

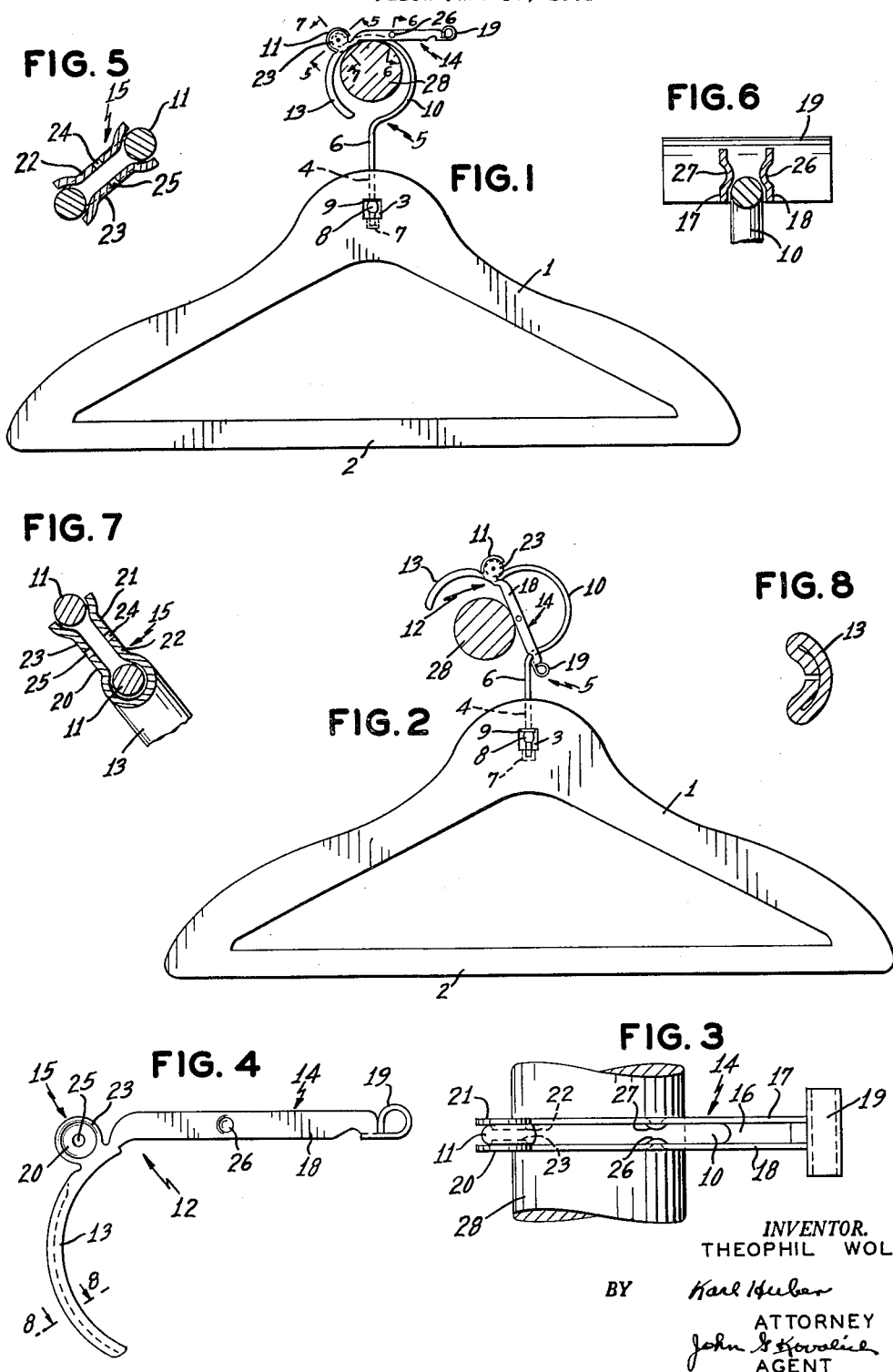
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HANGER HOOK STRUCTURE

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The present invention deals with a garment hanger and more particularly with a hook as a component of a garment hanger.

Garment hangers usually comprise a laterally extending hanger member and a simple curved hook member extending vertically upward substantially centrally therefrom and adapted to engage a hanging rod positioned above the hanger member. The hook curvature is such that the curved portion thereof terminates in spaced relation to the hook shank with the spacing being greater than the diameter of the hanging rod, whereby the hook is susceptible to easy accidental dislodgment and whereby the hanger and hung garments are subject to accidental falling to the floor especially where the removal of one hanger contacts and dislodges another or when the hung garments are pulled off the hanger with rapid movement.

The present invention comprises the combination of a garment hanger member and a particular hook therefor, whereby the curved portion of the hook is provided with a levered jaw adapted to open and close the hook to confine and release the hanging rod therefrom, the jaw comprising releasable lock means to maintain the jaw in closed position over the hanging rod and means to maintain the hook in open position when detached from the hanging rod.

It is an object of the present invention to provide the combination of a garment hanger and hook therefor, whereby the hanger is safe-guarded against accidental dislodgment from a hanging rod.

It is another object of the invention to provide a hook for garment hangers, the hook being adapted to open and close in the application and removal of the hook from a hanger support rod.

Other objects and advantages of the invention will become apparent from the description hereinafter following and the drawings forming a part hereof, in which:

FIGURE 1 illustrates an elevational side view of the hanger of the invention with the hanger hook in closed position on a hanger support rod,

FIGURE 2 illustrates an elevational side view of the hanger of the invention with the hanger hook in open position,

FIGURE 3 illustrates an enlarged top view of FIGURE 1,

FIGURE 4 illustrates an enlarged side view of a component of the invention,

FIGURE 5 illustrates an enlarged cross-sectional view along lines 5-5 of FIGURE 1,

FIGURE 6 illustrates an enlarged partly cross-sectional and partly elevational view along lines 6-6 of FIGURE 1,

FIGURE 7 illustrates an enlarged cross-sectional view along lines 7-7 of FIGURE 1, and

FIGURE 8 illustrates a cross-sectional view along lines 8-8 of FIGURE 4.

Regarding the drawings, the hanger of the invention comprises a laterally extending hanger member 1 of the type having both ends directed downwardly from a central portion and a cross piece 2 bridging the ends. The central portion of the hanger member is apertured as at 3 laterally through the thickness thereof with a bore 4 through the top of the central portion and communicating with the aperture 3. A hanger hook, generally designated as 5, is mounted on the hanger member with an elongated hook shank 6 thereof passing through the bore 4 and aperture 3 and with the end of the shank seated in a

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recess 7 below the aperture. To retain the shank in mounted position, the shank, after being appropriately positioned, may be flattened as at 8 and a washer 9 may be positioned on the shank between the flattened portion and the bore prior to flattening the shank. The shank may be otherwise mounted on the hanger member 1 in any other suitable manner and either in fixed position or for rotation relative to the hanger member as illustrated.

The hook 5 comprises the said shank 6 and a curved or arcuate portion 10, for example, in the form of a substantially semi-circular arc. The free end portion of the substantially semi-circular arc is turned in the form of a ring 11, whereby generally, the curved or arcuate portion 10 is provided with a fulcrum means hereinafter more particularly described.

FIGURE 4 illustrates a lever 12 in accordance with the invention. The lever comprises a curved or arcuate jaw member 13 having a substantially straight lever arm 14 extending therefrom and with a fulcrum means 15 positioned intermediate the jaw 13 and arm 14. The lever 12 is preferably formed from a flat metal strip having a longitudinal slot 16, illustrated in FIGURE 3, formed therethrough along the length of the lever arm and between the end of the arm and the pivot means 15. The lever is bent into a U-shaped form providing laterally spaced parallel sides 17 and 18 directed upwardly of the slot 16. A free non-slotted end of the lever is turned upwardly into a terminal tube 19 extending laterally outwardly of both the sides 17 and 18. The pivot 15 is formed from a pair of circular ears 20 and 21 bent upwardly in parallel laterally spaced relationship with each other. A central area 22 and 23 of each ear is indented inwardly toward each other, each having a central bore 24 and 25 formed therethrough in alignment with each other. The arms 17 and 18 are each provided with an indentation 26 and 27 directed toward each other. The jaw member 13 is turned into a U-shaped cross-section with lateral sides of the jaw bent upon themselves as illustrated by FIGURE 8. The jaw 13 from the location of the pivot 15 to the free end of the jaw is curved into a downward substantially semi-circular arc. The lever 12 is mounted on the hook 5 with the ears 20 and 21 engaging opposite sides of the fulcrum ring 11 and the indentations 22 and 23 directed toward each other inwardly of the ring 11 and thereby securing the ears to the ring and freely rotatably mounted relative to the ring. With the lever 12 in rotatably mounted position on the hook 5, the free end of the arcuate jaw 13 is directed downwardly toward the shank 6. The arms 17 and 18 of lever 12 are resilient arms formed of spring metal and normally maintain a parallel relationship relative to each other. The slot 16 of arm 14 has a length substantially coextensive with the diameter of the hook 10 whereby the hook 10 is passable between the sides 17 and 18 when the lever is rotated on the fulcrum 11. The arm 14 is of sufficient length, or otherwise the tube 19 is provided with a weight such that the jaw 13 is normally maintained in open position as illustrated by FIGURE 2 when the indentations or lock means 26 and 27 are positioned internally of the hook 10.

In operation, the jaw 13 is initially in normally open position with the slot 16 having sufficient length so that when the end portion of arm 14 engages shank 6 the jaw opening is substantially greater than the hook opening as illustrated by FIGURE 2. The hanger 1 is manually held and with the jaw 13 in open position the hanger is directed onto a hanging rod 28 so that the hanging rod engages the lever arm 14. The weight of a garment hanging on hanger 1 is sufficient to exert pressure against the arm 14 by means of rod 28, whereby the arm 14 is directed upwardly until the indentations 26 and 27 pass

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over the hook 10 and the hanger rod 28 is seated in hook 10 as illustrated by FIGURE 1, whereby the jaw 13 is effectively locked with the hook and jaw assuming a closed position as illustrated by FIGURE 1.

In removing the hanger and hook from the hanging rod 28, the hanger is pulled laterally thereby engaging the rod 28 with the jaw 13, and the lateral pull is continued with sufficient force against jaw 13 to dislodge the indentations 26 and 27 from the hook 10, whereby the hanger is removed from the rod 28 with the jaw again assuming the initial open position of FIGURE 2.

Various modifications of the invention are contemplated within the scope of the appended claims.

What is claimed is:

1. A hanger hook comprising an arcuate hook including a shank and having a hook opening, a fulcrum ring means at one end of the hook, a lever means rotatably mounted on the fulcrum ring means, the lever having a jaw portion thereof curved in an arc from the fulcrum ring means toward the shank with an end of the lever being a terminal of the arc, another portion of the lever extending as a substantially straight arm outwardly of the fulcrum ring means, pivot means on the lever intermediate the jaw and the arm, the pivot means being secured to the fulcrum ring means, said arm comprising a pair of laterally spaced sides, a longitudinal slot in the arm

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separating the sides, the hook being positioned in said slot, the arm being rotatably movable over the hook with an end portion of the arm engageable with the shank to provide a jaw opening, and the slot having a sufficient length whereby the jaw opening is substantially greater than the hook opening the laterally spaced sides being resilient sides, catch means on at least one of the sides disposed toward the other side and engageable with the hook, whereby the catch means locks the lever in a selected position when in abutment with said hook, the pivot means being a pair of laterally spaced ears indented toward each other and mountable into said fulcrum ring.

2. A hanger hook according to claim 1, wherein the arm has a terminal tube of a weight sufficient to maintain the jaw in open position when the catch means is positioned internally of the hook.

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