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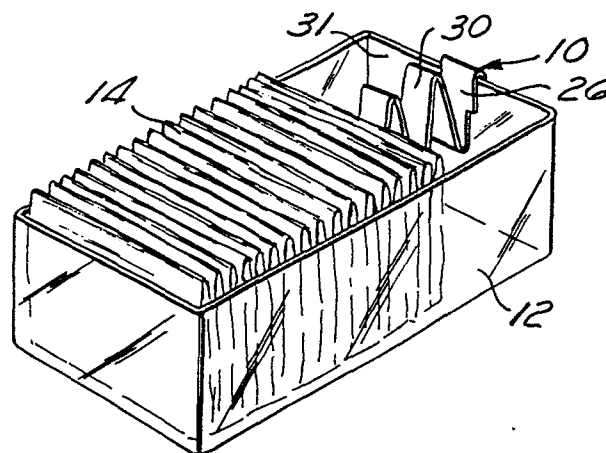
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⑯ **Merchandise display device.**

⑰ A merchandise display device adapted to maintain merchandise in an orientation upon a display surface is disclosed. The device comprises an insert (10) sized to be positioned within a display case or drawer (12) and includes a base plate (20) formed to contact the merchandise (14), an anchor member (26) adapted to attach the insert (10) to the display case (12) and an accordion-like extensible member (30) positioned between the base plate (20) and anchor member (26). As merchandise is removed from the display case (12), the device constantly urges the merchandise in a forward direction and thereby maintains the stack of merchandise (14) in an organized orientation.



MERCHANDISE DISPLAY DEVICE

The present invention relates to merchandise display devices and, more particularly, to a merchandise display insert adapted to be positioned within a display case or drawer and maintain the organization of display merchandise. As is well known, a variety of consumer goods are merchandised in display cases which typically comprise a drawer or shelf wherein the display merchandise is stacked in parallel rows within the drawer. As merchandise is selectively removed from the drawer, the stacks of merchandise often collapse rendering the merchandise unsightly for display purposes.

Heretofore, it was typical practice to require sales personnel to continuously monitor and housekeep the display cases to insure that the merchandise remained in an organized fashion. As will be recognized, such monitoring and housekeeping by sales personnel detracts from other more profitable sales duties and thereby increases the overall cost of the merchandise.

The present invention specifically addresses and alleviates the above referenced deficiency associated in the art by providing a merchandise display device which is adapted to continuously maintain the organized orientation of merchandise positioned upon a display surface. More particularly, the present invention comprises an insert sized to be positioned within a display case or drawer. One end of the insert is provided with a generally L-shaped base plate sized to permit a portion of the end included an anchor member adapted to be attached to the rear wall or bottom edge of the drawer shelf.

The anchor member and base plate are interconnected by an accordion-like extensible member which includes plural spring steel biasing clips positioned at each of its apexes.

The spring clips cause a biasing force to be applied to the extens-

ible member to continuously urge the base plate toward the front wall of the display drawer. Thus, a merchandise is selectively removed from the area of the drawer in front of the base plate, the extensible member constantly pushes the base plate 12 and remaining  
5 merchandise in a forward direction away from the anchor member and thereby maintains the stack of merchandise in an organized manner.

In the preferred embodiment, the merchandise display device of the present invention is integrally formed of a molded plastic material and includes a pair of spring stops or shoulders formed at each of  
10 the apexes of the extensible member. The inclusion of the spring stops permit the rapid mounting of the spring clips within the device in a single manual motion and maintains the same therein without the use of auxiliary retaining means. As such, the merchandise display device of the present invention is well suited for mass  
15 production, rapid assembly fabrication techniques which renders the resultant device cost effective.

In a first embodiment of the invention, the anchor member is formed to be attached to the rear wall of the display drawer. However, two alternative embodiments of the anchor member permit the same to be  
20 attached to the rear edge of a display surface or merely contact the rear wall of the display shelf.

These as well as other features of the present invention will become more apparent upon reference to the drawings, wherein:

Figure 1 is a perspective view of a display case drawer having  
25 display merchandise and the merchandise display device of the present invention disposed therein;

Figure 2 is an enlarged perspective view of the merchandise display device of the present invention;

Figure 3 is an enlarged elevational view showing the manner in which the  
30 spring clips are inserted and retained within the extensible member of

the present invention;

Figure 4 is a partial perspective view showing the second embodiment of the anchor of the present invention;

and figure 5 is a partial perspective view of the third embodiment of the anchor member of the present invention.

Referring generally to Figures 1 and 2, there is shown the merchandise display device or insert 10 of the present invention which may be placed within a display case or drawer 12 to maintain the stacked orientation of merchandise 14 positioned within the drawer 12. Merely by way of example and not limitation, the particular merchandise 14 depicted within the drawer 12 comprises a plurality of hosiery packages; however those skilled in the art will recognize that various other merchandise may be utilized with the present invention.

As best shown in Figure 2, the display device 10 of the present invention is formed having a generally L-shaped base plate 20 having a horizontal leg portion 22 adapted to reside beneath a portion of the merchandise 14 and a vertical leg portion 24 adapted to provide a rigid wall for abutment with one end of the merchandise stack. The opposite end of the device 10 is provided with an anchor member 26 which in its embodiment as depicted in Figure 2, is formed to extend in a generally vertical direction and includes a bent-over flange or clip 28. As shown in Figure 1, the bent-over flange 28 is sized to extend over the edge 31 of the rear wall of the display drawer 12 so as to detachably mount the device 10 within the drawer 12.

An extensible member 30 extends between the baseplate 20 and anchor member 26 and is preferably formed in an accordion-like configuration composed of angularly extending interconnected elongate segments. At each of the apexes 32, the member 30 is provided with a reduced cross-sectional dimension so as to form a hinge which permits the member 30 to be extended or compressed laterally between the base plate 20 and anchor member 26. In the preferred embodiment, the entire insert 10 is formed of an integrally molded plastic material which is conducive to

low-cost mass production fabricating techniques.

Referring more particularly to Figure 3, a pair of stops or protrusions 34 are formed on the extensible member 30 adjacent each of the apexes 32 which are designed to maintain plural generally V-shaped spring clips 40 therein. In the preferred embodiment, the spring clips 40 are formed of a thin spring steel material and are adapted to constantly urge the member 30 into a laterally extended position. As will be noted, from referring to Figure 3, the plural stops 34 are spaced from the apexes 32 of the member 30 through a distance slightly greater than the overall length of the spring clips 40 such that the spring clips 40 may be manually inserted into the member 30 merely by pressing the spring clips 40 downward toward the apexes 32.

During this downward insertion movement of the spring clips 40, the distal ends of the spring clips 40 cam against the stops 34 causing the spring clips 40 to slightly compress inwardly as indicated by the phantom arrows in Figure 3. Once the distal ends of the spring clips 40 pass downward beyond the edges 35 of the stops 34, the distal ends 42 spring outward and are thereby captured by the stops 34. Further, in view of the spring clips 40 being constantly urged outward and against the stops 34, it will be recognized that the spring clips 40 are permanently maintained against the stops 34 without any auxiliary mounting means and, thereby, continuously bias the member 30 in an extended orientation.

With the structure defined, the operation of the merchandise display insert 10 of the present invention may be described by referring to Figure 1. Initially the device 10 is positioned within the drawer 12 with the anchor member 26 being extended over the rear edge 31 of the drawer 12. A user (not shown) must then manually press the base plate 20 toward the anchor 26 to overcome the biasing force of the spring clips 40 and cause the member 30 to be compressed laterally.

The merchandise 14 may then be inserted into the drawer 12 in a side-by-side orientation. Preferably some of the merchandise 14 is positioned

upon the horizontal leg portion 22 of the base 20 to thereby cause a weight force to be exerted upon the base plate 20 and insure that the horizontal leg portion 22 is continuously biased against the floor of the drawer 12. Subsequently, the user may release the base plate 20

5 wherein the extensible member 30 automatically extends laterally outward under the biasing force of the spring clips 40 to cause the vertical leg portion 24 of the base plate 20 to contact the merchandise 14 and slightly compress the merchandise 14 and slightly compress the merchandise 14 within the drawer 12.

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As will be recognized, due to the extensible member 30 being continuously biased by the multiple spring clip 40 in an outward direction (as indicated by the arrow in Figure 2) as merchandise 14 is removed from the drawer 12, the remaining merchandise is compressed within the drawer  
15 and maintained in its stacked organized configuration. By selecting the spring force of the spring clips within suitable tolerances, the compression force exerted by the device 10 may be maintained within suitable limits to allow easy removal and restocking of the merchandise 14, yet be sufficient to cause a moderate compression of the merchandise  
20 14 within the drawer.

In Figures 4 and 5, two additional embodiments of the anchor member 26 of the present invention are depicted. As shown in Figure 4, the anchor member 26B is formed as a flat plate which is adapted to abutt the rear wall 31 of the display shelf 12. As will be recognized, due to the  
25 spring clips 40 mounted on the extensible member 30 constantly biasing the anchor member 26B away from the base plate 20, the anchor member 26B is continuously maintained tightly against the wall 31 of the drawer 12.

In Figure 5, an additional embodiment of the anchor member 26C is  
30 depicted which is formed in a manner analogous to the embodiment shown in Figure 2 except that the anchor member 26C is formed to extend in a generally parallel orientation as viewed in Figure 5 (i.e. in a plane substantially parallel to the plane of the horizontal leg portion 22 of the base plate 20). This additional embodiment of the base member 26C is

specifically adapted to permit the device 10 to be attached to the lower support surface 52 of a display drawer or case 12 when the display case 12 does not include a rear wall panel.

Although in the preferred embodiment certain part configurations and  
5 materials have been defined, those skilled in the art will recognize that various modifications can be made to the same without departing from the spirit of the present invention and that such modifications are clearly contemplated herein.

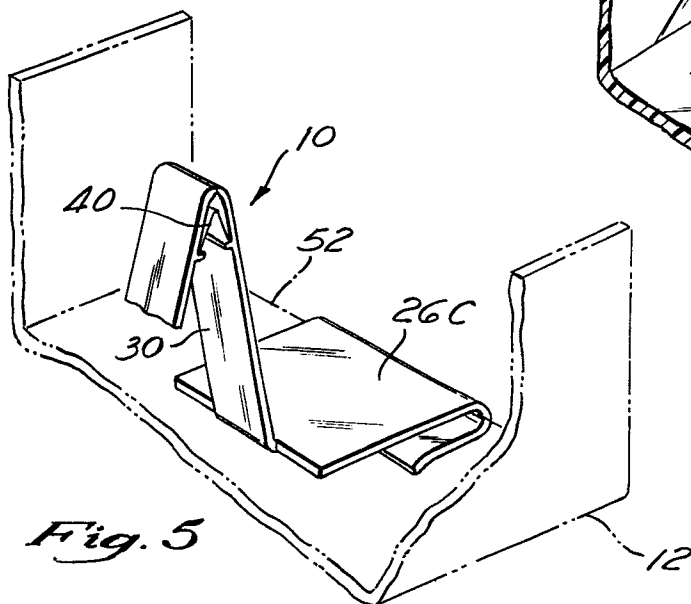
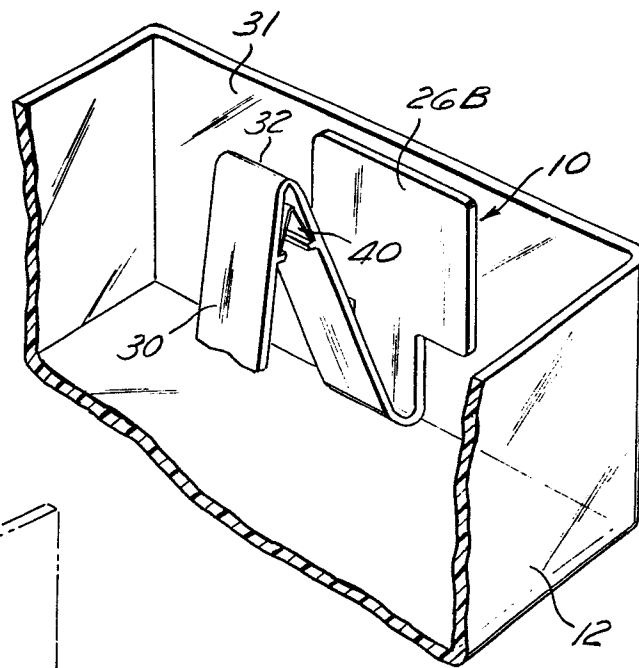
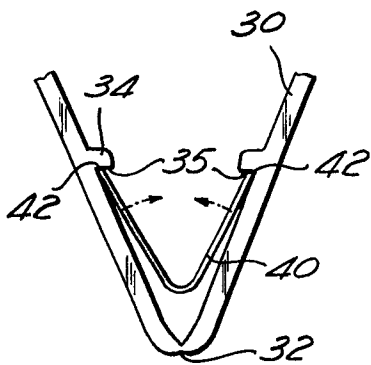
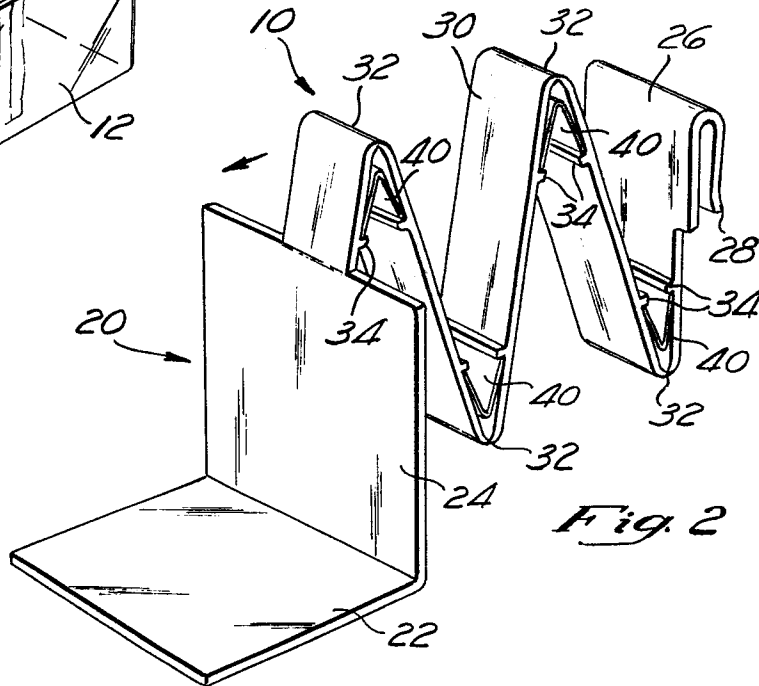
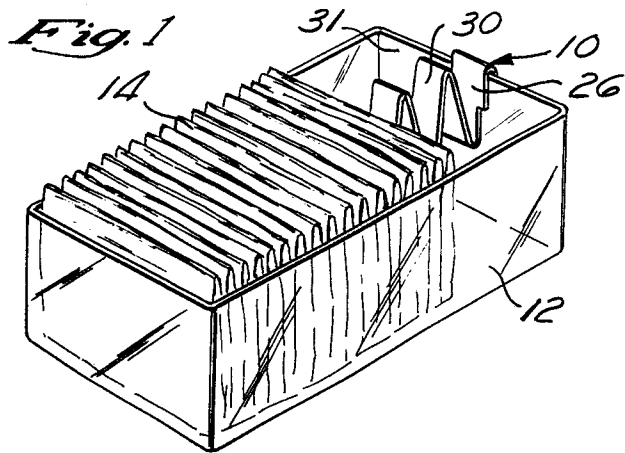
CLAIMS

1. A device for maintaining merchandise in a stacked orientation within a display case comprising a base member formed to contact one end of a stack of merchandise disposed within a display case, an anchor member adapted to be attached to said display case, an  
5 extensible member attached on opposite ends to said base member and said anchor member, and spring means mounted to said extensible member for biasing said base member away from said anchor member to continuously compress said stack of merchandise within said display case as individual merchandise is periodically removed from said  
10 stack of merchandise.
2. The device of Claim 1 wherein said extensible member comprises an accordion-like member formed of plural elongate segments interconnected at their apexes.
3. The device of Claim 2 wherein said spring means comprises plural  
15 V-shaped spring inserts mounted to said extensible member adjacent each of the apexes of said elongate segments.
4. The device of Claim 3 further comprising stop means formed on each of said elongate segments adjacent each of their apexes for mounting said plural spring inserts to said extensible member.
- 20 5. The device of Claim 4 wherein said anchor member comprises a bent-over clip adapted to be attached to one wall of said display case.
6. The device of Claim 4 wherein said anchor members comprises a plate member adapted to abutt one wall of said display case.
7. The device of Claim 4 wherein said base member comprises a generally L-shaped member having a first leg portion sized to extend  
25 beneath a portion of said stack of merchandise and a second leg



portion sized to abutt said one end of said stack of merchandise.

8. The device of Claim 4 wherein said base member, anchor member and extensible member are integrally molded of a plastic material.
9. A device for maintaining merchandise in a stacked orientation  
5 within a display drawer comprising: an insert sized to be positioned within a display drawer adjacent one end of said display drawer and continuously bias a stack of merchandise positioned within said display drawer toward the opposite end of said display drawer, said insert comprising a base member formed to contact said  
10 stack of merchandise between said ends of said display drawer; an anchor member adapted to be attached to said one end of said display drawer; and plural spring means mounted to said accordion-like member to continuously bias said base member away from said anchor member.
- 15 10. The device of Claim 9 wherein said base member, anchor member, and accordion-like member are integrally molded of a plastic material.
11. The device of Claim 10 wherein said accordion-like member is formed of plural elongate segments disposed in angular orientations with respect to one another and interconnected at their apexes.
- 20 12. The device of Claim 11 wherein said plural spring means comprises plural V-shaped spring inserts mounted to said accordion-like member adjacent each of the apexes of said plural elongate segments.
- 25 13. The device of Claim 12 further comprising means formed on said plural elongate segments adjacent their apexes for mounting said springs inserts to said accordion-like member.
14. The device of Claim 13 wherein said spring segment mounting means comprises a tab extending outward from said plural elongate segments adapted to abutt the ends of said plural spring segments.





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# EUROPEAN SEARCH REPORT

0113929  
Application number

EP 83 20 0446

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. <sup>3</sup> )
X	DE-B-1 207 058 (E. SPÄTI) * Figures 1-7 *	1,6	A 47 F 1/12
Y		2-4, 7, 9-14	
A		5	
X	--- US-A-4 020 946 (GARDNER) * Figure 7; abstract *	1,6	
Y		2-4, 7, 9-11, 13, 14	
A		5	TECHNICAL FIELDS SEARCHED (Int. Cl. <sup>3</sup> )
Y	--- US-A-3 677 203 (BARRINEAU) * Figures 3,5-7; column 2, lines 53-57 *	2-4, 9- 14	A 47 F B 65 D B 42 F
X	--- US-A-2 927 699 (McGRAW) * Figures 1-4 *	1	
A		2, 5, 6, 9	
	--- -/-		
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 02-04-1984	Examiner CURZI D.
<b>CATEGORY OF CITED DOCUMENTS</b>			
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	



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 3)
X	US-A-2 954 129 (GORDON) * Figures 1-9 *	1	
A		2, 6, 9	
X	CH-A- 399 689 (KNÖPFEL) * Figures 1-6 *	1	
A		2, 6, 9	
Y	US-A-3 612 288 (LESLEY) * Column 3, lines 20-28; figure 4 *	12	
A		2, 3, 4, 11	
Y	US-A-4 300 693 (SPAMER) * Figures 1-4; column 2, lines 23-25 *	7	TECHNICAL FIELDS SEARCHED (Int. Cl. 3)
A		8, 10	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 02-04-1984	Examiner CURZI D.
<b>CATEGORY OF CITED DOCUMENTS</b>			
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	