

April 22, 1941.

H. L. STELL

2,239,304

SUPPORTING DEVICE

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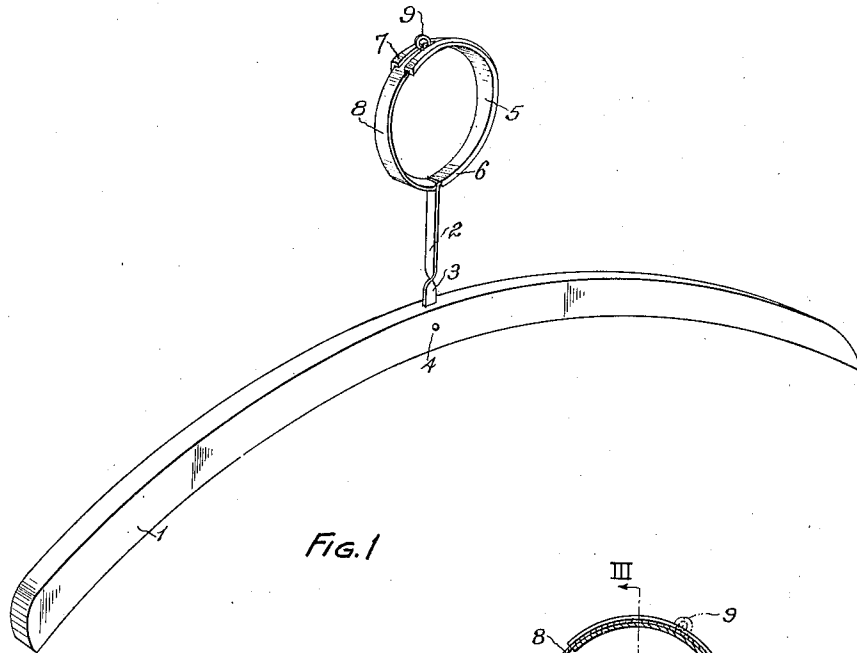


Fig. 1

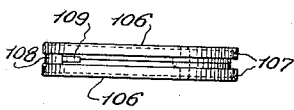


Fig. 5

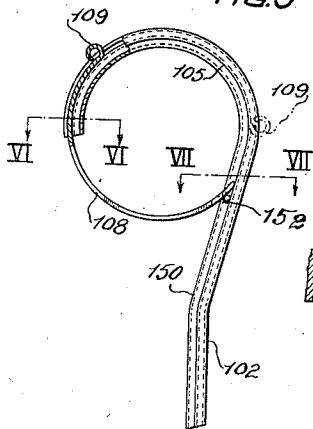


Fig. 4

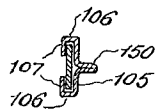


Fig. 6

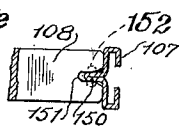


Fig. 7

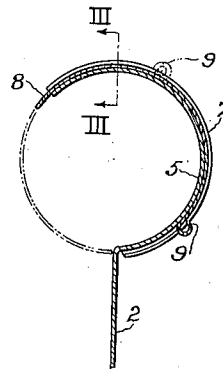


Fig. 2

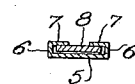


Fig. 3

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UNITED STATES PATENT OFFICE

2,239,304

SUPPORTING DEVICE

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Application July 6, 1938, Serial No. 217,704

3 Claims. (Cl. 24—238)

This invention relates to supporting devices and more particularly to a hook or other readily releasable engaging element.

An object of the invention is to provide an improved supporting device which will be light and strong.

Another object is to provide an improved supporting device which will be simple in construction and operation.

Another object is to provide an improved supporting device which may be readily and easily formed.

Another object is to provide an improved supporting device which may be made of inexpensive material.

Another object is to provide an improved supporting device which will be neat and attractive in appearance.

Another object is to provide an improved supporting device which may be used to effectively secure articles to a support.

Another object is to provide an improved supporting device which may be readily released from a support.

Another object is to provide an improved supporting device which may be used to support articles without securing them to a support if desired.

Other objects will hereinafter appear.

The invention will be better understood from the description of two practical embodiments thereof illustrated in the accompanying drawing, in which:

Figure 1 is a perspective view of one embodiment of my invention shown as a hook attached to a garment hanger;

Figure 2 is a fragmentary central sectional view of the hook portion of Figure 1;

Figure 3 is a transverse sectional view taken on the line III—III of Figure 2;

Figure 4 is a side elevational view, parts being broken away and shown in section, of another form of supporting hook embodying my invention;

Figure 5 is a plan view of the device of Figure 4;

Figure 6 is a transverse sectional view, taken on the line VI—VI of Figure 4; and

Figure 7 is a transverse sectional view taken on the line VII—VII of Figure 4.

This application is a continuation-in-part of my copending application, Serial No. 93,843, filed August 1, 1936, now Patent 2,153,439, granted April 4, 1939, as to all subject matter common to the two applications.

In Figure 1 a garment hanger is shown consisting of a supporting bar 1, shown as a curved piece of wood or similar material, arranged to be supported by a hook attached thereto upon a rod or other support.

The hook is shown as formed of a piece of flat material having a shank indicated generally at 2, the lower end of which is twisted as indicated at 3 to extend into a slot in bar 1 to which it is secured by means of a pin or rivet 4.

Above the shank 2 the hook continues integrally in arcuate form as indicated at 5 throughout an extent of slightly more than 180°, the side edges of the arcuate portion 5 extending first radially and then axially with respect to this arcuate portion to form side flanges 6 and spaced outer flanges 7, causing this portion of the hook to define an arcuate space of channel-shaped cross-section.

Within this space is mounted an arcuate guard or keeper 8 which may be conveniently formed of sheet metal, as may the remainder of the hook, and which at one end has an actuating projection, shown as a loop 9 formed integrally with the guard, and by which it may be retracted manually within the channel-shaped space of the hook or extended therefrom.

In Figure 2 the guard is shown in nearly fully retracted position, and when in this position the hook may be used in the manner of conventional types of hooks, by merely being placed over a supporting rod of a hook or other support secured to a wall or other stationary element.

The guard may be moved entirely out of the way, and, if desired, may be left wholly enclosed within the hollow of the hook itself. If this be done, the hook does not differ materially in its use from an ordinary bent wire or other conventional hook.

However, if it be desired to lock the hook about a supporting rod or bar, it is only necessary for the user to slide the projection 9 from the position shown in solid lines in Figure 2 to that shown in dot-and-dash lines in this figure and in solid lines in Figure 1, thus extending the guard to firmly lock the hanger on the rod until the guard is again retracted by the hand of the user.

No jarring of the hanger upon the bar, or movement, as when garments adjacent those upon the hanger are hung up or taken down, will have any tendency to move the guard from its operative position, and it therefore maintains the hook locked upon the bar until the user desires to remove it therefrom.

In Figures 4 to 7 another form of hook which may be made of even lighter gage sheet metal is shown.

In this modification, the hook itself is stiffened by a rib 150 formed by flattening the central portion of the hook member 105 upon itself.

The sides of this hook are bent to extend radially, as indicated at 106, and then axially, as indicated at 107, to define a channel-shaped recess similar to that previously mentioned.

In this embodiment, the shank 102 is likewise provided with the stiffening rib 150 and the flanges 106 and 107 continue throughout its length for added stiffness.

A guard 108 similar to the guard previously described, and like it provided with an actuating loop 109, slides within the arcuate space defined by the flanges of the hook.

In this instance, the end of the guard is shown as bifurcated or notched at 151 to receive the stiffening flange 150 and thus to prevent the guard from lateral displacement with respect to the hook.

Small bosses 152 may be formed on flange 150 to underlie the end of the guard, and support this against bending, if the hook be inadvertently lifted without releasing the guard.

The type of hook illustrated in Figures 4 to 7 may be conveniently made by producing a straight bar of the desired T-shaped cross-section with the channeled arms illustrated, and then bending this into the hook form shown.

While I have described the illustrated embodiments of my invention in some particularity, obviously many others will readily occur to those skilled in this art, and I therefore do not limit myself to the precise details shown and described, but claim as my invention all embodiments, modifications and variations coming within the scope of the appended claims.

I claim:

1. A sheet metal hook formed of a unitary piece of material and comprising in cross section an inwardly radially extending central flange, outwardly axially extending flanges in substantial alignment, said axially extending flanges terminating in outward radially extending parallel flanges formed at their outer periphery into inwardly directed axially extending flanges, said last mentioned flanges being spaced from the first mentioned axially extending flanges and from each other and a guard slidable in the space defined by both pairs of axially extending flanges.

2. A sheet metal hook formed of a unitary piece of material comprising an arcuate hooked portion and a depending shank, the hooked portion and shank being of the same cross section and including an inwardly radially extending central flange, outwardly axially extending flanges in substantial alignment, said axially extending flanges terminating in radial parallel flanges formed at their outer periphery into inwardly extending axial flanges, and a sheet metal arcuate guard slidable in the space defined by said flanges.

3. A sheet metal hook formed of a unitary piece of material comprising an arcuate hooked portion and a depending shank, the hooked portion and shank being of the same cross section and including an inwardly radially extending central flange, outwardly axially extending flanges in substantial alignment, said axially extending flanges terminating in radial parallel flanges formed at their outer periphery into inwardly extending axial flanges, a sheet metal arcuate guard slidable in the space defined by said flanges, the end of the guard being formed to embrace the central inwardly extending flange, and an abutment carried by the hook contacting said end of the guard when in extended position.

HERBERT L. STELL.