United States Patent [19]

Collin

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[54] **HANGER SUPPORT**

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[51] **Int. Cl.** **A47f 7/19**
[58] **Field of Search** ..... 211/124, 123, 89, 105.1, 211/8; 206/7 A; 248/70, 68 R; 24/115 G, 263 R, 263 PJ, 263 C

[56] **References Cited**

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3,112,027	11/1963	Field et al.	206/7 A
3,353,775	11/1967	Sebo	248/70
3,403,787	10/1968	Browning	211/124
3,458,051	7/1969	Zeman et al.	211/124
3,480,153	11/1969	Collin	211/124
3,506,227	4/1970	Jenkins	248/70 X

FOREIGN PATENTS OR APPLICATIONS

221,618	6/1962	Austria	24/263 C
576,249	5/1959	Canada	24/263 C

Primary Examiner—Ramon S. Britts
Attorney, Agent, or Firm—David Wolf

[57] **ABSTRACT**

The bar for supporting clothes hangers in an upright garment shipping carton. A channel shaped metal bar for supporting the hanger has a central hanger supporting portion and end portions that engage the carton walls. Strength and compactness is provided by forming the central supporting portion as a downwardly opened U-shaped elongated channel. A cover section overlies the body section and is adaptedly engagable for clothes hangers of different dimensions at end flaps that adjustably engage lips formed in the end portions of the body section.

8 Claims, 3 Drawing Figures

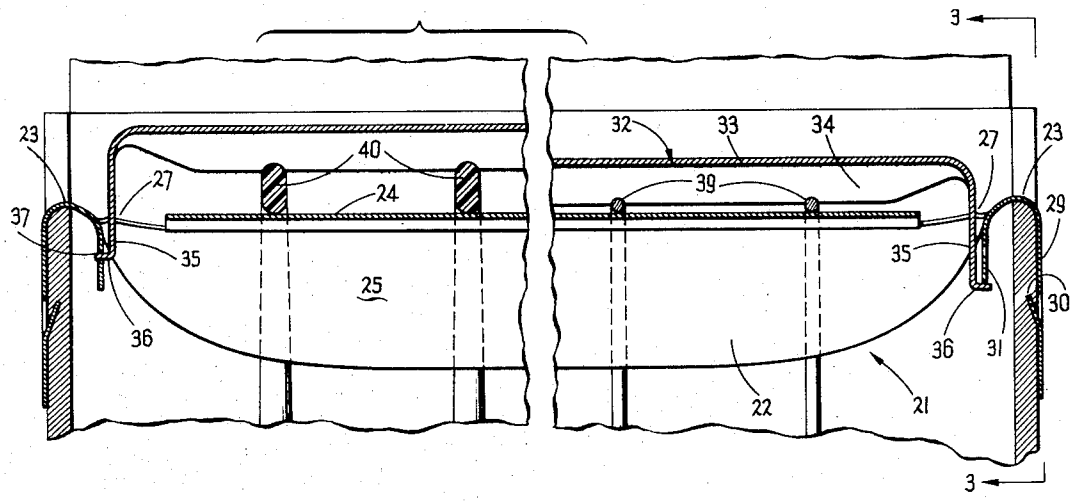


FIG. 1

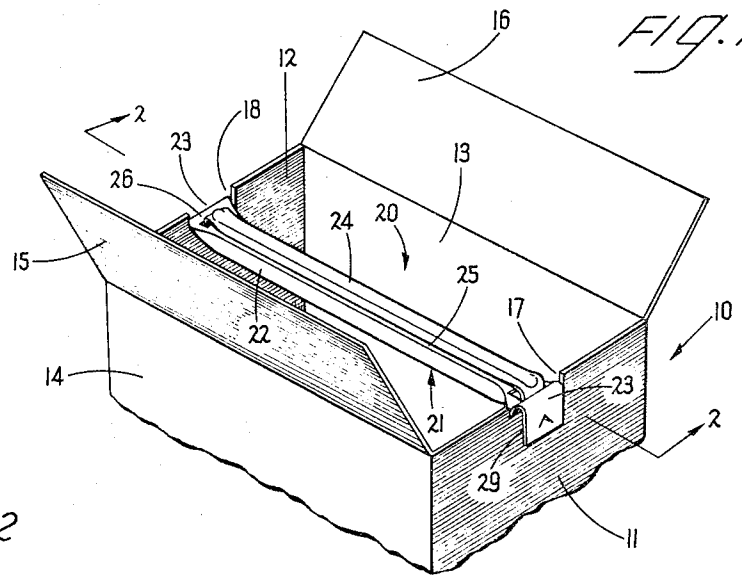


FIG. 2

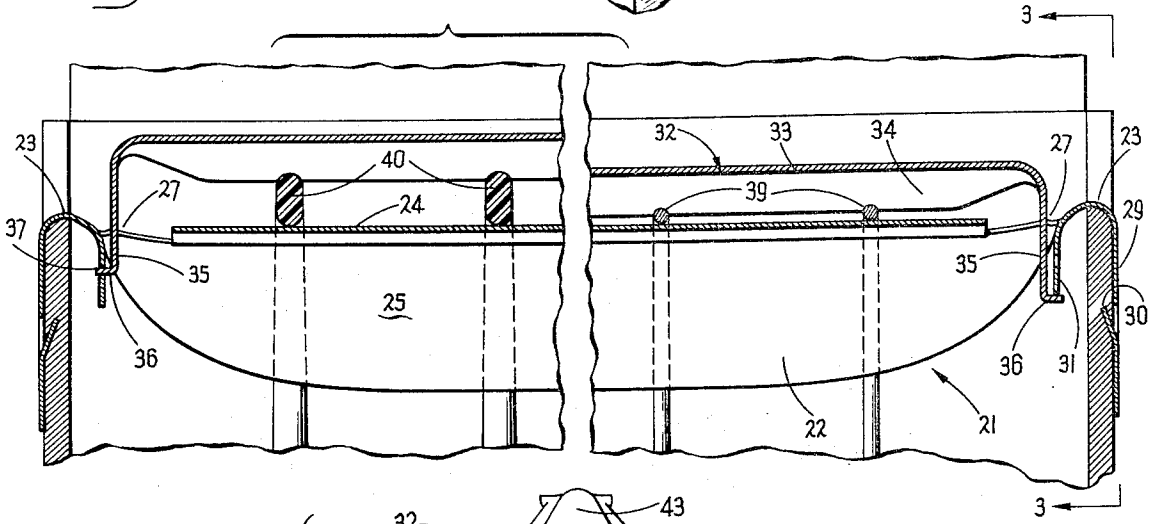
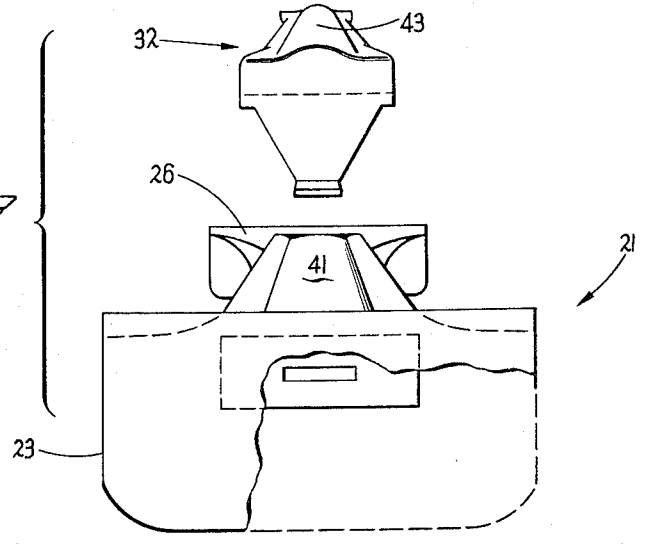


FIG. 3



HANGER SUPPORT

SUBJECT MATTER OF INVENTION

This invention relates to hanger bars for supporting clothes hangers and in particular to a bar for use in commercial garment shipping cartons of the upright type and to an improvement of my prior invention described in the U.S. Pat. No. 3,480,153 issued Nov. 25, 1969.

BACKGROUND OF THE INVENTION

Upright cartons of the type to which this invention relates are made to hold a number of garments such as suits, coats or dresses on clothes hangers. A bar at the top of the carton receives the hangers. This bar consists of a body section on which the hanger hooks are supported and a cover section which fits over the body section and secures the hanger against sliding while the carton is in transit.

In hangers of the type previously used including specifically the hanger bar described in U.S. Pat. No. 3,480,153 the body section of the hanger bar was provided with a central portion and consisted essentially of an upwardly open U-shaped channel. End portions secured the central upwardly open U-shaped channel to the carton. This arrangement required the use of a comparatively shallow channel member in order to properly fit it below the top edge of the carton. Because shallow channels were required the metal gauge used for these hanger bars had to be quite heavy. Because heavy metal was used, some difficulties were encountered in providing sufficient spring action to readily engage and disengage the cover section from the central portion of the body section. Further, manufacturing costs were greater and the hanger necessarily had relatively sharp edges that were exposed on top and thus, frequently, injured workers loading the cartons.

In addition, hanger bars which have been in use to date did not make adequate provisions for securing different types of hangers. Thus, for example, wire hangers have a much narrower cross-section hook than do plastic hangers. Thus, when plastic hangers were used on a bar designed for wire hangers, the plastic hangers could be damaged. Conversely, when wire hangers are used on a bar designed for plastic hangers insufficient tension is provided and the wire hangers slide readily along the bar.

SUMMARY OF THE INVENTION

It is an object of the present invention to overcome the limitations referred to above. In particular, it is an object of the present invention to provide a design for a hanger bar used for supporting garments in a garment carton in which the hanger bar fits well below the upper edges of the carton and may be made of thinner metal than heretofore possible. A further object of the present invention is to provide a hanger bar that is structurely strong, that sits well below the upper edge of the carton, that has no exposed sharp edges from above, and that is easy to manufacture and use. A further object of the present invention is to provide a hanger bar having means for securing the hangers in locked position with these means easy to operate. The cover section is designed to be easily locked or unlocked thereby readily engaging or freeing the hangers on the bar.

A further object of the present invention is to provide a means for securing hanger hooks of different thicknesses and sizes. In this connection, the present invention provides a means for adjustably securing a cover section to the body section of the hanger bar to accommodate the hooks of different sizes.

It is also an object of the present invention to provide an improved hanger structure which is structurely stronger than that heretofore available and which is not likely to crack at corners or edges.

In the present invention there is provided a hanger bar for a garment carton in which the bar is formed with a body section and a cover section. The body section has a central hanger supporting portion and end portions with the end portions engageable with the end walls of the carton. The central hanger supporting portion consists of a downwardly open U-shaped elongated channel having a top wall that is integrally formed with depending side walls on the opposite longitudinal edges of the top wall. The cover section which interengages the body section is provided with resilient bendable end flaps that engage the end portions of the body section and lock the hooks of clothes hangers between the cover section and the central hanger supporting portion.

BRIEF DESCRIPTION OF THE DRAWINGS

The foregoing objects and advantages of the present invention will be more clearly understood when considered in conjunction with the accompanying drawings in which:

FIG. 1 is a perspective view of the top portion of a garment carton on which is installed a hanger bar constructed in accordance with the invention;

FIG. 2 is an enlarged cross-section partially broken away, taken substantially along the line 2—2 of FIG. 1; and

FIG. 3 is an end view taken along the line 3—3 of FIG. 2 showing a locking bar in open position.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The carton generally indicated by the numeral **10**, on which the bar is used, is rectangular and has end walls **11** and **12**, side walls **13** and **14**, and top closure flaps **15** and **16**. The carton is ordinarily made of corrugated cardboard and may be of any suitable construction. End walls **11** and **12** have notches **17** and **18** for receiving the hanger bar, generally indicated by the numeral **20**.

The body section **21** of the hanger bar is formed with a central hanger supporting portion or section **22** and end portions **23**. The central hanger supporting portion **22** is formed by a downwardly open U-shaped elongated channel having a top wall **24** integrally formed with depending side walls **25** on opposite longitudinal edges of the top wall. The ends of the top wall are flared outwardly as illustrated at **26** and an opening **27** is formed in the flared portions **26**. Each of the end portions **26** also include a downwardly extending flange **29** integral at its upper end with one end of the flared end of the top wall. This downwardly extending flange is adapted to engage the outer surface of one of the end walls. An upwardly extending barb **30** may be formed in the downwardly extending flange **29**. This barb **30** may be punched in the flange **29** with the barb projecting upwardly so as to pierce the outer surface of and engage the end wall of the shipping or garment carton. Also integrally formed as part of the end portion is the

lip 31. This lip 31 may be cut from the hole 27 extends downwardly parallel to the flange 29 and is adapted to be positioned on the inner surface of the end walls 11 or 12. The portion that interengages the upper end or edge of the lip with the flange 29 is essentially a bight portion that extends normal to the length of the supporting portion. This bight portion has one edge integral with the upper edge of the flange 29 and the other edge integral with the upper edge of the lip 31.

The lower end of the lip 31 is provided with means, hereafter more fully described, that adjustably engage a portion of the cover section.

The cover section 32 is formed of an elongated member having a top wall 33 and contiguous side walls 34 integral at each side thereof. The ends of the top wall 33 have integrally formed end flaps 35 that extend downwardly and are somewhat resilient. In a preferred embodiment of the invention the extreme ends of the end flaps are provided with a detent or barb 36 that is adapted to engage engaging means formed integrally with the lip 31 when the cover section is engaged to secure coat hangers.

Means are provided for securing the cover section 32 to the body section 21 in one of two different positions. The specific position is determined by the particular type of coat hanger which is being supported in the garment carton. In general wire coat hangers have a hook portion that is considerably narrower than the thickness of the hook portion of a plastic hanger. As exemplified in FIG. 2 the right hand section of the drawing illustrates the position of the cover section relative to the body section for securing wire coat hangers 39 while the left hand portion of the cross-section illustrates the position of the cover sections for securing plastic hangers 40.

In the arrangement for securing wire coat hangers, as illustrated in the right side of FIG. 2, the end flap 35 is positioned so that its barb or detent 36 engages the bottom edge of lip 31. For securing plastic coat hangers the end flap 35, as illustrated on the left side of FIG. 2, has its barb 36 engageable with a transverse slot 37 formed in the lip 31.

In order to properly assure a rigid interengagement in securing coat hangers to prevent them from sliding along the central hanger supporting section, a central hanging supporting section may be provided with a bowed longitudinal portion 41 while the corresponding portion of the cover section 32 is similarly provided with a bowed portion 43. These two interengaging portions when clamped together essentially form a tight clamping fit over the tops or like portions of the hangers 39 or 40.

What is claimed is:

1. A hanger bar for a garment carton having end walls comprising,

a body section having a central hanger supporting portion and end portions including means for engaging the outer surface of said end walls to support the bar thereon, said central hanger supporting portion comprising a downwardly open U-shaped elongated channel having a top wall integrally formed with depending side walls on opposite longitudinal edges of said top wall,

and a cover section overlying said body section and adapted to grip the hooks of clothes hangers disposed on said central portion,

said body section having downwardly extending lips terminating at their bottom free end disposed at opposite ends of said top wall adjacent respective end portions and defining respective openings, said cover section having ends received through said respective openings, each of said ends terminating in an outwardly directed barb engageable with the respective free ends of the downwardly extending lips.

2. A hanger bar as set forth in claim 1 wherein each said lip is cut out of said top wall to provide the opening.

3. A hanger bar as set forth in claim 2 wherein the openings formed by the lips are disposed inwardly of the end portions.

4. A hanger bar as set forth in claim 1 wherein the ends of said cover section include a downwardly depending flap terminating in tab lock.

5. A hanger bar as set forth in claim 4 wherein said lip includes means for receiving said tab lock so that said lip and flap are secured in parallel relationship.

6. A hanger bar as set forth in claim 5 wherein the flap and tab lock are integrally formed and extend orthogonal to each other.

7. A hanger bar as set forth in claim 6 wherein said means for receiving said tab lock includes a slot for receiving said tab lock.

8. A hanger bar as set forth in claim 6 wherein said lip terminates in a free end, said tab lock engageable with said free end in one position of said cover section.

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