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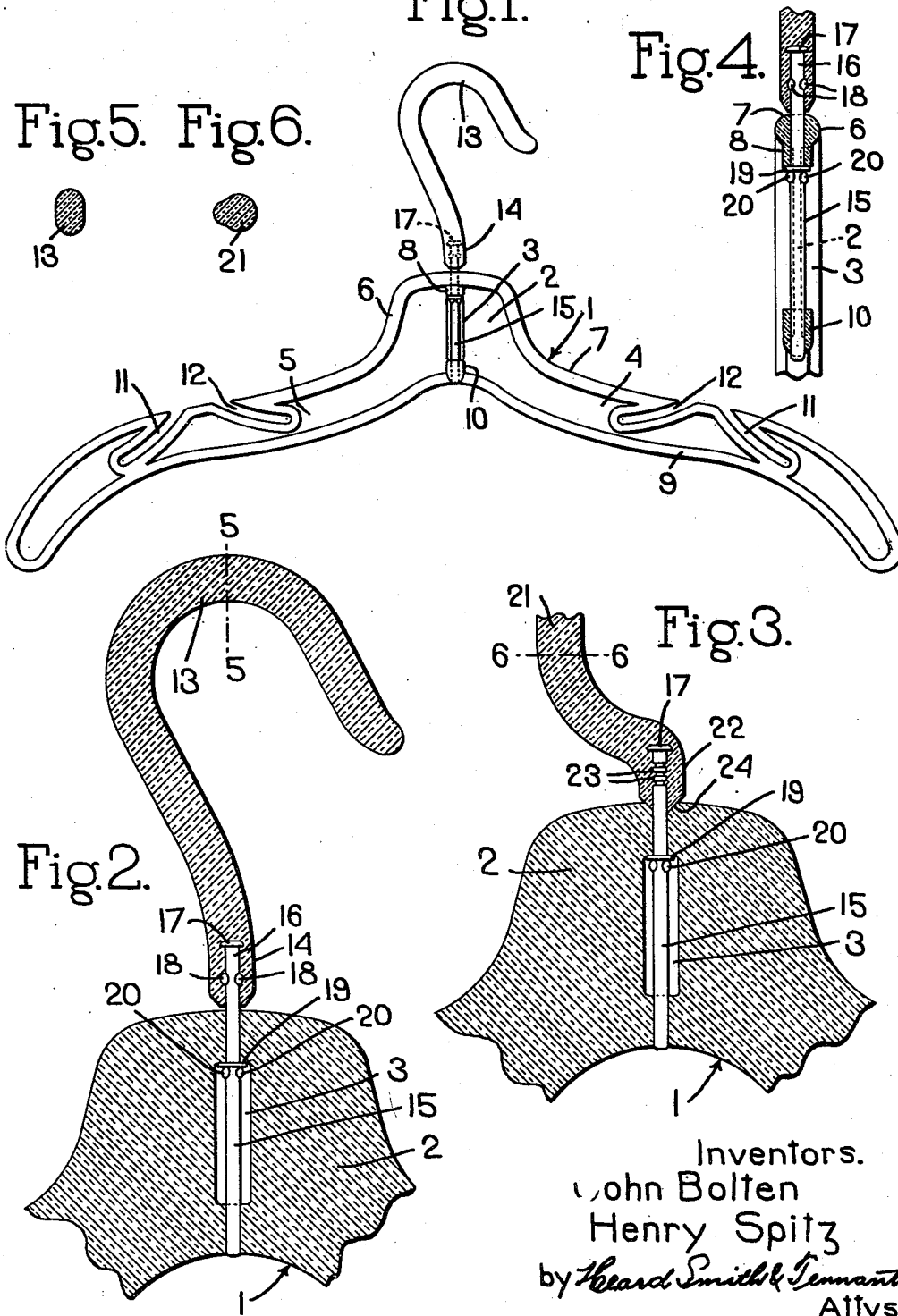
GARMENT HANGER HAVING SUSPENSION MEMBERS OF PLASTIC MATERIAL

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Fig.1.

Fig.4.

Fig.5. Fig.6.



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GARMENT HANGER HAVING SUSPENSION
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This invention relates to improvements in garment hangers and the principal object of the invention is to provide a garment hanger having a body provided with suitable outwardly and downwardly curved arms to support the shoulder portion of the garment and having a preferably hook-shaped suspension member formed of rigid plastic, preferably moulded thermoplastic material, of greater diameter or thickness than the suspension members heretofore employed and which preferably has a swivel connection to the central portion of the body.

Usual garment hangers are made of wood bent or cut to provide outwardly and downwardly curved arms and are suspended by a hook-shaped wire of small diameter, which is less than one-eighth inch in diameter, and the shank of which is rigidly anchored in the central portion of the hanger and extends vertically upwardly therefrom, with a hook extending in the central longitudinal plane of the hanger, and so anchored to the body as always to maintain the hook in that position.

The surfaces of such wooden hangers are likely to be rough or to become frayed from use and to present splinters which will snag delicate fabrics of dresses or the linings of heavier garments, while the material of the present invention is such as always to present smooth surfaces which will not injure the garments.

Other usual forms of hangers are formed of wire of less than one-eighth inch in diameter, bent to suitable form, as above described, but by reason of the small diameter of the wire are likely to form permanent unsightly creases in the shoulder portion of garments which are suspended upon them for a considerable time.

By reason of the present invention the neck and arm portions of the hanger are of such thickness and present such gently rounded surfaces as to avoid creasing of the garment.

Another object of the invention is to provide a hook-shaped suspension member for hangers in which the shank has a swivel connection to the central portion of the body so that several of the hangers may be suspended upon rods or bars located more closely to the ends of a closet or cabinet with the hangers extending at any desired angle to the axis of the supporting bar, thereby enabling the hangers to occupy less widthwise space of the closet or cabinets such as are used in clothing departments of stores.

Where garments are stored on hangers within cabinets or closets in the garment departments of stores and displayed to customers, the clerk

grasps the hook-shaped portion of the hanger to remove it and the garment suspended thereon from the cabinet and usually holds it up for inspection by the hook-shaped portion of the hanger both as to the front and back of the garment. In doing so the weight of the garment causes the hook uncomfortably to press upon the hand of the clerk and frequently causes uncomfortable blisters or callouses upon the clerk's hand.

Furthermore, these hooks of narrow diameter do not slide readily upon the supporting bars of the cabinet.

A further object of the invention is to provide a suspension hook for hangers in which the hook-shaped portion, which is grasped in handling the garment, will be of sufficient thickness and will present such gently rounded portions to avoid injury to the hand and which will slide more easily upon the supporting rods of the closet or cabinet.

A further important object of the invention is to provide a hanger construction in which a minimum amount of metal rod will be required in view of the scarcity of metal available because of the war conditions.

These and other objects and features of the invention will more fully appear from the following description and the accompanying drawing and will be particularly pointed out in the claims.

A preferred embodiment of the invention is illustrated in the accompanying drawing, in which:

Fig. 1 is a side elevation of a hanger having a body formed of integral plastic, preferably moulded thermoplastic material and having a hook-shaped suspension member mainly formed of plastic, or preferably thermoplastic material, provided with a metal shank which is rotatably journaled and extends vertically from the central portion of the hanger;

Fig. 2 is a detail full size vertical section of the hook and neck portion of the hanger showing the manner in which the metal shank is secured to the hook portion and the manner in which it is swivelly connected to the neck portion of the hanger;

Fig. 3 is a similar full size detail view showing the lower portion of a different form of plastic hook member which desirably is provided with one or more reinforcing ribs extending lengthwise of the hook portion thereof;

Fig. 4 is a transverse vertical sectional view of the central neck portion of the hanger and the lower end portion of the hook member illus-

trating the manner in which the metal shank of the hook is mounted in the body of the hanger and the manner in which the upper end of the shank is embedded in the lower end portion of the plastic hook member;

Fig. 5 is a sectional view on line 5—5 Fig. 2; and,

Fig. 6 is a sectional view on line 6—6 Fig. 3.

The preferred form of hanger illustrated in the accompanying drawing comprises an integral body of plastic, preferably thermoplastic, material having a thin wide web 1 having a central neck portion 2 preferably provided centrally with a vertical aperture 3 and outwardly and downwardly curved arms 4 and 5 extending in opposite directions from the neck portion. The body also comprises a peripheral reinforcing rib which bounds the upper and lower edges of the neck portion and preferably extends completely around the web. The upper rib 6 is of considerably greater thickness, preferably at least three times the thickness of the web, and presents a smooth gently curved upper surface 7 for supporting the shoulder portions of the garment, and is provided centrally of the neck portion with a downwardly extending boss 8 which preferably terminates at the upper end of the aperture 3.

The lower reinforcing rib 9 desirably but not necessarily may be of less thickness than the upper rib 6 and is provided with a central boss 10 in axial alignment with the boss 8 and extending to the lower end of the aperture 3.

The arms of the garment hanger may if desired be provided with symmetrically positioned recesses to receive the shoulder straps of ladies' dresses or slips so constructed as to prevent the shoulder straps from slipping off from the ends of the hanger but to permit them to be removed easily from the hanger. As illustrated in Fig. 1 each of the arms of the hanger is provided at a suitable distance from the neck portion with a downwardly and outwardly inclined slot 11 and also with a downwardly and inwardly inclined slot 12 the entrances of which are spaced apart a short distance in the upper edge of the hanger. The peripheral rib 5 extends around the slots and forms a relatively thick wall which acts as a reinforcement of the hanger and also provides a smooth-curve surface to receive the strap of the garment.

As above stated one of the main features of the invention is to provide a plastic, preferably thermoplastic, suspension member having a curved, preferably hook-shaped portion to engage a supporting bar or other suitable support with means providing a swivel attachment to the central or neck portion of the hanger, and a further object of the invention is to provide a hook-shaped member of sufficient thickness or diameter and with gently rounded surfaces which will enable the hanger and garment thereon to be supported by the hand of the clerk or user without discomfort or injury to the hand.

As illustrated in the drawing the suspension member comprises a hook-shaped portion 13, of plastic or preferably thermoplastic material the support-engaging surface of which presents a gently curved arcuate surface to engage a supporting bar. The lower end portion 14 of the hook-shaped member is substantially straight and in axial alignment with the center of the looped portion of the hook. The lower end portion 14 of the hook-shaped member is connected to the body of the hanger in any suitable manner to provide a swivel connection thereto. In the

preferred construction illustrated a metal shank 15 of relatively smaller diameter than that of said suspension member is journaled in the bosses 8 and 10 of the central neck portion of the hanger and has an upper portion 16 extending above the upper rib 6 of the body and preferably provided with a deformed portion and firmly embedded in the straight end portion of the plastic or thermoplastic hook.

As illustrated in Figs. 2 and 4 the portion 16 of the shank 15 is upset to provide a head 17 and also is swaged to present projections 18 which are also embedded in the plastic material. By reason of this construction the shank member is firmly anchored in the plastic hook portion of the suspension member. The swaged portions 18 also serve to anchor the shank to the plastic material in such a manner as to prevent relative rotation therebetween.

The shank 15 extends downwardly through the upper boss and is seated in or extends through the lower boss 10. Suitable means are provided for preventing withdrawal of the shank 15 from the body of the hanger. As illustrated herein a washer 19 is mounted upon the shank 15 within the aperture 3 in the web of the body and the shank 15 is provided with swaged projections 20 below and in proximity to the washer 19 which will prevent withdrawal of the shank 15 from the body of the hanger while permitting the shank 15 to rotate in the journals in the bosses 8 and 10.

In Fig. 3 a somewhat different form of hook 21 is illustrated in which the hook-shaped portion of the hanger bends more abruptly from the straight end portion 22. It also differs from the construction illustrated in Fig. 1 in that the upper end of the shank is provided with a series of ribs or spirals 23 which are similarly embedded in the plastic or thermoplastic material of the hanger. Fig. 3 also illustrates a construction in which the central portion of the upper rib 6 of the hanger is provided with a conical socket which receives and fits a complementary conical surface 24 on the lower end of the plastic hook-shaped portion of the hanger, the construction being such as to permit rotation of the hook and its shank about the axis of the shank.

By reason of this construction the metal shank of the hanger is approximately two to three inches in length as compared with the wire hook members of usual wooden hangers which are from seven to twelve inches or more in length, thereby permitting a saving of a great deal of wire in the manufacture of thousands or even millions of hangers which are constantly being produced. Such saving of wire is exceedingly important in view of the war conditions which necessitate a restriction of the manufacture of wire and other metal products during the present emergency.

The present invention also results in the saving of wood and the substitution therefor of thermoplastic material such as cellulose acetate compositions or the like which can be readily obtained at moderately low prices.

It will be understood that the particular embodiment of the invention shown and described herein is of an illustrative character; that the hanger body may be made of any suitable material in any desirable shape or form and that the form of suspension member may be varied in accordance with the uses to which it is put and may if desired be provided with a reinforcing rib or ribs extending lengthwise of the hook portions, such, for example, as forming the support-engaging member in a circular or other form rather

than hook-shaped, and that the suspension member of plastic material may be formed integral with or rigidly secured to the body of the hanger or connected thereto by any sort of a swivel connection, and that various other deformations of the shank member may be provided which will enable the shank to be rigidly fixed to the plastic hook portion of the hanger.

It will therefore be understood that various modifications may be made within the meaning and scope of the following claims.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is:

1. A garment hanger comprising a body having outwardly and downwardly curved arms extending in opposite directions from the central portion thereof and a hook-shaped suspension member of substantially circular cross section formed of rigid thermoplastic material having a straight lower end portion in substantial alinement with the center of the hooked curved portion, a straight metal rod of relatively smaller diameter than that of said suspension member having a deformed end portion firmly embedded in said straight lower portion of the hook member, and means securing said shank vertically to said central portion of the body to permit rotation of said shank about its axis but to prevent withdrawal of the shank from the body or other longitudinal displacement of said shank.

2. A garment hanger having a body formed of rigid thermoplastic material comprising a neck portion having a vertical central aperture and provided with alined vertical journals at opposite ends of said aperture and having outwardly and downwardly curved arms extending in opposite directions from said neck portion, a hook-shaped suspension member of substantially circular cross section formed of rigid thermoplastic material having a straight lower portion in substantial alinement with the center of the hooked curved portion, a metal rod of relatively smaller diameter than that of said hook-shaped member having a deformed end portion fixedly embedded in the straight lower end portion of said hook member and extending axially downwardly therefrom through said vertical journals in the center of the neck portion and across the aperture in the body of said hanger, and means on said shank within said aperture for preventing withdrawal of the shank from the body or other longitudinal displacement of said shank while permitting rotation of said shank.

3. A garment hanger having a body formed of rigid moulded plastic material comprising a central portion and outwardly and downwardly curved arms extending in opposite directions therefrom, said neck and arm portions having a thin wide web provided with a central vertical aperture in said neck portion and bounded by relatively thick upper and lower reinforcing ribs with the upper rib presenting relatively broad rounded surfaces, alined integral upper and lower bosses extending from the respective ribs to the upper and lower ends of said aperture, the lower boss having a closed socket, a suspension member having a cylindrical metal shank rotatably journaled in said bosses with its lower end seated in the socket in the lower boss and having an upper deformed end portion extending above the upper rib of thermoplastic material of said body, and a hook-shaped member of substantially greater diameter than that of said metal shank moulded on and embedding the deformed end portion of said shank and presenting rounded surfaces to engage and slide easily upon a supporting rod or other support, and means for preventing withdrawal of the shank of said suspension member from said body.

4. A garment hanger having a body formed of rigid moulded plastic material comprising a central portion and outwardly and downwardly curved arms extending in opposite directions therefrom, said neck and arm portions having a thin wide web provided with a central vertical aperture in said neck portion and bounded by relatively thick upper and lower reinforcing ribs with the upper rib presenting relatively broad rounded surfaces and having centrally of said neck portion a conical socket, alined integral bosses extending from the respective ribs to the upper and lower ends of said aperture, a suspension member having a cylindrical metal shank rotatably journaled in said bosses and having a deformed end portion extending above the upper rib of said body, and a hook-shaped member of substantially greater diameter than that of said metal shank moulded on and embedding the deformed end portion of said shank having an end surface complementary to said socket and presenting rounded surfaces to engage and slide easily upon a supporting rod or other support, and means for preventing withdrawal of the shank of said suspension member from said body.

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