6 may also be in the shape of an ellipse, cylinder, polygon, sphere and the like. The essential criteria for the holder is the ability for the holder to be flexible, that is to be able to expand and contract to conform to any size. This feature of the invention allows the display module to display items of various sizes regardless of the inner diameter of the item.

The holder 6 in the embodiment shown in Fig. 2 includes at least one flexible end 20. Depending on the implementation, flexible end 20 can form a unitary structure with the holder 6 or be a separate component. In the case of a unitary structure, flexible end 20 and holder 6 would preferably be made of a flexible and break resistant material. Such materials include, but are not limited to, polypropylene, polyethylene, polyvinyl chloride, elastomers, natural or synthetic rubber modified materials and any combinations thereof.

In the case of a separate component, flexible end 20 preferably is spring loaded to allow end 20 to contract and flex back against item 5. This expansion back towards item 5 provides addition holding to the item. The spring is desirably located underneath flexible end 20 so as not to interfere with the attachment of item 5 around holder 6.

Holder 6 further includes a central portion 6. Central portion 6 provides support in holding the item. In one implementation, a security feature 62 can be attached to the central portion. Such security feature is that typically known by one skilled in the art. For example, the security feature may include a pressure sensor, motion detector, a light sensor, a magnetic activated sensor, a
temperature sensor or the like. The sensor would pick up changes in the holder’s environment and activate an alarm based on pre-set variables. For example, such a change in the holder’s environment could occur when a theft attempted to remove the watch from the holder. As the theft struggles to slip the watch off holder 6, the rapid movement of the watch against the security feature 62, or a motion detector for example, would then set off an alarm to alert the sales personnel.

Holder 6 further includes an edge 44. Edge 44 is used to provide a mating surface for the movable arm 34. Movable arm and holder 6 may or may not be a unitary structure, depending on the implementation. In the implementation that movable member 34 and holder 6 are separate components, attachment of the components can be achieved by methods known to those skilled in the art. Such attachment methods include fasteners, snap fits, ultrasonic welding adhesives and the like.

The edge 44 of holder 6 includes an arm stop 40. Arm stop 40 can be in a similar configuration as end stop 42 on movable arm 34, but need not bear any relationship with end stop 42. Arm stop 40 is used to stop the movable arms motion a preset distance when the holder is moved toward the base. The arm stop interferes against the base, which stops the motion of the movable arm.

Likewise, the holder 6 is prevented from resting in the base. This feature prevents flush contact of the holder with the base so that the item is protected from being crushed when the holder is moved into recessed area 8.
Holder 6 also includes ribs 56. Ribs 56 provide resistance against the item when the item is moved on the holder. This feature prevents a potential theft from attempting to steal the item. For example, a theft would not be able to get to the latch of a watch behind holder 6 by rotating or slipping the watch around holder 6. Additionally, the holder includes a set of side wings 57 to prevent a theft from slipping the watch of the sides of the holder. Side wings 57 are typically elevated tabs that are generally higher than the surface of the holder. The side wings provide an interference surface with the sides of the item to prevent removal of the item should an attempt be made to slip the item off the sides of the holder.

A cut out portion 46 is defined on flexible end 20. The cut out portion allows the flexible end to flex with out interference with edge 44 or arm 34. The location of the edge 44 and hence arm 44 is preferably on the inner side of holder 6. This position allows maximum surface area to central area 60 so that the maximum support to the item is achieved. However, the edge 44 and arm 34 may also be located in any other location on holder 6 so long as the cut away portion is located in a position to provide clearance to the edge and arm.

The base 4 as shown in fig. 2 can have various insertions of indicia 12. Indicia 12 can easily be replaced by sliding into grooves located on the arcuate portion 10 of base 4. The arcuate design allows the indicia to be bowed thereby providing the display module with an aesthetic or attenuated appearance. Movable arm 34 also includes at least one groove 36. Groove 36 assists or guides the movable arm in moving with relation to base 4. Preferably, the
movable arm slides into the base and connects with the holder on the opposite side of the base. Again, other configurations are possible with these components such as the movable arm being in sliding engagement on the outside of base 4 and connected to holder 6.

The movable arm also includes a surface 54. The surface 54 of the arm is typically smooth for allowing smooth movement of the arm. The surface may or may not be coated to assist the arm in moving, depending on the implementation. Such a coating includes Teflon® (registered trademark of E. I. Du Pont de Nemours and Company, generic chemical name tetrafluoroethylene), silicone or other similar lubricants.

The locking portion 32 may or may not be on the movable arm, depending on the implementation involved. The pin 50 is typically fixed to a cabinet assembly later described in this detailed description. The arm contains apertures 52, which the pin 50 mates with thereby locking the arm in position.

The series of apertures 52 along the arm allow the holder to be locked in various positions relative to the base. Thus, items of various sizes or thickness can be held by the same holder 6 by having pin 50 mate with a different aperture.

Fig. 3 illustrates a side view of the display module. The item 5 is protruded outside the bounds of base 4. This feature allows the customer to fully interact with the item. This interaction would not be possible if the item was fully recessed within the base. The holder 6 preferably has a convex portion 6. Convex portion 30 preferably faces away from the base to provide support to the middle of the item 5. However, the convex portion may also face toward the base.
4 to provide the item with flexibility in its mid-section. Fig. 3 also illustrates the position of the arm stop 40 against the base 4. This positioning prevents the holder from bottoming out in the base that could potentially cause damage to the back of the item.

Flexible end 22 has a spring-loaded segment 23 that allows the end to flex back and forth and provide resistance against the item. Alternatively, flexible end 22 could use a living hinge 26 as shown in Fig. 4 in place of spring-loaded segment 23.

As known in the art, living hinges are thin sections of plastic that connect two segments of a part to keep them together and allow the part to be opened and closed. Typically, these are used in containers that are used in high volume applications such as toolboxes, fish tackle boxes, CD boxes and the like. The materials used to make a living hinge are usually a very flexible plastic such as polypropylene and polyethylene. These can flex more than a million cycles without failure. Besides meeting specific design guidelines, the hinges have to be processed properly. The molecules have to be oriented along the hinge line for the hinge to have acceptable life. As molded, the fibers of the plastic are somewhat random in orientation. In order to orient the fibers to aid in prolonging the hinge life, the plastic to flow during the molding process should be across the hinge for maximum strength. As the part comes out of the mold and cools, it needs to be flexed a minimum of 2 times while it is still hot, for optimum strength.

Coining is often done to give the hinge, enhanced properties. The coining process compresses the hinge to a pre-determined thickness. The strain
induced is greater than the yield stress of the plastic. This strain will deform the hinge. The amount of coining or compression should be less than the ultimate stress of the material, to keep the hinge from fracturing. The finished thickness after coining should be about 0.25 to 0.5 mm (about 0.010 to 0.020 inch). This dimensional range assists in keeping the stress in the outer fibers from exceeding the yield strength when being flexed. If the yield strength is exceed, the hinge would ultimately break.

This process can also be done by heating the hinge or the coining tool to a temperature below the glass transition temperature of the plastic. This process allows for easier coining and somewhat enhanced properties, as the plastic "flow" is easier when the material is being heated.

Adverting to Fig. 5, shown is a top view of base 4. The base preferably contains a hole 11 that is located toward one side of the base. The hole 11 allows the movable arm to engage the holder. To the other side of hole 11 is recess area 8. Recess area 8 provides an area for the item to be protected by the base. Typically any latch type mechanism or other closure device of the item would be enclosed in this recessed area. Thus, a theft would be unable to remove the item from the holder because the base is preventing access to the latch or closure device of the item. Arcuate portion 10 protrudes outwardly from base 4. This feature further enhances the interaction of the customer with the display module and item that it holds.

Fig. 6 illustrates a rear view of the base 4 previously described. Shown is hole 11, which is preferably a through hole in base 4. Also shown are
grooves in base 4. Similar to moving arm 34, the base also can include grooves to assist in guiding the moving arm through the base. The rear of the base also preferably contains a fastener 14 for attaching the display module in a cabinet with other display modules. Since the display module is prone to interchanging various items of different sizes by using the same holder, the display module does not have to be removed from the cabinet when an item is changed in the module. The holder is unlocked and moved in a forward position away from the base to allow access to the items closure mechanism that was previously in the recess area 8.

Fig. 7 illustrated a front view of the base 4. Again, hole 11 is a through hole that contains grooves 37 for guiding the moving arm through the base. As shown in Fig. 7, recess area 8 is completely enclosed by the base. Thus, no access to the back portion of the item is available when the back portion is in the recess area and the holder is locked into place.

Fig. 8 illustrates a side view of another embodiment for the locking portion. Shown is a movable arm 67 having a threaded portion. The threaded portion connects with a screw type fastener 66. The screw type fastener in this embodiment uses the base 4 for locking resistance against the moving arm 67. The fastener 66 is flush against the back of base 4 when movable arm 67 is in the locked position. Similar to the previous embodiment, the movable arm and hence the holder can be positioned in a variety of positions to facilitate the holding of items of various sizes. However, unlike the previous embodiment where the movable arm 34 used pin 50 or a component outside the display module 2, for
locking resistance, this embodiment uses the base for locking resistance. Thus, components of the display module can be used to provide the locking resistance to the movable arm.

Also illustrated in Fig. 8 is a flexible unitary holder 24. In this illustration, the holder's convex section is facing the base 4. Again, the preferred positioning of the holder is with the convex portion 30 facing away from the base for providing support to the mid-section of the item.

Fig. 9 and Fig. 10 illustrate embodiments of the display module used in cabinets with other display modules. The cabinet allows containment of a plurality of bases for the display of many items. Shown in Fig. 9, is a cabinet 16 having a outer cabinet door 79. The display module 2 is placed such that the item 5 can protrude outwardly away from the outer door 79. This position further allows the customer to interact with the item. However, the display module securely holds the item 5 in place to deter any would-be thefts. The cabinet 16 can be attached to a wall or floor as shown in fig. 9. This attachment provides security from attempts to carry away the entire cabinet.

Fig. 10 illustrates a cabinet 17 having an outer cabinet door 79 and a magnetic lock 70. The magnetic lock is used in this embodiment to open the outer cabinet door for authorized access to the display modules. Depending on the implementation, the magnetic lock can be replaced with an infrared sensing device to provide authorized access to the inner components of the cabinet. A latch 71 is used to pull open the cabinet door after the lock 70 is opened.
Preferably, the cabinet door is hinged to allow easy access to authorized personnel.

Fig. 11 illustrates a partial rear and exploded view of the cabinet in Fig 10. Illustrated in Fig. 11 is a base plate 78. Base plate 78 protects the components on the back of outer cabinet door 79. A plurality of modules 80 can be displayed using the cabinet. Electronic control 81 controls the lock 70.

The cabinet 17 further includes a motor drive 72. The motor drive is preferably electric driven and provides the power required to move the pins 50 into a locking position with the movable arms. A screw drive 73 is also provided for guiding roller chain 82.

Chain assembly 74 moves gears 77, which interact with serrated pin assembly 76. The motion of the chain assembly powered by the motor drive moves the gears, which in turn moves the serrated pin assembly 76 and pin 50 into the aperture of the movable arm. Thus, the movable arm is lockingly held in place.

The pins can move simultaneously or selectively depending on the implementation. The embodiment shown illustrates all the pins moving together in a locking position where the pin is mated with the aperture of the movable arm of display module 2. However, by the addition of gears 77 along chain assembly 74 and the use of individually serrated pin assemblies, the pins can be moved individually. This would allow the removal of a holder from one display module while the other display modules remain in a locked position.
It should be understood that the above description is only representative of illustrative examples of embodiments and implementations. For the reader's convenience, the above description has focused on a representative sample of all possible embodiments, a sample that teaches the principles of the invention. Other embodiments may result from a different combination of portions of different embodiments. The description has not attempted to exhaustively enumerate all possible variations.

Furthermore, since numerous modifications and variations will readily occur to those skilled in the art, it is not desired that the present invention be limited to the exact construction and operation illustrated. Accordingly, all suitable modifications and equivalents which may be resorted to are intended to fall within the scope of the claims.
VI. CLAIMS:

What is claimed is:

1. A display module, comprising:
   a base; and
   a holder disposed in the base for allowing secure exhibition of an item while allowing user interaction with the item.

2. The display module of claim 1, wherein the base further includes an arcuate portion for showing indicia.

3. The display module of claim 1, wherein the base further includes a fastener for attaching the base to a cabinet with a plurality of display modules.

4. The display module of claim 1, wherein the holder further includes at least one flexible end for allowing the holder to hold items of various sizes.

5. The display module of claim 4, wherein the flexible end includes a spring-loaded segment attached to the holder.

6. The display module of claim 4, wherein the flexible end is a flexible unitary structure with the holder.
7. The display module of claim 6, wherein the flexible end further includes a living hinge.

8. The display module of claim 1, wherein the holder further includes a convex portion facing away from the base.

9. The display module of claim 8 wherein the convex portion is in the shape of a c-clamp.

10. The display module of claim 1, wherein the holder further includes a locking portion for locking the holder in at least one secure position relative to the base.

11. The display module of claim 1, wherein the base further includes a detent for inserting indicia.

12. The display module of claim 1, wherein the detent is at least one groove.

13. The display module of claim 1, wherein the base further includes a surface defining a recess area for protecting the item on the holder.

14. The display module of claim 1, wherein the item is a watch.
15. A display module, comprising:

a base;

a holder for allowing secure exhibition of an item while

allowing user interaction with the item; and

a movable arm connecting the holder to the base.

16. The display module of claim 15, wherein the base further defines a hole for receiving the movable arm.

17. The display module of claim 16, wherein the movable arm further includes a groove for guiding the movable arm through the hole.

18. The display module of claim 15, wherein the movable arm further includes an arm stop for preventing the holder from resting on the base.

19. The display module of claim 15, wherein the movable arm further includes an end stop for preventing removal of the arm from the base.

20. The display module of claim 15, wherein the holder further includes an edge for disposing the arm thereon.
21. The display module of claim 20, wherein the holder further includes at least one flexible end having a cut-out portion for allowing the flexible end to bend without interference from the movable arm.

22. The display module of claim 15, wherein the movable arm further includes a locking portion for locking the holder relative to the base.

23. The display module of claim 22, wherein the locking portion includes a pin that is inserted through at least one aperture on the movable arm.

24. The display module of claim 15, wherein the movable arm further includes a surface for allowing sliding engagement with the base.

25. A display module, comprising:

   a base having an arcuate portion for showing indicia;
   a holder disposed in the base and having a convex portion with at least one flexible end for allowing secure exhibition of an item while allowing user interaction with the item; and
   a movable arm attached to the holder such that the arm has sliding engagement with the base.

26. The display module of claim 25, wherein the flexible end has a spring-loaded segment attached to the holder.
27. The display module of claim 25, wherein the flexible end further includes ribs.

28. The display module of claim 25, wherein the holder further includes a central area for the item to be attached thereto.

29. The display module of claim 28, wherein the central area includes a security feature.

30. A display module, comprising:

   a cabinet;

   at least one base attached to the cabinet, the base having an arcuate portion for showing indicia;

   a holder disposed in the base and having a convex portion with at least one flexible end for allowing secure exhibition of an item while allowing user interaction with the item;

   a movable arm attached to the holder such that the arm has sliding engagement with the base, the movable arm having a locking portion for locking the holder in a variety of positions relative to the base.

31. The display module of claim 30 wherein the convex portion is reversed such that the convex portion faces towards the base.
32. The display module of claim 30, wherein the base further includes a fastener for attaching the base to the cabinet.

33. The display module of claim 30, wherein the locking portion includes a screw-type fastener to resist movement of the movable arm.

34. The display module of claim 30, wherein the cabinet further includes a magnetic lock for activating the locking portion.

36. The display module of claim 34, wherein the magnetic lock simultaneously activates a plurality of locking portions.

37. The display module of claim 34, wherein the magnetic lock selectively activates a plurality of locking portions.

38. The display module of claim 30, wherein the base further includes a flange that prevents the base from fully seating inside the cabinet and allows the base to be exposed outside the cabinet.

39. The display module of claim 30, wherein the movable arm further includes an arm stop that prevents the holder from fully seating inside the base and allows the holder to be exposed outside the base.
40. A display module, comprising:
means for supporting a watch; and
means for holding the watch, the holding means being
attached to the supporting means for allowing secure exhibition of the watch while
allowing user interaction with the watch.

41. The display module of claim 40, wherein the holding means
further includes means for flexing to allow the holding means to hold watches of
various sizes.

42. A display module, comprising:
means for supporting a watch;
means for holding the watch, the holding means being
attached to the supporting means for allowing secure exhibition of the watch while
allowing user interaction with the watch; and
means for moving attached to the holding means such that
the moving means engages with the supporting means, the moving means having
a locking portion for locking the holding means in a variety of places relative to the
supporting means.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

<table>
<thead>
<tr>
<th>IPC(7)</th>
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : Please See Continuation Sheet

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EAST text search

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
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<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<tr>
<td>X</td>
<td>US 2,647,624 A (SEDGWICK) 04 August 1953 (01.08.1953). Figures 1 and 4.</td>
<td>1, 4, 6, 8, 10, 13-22, 24, and 40-42</td>
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<td>Y</td>
<td>US 4,707,146 A (WEIN) 17 November 1987 (17.11.1987). Figure 1.</td>
<td>2, 3, and 8-9</td>
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<td>X</td>
<td>US 4,799,588 A (TRISL) 24 January 1989 (24.01.1989). Figure 12.</td>
<td>1-6, 8-14, and 40-42</td>
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<td>X</td>
<td>US 4,830,181 A (HARTMAN) 16 May 1989 (16.05.1989). Figure 5.</td>
<td>7, 15-20, 22-34, 36, and 37</td>
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**C (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT**

<table>
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<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
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