Dec. 27, 1955 M. B. KRAMER 2,728,503

CLOTHES HANGER

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Fig. 1

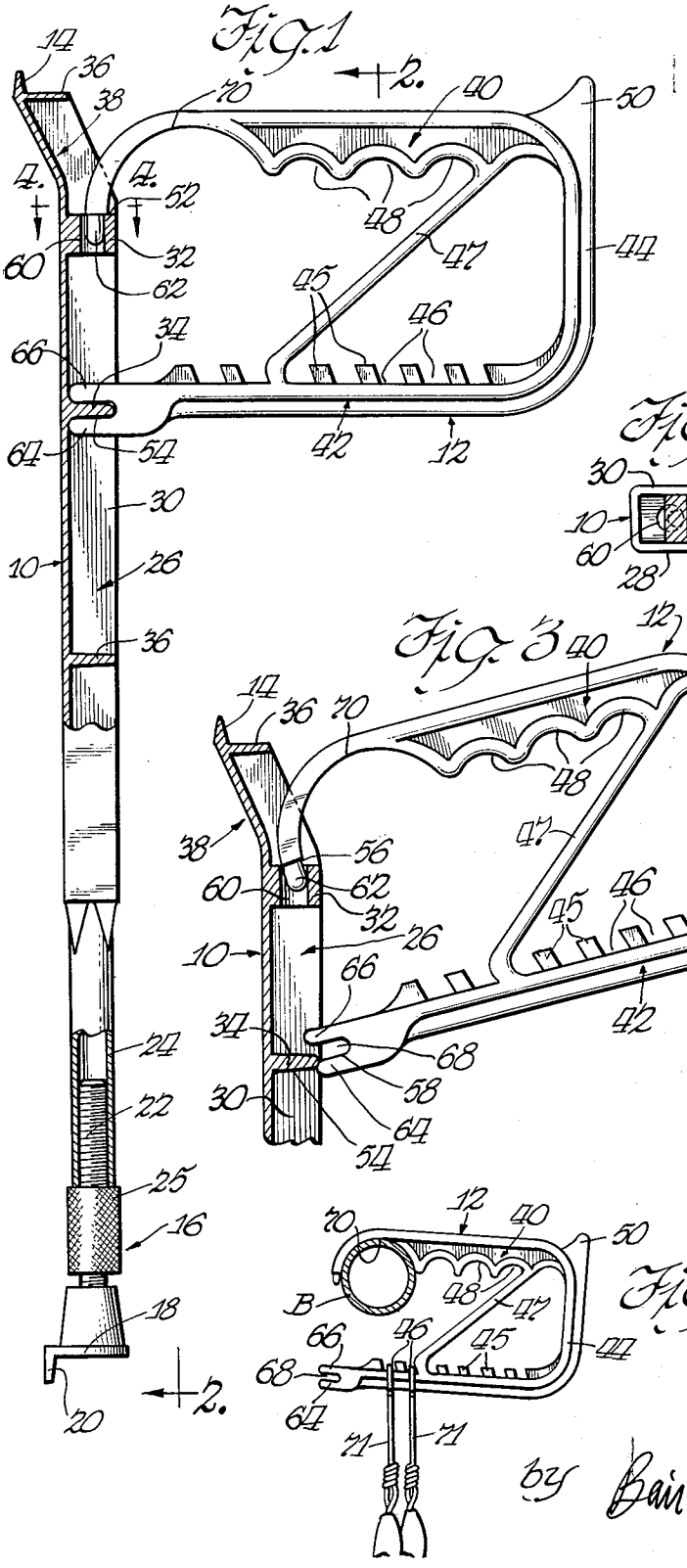


Fig. 2

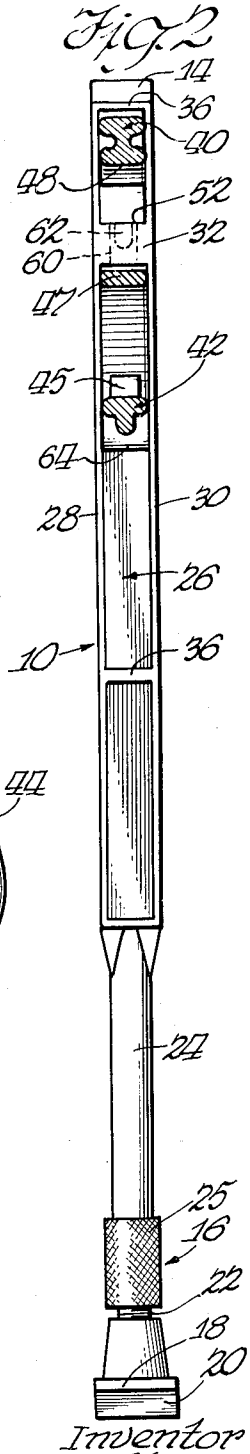


Fig. 4

Fig. 3

Fig. 5

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CLOTHES HANGER

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6 Claims. (Cl. 224—42.45)

This invention relates to a clothes hanger and more particularly to a portable clothes hanger which is adapted to be mounted in the window frame of an automobile and from whence clothes may be hung, and which clothes hanger includes a supporting post and a carrier for the clothes releasably mounted on said supporting post, the carrier itself providing means for suspension thereof from conventional supporting members found in clothes closets.

The general concept of a support positioned in an automobile, and secured to the framework thereof, from whence clothes may be supported during the automobile journey is old. Attempts have been made heretofore to provide carriers for clothes which may be conveniently and releasably mounted on such supports and which may also be adapted for hanging, with the clothes still supported therefrom, from conventional clothes closet bars and the like. Such attempts have not been fully successful and it has been found that such carriers heretofore devised do not hang well from closet bars and the clothes carried by such carriers, when hung thereby in a closet, often are crushed against each other. Furthermore, the hook means, on said carrier, for use with closet bars has been awkwardly located and often require a great amount of manipulation to hook a fully loaded carrier onto a closet bar.

Thus, one object of this invention is to provide a clothes hanger comprising a support and a carrier releasably secured to said support, wherein there is provided a novel and simple means for effecting securement of the carrier to the support.

Another object of this invention is to provide a clothes hanger comprising a support and a carrier releasably secured to said support, wherein said carrier is so shaped as to provide novel and improved means for hanging said carrier on conventional closet bars.

Still a further object of this invention is to provide a clothes hanger comprising a support and a carrier releasably secured to said support, wherein said carrier provides means for hanging clothes thereon and said carrier provides a novel handle for ease in carrying the carrier loaded with clothes, and which carrier further provides novel and improved hook means for hanging said carrier on conventional closet bars, and which carrier in combination with the support therefor provides simple and novel means for mounting said carrier on said support to provide for easy release of said carrier from said support.

Still another object of this invention is to provide a clothes hanger wherein the above set forth objects are achieved and wherein said clothes hanger is characterized by its simplicity and inexpensiveness of construction.

Further objects and advantages of this invention will become apparent as the following description proceeds and the features of novelty which characterize this invention will be pointed out with particularity in the claims annexed to and forming part of this specification.

A preferred embodiment of the invention is shown in the accompanying drawings, in which:

Figure 1 is an elevational cross-section view of the

clothes hanger of this invention showing the clothes carrier mounted on its support;

Figure 2 is a cross-section view taken substantially on line 2—2 of Figure 1;

Figure 3 is a fragmentary view similar to Figure 1 showing the carrier in an intermediate position with respect to the support, the parts of said hanger occupying said position at a time either just before securement of the carrier to the support or just before removal of the carrier from the support;

Figure 4 is a cross-section view taken on line 4—4 of Figure 1; and

Figure 5 shows the carrier partly loaded with clothes and hung from a conventional clothes closet bar.

Referring now to the figures there is shown in Figure 1 an elongated support post generally indicated at 10 and a hanger supporting carrier generally indicated at 12. The support post is adapted to be secured to an automobile between the upper and the lower edges of the automobile window. To that end, the upper end of the support post 10 is provided with an upper end-flange 14 and the lower end of the support post is provided with means 16 to vary the effective height of the support post. The means 16 includes a bottom support member 18 having a flange 20 thereon extending opposite to flange 14. The support member 18 is provided with a threaded stem 22 integral therewith and slidably positioned in a tubular portion 24 of the support post 10. A threaded ferrule 25 knurled on the outer surface to afford grasping thereof, is threaded on stem 22 and is adapted to engage the lower end of post 10 in bearing relation.

An upper portion of support post 10 is of channel-shaped cross section as indicated at 26 and has lateral walls 28 and 30 defining the longitudinal extent of the channel. The longitudinal axes of the post and of said channel 26 lie parallel to each other.

There is provided in channel 26 a pair of transverse ribs 32 and 34 which are positioned transversely to the longitudinal axis of the channel 26. Other ribs, such as 36, may be provided for structural reinforcement of the support post. The upper end of the support post is offset from the open side of the channel as indicated at 38 for reasons which will become apparent as the description proceeds.

Referring now to the hanger supporting carrier, said carrier 12 is shown as generally U-shaped and defines a pair of arms 40 and 42 joined together by a bight 44. The arms 40 and 42 have spaced terminal ends. The lower arm 42 has a plurality of spaced upwardly extending lugs 45 defining therebetween recesses 46 for receiving clothes supporting hooks. A diagonal brace 47 is provided between arms 40 and 42 to rigidifyingly restrain the extended end of arm 42 from too great deflection under a heavy load of clothes.

The upper arm 40 has a portion thereof shaped to define a hand hold, particularly forming four recesses 48, for fingers, on the inner side of arm 40. The outer side of arm 40 has an upstanding flange 50 formed thereon to engage the heel of the hand of a person when the carrier is being carried with arm 40 used as a carrying handle.

The width of the terminal ends of arms 40 and 42 is less than the inner width of channel 26 thereby affording entrance of the terminal ends of the arms into channel 26 for securement of carrier 12 to post 10. The terminal ends of arms 40 and 42 are adapted to engage the lateral walls 28 and 30 of the post 10 to give lateral support for maintaining the carrier 12 in the plane of the channel 26.

The longitudinally spaced ribs 32 and 34 provide a first pair of bearing surfaces 52 and 54. The spaced terminal ends of arms 40 and 42 provide bearing surfaces 56 and 58 adapted to respectively engage bearing surfaces 52 and 54. The normal spacing between surfaces 56 and 58 is

slightly different than the normal spacing of bearing surfaces 52 and 54. In the particular embodiment, the spacing between surfaces 56 and 58 is slightly less than the spacing between surfaces 52 and 54. This requires the distortion of arms 40 and 42 to spread the terminal ends of said arms to afford mounting of carrier 12 on post 10, as shown in Figure 1. When the arms 40 and 42 are spread against the resiliency of the carrier, which resiliency tends to restore the arms to their normal position, there results a clamping action between the arms which is operative to rather firmly secure the carrier 12 to the post 10.

The rib 32 has a bore, or fully circumscribed recess, 60 formed therein. The recess 60 terminates at the bearing surface 52, and thus the recess or bore 60 may be considered to be depressed from bearing surface 52. The terminal end of arm 40 has a projection 62 thereon extending outwardly from the plane of bearing surface 56. The projection 62 is adapted to be inserted in bore 60, as shown in the figures. When assembled, the axes of bore 60 and of projection 62 lie substantially parallel to the longitudinal axis of post 12.

The terminal end of the other arm 42 is bifurcated, forming spaced tongues 64 and 66, which define between them a slot or recess 68 within which rib 34 is positioned when the carrier 12 is properly mounted on post 10. When the carrier 12 is mounted unloaded on the post 10, the lower tongue 64 engages rib 34, the clamping action of the arms of carrier 12 being operative to eliminate any rattling that might occur by reason of the mounting of the carrier on the post. When the carrier is loaded, the load tends to deflect the lower arm 40 downwardly whereupon tongue 66 engages rib 34 and limits the downward deflection of arm 42.

The cross section of arms 40 and 42 are substantially as shown in Figure 2. This arrangement provides high strength for the amount of material used.

The edge of rib 34 and of tongues 64 and 66 are rounded, as shown, to afford ease in fitting rib 34 into slot 68 when mounting the carrier 12 on post 10.

The upper arm 40 of carrier 12 has formed therein, on the inner side thereof, a hook 70 located between the finger recesses 48 and the terminal end of arm 40. The hook 70 is adapted to be connected over a supporting bar B of the type which is found in clothes closets, as indicated in Figure 5. When the carrier 12 is supported by hook 70 from a support, clothes hangers 71 may be hooked into recesses 46 and will be supported by carrier 12. When loaded with clothes, the carrier 12 tends to rotate on the supporting bar B toward the horizontal from the almost vertical position it takes when unloaded. This tends to spread out the clothes supported by carrier 12, and, to a large extent, reduces crushing of the clothes. The projection 62 cooperates with hook 70 and tends to make hook 70 of greater arcuate extent and thus reduces the possibility of carrier 12 slipping off the closet support bar.

In mounting carrier 12 on post 10, the projection 62 is first entered into bore 60, as shown in Figure 3. Then the carrier 12 is pivoted about the engagement which occurs between surfaces 56 and 52 so as to cause the rib 34 to enter into slot 68, as seen in Figure 1. In releasing the carrier 12 from post 10, the reverse action is followed, namely, the carrier is grasped by the upper arm 40 and pulled upwardly. This causes pivoting of the carrier 12 so as to release the lower arm 42 from engagement with rib. 34.

From this description of the method of mounting and dismounting of carrier 12 on post 10, the reason for the offset 38 in post 10 becomes evident. It will be seen that the offset accommodates the pivotal movement of the extended end of arm 40 which occurs during the mounting and dismounting operations.

While there has been shown and described a particular embodiment of this invention, it will be obvious to those skilled in the art that various changes and modifications may be made therein without departing from the invention and, therefore, it is intended in the appended claims to cover all such changes and modifications as fall within the true spirit and scope of the invention.

What I claim as new, and desire to secure by Letters Patent of the United States, is:

1. In a clothes hanger comprising an elongated supporting post, and a hanger supporting carrier releasably secured to said supporting post; the improvement wherein said supporting post includes a portion of channel-shaped cross section, a pair of spaced ribs on the post positioned in said portion of channel-shaped cross section transversely to the longitudinal axis of the post, said supporting carrier defining a pair of spaced arms having spaced terminal ends adapted to engage said pair of spaced ribs on the post, the width of said terminal ends of the carrier being less than the internal width of the channel-shaped portion to afford entrance of said terminal ends into said channel, said terminal ends having opposed bearing surfaces, the normal spacing of said opposed bearing surfaces being slightly less than the spacing between the outermost sides of said spaced ribs, and said carrier having sufficient resiliency to afford spreading of the terminal ends thereof to position said opposed bearing surfaces on said terminal ends adjacent the outermost sides of said spaced ribs.

2. In a clothes hanger comprising an elongated supporting post, and a hanger supporting carrier releasably secured to said supporting post; the improvement wherein said supporting post includes a portion of channel-shaped cross section, a pair of spaced ribs on the post positioned in said portion of channel-shaped cross section transversely to the longitudinal axis of the post, said supporting carrier defining a pair of spaced arms having spaced terminal ends adapted to engage said pair of spaced ribs on the post, the width of said terminal ends of the carrier being less than the internal width of the channel-shaped portion to afford entrance of said terminal ends into said channel, said terminal ends having opposed bearing surfaces, the normal spacing of said opposed bearing surfaces being slightly less than the spacing between the outermost sides of said spaced ribs, said carrier having sufficient resiliency to afford spreading of the terminal ends thereof to position said opposed bearing surfaces on the terminal ends adjacent the outermost sides of said spaced ribs, one of said spaced ribs having a recess therein, and one of said terminal ends of the carrier having a projection thereon adapted to be inserted in said recess.

3. In a clothes hanger comprising an elongated supporting post, and a hanger supporting carrier releasably secured to said supporting post; the improvement wherein said supporting post includes a portion of channel-shaped cross section, a pair of spaced ribs on the post positioned in said portion of channel-shaped cross section transversely to the longitudinal axis of the post, said supporting carrier defining a pair of spaced arms having spaced terminal ends adapted to engage said pair of spaced ribs on the post, the width of said terminal ends of the carrier being less than the internal width of the channel-shaped portion to afford entrance of said terminal ends into said channel, said terminal ends having opposed bearing surfaces, the normal spacing of said opposed bearing surfaces being slightly less than the spacing between the outermost sides of said spaced ribs, said carrier having sufficient resiliency to afford spreading of the terminal ends thereof to position said opposed bearing surfaces on said terminal ends adjacent the outermost sides of said spaced ribs, one of said spaced ribs having a recess therein, one of said terminal ends of the carrier having a projection thereon adapted to be inserted in said recess, and the other terminal end of the carrier being bifurcated to afford entrance by the second of said spaced ribs into the recess defined by said bifurcated terminal end.

4. In a clothes hanger comprising an elongated sup-

porting post, and a hanger supporting carrier releasably secured to said supporting post; the improvement wherein said supporting post includes a portion of channel-shaped cross section, a pair of spaced ribs on the post positioned in said portion of channel-shaped cross section transversely to the longitudinal axis of the post, said carrier being generally U-shaped and defining a pair of spaced arms having spaced terminal ends adapted to engage said pair of spaced ribs on the post, the width of said terminal ends of the carrier being less than the internal width of the channel-shaped portion to afford entrance of said terminal ends into said channel, said terminal ends having opposed bearing surfaces, the normal spacing of said opposed bearing surfaces being slightly less than the spacing between the outermost sides of said spaced ribs, said carrier having sufficient resiliency to afford spreading of the terminal ends thereof to position said opposed bearing surfaces on said terminal ends adjacent the outermost sides of said spaced ribs, one of the arms of said U-shaped carrier having finger-receiving notches formed on the inner side thereof, and an outwardly extending flange on said one arm adjacent the bight of the U adapted to engage the heel of the hand of a person carrying said carrier.

5. In a clothes hanger comprising an elongated supporting post, and a hanger supporting carrier releasably secured to said supporting post; the improvement wherein said supporting carrier defines a pair of spaced arms having spaced terminal ends adapted to engage said supporting post at two regions spaced longitudinally along said supporting post, said supporting post and the terminal ends of said supporting carrier providing cooperating portions for maintaining the terminal ends of said carrier in the plane of the post when said carrier is secured to said post, one of said cooperating portions being of channel-shaped cross section with the axis of the channel lying in the plane of said post, and the other cooperating portion being positionable within said channel and adapted to engage the walls thereof to be restrained to the plane of said channel, said post having a pair of longitudinally spaced elements thereon providing a first pair of spaced bearing surfaces disposed transverse to the longitudinal axis of the post, said spaced terminal ends of the carrier providing a second pair of spaced bearing surfaces adapted to engage said first pair of bearing surfaces, one of said pair of spaced bearing surfaces facing in opposite directions and the other set of bearing surfaces facing toward each other, the normal spacing of one of said pair of bearing surfaces being slightly different from the normal spacing of the other pair of bearing surfaces, said carrier having sufficient resiliency to afford distortion of the arms thereof to vary the spacing of said second pair of spaced bearing surfaces to afford positioning of said first and second pairs of bearing surfaces in engagement with each other, the positioning of said first and second bearing surfaces in engagement with each other and the resiliency of said carrier being operative to releasably secure said carrier to said post.

6. In a clothes hanger comprising an elongated supporting post, and a hanger supporting carrier releasably secured to said supporting post; the improvement wherein said supporting carrier defines a pair of spaced arms having spaced terminal ends adapted to engage said supporting post at two regions spaced longitudinally along said supporting post, said supporting post and the terminal ends of said supporting carrier providing cooperating portions for maintaining the terminal ends of said carrier in the plane of the post when said carrier is secured to said post, one of said cooperating portions being of channel-shaped cross section with the axis of the channel lying in the plane of said post, and the other cooperating portion being positionable within said channel and adapted to engage the walls thereof to be restrained to the plane of said channel, said post having a pair of longitudinally spaced elements thereon providing a first pair of spaced bearing surfaces disposed transverse to the longitudinal axis of the post, said spaced terminal ends of the carrier providing a second pair of spaced bearing surfaces adapted to engage said first pair of bearing surfaces, one of said pair of spaced bearing surfaces facing in opposite directions and the other set of bearing surfaces facing toward each other, the normal spacing of one of said pair of bearing surfaces being slightly different from the normal spacing of the other pair of bearing surfaces, said carrier having sufficient resiliency to afford distortion of the arms thereof to vary the spacing of said second pair of spaced bearing surfaces to afford positioning of said first and second pairs of bearing surfaces in engagement with each other, the positioning of said first and second bearing surfaces in engagement with each other and the resiliency of said carrier being operative to releasably secure said carrier to said post, one of the pair of members consisting of said supporting post and said carrier having a fully circumscribed recess therein depressed from one of said pair of bearing surfaces provided thereon, and the other of said pair of members having a projection thereon extending from the bearing surface thereon which is adapted to engage said bearing surface with the recess therein, said projection being adapted to be inserted in said recess.

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