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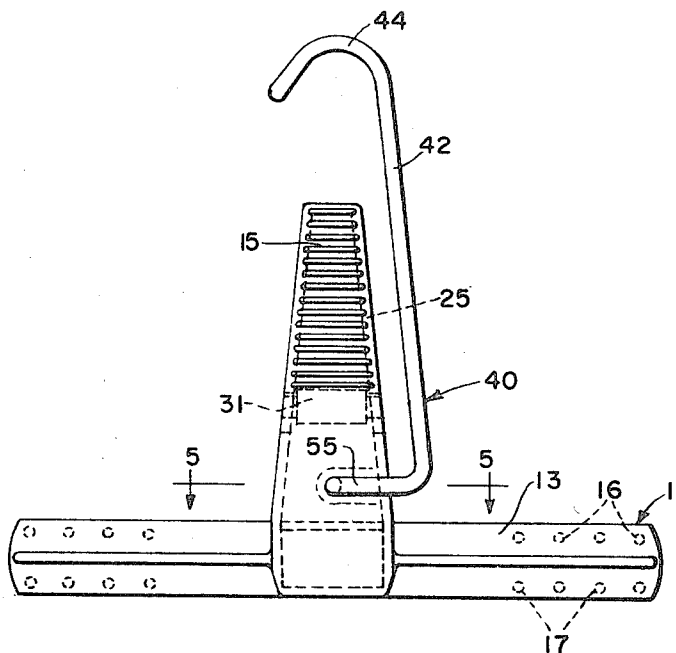
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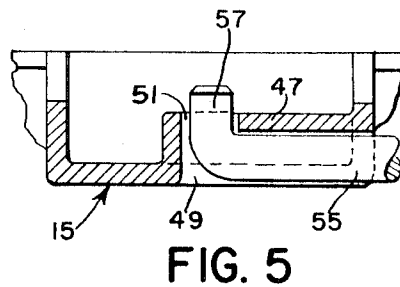
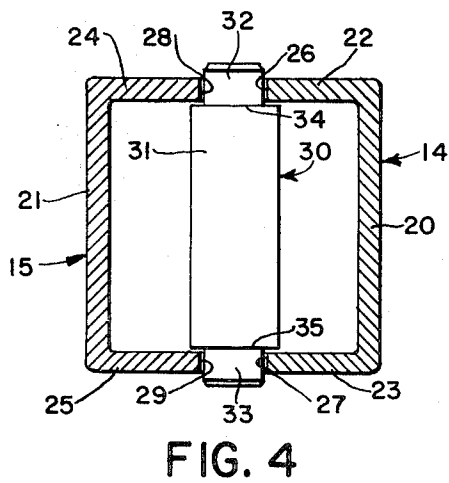
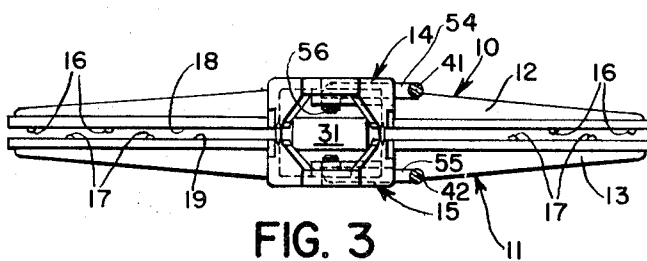
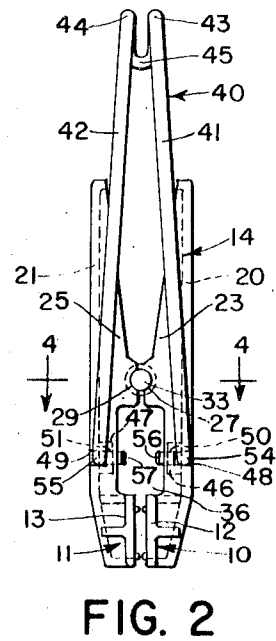
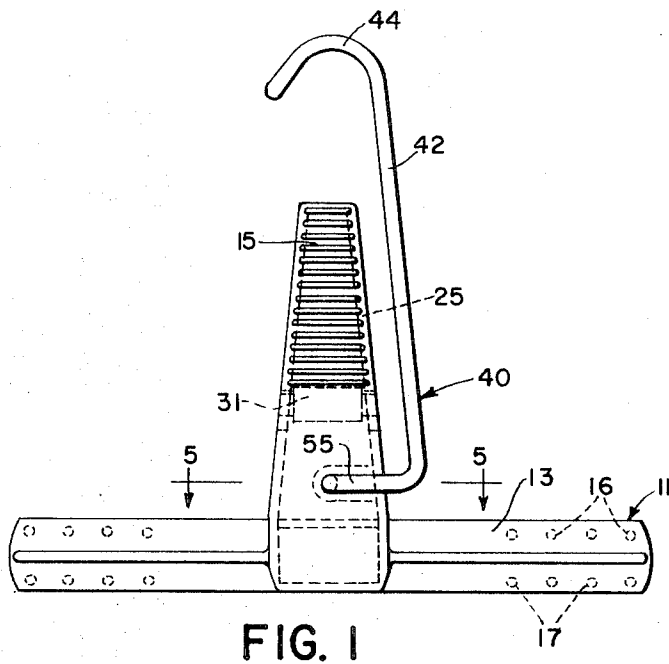
[54] **PANTS HANGER**
 11 Claims, 5 Drawing Figs.

[52] U.S. Cl. 223/96
 [51] Int. Cl. A47j 51/14
 [50] Field of Search 223/96, 91,
 90; 211/113, 89

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ABSTRACT: A pants hanger composed of a pair of inverted T-shaped members having a horizontal pivotal connection midway between the upper and lower portions and a single resilient wire element that extends from a common upper hook portion, a pair of shank portions positioned alongside the stem portions of the T-shaped members, and inwardly projecting lower end portions that engage the T-shaped members beneath the horizontal pivotal connection, the wire element being under stress to bias the lower horizontal bar portions toward one another.





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PANTS HANGER

BACKGROUND OF THE INVENTION

This invention relates to a pants hanger being composed of four parts all of which are held together by a single resilient wire element that forms the hook or hanger portion of the device. It has heretofore been known to provide a single wire element that is prestressed to compress the horizontal sections of a pants hanger together. For example, such a device is shown in U.S. Pat. No. 3,061,155 issued to Van Dusen on Oct. 30, 1962. However, in the latter patent, the horizontal members contact the upper ends of the garment but pivot about a vertical axis at one end of the horizontal members. Thus, the pressure against the garment varies in accordance with the distance from the pivot and often has a wedging effect on the garment adjacent the pivot.

There have been other devices which provide for horizontal members that engage the tops of the garment to be hung and which have a spring-loaded biasing element that biases the members toward one another with substantially equal pressure throughout their length. However, such devices have rather a complicated and somewhat expensive spring arrangement that usually incorporates some type of overcenter lock in order to apply the spring pressure and/or to open and close the two members. With such an overcenter lock, the thickness of the fabric has some bearing upon the force of the spring. Also, since in most instances such hanger devices are used to hang trousers, the question of whether cuffs are on the trousers or not has a bearing upon the force of the spring which holds the two members together. In many instances, therefore, the latter type of hanger device has not proven satisfactory since they must be designed either for cuffed trousers or for uncuffed trousers and when one is used with the wrong type of hanger, it will either hang improperly or not hang at all.

SUMMARY OF THE INVENTION

With the above in mind, it is the primary purpose of the present invention to provide a very simple pants hanger device that is composed of only four parts. The basic ingredients of such a hanger are a pair of inverted T-shaped compressor members that bear against a horizontal pivot pin and a single resilient wire element that has a central portion forming the hook and a pair of shanks continuing downwardly from the hook alongside the stems of the T-shaped members and lower portions that extend into and engage the stem portions beneath the pivot pin. The wire element is stressed when mounted on the T-shaped members so that the lower horizontal portions are always biased toward one another and held in engagement with the pin.

More specifically, it is an object of the present invention to provide stem portions of the T-shaped members that are U-shaped in horizontal cross section so as to have a vertical wall and a pair of flanges or sidewalls that extend toward the opposite stem section. The sidewalls of the respective sections are coplanar with one another and have edges forming half-trunnions receiving the horizontal pivot pin. The trunnion portions are merely half circles that rest against the surface of the pin. The biasing force of the wire element retains the stem portions on the horizontal pin.

It is still a further object of the invention to provide in the outer surfaces of the vertical walls of the stems horizontal grooves that receive horizontal sections at the lower end of the wire element and inwardly extending openings that receive second horizontal sections of the wire element. The grooves and sections ensure that the lower portions of the wire element are locked in the stem portions of the compressor members.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a front view of the hanger device.

FIG. 2 is an end view of the hanger device as shown in FIG. 1.

FIG. 3 is a top view of the hanger device with the wire hanger portion being shown in section.

FIG. 4 is an enlarged sectional view taken substantially along the line 4-4 of FIG. 2.

FIG. 5 is an enlarged sectional view taken substantially along the line 5-5 of FIG. 1.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The hanger device is composed of a pair of inverted T-shaped compressor members 10, 11 that include horizontal compressor portions 12, 13 and vertical stem portions 14, 15 respectively that fit upwardly from the central part of the respective horizontal portions 12, 13. The horizontal portions 12, 13 have inwardly projecting lugs 16, 17 extending from opposed bases 18, 19 respectively. As is clearly apparent, the horizontal portions 12, 13 are the portions of the compressor members 10, 11 that engage the cuff of the trousers. The lugs 16, 17 are spaced horizontally along the respective members 10, 11 and are offset horizontally from the lugs on the opposite member. By such an arrangement, the trouser cuffs are better held on the hanger.

The vertical or stem portions 14, 15 are U-shaped in horizontal cross section (see FIG. 4) having main vertical walls 20, 21 and inwardly projecting flanges or sidewalls 22, 23 and 24, 25 respectively. The sidewalls 22, 24 and 23, 25 are coplanar to one another. The flanges 22-25 have inner edges, part of which form trunnion surfaces 26, 27, 28 and 29 respectively which are slightly less than half-circular surfaces. A horizontal pivot pin 30 is provided at the trunnions 26-29 and form with the respective trunnions a horizontal pivotal juncture between the two members 10, 11. The pin 30 has an enlarged central portion 31 and two reduced end portions 32, 33, the latter being received by the trunnion edges 26, 28 and 27, 29 respectively. The juncture between the reduced ends 32, 33 and the enlarged portions provide radial shoulders 34, 35 that are engageable with the inner surfaces of the flanges 22, 24 and 23, 25 respectively and which prevent axial shifting of the respective members 14, 15. Above the pivot pin 30, the edges of the flanges 22-25 diverge upwardly and outwardly, such being best shown in FIG. 2, so that the upper ends of the vertical portions 15, 16 may be moved toward and away from one another. Beneath the pivot pin 30, the flanges 22-25 are recessed to provide a horizontal opening 36 that may be utilized to receive the cuffs of a pair of trousers if desired.

A one-piece, relatively heavy and resilient wire element 40 is utilized to hold the members 10, 11 together on the respective pivot pin 30. The wire element is composed of a pair of shanks 41, 42 that are positioned outwardly and alongside the respective flanges 23, 25, and upper hook portions 43, 44 that extend in archlike fashion over the upper ends of the vertical portions 14, 15 to a common point or end 45 of the hook which is the central portion of the wire element 40.

The walls 20, 21 have integral horizontally extending U-shaped portions 46, 47 that form horizontal surface grooves 48, 49 in the walls 20, 21. In communication with the respective grooves 48, 49 is a pair of openings 50, 51 extending inwardly and in normal relation to the grooves. The openings 50, 51 are substantially in the center of the vertical portions 14, 15.

Continuing inwardly from the lower ends of the shanks 41, 42 of the hook or wire element 40 is a pair of integral and horizontally extending sections 54, 55 that seats in the respective grooves 48, 49. Terminating the horizontal sections 54, 55 are a pair of inwardly projecting nub or lug portions 56, 57 that seat in the respective openings 50, 51.

As may best be seen from reviewing the drawings, the wire element 40 is of a heavy-gauge wire and is placed under considerable stress when the shanks 41, 42 are spread apart so as to insert the portions 54, 55 in the grooves 48, 49. Consequently, the lower horizontal portions 12, 13 of the hanger are biased toward a closed condition and the horizontal portions 54, 55 and the inwardly projecting portions 56, 57 are locked in the respective grooves 48, 49 and 50, 51. Also, the

fact that the portions 54, 55 are horizontal and are seated in the horizontal grooves 48, 49 will prevent pivoting or shifting between the wire element 40 and the remainder of the hanger device. Also, the biasing force of the hanger element 40 will retain the trunnion edges 26—29 on the pivot pin 30.

To operate the hanger, the upper end portions of the vertical or stem portions 14, 15 are compressed to open the lower portions 12, 13 and to thereby permit entry of the cuffs of a trouser. The cuffs may be clamped between the horizontal portions 12, 13 or may be moved into the horizontal groove 36. Serrated surfaces as are shown in FIG. 1 are provided on the upper portions of the stems 14, 15 to aid in gripping those portions. Since the hanger or hook portions 43, 44 are directly above the vertical portions 14, 15, the hanger will be perfectly balanced and will not tend, due to its own construction, to tilt to one side.

We claim:

1. A pants hanger comprising: a pair of vertically disposed members positioned in side-by-side relation and composed of a pair of lower elongated horizontal parts in opposed relation to one another and a pair of vertically disposed parts joined with said horizontal elongated parts at their respective mid-points and extending upwardly therefrom to upper ends; and a single prestressed resilient wire element having a pair of vertical shank portions positioned outwardly of and alongside the respective vertically disposed parts, a pair of inwardly projecting lower portions integral with the respective shank portions connectedly engaging lower parts of said vertically disposed parts, and upper hook portions integral with said upper ends of said shank portions extending over said vertically disposed parts to a common juncture defining a point of a hook; and horizontal pivot means between said members parallel to said horizontal parts and located above the lower portions of said wire element so that the stress within said wire element will bias the horizontal parts together and the upper ends of said vertically disposed parts apart.

2. The structure as set forth in claim 1 characterized by said vertical parts having respective adjacent inner sides facing one another and respective outer sides with said outer sides having horizontal surface grooves beneath the horizontal pivot means extending from the edges of said vertical part and aligned horizontal openings extending inwardly and normal to the outer surfaces adjacent inner ends of said grooves, and each of the pair of inwardly projecting lower portions of the wire element include a first horizontal section seated in the respective horizontal groove and an integral second horizontal section normal to the first that seats into a respective horizontal opening.

3. The structure as set forth in claim 1 in which each of the vertical portions are U-shaped in horizontal cross section with each having a vertical wall forming the bight and a pair of vertical sidewalls normal to and extending from the respective vertical wall toward the other vertical part and the edges of the sidewalls have notches therein at the horizontal pivot means, and the latter includes a horizontal pin received in the notches.

4. The structure as set forth in claim 3 in which the pin has radial shoulders on its ends that are engaged with the inner surfaces of the sidewalls to thereby restrict the vertical portions against relative axial movement.

5. The structure as set forth in claim 3 in which the vertical sidewalls of one vertical portion are coplanar with the sidewalls of the other vertical portion and the edges of the sidewalls are spaced apart to permit the members to move

toward one another above the pivot means and to separate beneath the pivot means.

6. The structure as set forth in claim 5 in which the respective aligned edges diverge from one another above the pivot means.

7. A clothing hanger composed of a pair of T-shaped members having vertical portions in opposed relation to one another and integrally opposed horizontal portions projecting outwardly from and to opposite sides of the lower ends of the vertical portions, said vertical portions having inner sides facing one another across a transverse expanse and having horizontal grooves therein; a horizontal pivotal juncture above the grooves and between the vertical portions of the members permitting the vertical portion to move toward and away from one another across the expanse; a single piece resilient wire element having a pair of vertical shank portions disposed alongside and outwardly of the vertical portions and upper hook portions extending from the upper ends of the shanks in archlike fashion to form a hook over the upper ends of the vertical portions to a juncture therebetween defining a point of a hook, said wire element further having inwardly projecting horizontal portions extending from the lower ends of the shank portions and seated in the horizontal grooves beneath the horizontal juncture, said element being stressed to create a biasing of said horizontal portions toward one another.

8. A pants hanger comprising: a pair of rigid inverted T-shaped members in opposed relation to one another and including horizontal bar portions and vertical stem portions, the latter having inner surfaces facing one another and outer surfaces; a pair of hanger-receiving recesses, one each formed in the respective members, the recesses including horizontal grooves opening to the outer surfaces of said stem portions and continuing into second grooves normal to the first grooves; a pair of flanges on each of the respective stem portions extending inwardly toward the opposite stem portion and with each having a trunnion surface spaced above the horizontal grooves; a horizontal pin extending between said trunnion surfaces to effect a journal between the vertical portions for permitting movement of the vertical portions above the pin to move toward and away from one another and said horizontal portions to shift away and toward one another respectively; and a single resilient wire hanger member having a central and common hook portion and a pair of shanks positioned alongside and outwardly from the stem portions and extending downwardly to lower portions that include horizontal first sections seated in the respective horizontal grooves and second sections seated in the second grooves, said wire hanger member being under stress when said lower portions are seated in the grooves to thereby bias the lower portions toward one another.

9. The structure as set forth in claim 8 in which the horizontal portions have inner surfaces facing one another and inwardly projecting and horizontally spaced lugs extending from the faces with the lugs of one surface being horizontally offset from the lugs of the other surface.

10. The structures as set forth in claim 8 in which the second grooves are openings extending normal to the surfaces of the vertical portions and from the inner ends of the horizontal grooves.

11. The structure as set forth in claim 8 in which the flanges have recesses formed above the horizontal portions forming a cuff opening for receiving the cuffs of trousers above said horizontal portions.