April 16, 1963 C. L. WILDE 3,085,724

COAT HANGER SEPARATOR

Filed June 10, 1960

Fig. 1

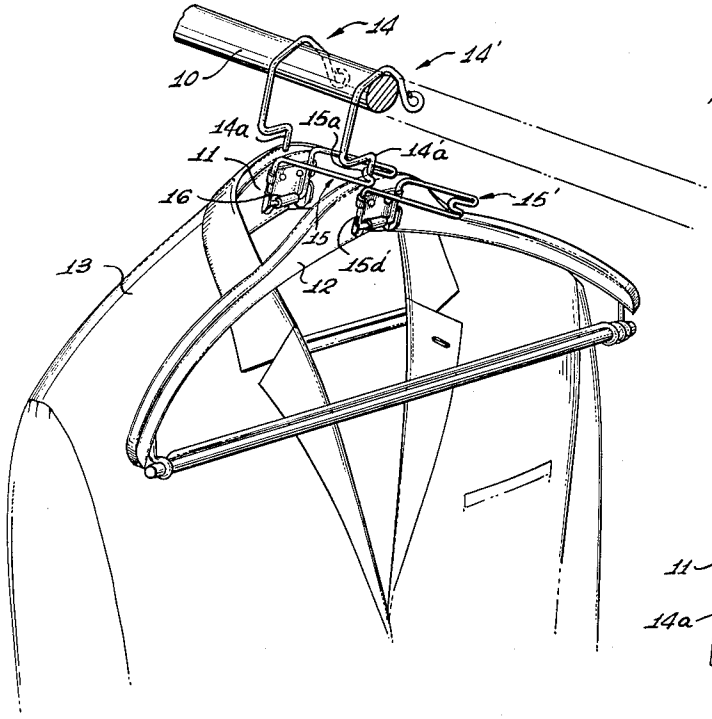


Fig. 3

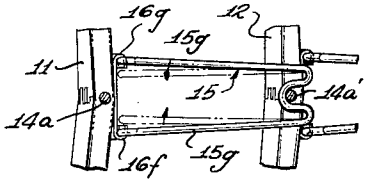


Fig. 2

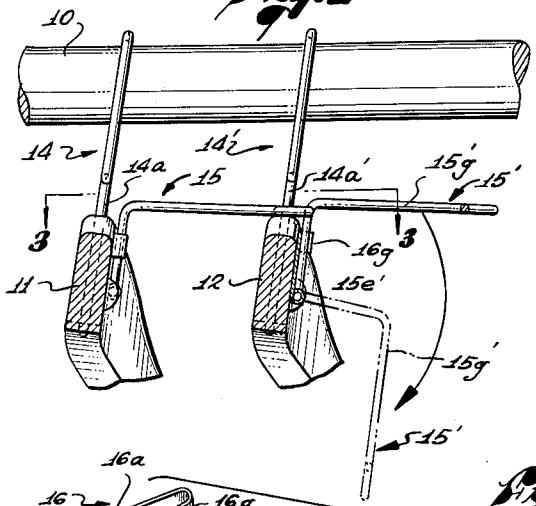


Fig. 4

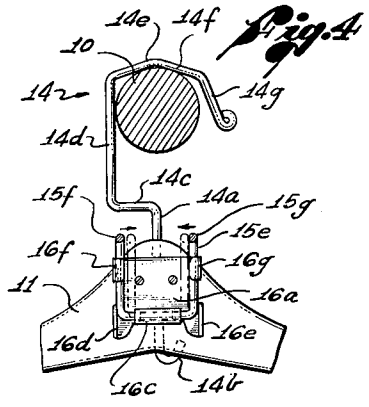
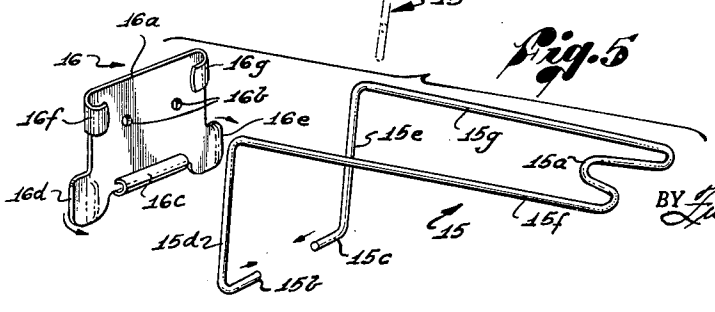


Fig. 5



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COAT HANGER SEPARATOR

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This invention relates to a coat or garment hanger. More particularly, this invention relates to a hanger having means to separate or space it by a predetermined distance from a similar hanger when the two are positioned in adjacent relationship upon a pole or the like.

Both in commercial establishments such as stores or cleaning and pressing shops and in home clothes closets or wardrobes, the storage of a plurality of garments on the usual clothes pole frequently results in excessive wrinkling of the garment due to the fact that they are packed together too closely. Such overcrowding can, of course, be prevented by providing a plurality of separate hooks upon which one hanger only is to be positioned or by providing special clothes poles or attachments for clothes poles which effectively convert the normally smooth continuous surface of the pole into a plurality of notches, ridges, or other hook-like arrangements serving the same function as a plurality of separate hooks. However, each of these arrangements imposes on the user the expense and chore of providing special equipment such as hooks or the like in order to solve what is essentially a nuisance problem.

It is thus an object of this invention to provide a garment hanger having as an integral part thereof a separating means which will inherently and automatically space adjacent hangers from each other when they are supported on any conventional continuously smooth surfaced pole or the like.

It is a further object of this invention to provide such a coat hanger separator means which is simple and inexpensive to manufacture, but is nonetheless durable and effective in use.

It is yet another object of this invention to provide such a separator means which is pivotally mounted on a hanger for motion between a first operative spacing position and a second retracted storage position.

It is an additional object of this invention to provide such a coat hanger separator which can be manufactured as an integral part of the hanger or can be mounted integrally thereon by the user and which is thus available for use without requiring the provision of other special equipment or facilities by the user.

Other objects, features, and advantages of the present invention will be more fully apparent to those skilled in the art from the following detailed description taken in connection with the accompanying drawings in which like reference characters refer to like parts throughout and wherein:

FIGURE 1 is a perspective view showing two adjacent hangers each having its separator horizontally extended in its operative spacing position.

FIGURE 2 is an elevational view, partly in section, showing the separators of FIGURE 1 in greater detail and showing in dashed lines the retracted storage position for one of the separators.

FIGURE 3 is a top view of the separator shown in FIGURE 2 and is taken generally on the line 3—3 of FIGURE 2, the manner of pivotal operation and locking being illustrated by the dashed line showing.

FIGURE 4 is a front elevational view of the separator structure shown in FIGURE 3.

FIGURE 5 is an exploded perspective view of the parts of the separator attachment before assembly with the hanger.

Turning now to the drawings, there is shown in FIGURE 1 a clothes pole **10** having a generally circular cross section and mounted in any convenient manner to support a plurality of garment hangers. By way of illustration, there is shown first and second hangers **11** and **12**, respectively, suspended in adjacently positioned relationship from the clothes pole **10**. The hangers **11** and **12** have bodies preferably made of wood, shaped to the conventional wishbone pattern and rounded or bent to conform to the rear shoulder contour of a garment such as the coat **13**.

Since the hangers **11** and **12** are identical in every respect, the following detailed description will be primarily directed to the structural features of hanger **11** with corresponding parts of hangers **12** being indicated by adding the prime symbol to the corresponding reference character.

The hanger **11** shown by way of example has the above noted arcuate and curved wishbone structure, but it will be understood that the hanger body could have any desired shape. The body of hanger **11** is supported from the clothes pole **10** by a hook having a first vertical portion **14***a* which extends through an aperture drilled in the center of the hanger **11**, as may be best seen in FIGURE 4. The bottom portion of the section **14***a* protrudes outwardly from the bottom of the hanger body and is curved upwardly in a hook **14***b* which securely attaches it to the hanger by seating in a second aperture in the hanger body. The vertically extending portion **14***a* is integral with a horizontal offsetting portion **14***c* which in turn integrally merges with a second vertically extending portion **14***d*. The top of the vertically extending portion **14***d* integrally merges with a reentrant oblique portion **14***e* which may, for example, conveniently make an angle of approximately 30° with the vertical side section **14***d*. The upwardly extending oblique portion **14***e* in turn merges with a symmetrically downwardly extending oblique portion **14***f* which in turn merges with a generally vertically downwardly extending opposite side portion **14***g*. The second side portion **14***g* is generally opposite to the first side portion **14***d*, but may flare slightly outwardly from exact parallelism therewith and does not extend downwardly as far as the bottom of portion **14***d*. The opening formed between the offset portion **14***c* and the second side portion **14***g* is made large enough to receive any conventional clothes pole or other hanger supporting means.

The supporting hook **14** formed by the above-described plurality of straight sections **14***d*, **14***e*, **14***f*, and **14***g* is thus adapted to make at least two and normally three points of contact with supporting rods of various sizes. Thus, as may be seen in FIGURE 4, the members **14***d*, **14***e*, and **14***f* are adapted to contact the rod **10** and in any event the two upper sections **14***e* and **14***f* will provide separate oppositely disposed weight bearing contact points. The hanger is thus stably supported on the rod **10** and is at least partially restrained from rotation about the rod to assist in preventing displacement of the separator member from its intended position and to facilitate the initial establishment of that intended position.

The separator or spacer member **15**, as may most clearly be seen in FIGURES 1 and 5, is formed from metal rod stock which may, for example, be of substantially ⅛" diameter and comprises a generally U-shaped re-entrant portion **15***a* the side members of which are adapted to seat around the vertical central portion **14***a'* of the hook **14'** of the next adjacent hanger **12**. Inasmuch as the separator member **15** is rigidly attached to the hanger **11** in a manner to be described below, this seating of the reentrant U-shaped portion **15***a* about the upright stem **14***a'* of the hook **14'** holds the two hangers **11** and **12** in spaced relationship by a predetermined minimum distance

without in any way interfering with the ready sliding or other handling of either of the hangers.

Turning again to FIGURE 5, it will be noted that the separator member **15** further comprises a pair of colinear generally horizontally extending spaced opposed pivot members **15***b* and **15***c*, respectively. Extending at right angles upwardly from the outermost ends of the members **15***b* and **15***c* are a pair of parallel arm members **15***d* and **15***e*, respectively, which in turn merge integrally in right angular or perpendicular relationship to a normally horizontally extending pair of arm members **15***f* and **15***g*, respectively, leading to the outermost edges of the reentrant U-shaped seating member **15***a*. It will be understood that in practice the separately indicated parts **15***a* through **15***f* are merely sections of a single piece of spring metal rod which is bent to the shape shown in FIGURE 5 by any convenient stamping or other process.

It will further be noted that the pair of horizontally extending opposed pivot members **15***b* and **15***c* can be brought closer to each other, as indicated by the arrows in FIGURE 5, when the opposed parallel sides **15***d* and **15***e* of the separator member are compressed against the resilience of the U-shaped member **15***a* which acts as a spring.

The separator member **15** in operation is seated in a bracket or shoe member **16** which in turn is attached to the body of the hanger. The shoe member **16** may, for example, comprise a back plate **16***a* having a surface contour adapted to seat on the surface of the hanger **11** and in which a pair of holes **16***b* are provided to receive screws or other fastening means for attaching the shoe **16** to hanger **11**. As may be seen in FIGURE 4, plate **16***a* is positioned on hanger **11** so that arm **15***f* and **15***g* are normally positioned above the top of the body of hanger **11** so that portion **15***a* will also be above the top of the body of hanger **12**.

The shoe **16** is provided at the lower horizontal edge of the back plate **16***a* with an upwardly rolled ear member **16***c* which has a radius of curvature substantially equal to the radius of the stock from which the separator member **15** is fabricated and which is otherwise shaped and positioned so as to be adapted to receive the two horizontally extending pivot members **15***b* and **15***c*. The ear member **16***c* thus has a length which is less than the length of the lower edge of the back plate **16***a*. In order to facilitate assembly, the width is also less than the maximum spacing between the members **15***b* and **15***c* which can be produced by separating these two members against the spring action of U-shaped member **15***a* to thereby fit members **15***b* and **15***c* into ear **16***c*. On the other hand, the length of the ear member **16***a* is great enough so that it may serve as a retaining pivot seat or sleeve for the two members **15***b* and **15***c*, when their outer edges are spaced apart by a distance equal to the width of the lower edge of the plate member **16***a*.

The outer edges of the members **15***b* and **15***c* (which are urged apart by the spring action of the member **15***a*) are confined to this maximum separation by the ear members **16***d* and **16***e* formed at the lower ends of the sides of the plate member **16***a*. When the separator **15** is in its horizontal operative position, the ear members **16***f* and **16***g* on the upper corners of the side of the plate member **16***a* serve not only to lock the separator **15** in its horizontal operative position, but also as a stop for arms **15***d* and **15***e* so as to maintain the above-noted maximum spacing of the outer edges of the pivot members **15***b* and **15***c* at a distance not greater than the width of the plate member **16***a*.

It will be noted that the upper pair of ear members **16***f* and **16***g* are bent inwardly in a semi-circular or U-shaped fashion to define a pair of seats into which the uprights **15***d* and **15***e* may be placed in locking relationship by first compressing the sides of the separator **15** against the action of the spring **15***a*, positioning the side members **15***d* and **15***e* adjacent the ears **16***f* and **16***g*, and then letting these members expand into the seats defined by the ears. This latter type of locking action is illustrated by the arrows in FIGURE 4.

From FIGURES 4 and 5 the manner of assembling and securing the separator **15** to the shoe **16** will also be apparent. In particular, it will be note that the shoe **16** is originally manufactured as shown in FIGURE 5 with the ears **16***d* and **16***e* extending outwardly substantially in the plane of the back plate **16***a* so that the members **15***b* and **15***c* can be spread apart and then inserted in the opposite ends of the rolled up ear **16***c*. The side members **15***d* and **15***e* of the separator **15** are then compressed until they seat against the end of ear **16***c*. The side members are held in this position while the ears **16***d* and **16***e* are bent forwardly as indicated by the arrows in FIGURE 5 until they assume a perpendicular relationship to the back plate **16***a* as shown in FIGURE 4. When the side members **15***d* and **15***e* are then released, the spring **15***a* will urge them apart until the outer sides of the upright members **15***d* and **15***e* are stopped against the perpendicular ears **16***d* and **16***e*.

The separator member **15** is thus permanently and securely held in pivotally mounted relationship to the shoe **16** by the lower horizontal ear **16***c* which forms a pivot housing or bearing for the two members **15***b* and **15***c* and by the ears **16***d* and **16***e* which act as stops to prevent the side members **15***d* and **15***e* from again being sprung far enough apart to remove the end members **15***b* and **15***c* from pivot seat **16***c*. The separator **15** is thus pivotally locked to the shoe **16**.

As indicated by the arrows in FIGURE 4, however, the side members **15***d* and **15***e* can still be compressed inwardly so that the distance between their outer edges is less than the distance between the inner edges of ears **16***f* and **16***g* whereby the separator **15** may be pivoted upwardly from the dotted line position of the separator **15'** (shown in FIGURE 2) to the horizontal solid line position in which the sides **15***d'* and **15***e'* have been compressed sufficiently to clear the inner edges of the ears **16***f'* and **16***g'* and have then been permitted to extend in locking relationship into the seats formed by these ear members.

As noted above, the separator **15'** on the hanger **12** is shown for convenience of illustration in FIGURE 2 both in solid lines in its horizontal or upward position where it is locked in the operative position by ears **16***f'* and **16***g'* and in its lowered or retracted position (indicated in dashed lines) wherein it is freed from the locking ears **16***f'* and **16***g'* and is pivoted downwardly so that the normally horizontally extending arms **15***f'* and **15***g'* have assumed a substantially vertical position. Since the arms **15***f'* and **15***g'* are longer than the normally horizontal arms **15***d'* and **15***e'*, the total protrusion from the hanger **12** is less in this dashed line or retracted position in which the arms **15***d'* and **15***e'* protrude horizontally. This lowered position may be used either to permit closer packing of the garments where this is positively desired or to facilitate packing or shipping of a plurality of hangers stacked in a single box. Of course, it will be understood that although the dashed line position is shown only for the separator **15'** for the sake of clarity of the drawing, the separator **15** also pivots to the downward retracted position in exactly the same manner.

As was noted above, and as can be seen from FIGURES 3 and 4, either of the separators **15'** or **15** is placed in the horizontal operative locked position by compressing the members **15***f* and **15***g* against the action of the spring **15***a*, thereafter pivoting the member **15***a* upwardly about the axis of ear **16***c* until the arms **15***d* and **15***e* are opposite ears **16***f* and **16***g*, and thereafter releasing the arms **15***f* and **15***g* so that the spring **15***a* can freely urge them into locked seated relationship within the curved ears **16***f* and **16***g*. Of course, the process of unlocking the separators so that

it may be pivoted downwardly to its retracted position is simply the opposite of the above-noted locking process. That is to say, the arms 15*f* and 15*g* are squeezed together and the separator may then freely pivot downwardly. In either the locking or the unlocking process, the ends of the ear 16*c* form the inner stop for the side members 15*g* and 15*e* whereas the perpendicular lower ears 16*d* and 16*e* form the outer stop for these side members. Thus, in either the horizontal locked operative position or the vertical retracted position, the separator 15 is pivotally secured to the shoe 16 in permanent fashion.

When the separator 15 is locked in its horizontal operative relationship, it assumes the position shown in FIGURE 1 in which the U-shaped re-entrant portion 15*a* securely seats around the upright 14*a'* of the hook 14' of adjacent hanger 12 thereby establishing a minimum predetermined distance between these two hangers 11 and 12. It will, of course, be understood that the separator 15 can be dimensioned to vary this predetermined distance as desired for any particular application. In one particular exemplary embodiment, however, it has been found convenient to provide side arms 15*f* and 15*g* having a total length of approximately 3" and to provide a re-entrant U portion 15*a* having a depth of about ½" from the end of the side arms. The shoe 16 may conveniently be made about 1" in height and 1½" in width so that the maximum normal spacing between the inside arms 15*f* and 15*g* would also be about 1½".

While a particular preferred exemplary embodiment of of the invention has been described in detail above, it will be understood that modifications and variations therein may be effected without departing from the true spirit and scope of the novel concepts of the present invention, as defined by the following claim.

I claim:

Separator means for a garment hanger of the type having a body member adapted to support a garment and having means to suspend said body member from a support, said separator means comprising: spacer means shaped to protrude a predetermined distance from said body member, said spacer means being formed by a pair of spaced apart and generally L-shaped arm members having a pair of opposed pivot members extending inwardly from corresponding ends thereof at substantially right angles to said arm members and being integrally joined by a U-shaped spring member at their other ends; and bracket means for detachably and pivotally mounting said spacer means on said body member for motion between a first retracted position and a second operative position, said bracket means comprising a plate member adapted to be secured to said hanger body member and a plurality of ears on said plate member, one of said ears being formed at the lower edge of said plate member and being adapted to receive said pivot members, a first opposed pair of said ears being formed at the bottom corners of said plate member and being adapted to act as stops to maintain said pivot members in said one ear, and a second pair of said ears being formed at the top corners of said plate to receive said L-shaped arms when said arms are compressed against the action of said spring and thereafter released into said ears to thereby lock said spacer means in said operatve position, said spacer means when in said operative position extending generally horizontally from said bracket mounting means by said predetermined distance to engage said U-shaped portion with an adjacent hanger suspended from said support to maintain said hangers in spaced apart relationship by at least said predetermined distance.

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