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(11) **EP 1 240 857 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
18.09.2002 Bulletin 2002/38

(51) Int Cl.7: **A47F 7/12, A47F 7/024**

(21) Application number: **01128342.1**

(22) Date of filing: **30.11.2001**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE TR**
Designated Extension States:
AL LT LV MK RO SI

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(30) Priority: **13.03.2001 IT MI010522**

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(54) **Belt display device**

(57) A device for displaying belts of the type equipped with a supporting plate (2) and securing means (3) for the belt in which the securing means comprise a tab (5) to lock the buckle of the belt.

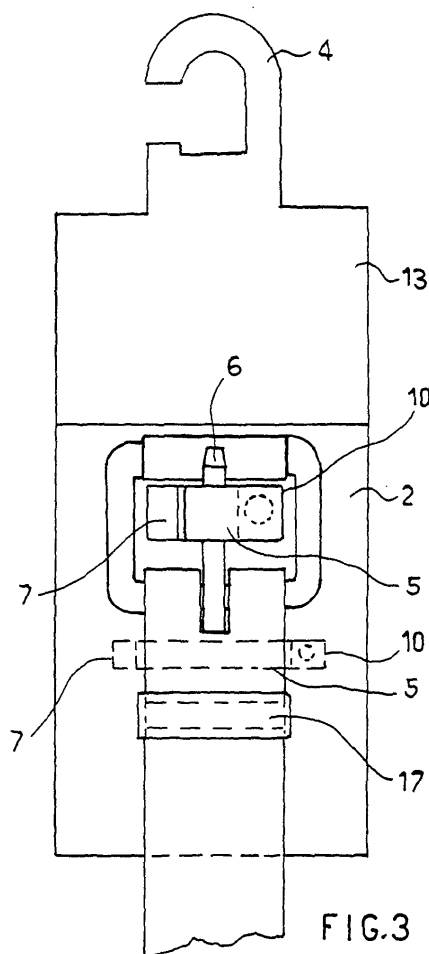


FIG. 3

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Description

[0001] The present invention relates to a safety display device for belts. In particular, the invention relates to a display device for belts that can be used in the large-scale distribution sector.

[0002] In general, display devices for belts used in points of sale are composed of small plastic plates equipped with a small pin or hook to secure the buckle of the belt and a connecting element such as a slot which allows the display device and therefore the belt to be hung from specific shelving or floor-standing supporting elements.

[0003] The small plastic plate also has a portion on which to apply the adhesive label indicating the price of the item for sale.

[0004] A problem of known display devices for belts is the fact that at times a display device with an expensive belt marked with a high price is substituted with a device marked with a lower price and which should be associated to a less expensive belt; in other words, the belts are moved from one device to another according to the price displayed.

[0005] At the end of the day or the period of sale the managers of the belt distribution find the less expensive belts attached to the display device with the highest prices meaning that the finest and most expensive quality belts have been sold at lower prices.

[0006] The task of the present invention is to solve the problems of prior art. According to the invention one object of the present invention is to propose a device to display belts that is capable of locking the belt to the display device.

[0007] Another object of the present invention is to offer an element to lock the belt to the display device that cannot be opened without specific instruments and which if forced makes this tampering evident.

[0008] Another object of the present invention is to propose a display device that is practical and fast to use and which at the same time is easy and inexpensive to produce.

[0009] This object is attained with the present invention, which relates to a device for displaying belts of the type equipped with a supporting plate and means to secure the belt characterised in that said securing means comprise a locking element suitable to fix the buckle to the supporting plate in an essentially irreversible manner. This allows the belt to be locked firmly to the supporting plate so that it cannot be removed without the aid of specific instruments or a pair of scissors which consent the locking element to be cut.

[0010] According to another aspect of the present invention, the locking element is a tab that engages the prong of the buckle of the belt and comprises at least one means of engagement with the supporting plate.

[0011] Advantageously, the tab is integral at one end, by means of an upright, with the supporting plate and at the other end has a means to engage with the plate. A

locking tab produced in this manner firmly locks the buckle of the belt to the supporting plate while allowing the prospective purchaser ample view of the buckle.

[0012] According to another preferred aspect of the present invention, the engagement means is a projecting part suitable to engage by interlocking in a corresponding opening produced on another upright of the supporting plate.

[0013] According to another preferred aspect of the present invention, the tab comprises a fracture line. A fracture line produced on the tab allows the locking tab to be easily cut or broken to free the product from the display device.

[0014] Further characteristics and advantages of the present invention shall become more evident from the description below, provided as a non-limiting illustration with reference to the attached drawings, in which:

- Figure 1 is a plan view of the display device with locking tab in the open position according to a possible embodiment of the present invention;
- Figure 2 is a sectional view of a detail of the display device of Figure 1;
- Figure 3 is a view of the display device with locking tab in the closed position according to a possible embodiment of the present invention;
- Figure 4 is a sectional view of a detail of the display device of Figure 3;
- Figure 5 is a plan view of the display device for interlocking buckles according to a possible embodiment of the present invention; and
- Figure 6 is a sectional view of a detail of the display device of Figure 5.

[0015] Figure 1 represents a possible embodiment of a display device 1 for belts that can be used in particular in the large-scale distribution sector according to the present invention.

[0016] The display device 1 includes a supporting plate 2 in plastic comprising securing means 3 for the buckle of the belt and a locking element 4 to lock the plate to the display shelving or to other supports.

[0017] The securing means 3 of the belt to the supporting device comprise a locking element suitable to encompass the prong 6 of the buckle of the belt (see figure 3) and to lock it in an essentially irreversible manner.

[0018] In the description below locking element is intended as an element of any form and material suitable to engage with the supporting plate 2 to lock the buckle or another portion of the belt.

[0019] The locking element is preferably a tab 5, one end of which is advantageously integral with the supporting plate 2.

[0020] Always according to the following description essentially irreversible locking is intended as locking that once closed can only be opened with the aid of specific instruments or by breaking the tab.

[0021] The tab 5 is connected at one end to the supporting plate 2, preferably by means of an upright 7, and at the other end has a means to engage and close with the plate.

[0022] According to a preferred embodiment, the engaging means of the tab is a pin 8 with a wedge-shaped head positioned on the free end of the tab 5 and suitable to engage in a countersunk hole 9 produced on the top surface of an upright 10 of the supporting plate 2. The uprights 7 and 10 are arranged between the prong and the buckle to hold the prong of the buckle in position and lock it to the supporting plate 2, at the same time allowing an excellent view of the buckle.

[0023] The particular wedged shape of the head of the pin 8 allows safe engagement of the tab 5 with the supporting plate 2 and consequently of the buckle of the belt to the display device.

[0024] Once the pin 8 has been interlocked in the specific hole 9, as can be seen in figures 3,4, it is difficult to open it again without tools. For this reason the supporting plate cannot be replaced without leaving the display device 1 with obvious signs of tampering or in times that are short enough to prevent sales staff from realizing what is happening.

[0025] To facilitate opening of the display device 1 the tab 5 is provided with a fracture line 11 that crosses it entirely transversely in order to reduce the section to facilitate its cutting or breaking. Moreover, the presence of the fracture line 11 with a thinner section offers greater safety against tampering with the device. In fact, if the tab is forced to extract the pin 8 from the hole 9, rather than the pin 8 coming out of the hole 9 the tab 5 will break.

[0026] The locking tab 5 is preferably realised through moulding in a single piece with the supporting plate 2 or alternatively it can be fixed in place by thermowelding, bonding, wedging or similar methods. For example, the locking tab 5 may have two pins at its ends that engage two holes on the supporting plate.

[0027] It must in any case be stressed that the technical solutions set down above are only one example of embodiment, it being intended that opposite devices may also be used, namely with the pin(s) produced on the supporting plate 2 and the hole(s) produced on the tab.

[0028] In the preferred embodiment, the tab 5 is sized so that only the prong 6 of the buckle is locked, although in other embodiments according to the present invention the tab 5 may be produced with larger longitudinal dimensions and with the uprights 7, 10 farther apart so that it winds around and locks the belt next to the portion of it connected to the buckle.

[0029] In this case, as represented by the dashed line in figure 3, the tab locks the belt between the buckle and the loop 17.

[0030] According to another embodiment of the invention, the means to secure the buckle comprise an opening 12 produced on the plate 2 suitable to engage the

projecting pin 18 of interlocking buckles.

[0031] In the present description interlocking buckles are intended as those specific buckles the prong of which is a pin 18 essentially perpendicular to the buckle which engages by interlocking in slots made on the opposite end of the belt from the buckle.

[0032] In this case the locking tab 5 may not be provided with the relative uprights 7, 10 or the tab 5 may be sized so that it transversely locks the entire buckle or a portion of the belt in the vicinity of the buckle (see figure 5).

[0033] The opening 12 produced on the plate 2 in this case is shaped suitably to interlock the pin of this type of buckle or alternatively can be, as indicated in figure 6, a hole that allows the supporting plate 2 to be crossed by part of the pin of the buckle and consequent engagement with the slots located on the other end of the belt from the buckle.

[0034] The supporting plate 2 also has, in a known manner, a top portion 13 suitable to house the label indicating the price of the displayed product.

Claims

1. Device for displaying belts of the type provided with a supporting plate and means to secure the belt to the supporting plate **characterised in that** said securing means comprise a locking element suitable to fix the buckle to the supporting plate in an essentially irreversible manner.
2. Device for displaying belts according to claim 1, **characterised in that** said locking element is a tab suitable to engage the prong of said buckle.
3. Device for displaying belts according to claim 2, **characterised in that** said tab is integral at one end, by means of an upright, with the supporting plate and at the other end has a means to engage with said supporting plate.
4. Device according to claim 3, **characterised in that** said engaging means is a projecting part suitable to engage by interlocking in a corresponding opening realised on the other upright of the supporting plate.
5. Device according to claim 2, **characterised in that** said tab comprises a fracture line.
6. Device according to claim 1, in which said buckles are interlocking buckles, **characterised in that** said securing means comprise an opening produced on the supporting plate suitable to engage the projecting pin of said interlocking buckles

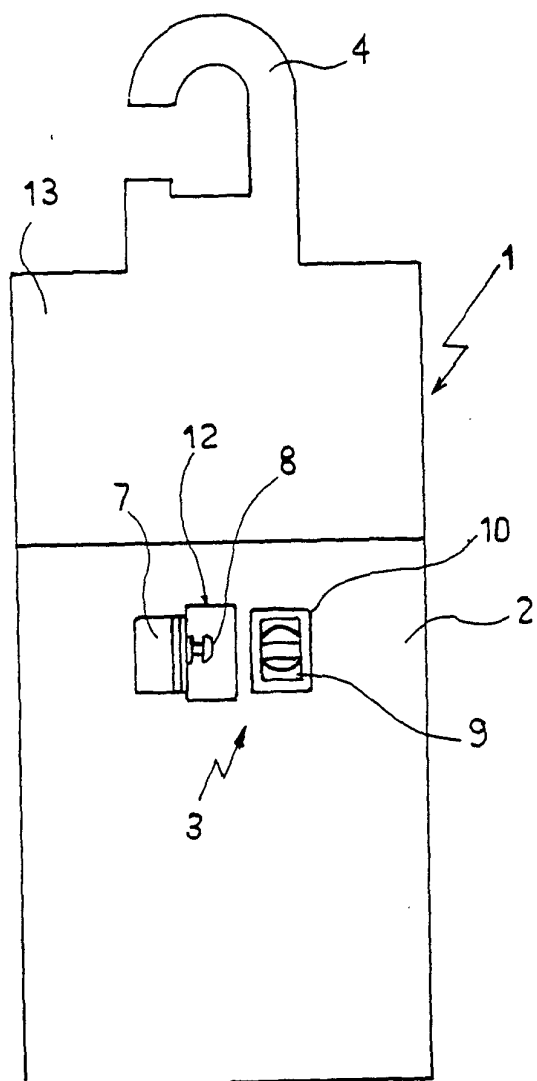


FIG.1

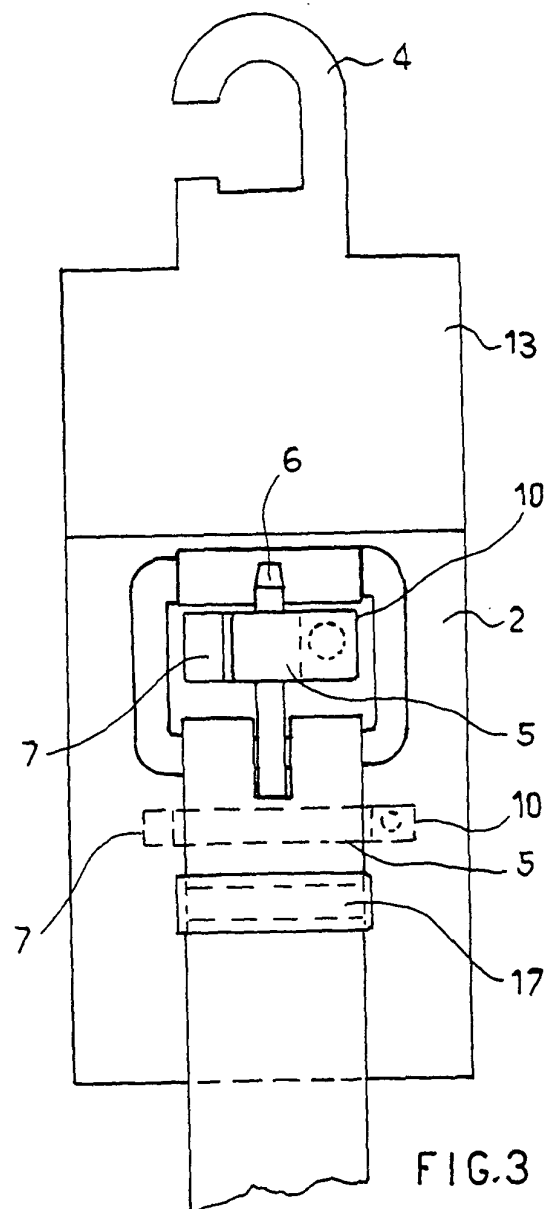


FIG.3

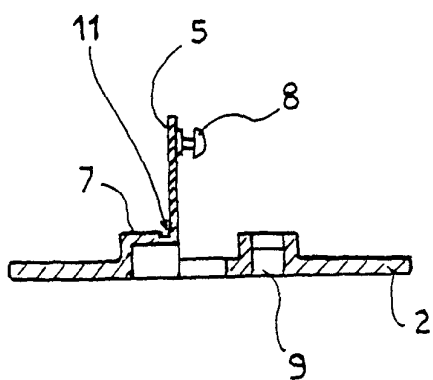


FIG.2

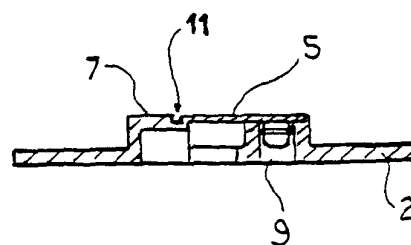


FIG.4

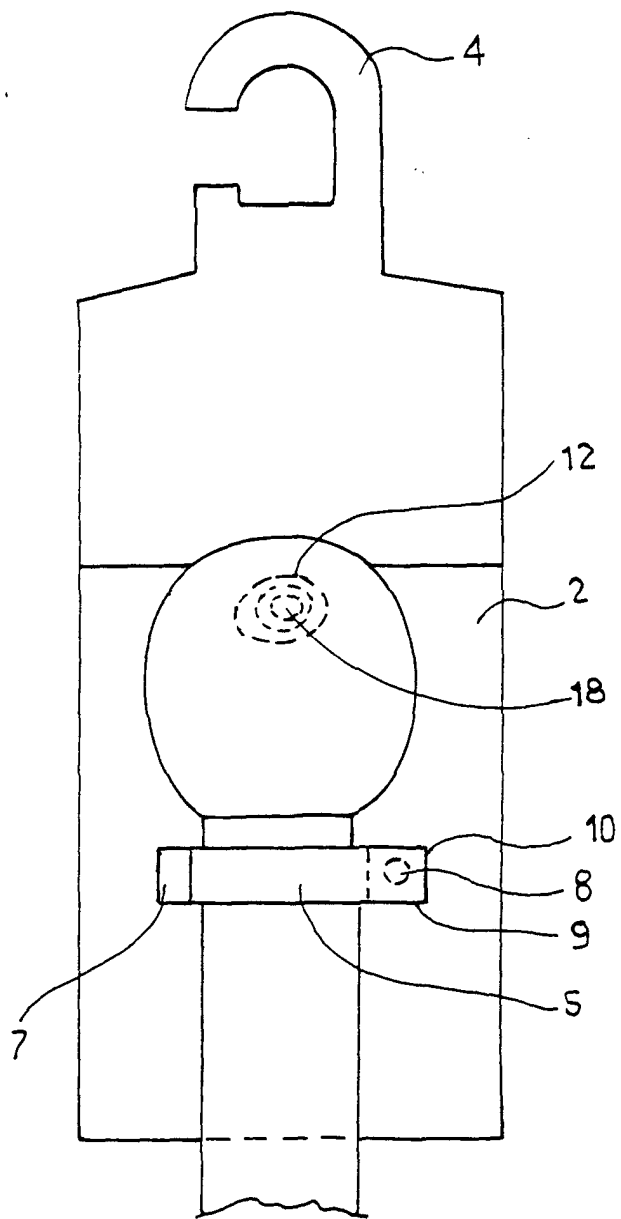


FIG. 5

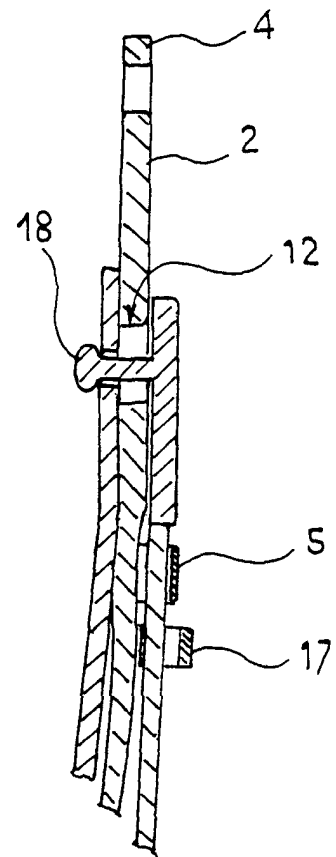


FIG. 6



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EUROPEAN SEARCH REPORT

Application Number
EP 01 12 8342

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	FR 2 657 001 A (BALAINE PHILIPPE) 19 July 1991 (1991-07-19) * abstract; figures *	1	A47F7/12 A47F7/024
X	GB 2 165 144 A (KENILWORTH COMPONENTS) 9 April 1986 (1986-04-09) * page 1, line 86 - page 2, line 29; figures *	1	
X	US 5 957 344 A (KOLTON CHESTER) 28 September 1999 (1999-09-28) * abstract * * column 3, line 27 - line 30; figures 1-3 *	1,5	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			A47F A47G B65D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 21 June 2002	Examiner Pineau, A
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03 82 (P44001)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 01 12 8342

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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21-06-2002

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