Aug. 25, 1953 C. N. BERGSTROM 2,650,006

GARMENT HANGER

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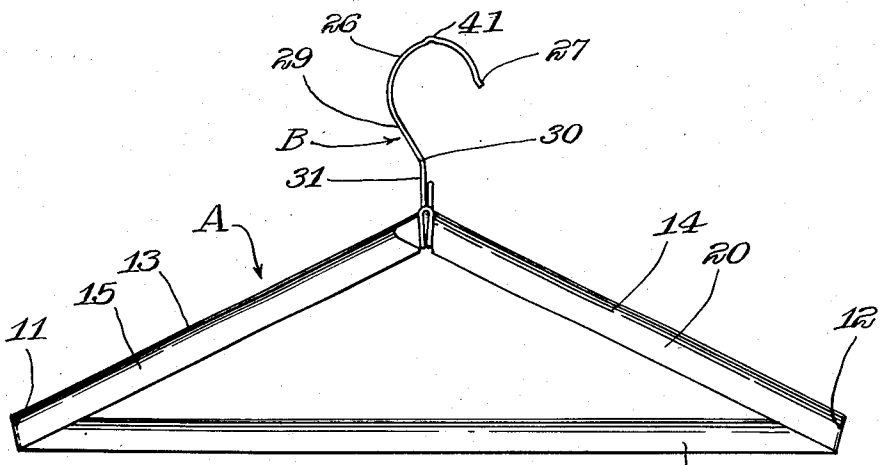


Fig. 1

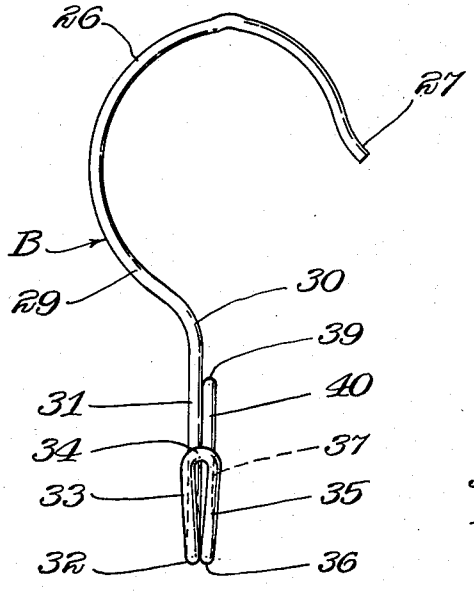


Fig. 2

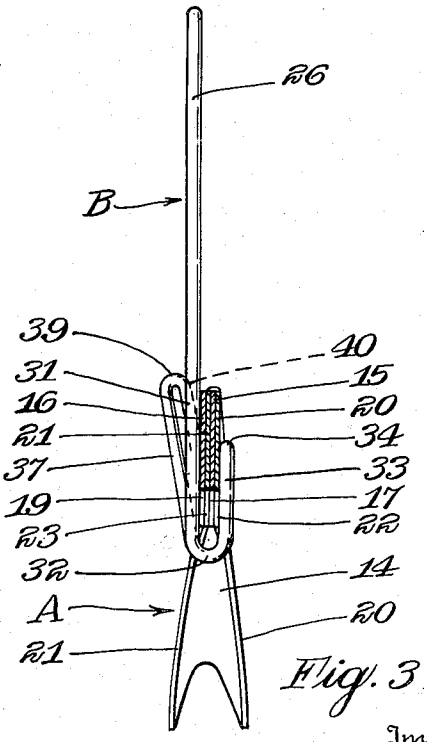


Fig. 3

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GARMENT HANGER

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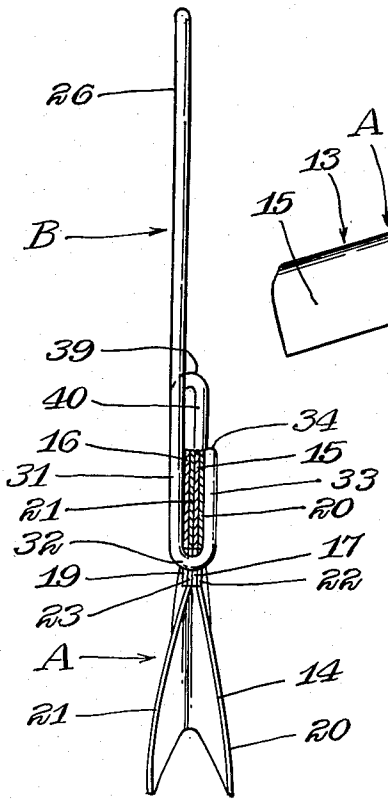


Fig. 4

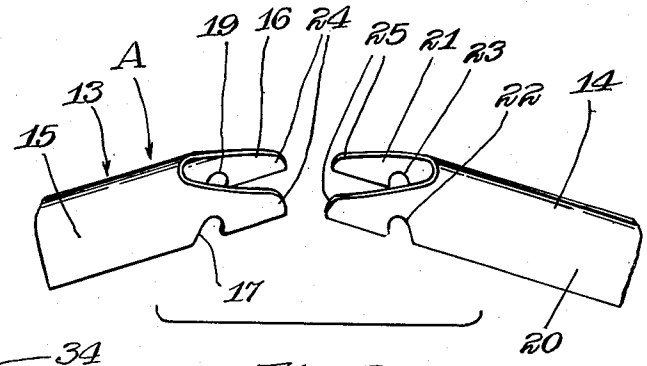


Fig. 5

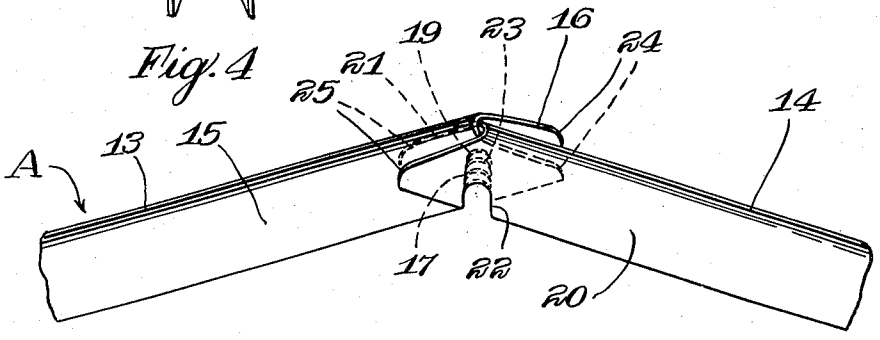


Fig. 6

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2,650,006

GARMENT HANGER

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8 Claims. (Cl. 223—88)

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My invention relates to an improvement in garment hanger hooks and deals particularly with a type of hook used for supporting a garment hanger formed of paper board, fiber, or other similar material.

For several years, garment hangers have been produced which include a cross bar and a pair of upwardly inclined arms connected to opposite ends of the cross bar and connected together by means of a hook. Both the cross bar and the upwardly inclined arms are generally channel shaped in formation and the arms nest over the cross bar in collapsed position of the hanger so that the hanger may be transported economically and stored in a minimum of space. The free ends of the inclined arms are usually connected together by a wire hook which serves the double purpose of connecting the arm ends and forming a means of supporting the hanger. These hooks are usually threaded through aligned openings in the ends of the arms. Considerable time is required for threading the hooks through these openings in assembling the hangers. Furthermore, the hooks are usually loosely supported and therefore may pivot or twist to some extent relative to the body of the hanger.

It is the object of the present invention to provide a hook which is designed to connect the free ends of the hanger arms and which may be attached thereto in a minimum time and with a minimum of difficulty. My hook is designed for attachment with the arms by a relative longitudinal movement of the hook so that once the ends of the arms are properly arranged the hook may be merely pulled into place.

A feature of the present invention lies in the provision of a hanger hook having a hook shaped lower end which may accommodate the overlapped ends of the hanger arms. The hook shaped lower end of the hook compresses the channel shaped arms into substantially flat relation and holds the arms firmly engaged together and firmly engaged on the hook.

A further feature of the present invention lies in the provision of a hanger hook having a hook shaped lower end for embracing the extremities of the hanger arms and in providing a resilient locking element which locks the hanger arms from accidental disengagement. A spring arm having an off-set locking end is provided in the path of entry of the hanger arms into the hook shaped lower extremity of the hook. As the flattened ends of the hanger arms are inserted into the hook shaped lower end of the hanger hook, this resilient arm is urged out of normal position. However, as the ends of the

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hanger arms become fully engaged into the hook-shaped lower end of the hook, the off-set end of the resilient arm snaps over the flattened ends of the hanger arms and holds these ends engaged with the hook.

A feature of the present invention lies in the fact that my hook becomes firmly attached to the ends of the arms and resiliently engages these arm ends forming a firm connection between the arms and between the hanger body and the hook. At the same time much of the difficulty previously involved in assembling the hanger is obviated by my hook construction.

These and other objects and novel features of my invention will be more clearly and fully set forth in the following specification and claims.

In the drawings forming a part of my specification:

Figure 1 is an elevation view of a hanger showing my hook attached thereto.

Figure 2 is a front elevational view of the hook removed from the hanger.

Figure 3 is a side elevational view partly in section showing the manner in which the resilient arm is bent out of normal position during the insertion of the arm ends with the lower portion of the hook.

Figure 4 is a view similar to Figure 3 showing the position of the hook after attachment with the hanger.

Figure 5 is a perspective view of the hanger arm ends in spaced relation showing the general construction thereof.

Figure 6 is a view similar to Figure 5 but showing the arm ends in overlapping relation.

The hanger A is in general formed similarly to the hangers described in my previous Patent No. 2,296,624. The hanger A includes a cross bar 10 which is foldably connected along U-shaped hangers 11 and 12 to upwardly inclined arms 13 and 14. The cross member 10 as well as the arms 13 and 14 are U-shaped or inverted channel shaped in cross section, thus forming a rigid support for garments. In view of the cross sectional shape of the cross bar and the arms, the arms 13 and 14 may be folded into overlapping relation overlying the cross bar 10 during transportation and storage. When the hanger is to be used the arms 13 and 14 are folded outwardly from the cross bar 10 until they intersect at their ends as illustrated in Figure 1 of the drawings. The hook B is then attached to the arm ends.

As indicated in Figure 5 of the drawings the overlapping upper ends of the arms 13 and 14 are

provided with notches which are aligned in erected condition of the hanger. The sides 15 and 16 of the arm 13 are provided with aligned notches 17 and 19 therein spaced from the free end of the arm 13. Similarly the sides 20 and 21 of the arm 14 are provided with notches 22 and 23 respectively which are oppositely aligned. In practice the ends of the arms are usually unlocked as illustrated in Figure 6 of the drawings by placing one of the sides 15 or 16 of the arm 13 between the sides 20 and 21 of the arm 14, or by placing one of the sides 20 or 21 of the arm 14 between the sides 15 and 16 of the arm 13. When thus engaged the notches 17, 19, 22 and 23 are aligned for engagement with the hook B. It will also be noted that the ends of the sides of the two arms are rounded so as to permit overlapping of the arm ends in erected condition of the hanger. The ends of the arm sides 15 and 16 are rounded as indicated at 24 while the ends of the arm sides 20 and 21 are rounded as indicated at 25.

The hook B is provided with a curved upper end 26 which terminates in an outwardly curved extremity 27. The opposite side of the rounded end 26 of the hook is connected by a relatively straight portion 29 to a reversely curved portion 30 which extends to form the hook shank 31. The hook shank 31 is relatively straight to a point adjacent the lower end of the hook. The shank 31 at its lower end is bent at 32 to form an upwardly directed hook portion 33 generally parallel to the straight shank 31. This parallel hook portion 33 is connected by an upper rounded portion 34 to a downwardly extending hook portion 35 substantially parallel to the portion 33 but inclined slightly toward the hook portion 33 at its lower extremity.

At its lower end the hook portion 35 is reversely curved at 36 to provide an upwardly directed arm 37 which is generally parallel to and alongside of the shank 31. The upper end of the upwardly extending hook portion 37 is connected by a curved portion 39 to the off-set extremity 40. The off-set extremity 40 terminates in closely spaced relationship to the curved upper ends 34 of the hook portions 33 and 35.

In other words, the lower end of the hook is reversely bent upwardly to form a hook shaped element designed to embrace the flattened overlapping ends of the hanger arms. The arm 37 forms a resilient arm supporting the off-set end 40 in the path of moveemnt of the overlapped hanger arm ends into and out of the hook shaped lower end of the hook. This resilient arm 37 allows the off-set end 40 to be forced out of the path of movement of the overlapped hanger arm ends as they are being drawn downwardly into the hook shaped lower end of the hook. However, as soon as the overlapped ends of the hanger arms are fully within the hook shaped lower end of the hook the resilient arm 37 springs the off-set end 40 back over the overlapped ends, holding them firmly engaged within the hook shaped lower end of the hook.

It will be noted that the rounded or curved portions 32 and 36 of the hanger extend into the aligned notches in the overlapped ends of the hanger arms when the hook is in place, thus holding the arms engaged with the hook and preventing the arms from being pulled longitudinally out of the hook shaped lower end of the hook. Thus once the hook is in place the arms are firmly held by the hook and can not be pulled out of engagement therewith.

It will be noted that a slight upward indentation 41 is provided in the curved upper end 26 of the hook in substantial alignment with the shank 31. This upward identation is designed to center the hook upon the support end so that the shank of the hook will be located directly below the indentation when the hanger is supporting a garment or the like.

In accordance with the patent statutes, I have described the principles of construction and operation of my garment hanger hook and while I have endeavored to set forth the best embodiments thereof, I desired to have it understood that obvious changes may be made within the scope of the following claims without departing from the spirit of my invention.

I claim:

1. A garment hanger and supporting means including a pair of upwardly converging arms which are generally U-shaped in cross section, said arms having free upper ends, the arms including aligned notches in opposite sides of each of the arms near the free ends thereof, the notches of the two arms registering when the ends of the arms are overlapped, the supporting means including a hook having a hook-shaped upper end, and a hook shaped lower end engaging opposite sides of the overlapped arm ends, the lower extremity of the hook shaped lower end extending in said notches for holding said arm ends from separation.

2. The structure described in claim 1 and including means on the hook engaging the arms opposite the lower extremity of the hook shaped lower end thereof for holding said overlapped arm ends engaged in said hook shaped lower end.

3. The structure described in claim 1 and including a resilient arm secured to said hook shaped lower end, and means on said arm engaging over said overlapped arm ends opposite the notches therein to hold the lower extremity of the hook shaped lower end engaged in said notches.

4. A garment hanger hook including a rounded hook shaped upper end and a downwardly extending shank thereupon, a bend at the lower end of said shank connecting said shank with a substantially parallel up-turned portion in spaced parallel relation with said shank, a substantially parallel hook portion connected to said upwardly extending hook portion and terminating at its lower end in a bend similar to and adjacent the bend connecting the shank with the up-turned hook portion, an upwardly extending arm connected to said last named bend and extending upwardly in substantially parallel adjacent relation to said shank, and the off-set end on said arm extending toward said downwardly extending hook portion.

5. The structure described in claim 4 in which the off-set end is bent downwardly.

6. A garment hanger including a cross bar portion and a pair of arms connected to opposite ends of said cross bar and extending upwardly in converging relation with the ends of the arms in overlapping relation, notches in the overlapping ends of said arms, said notches being in registry with one another, and hook means including a hook shaped upper end and means on its lower end engaging in said registering notches to hold said arms in overlapping relation, the lower end of said hook means including arm means for clamping said arms together.

7. A garment hanger and supporting means including a pair of upwardly converging arms

which are generally U-shaped in cross section, said arms having free upper ends, the arms including aligned notches in opposite sides of each of the arms near the free end thereof, the notches of the two arms registering when the ends of the arms are overlapped, the supporting means including a hook having a hook-shaped upper end, a hook shaped lower end engaging opposite sides of the overlapped arm ends, the lower extremity of the hook shaped lower end extending in said notches for holding said arm ends from separation, a resilient arm secured to said hook shaped lower end and including an off-set upper end extending over said overlapped arm ends opposite the notches therein engaged in said lower extremity of the hook shaped lower end to hold said arm ends from disengagement with said hook shaped lower end.

8. A garment hanger and supporting means including a pair of upwardly converging arms which are generally U-shaped in cross section, said arms having free upper ends, the arms including aligned notches in opposite sides of each of the arms near the free ends thereof, the notches of the two arms registering when the ends of the arms are overlapped, the supporting

means including a hook having a hook-shaped upper end, a hook shaped lower end engaging opposite sides of the overlapped arm ends, the lower extremity of the hook shaped lower end extending in said notches for holding said arm ends from separation, a resilient arm extending upwardly from said hook shaped end and having a downturned extremity at its upper end, said down-turned extremity engaging against the overlapped arm ends when engaged in said hook shaped lower end to hold said arm ends thus engaged.

CARL N. BERGSTROM.

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