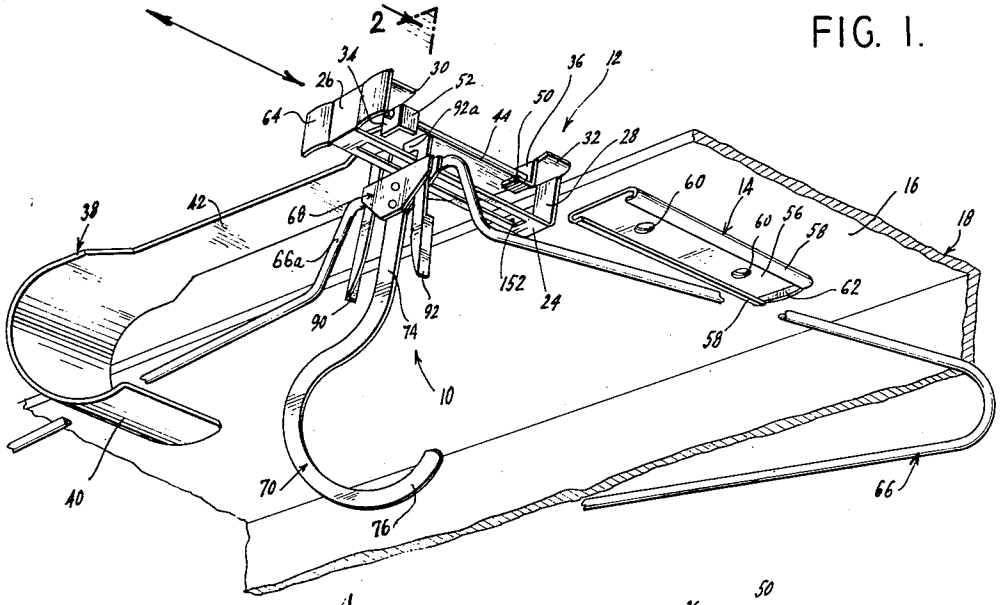
May 22, 1962 J. O. SCHENKLER 3,035,673

HANGER MOUNTING ASSEMBLY FOR ARTICLES OF LUGGAGE

Filed Oct. 2, 1958 2 Sheets-Sheet 1

FIG. 1.



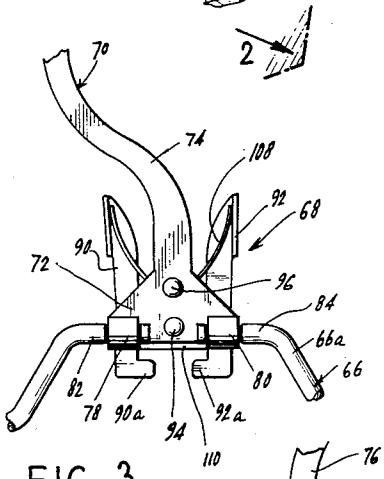


FIG. 3.

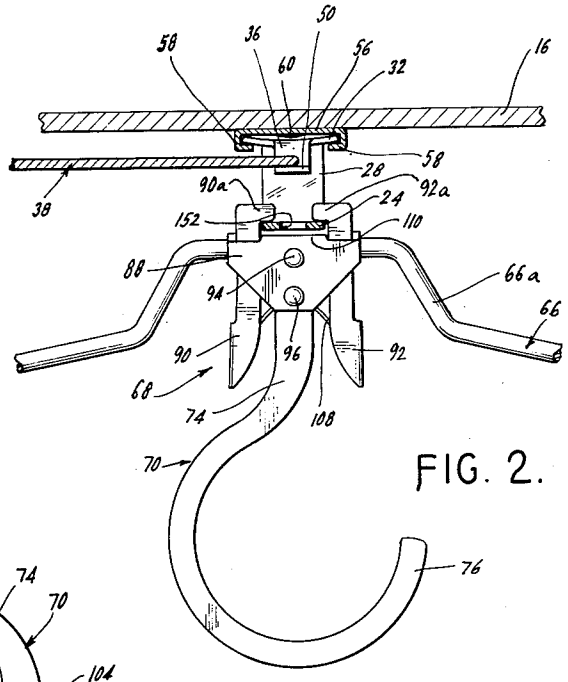


FIG. 2.

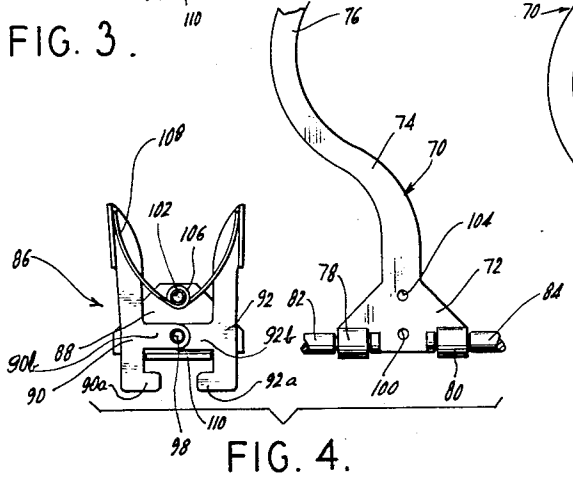


FIG. 4.

INVENTOR.
JULES O. SCHENKLER
BY
Amster & Levy
ATTORNEYS

May 22, 1962 J. O. SCHENKLER 3,035,673

HANGER MOUNTING ASSEMBLY FOR ARTICLES OF LUGGAGE

Filed Oct. 2, 1958 2 Sheets-Sheet 2

FIG. 5.

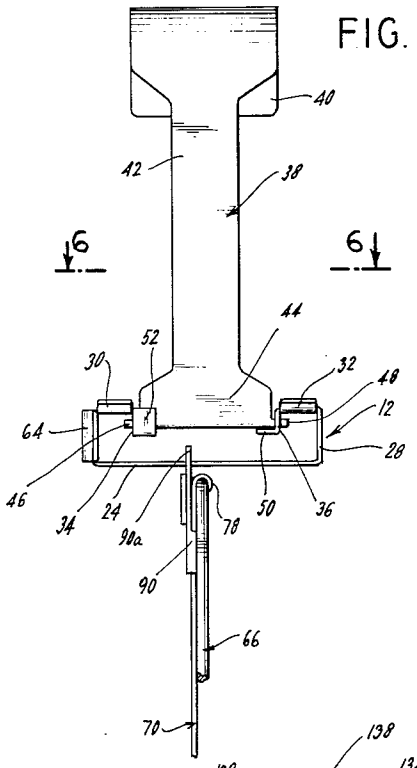
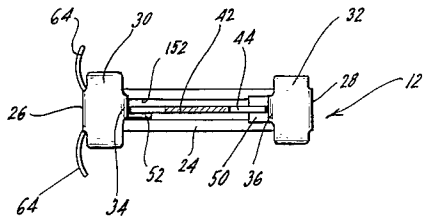


FIG. 6.



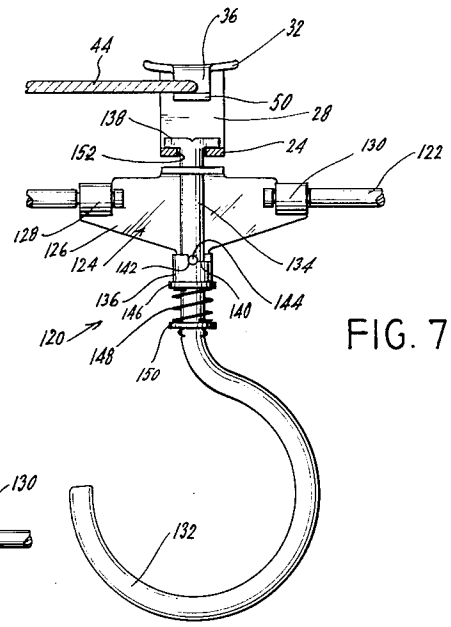


FIG. 7.

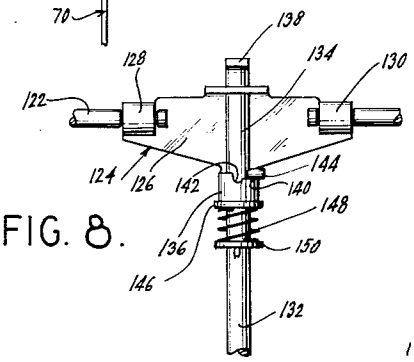


FIG. 8.

FIG. 10.

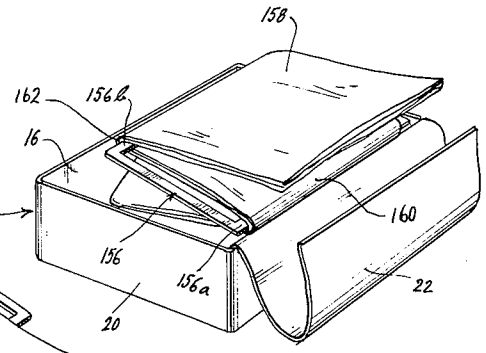
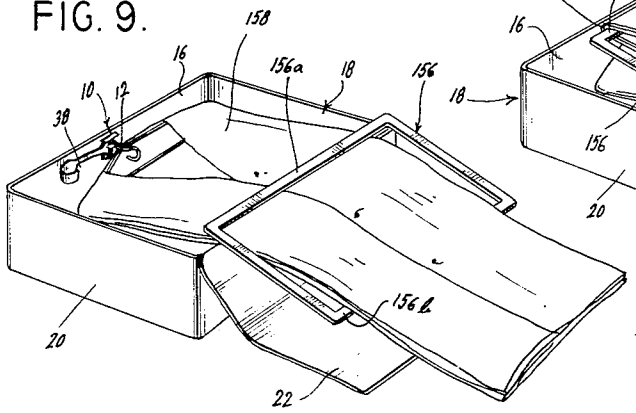


FIG. 9.



INVENTOR.
JULES O. SCHENKLER
BY
Amster + Levy
ATTORNEYS

United States Patent Office 3,035,673 Patented May 22, 1962

3,035,673
HANGER MOUNTING ASSEMBLY FOR ARTICLES OF LUGGAGE

Jules O. Schenkler, 221 Jericho Turnpike, Floral Park, N.Y.

Filed Oct. 2, 1958, Ser. No. 764,805
5 Claims. (Cl. 190—41)

This invention relates to improvements in articles of luggage, and has particular relation to a new and improved hanger assembly for the removable mounting of clothes hangers within luggage articles such as suitcases.

In conventional articles of luggage such as suitcases, flight bags or the like, means are often provided for the insertion and mounting therein of clothes hangers carrying suits and other garments which are folded within the luggage. These clothes hangers are normally of the wire type or flat wood type for economy of space and are conventionally mounted by means of the usual upstanding hooks. A serious disadvantage in such conventional arrangement is occasioned by the space taken up by the upstanding shank and hook portion of the hanger, such space constituting waste space within the luggage and making the luggage compartments uneconomical for storage purposes. In addition, difficulty is encountered in removing the hangers and the garments carried thereby from the luggage.

It is an object of the present invention to provide a luggage hanger assembly which includes a plurality of hanger units, each having a hook portion which is normally upstanding for mounting the unit on the customary closet bar, but which can be pivoted downwardly within the body of the hanger itself so that when the hanger is mounted in the luggage, the hook is retracted and will not occupy storage space within the luggage.

Another object of the invention is to provide a hanger assembly of the type described in which a pivoted hanger hook has at its opposite end a mounting member adapted to be slidably engaged with a mounting bar carried by a wall of the luggage, the mounting member being of relatively small size so that it does not occupy any appreciable storage space within the luggage.

Still another object of the invention is the provision of a hanger assembly of the type described in which each hanger unit may be individually attached and removed from the mounting bar, so that selected articles of clothing carried by the hangers may be individually removed from the luggage without affecting the remainder of the clothing stored therein.

A further object of the ivnention is the provision of a hanger assembly of the type described in which the mounting bar for the hangers is itself removably mounted within the luggage so that it may be removed as a unit together with all the hangers and the clothing carried thereby. The mounting bar is also provided with a foldable hook member by means of which it may be hung within a closet so that all the clothing within the luggage may be removed as a unit and hung together quickly and easily in a closet or other space remote from the luggage.

A further object of the invention is the provision of clothes folding means in the nature of a separable rectangular frame which cooperates with the hanger assembly for storing the clothing in a neatly folded condition within the luggage.

Additional objects and advantages of the invention will become apparent during the course of the following specification when taken in connection with the accompanying drawings in which:

FIG. 1 is a perspective view of a portion of an article of luggage showing a bracket fixed thereto and a hanger assembly made in accordance with the invention in the process of being inserted in mounted position into the bracket, portions of the hanger frame being broken away for convenience of illustration;

FIG. 2 is an enlarged section taken substantially along the plane 2—2 of FIG. 1;

FIG. 3 is a partial elevation of the neck portion of a hanger unit illustrating the pivotal attachment of the hook thereto, the hanger hook being shown in an upstanding position;

FIG. 4 is an exploded elevation similar to FIG. 3, showing the mounting member disassembled from the hanger unit;

FIG. 5 is an end elevational view of the hanger assembly shown in FIG. 1, the hanger hook being shown in an upstanding position;

FIG. 6 is a section taken along line 6—6 of FIG. 5 with the mounted hanger unit of FIG. 5 omitted;

FIG. 7 is a front elevational view of a modified embodiment of a hanger unit made in accordance with the invention, the hanger unit being shown with its hook portion pivoted downwardly and its mounting member connected to the mounting bar;

FIG. 8 is a partial elevational view of the hanger unit shown in FIG. 7 with the hook portion thereof rotated 90° from its position of FIG. 7.

FIG. 9 is a perspective view of an open article of luggage incorporating the hanger assembly of the present invention and showing a plurality of garments carried by the hanger units and in the process of being folded within the luggage; and

FIG. 10 is a perspective view similar to FIG. 9 but showing the clothing in folded position at a further stage of insertion within the luggage.

Referring in detail to the drawings, and particularly to FIG. 1, there is shown a hanger assembly made in accordance with the invention and comprising one or more garment hanger units **10**, a hanger carrier **12** for receiving the hanger units, and a slide bracket **14** for receiving the hanger carrier.

The hanger carrier **14** is fixedly mounted on the top wall **16** of an article of luggage designated generally by the reference numeral **18**. The article of luggage is shown only fragmentarily in FIG. 1 for the reason that the luggage may be of any type, and its specific construction forms no part of this invention. For example, the luggage may be the usual folding-type of suitcase, airplane luggage, car bag, flight-bag or the like. In FIG. 9, the article of luggage **18** is illustrated by way of illustration, in the form of a flight bag having a rigid or semi-rigid body portion **20** including the top wall **16**, and having a fabric front closure flap **22** of the usual type which may be secured in closed position by a slide fastener or other closure means.

The hanger carrier **12** has a body portion which may be integrally formed of a strip of bent sheet metal and includes a flat longitudinal wall **24** which serves as the mounting bar for the individual clothes hanger units **10**. Formed integrally with the ends of the mounting bar **24** are a pair of upstanding end walls **26** and **28** having respective inwardly-turned top terminal flanges **30** and **32**, as best seen in FIG. 5.

The inwardly-turned flanges **30** and **32** terminate in integral depending ears **34** and **36** between which a hanger member **38** is pivotally mounted. The hanger member **38** is formed with a wide hook portion **40** for stability in hanging, as will be presently explained and while it may be formed of twisted wire in the same manner as the hanger units **10**, with the wire looped to form the wide hook portion, the hanger member **38** is preferably formed of a flat metal strip bent to form the wide hook portion **40**, a flat shank **42** and a terminal base portion **44**. The base portion **44** includes a pair of oppositely-extending

stub pins 46 and 48 which are journalled in the respective ears 34 and 36, as shown in FIG. 5. To limit pivoting movement of the hanger member 38, the ear 36 carries an integral horizontally disposed stop plate 50, while the ear 34 carries an integral vertically-disposed stop plate 52. The horizontally-disposed stop plate 50 engages the base 44 of hanger member 38, when the latter is in the horizontally-disposed retracted position of FIG. 1, to prevent said hanger member from being pivoted below such horizontal position. Similarly, the base 44 engages the vertically-disposed stop plate 52 in the vertically-upstanding position of the hanger member 38 shown in FIG. 5, to prevent the hanger member from pivoting past its upstanding position.

The slide bracket 14 is preferably formed of a metal plate bent to provide a flat wall 56 having U-shaped side flanges 58 along its longitudinal edges. The flanges 58 cooperate to form a central channel sized to receive the inwardly-turned flanges 30 and 32 of the mounting bracket 12. The wall 56 is mounted flush against the luggage top wall 16, as by rivets 60. The hanger carrier 12 is mounted on the bracket 14 by sliding the flanges 30 and 32 into the channel of the bracket 14. This inward sliding movement of the carrier 12 is limited by a stop piece 62 constituting an end wall of the bracket 14, and engaging the flange 32 to halt the sliding movement thereof. To facilitate the insertion and removal of the hanger carrier 12 with respect to the slide bracket 14, the carrier end wall 26 is provided with lateral wings or flanges 64 providing a finger-grip for manually grasping the hanger carrier.

In the mounted position of the hanger carrier 12, shown in FIGS. 2 and 9, the flanges 30 and 32 are received and frictionally held within the channel of the slide bracket 14 so that the mounting bar 24 is parallel to and close to the top wall 16 of the article of luggage 18, in position to receive the hanger units 10. The hanger member 38 is turned to its horizontally-disposed retracted position extending parallel to and substantially flush along the luggage top wall 16, in order to enable the hanger carrier 12 to be mounted close to said luggage top wall.

Each hanger unit 10 is preferably formed of a bent wire frame or body portion 66 constituting the garment-supporting arms thereof. At the neck portion 66*a* of the frame 66, a swivel assembly 68, shown in detail in FIGS. 3 and 4, is turnably mounted. Said swivel assembly 68 includes a hook member 70 comprising a flat base plate 72, a hook shank 74, and an arcuate hook 76. The base plate 72 carries a pair of rigid collars 78 and 80 which are journalled on the wire ends 82 and 84 of the frame 66 for swivelling movement. The swivel assembly 68 also includes a mounting unit 86 comprising a flat plate 88 upon which a pair of spring latch members 90 and 92 are pivotally mounted, said spring latch members having respective lateral extensions 90*b* and 92*b*, shown in FIG. 4, pivotally connected between the base plates 72 and 88 by a rivet 94.

In assembling the swivel assembly 68, the flat base plate 72 of the hook member 70 is placed in overlying relationship to the flat plate 88 of the mounting unit 86, with the spring latch members 90 and 92 located therebetween, and the pieces are secured together by rivets 94 and 96 extending through aligned holes 98, 100 and 102, 104 in the respective plates 72 and 88, as well as corresponding registering apertures in the extensions 90*b* and 92*b*. The rivet 96 also serves as a support post for the central coil 106 of a wire spring 108, the latter engaging the ends of gripper arms 90 and 92, and urging said spring latch members apart, so that the respective terminal fingers 90*a* and 92*a* thereof are biased inwardly toward each other.

The swivel assembly 68 may be turned about its swivel mount on the hanger frame 66 from a vertically upstanding position of the hook member 70 shown in FIG. 3, to a position turned 180° in which the hook member 70 extends downwardly from the neck 66*a* of the hanger frame and the terminal fingers 90*a* and 92*a* project upwardly above said hanger frame neck portion 66*a*. In this latter position, the spring latch member 90 and 92 are disposed for attachment to the mounting bar 24 of the hanger carrier 12. This attachment is accomplished by manual depression of the free ends of the spring latch member 90 and 92 toward each other, against the biasing action of the wire spring 108, thereby causing said spring latch member to pivot in a direction to separate the terminal fingers 90*a* and 92*a*. When the fingers are separated, the mounting unit 86 is brought into engagement with the mounting bar 24 and the pressure upon the spring latch members 90 and 92 is released, causing the spring 108 to move to pivot the fingers 90*a* and 92*a* toward each other so that they overlie the top of said mounting bar 24, as shown in FIG. 2. It will be observed that the plate 88 has a fixed transverse separator member or stop plate 110 which abuts the inner edges of the spring latch members 90 and 92, thereby limiting the pivoting movement of the spring latch members toward each other and maintaining the fingers 90*a* and 92*a* separated from each other by a distance slightly greater than the width of the mounting bar 24. Thus, when the hanger unit is mounted on said mounting bar 24, the fingers 90*a* and 92*a* overlie the top surface of the longitudinal wall 24 to prevent the hanger unit from being removed therefrom, but at the same time they do not press against the sides of the mounting bar 24 and the hanger unit may therefore be freely slid back and forth along said mounting bar.

In use, the hanger carrier 12 is normally disposed in its mounted positon on slide bracket 14, with a number of hanger units 10 attached to the mounting bar 24. When it is desired to pack clothing within the article of luggage, each hanger unit 10 may be individually removed from the mounting bar 24 by separating the fingers 90*a* and 92*a* and a garment may be neatly hung upon the hanger unit which may then be replaced upon the hanger carrier in the manner previously described. When it is desired to unpack the article of luggage, each hanger unit and the garment carried thereby may be individually removed in the same manner from the hanger carrier, the hook 76 of the hanger unit being then manually pivoted upwardly to its upstanding position of FIG. 3 so that it can be mounted on the support bar of a closet or the like in the usual manner of conventional hangers. In the alternative, if it is desired to quickly unpack the luggage without disturbing the clothing therein, or if there is not sufficient space for the separate hanging of a plurality of hanger units, the hanger carrier 12 and all of the hanger units 10 carried thereby may be removed as a unit by merely sliding the carrier out of the bracket 14. Once the hanger carrier 12 is removed, its hanger member 38 may be pivoted upwardly and mounted on a suitable support, whereby all of the clothing carried by the hanger units 10 are effectively supported simultaneously. Thus the hanger carrier 12 may be mounted in a remote support, and the hanger units 10 may be individually and selectively removed from and replaced thereon as required. It will be appreciated that in packing the luggage, the hanger carrier 12 with all of the hanger units 10 and the garments supported thereby may be quickly and easily inserted as a unit into the bracket 14 to provide a very rapid and convenient luggage-packing operation. It will be observed that the hook portion 40 of the hanger member 38 is made of substantial width, this wide hook portion providing a flat support surface for the hanger carrier 12 so that tipping of the assembly will not be caused by an uneven distribution of clothing on the hanger units 10 mounted on the hanger carrier 12.

When it is desired to replace the hanger carrier 12 within the article of luggage, the hanger member 38 is again pivoted downwardly to its horizontally-extending position in engagement with the stop plate 50, and the

hanger carrier 12 is reinserted within the bracket 14, the hanger member 38 thereupon extending flush along the top wall 16 of the article of luggage, as shown in FIG. 9.

FIGS. 7 and 8 illustrate a modified type of hanger unit 120 which is also made in accordance with the principles of the present invention. The hanger unit 120 has a wire body frame 122 which is similar to the frame 66 previously described. The swivel assembly 24 includes a flat plate 126 having rigid collar members 128 and 130 rotatably mounted on the free ends of the wire hanger frame 122. The hanger hook 132 has a shank 134 which extends slidably and turnably through a bushing 136, said bushing being rigid with the plate 126. At its free end the shank 134 has a lateral mounting head 138 of rectangular shape.

As can be more clearly seen in FIG. 8 the bushing 136 has a top edge surface 140 which includes a depressed slot or notch 142. The shank 134 carries an integral radially-projecting pin 144 positioned to ride along the top surface 140 of the bushing 136 when said shank 134 is turned within said bushing. The shank 134 also carries a rigid circular washer 150 spaced beneath the bushing 136, said washer 150 serving as a seat for the lower end of a compression spring 148. The opposite end of said compression spring 148 is seated on circular flange 146 formed integrally with the lower end of the bushing 136.

For purposes of mounting the hanger unit 120, the mounting bar 24 of the hanger carrier 12 is formed with an elongated rectangular slot 152 which may best be seen in FIG. 1. The width of the slot 152 is slightly greater than the width of the mounting head 138, but is less than the length of said mounting head. To mount the hanger unit 120, the shank 134 is turned until the mounting head 138 is disposed perpendicularly to the plane of the plate 126, as shown in FIG. 8. The mounting head 138 may then be inserted within the slot 152 until it is located above the top surface of the mounting bar 24. The shank 134 is then turned to a retaining position through an angle of 90° until the mounting head 138 is perpendicular to the plane of the plate 126, and thereby extends across the top of slot 152, preventing the hanger unit from falling from the mounting bar 24. The hanger unit 120 may then be slid back and forth along the slot 152 and may be individually removed from the carrier 12 by again turning the head piece 138 until it is aligned with the axis of the slot 152.

When the shank 134 is in the position of FIG. 8, with the mounting head 138 turned perpendicularly to the plane of the hanger arms and in position to be inserted within the slot 152, the pin 144 bears against the top surface 140 of the bushing 136. However, when the shank 134 is turned so that the mounting head is in its retaining position of FIG. 7, the pin 144 is aligned with the slot 142. In this aligned position, the compression spring 148, pressing on washer 150, urges the shank 134 downwardly, the pin 144 being pressed downwardly to the bottom of the slot 142. This spring-biased engagement of the pin 144 and slot 142 maintains the mounting head in its retaining position, preventing accidental turning of the shank 134 during handling of the luggage, and therefore insures that the hanger units 120 are securely mounted until manually released.

It will be appreciated that in use of either type of hanger unit 10 or 120, when the hanger unit is mounted within the luggage, the hanger hook is pivoted downwardly so that it is located within the neck of the garment supported by the hanger unit and in the plane of the hanger frame. Thus the hook and the neck do not occupy any of the useable storage space of the luggage, as is the case in conventional hanger-type luggage constructions. The mounting portion of the hanger unit which is raised for use when the hook is pivoted downwardly, is of relatively small size and does not occupy any appreciable storage space within the luggage. The hanger member 38 of the carrier 12, when retracted and inserted in the luggage, also occupies none of the storage space required by the garments, being located above the garment shoulders, as indicated in FIG. 9.

The luggage assembly also includes a frame 156 which is used to fold the garments 158 carried by the hanger units. The frame 156 is preferably made of wood or light plastic or metal and is of open rectangular shape, slightly smaller than the interior of the article of luggage 18. In use, the garments 158 are passed through the frame 156, and the latter is positioned so that it is centered along the length of the garments with its upper arm 156*a* located above the garment and its lower arm 156*b* located below the garment. This position of the frame 156 is illustrated in FIG. 9. The frame is then revolved through an angle of 180° about its longitutinal axis, that is to say about a line extending parallel to and midway between the upper and lower arms 156*a* and 156*b*. This folds the garments 158 into thirds, a fold 160 forming about the upper arm 156*a* and a second fold 162 forming about the lower arm 156*b*, as shown in FIG. 10. The garments can then be lowered in a neatly folded condition within the luggage.

In contrast to the usual garment folding devices, the frame 156 is entirely unattached from the luggage so that it may be effectively used to fold the garments supported by the hanger units, regardless of the length of the garments. By one simple half-twist or half turn of the frame through an angle of 180°, the garment is automatically folded into exact size for storage within the luggage. The folding frame 156 and the hanger units and mounts cooperate to insure that the garments are mounted and folded in such a manner that a maximum of the luggage interior is effectively utilized. Thus, a greater number of garments can be inserted in an article of luggage of any given size.

While preferred embodiments of the present invention have been shown and described herein, it is obvious that numerous omissions, changes and additions may be made in such embodiments without departing from the spirit and scope of the invention.

What is claimed is:

1. A hanger assembly for use in an article of luggage comprising a bracket secured to a wall of said luggage, a hanger carrier adapted to be removably mounted on said bracket, and at least one hanger unit adapted to be mounted on said hanger carrier, said hanger carrier including a longitudinally-disposed mounting bar, said hanger unit comprising a garment support frame, a hook turnably mounted on said support frame and spring latch means carried by said hanger unit and arranged opposite said hook, said hook being turnable between an upstanding position in which it projects upwardly from the hanger frame in a position to mount the hanger unit on a support remote from the article of luggage, and a retracted position in which it depends from the top of the hanger frame, said spring latch means being coupled to the hook for movement to an upstanding position when the hook is in its retracted position, said spring latch means in its upstanding position being adapted to be slidably mounted on said mounting bar, said hanger carrier also including slide means located above said mounting bar and sized to be slidably received by said bracket for insertion and removal of said hanger carrier into and from said luggage with the hanger unit mounted thereon.

2. A hanger assembly for use in an article of luggage comprising a bracket secured to a wall of said luggage, a hanger carrier, and at least one hanger unit adapted to be mounted on said hanger carrier, said hanger carrier including a longitudinally-disposed mounting bar, said hanger unit comprising a garment support frame, a hook turnably mounted on said support frame and spring latch means carried by said hanger unit and arranged opposite said hook, said hook being turnable between an upstanding position in which it projects upwardly from the hanger

frame in a position to mount the hanger unit on a support remote from the article of luggage and a retracted position in which it depends from the top of the hanger frame, said spring latch means being coupled to the hook for movement to an upstanding position when the hook is in its retracted position, said spring latch means in its upstanding position being adapted to be slidably mounted on said hanger carrier, said hanger carrier comprising a flange portion sized to be slidably received within said bracket for the removable mounting of said hanger carrier within the luggage, a pair of depending walls connecting said flange portion to said mounting bar, whereby the mounting bar is suspended parallel to and below said flange portion, and a hanger member journalled between said depending walls and including a hook portion for mounting the hanger carrier and the hanger units mounted thereon on a support remote from the luggage, said hanger member being swivelly movable from a position in which the hook portion is upstanding to a position in which the hook portion is retracted for extension along the wall of the luggage on which the hanger carrier is mounted.

3. A hanger assembly for use in an article of luggage including a hanger mounting bar, said hanger assembly comprising a garment support frame, a swivel unit including a base portion turnably mounted at the center of said garment support frame, a hook projecting from one side of the base portion, and spring latch means for slidably mounting said hanger assembly on said hanger bar pivotally mounted on said base portion and including at least one retaining member projecting from the other side of said base portion opposite said hook, said swivel unit being turnable on said garment support frame between a position in which the hook projects upwardly from the support frame in position to mount the hanger assembly on a support remote from the article of luggage, and a position in which the hook is downwardly extending and the retaining member of said spring latch means is upstanding from the hanger frame, said retaining member in its upstanding position being sized and located to overlie a portion of the hanger mounting bar for manually-releasable mounting of the hanger assembly slidably on said hanger mounting bar, said base portion including a plate pivotally mounted on the garment support frame, said hanger assembly including a shank rotatably mounted on said plate, said hook being carried at one end of said shank and said retaining member being carried at the other end thereof, said retaining member comprising an elongated head at the end of said shank, said mounting bar having a longitudinal slot sized to receive said head, said shank being turnable from a position in which the head is axially aligned with the slot to a position in which the head extends transversely across the top of said slot and overlies the top surface of said mounting bar.

4. A hanger assembly for use in an article of luggage comprising a bracket secured to a wall of said luggage, a hanger carrier adapted to be removably mounted on said bracket, and at least one hanger unit adapted to be mounted on said hanger carrier, said hanger carrier including a longitudinally-disposed mounting bar, said hanger unit comprising a garment support frame, a hook mounted on said support frame, hanger carrier engaging means for slidably mounting said hanger unit on said hanger carrier carried by said hanger unit, said hook being turnable between an upstanding position in which it projects upwardly from the hanger frame in a position to mount the hanger unit on a support remote from the article of luggage and a retracted position in which it depends from the top of the hanger frame and exposes said hanger carrier engaging means for slidable mounting on said mounting bar, said hanger carrier also including slide means located above said mounting bar and sized to be slidably received by said bracket for insertion and removal of said hanger carrier into and from said luggage with the hanger unit mounted thereon.

5. A hanger assembly for use in an article of luggage comprising a bracket secured to a wall of said luggage, a hanger carrier adapted to be removably mounted on said bracket, a first hook pivoted to said hanger carrier for separately suspending said hanger carrier, and at least one hanger unit adapted to be mounted on said hanger carrier, said hanger carrier including a longitudinally-disposed mounting bar, said hanger unit comprising a garment support frame, a second hook mounted on said support frame, hanger carrier engaging means for slidably mounting said hanger unit on said hanger carrier carried by said hanger unit, said second hook being turnable between an upstanding position in which it projects upwardly from hanger frame in a position to mount the hanger unit on a support remote from the article of luggage and retracted position in which it depends from the top of the hanger frame and exposes said hanger carrier engaging means for slidable mounting on said mounting bar, said hanger carrier also including slide means located above said mounting bar and sized to be slidably received by said bracket for insertion and removal of said hanger carrier into and from said luggage with the hanger unit mounted thereon.

References Cited in the file of this patent

UNITED STATES PATENTS

145,709	Worrell et al.	Dec. 16, 1873
1,811,297	Bosque	June 23, 1931
1,861,274	Hopkins	May 31, 1932
1,984,698	Plotkin	Dec. 18, 1934
2,214,118	Bracken	Sept. 10, 1940
2,285,745	Ritter	June 9, 1942
2,343,763	Fridolph	Mar. 7, 1944
2,480,420	Pochini	Aug. 30, 1949
2,489,492	Kieber	Nov. 29, 1949
2,570,075	Schwarz	Oct. 2, 1951