Oct. 4, 1949. A. BRILL ET AL 2,483,618

SAFETY INTERLOCKING SNAP HOOK FOR CLOTHES HANGERS

Filed May 15, 1946

Fig. 1

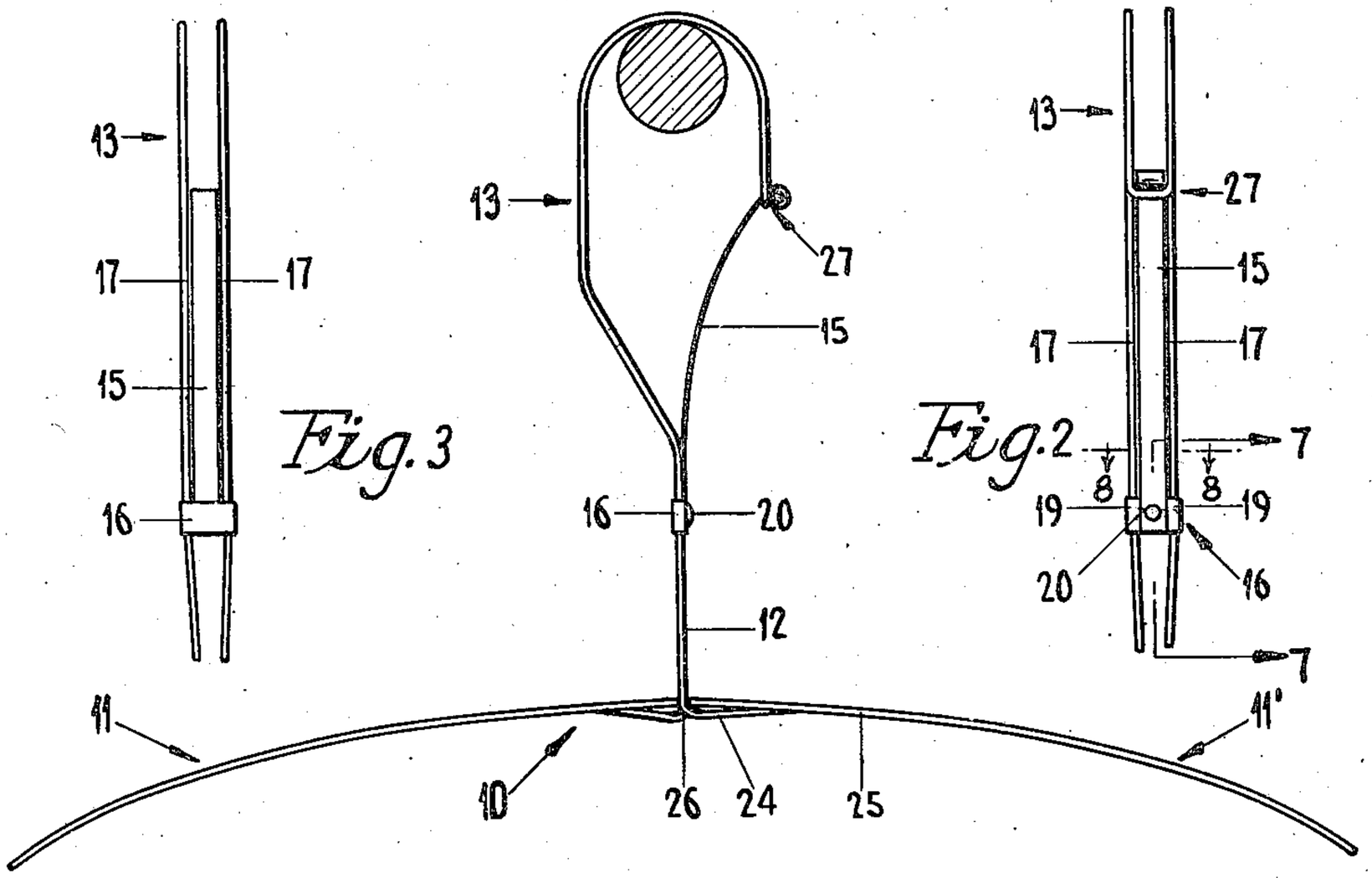


Fig. 3

Fig. 2

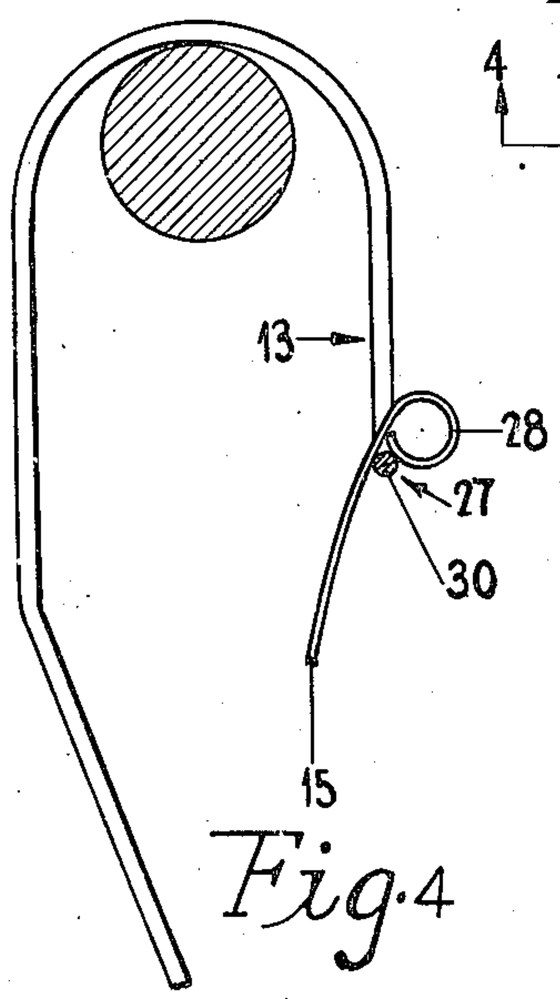
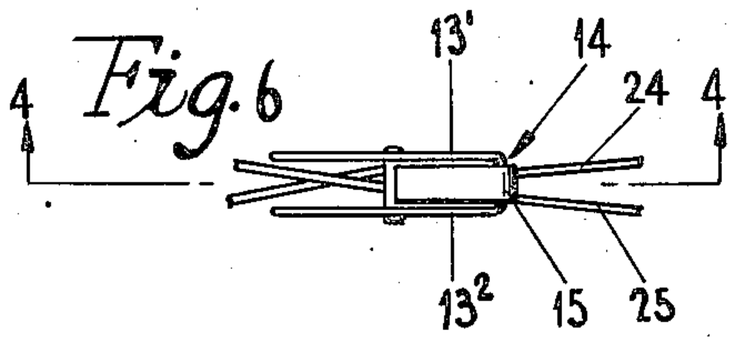


Fig. 4

Fig. 6



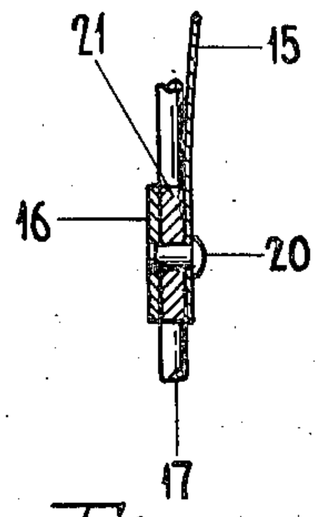


Fig. 7

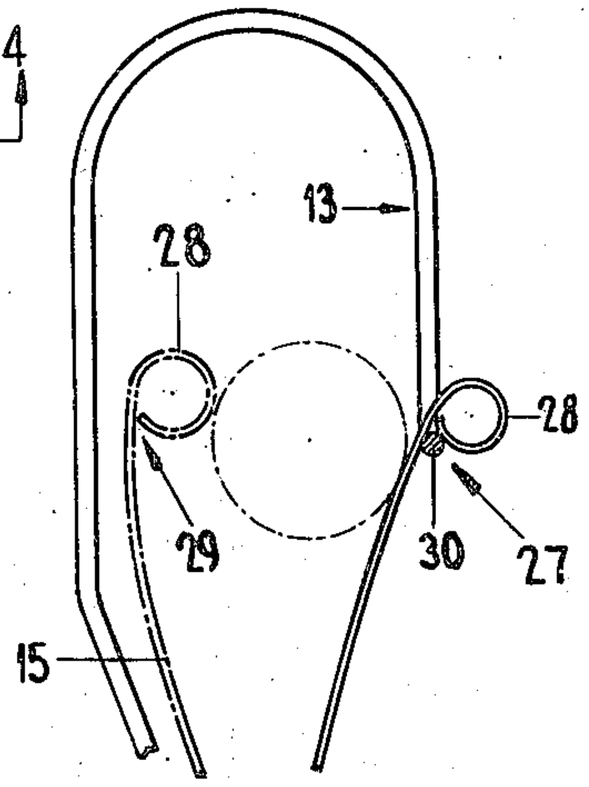


Fig. 5

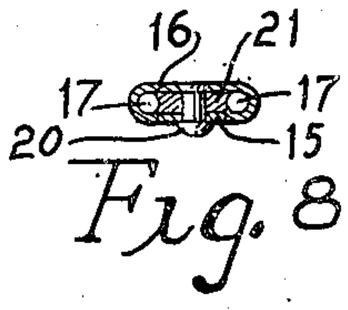


Fig. 8

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SAFETY INTERLOCKING SNAP HOOK FOR CLOTHES HANGERS

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1 Claim. (Cl. 24—236)

1

This invention relates to garment hangers and more particularly to a garment hanger having a hook structure adapted for self-locking engagement with a supporting bar or clothes line without fear of the hanger becoming accidentally disengaged and falling to the floor.

An object of this invention is to provide a garment hanger having a bifurcated hook and an integral spring movable into the bifurcation, the hanger being attachable to a supporting bar by holding the hanger body in one hand and pressing the spring against the bar and causing swinging movement of the spring inwardly of the hook sufficiently to provide passage for the bar into the hook, when the spring springs back into the bifurcation and is mechanically interlocked by the bifurcation and automatically held against sideways sway to the right or left.

Another object of this invention is to provide a garment hanger having a spring which locks the hanger to a supporting bar by a single movement of one hand of the user, the free end of the spring having a closed coil formation and a recess between the coil and the body of the spring, whereby the spring has a tension grip on the hook and yet is readily disengageable therefrom by the user, the arrangement being such that the spring will not disengage from the hook when a heavy load is applied to the hanger.

With the above and other objects in view, the invention will be hereinafter more particularly described, and the combination and arrangement of parts will be shown in the accompanying drawings and pointed out in the claim which forms part of this specification.

Reference will now be had to the drawings, wherein like numerals of reference designate corresponding parts throughout the several views, in which:

Figure 1 is a side view of the hanger.

Figure 2 is a front view of the hook portion of the hanger.

Figure 3 is a rear view of the hook portion of the hanger.

Figure 4 is an enlarged cross-sectional view of the hooked portion of the hanger in closed position, the section being taken as on line 4—4 in Figure 6.

Figure 5 is an enlarged cross-sectional view of the hook portion of the hanger in open position.

Figure 6 is a top plan view of a fragmentary portion of the hanger.

Figure 7 is a cross-sectional view of the clamping portion of the hanger, the section being taken as on line 7—7 in Figure 2. The figure is drawn on an enlarged scale.

2

Figure 8 is a cross-sectional view taken on line 8—8 in Figure 2, on an enlarged scale.

In the illustrated embodiment of the invention the numeral 10 indicates a clothes hanger formed from a single length of wire. The hanger comprises a garment supporting body having angular sides 11, 11'.

The sides 11, 11' converge into an up-turned vertical portion 12 which is bent into a hook 13. The hook comprises a rear element 13' and a reversely bent forward element 13^2. The hook elements 13', 13^2 are in spaced-apart relation and form a bifurcation or receiving means 14.

A leaf spring 15 has its lower end fixed to the hook 13 by a clamping member 16 preferably made of a strip of sheet metal which is bent around and grips the upwardly extending side wall elements 17 of the hook 13.

The clamping member 16 has parallel side walls 19 which are spaced apart and serve to receive the lower portion of the leaf spring 15 therebetween. The spring 15 is fixed to the side wall elements 17 by a rivet 20 passing through the clamping member 16, and riveted over the clamping member 16.

A filler 21 of metal such as solder is poured between the leaf spring 15 and the clamping member 16 and holds the spring securely in position.

It is to be noted that the width of the spring 15 is substantially equal to the distance between the side wall elements 17 of the hook 13 and is thereby held from swaying to the right or left when a force is applied to the spring tending to swing it sideways, as when the spring is forced rearwardly when the hanger is mounted on a supporting bar.

As shown in Figure 1, the garment supporting portion of the hanger 10 comprises reversely folded portions or branches 24, 25 of the hanger wire.

The branches 24, 25, at the mid-portion of the hanger, are upturned into right-angular relation. These branches cross each other and are soldered into unitary relation at the junction 26 of the branches.

Immediately above the junction point 26 the branch wires are angularly directed up to the clamping member 16.

Above the clamping member 16 the branch wires extend in parallel relation the entire height of the hook 13 and all the way down to the free end portion 27 of the hook.

It is to be noted that in practice, when a heavy

load is applied to the garment supporting portion of a hanger there is considerable stretch in the hook portion of the hanger. Were the leaf spring made to have its free portion in simple engagement with the bifurcated free end **27**, there would be a possibility of disengagement of the free end portion of the leaf spring from the hook.

In order to prevent this disengagement, we have formed a closed coil **28** at the free end portion of the spring.

We have also formed a recess **29** between the coil **28** and the body of the spring **15**. The recess **29** provides engagement means for the free end portion of the hook **27** whereby, while the spring has a tension grip on the hook when the hook is under load, the spring **15** is readily disengageable from the free end of the hook when the user applies pressure against the spring, as best shown in Figure 5.

The arrangement of the coiled free end portion of the spring and the free end portion of the hook is such that the spring will not disengage from the hook when a heavy load is applied to the hanger.

It is to be noted that the greater the load applied on the hook or hanger, the greater is the tendency for the end coil of the spring to close up and to increase the size of the recess, that is, the greater the load applied the greater is the interlock between the hook and the spring.

The cross or connecting wire element **30** at the free end portion **27** of the hook **13** enters into resilient engagement with the recessed part **29** of the spring **15** and this causes a manually disengageable interlocking means.

In accordance with the patent statutes we have described and illustrated the preferred embodiment of our invention, but it will be understood that various changes and modifications can be made therein without departing from the spirit of the invention as defined by the appended claim.

We claim:

An interlocked two-member heavy load carrying hanger designed to be non-releasable under load conditions, comprising a bifurcated hook having a free end portion and a transverse member connecting the side wall elements of said hook at said free end, a leaf spring clamped to and between said side wall elements, the width of said spring being substantially equal to the distance between said side wall elements and being held thereby against lateral sway, said spring extending in an upright direction and directed from said hook body toward the free end portion of said hook, said spring terminating at its free end in a fully closed coil, said coil lying wholly within the boundaries of said spring, the end portion of said coil being upwardly directed and terminating above the lowest portion of said coil, said end portion abutting the body of said spring, and forming a recess between the body of said spring and the upturned end portion of said coil, said recess being of a size to receive the transverse member of said bifurcation in interlocking engagement, whereby a heavy load applied to said hook will cause said spring to augment said hook in carrying said load without deforming said hook or releasing said interlock.

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