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(54) **Folding hanger system for luggage**

(57) A folding hanger apparatus particularly useful in luggage has two central portions which are hinged together a pivot between an open position and a closed position, and a hook portion having a hinged connection to one of the central portions. Clothing placed upon the hanger can be hung in an unfolded condition when the hanger is in the open position, and the hanger can be folded to the closed position while clothing is hanging thereon so that the clothing can be hung in a vertically folded position within a confined container such as luggage. The hook pivots to a position pressed against the clothing to prevent the clothing from sliding off the

folded hanger. When the hanger is in the unfolded position, the hook portion can be pivoted to an extended position to be used to hang the hanger from a conventional closet rod. A pant loop is provided to permit pants and other garments to be suspended from the bottom of the hanger. The pant loop is movable from side to side to permit the loaded hanger to balance when in the unfolded position, and to permit the hanger to pivot to the folded position. A useful trolley system within a luggage case permits the hanger to be temporarily secured in the folded position within the luggage case.

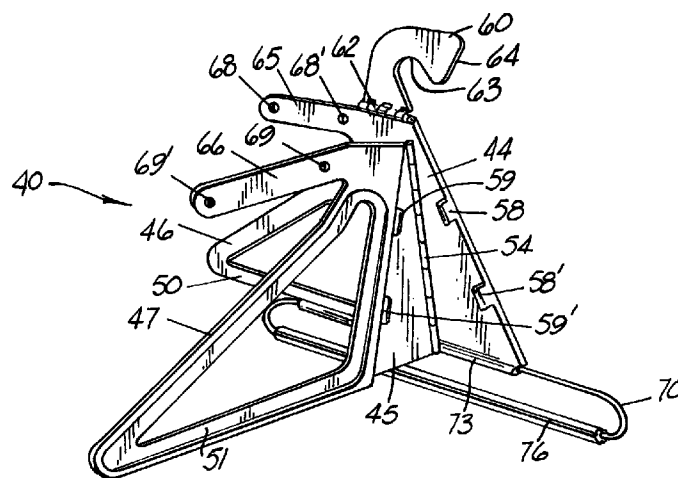


FIG. 8

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Description

BACKGROUND OF THE INVENTION

Field of the Invention:

The invention has generally to do with clothes hangers, particularly with clothes hangers for use in conjunction with luggage cases.

Background Art:

Hangers for clothes and garments have been manufactured for centuries. While over time there have been some alterations in composition and material (e.g., the change from wood to plastic-coated wire), the commonly encountered clothes hanger has remained mostly unchanged in form and utility for decades. Modern lifestyles have encouraged the development of collapsible and/or foldable hangers. The object of most foldable hangers has been to provide a hanger that is reduced in size for storage when not in use.

For example, U.S. Pat. No. 5,145,098 to Tung discloses a hanger device that is foldable about two axes in order to reduce its size to promote portability. No provision is made to allow use of the hanger while in the folded configuration.

Similarly, U.S. Pat. No. 5,085,357 to Chen teaches a collapsible garment hanger which occupies little space for storage, but offers little utility while in the folded configuration.

As people generally have been traveling more and more, especially for business reasons, it has become the practice to provide luggage cases in which hangers may be removably placed to allow easy clothes packing from closet to suitcase. U.S. Pat. No. 2,001,156 to Ritter, Jr., for instance, teaches a hanger that is useable in a suitcase as well as upon a closet clothes rod. It is increasingly desirable to provide luggage cases which are small enough to be "carried on" and stowed aboard modern aircraft, and yet will accommodate formal business attire without undue wrinkling. Compact, wrinkle-free luggage packing may be promoted by hanging clothes in a folded condition within a luggage case.

Hangers have been proposed which may be used while in the folded position, for example the device shown in U.S. Pat. No. 920,894 to Bonsall. Such devices often have been less than satisfactory because their use frequently is limited to suit coats and shirts, and the garments are prone to slide off the folded hanger.

U.S. Pat. No. 4,186,858 to Tatematsu discloses a flexible hanger that is bendable to hang a suit coat in a folded manner. The flexible hanger does not accommodate pants or slacks thereon and, as disclosed, is not useable upon an ordinary closet clothes rod.

Despite the foregoing, a need remains for a hanger that securely holds clothing, including pants, in an

orderly folded position within a luggage case, and yet may be used as well to hang the clothes upon an ordinary closet clothes rod. The following claimed invention was developed to satisfy this unmet need.

SUMMARY OF THE INVENTION

The present invention includes a foldable hanger and an innovative trolley for removably attaching the hanger within a luggage case. The hanger broadly comprises to halves connected by a generally vertical hinge, permitting the halves to be folded between an open coplanar position, and a closed, juxtaposed, overlapping position. The hanger may be used, with clothing thereon, in either the open position or the closed position. A hook has a hinged connection to one of the halves for pivotal movement between a retracted position and an extended position. The hook serves the dual functions of: (1) when in the extended position, allowing the hanger to be suspended from an ordinary clothes closet rod; and (2) when in the retracted position, preventing a garment from sliding off the hanger when the hanger is in the closed position. An optional slidable pant loop permits the hanger to carry pants regardless of whether the hanger is in the open or closed position. A trolley assembly mounted within a luggage case permits the hanger in the folded position to be removably attached within the luggage case despite the retracted position of the hook.

A primary object of the invention is to provide a hanger which can be folded for use in hanging vertically folded clothing within a tall, narrow compartment, and unfolded for use in hanging unfolded clothing upon a conventional clothes hanger rod.

A primary advantage of the invention is that an effective means is provided for preventing folded clothing from sliding off the folded hanger.

Another advantage of the invention is that a means is provided for suspending pants from a folding hanger without interfering with the foldability of the hanger or its balance when used in the unfolded position.

According to the invention, there is provided a hanger upon which a garment may be hanged, the hanger comprising a first central body member pivotally connected to a second central body member, whereby the central body members are pivotable between a generally coplanar position and a juxtaposed position, and a hook pivotally connected to one of the central body members for pivotal movement between an extended position substantially coplanar with the one body member and a retracted position substantially parallel with the one central body member, whereby the hook is disposable between the two central body members in the juxtaposed position. The hook is movable from the extended position to the retracted position for engagement against the garment, and the central body members are pivotable from the coplanar position to the juxtaposed position while the hook is engaged against

the garment. In one preferred embodiment, when the central body members are in the coplanar position, the first central body member overlaps a portion of the second central body member, one of the body members having at least one aperture therein and the other one of the central body members comprising at least one tab extending therefrom insertable through the aperture to secure the overlapping relation. The hanger optionally is provided with a loop holder upon one of the central body members, with a pant loop slidably disposed in the loop holder. The pit loop is movable between a central position and an offset position upon the hanger.

Also according to the present invention, there is provided an improved means for removably securing clothing within luggage, including a hanger comprising a first central body member pivotally connected to a second central body member, whereby the central body members are pivotable between a generally coplanar position and a juxtaposed position and a hook pivotally connected to one of the central body members for pivotal movement between an extended position substantially coplanar with the one of the body members and a retracted position substantially parallel with the one central body member, whereby the hook is disposable between the two central body members in the juxtaposed position; and a trolley within the enclosed space for removably attaching the hanger to the luggage. In one embodiment, the hanger further comprises a first support arm extending from a respective one of the central body members. The hanger may have at least one aperture therein, where the trolley means for attaching comprises a rod insertable through the aperture. More preferably, a first support arm has a pair of spaced-apart apertures therein, and the trolley means for attaching comprises two spaced-apart horizontal rods insertable through the apertures. There optionally is provided a second support arm extending from the other one of the central body members, the second support member having a pair of spaced-apart apertures therein, the apertures in said first support arm being alignable with the apertures in the second support arm when the central body members are in the juxtaposed position, each of the two spaced-apart horizontal rods insertable through respective aligned apertures in the first support arm and the second support arm.

Other objects, advantages and novel features, and further scope of the applicability of the present invention will be set forth in part in the detailed description to follow, taken in conjunction with the accompanying drawings, and in part will become apparent to those skilled in the art upon examination of the following, or may be learned by practice of the invention. The objects and advantages of the invention may be realized and attained by means of the instrumentalities and combinations particularly pointed out in the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying drawings, which are incorporated into and form a part of the specification, illustrate a preferred embodiment of the present invention and, together with the description, serve to explain the principals of the invention. The drawings are only for the purpose of illustrating a preferred embodiment of the invention and are not to be construed as limiting the invention. In the drawings:

Fig. 1 is a front view in elevation of a luggage case according to the present invention;

Fig. 2 is a side view in elevation view of the luggage case shown in Fig. 1;

Fig. 3 is a perspective view of the luggage case shown in Fig. 1, showing the case in an open position and with garments disposed therein according to a preferred embodiment of the present invention; Fig. 4 is an enlarged view of a broken-away portion of the interior of the case shown in Fig. 3, showing hanger and trolley elements according to a preferred embodiment of the invention, in use for hanging garments;

Fig. 5 is a front view in elevation of a hanger according to the present invention, shown in an open position and hanging upon a rod shown in section;

Fig. 6 is a side view of the hanger shown in Fig. 5;

Fig. 7 is a back view of the hanger shown in Fig. 5;

Fig. 8 is a perspective view of the hanger shown in Fig. 5, shown in a partially closed position;

Fig. 9 is a top view of the hanger shown in Fig. 5;

Fig. 10 a back view of the hanger according to a preferred embodiment of the present invention, showing a garment hanging thereon and the hanger hook in an extended position;

Fig. 11 is a back view of the hanger shown in Fig. 10, showing the hanger hook in a retracted position to engage against the garment;

Fig. 12 is a view in elevation of the hanger according to a preferred embodiment of the present invention, in the closed position and with a folded garment hanging thereon; and

Fig. 13 is a perspective broken-away view of the hanger in a closed position and disposed upon an interior component of an item of luggage.

DESCRIPTION OF THE PREFERRED EMBODIMENT (BEST MODE FOR CARRYING OUT THE INVENTION)

The invention finds particularly beneficial use in luggage, although it will be apparent that the invention may find practical application in any situation where a simple, reliable, foldable hanger is desired (*e.g.* in narrow lockers or closets). In this specification and in the claims, the terms "luggage," "luggage case," "suitcase" or "case" shall mean luggage generically, and include

vertical or "upright" cases, pullman suitcases, garment bags and the like, whether wheeled or not. For purposes of illustration but not by way of limitation, the invention shall be described with reference to a wheeled vertical case **20**, shown generally in Figs. 1 and 2. It will be readily apparent to one of ordinary skill in the art, however, that aspects of the invention are applicable to a wide variety of luggage apparatus. Case **20** is depicted as an upright, generally rectangular prismatic container having a bottom, four sides, and a top defining an enclosed space wherein items of clothing and other personal articles may be organized and stowed for transport. Case **20** may be composed of any materials known in the art, and may be hard-sided plastic, but is illustrated as a "soft sided" luggage manufactured from nylon or other durable fabric disposed upon a light-weight frame.

Fig. 3 further shows that case **20** may have a front section **22** and rear section **24**. Front section **22** is flexibly joined to rear section **24** along a common edge, as by a fabric hinge or the like, so that front section **22** may be swung or pivoted out from rear section **24** in a door- or lid-like fashion to allow convenient access to the interior. To close the case **20**, front section **22** and rear section **24** are aligned and secured together (e.g. by a zipper) along their common periphery. Figs. 1-3 illustrate that front section **22** may include one or more pocket storage compartments **26**, **28** which may be accessible only from the outside of bag **20** while the bag is closed (Figs. 1 and 2), or only from the inside while the bag is open (Fig. 3), or from both outside and inside. Figures 1-3 also show that the case **20** may be equipped with two or more wheels and skids in accordance with known art, to allow case **20** to be tipped and towed across a supporting surface by the user, or to allow the case to rest steadily in an upright position as shown in the figures. The case **20** also is provided with one or more conventional carry and/or wheel handles.

An advantage of the invention is that the interior compartment of the case **20** may be, from side-to-side, narrower than usual in the art. This narrowed dimension is achieved without sacrificing substantial contained volume. Clothing, e.g. a man's suit coat, is folded about a vertical axis for placement within the case **20**, as shown in Fig. 3, allowing the case to be narrower in width and thus more easily manipulated, stored, and towed. The compartment within the rear section **24** of the case preferably is sufficiently tall to accommodate the hanging placement of a man's suit coat therein without need for horizontal folding. Nevertheless, in other luggage types, such as garment bags, the garments may be folded again medially to fit into a shorter compartment height. As seen in Fig. 3, the innovative mode of folding and hanging clothing **32**, **33** is possible through the use of an inventive trolley assembly **38** and hanger **40**, which are mountable within the upper interior of the rear section **24** of wardrobe case **20**. The trolley assembly **38** and hanger **40** together action as a means for removal

bly securing clothing within the enclosed space of the case **20**.

Attention is invited to Figs. 4-12, which collectively illustrate the folding hanger aspect of the invention. The folding hanger, generally depicted at **40**, preferably is composed of a durable, slightly flexible thermoplastic. Hanger **40** has a pair of rigid, generally planar central body members **44**, **45** from each of which a respective one of legs **50**, **51** extends laterally. Shoulder members **46**, **47** extend in an angle downward from the upper portion of each of the central body members **44**, **45** to intersect with respectively associated legs **50**, **51**. Shoulder members **46**, **47** and legs **50**, **51** preferably are integrated with their respective central body members **44**, **45** so that each of shoulder members **46**, **47** and legs **50**, **51** is a rigid molded extension of its corresponding body member **44** or **45**. The distal end of each shoulder member similarly is integrally molded with the distal end of an associated shoulder member.

As indicated in Figs. 6-9, the body members **44**, **45** are pivotally joined by a preferably vertically disposed body hinge **54**. Body hinge **54**, whose knuckles preferably are integrally molded with the body members **44**, **45**, permits one body member **45** to pivot with respect to the other body member **44**, as indicated by the directional arrow of Fig. 9, so that the entire hanger **40** may be folded about a vertical axis to juxtapose the shoulder members **46**, **47** and legs **50**, **51**, as indicated in Figs. 8, 9 (phantom lines). In the preferred embodiment, the body hinge **54** is a conventional pin-and-knuckles arrangement, but it is immediately appreciated that alternative hinge forms, such as a flexible fabric or plastic living hinge, may suffice in the invention. Moreover, alternative embodiments of the invention may employ a main body hinge **54** that is disposed non-vertically to join pivotally the central body members **44**, **45**. Accordingly, the hanger **40** preferably is foldable about a vertical axis between an open position in which the central body members **44**, **45**, shoulders **46**, **47**, and legs **50**, **51** are all substantially coplanar, as seen in Figs. 5, 7, and 9, and a folded or closed position in which the body members **44**, **45**, and their respective shoulders and legs, are mutually parallel or nearly parallel, as suggested in Figs. 4, 12, and 13, and shown in phantom lines in Fig. 9.

As best seen in Figs. 4, 5, 7 and 8, one central body member **44** preferably but not necessarily is more extensive in size than the other body member **45**. The smaller member **45**, preferably fashioned in the shape of a right-angled triangle, has hinge **54** disposed upon its vertical edge, forming a right angle with the bottom of the body member **45**. The larger body member **44**, preferably fashioned in the shape of an isosceles or equilateral triangle, so that the larger body member **44** essentially is twice as large as, and a double reflection of, the smaller member **45**. The body hinge **54** preferably is disposed along the vertical axis of symmetry of the larger body member **44**, so that the smaller body

member 45 is pivotable from an overlapping position substantially coextensive with a half of the larger member 45.

An advantage of this preferred configuration is the congruent overlap provided between the smaller member 45 and one half of the larger member 44 when the hanger 40 is folded to the open position. This overlap preferably is secured by means of one or more snap tabs 58, 58' distending from one of the body members (member 44 in the illustrations), for snap or frictional engagement into corresponding apertures 59, 59' through the other body member (member 45 as illustrated). A preferred and fully functional embodiment may include a single centrally located tab insertable through a single corresponding aperture, but the use of paired apertures and tabs as shown in the drawings provides a doubly secure snapped connection. As shown in Fig. 8, the tabs 58, 58' preferably are disposed along an edge of the larger member 44 while the apertures 59, 59' are along the hypotenuse of the smaller body 45. When the members 44, 45 are pivoted to the coplanar fully open position, the snap tabs 58, 58' snap into place within apertures 59, 59' to reliably hold the smaller body member 45 in a flush overlap against the larger member 45. This snap-secured, overlapping configuration provides a strong, generally inflexible, hanger that reliably bears weight, and which is resistant to inadvertent or accidental folding or collapse. When it is desired to fold the hanger 40 to the closed position, the smaller member 45 is firmly pulled away from the larger central body member 44 to pull the tabs 58, 58' back through the apertures 59, 59' to disengage the overlapped connection.

As shown in Figs. 5-8, a hanger hook 60 is pivotally connected to central body member 44 by means of a neck hinge 62. Neck hinge 62 permits hanger hook 60 to be folded between an extended position as shown in Figs. 5 and 8, and a retracted position as shown in Fig. 7. In the extended position, the hanger hook 60 is substantially coplanar with the body member 44. When pivoted to the retracted position, as indicated by the directional arrows of Fig. 6, the hanger hook 60 is generally parallel to the body member 44. In practice, when the hanger 40 is in the open position to hang a garment thereon, the hook 60 and central body members 44, 45 are generally contained within the same imaginary plane. When the hanger 40 is in the folded position, the body members 44, 45 are approximately parallel, with the hook 60 sandwiched parallel between them (Figs. 12 and 13).

Hanger hook 60 preferably is composed of the same material as body members 44, 45 and is configured with a semicircular inside surface 63 engageable with a circular or other horizontal rod to allow the entire hanger 40 to be hung upon a conventional clothes closet bar 30, clothes rack rod, or the like, as indicated in Fig. 5. Thus, by means of hanger hook 60, hanger 40, may be used to hang an item of clothing in a standard

closet. The hanger 40 is best used in the open, unfolded position to hang garments in a normal closet, but may less satisfactorily be used in the folded position with the hanger hook 60 extended for use upon the clothes rod 30.

Fig. 5, 7, and 8 show that from the top of at least one, and preferably both, of body members 44, 45 extend support arms 65, 66, which like shoulder members 46, 47, are bilaterally symmetrical about a vertical axis. Also like each of shoulder members 46, 47, each support arm 65, 66 preferably is integrated with a corresponding one of central body members 44, 45 so that each support arm is a rigid extension of its corresponding body member. Each support arm 65, 66 preferably is completely pierced by at least one, and preferably by two, trolley apertures 68, 68' and 69, 69'. Trolley apertures 68, 68', 69, 69' are holes of a shape corresponding to the cross sectional shape of trolley rods 82, 82' (Fig. 4), preferably round, which holes penetrate each of support arms 65, 66 near each of the horizontal ends of arms 65, 66. Support arms 65, 66 and apertures 68, 68', 69, 69' permit the hanger 40 to be secured placed within a luggage case as further described herein. As best illustrated by Fig. 4, trolley apertures 68, 68', 69, 69' are separated by a distance substantially equal to the distance between trolley rods 82, 82'.

Thus, while hanger 40 is useable to hang an unfolded garment upon a standard clothes rod 30, the hanger is specially adapted to hang inside a luggage case upon an innovative trolley assembly 38 when in the closed position, as shown generally in Figs. 3 and 4. Trolley assembly 38 is mounted in the upper portion of the rear section 24 of the case 20. A folded garment 32 may be reliably retained upon the hanger 40 and the hanger 40 securely but removably attached to the case 20 by means of the trolley assembly. The folded garment 32 thus may be packed within the case with ease, security, and minimal wrinkling.

Reference is made to Fig. 4. In one embodiment, the trolley assembly 38 includes a pair of horizontal, spaced-apart trolley rods 82, 82'. Disposed immediately above and parallel to the trolley rods 82, 82' are a corresponding pair of latch rods 84, 84' mounting a respective pair of slotted swing latches 86, 86'. Swing latches 86, 86' may be fixed in their respective positions upon the lengths of latch rods 84, 84' or alternatively may be slidably movable along latch rods 84, 84' for adjustably securable positioning at various positions along the lengths of the rods 84, 84'. The latches 86, 86' swing or rotate about horizontal axes. The latches 86, 86' are manually pivotable between an open position (latch 84' in Fig. 4) and a closed position (latch 84 in the figure).

As Figs. 3 and 4 indicate, the hanger 40 is removably mountable upon the trolley rods 82, 82'. Swing latches 86, 86', when both in the open position, permit the hanger 40 to be slipped into position upon the trolley rods 82, 82'. With the hanger 40 upon the trolley rods 82, 82', the latches 86, 86' are swung down into the

closed position. When latches **86**, **86'** are in the closed position, the adjacent trolley rod **82** extends through the slot in the latch, so that the latch (latch **86** in Fig. 4) effectively encircles or encompasses the trolley rod **82** to prevent the hanger from sliding off the end of the rod **82**.

Accordingly, when hanger **40** has been folded back upon itself to the closed position, as shown in Figs. 4, 9 (phantom lines) and 12, the corresponding pairs of apertures **68**, **68'**, **69**, **69'** are co-aligned, and rods **82**, **82'** are alignable with and insertable through all the apertures. The engagement of hanger **40** upon trolley rods **82**, **82'**, by slidably inserting trolley rods **82**, **82'** through trolley apertures **68**, **68'**, **69**, **69'** in both support arms **65**, **66'**, allows hanger **40** to be removably mounted within case **30** in a secure horizontal position. Hanger hook **60** is folded into the retracted position to allow unimpeded use of the support arms **65**, **66** to engage hanger **40** upon trolley rods **82**, **82'**.

Particular reference to Figs. 10-12 shows that an advantage of the invention is that neck hinge **62** permits hanger hook **60** to be folded down against an article of clothing **32** to hold the clothing in place upon hanger **40**. The garment is first placed upon the shoulder members **46**, **47** of hanger **40** generally according to convention, as shown in Fig. 10. Hanger hook **60** is pivoted to the retracted position, and folded against the garment, to sandwich the garment between hook **60** and the body member **44**, as depicted in Fig. 11. Notably, and as best shown in Fig. 11, an outside surface **64** of the hanger hook **60** is shaped so as to be substantially vertical when the hanger hook **60** is in the retracted position. Thus, when the hanger hook **60** is retracted, the outside surface **64** preferably is substantially parallel to the axis of rotation of the body hinge **54**, engaged against the garment **32**, and parallel to the vertical line about which the garment is folded. The hanger **40** may then be folded about body hinge **54**, with hanger hook **60** disposed between portions of the garment and also sandwiched between the body members **44**, **45**, so that the folded hanger and garment assume the position shown in Fig. 12. With the hanger **40** so folded, the article of clothing disposed thereon also is folded vertically. With the hanger **40** and the garment in a folded position, and the hanger hook **60** in the retracted position, the outside surface **64** of the hook **60** is engaged against the garment **32** to hold the garment upon the folded hanger; the hook prevents the garment from sliding down and off the shoulder members **46**, **47** (*i.e.* from sliding down and to the right in Fig. 12). Advantageously, the garment is maintained upon the overlapping shoulder members **46**, **47** in the position shown in Fig. 4. The garment **32** and hanger **40** may then be placed upon trolley rods **82**, **82'** as shown in Fig. 3.

Attention is invited to Figs. 5 and 7, showing that the hanger **40** optionally is provided with a pant loop **70** upon which ties, pants, skirts, or other garments may be placed. In one alternative embodiment, pant loop **70**

comprises a substantially closed, elongated, loop of, for example, rigid plastic or heavy gage wire, the loop being sufficiently wide to receive a pair of pants **33** there-through (Fig. 4). The loop **70** is slidably disposed within loop holder **73**. Loop holder **73** includes a grooved, or preferably substantially tubular, member affixed to the bottom of the larger central body member **44** and to the bottom of the respective leg **50**. As best seen in Fig. 5, the upper portion of the loop **70** is retained within the channel or groove of the loop holder **73**, but is slidable therein to allow the loop **70** to move side-to-side with respect to the hanger **40**. The pant loop **70** thus is movable between an offset position substantially adjacent to one of the central body members **44** and/or one of the legs **50** (solid lines in Fig. 5) and a central position substantially adjacent to both body members **44**, **45** or legs **50**, **51** (phantom lines in Fig. 5). The bottom portion of the pant loop **70** is provided with a substantially cylindrical pad member **76** which has a larger radius than the loop **70** to offer a clean, padded surface upon which a garment may securely drape with minimal wrinkling.

Notably, the provision of the pant loop **70** as so configured does not interfere with the folding operation of the hanger **40**. When the hanger **40** is in the open position, the pant loop **70** may be moved within the holder **73** to a central position, as shown in Fig. 7 and by the phantom lines of Fig. 5, where a portion of the loop **70** is subjacent to both the legs **50**, **51**. In the central position, the pant loop **70** is in a substantially symmetric position with respect to the balancing point of the hanger **40** which allows the hanger **40** to hang evenly from the rod **30** shown in Fig. 5. Thus, in the central position the pant loop **70** does not detract from the symmetry and balance of the hanger **40**, although the loop holder **73** is somewhat offset from the hanger's vertical axis of symmetry. Pants **33** or other garments may be placed through the loop **70** and hung upon the bottom rung thereof. The hanger **40** may be disposed upon a conventional clothes hanger rod **30** in a balanced position with the pad member **76** substantially horizontal. Because the pant loop **70** is laterally movable, its position can be adjusted to optimize the gravitational balance of the hanger **40** when a garment is upon the loop **70**. Indeed, if no garment is placed upon the shoulder members **46**, **47**, it is possible to use the hanger **40** in either an open or a closed position to hang only pants **33** or the like upon a conventional clothes hanger rod **30**.

When it is desired to fold the hanger **40** to the closed position, the loop **70** is shifted within the loop holder **73** until it is offset to the position shown in Fig. 5, where it is subjacent only to only one body portion **44** and its corresponding leg **50**. In this offset position, the pant loop **70** is eccentric with respect to the balance point of the hanger **40**, and does not interfere at all with the operation of the hinge **54**. The pant loop **70** has a lateral extent substantially corresponding to, or less than, the width of the larger body member **44**. With the pant

loop in the offset position, the hanger 40 may freely be folded to the closed position, and the loop 70, while wide enough to carry a pair of pants 33, does not appreciably increase the overall width of the folded hanger 40. The hanger 40, carrying garments upon the pant loop 70, nevertheless may be used in its folded position and disposed within the narrow case 20 as shown in Figs. 3 and 4. In other, less expensive alternative embodiments, the pant loop may be immovably secured to one of the central bodies in a permanently offset position.

Fig. 13 shows that an advantage of the invention is that the hanger 40 may be adapted for use in alternative trolley embodiments. The hanger 40 is shown in the closed position with the hook 60 retracted in a position between the two central body members 44, 45, but without any garments disposed thereon. A planar panel 88 may be immovably mounted or, preferably, hinged for swinging motion within the interior of a luggage case. In this alternative embodiment, the panel 88 is provided with horizontally aligned loop brackets 89, 89' through which one or more support arms 65, 66 may be frictionally inserted to secure the hanger 40 within the case.

The hanger 40 may be used in either the open unfolded position or the closed folded position. The user can use the hanger 40 to hang a garment upon a conventional rod 30 or within the luggage case 20. A garment such as a sport coat is placed unfolded upon the hanger 40 in the open position as shown in Fig. 10, and the hanger hook 60 placed upon a conventional rod 30 (Fig. 5). If desired, the pant loop 70 may be shifted to the central position shown in Fig. 7, and a pair of pants or other garment may be suspended therefrom while the hanger 40 hangs in the balance from the rod 30. Optionally, user instructions may be printed on either or both central body members 44, 45 where the instructions remain visible in the space between the lapels of the hanging garment.

To transfer the hanger 40 and garment from, for example a closet, the hanger 40 may be removed from the rod 30, and the hook 60 pivoted to the retracted position shown in Fig. 11, in which position the outside surface 64 of the hook comes into contact with the garment. The pant loop 70 is slidably shifted to the offset position shown in Fig. 5. The hanger 40 with the garment 32 remaining thereon is then folded into the closed position as shown in Fig. 12. Notably, portions of the garment 32 are sandwiched between the respective central body portions 44, 45 of the hanger 40, and the hook 60 is sandwiched between layers of the garment 32. The hook 60, being attached to one of the central body portions 44, prevents the garment from sliding under its weight down the sloping shoulders 46, 47. The knuckles of the main hinge 54 preferably extend somewhat away from the large central body member 44 to provide additional space between the central body members 44, 45 in which the garment layers are disposed.

With the garment 32 and the hanger 40 both in a folded position as shown in Fig. 12, the hanger may be

placed upon the trolley assembly 38 as shown in Fig. 4, or alternatively in accordance with Fig. 13. Also as depicted in Fig. 4, swing latches 86, 86' may be pivoted into the closed position (latch 86 in the figure) to prevent the hanger 40 from inadvertently sliding off the trolley rods 82, 82'. The garment 32 (and pants upon the pant loop 70 in embodiments incorporating the pant loop element) are thus securely but removably retained within the case 20 for transport.

It is therefore to be understood that while preferred forms of invention have herein been set forth and described, modifications and changes may be made in the construction, arrangement and composition of parts without departing from the spirit and scope of the present invention as defined by the appended claims and reasonable equivalents thereof.

Claims

1. A hanger upon which a garment may be hanged, said hanger comprising:

a first central body member pivotally connected to a second central body member, whereby said central body members are pivotable between a generally coplanar position and a juxtaposed position; and

a garment retainer member pivotally connected to one of said central body members for pivotal movement between an extended position substantially coplanar with said one of said body members and a retracted position substantially parallel with said one central body member, whereby said garment retainer member is disposable between said two central body members in said juxtaposed position.

2. A hanger according to claim 1 wherein said body members are pivotable from the coplanar position to the juxtaposed position while said retainer is in the retracted position.
3. A hanger according to claim 1 further comprising means for releasably securing said two central body members in the substantially coplanar position.
4. A hanger according to claim 3 wherein when said central body members are in the coplanar position, said first central body member overlaps a portion of said second central body member, one of said central body members having at least one aperture therein, and wherein said means for releasably securing comprises at least one tab extending from the other central body member insertable through said at least one aperture.

5. A hanger according to claim 1 further comprising:

shoulder members, one of each of said shoulder members extending from a respective one of said central body members, upon which said garment may be placed in an unfolded condition while said body members are in the open position.

6. A hanger according to claim 5 wherein said garment retainer member comprises a hook.

7. A hanger according to claim 6 wherein said hook in the retracted position prevents said garment from slipping from said shoulder members when said body members are pivoted to the closed position.

8. A hanger according to claim 7 further comprising: a loop holder upon one of said body members; and

a pant loop slidably disposed in said loop holder.

9. A hanger according to claim 8 further comprising two leg members, each of said leg members extending from a corresponding one of said central body members, wherein said pant loop is movable between a position substantially adjacent to one of said leg members and a position substantially adjacent to both said leg members.

10. A hanger according to claim 1 further including

first hinge for pivotally connecting said first central body member to said second central body member, whereby said hanger is foldable between an open position wherein said body members are substantially coplanar and a folded position wherein said central body members are substantially parallel; and wherein the garment retaining member is a hook, and said hanger further including

second hinge for pivotally connecting said hook to one of said central body members, whereby said hook is pivotable between an extended position wherein said hook is substantially coplanar with said body members when said hanger is in the open position, and a retracted position wherein said hook is disposed between said central body members when said hanger is in the folded position.

11. A hanger according to claim 10 wherein when said central body members are in the coplanar position, said first central body member overlaps a portion of said second central body member, one of said body members having an aperture therein and the other one of said central body members comprising a tab

extending therefrom insertable through said aperture.

12. A hanger according to claim 11, wherein said hook is movable from the extended position to the retracted position for engagement against the garment.

13. A hanger according to claim 12 wherein said hanger is foldable from the open position to the closed position while said hook is engaged against the garment.

14. A hanger according to claim 1 further comprising:

a first support arm extending from a respective one of said central body members.

15. A hanger according to claim 14 wherein said first support arm includes means for attaching the hanger when folded to a luggage case or the like.

16. A hanger according to claim 15 wherein said means for attaching the hanger to a luggage case or the like includes a pair of spaced-apart apertures passing through said first support arm whereby rods or the like arranged on the inside of a luggage case can pass through said spaced-apart apertures to attach the hanger to the luggage case.

17. A hanger according to claim 16 further comprising a second support arm extending from the other one of said central body members, said second support member having a pair of spaced-apart apertures therein, said apertures in said first support arm alignable with said apertures in said second support arm when said central body members are in the juxtaposed position.

18. A hanger according to claim 10 further including a loop holder upon one of said central body members; and

a pant loop slidably disposed in said loop holder.

19. A hanger according to claim 18 wherein said pant loop is movable between a position substantially adjacent to one of said central body members and a position substantially adjacent to both of said central body members.

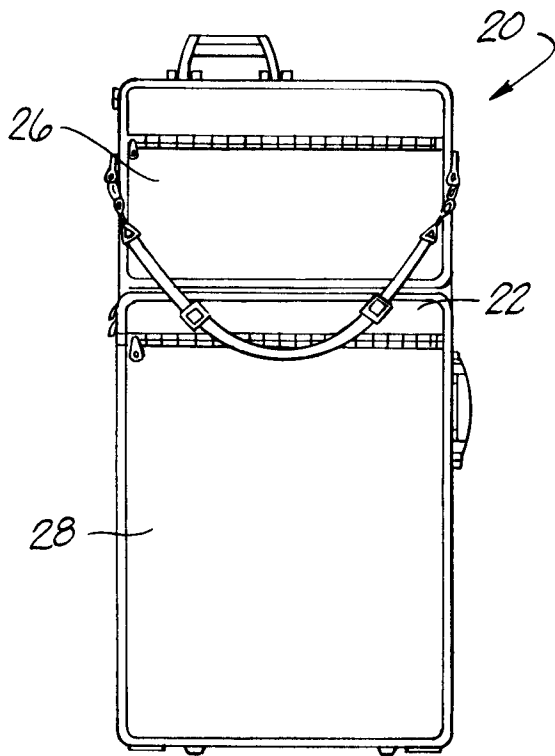


FIG. 1

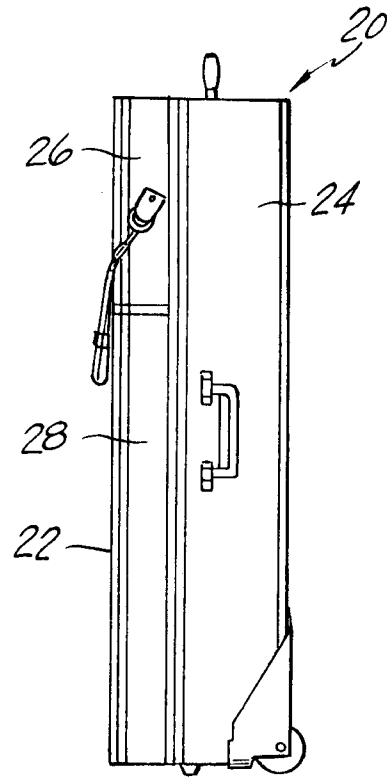


FIG. 2

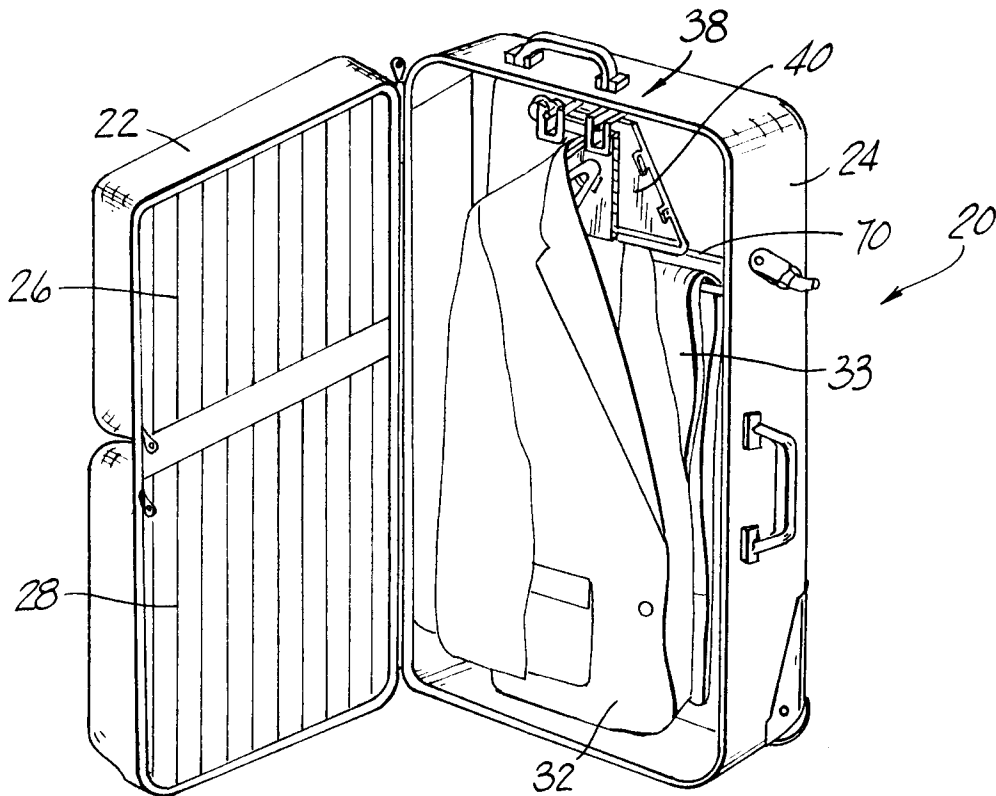


FIG. 3

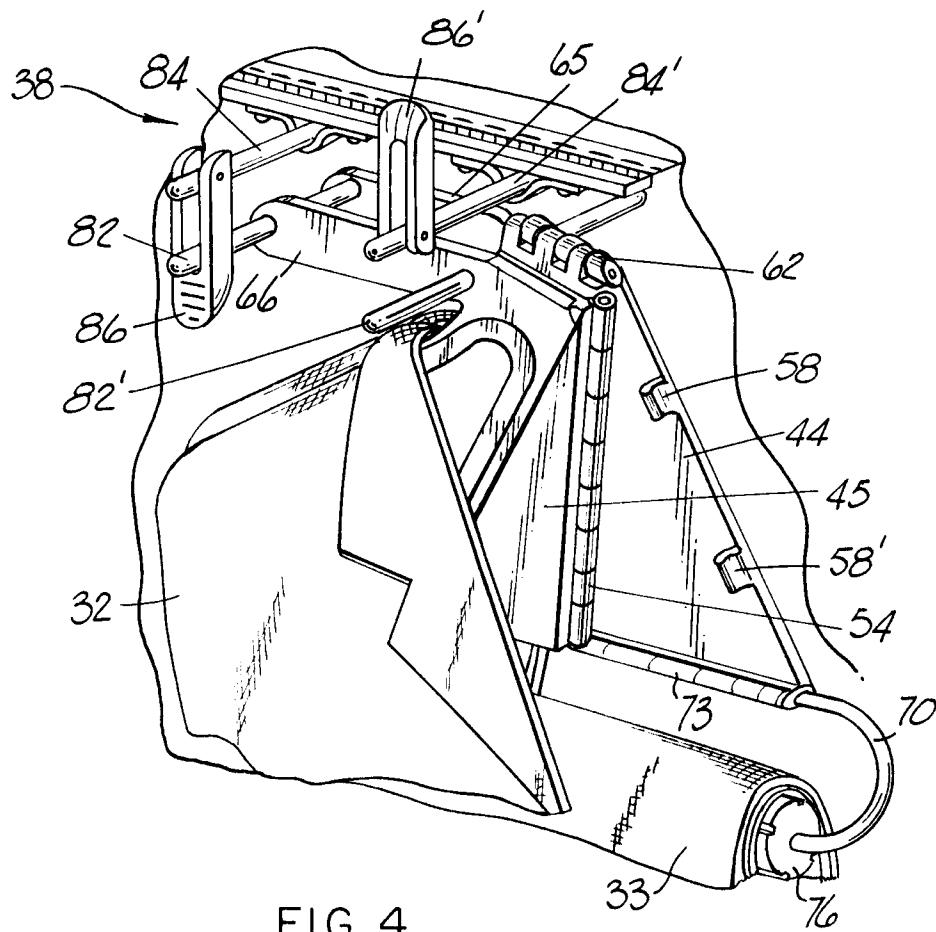


FIG. 4

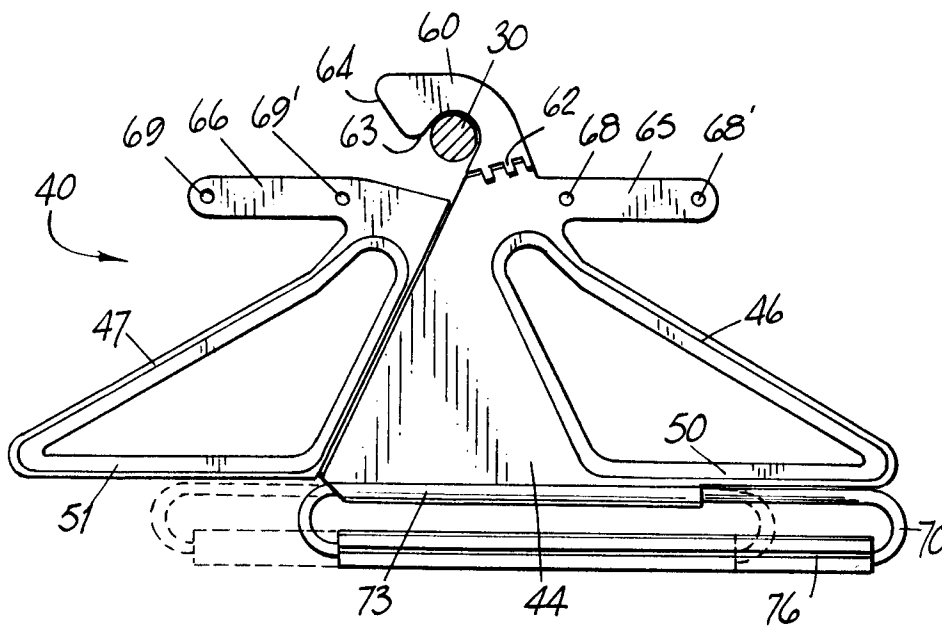


FIG. 5

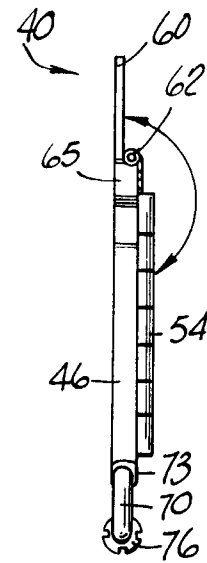


FIG. 6

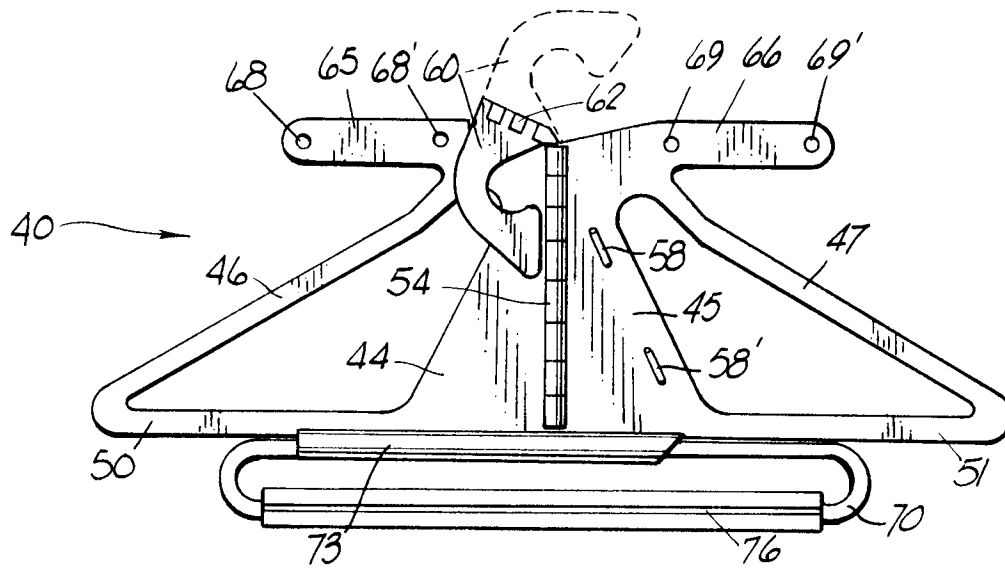


FIG. 7

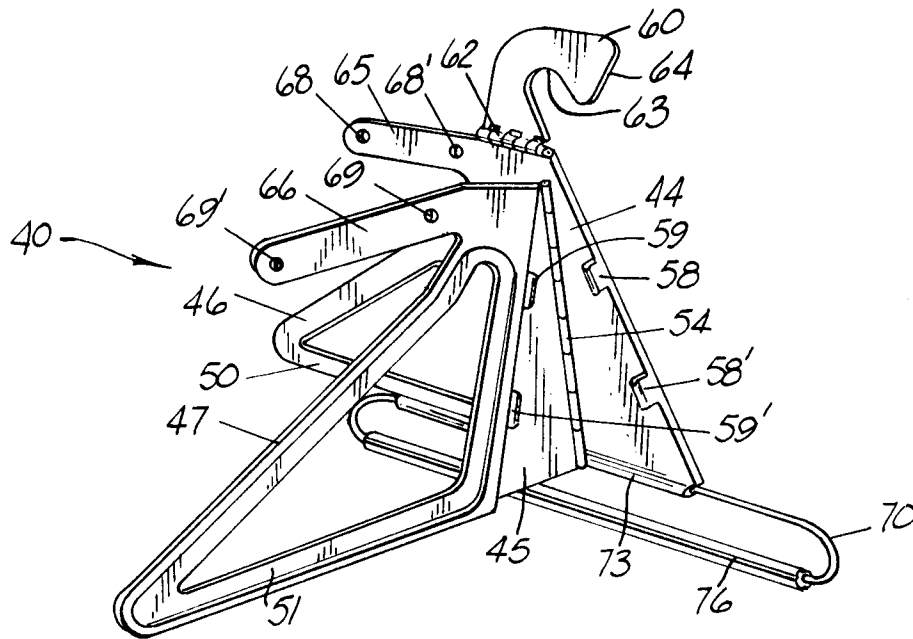


FIG. 8

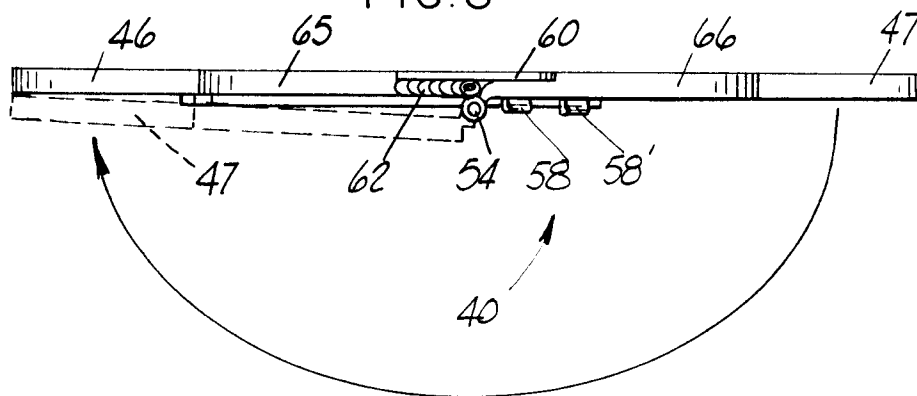


FIG. 9

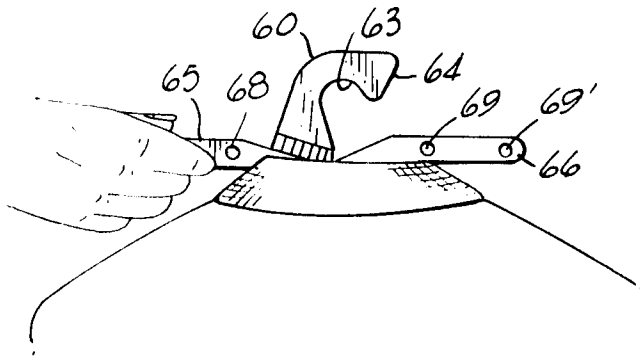


FIG. 10

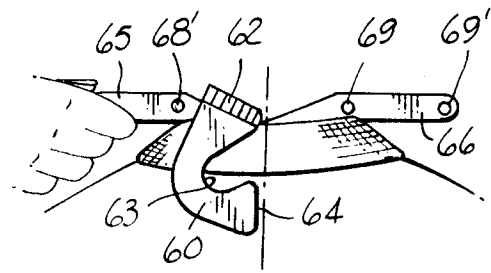


FIG. 11

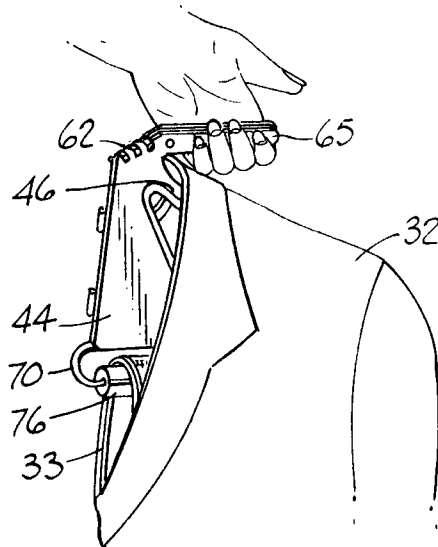


FIG. 12

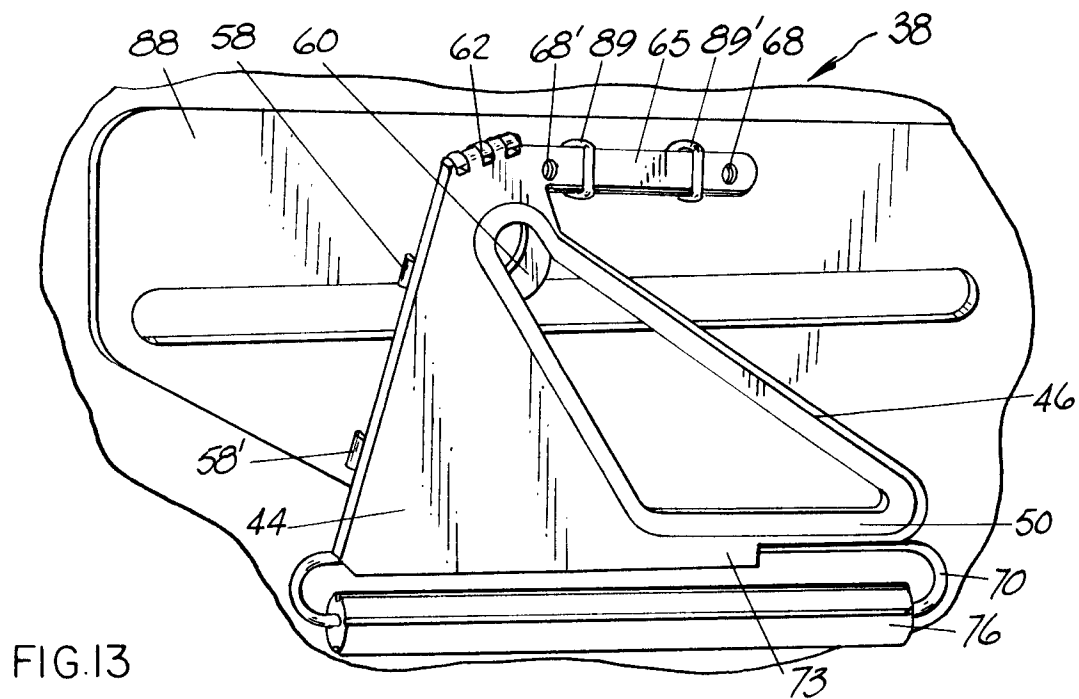


FIG. 13