United States Patent

[11] **3,568,852**

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[54] **SLIDING CARRIER MEANS**
1 Claim, 6 Drawing Figs.

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211/124, 248/215, 248/307, 248/340
[51] **Int. Cl.** **A47g 25/06**
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211/46, 6, 113, 124, 105.1, 162, 184, 94; 248/340,
307, 317, 215, 298; 312/37, 184, 193, 12, 13;
16/87.2, 87, 93; 40/19.5; 281/15 (A);
294/(Inquired); 223/(Inquired); 160/(Inquired);
108/61, 60; 312/184 (U.S.), 321

[56] **References Cited**

UNITED STATES PATENTS

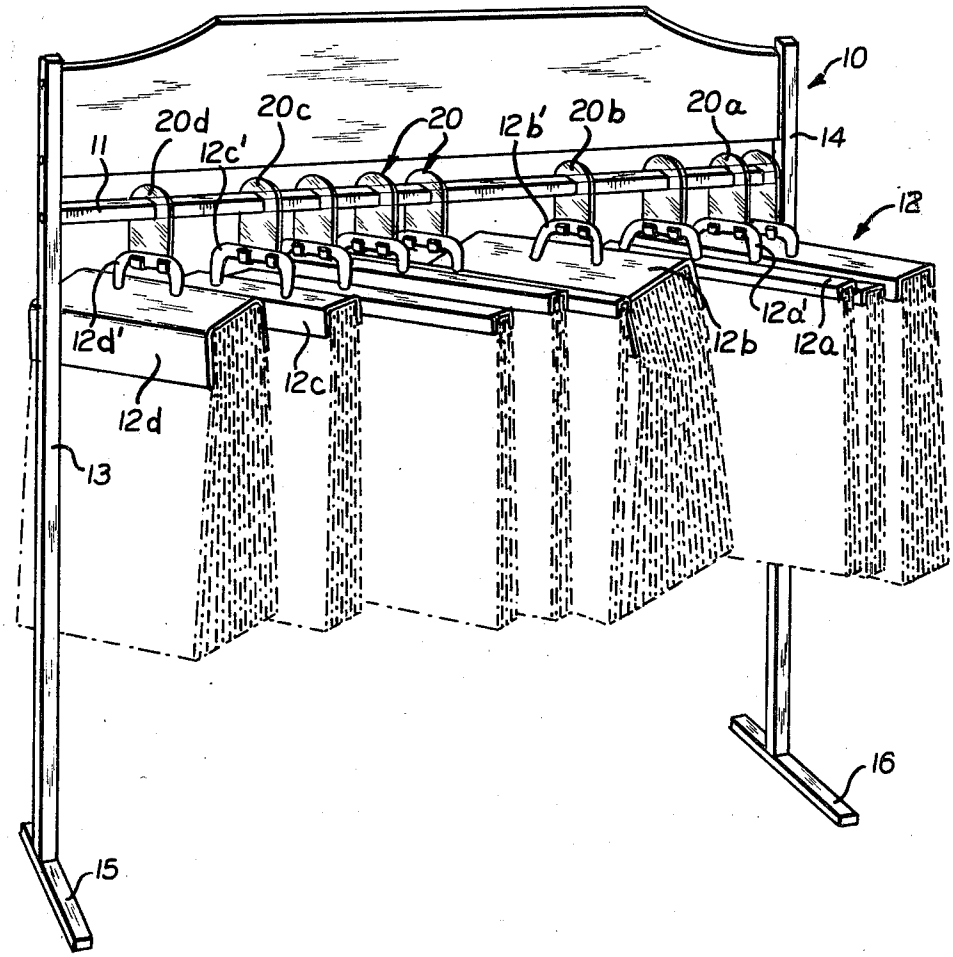
1,608,758	11/1926	Alexander	211/46UX
2,998,142	8/1961	Reed	211/113

FOREIGN PATENTS

773,404	9/1934	France	211/124

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Assistant Examiner—Abraham Frankel
Attorney—Leon M. Strauss

ABSTRACT: Accessories for racks or like supports consist of one or more carrier elements each capable of maintaining and retaining in slant position a sample book or a holder of carpet pieces, tile assemblies and the like, whereby the carrier element or elements may be readily and easily shifted along a polygonal-shaped support bar while the elements assume a predetermined angularity with respect to the support bar, as necessitated by the dimensions of the sample books.



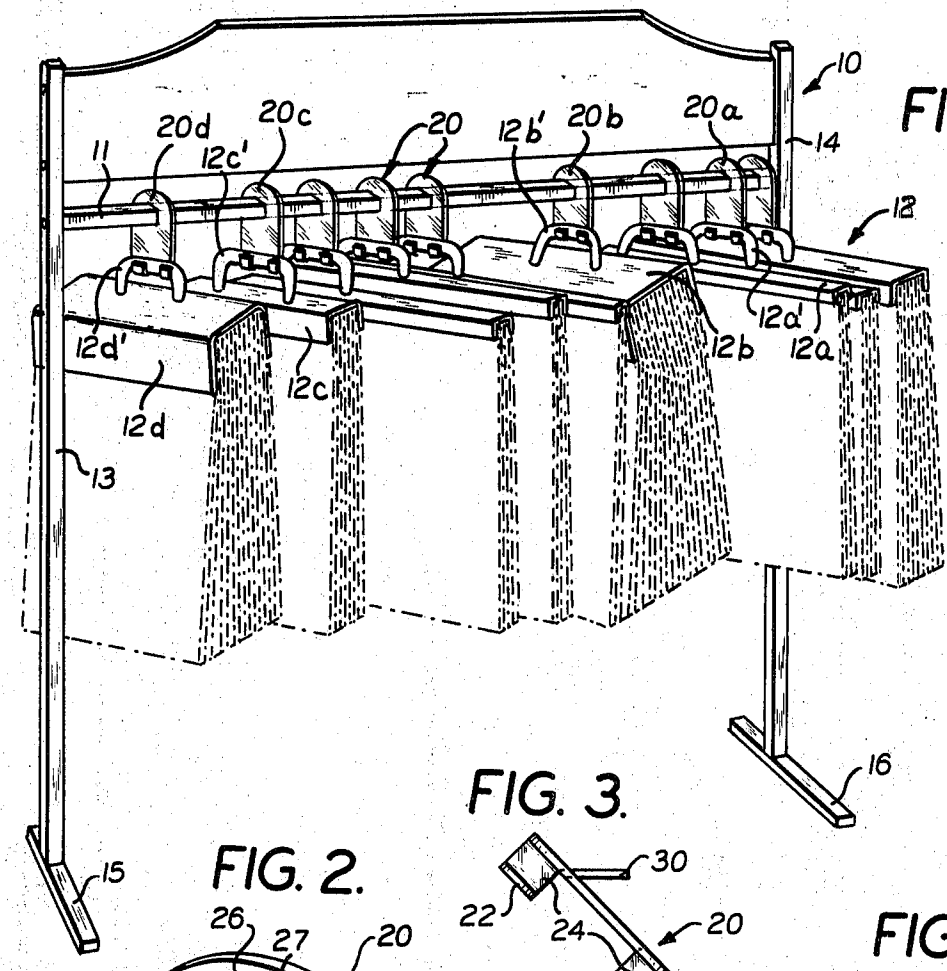


FIG. 1.

FIG. 3.

FIG. 2.

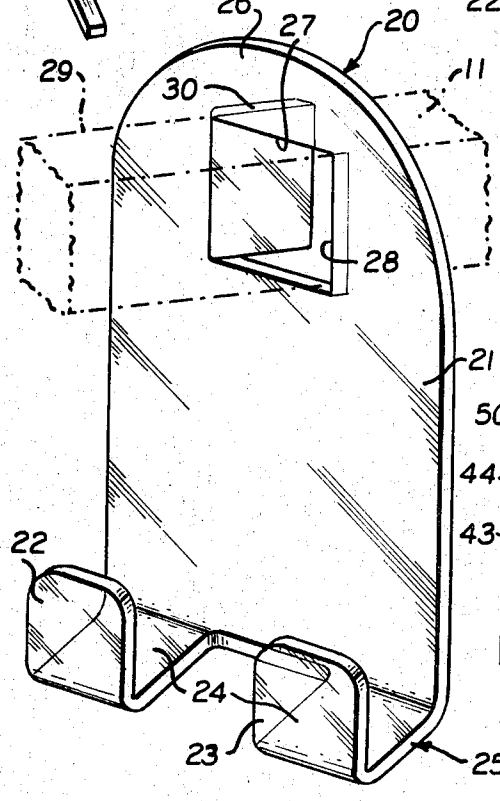


FIG. 4.

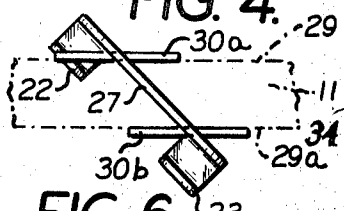


FIG. 5.

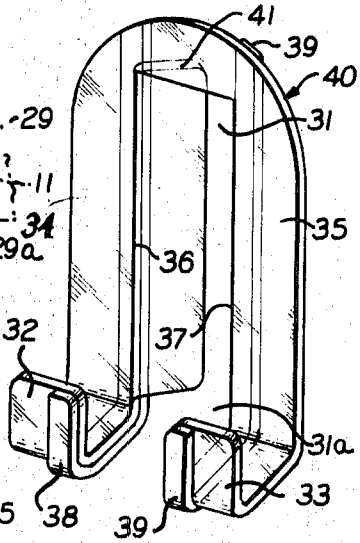
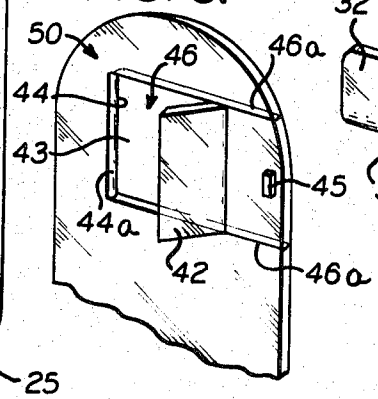


FIG. 6.



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SLIDING CARRIER MEANS

SUMMARY OF THE INVENTION

The invention aims at overcoming known disadvantages inherent in the prior art devices for supporting carpet and like sample books or holders and has as one of its primary objects to provide means affording a considerable flexibility in the construction, operation and use of the display devices and enabling the employment of carrier structures of light weight, preferably made of plastic and like material which allow for ready displacement along a support bar with a minimum of effort, while maintaining a preadjusted acute angularity of such carrier structures with respect to the support bar.

It is another object of the invention to provide means conducive to a greatly improved carrier structure, which includes a carrier bracket for engaging the handle of a respective sample collection book or holder regardless of its thickness and weight, whereby said carrier together with said sample book may be displaced or moved along said support bar by an operator's hand.

Still another object of the invention resides in the provision of means implementing substantially linear engagement of a suitably selected plastic stock material from which the body of the carrier structure is manufactured, with a rectangular or square-shaped metal bar, whereby the frictional area between the latter and said carrier is reduced to a minimum.

It is still another object of this invention to provide means permitting the utilization of a single carrier type with a relative large opening through which the metal bar or support may be threaded and then to bring about contact with one side face or opposite side faces of the support bar by means of flap or flaps joined to the plastic carrier material, thereby to regulate or prearrange the angularity of one or more carriers with respect to their common support bar.

The invention further contemplates the angular disposition of a group of carriers relative to each other, so that the sample material, such as sample carpet panels held by the carrier brackets will be directed to each other to effectuate overlap or roof-shaped formation, which facilitates ready carpet quality and color inspection and convenient sample comparison.

Another important object of the invention is to provide means envisioning easy and safe mounting of the carrier structures on the support bar and adjusting the angle of suspension of the sample collection books relative to the bar in a very efficient, inexpensive and space saving manner.

These and other aims and objects of the invention ensue from the following detailed description, which refers to the attached drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a display rack for carpet sample books engaged by brackets of carriers embodying the invention, parts of said books being shown in phantom lines.

FIG. 2 is a perspective view of a carrier in engagement with a support bar rectangular in cross section and shown in phantom lines.

FIG. 3 is a top plan view of the bar-carrier arrangement seen in FIG. 2, shown on a reduced scale.

FIG. 4 is a top plan view of a carrier pursuant to the invention (somewhat similar to the embodiment of FIG. 2), equipped with a plurality of abutments in the form of parallel flaps which coact with their edges and define the opening for the bar and determine a desired angularity of the carrier to said bar.

FIG. 5 is a perspective view of a modified carrier structure pursuant to the invention, indicating a carrier mounting slot extending into the opening for the support bar and showing reinforcement rib means running along edges of said slot and of the carrier bracket.

FIG. 6 is a fragmentary view of the upper portion of a carrier, seen in a further modified form, which allows for an adjustment of the angle of the carrier relative to its opening for the support bar and facilities also easy mounting of the carrier on the latter.

DETAILED DESCRIPTION

Referring now in greater detail to the drawings there is disclosed in FIGS. 1 and 2 a polygonal- or rectangular-shaped support rod or bar 11 forming part of a rack 10 for displaying merchandise, especially flat sample pieces of carpets, tiles or the like. These sample pieces are collected in books 12 of various thicknesses as shown in FIG. 1 and designated by numerals 12*a*, 12*b*, 12*c*, 12*d*, etc.

Bar 11 extends across two spaced-apart standards 13 and 14 and interconnects the same, which rest on two feetlike flat plates 15, 16.

As can be realized from FIG. 1, the sample books are suspended by means of their respective handles 12*a'*, 12*b'*, 12*c'*, 12*d'* etc. from corresponding carriers 20*a*, 20*b*, 20*c*, 20*d* etc., one of which being shown on an enlarged scale in FIG. 2.

Each carrier body preferably injection molded from thermoplastic material, such as LEXAN or like plastic composition, consists of a flat upright body 21 having opposite faces, which body terminates at its lower end and at its one face in offset hooks 22, 23, provided with a base 24 to thereby form a bracket 25 for the engagement of the handle of a respective sample hook (FIG. 1). Near the upper end of body 21, there is provided a guide element forming an opening 27 of sufficient dimension to surround or embrace support bar 11, as is apparent from FIG. 2. The upper end of body 21 has a finger grip 26.

Extending from the other face of the body and near edge 28 defining opening 27 is an abutment in the form of a projecting member 30, which is angularly directed to body 21 and bracket 25, as well as to bar 11 for contact with a sidewall 29 thereof. This contact with the adjacent bar wall is preferably linear and member 30 thus determines the extent of predetermined acute angle position of carrier 20 with respect to bar 11, as may be readily realized.

It is well understood that instead of providing member 30 at or near opening 27 such projecting member may be heat-sealed separately to body 21 and influences opening 27 to a sufficient degree, so as to impart to bracket 25 and the remainder of slidable carrier 20 a desirable angularity relative to bar 11 in order to facilitate a kind of overlap exposure to the carpet or like samples contained in sample books 12*a*, 12*b* etc.

Instead of a single member or flap projecting at an acute angle rearwardly from body 21 onto the sidewall 29, a further member may be arranged at the opposite edge of opening 27 to contact the opposite sidewall 29*a* and forwardly of said opening as may be visualized from FIG. 4, where these members 30*a*, 30*b* are indicated to form an acute angle to the body 21 and bracket 25.

It may be further seen from the aforesaid disclosure that the size of the opening forming guide means of the carrier determines various dimensions of bars to be threaded therethrough, whereas the direction of the flap or flaps delineate or mark out the angle at which the bracket of each carrier is intended to slant relative to the traverse or bar of the suspension or display rack. Since the mentioned sample books may assume different sizes and thicknesses, the respective carriers with their brackets may be accordingly slidingly displaced and distributed along said bar, as canting of the carrier elements on said bar and difficulty in displacing the same are effectively avoided even if the brackets are loaded through their engagement with the book handles. If a stock material is chosen for the carrier structures which is self-lubricating, such as known under the trademark TEFLON, moving of one or more carriers by one or more fingers of an operator abutting against grip 26 may be greatly facilitated.

Mounting of a carrier 40 in modified form on its supporting bar can be simplified as shown in FIG. 5.

In this embodiment opening 31 communicates with a slot 31*a* which extends lengthwise and centrally of the carrier or body 40 and permits connection of said body 40 directly with the support bar 11, so that offset part 32, 33 together with the carrier body including leg extensions 34, 35 will straddle the support bar, as may be well realized.

As further shown in FIG. 5 the respective adjacent edges 36, 37 defining the leg extensions 34, 35 of the carrier and hooks 32, 33 forming suitable recess in front of carrier or body 40 and at one face of the same are provided with reinforcement ribs 38, 39 in order to obviate any breakage of and to prevent any damage during rough handling of the sliding carrier and its depending grips. It is well understood that these offset and upstanding reinforcing ribs may extend even up to the upper end portion of carrier 40. At least one projecting member or abutment element 41 may be considered sufficient to impart to the carrier a predetermined angular direction relative to the support bar, as is quite evident.

FIG. 6 elucidates the interchangeability of the projecting flap or member 42 with respect to guide means or to opening 43 provided in the upper portion of carrier unit 50. The free edge 44 defining opening 43 may be in this embodiment beveled or round in cross section at 44*a*. Abutment flap 42 is mounted on an insert or lock piece 45, which when removed from carrier 50 permits easy assembly of the latter with a polygonal bar, as said carrier may sideways engage the bar via open horizontal slot 46. After sliding or wedging engagement of lock piece 45 with the guideways 46*a* communicating with opening 43, guide flap 42 may assume an angle either forwardly (as shown) or rearwardly of carrier body 50 and thus determines the desired angularity with respect to the support bar. It might be suitable to furnish with each slotted carrier a plurality of such insert pieces each with an abutment member at a different angle, in order to make allowance for adjusting a group of carriers on the common support bar to assume various corresponding acute angles (FIG. 1). The fixation in position of insert 45 may, of course, be carried out in any known and suitable manner.

It may be realized from the disclosure that the carrier opening should be of such size and shape that a maximum angle of 45° between the support bar and carrier body will be attainable and that other angles may be had or adjusted, as herein indicated.

It will be seen from the aforesaid disclosure, that there has been created according to the invention a very compact, highly efficient, inexpensive and useful carrier structure which lends itself to a great variety of applications in the display, equipment and other accessory industries and may be modified according to the purpose intended.

I claim:

1. In a suspension device for the engagement with a support serving to maintain an article holder in predetermined position thereon and having a substantially flat upright carrier body with opposite faces terminating in an upper and a lower end, a bracket projecting forwardly from one of the body faces beyond said lower end of said body and constituting an offset part provided with a recess, which extends along said offset part and transversely to said body; said recess being engageable with a portion of said article holder for suspension of the latter from said bracket, the upper end of said body being provided with guide means shaped for slidable engagement along said support, and a projecting member directed at an acute angle to said bracket and to said upright body and extending from and beyond the other face of said body and near the upper end of said body, thereby to change the position of said body relative to said support during the suspension of said holder from said bracket as well as during sliding engagement of said body by virtue of its guide means on said support.