June 24, 1969 J. Y. PELAVIN ET AL 3,451,601

HANGER CONSTRUCTION

Filed Feb. 8, 1967 Sheet 1 of 2

FIG. 1

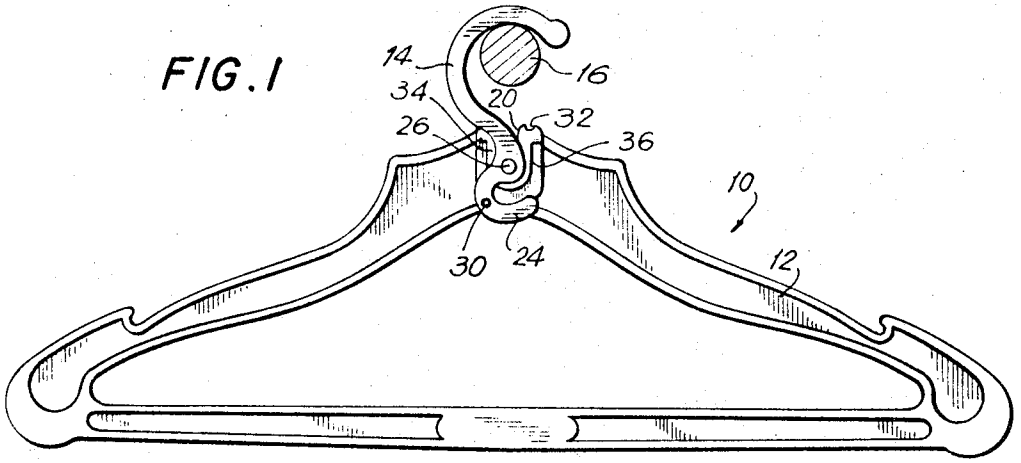
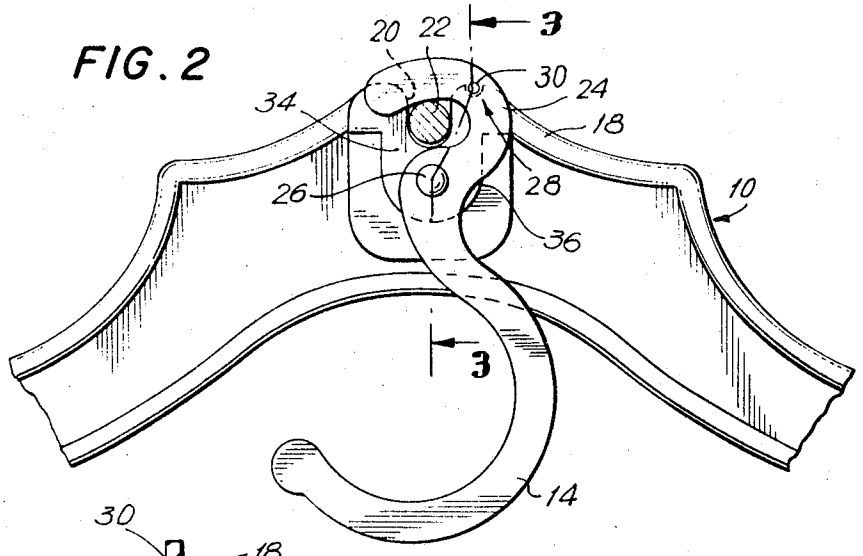


FIG. 2



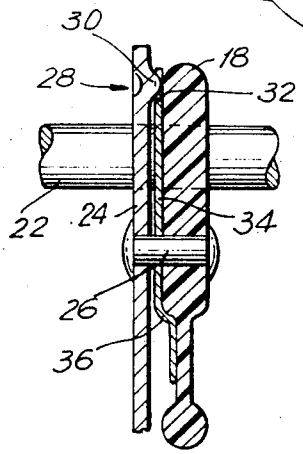


FIG. 3

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Filed Feb. 8, 1967 Sheet 2 of 2

FIG. 4

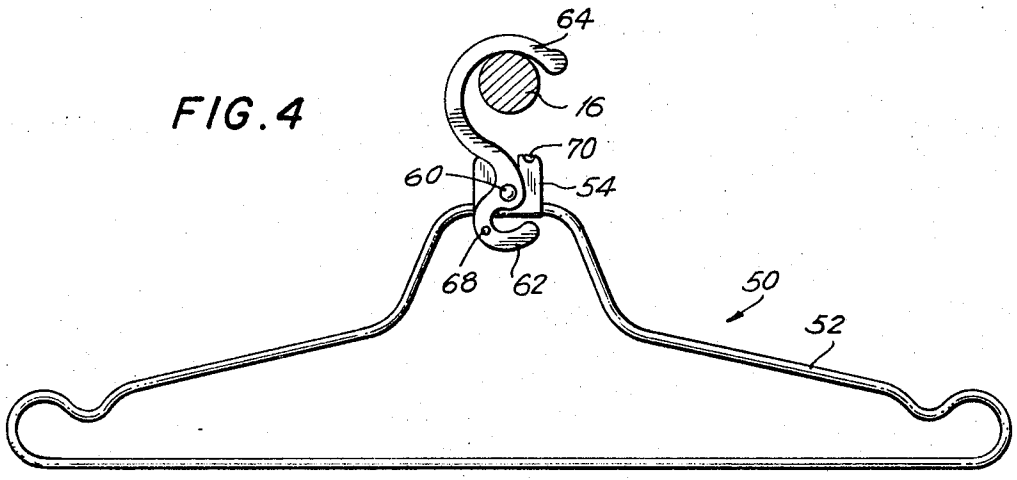
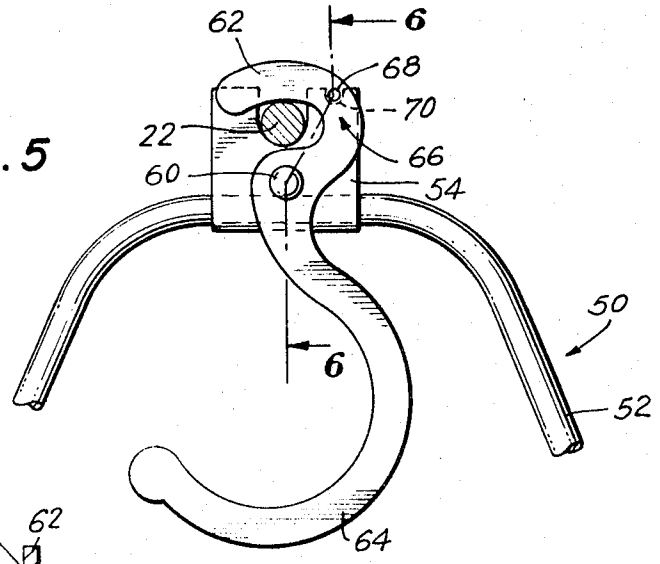


FIG. 5



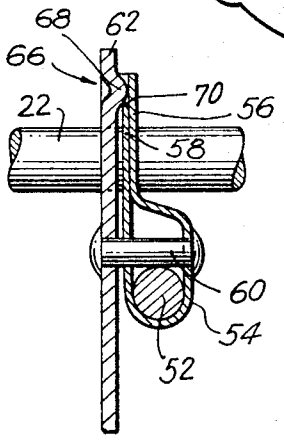


FIG. 6

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3,451,601

HANGER CONSTRUCTION

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Int. Cl. A47j 51/098
U.S. Cl. 223—85 8 Claims

ABSTRACT OF THE DISCLOSURE

A hanger construction wherein a garment-supporting portion has an upper central part formed with an upwardly directed notch a lower portion of which is adapted to receive a supporting rod which carries the hanger. A hook is located beside the upper central part of the garment-supporting portion, and a connecting means connects the hook to the upper central part of the garment-supporting portion for turning movement relative thereto between a release position displaced from the notch and a locking position extending across the notch over the lower portion thereof, so that when a supporting rod extends through the lower portion of the notch and the hook is in its locking position the hook will extend over the rod locking the latter in the notch. A detent means releasably holds the hook in its locking position to prevent displacement of the hanger from the supporting rod until the detent means is released.

Background of the invention

The present invention relates to hanger construction. In particular, the present invention relates to that type of hanger construction which is adapted to support garments in a garment bag which may form an article of luggage, for example. Hangers of this type are conventionally provided with locking hooks for extending over the supporting rod which carries the hanger to lock the hanger thereon, and such hooks are swingably connected to the hanger for turning movement with respect thereto between locking and unlocking positions. This connection of the locking hook to the garment-supporting portion of the hanger is generally provided by way of a rivet which acts as a pivot pin, and it commonly happens that the hook becomes loose on the rivet so that it becomes easily disengaged from the rod, thus providing an undesirable separation of the hanger from the supporting rod with consequent wrinkling of the clothing and highly undesirable inconvenience.

Summary of the invention

In accordance with the invention, the hanger includes a garment-supporting portion having an upper central part formed with an upwardly directed notch the lower portion of which is adapted to receive a supporting rod which carries the hanger. A locking hook is located beside the upper central part of the gament-supporting portion, and a connecting means connects this hook to the upper central part of the garment-supporting portion for turning movement with respect thereto between a release position displaced from the notch and a locking position extending across the notch over the lower portion thereof, so that when the supporting rod extends through this lower portion the locking hook will extend over the rod to lock the hanger thereon. In accordance with the present invention a detent means is carried on the one hand by the upper central part of the garment-supporting portion and on the other hand by the locking hook for releasably holding the locking hook in its locking position.

It is accordingly a primary object of the present invention to provide a hanger construction of the above general type which will avoid the above drawbacks.

In particular, it is an object of the present invention to provide for a hanger of the above general type a structure which is capable of releasably and reliably holding the locking hook in its locking position so that unforeseen disengagement of the hanger from its supporting rod will be reliably avoided.

Furthermore, it is an object of the present invention to achieve this latter result without adding to the hanger components which will undesirably increase the cost thereof or which will undesirably increase the space which is occupied by the hanger.

Moreover, it is an object of the present invention to provide a structure which can be manipulated in much the same way as a conventional hanger of the above general type while at the same time achieving the results of the invention according to which the hanger will be reliably retained in its position locked on the supporting rod.

Brief description of the drawings

For a fuller understanding of the invention, reference is had to the following description taken in connection with the accompanying drawings, in which:

FIG. 1 shows in elevation one possible embodiment of a hanger construction according to the present invention;

FIG. 2 shows, in a fragmentary elevation, the hanger of FIG. 1 mounted on and locked to a supporting rod;

FIG. 3 is a transverse section of the structure of FIG. 2 taken along line 3—3 of FIG. 2 in the direction of the arrows;

FIG. 4 shows in elevation another possible embodiment of a hanger construction according to the present invention;

FIG. 5 is a fragmentary elevation showing the hanger of FIG. 4 mounted on and locked to a supporting rod; and

FIG. 6 is a transverse section of the structure of FIG. 5 taken along line 6—6 of FIG. 5 in the direction of the arrows.

Description of preferred embodiments

Referring to FIG. 1, there is shown therein a hanger **10** composed of a garment-supporting portion **12** made of a web of plastic, for example. Connected to the garment-supporting portion **12** is a conventional supporting hook **14** which is adapted to extend around a stationary bar **16** of a conventional closet, for example, so that the hanger **10** can be used in a conventional manner.

The garment-supporting portion **12** of the hanger **10** has an upper central part **18** formed with an upwardly directed notch **20** having, as shown in FIG. 2, a lower portion adapted to receive a supporting rod **22** which may form part of an article of luggage such as a garment bag, as is well known. In order to support the hanger **10** on the rod **22**, the hanger includes a locking hook **24** situated beside the upper central part **18**. A connecting means **26** connects the locking hook **24** to the garment-supporting portion **12** at its upper central part **18** for turning movement relative thereto between the release position shown in FIG. 1 where the locking hook **24** is displaced from the notch **20** and the locking position shown in FIG. 2 where the locking hook **24** extends across the notch **20** over the lower portion thereof which receives the rod **22**, so that in this way the hanger is mounted on the rod **22**.

As is indicated in FIG. 3, the connecting means **26** is in the form of a simple rivet extending through the upper central part **18** of the garment-supporting portion **12** and through the hook **24** so as to turnably connect the latter

to the garment-supporting portion **12**. The hook **24** and the supporting hook **14** are formed from a single piece of resilient metal having the configuration most clearly shown in FIGS. 1 and 2, so that this piece can be turned between the positions of FIGS. 1 and 2.

In order to releasably hold the locking hook **24** in its locking position shown in FIG. 2, there is provided, in accordance with the present invention, a detent means **28** carried in part by the upper central part **18** and in part by the locking hook **24** for releasably holding the locking hook **24** in its locking position. In the illustrated example this detent means **28** includes a projection **30** integral with the hook **24** and formed by a boss pressed therefrom and a recess **32** formed in a metal plate **34** which is fixed to the upper central part **18** of the garment-supporting portion **12** of the hanger **10**. Thus, the plate **34** has an exterior side surface forming a side surface of the upper central part **18** and directed toward an exterior side surface of the locking hook **24**, and it is these side surfaces which are respectively provided with the recess **32** and projection **30** which form the detent means **28**. The connecting means formed by the rivet **26** provides between the upper central part **18** and the hook **24** a clearance which will cause the projection **30** to resiliently deflect the hook **24** away from the upper central part **18** when the projection **30** is out of the recess **32**, so that when the projection **30** becomes aligned with the recess **32** it will snap into the latter providing the locking arrangement shown in FIGS. 2 and 3.

When it is desired to remove the hanger **10** from the rod **22** the operator will simply turn the hook assembly **14**, **24** from the position of FIG. 2 into the position of FIG. 1, displacing the projection **30** out of the recess **32**, and the parts will have the position indicated in FIG. 1.

It will be noted that the side surface of the upper central part **18** which is directed toward the hook **24** is stepped so as to form a shoulder **36** beyond which the projection **30** is located when the hook **24** is in the region of its release position shown in FIG. 1, so that the projection **30** does not in any way resist the turning of the hook **24** or the hook **14** as long as the hook **24** is not in the region of its locking position shown in FIG. 2. With this arrangement it is only when the hook **24** is in the region of the locking position shown in FIG. 2 that the projection **30** will slidably engage the exterior surface of the plate **34** when this projection **30** is displaced to a relatively small distance beyond the recess **32**.

In the embodiment of the invention which is illustrated in FIGS. 4–6, the hanger **50** has a garment-supporting portion **52** in the form of a wire. This garment-supporting portion **52** has an upper central part **54** in the form of a metal plate connected to the wire **52**. Thus, as is shown most clearly in FIG. 6, the plate **54** is wrapped around the wire **52** and has a pair of wall portions **56** and **58** located directly next to each other. This upper central part **54** of the hanger **50** carries the connecting means **60** which is in the form of a rivet which may be identical with the rivet **26** and which serves to turnably connect to the upper central part **54** the locking hook **62** and the supporting hook **64** which together form a hook assembly identical with the hook assembly **14**, **24**. Thus, the supporting hook **64** is capable of supporting the hanger **50** on a conventional supporting bar **16** while the locking hook **62** is used for joining the hanger to the rod **22**.

This construction also includes a detent means **66** which functions in much the same way as the detent means **28** for releasably holding the hook **62** in its locking position shown in FIG. 5. Thus, the detent means **66** includes a projection **68** integral with the locking hook **62** and projecting therefrom in the same way that the projection **30** projects from the locking hook **24**, while the wall **58** of the plate **54** is formed with a detent recess **70** into which the projection **68** snaps when the hook **62** is in the locking position thereof shown in FIG. 5. However, in this case, the detent recess **70** is in the form of a notch which extends inwardly from an edge of the wall

58. The clearance provided between the outer side surface of the wall **58** and the side surface of the hook **62** which is directed toward the wall **58** is small enough to provide for deflection of the resilient hook **62** away from the wall **58** when the projection **68** is out of the recess **70** and engages the wall **58**. However, it will be noted that after the hook assembly **62**, **64** has been turned through a relatively small angle beyond the locking position of FIG. 5, the projection **68** will be situated beyond the plate **54** so that there will be no resistance to turning of the hook assembly.

Thus, the embodiment of FIGS. 4–6 will achieve the same advantages as the embodiment of FIGS. 1–3 which is a different constructed hanger.

It will thus be seen that the objects set forth above, among those made apparent from the preceding description, are efficiently attained and, since certain changes may be made in the above constructions without departing from the spirit and scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

What is claimed is:

1. A hanger comprising a garment-supporting portion having an upper central part formed with an upwardly directed notch having a lower portion for receiving a supporting rod which is adapted to carry the hanger, a locking hook located beside said upper central part of said garment-supporting portion, connecting means connecting said hook to said upper central part of said garment-supporting portion for turning movement with respect thereto between a release position displaced from said notch and a locking position extending across said notch over said lower portion thereof so that when the supporting rod extends thrugh said lower portion of said notch said hook will extend over said rod, when said hook is in said locking position thereof, for locking the hanger on said rod, and detent means carried in part by said upper central part of said garment-supporting portion and in part by said hook for releasably holding the latter in said locking position thereof, said upper central part having a side surface directed toward said hook while said hook has a side surface directed toward said side surface of said upper central part, said detent means including a projection projecting from one of said side surfaces toward the other of said side surfaces, and a portion of said other side surface formed with a recess which receives said projection when said hook is in said locking position thereof.

2. The combination of claim **1** and wherein said hook is resilient and is deflected by said projection away from said upper central part of said garment-supporting portion when said projection is out of said recess and extends between said side surfaces, so that when said projection and recess of said detent means are displaced one with respect to the other into alignment with each other, said hook will due to its resiliency snap toward said side surface of said upper central part with said projection becoming situated within said recess for releasably holding said hook in said locking position thereof.

3. The combination of claim **2** and wherein said projection is carried by said hook while said recess is formed in said side surface of said upper central part of said garment-supporting portion.

4. The combination of claim **3** and wherein said projection is integral with said hook.

5. The combination of claim **4** and wherein said garment-supporting portion is composed of a web of plastic and has at said upper central part thereof a metal plate fixed to said plastic web and formed with said recess of said detent means, said side surface of said upper central part of said garment-supporting portion being formed by an exterior surface of said metal plate and said projection sliding along the latter exterior surface when displaced from said recess.

6. The combination of claim **4** and wherein said

garment-supporting portion of said hanger is wire while said upper central part of said garment-supporting portion is a metal plate which is connected to said wire and which has an exterior side surface forming said side surface of said upper central part which is formed with said detent recess.

7. The combination of claim 6 and wherein said recess is in the form of a notch extending inwardly from an edge of said metal plate.

8. The combination of claim 1 and wherein said side surface of said upper central part is formed with a recess of said detent means, said hook having said projection received in said recess when said hook is in said locking position thereof, and said projection being spaced from said side surface of said upper central part after said hook is displaced through a relatively small distance from said locking position thereof, so that said projection does not provide any resistance to turning of said hook after the latter has been displaced through a relatively small distance from its locking position.

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