Dec. 16, 1958 B. SOLOW 2,864,147

CLOTHES HANGER AND ATTACHMENT THEREFOR

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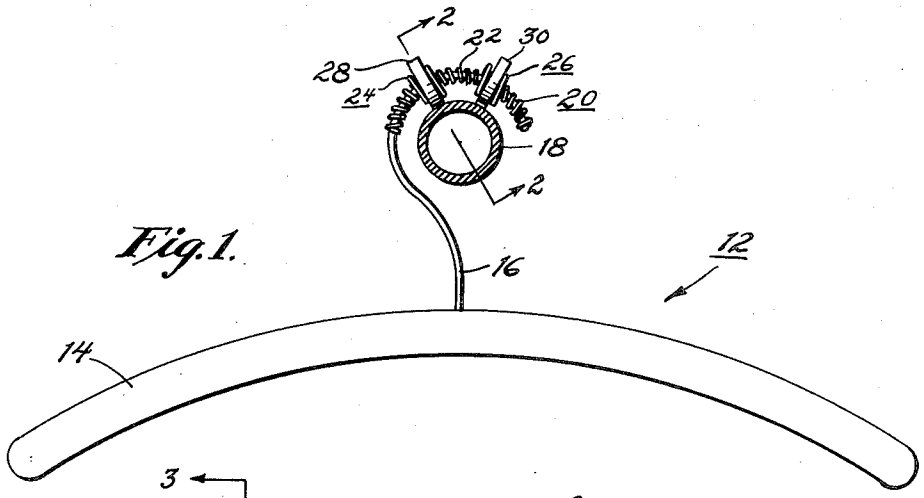


Fig. 1.

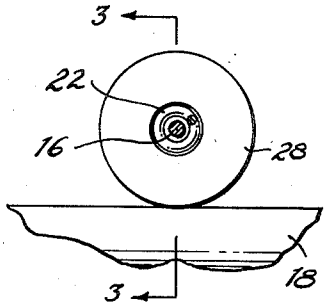


Fig. 2.

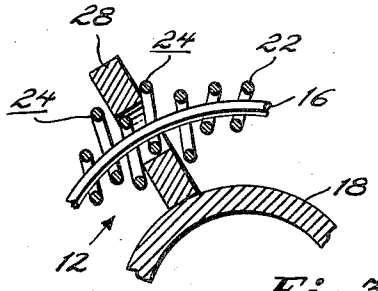


Fig. 3.

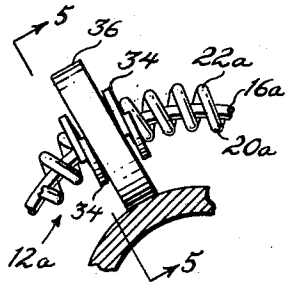


Fig. 4.

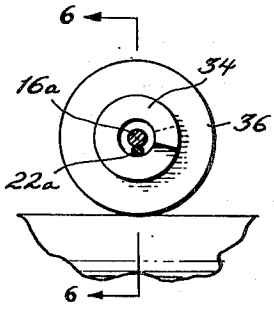


Fig. 5.

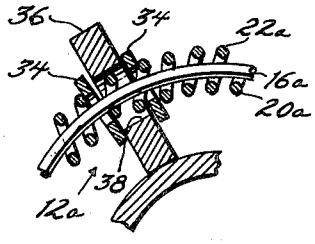


Fig. 6.

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CLOTHES HANGER AND ATTACHMENT THEREFOR

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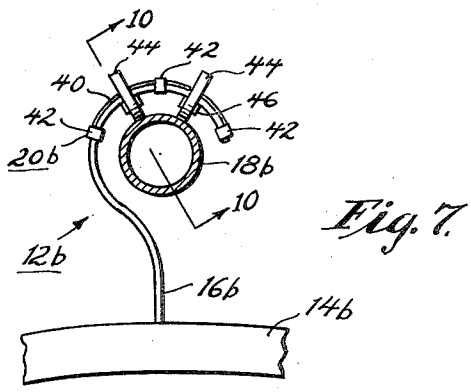


Fig. 7.

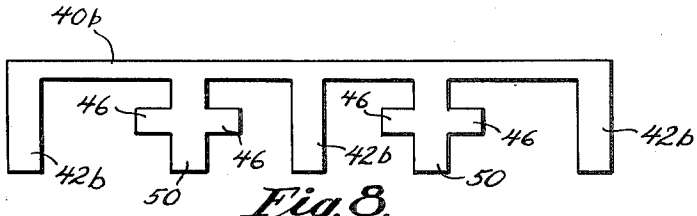


Fig. 8.

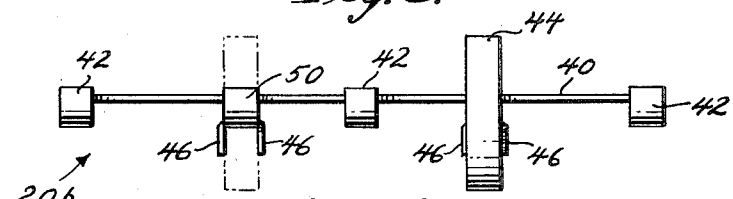


Fig. 9.

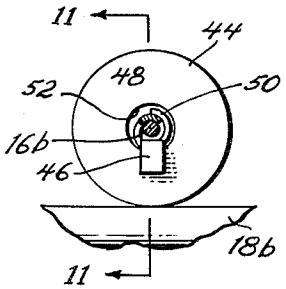


Fig. 10.

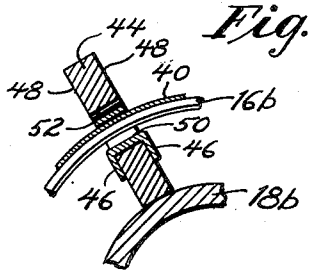


Fig. 11.

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CLOTHES HANGER AND ATTACHMENT THEREFOR

Benjamin Solow, North Hollywood, Calif.

Application November 5, 1957, Serial No. 694,649

5 Claims. (Cl. 24—230.5)

This invention is directed to a clothes hanger and attachment therefor, and more particularly to a clothes hanger which may be readily used along the supporting bar on which it is carried and to an attachment for converting a conventional clothes hanger into a clothes hanger which may be readily moved along its supporting bar.

It is an every day occurrence with conventional clothes hangers that the same are most difficult to move along their supporting bar, particularly when they are weighted down with a heavy garment, such as an overcoat or the like. This problem is greatly accentuated when there are a large number of closely spaced clothes hangers carried on a single supporting bar.

It has already been suggested to produce clothes hangers having rollers or other means in place of the conventional hook. In the main these roller-type clothes hangers have not been adopted because they are relatively expensive, and relatively cumbersome to use. Moreover, the adoption of other basic forms of clothes hangers would mean the necessity for discarding the enormous number of conventional type clothes hangers and also discarding or drastically modifying the existing facilities for the manufacture of clothes hangers. Moreover, the cost of the various forms of roller-type clothes hangers heretofore suggested is considerably greater than the cost of conventional clothes hangers.

This invention has as an object the provision of a clothes hanger which may be readily moved along the supporting bar on which it is carried.

This invention has as another object the provision of an attachment for conventional clothes hangers which will convert such conventional clothes hangers into a form in which the same may be readily rolled along a supporting bar.

This invention has as yet another object the provision of an attachment for a conventional clothes hanger which is cheap to manufacture and which may be mounted upon any type of conventional clothes hanger, and which will convert such clothes hanger into a clothes hanger which may be readily rolled along a supporting bar.

Other objects will appear hereinafter.

For the purpose of illustrating the invention there is shown in the drawings forms which are presently preferred; it being understood, however, that this invention is not limited to the precise arrangements and instrumentalities shown.

Referring to the drawings wherein like reference characters refer to like parts:

Figure 1 is an elevational view of a clothes hanger of the present invention mounted upon a supporting bar.

Figure 2 is a sectional view taken on line 2—2 of Figure 1.

Figure 3 is a sectional view taken on line 3—3 of Figure 2.

Figure 4 is a fragmentary view revealing a modified form of the clothes hanger embodiment of Figure 1.

Figure 5 is a sectional view taken on line 5—5 of Figure 4.

Figure 6 is a sectional view taken on line 6—6 of Figure 5.

Figure 7 is a fragmentary elevational view of another embodiment of the clothes hanger of the present invention mounted upon its supporting bar.

Figure 8 is a plan view of the spring portion of the clothes hanger of Figure 7 before such spring portion is bent into shape and before rollers are carried on said spring portion.

Figure 9 is an elevational view of the clothes hanger attachment portion of the clothes hanger shown in Figure 7, with one of the rollers presented in phantom line so as to reveal the structure of the retention means of the clothes hanger attachment.

Figure 10 is a sectional view taken on line 10—10 of Figure 7.

Figure 11 is a sectional view taken on line 11—11 of Figure 10.

Referring to the drawings and initially to Figures 1, 2 and 3 the clothes hanger of the present invention shown in the form of a coat hanger is designated generally as **12**. The clothes hanger **12** includes a garment carrying member **14** which may be formed of wood or plastic and which may be of conventional arcuate form. The hook **16** of clothes hanger **12** projects upwardly midway between the ends of clothes hanger **12** and may be of conventional construction formed of wire or the like. The clothes hanger **12** is carried upon the tubular supporting bar **18**, and a plurality of the clothes hangers **12** of the present invention may be spaced along side each other on the supporting bar **18**.

The clothes hanger attachment of the present invention is designated generally as **20** and comprises the helical spring **22**, which is preferably formed from spring steel or the like. The individual coils forming the spring **22** are of uniform width dimension except that two sets of enlarged coils designated **24** and **26** are provided on the spring **22**, the set of enlarged coils **24** being provided at a distance one-third of the length of spring **22** from one end of the spring **22** and the set of enlarged coils **26** being provided at a distance one-third of the length of spring **22** from the other end of spring **22**.

The construction of the set of enlarged coils designated **24** is shown particularly in Figures 2 and 3. It is to be understood that the structure of the set of enlarged coils **26** is identical to that of the set of enlarged coils **24**.

The enlarged coils **24** include coils of such width that the same serve as stops for retaining the roller **28** in position. The set of enlarged coils **26** similarly serves as stops to retain the roller **30** in position. The mounting of the roller **30** within the set of enlarged coils **26** is identical to the mounting of the roller **28** within the set of enlarged coils **24**, and will not be discussed herein.

The roller **28** (and the roller **30**) is preferably a polished annular disc of metal having a sufficiently large diameter opening at its center to embrace the hook **16**, but of smaller size than the diameter of the enlarged coils **24** which form the set. Thus, the roller **28** is carried upon the spring **22** in such disposition that it is freely rotatable, with its axis of rotation having a common center to the center of the longitudinal axis of the spring **22**, but with the enlarged coils preventing lateral movement of the roller **28**, namely movement of the roller **28** along the length of the spring **22**.

In its normal unmounted position the spring **22** may be straight, but when mounted upon the hook **16** the spring **22** conforms to the shape of the hook **16** while embracing the same.

As can be seen from Figure 1 when the attachment **20** is mounted onto the hook **16** the clothes hanger **12** may be rolled along supporting bar **18**. Due to the resilient nature of the hook **22**, and due to the even spacing of

the rollers **28** along the length of the spring **22**, the attachment may be mounted upon hooks of a wide variety of different dimensions and shapes and may function satisfactorily with such wide variety of dimensions and shapes. It is to be noted that the internal diameter of the coils of spring **22** may be appreciably larger than the outside diameter of the wire forming the hook **16**. This enables the attachment **20** to be mounted upon a wide variety of hooks.

The embodiment of the present invention designated **12*a*** shown in Figures 4, 5 and 6 generally resembles the embodiment **12** of Figures 1, 2 and 3 except that in place of the sets of enlarged coils **24** and **26** which were used as stops in the spring **22** of such embodiment, the spring **22*a*** of the clothes hanger attachment **20*a*** shown in Figures 4, 5 and 6 includes two pairs of clinched split washers **34** which are spaced on spring **22*a*** in the positions assumed by the sets of enlarged coils **24** and **26**, namely one of the pair of clinched split washers **34** is provided at a distance one-third of the length of spring **22*a*** from one end of the spring **22*a*** and the other pair of clinched split washers **34** is provided at a distance one-third of the length of spring **22*a*** from the other end of spring **22*a***.

Each of the pairs of clinched split washers **34** retain in position a roller **36** which generally resembles the rollers **28** and **30** of the embodiment shown in Figures 1 through 3. It will be noted that the coils of the spring **22*a*** are of uniform outside dimension throughout and that the opening **38** in roller **36** is somewhat greater than the outside dimension of the coils of spring **22*a***.

Since the coils of the spring **22*a*** have an inside diameter appreciably greater than the outside diameter of the hook **16*a*** of the clothes hanger **12*a***, the spring **22*a*** may be accommodated to a wide variety of hooks.

Referring to Figures 7 through 11, and initially to Figures 7, 10 and 11 there is shown therein another embodiment of the clothes hanger of the present invention designated **12*b***. The clothes hanger **12*b*** includes a garment carrying member **14*b*** and a hook **16*b***, the same generally resembling the garment carrying member **14** and hook **16** of the clothes hanger embodiment **12** shown in Figures 1, 2 and 3. The clothes hanger **12*b*** may be carried upon a supporting bar **18*b***, which is of conventional construction.

The clothes hanger attachment **20*b*** is formed from leaf spring **40**, which comprises an integral member formed from the blank **40*b*** of spring steel or other suitable metal. The clothes hanger attachment **20*b*** includes ring members **42** positioned at its ends and center. The ring members **42** are formed by rolling the tabs **42*b*** of blank **40*b*** about themselves. The circle encompassed within the ring members **42** has a larger diameter than the outside diameter of the hook **16*b*** of clothes hanger **12*b*** so that the ring members **42** embrace the hook **16*b***. The resiliency of the leaf spring **40** permits it to accommodate from its normal flat shape to the arcuate shape of the hook **16*b*** with which it is associated.

A pair of spaced rollers **44** which generally resemble the rollers **28** and **30** of the embodiment shown in Figures 1, 2 and 3 are carried on leaf spring **40**, each of the rollers being disposed intermediate one of the end ring members **42** and the central ring member **42**.

The rollers **44** are carried on the leaf spring **40** and retained in position thereon by means of the offset lugs **46** which embrace the end faces **48** of the rollers **44** for an appreciable distance. Each of the lugs **46** is carried on a tab **50** which is arcuately curved to provide a bearing surface for the inside of the roller **44** which it carries. Thus, each of the rollers **44** is shaped in the form of an annular disc, and is provided at its center with a circular opening **52**. The surface of such circular opening **52** is juxtaposed to the surface of tab **50** that is intermediate the offset lugs **46**.

The opening **52** within each of the rollers **44** is of a sufficiently large diameter to receive the leaf spring **40** and the hook **16*b***.

When the clothes hanger attachment **20*b*** is mounted on the hook **16*b*** it permits the clothes hanger **12** to be moved along the supporting bar **18*b***, the rollers **44** engaging the supporting bar **18*b*** in the manner shown in Figure 7.

The present invention may be embodied in other specific forms without departing from the spirit or essential attributes thereof and, accordingly, reference should be made to the appended claims, rather than to the foregoing specification as indicating the scope of the invention.

I claim:

1. An attachment for the hook of a clothes hanger for permitting the same to be rolled along a supporting bar, said attachment comprising a resilient spring having a plurality of spaced rings, each of said rings being of sufficient internal diameter to embrace the hook of the clothes hanger, a plurality of spaced rollers carried on said spring, each of said rollers being an annular disc whose central opening embraces the spring, the central opening of each of said rollers being of sufficient internal diameter to embrace both the spring and the hook of the clothes hanger when the rings of the spring are disposed upon the hook of the clothes hanger, and stop means on said spring on either side of each of said rollers for preventing lateral movement of said rollers.

2. An attachment for the hook of a clothes hanger for permitting the same to be rolled along a supporting bar, said attachment comprising a resilient spring having at least three spaced rings, each of said spaced rings having an internal opening of sufficient diameter to embrace the hook of the clothes hanger when the attachment is carried thereon, a pair of spaced rollers carried on said spring, each of said rollers being an annular disc, the central opening of each of said rollers being of sufficeint internal diameter to embrace both the spring and the hook of the clothes hanger when the rings of the spring are disposed upon the hook of the clothes hanger, and stop means on said spring on either side of each of said rollers for preventing lateral movement of said rollers.

3. An attachment for the hook of a clothes hanger in accordance with claim 2 in which the spring comprises a coil spring and in which the stop means comprise enlarged coils of said coil spring.

4. An attachment for the hook of a clothes hanger in accordance with claim 2 in which the spring comprises a coil spring and each of the stop means on said spring comprises a washer secured to the spring.

5. An attachment for the hook of a clothes hanger in accordance with claim 2 in which the spring is a leaf spring and in which the rings are integrally formed therefrom, with the stop means comprising offset members extending from said leaf spring.

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